

VEM MOTOR

Standard motors

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Product description

Electric drives are today used throughout industry in the most diverse variants. With their specific properties, they determine the efficiency of countless production processes. The VEM range of three-phase asynchronous motors satisfies all customer demands relating to application versatility, improved operating data, environmental compatibility and maximum operating reliability. Aimed at the broad European market, VEM motors promise:

- high motor efficiency as the basis for energy-efficient performance
- universal applications and reduced stock levels thanks to IP 55 protection as standard (higher degrees of protection up to IP 66 upon request)
- options for terminal box arrangements on the left, top or right
- enhanced service life, reliability and thermal overload capacity to thermal class F with corresponding thermal reserves as standard (thermal class H available as a special version)
- environment-friendly operation based on a low-noise ventilation system
- compliance with East European standards
- free choice between a classic IEC/DIN series and a progressive series based on the mounting dimensions and motor sizes of IEC 60072
- facility to incorporate components such as encoders, tacho generators, brakes, speed monitors or forced ventilation units to solve the customer‘s individual control tasks.

Environment-friendly power generation, the use of renewable energy sources and increased energy awareness are factors which create new challenges for manufacturers of asynchronous motors. In response to the corresponding market trends, VEM has taken steps to achieve compliance with energy efficiency classification IE3 across the whole range of standard motors. Motors for other energy efficiency classes, such as IE2 or IE1, remain available in accordance with the exceptions defined in the European Commission regulations (EC) No. 640/2009 and (EU) No. 4/2014 or else the local regulations of the intended markets (see also the section “International efficiency classification” in Chapter 1).

VEM has remained true to its proven concept of grey cast iron housings for the new standard motor series. This robust, low-vibration construction permits use in the most varied applications. The range of modular built-on accessories has also been extended continuously over the past years, guaranteeing fast deliveries and universal modification options for standard motors. For optimum motor efficiency, the mid-size range incorporates copper die cast rotors manufactured on the basis of the very latest production technologies.

The mounting dimensions of all efficiency classes correspond to those defined in IEC 60072-1 and EN 50347.

Motor design

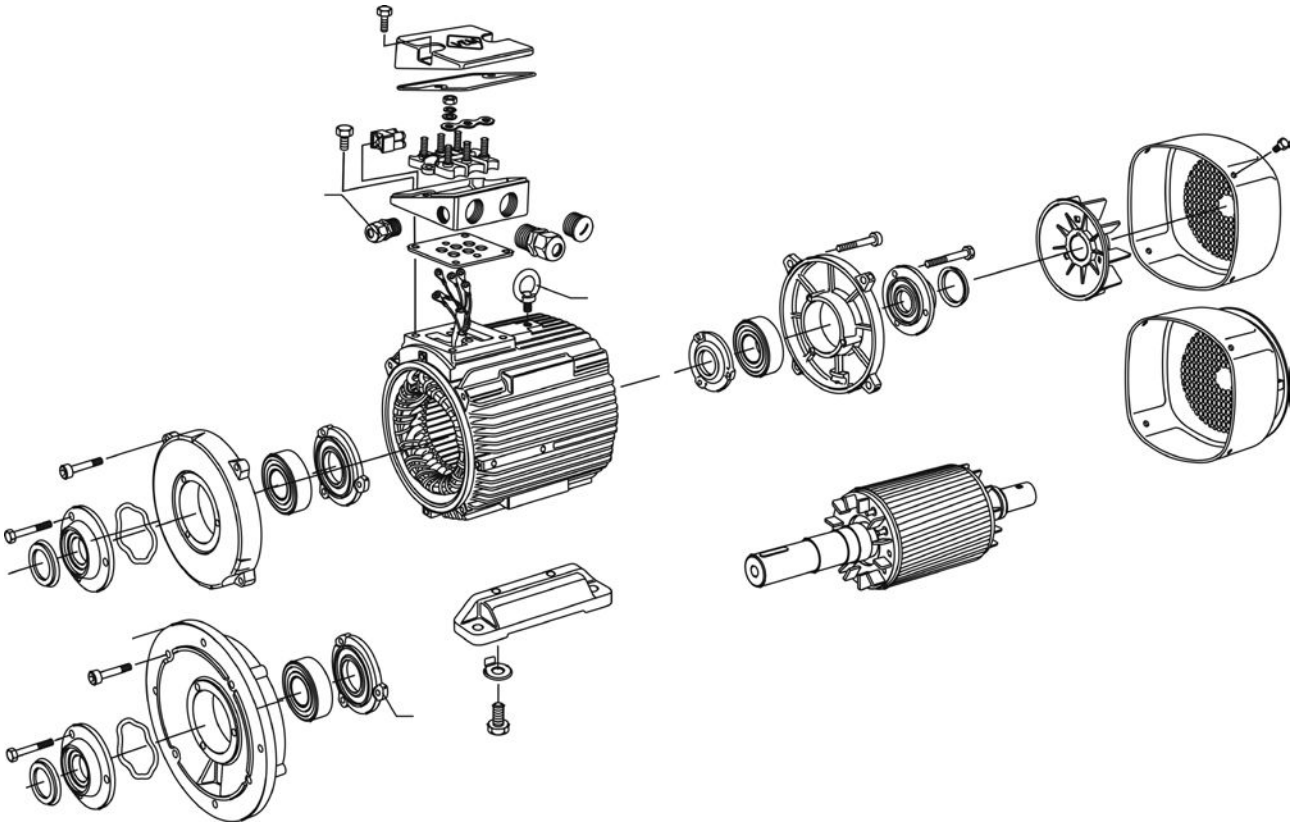


Figure: Design of a VEM standard motor

Motors comprise the following main components:

- Stator housing with laminated core and winding
- End shields with bearings
- Die-cast rotor (aluminium or copper)
- Fan with fan cowl
- Terminal box

The motor space is defined by the housing, the two end shields, the outer bearing cover, the shaft seal and the terminal box gasket. Stator housings – as already described – are always manufactured in grey cast iron, with radially or horizontally/vertically arranged cooling ribs. A flange surface with a corresponding opening to the housing inner is cast-on for mounting of the terminal box and terminal base. The flange surface is covered by the terminal box gasket. The terminal box can be arranged on the right, on the left or on the top.

Cooling and ventilation

The motors are fitted with radial fans made from plastic or cast aluminium alloy, which provide cooling independently of the running direction of the motor (IC 411 to IEC/EN 60034-6). If requested by the customer, 2-pole motors with smaller shaft heights can also be provided with a low-noise, direction-dependent fan. In size 355, 2-pole motors are supplied with direction-dependent fans as standard.

When installing the motors, a minimum clearance between the fan cowl and the wall (dimension BI) must be observed to ensure correct cooling. Fan cowls are manufactured either in sheet steel or – in the mid-size range – in dimensionally stable, impact-resistant plastic, which enables construction of an especially quiet-running motor version.

Type/Size	Material			
	Fan		Fan cowl	
	Standard	Special version[1)]	Standard	Special version[1)]
K…/ W… 56-132	Plastic	Cast aluminium	Sheet steel	-
K…/ W… 132-225	Plastic	Cast aluminium	Plastic	Sheet steel
K…/ W… 250-315	Plastic	Cast aluminium	Sheet steel	-
K…/ W… 355	Cast aluminium	-	Sheet steel	-

[1)] Possible at extra charge, upon request

Pole-changing motors

Pole-changing motors are incorporated into drives with either constant or quadratically increasing load torque, as appropriate to the load torque behaviour of the driven machine. The different characteristics are distinguished accordingly in the selection tables. Motors are designed for a single rated voltage, e.g. 230 V, 400 V or 690 V, and are intended for direct starting via the pole sequence. Versions for 60 Hz frequency or special voltages in accordance with IEC 60038 are possible.

Pole-changing is realised with

- two separate windings (two speeds)
- one winding with Dahlander connection (two speeds)
- two separate windings, one with Dahlander connection (three speeds)
- two separate windings, both with Dahlander connection (four speeds)

While a winding with Dahlander connection can only achieve a speed ratio of 1:2, the option of two separate windings enables the realisation of further speed stages, albeit with lower outputs compared to the corresponding basic version. Single windings are configured with star (Y) or delta (Δ) connection, Dahlander windings with Δ/YY or Y/YY connection.
The applicable assignments between connection configurations and numbers of poles are indicated in the motor selection data. Star-delta starting can be realised for the largest pole number (slowest speed) if the operating connection is Δ. In case of two separate windings with at least one Δ connection, the non-live Δ connection must be opened.

Efficiency specifications

For all classified series with designations starting “IE.-”, energy efficiency is determined in accordance with IEC/EN 60034-2-1. The motor efficiencies satisfy at least the respective limit values specified in IEC/EN 60034-30-1.

Fields of application

Thanks to the multitude of available options, VEM standard motors can be used in all fields and branches of industry. They are suitable for use both in demanding environments, such as those of the chemical and petrochemical industry, and under practically all climatic conditions, including offshore applications. The wide mains voltage range permits worldwide use.
In addition to general mechanical engineering, applications are to be found in the following fields, among many others:

- Fans
- Pumps
- Compressors
- Conveyors, cranes and hoists
- Packaging machines
- Automation and drive systems
- Manufacturing industry
- Pharmaceuticals industry
- Chemical industry
- Print and paper industry
- Process industry

Overview of technical data

The most important technical data are summarised in the following table.
Further information can be taken from the catalogue section “Introduction” (Chapter 1).

Product group	Squirrel-cage rotor, IEC/DIN
Rated output	0.06 kW to 500 kW (IE1-, IE2-, IE3-versions with 2, 4, 6 and 8 poles)
Sizes	56 to 355
Efficiency classification/ efficiency determination	IEC/EN 60034-30-1 / IEC/EN 60034-2-1, ≤ 1 kW direct measurement, > 1 kW residual loss method
Housing material	Grey cast iron
Rated torque	0.4 Nm to 3600 Nm
Method of connection	Single-speed motors are designed in star-delta configuration as standard.
Stator winding insulation	Thermal class 155, optional 155 [F(B)], 180 to IEC/EN 60034-1
Degree of protection	IP 55 to IEC/EN 60034-5, optionally IP 56 or higher
Type of cooling	IC 411, IC 416, IC 71W (IC 31W) to IEC/EN 60034-6
Coolant temperature/ installation altitude	Standard -20 °C to +40 °C, Altitude 1000 m above sea level
Rated voltage	Standard voltages to EN 60038 50 Hz: 230 V, 400 V, 500 V, 690 V, 60 Hz: 275 V, 460 V, 480 V, 600 V Voltage ranges A and B to IEC/EN 60034-1 (230 V, 50 Hz and 275 V, 60 Hz from size 315 prior consultation necessary)
Duty types	S1, continuous duty, Short-time duty S2, 10/30/60 min Duty type S3/S6, 25/40/60 %c.d.f.
Types of construction	IM B3, IM B35, IM B5 and derived types to IEC/EN 60034-7
Paint finish	Normal finish “Moderate”, colour RAL 7031, blue-grey Special finish “Worldwide”, colour RAL 7031, blue-grey
Vibration severity grade	Grade “A” as standard for machines with no special vibration requirements
Shaft ends	to DIN 748 (IEC 60072), balanced with half-key
Limit speeds	Please refer to the section of “Limit speeds“ in catalogue section “Motors for converter-fed operation”, Chapter 4.
Bearing design	Please refer to the tables of bearing design data.
Motor mass	Please refer to the technical selection lists.
Terminal boxes	Please refer to the section “Terminal boxes”.
Documentation	An operating and maintenance manual, a terminal plan and a safety data sheet are supplied with each motor.
Tolerances	Please refer to the section “Tolerances” in catalogue section “Introduction“, Chapter 1.
Options	Please refer to the section “Overview of modifications” in catalogue section “Introduction“, Chapter 1.

Motor selection data

Three-phase motors with squirrel-cage rotor, Premium Efficiency IE3

with surface cooling, duty type S1, continuous duty
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz

Motor selection data															Design point 400 V, 50 Hz
Type	P_B	M_B	n_B		η_B			$\cos\phi_B$	I_B	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
					IEC/EN 60034-2-1				400 V						
	kW	Nm	rpm		100 %	75 %	50 %	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 3000 rpm – 2-pole version															
IE3-W41R 56 G2	0.12	0.4	2830	IE3-	60.8	59.4	55.9	0.77	0.32	4.5	2.1	2.1	2.3	0.00013	4.5
IE3-W42R 63 K2	0.18	0.6	2790	IE3-	65.9	63.1	58.8	0.76	0.51	4.1	1.9	1.9	2.2	0.00013	4.9
IE3-W41R 63 G2	0.25	0.9	2825	IE3-	69.7	70.1	67.1	0.83	0.58	4.9	2.4	2.2	2.7	0.00025	6.3
IE3-W42R 71 K2	0.37	1.2	2840	IE3-	73.8	74.1	71.7	0.82	0.83	5.8	2.8	2.7	3.2	0.00032	7.6
IE3-W41R 71 GY2	0.55	1.8	2870	IE3-	77.8	77.5	74.4	0.79	1.23	6.3	2.9	2.9	3.5	0.00057	10
IE3-W42R 80 K2	0.75	2.50	2870	IE3-	80.7	80.7	78.2	0.81	1.65	6.4	2.6	2.6	3.5	0.00072	11.5
IE3-W41R 80 GY2	1.1	3.66	2870	IE3-	82.7	83.8	82.6	0.86	2.22	7.0	2.8	2.7	3.4	0.00132	15
IE3-W42R 90 S2	1.5	4.94	2900	IE3-	84.2	85.4	83.2	0.81	3.12	7.9	3.5	3.5	4.4	0.0017	19
IE3-W41R 90 LY2	2.2	7.30	2880	IE3-	85.9	85.7	83.9	0.88	4.25	8.0	2.5	2.3	2.9	0.00275	23.5
IE3-W41R 100 LY2	3	9.81	2920	IE3-	87.1	88	86.3	0.82	6.0	7.7	2.3	2.2	3.5	0.0045	31
IE3-W41R 112 MY2	4	13.10	2920	IE3-	88.1	87.5	86.9	0.84	7.9	8.3	2.3	2.1	3.3	0.0055	38
IE3-W41R 132 S2T	5.5	18.0	2925	IE3-	89.2	89.4	87.7	0.80	11.1	8.3	2.6	2.5	3.8	0.0068	48
IE3-W41R 132 SX2	7.5	24.0	2925	IE3-	90.1	89.4	87.9	0.87	14.0	8.0	2.5	2.1	3.3	0.0168	75
IE3-W41R 160 M2	11	36.0	2950	IE3-	91.4	91.7	90.5	0.90	19.5	8.0	2.2	1.8	3.2	0.0575	125
IE3-W41R 160 MX2	15	49.0	2950	IE3-	91.9	92.0	91.3	0.91	26.0	7.9	2.2	1.7	3.1	0.0675	145
IE3-W41R 160 L2	18.5	60.0	2960	IE3-	92.4	92.5	91.4	0.90	32.0	9.2	2.6	2.1	3.6	0.078	160
IE3-W41R 180 M2C	22	71	2975	IE3-	92.7	92.6	91.5	0.91	37.5	8.9	1.9	1.4	3.3	0.1717	214
IE3-W41R 200 L2	30	97	2965	IE3-	93.3	92.2	90.6	0.88	52.5	8.6	2.1	1.6	3.3	0.36	305
IE3-W41R 200 LX2C	37	119	2980	IE3-	93.7	92.9	91.7	0.89	64.0	8.7	1.7	1.3	3.2	0.4757	310
IE3-W41R 225 M2	45	145	2960	IE3-	94.0	93.7	93.0	0.89	77.5	8.8	2.3	1.9	3.2	0.375	375
IE3-W41R 250 M2	55	177	2970	IE3-	94.6	94.4	93.6	0.91	92	8.9	2.2	1.9	3.2	0.65	510
IE3-W41R 280 S2	75	241	2967	IE3-	94.7	94.5	93.9	0.89	128	8.1	1.9	1.9	2.8	0.65	500
IE3-W41R 280 M2	90	289	2970	IE3-	95	94.5	94	0.90	152	8.4	2.2	1.9	3.1	0.675	545
IE3-W41R 315 S2	110	354	2970	IE3-	95.2	94.5	93.5	0.89	187	10.0	1.9	1.7	3.0	1.21	750
IE3-W41R 315 M2	132	423	2980	IE3-	95.4	95.0	94.5	0.89	224	10.0	2.0	1.8	3.0	1.44	815
IE3-W41R 315 MX2	160	513	2980	IE3-	95.7	95.7	95.0	0.9	268	8.5	2.3	1.7	2.6	2.37	1095
IE3-W41R 315 MY2	200	641	2980	IE3-	95.8	95.9	95.5	0.91	331	8.3	2.6	1.6	2.4	2.82	1200
IE3-W41R 315 L2	250	800	2985	IE3-	96.0	96.0	95.9	0.92	409	8.4	2.5	1.4	2.3	3.66	1460
IE3-W41R 315 LX2	315	1008	2985	IE3-	95.8	95.8	95.8	0.92	516	8.5	2.8	1.6	2.5	4.43	1700

Size 355/400: See Chapter 3 „Transnorm motors".

Three-phase motors with squirrel-cage rotor, Premium Efficiency IE3

with surface cooling, duty type S1, continuous duty
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz

Motor selection data															Design point 400 V, 50 Hz
Type	P_B	M_B	n_B		η_B			$\cos\phi_B$	I_B	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
					IEC/EN 60034-2-1				400 V						
	kW	Nm	rpm		100 %	75 %	50 %	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 1500 rpm – 4-pole version															
IE3-W42R 63 K4	0.12	0.8	1365	IE3-	64.8	64.5	59.7	0.72	0.37	3.2	1.9	1.8	2.2	0.00024	5.2
IE3-W41R 63 G4	0.18	1.2	1415	IE3-	69.9	67.2	61.2	0.67	0.55	4.4	1.8	1.8	2.7	0.0005	7.1
IE3-W42R 71 K4	0.25	1.7	1395	IE3-	73.5	71.2	66.7	0.70	0.72	3.9	2.1	2.1	2.5	0.0005	7.8
IE3-W41R 71 GY4	0.37	2.5	1425	IE3-	77.3	76.8	73	0.69	1	4.9	2.4	2.4	3	0.00087	9.9
IE3-W41R 80 K4	0.55	3.7	1430	IE3-	80.8	81	80.1	0.80	1.25	6	2.4	2.3	2.7	0.00207	14.5
IE3-W41R 80 G4	0.75	4.96	1445	IE3-	82.5	82.3	79.6	0.77	1.70	7.0	3.1	3.1	3.7	0.0026	17.0
IE3-W41R 90 SY4	1.1	7.30	1440	IE3-	84.1	82.6	79.7	0.76	2.5	6.7	2.8	2.7	3.7	0.004	22.5
IE3-W41R 90 L4	1.5	9.91	1445	IE3-	85.3	83.2	80.7	0.77	3.35	7.2	3.2	3.0	3.5	0.0045	28
IE3-W41R 100 LY4	2.2	14.4	1455	IE3-	86.7	85.2	81.7	0.77	4.80	9.3	3.2	3.0	3.6	0.009	36
IE3-W41R 100 LX4	3	19.7	1455	IE3-	87.7	86.3	84.5	0.77	6.50	9.0	3.3	3.1	3.9	0.011	45
IE3-W41R 112 MW4	4	26	1460	IE3-	88.6	87.9	86.2	0.85	8.0	8.7	2.6	2.4	4.1	0.017	56
IE3-W41R 132 S4	5.5	35	1480	IE3-	91.0	90.2	87.8	0.73	12.0	9.9	3.4	2.8	5.4	0.035	90
IE3-W41R 132 M4	7,5	49	1475	IE3-	91,3	91,3	90,1	0,83	14,5	8,6	2,4	2,0	3,9	0,043	100
IE3-W41R 160 M4	11	71	1475	IE3-	91.4	91.5	90.5	0.83	21.0	7.5	2.5	2.0	3.2	0.078	125
IE3-W41R 160 L4C	15	96	1490	IE3-	92.8	92.5	91.0	0.83	28.0	10.5	2.8	2.4	3.9	0.1567	175
IE3-W41R 180 M4	18.5	120	1475	IE3-	92.7	92.9	92.0	0.84	34.5	6.9	1.9	1.7	3.0	0.168	210
IE3-W41R 180 L4	22	142	1480	IE3-	93.0	93.0	92.1	0.84	40.5	7.6	2.2	2.0	3.2	0.203	240
IE3-W41R 200 L4C	30	193	1485	IE3-	93.6	92.4	92.4	0.85	54.5	7.0	1.6	1.4	2.6	0.411	327
IE3-W41R 225 S4C	37	237	1490	IE3-	93.9	93.8	93.2	0.85	67.0	7.4	1.9	1.4	2.7	0.4675	367
IE3-W41R 225 M4	45	290	1482	IE3-	94.2	94.3	94.0	0.82	84	8.1	2.6	2.1	2.6	0.619	450
IE3-W41R 250 M4	55	354	1485	IE3-	94.7	94.8	94.4	0.83	101	8.1	2.1	1.8	2.5	0.95	550
IE3-W41R 280 S4	75	482	1485	IE3-	95.0	94.6	94.2	0.83	137	8.2	2.1	1.8	2.5	1.1	617
IE3-W41R 280 M4	90	578	1487	IE3-	95.2	94.7	94.0	0.83	164	9.2	2.1	1.9	2.7	1.96	785
IE3-W41R 315 S4	110	706	1487	IE3-	95.4	95.0	94.3	0.82	203	9.5	1.9	1.7	2.7	1.96	760
IE3-W41R 315 M4	132	849	1485	IE3-	95.6	95.4	95.0	0.83	240	9.0	2.2	1.9	2.7	2.27	850
IE3-W41R 315 MX4	160	1026	1490	IE3-	95.8	95.5	95.0	0.84	287	9.5	2.1	2.0	3.2	4.01	1120
IE3-W41R 315 MY4	200	1282	1490	IE3-	96.0	95.8	95.5	0.87	346	9.5	2.1	1.7	2.7	4.82	1250
IE3-W41R 315 L4	250	1602	1490	IE3-	96.2	96.2	96.0	0.87	431	9.4	2.2	1.8	2.7	5.93	1450
IE3-W41R 315 LX4	315	2019	1490	IE3-	96.0	96.0	96.0	0.87	544	9.5	2.3	1.7	2.9	6.82	1630

Size 355/400: See Chapter 3 „Transnorm motors".

Three-phase motors with squirrel-cage rotor, Premium Efficiency IE3

with surface cooling, duty type S1, continuous duty
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz

Motor selection data															Design point 400 V, 50 Hz
Type	P_B	M_B	n_B		η_B			$\cos\phi_B$	I_B	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
					IEC/EN 60034-2-1				400 V						
	kW	Nm	rpm		100 %	75 %	50 %	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 1000 rpm – 6-pole version															
IE3-W41R 63 G6	0.12	1.23	930	IE3-	57.7	60.0	54	0.56	0.5	2.8	1.9	1.8	2.1	0.00045	6.7
IE3-W42R 71 KY6	0.18	1.89	910	IE3-	63.9	62.0	56.5	0.55	0.75	2.9	1.7	1.7	2.1	0.0006	8.3
IE3-W41R 71 GY6	0.25	2.54	940	IE3-	68.6	65.3	58.5	0.63	0.84	4	2.2	2.2	2.9	0.0013	10
IE3-W41R 80 K6	0.37	3.72	950	IE3-	73.5	72.9	69.2	0.7	1.03	4	1.9	1.9	2.4	0.00325	15
IE3-W41R 80 G6	0.55	5.53	950	IE3-	77.2	75.9	72.4	0.69	1.5	4.1	2.1	2.1	2.5	0.00425	18
IE3-W41R 90 SY6	0.75	7.50	955	IE3-	78.9	78.3	75.1	0.71	1.95	4.9	2.4	2.3	2.6	0.00625	24
IE3-W41R 90 L6	1.1	11.00	955	IE3-	81.0	81.0	78.5	0.72	2.75	5.4	2.5	2.4	2.8	0.0072	30
IE3-W41R 100 LX6	1.5	15.00	955	IE3-	82.5	83.5	81.5	0.76	3.45	5.9	2.3	2.2	2.8	0.0139	36
IE3-W41R 112 MV6	2.2	22.00	955	IE3-	84.3	83.6	80.9	0.74	5.15	5.7	2.4	2.3	2.9	0.0155	48
IE3-W41R 132 S6	3	30.0	965	IE3-	86.3	86.7	85.6	0.82	6.1	6.2	2.0	1.3	3.1	0.029	70
IE3-W41R 132 M6	4	40.0	965	IE3-	86.8	87.0	86.0	0.80	8.3	4.8	1.7	1.4	2.4	0.043	75
IE3-W41R 132 MX6	5.5	54.0	970	IE3-	88.6	88.6	87.2	0.80	11.0	6.0	2.1	1.7	3.0	0.053	105
IE3-W41R 160 M6	7.5	73.0	980	IE3-	90.2	90.0	88.3	0.83	14.5	6.4	2.4	2.0	3.0	0.145	145
IE3-W41R 160 L6C	11	107.0	985	IE3-	91.4	91.2	89.8	0.85	20.5	6.8	2.2	2	2.8	0.166	168
IE3-W41R 180 L6C	15	145.0	985	IE3-	91.2	91.3	90.2	0.87	27.5	6.8	2	1.7	2.7	0.3396	214
IE3-W41R 200 L6	18.5	180.0	980	IE3-	91.8	91.7	90.5	0.87	33.5	7.2	2.3	2	3	0.514	310
IE3-W41R 200 LX6C	22	213.0	985	IE3-	92.2	91.5	90	0.87	39.5	7.6	2.1	1.7	2.9	0.6476	321
IE3-W41R 225 M6	30	291	984	IE3-	92.9	92.2	91.0	0.84	55.5	7.2	2.7	2.2	2.9	0.92	400
IE3-W41R 250 M6	37	359	985	IE3-	93.3	93.2	92.3	0.86	66.5	7.1	2.8	2.0	2.7	1.48	545
IE3-W41R 280 S6	45	434	990	IE3-	93.7	93.5	91.5	0.86	80.5	8.5	2.1	1.8	2.8	2.63	695
IE3-W41R 280 M6	55	531	990	IE3-	94.2	94.1	93.1	0.85	99	9.0	2.2	1.9	3.1	3.33	815
IE3-W41R 315 S6	75	723	990	IE3-	94.6	94.0	93.5	0.86	133	8.2	1.8	1.4	2.3	5.55	1060
IE3-W41R 315 M6	90	868	990	IE3-	94.9	94.0	93.0	0.86	159	8.5	2.2	1.7	2.8	6	1100
IE3-W41R 315 MX6	110	1.061	990	IE3-	95.1	95.0	94.5	0.86	194	8.5	2.5	1.7	2.7	6.67	1210
IE3-W41R 315 L6	132	1.267	995	IE3-	95.4	95.0	94.5	0.87	230	9.0	2.8	2.0	3.2	8.6	1550

Size 355/400: See Chapter 3 „Transnorm motors".

Three-phase motors with squirrel-cage rotor, Premium Efficiency IE3

with surface cooling, duty type S1, continuous duty
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz

Motor selection data															Design point 400 V, 50 Hz
Type	P_B	M_B	n_B		η_B			$\cos\phi_B$	I_B	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
					IEC/EN 60034-2-1				400 V						
	kW	Nm	rpm		100 %	75 %	50 %	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 750 rpm – 8-pole version															
IE3-W41R 71 G8	0.12	1.67	685	IE3-	50.7	48.8	43	0.64	0.48	2.6	1.7	1.7	2	0.0013	9.9
IE3-W42R 80 K8	0.18	2.53	680	IE3-	58.7	56.3	49.8	0.61	0.73	2.6	1.6	1.6	2	0.00175	12
IE3-W41R 80 G8	0.25	3.39	705	IE3-	64.1	64.3	58.4	0.59	0.93	3	1.4	1.4	2.1	0.003	14
IE3-W42R 90 SY8	0.37	5.01	705	IE3-	69.3	67	61.2	0.56	1.39	3.1	1.6	1.6	2.2	0.00375	18.5
IE3-W41R 90 L8	0.55	7.50	700	IE3-	73.0	70.6	66.3	0.64	1.72	3.6	1.8	1.8	2.3	0.0072	26
IE3-W41R 100 LY8	0.75	10.1	710	IE3-	75.0	74.1	70.0	0.64	2.21	4.2	2.0	2.0	2.7	0.009	28
IE3-W41R 100 LW8	1.1	14.69	715	IE3-	77.7	76.8	73	0.66	3.09	4.7	2.3	2.3	3	0.009	35
IE3-W41R 112 M8	1.5	20.5	700	IE3-	79.7	78.7	76	0.65	4.25	3.8	1.6	1.5	2.1	0.0155	48
IE3-W42R 132 S8	2.2	29.2	720	IE3-	81.9	81.8	78.6	0.67	5.75	5.3	2.3	2.2	3.2	0.023	55
IE3-W41R 132 M8	3	40	720	IE3-	83.5	83.5	81.4	0.72	7	3.9	1.6	1.4	2.1	0.043	74
IE3-W41R 160 M8	4	52	735	IE3-	87	86.7	83.8	0.71	9.4	5.4	2.5	2.2	2.9	0.113	119
IE3-W41R 160 MX8	5.5	72	730	IE3-	87.5	87.5	85.6	0.73	12.5	4.7	1.9	1.7	2.5	0.145	143
IE3-W41R 160 L8	7.5	98	733	IE3-	87.9	87.6	85.6	0.73	17	5.1	2.1	1.8	2.7	0.166	155
IE3-W41R 180 L8	11	145	725	IE3-	89.3	89	87.1	0.75	23.5	5.4	2.1	1.9	2.8	0.228	175
IE3-W41R 200 L8	15	196	730	IE3-	89.6	90	89	0.80	30	5.3	1.8	1.7	2.5	0.324	235
IE3-W41R 225 S8	18.5	240	735	IE3-	90.1									0.514	310
IE3-W41R 225 M8	22	286	735	IE3-	91.5	91.6	90.6	0.79	44	5.7	2.3	2	2.5	0.825	360
IE3-W41R 250 M8	30	391	732	IE3-	91.3	91.9	91.4	0.81	58.5	5.4	2	1.8	2.3	0.92	420
IE3-W41R 280 S8	37	479	738	IE3-	92	92	90.8	0.78	74.5	5.9	2.3	1.8	2.4	1.55	555
IE3-W41R 280 M8	45	581	740	IE3-	93	93	92.4	0.78	89.5	6.5	1.7	1.5	2.4	2.63	700
IE3-W41R 315 S8	55	707	743	IE3-	93.3	93.3	92.4	0.78	109	7.0	1.9	1.7	2.5	3.33	805
IE3-W41R 315 M8	75	965	742	IE3-	93.8	94.2	93.8	0.81	142	7.0	1.9	1.7	2.3	5.55	1120
IE3-W41R 315 MX8	90	1157	743	IE3-	94.3	94.4	93.6	0.8	172	7.9	2.4	2.0	2.7	6	1185
IE3-W41R 315 MY8	110	1419	740	IE3-	93.8	94.0	93.8	0.82	206	6.5	1.9	1.5	2.1	6.76	1250
IE3-W41R 315 L8	132	1703	740	IE3-	94.2	94.2	93.5	0.8	253	8.0	2.4	1.9	2.7	8.71	1450

Size 355/400: See Chapter 3 „Transnorm motors".

Three-phase motors with squirrel-cage rotor, Premium Efficiency IE3

with surface cooling, duty type S1, continuous duty
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50/60 Hz

Motor selection data											Design point 400 V, 50 Hz 460 V, 60 Hz						
Type	U_B	f_B	P_B	M_B	n_B		η_B IEC/EN 60034-2-1			$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
	V	Hz	kW	Nm	rpm		100 %	75 %	50 %	-	A	-	-	-	-	kgm²	kg
Synchronous speed 3000 rpm/3600 rpm – 2-pole version																	
IE3-W41R 56 G2	400	50	0.12	0.4	2830	IE3-	60.8	59.4	55.9	0.77	0.32	4.5	2.1	2.1	2.3	0.00013	4.5
	460	60	0.14	0.39	3410	IE3-	71.4	62	66.5	0.82	0.3	5.2	2	2	2.3		
IE3-W42R 63 K2	400	50	0.18	0.62	2790	IE3-	65.9	63.1	58.8	0.76	0.51	4.1	1.9	1.9	2.2	0.00013	4.9
	460	60	0.21	0.59	3400	IE3-	65.9	63.1	58.8	0.76	0.51	4.7	2.4	2.4	2.7		
IE3-W41R 63 G2	400	50	0.25	0.85	2825	IE3-	69.7	70.1	67.1	0.83	0.58	4.9	2.4	2.2	2.7	0.00025	6.3
	460	60	0.3	0.84	3410	IE3-	69.5	70	67.8	0.84	0.58	5.3	2.3	2.2	2.8		
IE3-W42R 71 K2	400	50	0.37	1.24	2840	IE3-	73.8	74.1	71.7	0.82	0.83	5.8	2.8	2.7	3.2	0.00032	7.6
	460	60	0.44	1.23	3430	IE3-	73.4	73.6	71.3	0.84	0.83	6.2	2.9	2.8	3.4		
IE3-W41R 71 GY2	400	50	0.55	1.83	2870	IE3-	77.8	77.5	74.4	0.79	1.23	6.3	2.9	2.9	3.5	0.00057	10
	460	60	0.65	1.79	3460	IE3-	77.0	76.7	73.9	0.81	1.2	6.9	2.9	2.9	3.6		
IE3-W42R 80 K2	400	50	0.75	2.5	2870	IE3-	80.7	80.7	78.2	0.81	1.65	6.4	2.6	2.6	3.5	0.00072	11.5
	460	60	0.9	2.48	3460	IE3-	77.0	76.9	74.7	0.83	1.65	6.9	2.7	2.7	3.6		
IE3-W41R 80 GY2	400	50	1.1	3.66	2870	IE3-	82.7	83.8	82.6	0.86	2.22	7.0	2.8	2.7	3.4	0.00132	15
	460	60	1.3	3.58	3465	IE3-	85.5	85.9	84.6	0.86	2.25	7.3	2.7	2.5	3.5		
IE3-W42R 90 S2	400	50	1.5	4.94	2900	IE3-	84.2	85.4	83.2	0.81	3.12	7.9	3.5	3.5	4.4	0.0017	19
	460	60	1.8	4.93	3490	IE3-	85.5	85.5	83.5	0.83	3.15	8.4	3.3	3.3	4.2		
IE3-W41R 90 LY2	400	50	2.2	7.3	2880	IE3-	85.9	85.7	83.9	0.88	4.25	8.0	2.5	2.3	2.9	0.00275	23.5
	460	60	2.6	7.16	3470	IE3-	86.5	87.2	88.1	0.88	4.3	7.2	2.1	1.8	2.7		
IE3-W41R 100 LY2	400	50	3	9.81	2920	IE3-	87.1	88	86.3	0.82	6	7.7	2.3	2.2	3.5	0.0045	31
	460	60	3.6	9.79	3510	IE3-	88.5	88.8	87.3	0.85	6	6.9	1.9	1.5	3		
IE3-W41R 112 MY2	400	50	4	13.1	2920	IE3-	88.1	87.5	86.9	0.84	7.9	8.3	2.3	2.1	3.3	0.0055	38
	460	60	4.8	13.06	3510	IE3-	89.5	89.9	89.2	0.86	7.8	7.1	1.6	1.4	2.7		
IE3-W41R 132 S2T	400	50	5.5	18	2925	IE3-	89.2	89.4	87.7	0.80	11.1	8.3	2.6	2.5	3.8	0.0068	48
	460	60	6.6	17.91	3520	IE3-	90.2	90.2	88.8	0.83	11.1	7.6	1.9	1.7	3.3		
IE3-W41R 132 SX2	400	50	7.5	24.0	2925	IE3-	90.1	89.4	87.9	0.87	14.0	8.0	2.5	2.1	3.3	0.0168	75
	460	60	9	24	3520	IE3-	90.5	89.5	87.8	0.89	14	7.1	2.3	1.9	3.1		
IE3-W41R 160 M2	400	50	11	36.0	2950	IE3-	91.4	91.7	90.5	0.90	19.5	8.0	2.2	1.8	3.2	0.0575	125
	460	60	13.2	36	3540	IE3-	91	90	87.9	0.91	20	7.3	2	1.6	2		
IE3-W41R 160 MX2	400	50	15	49.0	2950	IE3-	91.9	92.0	91.3	0.91	26.0	7.9	2.2	1.7	3.1	0.0675	145
	460	60	18	48	3545	IE3-	92	92.3	91.2	0.92	26.5	7.4	2	1.6	2.9		
IE3-W41R 160 L2	400	50	18.5	60.0	2960	IE3-	92.4	92.5	91.4	0.90	32.0	9.2	2.6	2.1	3.6	0.078	160
	460	60	22	59	3550	IE3-	92	91.9	90.7	0.91	33	8.5	2.4	1.9	3.3		
IE3-W41R 180 M2C	400	50	22	71	2975	IE3-	92.7	92.6	91.5	0.91	37.5	8.9	1.9	1.4	3.3	0.1717	214
	460	60	26	70	3570	IE3-	92.4	92.0	90.7	0.92	38.5	8.2	1.8	1.3	3.0		
IE3-W41R 200 L2	400	50	30	97	2965	IE3-	93.3	92.2	90.6	0.88	52.5	8.6	2.1	1.6	3.3	0.36	305
	460	60	33	88	3565	IE3-	92.4	91.0	88.6	0.88	51.0	8.5	2.1	1.6	3.2		
IE3-W41R 200 LX2C	400	50	37	119	2980	IE3-	93.7	92.9	91.7	0.89	64.0	8.7	1.7	1.3	3.2	0.4757	310
	460	60	40	107	3575	IE3-	93	91.7	89.5	0.89	60.5	8.8	1.8	1.3	3.2		
IE3-W41R 225 M2	400	50	45	145	2960	IE3-	94.0	93.7	93.0	0.89	77.5	8.8	2.3	1.9	3.2	0.375	375
	460	60	54	145	3553	IE3-	93.6	93.3	92.6	0.89	81.5	8.1	2.1	1.7	2.9		
IE3-W41R 250 M2	400	50	55	177	2970	IE3-	94.6	94.4	93.6	0.91	92	8.9	2.2	1.9	3.2	0.65	510
	460	60	66	177	3568	IE3-	94.1	93.5	92.3	0.92	95.5	8.2	2	1.8	2.9		
IE3-W41R 280 S2	400	50	75	241	2967	IE3-	94.7	94.5	93.9	0.89	128	8.1	1.9	1.9	2.8	0.65	500
	460	60	82	220	3566	IE3-	94.5	94	92.5	0.90	121	8.1	2	1.8	3		
IE3-W41R 280 M2	400	50	90	289	2970	IE3-	95	94.5	94	0.90	152	8.4	2.2		3.1	0.675	545
	460	60	90							upon request							
IE3-W41R 315 S2	400	50	110	354	2970	IE3-	95.2	94.5	93.5	0.89	187	10.0	1.9	1.7	3.0	1.21	750
	460	60	110	294	3570	IE3-	95.0	94.0	92.5	0.89	163	10	2	1.8	3.2		
IE3-W41R 315 M2	400	50	132	423	2980	IE3-	95.4	95.0	94.5	0.89	224	10.0	2.0	1.8	3.0	1.44	815
	460	60	145	387	3580	IE3-	95.4	95.0	94.5	0.89	214	10	2	1.8	3		
IE3-W41R 315 MX2	400	50	160	513	2980	IE3-	95.7	95.7	95.0	0.9	268	8.5	2.3	1.7	2.6	2.37	1095
	460	60	165	440	3585	IE3-	95.4	95	94	0.89	244	9	2.5	1.8	2.8		
IE3-W41R 315 MY2	400	50	200	641	2980	IE3-	95.8	95.9	95.5	0.91	331	8.3	2.6	1.6	2.4	2.82	1200
	460	60	220	587	3580	IE3-	95.8	95.3	94.5	0.91	317	8.5	2.8	1.7	2.7		
IE3-W41R 315 L2	400	50	250	800	2985	IE3-	96.0	96.0	95.9	0.92	409	8.4	2.5	1.4	2.3	3.66	1460
	460	60	280	747	3580	IE3-	96	96	95.5	0.92	458	8.2	2.5	1.4	2.3		
IE3-W41R 315 LX2	400	50	315	1008	2985	IE3-	95.8	95.8	95.8	0.92	516	8.5	2.8	1.6	2.5	4.43	1700
	460	60	340	906	3585	IE3-	95.8	95.8	95.5	0.92	484	9.1	2.9	1.6	2.5		

Size 355/400: See Chapter 3 „Transnorm motors".

Three-phase motors with squirrel-cage rotor, Premium Efficiency IE3

with surface cooling, duty type S1, continuous duty
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50/60 Hz

Motor selection data											Design point 400 V, 50 Hz 460 V, 60 Hz						
Type	U_B	f_B	P_B	M_B	n_B		η_B IEC/EN 60034-2-1			$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
	V	Hz	kW	Nm	rpm		100 %	75 %	50 %	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 1500 rpm/1800 rpm – 4-pole version																	
IE3-W42R 63 K4	400	50	0.12	0.84	1365	IE3-	64.8	64.5	59.7	0.72	0.37	3.2	1.9	1.8	2.2	0.00024	5.2
	460	60	0.14	0.81	1660	IE3-	66.0	65.5	61.1	0.71	0.37	3.6	1.9	1.9	2.3		
IE3-W41R 63 G4	400	50	0.18	1.21	1415	IE3-	69.9	67.2	61.2	0.67	0.55	4.4	1.8	1.8	2.7	0.0005	7.1
	460	60	0.21	1.16	1725	IE3-	69.5	68.8	62.9	0.66	0.56	4.8	2.6	2.6	2.9		
IE3-W42R 71 K4	400	50	0.25	1.71	1395	IE3-	73.5	71.2	66.7	0.70	0.72	3.9	2.1	2.1	2.5	0.0005	7.8
	460	60	0.3	1.70	1690	IE3-	73.4	73.6	69.7	0.71	0.72	4.1	2.1	2.1	2.5		
IE3-W41R 71 GY4	400	50	0.37	2.48	1425	IE3-	77.3	76.8	73	0.69	1	4.9	2.4	2.4	3	0.00087	9.9
	460	60	0.44	2.44	1720	IE3-	78.2	77.7	74.1	0.71	0.98	5.2	2.1	2.1	2.9		
IE3-W41R 80 K4	400	50	0.55	3.67	1430	IE3-	80.8	81	80.1	0.80	1.25	6.0	2.4	2.3	2.7	0.00207	14.5
	460	60	0.65	3.60	1725	IE3-	83.5	82.8	79	0.81	1.24	6.2	2.2	2.1	2.6		
IE3-W41R 80 G4	400	50	0.75	4.96	1445	IE3-	82.5	82.3	79.6	0.77	1.7	7.0	3.1	3.1	3.7	0.0026	17
	460	60	0.9	4.94	1740	IE3-	83.5	83.3	80.5	0.79	1.7	7.1	2.8	2.8	3.6		
IE3-W41R 90 SY4	400	50	1.1	7.3	1440	IE3-	84.1	82.6	79.7	0.76	2.5	6.7	2.8	2.7	3.7	0.004	22.5
	460	60	1.3	7.14	1740	IE3-	86.5	86.2	84.3	0.77	2.45	6.8	2.7	2.5	3.3		
IE3-W41R 90 LX4	400	50	1.5	9.84	1455	IE3-	85.3	84	80.6	0.75	3.4	9.5	4.5	3.8	4.9	0.0058	31
	460	60	1.8	9.82	1750	IE3-	86.5	85.3	82.1	0.77	3.4	8.8	3.8	3.4	4.7		
IE3-W41R 100 LW4	400	50	2.2	14.4	1460	IE3-	86.7	86.4	84.3	0.76	4.75	8.6	3.8	3.7	4.5	0.013	50
	460	60	2.6	14.15	1755	IE3-	89.5	88.2	86	0.77	4.75	8.8	3.7	3.5	4.4		
IE3-W41R 100 LZ4	400	50	3	19.7	1455	IE3-	87.7	87.6	86.1	0.77	6.4	8.6	3.2	3.1	4.1	0.013	50
	460	60	3.6	19.60	1750	IE3-	89.5	89	87.6	0.79	6.45	8.1	2.6	2.5	3.6		
IE3-W41R 112 MW4	400	50	4	26	1460	IE3-	88.6	87.9	86.2	0.85	8.0	8.7	2.6	2.4	4.1	0.017	56
	460	60	4.5	24.40	1760	IE3-	89.5	88.2	86.5	0.85	7.45	8.8	2.5	2.2	4.1		
IE3-W41R 132 S4	400	50	5.5	35	1480	IE3-	91.0	90.2	87.8	0.73	12.0	9.9	3.4	2.8	5.4	0.035	90
	460	60	6.6	35	1780	IE3-	91.8	91	88.9	0.77	11.7	9.6	3.1	2.6	5		
IE3-W41R 132 M4	400	50	7.5	49	1475	IE3-	91.3	91.3	90.1	0.83	14.5	8.6	2.4	2.0	3.9	0.043	100
	460	60	9	49	1765	IE3-	91.8	91.7	90.6	0.85	14.5	8	2.3	1.9	3.6		
IE3-W41R 160 M4	400	50	11	71	1475	IE3-	91.4	91.5	90.5	0.83	21.0	7.5	2.5	2.0	3.2	0.078	125
	460	60	12.5	67	1775	IE3-	92.4	91.8	90.6	0.80	21.5	7.4	2.4	2	3.1		
IE3-W41R 160 L4C	400	50	15	96	1490	IE3-	92.8	92.5	91.0	0.83	28.0	10.5	2.8	2.4	3.9	0.1567	175
	460	60	18	96	1785	IE3-	93.6	92.8	91.3	0.85	28.5	9.9	2.6	2.2	3.6		
IE3-W41R 180 M4	400	50	18.5	120	1475	IE3-	92.7	92.9	92.0	0.84	34.5	6.9	1.9	1.7	3.0	0.168	210
	460	60	22	118	1775	IE3-	93.6	93.0	92.3	0.84	35.0	6.5	1.8	1.9	2.8		
IE3-W41R 180 L4	400	50	22	142	1480	IE3-	93.0	93.0	92.1	0.84	40.5	7.6	2.2	2.0	3.2	0.203	240
	460	60	25	134	1775	IE3-	93.6	92.8	91.8	0.85	39.5	7.5	2.1	1.9	3.1		
IE3-W41R 200 L4C	400	50	30	193	1485	IE3-	93.6	92.4	92.4	0.85	54.5	7.0	1.6	1.4	2.6	0.411	327
	460	60	30	160	1790	IE3-	94.1	92.8	91.0	0.84	47.5	7.7	1.7	1.5	2.8		
IE3-W41R 225 S4C	400	50	37	237	1490	IE3-	93.9	93.8	93.2	0.85	67.0	7.4	1.9	1.4	2.7	0.4675	367
	460	60	40	214	1785	IE3-	94.5	93.7	92.5	0.85	62.5	7.5	1.9	1.4	2.7		
IE3-W41R 225 M4	400	50	45	290	1482	IE3-	94.2	94.3	94.0	0.82	84	8.1	2.6	2.1	2.6	0.619	450
	460	60	49	263	1782	IE3-	95	94	91.5	0.83	79	8.7	2.7	2.2	2.7		
IE3-W41R 250 M4	400	50	55	354	1485	IE3-	94.7	94.8	94.4	0.83	101	8.1	2.1	1.8	2.5	0.95	550
	460	60	55	294	1785	IE3-	95.4	94.9	93.5	0.83	87	8.9	2.3	2	2.7		
IE3-W41R 280 S4	400	50	75	482	1485	IE3-	95.0	94.6	94.2	0.83	137	8.2	2.1	1.8	2.5	1.1	617
	460	60	90	482	1783	IE3-	95.4	94.6	94	0.84	141	7.9	2	1.7	2.3		
IE3-W41R 280 M4	400	50	90	578	1487	IE3-	95.2	94.7	94.0	0.83	164	9.2	2.1	1.9	2.7	1.96	785
	460	60	90	480	1790	IE3-	95	95.4	93.2	0.82	144	10	2	1.9	2.9		
IE3-W41R 315 S4	400	50	110	706	1487	IE3-	95.4	95.0	94.3	0.82	203	9.5	1.9	1.7	2.7	1.96	760
	460	60	125	668	1788	IE3-	95.8	95.2	94.3	0.83	197	9.2	2.1	2	2.7		
IE3-W41R 315 M4	400	50	132	849	1485	IE3-	95.6	95.4	95.0	0.83	240	9.0	2.2	1.9	2.7	2.27	850
	460	60	129	689	1787	IE3-	95.8	95.3	94.7	0.83	204	10	2.3	2.1	2.9		
IE3-W41R 315 MX4	400	50	160	1026	1490	IE3-	95.8	95.5	95.0	0.84	287	9.5	2.1	2.0	3.2	4.01	1120
	460	60	175	934	1790	IE3-	96.2	96	95	0.84	272	10	2.1	2	3.2		
IE3-W41R 315 MY4	400	50	200	1282	1490	IE3-	96.0	95.8	95.5	0.87	346	9.5	2.1	1.7	2.7	4.82	1250
	460	60	225	1200	1790	IE3-	96.2	96	95.5	0.86	341	9.5	2.2	1.8	2.7		
IE3-W41R 315 L4	400	50	250	1602	1490	IE3-	96.2	96.2	96.0	0.87	431	9.4	2.2	1.8	2.7	5.93	1450
	460	60	280	1494	1790	IE3-	96.2	96.1	95.7	0.87	420	9.3	2.2	1.8	2.7		
IE3-W41R 315 LX4	400	50	315	2019	1490	IE3-	96.0	96.0	96.0	0.87	544	9.5	2.3	1.7	2.9	6.82	1630
	460	60	315	1680	1790	IE3-	96.2	96.2	95.5	0.87	472	10.5	2.6	1.9	3.2		

Size 355/400: See Chapter 3 „Transnorm motors".

Three-phase motors with squirrel-cage rotor, Premium Efficiency IE3

with surface cooling, duty type S1, continuous duty
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50/60 Hz

Motor selection data											Design point 400 V, 50 Hz 460 V, 60 Hz						
Type	U_B	f_B	P_B	M_B	n_B		η_B IEC/EN 60034-2-1			$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
	V	Hz	kW	Nm	rpm		100 %	75 %	50 %	-	A	-	-	-	-	kgm²	kg
Synchronous speed 1000 rpm/1200 rpm – 6-pole version																	
IE3-W41R 63 G6	400	50	0.12	1.23	930	IE3-	57.7	60	54	0.56	0.5	2.8	1.9	1.8	2.1	0.00045	6.7
	460	60	0.14	1.18	1130	IE3-	64.0	62.1	56.2	0.54	0.5	3.1	1.8	1.8	2.2		
IE3-W42R 71 KY6	400	50	0.18	1.89	910	IE3-	63.9	62	56.5	0.55	0.75	2.9	1.7	1.7	2.1	0.0006	8.3
	460	60	0.21	1.81	1105	IE3-	67.5	64.6	59.4	0.55	0.73	2.8	1.5	1.5	1.9		
IE3-W41R 71 GY6	400	50	0.25	2.54	940	IE3-	68.6	65.3	58.5	0.63	0.84	4.0	2.2	2.2	2.9	0.0013	10
	460	60	0.3	2.51	1140	IE3-	71.4	68.4	62.4	0.64	0.84	3.9	2.3	2.3	2.7		
IE3-W41R 80 K6	400	50	0.37	3.72	950	IE3-	73.5	72.9	69.2	0.70	1.03	4.0	1.9	1.9	2.4	0.00325	15
	460	60	0.44	3.67	1145	IE3-	75.3	74.8	71.2	0.70	1.03	4.1	1.8	1.8	2.3		
IE3-W41R 80 G6	400	50	0.55	5.53	950	IE3-	77.2	75.9	72.4	0.69	1.5	4.1	2.1	2.1	2.5	0.00425	18
	460	60	0.45	3.67	1170	IE3-	75.3	75.0	69.4	0.58	1.25	5.1	3.0	3.0	3.6		
IE3-W41R 90 SY6	400	50	0.75	7.5	955	IE3-	78.9	78.3	75.1	0.71	1.95	4.9	2.4	2.3	2.6	0.00625	24
	460	60	0.9	7.47	1150	IE3-	82.5	79.6	76.9	0.72	1.95	5.1	2.3	2.1	2.6		
IE3-W41R 90 L6	400	50	1.1	11	955	IE3-	81	81	78.5	0.72	2.7	5.4	2.5	2.4	2.8	0.0072	30
	460	60	0.92	7.51	1170	IE3-	82.3	80.02	74.53	0.62	2.26	6.8	3.5	3	4.2		
IE3-W41R 100 LX6	400	50	1.5	15	955	IE3-	82.5	83.5	81.5	0.76	3.45	5.9	2.3	2.2	2.8	0.0139	36
	460	60	0.92	7.45	1180	IE3-	82.8	80	79.7	0.57	2.45	7.7	3.6	3.6	5.1		
IE3-W41R 132 M6	400	50	4	40.0	965	IE3-	86.8	87.0	86.0	0.80	8.3	4.8	1.7	1.4	2.4	0.043	75
	460	60	4.5	37	1170	IE3-	89.5	88.7	87.6	0.80	7.9	4.8	1.7	1.5	2.4		
IE3-W41R 132 MX6	400	50	5.5	54.0	970	IE3-	88.6	88.6	87.2	0.80	11.0	6.0	2.1	1.7	3.0	0.053	105
	460	60	5.7	46	1175	IE3-	91	89.8	87.5	0.79	10	6.5	2.2	1.9	3.2		
IE3-W41R 160 M6	400	50	7.5	73.0	980	IE3-	90.2	90.0	88.3	0.83	14.5	6.4	2.4	2.0	3.0	0.145	145
	460	60	9	73	1175	IE3-	91.3	90.6	89	0.85	14.6	6	2.2	1.9	2.8		
IE3-W41R 160 L6C	400	50	11	107.0	985	IE3-	91.4	91.2	89.8	0.85	20.5	6.8	2.2	2	2.8	0.166	168
	460	60	13	105	1185	IE3-	91.7	91.4	90	0.86	20.5	6.5	2.1	1.9	2.6		
IE3-W41R 180 L6C	400	50	15	145.0	985	IE3-	91.2	91.3	90.2	0.87	27.5	6.8	2	1.7	2.7	0.3396	214
	460	60	18.5	149	1185	IE3-	93	91.9	90.5	0.85	29.5	6.2	1.8	1.5	2.5		
IE3-W41R 200 L6	400	50	18.5	180.0	980	IE3-	91.8	91.7	90.5	0.87	33.5	7.2	2.3	2	3	0.514	310
	460	60	22	178	1180	IE3-	93	91.7	90.5	0.87	34	6.7	2.1	1.8	2.8		
IE3-W41R 200 LX6C	400	50	22	213.0	985	IE3-	92.2	91.5	90	0.87	39.5	7.6	2.1	1.7	2.9	0.6476	321
	460	60	22	177	1190	IE3-	93	91.4	89.4	0.87	34	6.5	2.4	1.9	3.2		
IE3-W41R 225 M6	400	50	30	291	984	IE3-	92.9	92.2	91.0	0.84	55.5	7.2	2.7	2.2	2.9	0.92	400
	460	60	30							upon request							
IE3-W41R 250 M6	400	50	37	359	985	IE3-	93.3	93.2	92.3	0.86	66.5	7.1	2.8	2.0	2.7	1.48	545
	460	60	40	322	1185	IE3-	94.1	93.3	92	0.86	62	7.2	2.9	2	2.8		
IE3-W41R 280 S6	400	50	45	434	990	IE3-	93.7	93.5	91.5	0.86	80.5	8.5	2.1	1.8	2.8	2.63	695
	460	60	45							upon request							
IE3-W41R 280 M6	400	50	55	531	990	IE3-	94.2	94.1	93.1	0.85	99	9.0	2.2	1.9	3.1	3.33	815
	460	60	55	440	1195	IE3-	94.5	94	92.5	0.85	86	9.5	2.5	2.2	3.4		
IE3-W41R 315 S6	400	50	75	723	990	IE3-	94.6	94.0	93.5	0.86	133	8.2	1.8	1.4	2.3	5.55	1060
	460	60	85							upon request							
IE3-W41R 315 M6	400	50	90	868	990	IE3-	94.9	94.0	93.0	0.86	159	8.5	2.2	1.7	2.8	6	1100
	460	60	99														
IE3-W41R 315 MX6	400	50	110	1.061	990	IE3-	95.1	95.0	94.5	0.86	194	8.5	2.5	1.7	2.7	6.67	1210
	460	60	120							upon request							
IE3-W41R 315 L6	400	50	132	1.267	995	IE3-	95.4	95.0	94.5	0.87	230	9.0	2.8	2.0	3.2	8.6	1550
	460	60	132	1055	1195	IE3-	95.8	95.3	94.4	0.84	206	9.5	3	2.2	3.5		

Size 355/400: See Chapter 3 „Transnorm motors".

Three-phase motors with squirrel-cage rotor, Premium Efficiency IE3

with surface cooling, duty type S1, continuous duty
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50/60 Hz

Motor selection data																Design point 400 V, 50 Hz 460 V, 60 Hz	
Type	U_B	f_B	P_B	M_B	n_B		η_B IEC/EN 60034-2-1			$\cos\varphi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
	V	Hz	kW	Nm	rpm		100 %	75 %	50 %	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 750 rpm/900 rpm – 8-pole version																	
IE3-W41R 71 G8	400	50	0.12	1.67	685	IE3-	50.7	48.8	43	0.64	0.48	2.6	1.7	1.7	2	0.0013	9.9
	460	60	0.14	1.59	840	IE3-	59.5	59.1	52.7	0.61	0.47	2.8	1.8	1.8	2.1		
IE3-W42R 80 K8	400	50	0.18	2.53	680	IE3-	58.7	56.3	49.8	0.61	0.73	2.6	1.6	1.6	2	0.00175	12
	460	60	0.21	2.39	840	IE3-	64.0	59	51.1	0.55	0.77	2.9	1.9	1.9	2.4		
IE3-W41R 80 G8	400	50	0.25	3.39	705	IE3-	64.1	64.3	58.4	0.59	0.93	3.0	1.4	1.4	2.1	0.003	14
	460	60	0.3	3.33	860	IE3-	68.0	65.8	59.8	0.55	0.98	3.1	1.3	1.3	2.2		
IE3-W41R 90 S8	400	50	0.37	4.98	710	IE3-	69.3	69	64.4	0.63	1.2	3.6	2.1	2.1	2.3	0.00625	25
	460	60	0.44	4.91	855	IE3-	72	69.3	64.8	0.63	1.22	3.2	1.6	1.6	1.9		
IE3-W41R 100 L8	400	50	0.75	10.0	715	IE3-	75	75.9	71.3	0.63	2.25	4.4	2.5	2.5	2.8	0.0123	33.5
	460	60	0.9	9.95	865	IE3-	75.5	78.8	75.5	0.66	2.12	4.8	2.3	2.3	2.8		
IE3-W41R 100 LW8	400	50	1.1	14.69	715	IE3-	77.7	76.8	73	0.66	3.09	4.7	2.3	2.3	3	0.009	35
	460	60	1.25	13.8	865	IE3-	78.5	77.4	73.5	0.65	2.98	5.1	2.3	2.3	3.2		
IE3-W41R 112 M8	400	50	1.5	20.5	700	IE3-	79.7	78.7	76	0.65	4.25	3.8	1.6	1.5	2..1	0.0155	48
	460	60	1.25	13.72	870	IE3-	80.4	78.3	73.6	0.55	3.7	3.7	2	2	2.9		
IE3-W41R 132 S8	400	50	2.2	29	725	IE3-	84.4	84.5	82.4	0.7	5.4	4.1	1.6	1.5	2.3	0.043	80
	460	60	2.6	28	875	IE3-	85.6	85.7	83.7	0.71	5.4	4.0	1.5	1.4	2.2		
IE3-W41R 132 M8	400	50	3	40	720	IE3-	83.5	83.5	81.4	0.72	7	3.9	1.6	1.4	2.1	0.043	74
	460	60	3							upon request							
IE3-W41R 160 M8	400	50	4	52	735	IE3-	87	86.7	83.8	0.71	9.4	5.4	2.5	2.2	2.9	0.113	119
	460	60	4.8	51	885	IE3-	88.4	87.9	85.4	0.72	9.5	5.1	2.3	2.0	2.6		
IE3-W41R 160 MX8	400	50	5.5	72	730	IE3-	87.5	87.5	85.6	0.73	12.5	4.7	1.9	1.7	2.5	0.145	143
	460	60	5.5							upon request							
IE3-W41R 160 L8	400	50	7.5	98	733	IE3-	87.9	87.6	85.6	0.73	17	5.1	2.1	1.8	2.7	0.166	155
	460	60	7.5							upon request							
IE3-W41R 180 L8	400	50	11	145	725	IE3-	89.3	89	87.1	0.75	23.5	5.4	2.1	1.9	2.8	0.228	175
	460	60	11							upon request							
IE3-W41R 200 L8	400	50	15	196	730	IE3-	89.6	87.6	85.6	0.80	30	5.3	1.8	1.7	2.5	0.324	235
	460	60	18	196	878	IE3-	90.3	90.7	89.7	0.80	31.5	4.9	1.7	1.6	2.3		
IE3-W41R 225 S8	400	50	18.5	240	735	IE3-	90.1									0.514	310
	460	60	18.5							upon request							
IE3-W41R 225 M8	400	50	22	286	735	IE3-	91.5	91.6	90.6	0.79	44	5.7	2.3	2	2.5	0.825	360
	460	60	22							upon request							
IE3-W41R 250 M8	400	50	30	391	732	IE3-	91.3	91.9	91.4	0.81	58.5	5.4	2	1.8	2.3	0.92	420
	460	60	30							upon request							
IE3-W41R 280 S8	400	50	37	479	738	IE3-	92	92	90.8	0.78	74.5	5.9	2.3	1.8	2.4	1.55	555
	460	60	37							upon request							
IE3-W41R 280 M8	400	50	45	581	740	IE3-	93	93	92.4	0.78	89.5	6.5	1.7	1.5	2.4	2.63	700
	460	60	54	579	890	IE3-	93.6	93	92.4	0.79	91.5	6	1.5	1.3	2.1		
IE3-W41R 315 S8	400	50	55	712	738	IE3-	92	92	90.8	0.78	74.5	5.9	2.3	1.8	2.4	3.33	805
	460	60	55							upon request							
IE3-W41R 315 M8	400	50	75	965	742	IE3-	93.8	94.2	93.8	0.81	142	7.0	1.9	1.7	2.3	5.55	1120
	460	60	75							upon request							
IE3-W41R 315 MX8	400	50	90	1157	743	IE3-	94.3	94.4	93.6	0.8	172	7.9	2.4	2.0	2.7	6	1185
	460	60	108	1152	895	IE3-	94.8	94.7	94.7	0.78	183	8	1.6	1.6	2.6		
IE3-W41R 315 MY8	400	50	110	1419	740	IE3-	93.8	94.0	93.5	0.82	206	6.5	1.9	1.5	2.1	6.76	1250
	460	60	120	1288	890	IE3-	94.2	94.2	94.2	0.82	195	6.6	1.8	1.6	2.2		
IE3-W41R 315 L8	400	50	132	1703	740	IE3-	94.2	94.2	93.5	0.8	253	8.0	2.4	1.9	2.7	8.71	1450
	460	60	132							upon request							

Size 355/400: See Chapter 3 „Transnorm motors".

Three-phase motors with squirrel-cage rotor, High Efficiency IE2

with surface cooling, duty type S1, continuous duty
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz

IE2 EU REGULATION 640/2009 USE WITH VARIABLE SPEED DRIVE ONLY!

Motor selection data — Design point 400 V, 50 Hz

Type	P_B	M_B	n_B		η_B IEC/EN 60034-2-1			$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
	kW	Nm	rpm		100 %	75 %	50 %	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 3000 rpm – 2-pole version															
IE2-WE2R 56 G2	0.12	0.40	2830	IE2-	53.6	69.6	60.8	0.77	0.32	4.5	2.1	2.1	2.3	0.00013	4.5
IE2-WE2R 63 K2	0.18	0.62	2790	IE2-	60.4	63.1	57.6	0.76	0.51	4.1	1.9	1.9	2.2	0.00013	4.9
IE2-WE2R 63 G2	0.25	0.86	2775	IE2-	64.8	66.7	61.9	0.8	0.67	4.2	1.9	1.9	2.2	0.00015	5.2
IE2-WE2R 71 K2	0.37	1.28	2750	IE2-	69.5	70.8	69.4	0.84	0.89	4.6	1.8	1.8	2.1	0.00025	6.7
IE2-WE2R 71 G2	0.55	1.89	2775	IE2-	74.1	75.0	72	0.81	1.32	5.1	2.3	2.1	2.6	0.00032	7.6
IE2-WE2R 80 K2	0.75	2.54	2825	IE2-	77.4	77.1	72.9	0.81	1.72	5.9	2.4	2.4	2.4	0.00057	10.7
IE2-WE2R 80 G2	1.1	3.75	2805	IE2-	79.6	78.7	76.4	0.85	2.36	5.6	1.9	1.8	2.2	0.00072	11.5
IE2-WE2R 90 S2	1.5	4.99	2870	IE2-	81.3	82.0	79.4	0.8	3.30	6.6	3.2	3.2	3.7	0.00132	16
IE2-WE2R 90 L2	2.2	7.37	2850	IE2-	83.2	83.0	81.6	0.85	4.55	7.5	2.8	2.3	2.9	0.0017	19.0
IE2-WE2R 100 LY2	3	9.97	2875	IE2-	84.6	85.1	83.6	0.85	6	7.4	2.6	2.3	3.3	0.0045	28.5
IE2-WE1R 112 M2	4	13.20	2900	IE2-	85.8	85.9	84.8	0.81	8.4	7	2.2	2.1	2.9	0.0045	32.0
IE2-WE1R 132 SY2T	5.5	18.20	2890	IE2-	87.0	86.2	86.4	0.84	11	7.2	2.1	1.7	2.8	0.0055	40.0
IE2-WE1R 132 SX2T	7.5	24.90	2880	IE2-	88.1	88.4	87.8	0.84	14.8	6.3	1.5	1.2	2.6	0.0068	48.0
IE2-WE1R 132 SX2	7.5	24.5	2925	IE2-	88.8	89.2	88.3	0.91	13.5	6.7	2.1	1.6	2.9	0.0168	75
IE2-WE1R 160 M2	11.0	35.6	2950	IE2-	90.3	90.3	89.1	0.90	19.5	7.7	2.3	1.7	3.1	0.0258	125
IE2-WE1R 160 MX2	15.0	48.7	2940	IE2-	90.7	90.5	89.1	0.92	26	6.7	1.8	1.4	2.6	0.0675	140
IE2-WE1R 160 L2	18.5	60.2	2935	IE2-	91.0	91.4	91.4	0.91	32	7.2	2.0	1.5	2.8	0.0675	140
IE2-WE1R 180 M2	22	72	2935	IE2-	91.3	90.6	86.4	0.90	38.5	6.2	1.4	1.1	2.4	0.105	173
IE2-WE1R 200 L2	30	97	2945	IE2-	92.0	91.3	90.5	0.91	52	6.9	1.7	1.3	2.6	0.128	210
IE2-WE1R 200 LX2	37	120	2940	IE2-	92.5	92.3	91.6	0.92	63	7.4	1.9	1.4	2.9	0.154	233
IE2-WE2R 200 LX2	37	120	2940	IE2-	92.5	92.3	91.6	0.92	63	7.4	1.9	1.4	2.9	0.154	233
IE2-WE1R 225 M2	45	146	2950	IE2-	92.9	92.2	91.2	0.87	80.5	6.9	1.7	1.1	2.7	0.220	295
IE2-WE1R 250 M2	55	178	2955	IE2-	93.5	93.7	93.2	0.89	95.5	8.2	2.3	1.9	2.8	0.375	385
IE2-WE1R 280 S2	75	241	2970	IE2-	94.1	94.0	91.5	0.90	128	7.9	2.1	1.7	3.0	0.65	500
IE2-WE1R 280 M2	90	289	2970	IE2-	94.4	94.1	91.9	0.91	151	7.7	2.0	1.7	2.8	0.68	550
IE2-WE1R 315 S2	110	353	2975	IE2-	94.5	94.3	93.3	0.89	189	8.0	1.3	1.2	2.4	1.21	730
IE2-WE1R 315 M2	132	424	2975	IE2-	95.0	94.8	94.5	0.89	225	9.2	1.4	1.2	2.4	1.44	820
IE2-WE1R 315 MX2	160	514	2973	IE2-	94.8	94.8	94.8	0.89	274	8.2	1.3	1.3	2.4	1.76	955
IE2-WE1R 315 MY2	200	640	2983	IE2-	95.4	95.0	94.3	0.88	344	9.4	2.8	2.0	3.0	2.82	1200
IE2-WE1R 315 L2	250	800	2984	IE2-	95.4	95.4	95.4	0.92	411	9.0	2.3	1.2	2.3	3.66	1450
IE2-WE1R 315 LX2	315	1008	2985	IE2-	95.4	95.4	95.0	0.92	518	8.5	2.8	1.6	2.5	4.43	1700
IE2-WE2R 355 M2	355	1136	2985	IE2-	95.5	95.5	95.5	0.92	583	7.7	1.3	1.0	2.6	4.20	2000
IE2-WE2R 355 MX2	400	1278	2990	IE2-	95.5	95.5	95.5	0.91	664	9.4	1.8	1.0	3.0	4.50	2200
IE2-WE2R 355 LY2	450	1440	2985	IE2-	95.5	95.5	95.5	0.92	739	7.0	1.3	0.9	2.4	7.10	2400
IE2-WE2R 355 L2	500	1597	2990	IE2-	95.5	95.5	95.5	0.92	821	8.5	1.5	1.2	2.5	7.10	2400

Three-phase motors with squirrel-cage rotor, High Efficiency IE2

with surface cooling, duty type S1, continuous duty
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz

IE2 EU REGULATION 640/2009 USE WITH VARIABLE SPEED DRIVE ONLY!

Motor selection data															Design point 400 V, 50 Hz
Type	P_B	M_B	n_B		η_B			$\cos\phi_B$	I_B	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
					IEC/EN 60034-2-1				400 V						
	kW	Nm	rpm		100 %	75 %	50 %	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 1500 rpm – 4-pole version															
IE2-WE2R 63 K4	0.12	0.83	1380	IE2-	59.1	55.7	46.8	0.69	0.45	2.8	1.6	1.6	2.1	0.00019	4.8
IE2-WE1R 63 GY4	0.18	1.23	1395	IE2-	64.7	66.3	61.3	0.72	0.54	3.5	1.7	1.7	2.2	0.0004	6.3
IE2-WE2R 71 K4	0.25	1.71	1395	IE2-	68.5	68.1	63.8	0.70	0.73	3.9	2.1	2.1	2.5	0.0005	7.8
IE2-WE1R 71 GY4	0.37	2.48	1425	IE2-	72.7	72.2	68.6	0.69	1.00	4.9	2.4	2.4	3.0	0.00087	9.9
IE2-WE2R 80 K4	0.55	3.71	1415	IE2-	77.1	77.1	73.9	0.72	1.42	4.9	2.6	2.5	2.8	0.00107	11.7
IE2-WE1R 80 GY4	0.75	5.01	1430	IE2-	79.6	78.0	74.7	0.80	1.73	5.7	2.2	2.2	3.1	0.00207	14.5
IE2-WE2R 90 S4	1.1	7.32	1435	IE2-	81.4	80.1	77.0	0.76	2.60	6.3	3.0	3.0	3.8	0.0028	18.5
IE2-WE1R 90 LW4	1.5	9.95	1440	IE2-	82.8	83.8	81.4	0.76	3.40	6.5	2.7	2.7	3.6	0.004	23
IE2-WE1R 100 S4	2.2	14.5	1445	IE2-	84.3	84.9	82.7	0.79	4.67	7.3	2.7	2.5	3.1	0.00725	30
IE2-WE1R 100 LW4	3.0	19.8	1445	IE2-	85.5	85.8	83.6	0.79	6.33	7.8	3.0	2.9	3.6	0.009	36
IE2-WE1R 112 MZ4	4.0	26.4	1445	IE2-	86.6	86.8	84.9	0.80	8.30	8.2	2.8	2.6	3.6	0.013	50
IE2-WE2R 132 SY4	5.5	36.2	1450	IE2-	87.7	87.7	86.4	0.84	10.80	8.0	2.5	2.3	3.8	0.015	58
IE2-WE1R 132 S4	5.5	35.7	1470	IE2-	89.8	89.9	88.4	0.87	10	7.4	2.3	1.9	3.4	0.035	87
IE2-WE1R 132 M4	7.5	48.7	1470	IE2-	89.9	90.0	88.5	0.82	14.5	8.5	2.6	2.1	4.0	0.035	88
IE2-WE1R 160 M4	11.0	71	1475	IE2-	90.6	90.3	88.5	0.82	21.5	8.1	3.1	2.4	3.4	0.078	122
IE2-WE2R 160 M4	11	71.5	1470	IE2-	90.3	90.3	88.5	0.78	22.5	7.8	2.4	2.1	3.9	0.043	105
IE2-WE1R 160 L4	15.0	97	1470	IE2-	90.6	90.9	90.5	0.87	27.5	8.3	2.7	2.2	3.2	0.115	160
IE2-WE2R 160 L4	15	97	1480	IE2-	92.0	92.0	90.6	0.84	28	9.1	3.0	2.5	3.9	0.115	161
IE2-WE1R 180 M4	18.5	120	1475	IE2-	91.5	91.5	90.4	0.86	34	6.8	1.8	1.5	2.7	0.168	207
IE2-WE2R 180 M4	18.5	120	1470	IE2-	91.2	90.6	89.3	0.78	37.5	6.4	2.0	1.6	2.8	0.138	176
IE2-WE1R 180 L4	22	142	1475	IE2-	91.6	91.4	89.9	0.83	42	7.3	2.1	1.7	3.0	0.168	215
IE2-WE1R 200 L4	30	194	1480	IE2-	92.3	91.3	88.2	0.80	58.5	7.3	2.1	1.7	2.9	0.275	277
IE2-WE1R 225 S4	37	240	1475	IE2-	92.7	91.8	90.7	0.84	68.5	7.4	2.2	1.7	2.7	0.313	313
IE2-WE1R 225 M4	45	290	1483	IE2-	93.1	93.0	91.1	0.84	83	7.9	2.3	1.9	2.4	0.525	390
IE2-WE2R 225 M4	45	291	1475	IE2-	93.1	92.9	92.1	0.80	87	7.6	2.6	1.9	3.1	0.356	346
IE2-WE1R 250 M4	55	354	1485	IE2-	94.0	94.1	92.5	0.84	101	8.0	2.0	1.7	2.3	0.95	535
IE2-WE2R 250 M4	55	356	1477	IE2-	93.9	93.8	93.7	0.82	103	7.5	2.4	1.9	2.4	0.62	435
IE2-WE1R 280 S4	75	482	1485	IE2-	94.2	94.4	92.1	0.84	137	7.2	1.8	1.6	2.1	0.95	550
IE2-WE1R 280 M4	90	580	1483	IE2-	94.3	94.5	94.0	0.84	164	7.6	1.8	1.6	2.3	1.10	610
IE2-WE1R 315 S4	110	707	1485	IE2-	94.8	94.8	94.0	0.82	204	8.5	1.8	1.5	2.7	1.96	760
IE2-WE1R 315 M4	132	849	1484	IE2-	95.0	95.0	94.5	0.83	242	8.2	1.8	1.6	2.3	2.27	850
IE2-WE1R 315 MX4	160	1031	1482	IE2-	95.0	95.0	94.5	0.84	289	7.4	1.6	1.4	2.2	2.73	975
IE2-WE1R 315 MY4	200	1282	1490	IE2-	95.1	95.1	94.5	0.87	349	8.5	1.8	1.6	2.5	4.82	1270
IE2-WE1R 315 L4	250	1602	1490	IE2-	95.4	95.4	95.3	0.88	430	9.0	2.2	1.5	2.7	5.93	1450
IE2-WE1R 315 LX4	315	2019	1490	IE2-	95.4	95.4	95.0	0.88	542	9.0	2.4	1.6	2.6	6.82	1630
IE2-WE2R 355 M4	355	2271	1493	IE2-	95.5	95.5	95.0	0.87	617	8.0	1.3	1.0	2.7	7.90	2150
IE2-WE2R 355 MX4	400	2557	1494	IE2-	95.5	95.5	95.5	0.88	687	8.5	1.3	1.0	3.0	9.50	2400
IE2-WE2R 355 LY4	450	2873	1496	IE2-	95.5	95.5	95.5	0.86	791	8.5	1.4	0.8	2.9	10.00	2500
IE2-WE2R 355 L4	500	3198	1493	IE2-	95.5	95.5	95.5	0.84	900	8.0	1.2	0.9	3.0	10.00	2500

Three-phase motors with squirrel-cage rotor, High Efficiency IE2

with surface cooling, duty type S1, continuous duty
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz

IE2 EU REGULATION 640/2009 USE WITH VARIABLE SPEED DRIVE ONLY!

Motor selection data — Design point 400 V, 50 Hz

Type	P_B	M_B	n_B		η_B IEC/EN 60034-2-1			$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
	kW	Nm	rpm		100 %	75 %	50 %	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 1000 rpm – 6-pole version															
IE2-WE2R 63 G6	0.12	1.3	880	IE2-	50.6	47.0	39.5	0.59	0.59	2.6	2.1	2.1	2.3	0.00027	5.7
IE2-WE2R 71 K6	0.18	1.9	920	IE2-	56.6	54.4	48.5	0.52	0.8	2.9	2.0	2.0	2.3	0.0006	8.3
IE2-WE2R 71 G6	0.25	2.6	915	IE2-	61.6	57.5	51.6	0.55	1.1	2.9	2.0	2.0	2.2	0.0006	8.3
IE2-WE2R 80 K6	0.37	3.8	935	IE2-	67.6	68.5	63.3	0.65	1.17	3.7	2.1	2.1	2.6	0.00175	12.5
IE2-WE1R 80 GY6	0.55	5.6	945	IE2-	73.1	72.6	68.4	0.67	1.6	3.8	1.9	1.9	2.4	0.00325	15.0
IE2-WE2R 90 S6	0.75	7.6	945	IE2-	75.9	75.5	72.1	0.67	2.12	4.0	1.8	1.8	2.4	0.00425	19.0
IE2-WE1R 90 LW6	1.1	11.0	955	IE2-	78.1	78.0	75.1	0.69	2.95	4.7	2.5	2.4	2.8	0.00625	24.0
IE2-WE2R 100 L6	1.5	15.1	950	IE2-	79.8	80.4	77.6	0.7	3.85	5.1	2.5	2.4	3.0	0.0072	30.0
IE2-WE1R 112 MX6	2.2	21.9	960	IE2-	81.8	81.9	77.5	0.65	5.9	6.4	3.0	2.9	3.7	0.0139	37.0
IE2-WE1R 132 S6	3.0	29.8	963	IE2-	84.9	85.2	83.9	0.80	6.4	6.0	2.0	1.3	3.0	0.023	55
IE2-WE2R 132 M6	4.0	40	955	IE2-	85.1	86.0	85.2	0.82	8.3	5.7	2.1	2.0	2.9	0.029	66
IE2-WE1R 132 M6	4.0	39.6	965	IE2-	85.5	85.5	83.8	0.79	8.5	5.1	1.8	1.6	2.4	0.043	76
IE2-WE1R 132 MX6	5.5	54	970	IE2-	86.1	85.5	82.4	0.77	12	5.7	2.2	1.7	2.7	0.053	85
IE2-WE1R 160 M6	7.5	73	975	IE2-	87.4	88.1	86.0	0.81	15.5	6.3	2.5	2.1	2.9	0.113	118
IE2-WE2R 160 M6	7.5	74	970	IE2-	87.5	87.6	85.9	0.79	15.5	5.9	2.1	1.8	2.9	0.053	103
IE2-WE1R 160 L6	11.0	108	970	IE2-	88.7	87.9	86.3	0.85	21	5.8	2.2	1.9	2.7	0.145	135
IE2-WE2R 160 L6	11.0	108	975	IE2-	88.9	88.8	87.0	0.81	22	6.8	2.7	2.4	3.1	0.166	155
IE2-WE1R 180 L6	15.0	147	975	IE2-	89.7	88.8	86.7	0.84	28.5	6.2	2.1	1.8	2.8	0.228	185
IE2-WE2R 180 L6	15	148	970	IE2-	89.7	88.8	87.8	0.83	29	5.6	2.3	1.7	2.6	0.166	157
IE2-WE1R 200 L6	18.5	180	980	IE2-	90.4	88.8	86.5	0.85	35	6.6	2.3	1.7	2.9	0.268	208
IE2-WE1R 200 LX6	22	214	980	IE2-	90.9	90.2	88.5	0.86	40.5	6.4	2.2	1.8	2.7	0.443	272
IE2-WE2R 200 LX6	22	215	975	IE2-	90.9	89.9	88.5	0.84	41.5	6.7	2.4	2.0	3.0	0.324	238
IE2-WE1R 225 M6	30	291	985	IE2-	92.0	91.5	90.0	0.86	54.5	7.3	2.5	2.2	2.9	0.825	365
IE2-WE2R 225 M6	30	294	975	IE2-	91.7	91.4	90.6	0.87	54.5	6.7	2.3	1.9	2.8	0.514	308
IE2-WE1R 250 M6	37	359	985	IE2-	92.2	91.7	90.7	0.85	68	6.4	2.7	1.8	2.4	1.28	480
IE2-WE2R 250 M6	37	361	979	IE2-	92.2	92.3	91.8	0.86	67.5	6.6	2.7	2.0	2.6	0.92	407
IE2-WE1R 280 S6	45	437	983	IE2-	93.0	92.7	92.4	0.87	80.5	6.5	2.2	1.7	2.4	1.48	560
IE2-WE1R 280 M6	55	531	990	IE2-	93.5	93.5	93.0	0.85	100	7.6	2.0	1.5	2.5	2.63	710
IE2-WE1R 315 S6	75	723	990	IE2-	93.9	93.7	93.5	0.87	133	7.8	1.9	1.5	2.5	3.33	804
IE2-WE1R 315 M6	90	868	990	IE2-	94.0	94.0	93.5	0.88	157	7.5	1.8	1.5	2.5	3.60	865
IE2-WE1R 315 MX6	110	1061	990	IE2-	94.3	94.3	94.0	0.87	194	7.5	1.8	1.4	2.3	6.67	1210
IE2-WE1R 315 MY6	132	1273	990	IE2-	94.6	94.3	94.0	0.87	231	7.5	1.9	1.4	2.2	6.67	1250
IE2-WE1R 315 L6	160	1543	990	IE2-	94.8	94.5	93.5	0.88	277	7.5	2.0	1.5	2.4	8.60	1430
IE2-WE1R 315 LX6	200	1929	990	IE2-	95.0	95.0	94.5	0.86	353	7.0	1.9	1.5	2.2	8.60	1460
IE2-WE2R 355 M6	250	2402	994	IE2-	95.0	95.0	94.7	0.84	452	7.0	1.5	1.2	2.2	8.20	1850
IE2-WE2R 355 MX6	315	3023	995	IE2-	95.2	95.2	95.2	0.86	555	7.0	1.3	1.1	2.2	12.1	2200
IE2-WE2R 355 LY6	355	3407	995	IE2-	95.0	95.0	94.0	0.77	700	7.5	1.8	1.5	2.6	14.0	2400

Three-phase motors with squirrel-cage rotor, High Efficiency IE2

with surface cooling, duty type S1, continuous duty
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz

Motor selection data																Design point 400 V, 50 Hz
Type	P_B	M_B	n_B		η_B			$\cos\phi_B$	I_B	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
					IEC/EN 60034-2-1				400 V						
	kW	Nm	rpm		100 %	75 %	50 %	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 750 rpm – 8-pole version															
IE2-WE2R 71 G8	0.12	1.7	670	IE2-	39.8	39.8	31.9	0.54	0.73	2.10	1.80	1.80	2.00	0.0006	8
IE2-WE2R 80 K8	0.18	2.5	690	IE2-	45.9	52.2	44.0	0.59	0.78	2.70	1.90	1.90	2.20	0.0013	11
IE2-WE2R 80 G8	0.25	3.4	695	IE2-	50.6	50.4	42.5	0.56	1.12	3.00	2.30	2.30	2.50	0.00175	12
IE2-WE2R 90 S8	0.37	5.1	700	IE2-	56.1	57.3	50.7	0.54	1.60	3.00	1.50	1.50	2.00	0.003	15
IE2-WE2R 90 L8	0.55	7.6	695	IE2-	61.7	61.3	54.9	0.60	2.04	3.30	1.50	1.50	2.00	0.00375	18
IE2-WE2R 100 L8	0.75	10.2	705	IE2-	66.2	64.5	58.7	0.60	2.90	3.10	1.50	1.50	2.00	0.00625	23
IE2-WE1R 100 LY8	1.1	14.9	705	IE2-	70.8	71.2	67.6	0.67	3.25	4.00	2.00	2.00	2.40	0.009	28
IE2-WE1R 112 M8	1.5	20.3	705	IE2-	74.1	73.6	70.1	0.62	4.50	4.20	2.00	2.00	2.70	0.0139	37
IE2-WE1R 132 S8	2.2	29.2	720	IE2-	81.7	81.0	77.5	0.65	6	4.8	2.2	2.0	3.2	0.0180	55
IE2-WE2R 132 M8	3.0	39.8	710	IE2-	80.0	80.8	79.0	0.73	7.4	4.9	1.9	1.9	2.7	0.0290	65
IE2-WE1R 132 M8	3.0	39.8	720	IE2-	82.7	83.0	81.3	0.74	7.1	3.9	1.6	1.3	1.9	0.0430	74
IE2-WE1R 160 M8	4.0	53.2	718	IE2-	84.2	83.7	81.9	0.72	9.5	4.6	1.6	***)	2.5	0.0530	86
IE2-WE1R 160 MX8	5.5	72.0	730	IE2-	86.9	86.6	84.1	0.72	12.5	4.8	2.1	1.8	2.6	0.1130	115
IE2-WE2R 160 MX8	5.5	73	715	IE2-	83.9	84.0	81.9	0.71	13.5	4.3	1.7	1.5	2.5	0.0530	103
IE2-WE1R 160 L8	7.5	99	725	IE2-	87.5	87.0	83.5	0.77	16	5.5	2.0	***)	2.8	0.1450	136
IE2-WE1R 180 L8	11.0	144	727	IE2-	88.2	88.2	86.7	0.78	23	4.9	1.8	1.6	2.4	0.2280	175
IE2-WE2R 180 L8	11	144	730	IE2-	87.9	87.4	85.2	0.67	25.5	4.3	1.9	1.6	2.3	0.1660	157
IE2-WE1R 200 L8	15.0	197	727	IE2-	88.2	88.1	86.4	0.77	32	4.9	1.9	1.7	2.3	0.2680	200
IE2-WE1R 225 S8	18.5	242	730	IE2-	89.6	89.4	87.2	0.78	38	5.4	2.1	2.0	2.8	0.440	265
IE2-WE2R 225 S8	18.5	240	735	IE2-	90.7	90.7	89.4	0.8	37	6.1	2.1	1.9	2.9	0.514	305
IE2-WE1R 225 M8	22	287	733	IE2-	90.6	89.4	89.9	0.78	45	5.6	2.2	1.8	2.6	0.825	380
IE2-WE2R 225 M8	22	286	735	IE2-	90.3	90.3	88.7	0.77	45.5	6.1	2.2	2.0	2.9	0.514	307
IE2-WE1R 250 M8	30	389	737	IE2-	92.1	92.4	91.6	0.79	59.5	5.0	2.0	1.6	2.1	1.350	480
IE2-WE2R 250 M8	30	391	732	IE2-	91.5	91.7	90.9	0.77	61.5	5.6	2.3	2.0	2.5	0.950	405
IE2-WE1R 280 S8	37	479	737	IE2-	92.2	92.1	90.9	0.79	73.5	6.0	2.3	1.9	2.5	1.55	550
IE2-WE1R 280 M8	45	581	740	IE2-	92.7	92.7	92.0	0.79	88.5	6.7	1.8	1.5	2.5	2.63	690
IE2-WE1R 315 S8	55	710	740	IE2-	92.2	92.2	92.1	0.80	108	6.3	1.8	1.5	2.3	2.63	690
IE2-WE1R 315 M8	75	968	740	IE2-	93.5	93.5	93.0	0.81	143	6.0	1.8	1.5	2.1	3.6	880
IE2-WE1R 315 MX8	90	1161	740	IE2-	92.1	91.6	90.1	0.81	174	6.0	1.9	***)	2.2	6	1050
IE2-WE1R 315 MY8	110	1420	740	IE2-	93.8	93.3	91.2	0.81	209	6.5	2.1	***)	2.4	6.76	1250
IE2-WE1R 315 L8	132	1704	740	IE2-	94.4	94.0	93.5	0.83	243	7.5	2.2	1.8	2.5	8.71	1430
IE2-WE1R 315 LX8	160	2065	740	IE2-	94.2	94.2	93.8	0.80	306	7.2	2.2	1.8	2.5	8.71	1430
IE2-WE2R 355 M8	200	2571	743	IE2-	94.7	94.1	91.5	0.77	396	***)	***)	***)	***)	9.5	1850
IE2-WE2R 355 MX8	250	3205	745	IE2-	95.8	95.8	95.5	0.83	454	7.0	1.2	1.0	2.6	13.4	2200
IE2-WE2R 355 LY8	280	3599	743	IE2-	94.8	94.1	91.5	0.78	547	***)	***)	***)	***)	15.8	2400

***) upon request

Three-phase motors with squirrel-cage rotor, High Efficiency IE2

with surface cooling, duty type S1, continuous duty
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50/60 Hz

IE2 EU REGULATION 640/2009 USE WITH VARIABLE SPEED DRIVE ONLY!

Motor selection data — Design point 400 V, 50 Hz / 460 V, 60 Hz

Type	U_B	f_B	P_B	M_B	n_B		η_B IEC/EN 60034-2-1			$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
	V	Hz	kW	Nm	rpm		100 %	75 %	50 %	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 3000 rpm / 3600 rpm – 2-pole version																	
IE2-WE2R 56 G2	400	50	0.12	0.4	2830	IE2-	53.6	69.6	60.8	0.77	0.32	4.5	2.1	2.1	2.3	0.00013	4.5
	460	60	0.14	0.39	3425	IE2-	59.5	74.1	74.3	0.77	0.32	5.0	2.1	2.1	2.6		
IE2-WE2R 63 K2	400	50	0.18	0.62	2790	IE2-	60.4	63.1	57.6	0.76	0.51	4.1	1.9	1.9	2.2	0.00013	4.9
	460	60	0.21	0.59	3400	IE2-	64.0	67.6	61.1	0.75	0.51	4.7	2.4	2.4	2.7		
IE2-WE2R 63 G2	400	50	0.25	0.86	2775	IE2-	64.8	66.7	61.9	0.8	0.67	4.2	1.9	1.9	2.2	0.00015	5.2
	460	60	0.30	0.85	3390	IE2-	68.0	70.6	65.7	0.80	0.66	4.5	2.0	1.9	2.1		
IE2-WE2R 71 K2	400	50	0.37	1.28	2750	IE2-	69.5	70.8	69.4	0.84	0.89	4.6	1.8	1.8	2.1	0.00025	6.7
	460	60	0.44	1.25	3350	IE2-	72.0	73.7	70.0	0.85	0.88	4.9	1.9	1.9	2.2		
IE2-WE2R 71 G2	400	50	0.55	1.89	2775	IE2-	74.1	75.0	72.0	0.81	1.32	5.1	2.3	2.1	2.6	0.00032	7.6
	460	60	0.65	1.84	3370	IE2-	75.5	76.1	72.6	0.83	1.30	5.6	2.1	2.1	2.6		
IE2-WE2R 80 K2	400	50	0.75	2.54	2825	IE2-	77.4	77.1	72.9	0.81	1.72	5.9	2.4	2.4	2.4	0.00057	10.7
	460	60	0.9	2.52	3415	IE2-	75.5	76.5	71.9	0.82	1.76	5.7	2.6	2.3	2.5		
IE2-WE1R 80 G2	400	50	1.1	3.64	2885	IE2-	79.6	82.1	81.2	0.89	2.15	7.8	2.5	2.3	2.8	0.0017	18
	460	60	1.30	3.58	3470	IE2-	84.0	84.6	81.4	0.89	2.15	8.0	2.4	2.2	2.7		
IE2-WE2R 90 S2	400	50	1.5	4.99	2870	IE2-	81.3	82.0	79.4	0.8	3.3	6.6	3.2	3.2	3.7	0.00132	16
	460	60	1.80	4.98	3455	IE2-	84.0	84.2	82.3	0.82	3.25	7.2	3.0	2.9	3.6		
IE2-WE2R 90 L2	400	50	2.2	7.37	2850	IE2-	83.2	81.5	***)	0.85	4.55	7.5	2.8	2.3	2.9	0.0017	19
	460	60	2.6	7.22	3440	IE2-	85.5	85.8	84.7	0.85	4.50	7.8	2.7	2.7	2.9		
IE2-WE2R 100 LY2	400	50	3	9.97	2875	IE2-	84.6	85.1	83.6	0.85	6	7.4	2.6	2.3	3.3	0.0045	28.5
	460	60	3.00	8.20	3495	IE2-	87.5	86.9	84.7	0.83	5.20	8.4	2.6	2.2	3.8		
IE2-WE1R 112 M2	400	50	4	13.2	2900	IE2-	85.8	86.3	***)	0.81	8.4	7.0	2.2	2.1	2.9	0.0045	32
	460	60	4.00	10.88	3510	IE2-	87.5	87.4	84.8	0.80	7.30	8.0	2.1	2.1	3.1		
IE2-WE1R 132 SY2T	400	50	5.5	18.20	2890	IE2-	87.0	86.2	86.4	0.84	11	7.2	2.1	1.7	2.8	0.0055	40.0
	460	60	5.5	15.01	3500	IE2-	88.5	87.8	85.6	0.84	9.5	8.8	2.4	2.2	3		
IE2-WE1R 132 SX2T	400	50	7.5	24.9	2880	IE2-	88.1	88.0	***)	0.84	14.8	6.3	1.5	1.2	2.6	0.0068	48
	460	60	9.00	24.66	3485	IE2-	89.5	88.7	87.5	0.83	15.40	6.7	1.8	1.7	2.9		
IE2-WE1R 132 SX2	400	50	7.5	24.5	2925	IE2-	88.8	89.2	88.3	0.91	13.5	6.7	2.1	1.6	2.9	0.0168	75
	460	60	9.0	24.5	3505	IE2-	89.5	89.4	88.5	0.90	14.0	6.2	2.1	1.7	2.8		

***) upon request

Three-phase motors with squirrel-cage rotor, High Efficiency IE2

with surface cooling, duty type S1, continuous duty
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50/60 Hz

IE2 EU REGULATION 640/2009 USE WITH VARIABLE SPEED DRIVE ONLY!

Motor selection data — Design point 400 V, 50 Hz / 460 V, 60 Hz

Type	U_B	f_B	P_B	M_B	n_B		η_B IEC/EN 60034-2-1			$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
	V	Hz	kW	Nm	rpm		100 %	75 %	50 %	-	A	-	-	-	-	kgm²	kg
Synchronous speed 3000 rpm/3600 rpm – 2-pole version																	
IE2-WE1R 160 M2	400	50	11.0	35.6	2950	IE2-	90.3	90.3	89.1	0.90	19.5	7.7	2.3	1.7	3.1	0.0258	125
	460	60	13.0	35.0	3550	IE2-	91.0	90.9	89.5	0.91	20.0	7.3	2.0	1.6	2.7		
IE2-WE1R 160 MX2	400	50	15.0	48.7	2940	IE2-	90.7	90.5	89.1	0.92	26	6.7	1.8	1.4	2.6	0.0675	140
	460	60	16.5	44.6	3535	IE2-	90.2	89.7	88.4	0.91	25.0	6.5	1.9	1.4	2.6		
IE2-WE1R 160 L2	400	50	18.5	60.2	2935	IE2-	91.0	91.4	91.4	0.91	32	7.2	2.0	1.5	2.8	0.0675	140
	460	60	22.0	59.6	3525	IE2-	91.6	91.3	89.6	0.92	37.5	7.0	1.8	1.3	2.6		
IE2-WE1R 180 M2	400	50	22	72	2935	IE2-	91.3	90.6	86.4	0.90	38.5	6.2	1.4	1.1	2.4	0.105	173
	460	60	26	70	3545	IE2-	91.7	91.6	90.9	0.90	39.5	6.0	1.5	1.2	2.4		
IE2-WE1R 200 L2	400	50	30	97	2945	IE2-	92.0	91.3	90.5	0.91	52	6.9	1.7	1.3	2.6	0.128	210
	460	60	36	97	3550	IE2-	92.4	92.5	91.6	0.91	54.0	6.0	1.4	1.1	2.3		
IE2-WE1R 200 LX2	400	50	37	120	2940	IE2-	92.5	92.3	91.6	0.92	63	7.4	1.9	1.4	2.9	0.154	233
	460	60	44	119	3545	IE2-	93.0	92.4	92.1	0.91	65.5	6.8	1.9	1.5	2.8		
IE2-WE2R 200 LX2	400	50	37	120	2940	IE2-	92.5	92.3	91.6	0.92	63	7.4	1.9	1.4	2.9	0.154	233
	460	60	44	119	3545	IE2-	93.0	92.4	92.1	0.91	65.5	6.8	1.9	1.5	2.8		
IE2-WE1R 225 M2	400	50	45	146	2950	IE2-	92.9	92.2	91.2	0.87	80.5	6.9	1.7	1.1	2.7	0.220	295
	460	60	54	145	3545	IE2-	93.0	92.5	91.8	0.88	83.0	6.9	1.7	1.4	2.8		
IE2-WE1R 250 M2	400	50	55	178	2955	IE2-	93.5	93.7	93.2	0.89	95.5	8.2	2.3	1.9	2.8	0.375	385
	460	60	66	178	3550	IE2-	93.6	93.7	93.0	0.90	98.5	7.6	2.1	1.8	2.7		
IE2-WE1R 280 S2	400	50	75	241	2970	IE2-	94.1	94.0	91.5	0.90	128	7.9	2.1	1.7	3.0	0.65	500
	460	60	90	241	3570	IE2-	94.5	93.9	92.8	0.91	131	7.3	1.9	1.6	2.8		
IE2-WE1R 280 M2	400	50	90	289	2970	IE2-	94.4	94.1	91.9	0.91	151	7.7	2.0	1.7	2.8	0.68	550
	460	60	110	294	3568	IE2-	94.5	94.0	93.7	0.91	161	7.5	1.9	1.6	2.7		
IE2-WE1R 315 S2	400	50	110	353	2975	IE2-	94.5	94.3	93.3	0.89	189	8.0	1.3	1.2	2.4	1.21	730
	460	60	120	320	3580	IE2-	94.5	94.0	93.0	0.89	179	8.5	1.4	1.3	2.5		
IE2-WE1R 315 M2	400	50	132	424	2975	IE2-	95.0	94.8	94.5	0.89	225	9.2	1.4	1.2	2.4	1.44	820
	460	60	145	387	3580	IE2-	95.0	94.5	94.0	0.90	213	9.4	1.4	1.2	2.4		
IE2-WE1R 315 MX2	400	50	160	514	2973	IE2-	94.8	94.8	94.8	0.89	274	8.2	1.3	1.3	2.4	1.76	955
	460	60	175	467	3575	IE2-	95.4	95.0	94.0	0.90	256	8.2	1.7	1.6	2.7		
IE2-WE1R 315 MY2	400	50	200	640	2983	IE2-	95.4	95.0	94.3	0.88	344	9.4	2.8	2.0	3.0	2.82	1200
	460	60	220	586	3585	IE2-	95.4	95.0	94.0	0.89	325	9.5	2.8	2.0	3.0		
IE2-WE1R 315 L2	400	50	250	800	2984	IE2-	95.4	95.4	95.4	0.92	411	9.0	2.3	1.2	2.3	3.66	1450
	460	60	280	747	3580	IE2-	95.5	95.5	95.5	0.92	400	8.0	2.3	1.4	2.3		
IE2-WE1R 315 LX2	400	50	315	1008	2985	IE2-	95.4	95.4	95.0	0.92	518	8.5	2.8	1.6	2.5	4.43	1700
	460	60	330	879	3585	IE2-	95.4	95.4	95.4	0.92	472	9.0	2.8	1.6	2.5		
IE2-WE2R 355 M2	400	50	355	1136	2985	IE2-	95.5	95.5	95.5	0.92	583	7.7	1.3	1.0	2.6	4.20	2000
	460	60	375	999	3585	IE2-	95.4	95.0	94.5	0.91	542	8.5	1.5	1.3	2.2		
IE2-WE2R 355 MX2	400	50	400	1278	2990	IE2-	95.5	95.5	95.5	0.91	664	9.4	1.8	1.0	3.0	4.50	2200
	460	60	440	1170	3590	IE2-	95.8	95.5	95.0	0.91	633	9.4	1.7	1.1	3.0		
IE2-WE2R 355 LY2	400	50	450	1440	2985	IE2-	95.5	95.5	95.5	0.92	739	7.0	1.3	0.9	2.4	7.10	2400
	460	60	490	1303	3590	IE2-	95.5	95.5	95.0	0.92	700	7.5	1.5	0.9	2.4		
IE2-WE2R 355 L2	400	50	500	1597	2990	IE2-	95.5	95.5	95.5	0.92	821	8.5	1.5	1.2	2.5	7.10	2400
	460	60	550	1467	3580	IE2-	95.5	95.5	95.0	0.92	786	8.5	1.5	1.0	2.4		

Three-phase motors with squirrel-cage rotor, High Efficiency IE2

with surface cooling, duty type S1, continuous duty
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50/60 Hz

IE2 EU REGULATION 640/2009 USE WITH VARIABLE SPEED DRIVE ONLY!

Motor selection data — Design point 400 V, 50 Hz / 460 V, 60 Hz

Type	U_B	f_B	P_B	M_B	n_B		η_B IEC/EN 60034-2-1			$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
	V	Hz	kW	Nm	rpm		100 %	75 %	50 %	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 1500 rpm/1800 rpm – 4-pole version																	
IE2-W21R 63 K4	400	50	0.12	0.82	1400	IE2-	59.1	69.1	63.9	0.71	0.35	3.8	2.0	1.9	2.3	0.0004	6.3
	460	60	0.14	0.79	1700	IE2-	64.0	70.3	65.8	0.71	0.35	4.1	2.0	1.9	2.4		
IE2-WE1R 63 GY4	400	50	0.18	1.23	1395	IE2-	64.7	66.3	61.3	0.72	0.54	3.5	1.7	1.7	2.2	0.0004	6.3
	460	60	0.21	1.18	1695	IE2-	68.0	69.3	64.7	0.71	0.53	3.0	1.9	1.9	2.4		
IE2-WE2R 71 K4	400	50	0.25	1.71	1395	IE2-	68.5	68.1	63.8	0.70	0.73	3.9	2.1	2.1	2.5	0.0005	7.8
	460	60	0.30	1.7	1690	IE2-	70.0	73.2	69.4	0.71	0.72	4.1	2.1	2.1	2.5		
IE2-WE1R 71 GY4	400	50	0.37	2.48	1425	IE2-	72.7	72.2	68.6	0.69	1.00	4.9	2.4	2.4	3.0	0.00087	9.9
	460	60	0.44	2.44	1720	IE2-	72.0	78.2	74.6	0.71	0.98	5.2	2.1	2.1	2.9		
IE2-WE2R 80 K4	400	50	0.55	3.71	1415	IE2-	77.1	77.1	73.9	0.72	1.42	4.9	2.6	2.5	2.8	0.00107	11.7
	460	60	0.65	3.67	1715	IE2-	78.0	80.1	77.6	0.75	1.35	5.3	2.5	2.3	2.9		
IE2-WE1R 80 GY4	400	50	0.75	5.01	1430	IE2-	79.6	78.0	74.7	0.80	1.73	5.7	2.2	2.2	3.1	0.00207	14.5
	460	60	0.90	4.98	1725	IE2-	78.0	79.4	76.5	0.81	1.75	6.1	2.2	2.1	3.2		
IE2-WE2R 90 S4	400	50	1.10	7.32	1435	IE2-	81.4	80.1	77.0	0.76	2.60	6.3	3.0	3.0	3.8	0.0028	18.5
	460	60	1.30	7.18	1730	IE2-	84.0	83.6	80.6	0.8	2.5	7.0	3.0	2.8	3.8		
IE2-WE1R 90 LW4	400	50	1.50	9.95	1440	IE2-	82.8	83.8	81.4	0.76	3.40	6.5	2.7	2.7	3.6	0.004	23
	460	60	1.80	9.91	1735	IE2-	84.0	84.9	74.7	0.78	3.40	6.7	2.6	2.5	3.6		
IE2-WE1R 100 L4	400	50	2.20	14.4	1455	IE2-	84.3	85.2	81.7	0.77	4.80	9.3	3.2	3.0	3.6	0.009	36
	460	60	2.60	14.1	1755	IE2-	87.5	86.7	84.7	0.76	4.90	7.7	2.2	2.1	3.4		
IE2-WE1R 100 LW4	400	50	3.00	19.8	1445	IE2-	85.5	85.8	83.6	0.79	6.33	7.8	3.0	2.9	3.6	0.009	36
	460	60	3.60	19.7	1745	IE2-	87.5	88.1	86.5	0.79	6.50	7.6	2.7	2.5	3.8		
IE2-WE1R 112 MZ4	400	50	4.00	26.4	1445	IE2-	86.6	86.8	84.9	0.80	8.30	8.2	2.8	2.6	3.6	0.013	50
	460	60	4.50	24.6	1745	IE2-	87.5	87.5	85.9	0.80	8.05	7.8	2.4	2.3	3.5		
IE2-WE2R 132 SY4	400	50	5.50	36.2	1450	IE2-	87.7	87.7	86.4	0.84	10.80	8.0	2.5	2.3	3.8	0.015	***)
	460	60	6.60	36.12	1745	IE2-	89.5	89.3	88.6	0.87	10.80	7.7	2.1	1.9	3.6		
IE2-WE1R 132 S4	400	50	5.5	35.7	1470	IE2-	89.8	89.9	88.4	0.87	10	7.4	2.3	1.9	3.4	0.035	87
	460	60	6.6	35.7	1765	IE2-	89.8	90.0	88.5	0.88	11	6.6	2.2	1.6	3.0		
IE2-WE1R 132 M4	400	50	7.5	48.7	1470	IE2-	89.9	90.0	88.5	0.82	14.5	8.5	2.6	2.1	4.0	0.035	88
	460	60	9.0	48.6	1770	IE2-	90.8	90.6	89.0	0.83	15	8.1	2.5	2.0	3.8		

***) upon request

Three-phase motors with squirrel-cage rotor, High Efficiency IE2

with surface cooling, duty type S1, continuous duty
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50/60 Hz

IE2 EU REGULATION 640/2009 USE WITH VARIABLE SPEED DRIVE ONLY!

Motor selection data — Design point 400 V, 50 Hz / 460 V, 60 Hz

Type	U_B	f_B	P_B	M_B	n_B		η_B IEC/EN 60034-2-1			$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
	V	Hz	kW	Nm	rpm		100 %	75 %	50 %	-	A	-	-	-	-	kgm²	kg
Synchronous speed 1500 rpm/1800 rpm – 4-pole version																	
IE2-WE1R 160 M4	400	50	11.0	71	1475	IE2-	90.6	90.3	88.5	0.82	21.5	8.1	3.1	2.4	3.4	0.078	122
	460	60	13.0	70	1775	IE2-	91.1	90.8	89.2	0.82	22.0	7.7	2.8	2.2	3.2		
IE2-WE2R 160 M4	400	50	11	71.5	1470	IE2-	90.3	90.3	88.5	0.78	22.5	7.8	2.4	2.1	3.9	0.043	105
	460	60	13	70	1765	IE2-	91.3	91.5	90.4	0.80	22.5	7.5	2.3	1.9	3.6		
IE2-WE1R 160 L4	400	50	15.0	97	1470	IE2-	90.6	90.9	90.5	0.87	27.5	8.3	2.7	2.2	3.2	0.115	160
	460	60	18.0	97	1770	IE2-	92.5	92.4	91.4	0.86	28.0	8.0	2.5	2.0	3.0		
IE2-WE2R 160 L4	400	50	15	97	1480	IE2-	92.0	92.0	90.6	0.84	28	9.1	3.0	2.5	3.9	0.115	161
	460	60	18	97	1775	IE2-	92.5	92.4	91.4	0.85	28.5	8.5	2.7	2.3	3.5		
IE2-WE1R 180 M4	400	50	18.5	120	1475	IE2-	91.5	91.5	90.4	0.86	34	6.8	1.8	1.5	2.7	0.168	207
	460	60	22.0	118	1775	IE2-	92.4	91.4	89.9	0.86	35.0	6.3	1.6	1.4	2.5		
IE2-WE2R 180 M4	400	50	18.5	120	1470	IE2-	91.2	90.6	89.3	0.78	37.5	6.4	2.0	1.6	2.8	0.138	176
	460	60	22	118	1775	IE2-	92.4	91.5	90.1	0.80	37.5	6.1	1.9	1.5	2.6		
IE2-WE1R 180 L4	400	50	22	142	1475	IE2-	91.6	91.4	89.9	0.83	42	7.3	2.1	1.7	3.0	0.168	215
	460	60	26	139	1780	IE2-	93.0	91.7	90.0	0.84	42.0	7.2	2.0	1.7	2.9		
IE2-WE1R 200 L4	400	50	30	194	1480	IE2-	92.3	91.3	88.2	0.80	58.5	7.3	2.1	1.7	2.9	0.275	277
	460	60	36	193	1780	IE2-	93.0	92.5	91.4	0.82	59.5	6.8	2.0	1.7	2.8		
IE2-WE1R 225 S4	400	50	37	240	1475	IE2-	92.7	91.8	90.7	0.84	68.5	7.4	2.2	1.7	2.7	0.313	313
	460	60	44	237	1775	IE2-	93.6	92.9	92.1	0.83	71.5	6.5	1.9	1.6	2.5		
IE2-WE1R 225 M4	400	50	45	290	1483	IE2-	93.1	93.0	91.1	0.84	83	7.9	2.3	1.9	2.4	0.525	390
	460	60	49	263	1780	IE2-	93.6	93.0	91.5	0.84	78.0	8.0	2.2	1.8	2.4		
IE2-WE2R 225 M4	400	50	45	291	1475	IE2-	93.1	92.9	92.1	0.80	87	7.6	2.6	1.9	3.1	0.356	346
	460	60	45	242	1775	IE2-	93.6	92.7	91.2	0.80	75.5	8.3	2.9	2.1	3.3		
IE2-WE1R 250 M4	400	50	55	354	1485	IE2-	94.0	94.1	92.5	0.84	101	8.0	2.0	1.7	2.3	0.95	535
	460	60	64	343	1780	IE2-	94.1	93.5	93.0	0.85	100	7.6	1.7	1.5	2.2		
IE2-WE2R 250 M4	400	50	55	356	1477	IE2-	93.9	93.8	93.7	0.82	103	7.5	2.4	1.9	2.4	0.62	435
	460	60	63	339	1777	IE2-	94.1	93.6	93.2	0.83	101	7.2	2.3	1.8	2.3		
IE2-WE1R 280 S4	400	50	75	482	1485	IE2-	94.2	94.4	92.1	0.84	137	7.2	1.8	1.6	2.1	0.95	550
	460	60	90	483	1779	IE2-	94.5	94.2	93.9	0.84	142	6.6	1.7	1.4	2.0		
IE2-WE1R 280 M4	400	50	90	580	1483	IE2-	94.3	94.5	94.0	0.84	164	7.6	1.8	1.6	2.3	1.10	610
	460	60	105	563	1780	IE2-	95.0	94.6	94.1	0.84	166	7.4	1.8	1.6	2.2		
IE2-WE1R 315 S4	400	50	110	707	1485	IE2-	94.8	94.8	94.0	0.82	204	8.5	1.8	1.5	2.7	1.96	760
	460	60	132	707	1784	IE2-	95.2	95.2	94.6	0.85	205	8.0	1.6	1.5	2.2		
IE2-WE1R 315 M4	400	50	132	849	1484	IE2-	95.0	95.0	94.5	0.83	242	8.2	1.8	1.6	2.3	2.27	850
	460	60	145	776	1784	IE2-	95.0	95.0	94.5	0.85	225	8.2	1.9	1.7	2.3		
IE2-WE1R 315 MX4	400	50	160	1031	1482	IE2-	95.0	95.0	94.5	0.84	289	7.4	1.6	1.4	2.2	2.73	975
	460	60	175	939	1780	IE2-	95.1	95.1	94.5	0.85	272	8.0	1.6	1.5	2.2		
IE2-WE1R 315 MY4	400	50	200	1282	1490	IE2-	95.1	95.1	94.5	0.87	349	8.5	1.8	1.6	2.5	4.82	1270
	460	60	220	1174	1790	IE2-	95.4	95.4	95.0	0.87	333	8.8	2.0	1.6	2.6		
IE2-WE1R 315 L4	400	50	250	1602	1490	IE2-	95.4	95.4	95.3	0.88	430	9.0	2.2	1.5	2.7	5.93	1450
	460	60	280	1792	1790	IE2-	95.4	95.4	95.3	0.88	419	8.5	2.2	1.6	2.5		
IE2-WE1R 315 LX4	400	50	315	2019	1490	IE2-	95.4	95.4	95.0	0.88	542	9.0	2.4	1.6	2.6	6.82	1630
	460	60	330	1761	1790	IE2-	95.4	94.5	93.5	0.87	499	9.2	2.5	1.7	1.7		
IE2-WE2R 355 M4	400	50	355	2271	1493	IE2-	95.5	95.5	95.0	0.87	617	8.0	1.3	1.0	2.7	7.90	2150
	460	60	375	1997	1793	IE2-	95.4	95.4	94.5	0.87	567	9.0	1.3	0.9	2.9		
IE2-WE2R 355 MX4	400	50	400	2557	1494	IE2-	95.5	95.5	95.5	0.88	687	8.5	1.3	1.0	3.0	9.50	2400
	460	60	425	2267	1790	IE2-	95.8	95.8	95.5	0.87	640	9.0	1.4	1.0	3.1		
IE2-WE2R 355 LY4	400	50	450	2873	1496	IE2-	95.5	95.5	95.5	0.86	791	8.5	1.4	0.8	2.9	10.00	2500
	460	60	475	2529	1794	IE2-	95.8	95.8	95.5	0.83	750	9.2	1.5	1.0	3.5		
IE2-WE2R 355 L4	400	50	500	3198	1493	IE2-	95.5	95.5	95.5	0.84	900	8.0	1.2	0.9	3.0	10.00	2500
	460	60	525	2795	1794	IE2-	95.8	95.8	95.5	0.83	829	9.0	1.3	1.0	3.3		

Three-phase motors with squirrel-cage rotor, High Efficiency IE2

with surface cooling, duty type S1, continuous duty
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50/60 Hz

IE2 EU REGULATION 640/2009 USE WITH VARIABLE SPEED DRIVE ONLY!

Motor selection data — Design point 400 V, 50 Hz / 460 V, 60 Hz

Type	U_B	f_B	P_B	M_B	n_B		η_B IEC/EN 60034-2-1			$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
	V	Hz	kW	Nm	rpm		100 %	75 %	50 %	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 1000 rpm/1200 rpm – 6-pole version																	
IE2-WE2R 63 G6	400	50	0.12	1.3	880	IE2-	50.6	47.0	39.5	0.59	0.59	2.6	2.1	2.1	2.3	0.00027	5.7
	460	60	0.14	1.23	1090	IE2-	50.5	51.0	43.8	0.55	0.60	2.6	1.8	1.8	2.2		
IE2-WE2R 71 K6	400	50	0.18	1.87	920	IE2-	56.6	54.4	48.5	0.52	0.80	2.9	2.0	2.0	2.3	0.0006	8.3
	460	60	0.21	1.8	1115	IE2-	55.0	63.5	57.3	0.52	0.78	2.9	1.6	1.6	2.1		
IE2-WE2R 71 G6	400	50	0.25	2.61	915	IE2-	61.6	57.5	51.6	0.55	1.1	2.9	2.0	2.0	2.2	0.0006	8.3
	460	60	0.30	2.58	1110	IE2-	59.5	62.9	56.7	0.55	1.05	3.1	1.8	1.8	2.2		
IE2-WE2R 80 K6	400	50	0.37	3.78	935	IE2-	67.6	68.5	63.3	0.65	1.17	3.7	2.1	2.1	2.6	0.00175	12.5
	460	60	0.44	3.7	1135	IE2-	64	71.8	67.1	0.66	1.15	4	2	2	2.6		
IE2-WE1R 80 GY6	400	50	0.55	5.56	945	IE2-	73.1	72.6	68.4	0.67	1.62	3.8	1.9	1.9	2.4	0.00325	15
	460	60	0.65	5.49	1130	IE2-	73.0	74	70.2	0.68	1.6	4	2	2	2.2		
IE2-WE2R 90 S6	400	50	0.75	7.58	945	IE2-	75.9	75.5	72.1	0.67	2.12	4.0	1.8	1.8	2.4	0.00425	19
	460	60	0.9	7.51	1145	IE2-	73.0	77.8	74.5	0.68	2.1	4.7	2.1	2.1	2.7		
IE2-WE1R 90 LW6	400	50	1.1	11.0	955	IE2-	78.1	78.0	75.1	0.69	2.95	4.7	2.5	2.4	2.8	0.00625	24
	460	60	-	-	-	-	-	-	-	-	-	-	-	-	-		
IE2-WE2R 100 L6	400	50	1.5	15.1	950	IE2-	79.8	80.4	77.6	0.70	3.85	5.1	2.5	2.4	3.0	0.0072	30
	460	60	0.92	7.5	1180	IE2-	73.0	79.3	75.9	0.5	2.9	5.9	2.9	2.7	3.5		
IE2-WE1R 112 MX6	400	50	2.2	21.9	960	IE2-	81.8	81.9	77.5	0.65	5.9	6.4	3.0	2.9	3.7	0.0139	37
	460	60	-	-	-	-	-	-	-	-	-	-	-	-	-		
IE2-WE1R 132 S6	400	50	3.0	29.8	963	IE2-	83.3	85.2	83.9	0.80	6.40	6.0	2.0	1.3	3.0	0.023	55
	460	60	3.6	29.6	1160	IE2-	87.5	86.8	85.4	0.81	6.4	5.7	1.8	1.2	2.8		
IE2-WE2R 132 M6	400	50	4.0	40.0	955	IE2-	84.6	86.0	85.2	0.82	8.30	5.7	2.1	2.0	2.9	0.029	66
	460	60	4.5	37.2	1155	IE2-	87.5	87.2	86.1	0.82	8	5.7	2.1	1.9	2.9		
IE2-WE1R 132 M6	400	50	4.0	39.6	965	IE2-	85.5	85.5	83.8	0.79	8.5	5.1	1.8	1.6	2.4	0.043	76
	460	60	4.5	36.9	1165	IE2-	87.5	86.0	83.4	0.79	8	5.3	1.8	1.6	2.5		
IE2-WE1R 132 MX6	400	50	5.5	54	970	IE2-	86.1	85.5	82.4	0.77	12	5.7	2.2	1.7	2.7	0.053	85
	460	60	6.6	54	1170	IE2-	89.5	88.5	87.1	0.8	11.5	5.6	1.9	1.7	2.9		

Three-phase motors with squirrel-cage rotor, High Efficiency IE2

with surface cooling, duty type S1, continuous duty
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50/60 Hz

IE2 EU REGULATION 640/2009 USE WITH VARIABLE SPEED DRIVE ONLY!

Motor selection data — Design point 400 V, 50 Hz / 460 V, 60 Hz

Type	U_B	f_B	P_B	M_B	n_B		η_B IEC/EN 60034-2-1			$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
	V	Hz	kW	Nm	rpm		100 %	75 %	50 %	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 1000 rpm/1200 rpm – 6-pole version																	
IE2-WE1R 160 M6	400	50	7.5	73	975	IE2-	87.4	88.1	86.0	0.81	15.5	6.3	2.5	2.1	2.9	0.113	118
	460	60	9.0	73	1175	IE2-	89.5	88.9	87.0	0.82	16	5.8	2.2	2.0	2.7		
IE2-WE2R 160 M6	400	50	7.5	74	970	IE2-	87.5	87.6	85.9	0.79	15.5	5.9	2.1	1.8	2.9	0.053	103
	460	60	9	73	1170	IE2-	89	89	87.7	0.81	15.5	5.7	1.9	1.7	2.7		
IE2-WE1R 160 L6	400	50	11.0	108	970	IE2-	88.7	87.9	86.3	0.85	21	5.8	2.2	1.9	2.7	0.145	135
	460	60	11.0														
IE2-WE2R 160 L6	400	50	11.0	108	975	IE2-	88.9	88.8	87.0	0.81	22	6.8	2.7	2.4	3.1	0.166	155
	460	60	13	106	1175	IE2-	90.3	89.9	88.1	0.83	22	6.4	2.5	2.2	2.8		
IE2-WE1R 180 L6	400	50	15.0	147	975	IE2-	89.7	88.8	86.7	0.84	28.5	6.2	2.1	1.8	2.8	0.228	185
	460	60	16.5	134	1175	IE2-	90.2	89.8	88.4	0.85	27.0	7.3	2.2	1.9	2.7		
IE2-WE2R 180 L6	400	50	15	148	970	IE2-	89.7	88.8	87.8	0.83	29	5.6	2.3	1.7	2.6	0.166	157
	460	60	15	122	1175	IE2-	90.2	89.5	87.4	0.83	25	6.3	2.5	1.9	2.9		
IE2-WE1R 200 L6	400	50	18.5	180	980	IE2-	90.4	88.8	86.5	0.85	35	6.6	2.3	1.7	2.9	0.268	208
	460	60	22.0	179	1175	IE2-	91.7	90.1	88.5	0.85	35.5	6.6	2.2	1.8	2.7		
IE2-WE1R 200 LX6	400	50	22	214	980	IE2-	90.9	90.2	88.5	0.86	40.5	6.4	2.2	1.8	2.7	0.443	272
	460	60	25	202	1180	IE2-	91.7	91.2	90.0	0.86	40.0	6.4	2.2	1.8	2.7		
IE2-WE2R 200 LX6	400	50	22	215	975	IE2-	90.9	89.9	88.5	0.84	41.5	6.7	2.4	2.0	3.0	0.324	238
	460	60	25	202	1180	IE2-	91.7	90.8	89.5	0.86	40	6.6	2.3	1.9	2.9		
IE2-WE1R 225 M6	400	50	30	291	985	IE2-	92.0	91.5	90.0	0.86	54.5	7.3	2.5	2.2	2.9	0.825	365
	460	60	36	291	1182	IE2-	93.0	92.0	90.5	0.85	57.0	7.1	2.3	2.0	2.6		
IE2-WE2R 225 M6	400	50	30	294	975	IE2-	91.7	91.4	90.6	0.87	54.5	6.7	2.3	1.9	2.8	0.514	308
	460	60	25	201	1185	IE2-	91.7	90.8	88.1	0.86	40	8.2	2.9	2.4	3.7		
IE2-WE1R 250 M6	400	50	37	359	985	IE2-	92.2	91.7	90.7	0.85	68	6.4	2.7	1.8	2.4	1.28	480
	460	60	40	322	1185	IE2-	93.0	92.0	90.5	0.86	63	6.6	2.7	1.8	2.5		
IE2-WE2R 250 M6	400	50	37	361	979	IE2-	92.2	92.3	91.8	0.86	67.5	6.6	2.7	2.0	2.6	0.92	407
	460	60	40	324	1179	IE2-	93	93.4	91.8	0.86	63	6.7	2.7	2.1	2.6		
IE2-WE1R 280 S6	400	50	45	437	983	IE2-	93.0	92.7	92.4	0.87	80.5	6.5	2.2	1.7	2.4	1.48	560
	460	60	49	395	1185	IE2-	93.6	92.4	91.0	0.87	75.5	6.7	2.3	1.9	2.6		
IE2-WE1R 280 M6	400	50	55	531	990	IE2-	93.5	93.5	93.0	0.85	100	7.6	2.0	1.5	2.5	2.63	710
	460	60	64	514	1190	IE2-	94.1	93.5	93.0	0.84	102	8.0	2.1	1.6	2.7		
IE2-WE1R 315 S6	400	50	75	723	990	IE2-	93.9	93.7	93.5	0.87	133	7.8	1.9	1.5	2.5	3.33	804
	460	60	90	722	1190	IE2-	94.1	93.5	93.0	0.87	138	7.5	1.8	1.6	2.5		
IE2-WE1R 315 M6	400	50	90	868	990	IE2-	94.0	94.0	93.5	0.88	157	7.5	1.8	1.5	2.5	3.60	865
	460	60	99	794	1190	IE2-	94.1	94.0	93.5	0.87	152	8.0	2.1	1.6	2.6		
IE2-WE1R 315 MX6	400	50	110	1061	990	IE2-	94.3	94.3	94.0	0.87	194	7.5	1.8	1.4	2.3	6.67	1210
	460	60	110	883	1190	IE2-	95.0	94.6	94.2	0.87	167	8.3	2.0	1.7	2.6		
IE2-WE1R 315 MY6	400	50	132	1273	990	IE2-	94.6	94.3	94.0	0.87	231	7.5	1.9	1.4	2.2	6.67	1250
	460	60	145	1164	1190	IE2-	95.0	95.0	94.5	0.86	223	8.0	2.0	1.5	2.4		
IE2-WE1R 315 L6	400	50	160	1543	990	IE2-	94.8	94.5	93.5	0.88	277	7.5	2.0	1.5	2.4	8.60	1430
	460	60	175	1404	1190	IE2-	95.0	94.8	94.3	0.87	266	8.0	2.0	1.5	2.4		
IE2-WE1R 315 LX6	400	50	200	1929	990	IE2-	95.0	95.0	94.5	0.86	353	7.0	1.9	1.5	2.2	8.60	1460
	460	60	220	1766	1190	IE2-	95.0	95.0	94.5	0.86	338	7.0	1.9	1.5	2.3		
IE2-WE2R 355 M6	400	50	250	2402	994	IE2-	95.0	95.0	94.7	0.84	452	7.0	1.5	1.2	2.2	8.20	1850
	460	60	280	2241	1193	IE2-	95.0	94.5	93.5	0.83	446	8.0	1.7	1.3	2.5		
IE2-WE2R 355 MX6	400	50	315	3023	995	IE2-	95.2	95.2	95.2	0.86	555	7.0	1.3	1.1	2.2	12.1	2200
	460	60	330	2633	1197	IE2-	95.2	95.2	95.2	0.86	506	7.0	1.3	1.1	2.2		
IE2-WE2R 355 LY6	400	50	355	3407	995	IE2-	95.0	95.0	94.0	0.77	700	7.5	1.8	1.5	2.6	14.0	2400
	460	60	375	2997	1195	IE2-	95.0	94.5	93.5	0.76	652	8.0	1.9	1.6	2.8		

Three-phase motors with squirrel-cage rotor, High Efficiency IE2

with surface cooling, duty type S1, continuous duty
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50/60 Hz

Motor selection data											Design point 400 V, 50 Hz 460 V, 60 Hz							
Type	U_B	f_B	P_B	M_B	n_B		η_B IEC/EN 60034-2-1			$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
	V	Hz	kW	Nm	rpm		100 %	75 %	50 %	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 750 rpm/900 rpm – 8-pole version																	
IE2-WE2R 71 G8	400	50	0.12	1.71	670	IE2-	39.8	39.8	31.9	0.54	0.73	2.10	1.80	1.80	2.00	0.0006	8.1
	460	60	0.14	1.62	825	IE2-	40.0	37	30.2	0.52	0.71	2.3	1.9	1.9	2.1		
IE2-WE2R 80 K8	400	50	0.18	2.49	690	IE2-	45.9	52.2	44.0	0.59	0.78	2.70	1.90	1.90	2.20	0.0013	10.5
	460	60	0.21	2.39	840	IE2-	46.0	55.2	48.3	0.61	0.75	2.9	1.5	1.5	2		
IE2-WE2R 80 G8	400	50	0.25	3.43	695	IE2-	50.6	50.4	42.5	0.56	1.12	3.0	2.3	2.3	2.5	0.00175	12
	460	60	0.3	3.41	840	IE2-	52.0	56.1	48.5	0.57	1.09	3	1.9	1.9	2.1		
IE2-WE2R 90 S8	400	50	0.37	5.05	700	IE2-	56.1	57.3	50.7	0.54	1.60	3.00	1.50	1.50	2.00	0.003	15
	460	60	0.44	4.94	850	IE2-	58.0	57.8	52.5	0.55	1.63	3	1.5	1.5	2		
IE2-WE2R 90 L8	400	50	0.55	7.56	695	IE2-	61.7	61.3	54.9	0.60	2.04	3.30	1.50	1.50	2.00	0.00375	18
	460	60	0.65	7.35	845	IE2-	66.0	66.4	61	0.57	2.1	3.1	1.4	1.4	1.9		
IE2-WE2R 100 L8	400	50	0.75	10.2	705	IE2-	66.2	64.5	58.7	0.60	2.90	3.10	1.50	1.50	2.00	0.00625	23
	460	60	0.9	10.11	850	IE2-	66.0	68.7	63	0.59	2.76	3.2	1.4	1.4	1.9		
IE2-WE1R 100 LY8	400	50	1.10	14.9	705	IE2-	70.8	71.2	67.6	0.67	3.25	4.00	2.00	2.00	2.40	0.009	28
	460	60	1.25	14.04	850	IE2-	75.5	76.9	72.7	0.67	3	4.2	1.7	1.7	2.2		
IE2-WE1R 112 MV8	400	50	1.50	20.46	700	IE2-	74.1	78.7	76.0	0.65	4.25	3.8	1.6	1.6	2.1	0.0155	48
	460	60	1.25	13.64	875	IE2-	75.5	77.6	72.7	0.54	3.63	3.8	2	1.9	2.9		
IE2-WE1R 132 M8	400	50	3.0	39.8	720	IE2-	82.7	83.0	81.3	0.74	7.1	3.9	1.6	1.3	1.9	0.0430	74
	460	60	3.6	39.5	870	-	84.2	84.5	83.0	0.75	7.2	3.6	1.4	1.2	1.8		
IE2-WE1R 160 M8	400	50	4.0	53.2	718	IE2-	84.2	83.7	81.9	0.72	9.5	4.6	1.6	***)	2.5	0.0530	86
	460	60	4.0														
IE2-WE1R 160 MX8	400	50	5.5	72.0	730	IE2-	86.9	86.6	84.1	0.72	12.5	4.8	2.1	1.8	2.6	0.1130	115
	460	60	6.6	72	875	-	87.8	87.2	84.6	0.74	12.7	4.9	2.0	1.6	2.4		
IE2-WE2R 160 MX8	400	50	5.5	73	715	IE2-	83.9	84.0	81.9	0.71	13.5	4.3	1.7	1.5	2.5	0.0530	103
	460	60	6.6	73	865	-	86.4	86.7	85.3	0.72	13.5	4.2	1.6	1.4	2.3		
IE2-WE1R 160 L8	400	50	7.5	99	725	IE2-	87.5	87.0	83.5	0.77	16	5.5	2.0	***)	2.8	0.1450	136
	460	60	7.5														

***) upon request

Three-phase motors with squirrel-cage rotor, High Efficiency IE2

with surface cooling, duty type S1, continuous duty
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50/60 Hz

Motor selection data												Design point 400 V, 50 Hz 460 V, 60 Hz					
Type	U_B	f_B	P_B	M_B	n_B		η_B IEC/EN 60034-2-1			$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
	V	Hz	kW	Nm	rpm		100 %	75 %	50 %	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 750 rpm/900 rpm – 8-pole version																	
IE2-WE1R 180 L8	400	50	11.0	144	727	IE2-	88.2	88.2	86.7	0.78	23	4.9	1.8	1.6	2.4	0.2280	175
	460	60	13.0	141	878	-	89.4	89.4	87.9	0.78	23.5	4.6	1.7	1.5	2.3		
IE2-WE2R 180 L8	400	50	11	144	730	IE2-	87.9	87.4	85.2	0.67	25.5	4.3	1.9	1.6	2.3	0.1660	157
	460	60	13														
IE2-WE1R 200 L8	400	50	15.0	197	727	IE2-	88.2	88.1	86.4	0.77	32	4.9	1.9	1.7	2.3	0.2680	200
	460	60	18.0	196	878	-	88.9	88.7	87.4	0.78	32.5	4.8	1.8	1.6	2.2		
IE2-WE1R 225 S8	400	50	18.5	242	730	IE2-	89.6	89.4	87.2	0.78	38	5.4	2.1	2.0	2.8	0.440	265
	460	60	22	239	880	-	89.9	89.6	87.5	0.79	39.0	5.2	2.0	1.9	2.7		
IE2-WE2R 225 S8	400	50	18.5	240	735	IE2-	90.7	90.7	89.4	0.8	37	6.1	2.1	1.9	2.9	0.514	305
	460	60	22	237	885	-	91.8	91.5	90.2	0.81	37.0	5.7	2	1.7	2.6		
IE2-WE1R 225 M8	400	50	22	287	733	IE2-	90.6	89.4	89.9	0.78	45	5.6	2.2	1.8	2.6	0.825	380
	460	60	33	356	885	-	91.5	91.0	89.5	0.78	58.0	5.6	2.1	1.8	2.4		
IE2-WE2R 225 M8	400	50	22	286	735	IE2-	90.3	90.3	88.7	0.77	45.5	6.1	2.2	2.0	2.9	0.514	307
	460	60	26	281	883	-	91.3	91.1	89.6	0.79	45.0	5.9	2.1	1.8	2.7		
IE2-WE1R 250 M8	400	50	30	389	737	IE2-	92.1	92.4	91.6	0.79	59.5	5.0	2.0	1.6	2.1	1.350	480
	460	60	37	398	887	-	91.7	91.5	90.0	0.80	63.5	4.7	1.7	1.3	1.8		
IE2-WE2R 250 M8	400	50	30	391	732	IE2-	91.5	91.7	90.9	0.77	61.5	5.6	2.3	2.0	2.5	0.950	405
	460	60	36	391	880	-	91.9	92.3	91.8	0.78	63.0	5.3	2.1	1.8	2.3		
IE2-WE1R 280 S8	400	50	37	479	737	IE2-	92.2	92.1	90.9	0.79	73.5	6.0	2.3	1.9	2.5	1.55	550
	460	60	45	484	888	-	91.7	91.2	89.0	0.79	78.0	6.0	2.1	1.6	2.2		
IE2-WE1R 280 M8	400	50	45	581	740	IE2-	92.7	92.7	92.0	0.79	88.5	6.7	1.8	1.5	2.5	2.63	690
	460	60	45														
IE2-WE1R 315 S8	400	50	55	710	740	IE2-	92.2	92.2	92.1	0.80	108	6.3	1.8	1.5	2.3	2.63	690
	460	60	66	708	890	-	93	93	92.5	0.8	111	5.8	1.6	1.4	2		
IE2-WE1R 315 M8	400	50	75	968	740	IE2-	93.5	93.5	93.0	0.81	143	6.0	1.8	1.5	2.1	3.6	880
	460	60	75														
IE2-WE1R 315 MX8	400	50	90	1161	740	IE2-	92.1	91.6	90.1	0.81	174	6.0	1.9	***)	2.2	6	1050
	460	60	90														
IE2-WE1R 315 MY8	400	50	110	1420	740	IE2-	93.8	93.3	91.2	0.81	209	6.5	2.1	***)	2.4	6.76	1250
	460	60	10														
IE2-WE1R 315 L8	400	50	132	1704	740	IE2-	94.4	94.0	93.5	0.83	243	7.5	2.2	1.8	2.5	8.71	1430
	460	60	132														
IE2-WE1R 315 LX8	400	50	160	2065	740	IE2-	94.2	94.2	93.8	0.80	306	7.2	2.2	1.8	2.5	8.71	1430
	460	60	190	2039	890	-	94.3	94.3	94.0	0.81	312	7.0	2.1	1.7	2.3		
IE2-WE2R 355 M8	400	50	200	2571	743	IE2-	94.7	94.1	91.5	0.77	396			***)		9.5	1850
	460	60	200														
IE2-WE2R 355 MX8	400	50	250	3205	745	IE2-	95.8	95.8	95.5	0.83	454	7.0	1.2	1.0	2.6	13.4	2200
	460	60	250														
IE2-WE2R 355 LY8	400	50	280	3599	743	IE2-	94.8	94.1	91.5	0.78	547			***)		15.8	2400
	460	60	280														

***) upon request

Three-phase motors with squirrel-cage rotor, Standard Efficiency IE1

with surface cooling, duty type S1, continuous duty
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz

VO EG 640/2009

Motor selection data																Design point 400 V, 50 Hz	
Type		P_B	M_B	n_B		η_B			$\cos\phi_B$	I_B	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
						IEC/EN 60034-2-1				400 V						
		kW	Nm	rpm		100 %	75 %	50 %	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 3000 rpm – 2-pole version																
IE1-K21O 56 K2		0.09	0.3	2840	IE1-	70.2	68.1	64.5	0.74	0.25	4.9	2.3	2.3	2.8	0.00013	4.4
IE1-K21R 56 G2		0.12	0.41	2830	IE1-	70.3	67.0	60.1	0.77	0.32	4.5	2.1	2.1	2.3	0.00013	4.5
IE1-K21R 63 K2	IE1-K20R 56 K2	0.18	0.62	2790	IE1-	67.0	65.6	59.8	0.76	0.51	4.1	1.9	1.9	2.2	0.00013	4.9
IE1-K21R 63 G2	IE1-K20R 56 G2	0.25	0.85	2800	IE1-	67.7	64.9	56.2	0.72	0.74	4.2	2.2	2.2	2.4	0.00015	5.2
IE1-K21R 71 K2	IE1-K20R 63 K2	0.37	1.27	2780	IE1-	71.9	70.8	65.0	0.79	0.94	4.4	2.1	2.1	2.3	0.00025	6.7
IE1-K21R 71 G2	IE1-K20R 63 G2	0.55	1.89	2775	IE1-	74.2	75.0	72.0	0.81	1.32	5.1	2.3	2.1	2.6	0.00032	7.6
IE1-K21R 80 K2	IE1-K20R 71 K2	0.75	2.54	2825	IE1-	76.8	77.5	74.3	0.82	1.72	5.9	2.4	2.4	2.4	0.00057	10.7
IE1-K21R 80 G2	IE1-K20R 71 G2	1.1	3.71	2835	IE1-	76.9	75.9	73.3	0.81	2.55	6.0	2.4	2.3	2.6	0.00072	11.5
IE1-K21R 90 S2	IE1-K20R 80 K2	1.5	5	2840	IE1-	81.2	82.2	80.3	0.86	3.1	7.0	2.5	2.5	2.8	0.00132	16.0
IE1-K21R 90 L2	IE1-K20R 80 G2	2.2	7.4	2850	IE1-	82.1	83.4	81.9	0.85	4.55	7.5	2.8	2.3	2.9	0.0017	19.0
IE1-K21R 100 L2	IE1-K20R 90 L2	3.0	10	2865	IE1-	82.8	83.1	83.3	0.85	6.15	6.8	2.4	2.2	2.8	0.00275	25.0
IE1-K21R 112 M2	IE1-K20R 100 S2	4.0	13.2	2900	IE1-	84.9	85.5	84.4	0.81	8.4	7.0	2.2	2.1	2.9	0.0045	32
IE1-K21R 132 S2 T	IE1-K20R 100 L2	5.5	18.2	2890	IE1-	85.9	86.2	86.4	0.84	11.0	7.5	2.4	2.2	3.0	0.0055	40
IE1-K21R 132 SX2T	IE1-K20R 100 LV2	7.5	24.9	2880	IE1-	87.1	87.2	86.6	0.84	14.8	6.3	1.5	1.2	2.6	0.0680	48
IE1-K21R 132 S2	IE1-K20R 112 MY2	5.5	18.3	2870	IE1-	84.7	85.3	84.9	0.86	11	5.1	1.6	1.4	2.3	0.0081	50
IE1-K21R 132 SX2	IE1-K20R 112 M2	7.5	24.8	2890	IE1-	86.1	86.9	85.8	0.85	15	6.5	1.9	1.6	3.0	0.0110	59
IE1-K21R 160 M2	IE1-K20R 132 M2	11.0	36.2	2905	IE1-	87.6	87.4	86.6	0.88	20.5	6.6	2.1	1.7	2.8	0.0258	88
IE1-K21R 160 MX2	IE1-K20R 160 S2	15.0	48.7	2940	IE1-	88.7	89.0	88.0	0.89	27.5	6.8	2.0	1.5	2.6	0.0575	131
IE1-K21R 160 L2	IE1-K20R 160 M2	18.5	60	2925	IE1-	89.3	89.2	88.9	0.90	33	6.0	1.7	1.3	2.2	0.0675	138
IE1-K21R 180 M2	IE1-K20R 180 S2	22	72	2935	IE1-	89.9	91.1	90.5	0.90	39	5.4	1.6	1.3	2.4	0.105	178
IE1-K21R 200 L2	IE1-K20R 180 M2	30	97	2940	IE1-	90.7	92.1	91.8	0.91	52.5	6.3	1.5	1.2	2.4	0.128	207
IE1-K21R 200 LX2	IE1-K20R 200 M2	37	120	2950	IE1-	91.2	92.1	91.9	0.89	66	5.8	1.4	1.0	2.2	0.193	265
IE1-K21R 225 M2	IE1-K20R 200 L2	45	146	2940	IE1-	91.7	92.6	92.5	0.90	78.5	6.2	1.4	1.1	2.3	0.220	295
IE1-K21R 250 M2	IE1-K20R 225 M2	55	177	2960	IE1-	92.4	92.0	90.0	0.90	95.5	7.2	1.7	1.3	2.5	0.375	383
IE1-K21R 280 S2	IE1-K20R 250 S2	75	241	2970	IE1-	93.5	92.4	90.5	0.92	126	7.1	1.9	1.5	2.5	0.650	505
IE1-K21R 280 M2	IE1-K20R 250 M2	90	289	2970	IE1-	93.2	92.7	90.5	0.91	153	8.4	2.2	1.8	3.1	0.675	546
IE1-K21R 315 S2	IE1-K20R 280 S2	110	353	2975	IE1-	93.5	93.8	93.5	0.90	189	8.5	1.2	1.0	2.3	1.21	720
IE1-K21R 315 M2	IE1-K20R 280 M2	132	424	2975	IE1-	93.8	93.8	93.8	0.91	223	8.0	1.4	1.2	2.5	1.44	800
IE1-K21R 315 MX2	IE1-K20R 315 S2	160	514	2975	IE1-	94.0	94.0	94.0	0.91	270	8.5	1.5	1.0	2.0	1.76	980
IE1-K21R 315 MY2	IE1-K20R 315 M2	200	965	2970	IE1-	94.5	94.5	94.0	0.91	336	8.2	2.6	1.8	2.6	2.82	1170
IE1-K21R 315 L2	IE1-K20R 315 L2	250	803	2973	IE1-	94.1	93.2	93.0	0.93	412	7.3	2.1	1.4	2.0	3.66	1460
IE1-K21R 315 LX2	IE1-K20R 315 LX2	315	1008	2985	IE1-	94.5	94.5	94.5	0.92	523	8.6	2.7	1.7	2.4	4.43	1630
IE1-K22R 355 MY2		315	1007	2988	IE1-	94.5	94.3	93.7	0.88	547	8.6	1.3	1.0	3.0	4.10	1900
IE1-K22R 355 M2		355	1138	2980	IE1-	94.3	94.3	93.8	0.91	597	7.3	1.3	1.0	2.3	4.20	2000
IE1-K22R 355 MX2		400	1278	2990	IE1-	95.0	95.0	95.0	0.90	675	9.5	1.9	1.0	3.0	5.50	2200
IE1-K22R 355 LY2		450	1441	2983	IE1-	94.7	94.5	93.8	0.92	746	7.2	1.3	1.0	2.4	7.10	2400
IE1-K22R 355 L2		500	1600	2985	IE1-	95.0	94.8	94.3	0.92	826	8.2	1.8	0.9	2.6	7.10	2400

Three-phase motors with squirrel-cage rotor, Standard Efficiency IE1

with surface cooling, duty type S1, continuous duty
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz

VO EG 640/2009

Motor selection data																Design point 400 V, 50 Hz	
Type		P_B	M_B	n_B		η_B			$\cos\phi_B$	I_B	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
						IEC/EN 60034-2-1				400 V						
		kW	Nm	rpm		100 %	75 %	50 %	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 1500 rpm – 4-pole version																	
IE1-K21O 56 K4		0.06	0.41	1410	IE1-	60.1	56.5	49.6	0.60	0.24	3.1	2.3	2.3	2.7	0.00019	4.3
IE1-K21R 56 G4		0.09	0.63	1375	IE1-	61.6	58.7	53.0	0.68	0.31	3.2	1.9	1.9	2.2	0.00019	4.4
IE1-K21R 63 K4	IE1-K20R 56 K4	0.12	0.84	1370	IE1-	57.9	51.2	42.2	0.68	0.44	3.2	1.9	1.8	2.2	0.00019	4.8
IE1-K21R 63 G4	IE1-K20R 56 G4	0.18	1.26	1360	IE1-	60.6	57.5	49.4	0.66	0.65	3.3	2.0	2.0	2.3	0.00024	5.2
IE1-K21R 71 K4	IE1-K20R 63 K4	0.25	1.72	1385	IE1-	64.3	63.2	58.2	0.72	0.78	3.6	1.8	1.8	2.1	0.00040	6.8
IE1-K21R 71 G4	IE1-K20R 63 G4	0.37	2.58	1370	IE1-	68.1	66.7	62.0	0.74	1.06	3.8	2.0	2.0	2.2	0.00050	7.8
IE1-K21R 80 K4	IE1-K20R 71 K4	0.55	3.75	1400	IE1-	71.9	70.7	64.1	0.69	1.6	4.1	2.1	2.0	2.3	0.00087	10.6
IE1-K21R 80 G4	IE1-K20R 71 G4	0.75	5.1	1400	IE1-	73.6	72.2	66.8	0.70	2.1	4.6	2.2	2.1	2.3	0.00107	11.7
IE1-K21R 90 S4	IE1-K20R 80 K4	1.1	7.5	1410	IE1-	76.7	76.8	73.6	0.79	2.62	5.5	2.3	2.2	2.5	0.00207	15.5
IE1-K21R 90 L4	IE1-K20R 80 G4	1.5	10.2	1400	IE1-	78.6	79.1	76.9	0.81	3.4	5.5	2.5	2.4	2.6	0.00260	18.0
IE1-K21R 100 L4	IE1-K20R 90 L4	2.2	14.9	1410	IE1-	80.2	80.7	79.5	0.80	4.95	6.0	2.5	2.3	2.7	0.00400	23.5
IE1-K21R 100 LX4	IE1-K20R 100 S4	3.0	20	1430	IE1-	82.4	82.8	80.8	0.79	6.65	6.5	2.5	2.2	2.9	0.00725	30
IE1-K21R 112 M4	IE1-K20R 100 L4	4.0	26.6	1435	IE1-	84.1	85.1	83.6	0.78	8.8	6.9	2.6	2.5	3.2	0.009	37
IE1-K21R 132 S4 T		5.5	36.9	1425	IE1-	85.2	86.5	85.8	0.79	11.8	6.3	2.5	2.4	2.9	0.011	47
IE1-K21R 132 S4	IE1-K20R 112 M4	5.5	36.5	1440	IE1-	84.7	85.5	84.9	0.87	11	6.2	1.8	1.5	2.7	0.015	51
IE1-K21R 132 M4	IE1-K20R 132 S4	7.5	49.2	1455	IE1-	86.2	86.9	86.7	0.83	15	5.4	1.9	1.2	2.5	0.028	73
IE1-K21R 160 M4	IE1-K20R 132 M4	11.0	72	1455	IE1-	87.7	88.5	87.8	0.84	21.5	6.5	2.1	1.6	3.0	0.035	92
IE1-K21R 160 L4	IE1-K20R 160 S4	15.0	98	1465	IE1-	88.7	88.8	87.9	0.84	29	6.6	2.3	1.7	2.6	0.078	132
IE1-K21R 180 M4	IE1-K20R 160 M4	18.5	121	1460	IE1-	89.3	88.8	88.1	0.85	35	6.4	2.2	1.8	2.6	0.090	145
IE1-K21R 180 L4	IE1-K20R 180 S4	22	143	1465	IE1-	89.9	90.1	89.5	0.82	43	5.4	1.5	1.3	2.2	0.138	185
IE1-K21R 200 L4	IE1-K20R 180 M4	30	196	1465	IE1-	90.7	90.5	89.8	0.84	57	5.6	1.7	1.4	2.3	0.168	211
IE1-K21R 225 S4	IE1-K20R 200 M4	37	240	1470	IE1-	92.1	92.6	92.0	0.83	69.5	6.1	1.8	1.4	2.3	0.275	282
IE1-K21R 225 M4	IE1-K20R 200 L4	45	293	1465	IE1-	91.7	91.8	91.9	0.84	84.5	5.8	1.5	1.3	2.2	0.313	323
IE1-K21R 250 M4	IE1-K20R 225 M4	55	356	1475	IE1-	92.4	92.0	91.0	0.84	102	7.0	2.0	1.6	2.2	0.525	394
IE1-K21R 280 S4	IE1-K20R 250 S4	75	484	1480	IE1-	93.0	92.6	90.6	0.84	139	7.0	2.0	1.5	2.2	0.950	540
IE1-K21R 280 M4	IE1-K20R 250 M4	90	581	1480	IE1-	93.3	92.8	90.0	0.85	164	7.3	1.8	1.5	2.1	1.10	610
IE1-K21R 315 S4	IE1-K20R 280 S4	110	707	1485	IE1-	93.5	93.5	93.5	0.85	200	7.5	1.8	1.3	2.2	1.96	740
IE1-K21R 315 M4	IE1-K20R 280 M4	132	849	1485	IE1-	93.8	93.8	93.8	0.86	236	7.0	1.8	1.5	2.2	2.27	840
IE1-K21R 315 MX4	IE1-K20R 315 S4	160	1032	1480	IE1-	93.8	93.8	93.8	0.86	286	7.0	1.5	1.3	2.0	2.73	1000
IE1-K21R 315 MY4	IE1-K20R 315 M4	200	1286	1485	IE1-	94.3	94.3	94.3	0.87	352	7.5	1.8	1.5	2.4	4.82	1200
IE1-K21R 315 L4	IE1-K20R 315 L4	250	1608	1485	IE1-	94.3	94.3	94.3	0.89	430	8.0	1.7	1.3	2.3	5.93	1510
IE1-K21R 315 LX4	IE1-K20R 315 LX4	315	2023	1487	IE1-	94.5	94.5	94.5	0.88	547	8.6	1.9	1.5	2.3	6.82	1630
IE1-K22R 355 MY4		315	2016	1492	IE1-	94.5	94.5	94.5	0.87	553	7.1	1.4	1.0	2.9	5.60	1950
IE1-K22R 355 M4		355	2271	1493	IE1-	94.5	94.5	93.2	0.87	623	8.1	1.3	0.8	2.7	7.9	2150
IE1-K22R 355 MX4		400	2557	1494	IE1-	94.5	94.4	93.7	0.84	727	8.6	1.3	1.0	3.0	9.5	2400
IE1-K22R 355 LY4		450	2884	1490	IE1-	94.5	94.4	93.7	0.82	838	8.0	1.2	1.0	3.0	10.0	2500
IE1-K22R 355 L4		500	3205	1490	IE1-	94.3	94.0	93.1	0.79	969	7.9	1.1	1.0	3.0	10.00	2500

Three-phase motors with squirrel-cage rotor, Standard Efficiency IE1

with surface cooling, duty type S1, continuous duty
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz

VO EG 640/2009

Motor selection data																Design point 400 V, 50 Hz	
Type		P_B	M_B	n_B		η_B			$\cos\phi_B$	I_B	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
						IEC/EN 60034-2-1				400 V						
		kW	Nm	rpm		100 %	75 %	50 %	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 1000 rpm – 6-pole version																	
IE1-K21R 63 K6	IE1-K20R 56 K6	0.09	0.96	895	-	50.4	46.2	38.4	0.56	0.46	2.5	2.0	2.0	2.4	0.00024	4.9
IE1-K21R 63 G6	IE1-K20R 56 G6	0.12	1.3	880	-	52.4	50.1	43.2	0.56	0.59	2.5	2.0	2.0	2.3	0.00027	5.7
IE1-K21R 71 K6	IE1-K20R 63 K6	0.18	1.86	925	-	57.9	53.9	45.4	0.51	0.88	2.8	1.6	1.6	2.1	0.00045	7.4
IE1-K21R 71 G6	IE1-K20R 63 G6	0.25	2.61	915	-	59.6	57.5	49.5	0.55	1.1	2.9	2.0	2.0	2.2	0.00060	8.3
IE1-K21R 80 K6	IE1-K20R 71 K6	0.37	3.86	915	-	66.3	64.5	57.1	0.66	1.22	3.4	2.0	2.0	2.0	0.00130	11.0
IE1-K21R 80 G6	IE1-K20R 71 G6	0.55	5.7	915	-	68.5	67.0	60.7	0.67	1.73	3.7	2.2	2.2	2.4	0.00175	12.5
IE1-K21R 90 S6	IE1-K20R 80 K6	0.75	7.7	935	IE1-	70.5	68.8	63.2	0.64	2.4	4.5	2.4	2.4	2.6	0.00325	16.0
IE1-K21R 90 L6	IE1-K20R 80 G6	1.1	11.2	935	IE1-	73.4	73.0	68.4	0.68	3.18	4.6	2.2	2.2	2.6	0.00425	19.0
IE1-K21R 100 L6	IE1-K20R 90 L6	1.5	15.2	945	IE1-	76.0	75.2	71.1	0.73	3.9	4.6	2.1	2.0	2.4	0.00625	24.0
IE1-K21R 112 M6	IE1-K20R 100 L6	2.2	22.1	950	IE1-	78.1	78.8	75.8	0.76	5.35	5.3	2.2	2.1	2.7	0.01225	33.5
IE1-K21R 132 S6T		3.0	30.6	935	IE1-	81.9	82.8	81.4	0.75	7.05	5.2	2.5	2.5	2.9	0.0139	39.0
IE1-K21R 132 S6	IE1-K20R 112 M6	3.0	30	955	IE1-	80.3	79.9	76.2	0.78	6.9	5.3	1.9	1.8	2.8	0.0180	46
IE1-K21R 132 M6	IE1-K20R 112 MX6	4.0	40	955	IE1-	81.9	81.8	75.4	0.79	8.9	5.7	2.1	1.9	2.9	0.0230	56
IE1-K21R 132 MX6	IE1-K20R 132 S6	5.5	55	960	IE1-	83.1	83.3	81.3	0.79	12	4.8	1.7	1.5	2.4	0.0430	72
IE1-K21R 160 M6	IE1-K20R 132 M6	7.5	75	960	IE1-	84.8	84.9	80.0	0.78	16.5	4.9	1.8	1.5	2.4	0.0530	91
IE1-K21R 160 L6	IE1-K20R 160 S6	11.0	109	965	IE1-	86.4	86.6	84.2	0.84	22	5.1	2.1	1.6	2.2	0.1130	122
IE1-K21R 180 L6	IE1-K20R 160 M6	15.0	148	970	IE1-	87.7	85.9	83.7	0.80	31	5.7	2.2	1.9	2.6	0.1450	142
IE1-K21R 200 L6	IE1-K20R 180 S6	18.5	182	970	IE1-	88.6	88.1	87.1	0.86	35	5.3	1.8	1.5	2.3	0.2280	190
IE1-K21R 200 LX6	IE1-K20R 180 M6	22	216	972	IE1-	89.2	88.8	87.3	0.85	42	5.6	2.0	1.7	2.6	0.2680	208
IE1-K21R 225 M6	IE1-K20R 200 M6	30	295	973	IE1-	90.2	90.1	89.2	0.87	55	6.1	2.0	1.6	2.5	0.4430	284
IE1-K21R 250 M6	IE1-K20R 225 M6	37	361	979	IE1-	91.0	90.6	87.8	0.86	68	6.3	2.2	1.8	2.4	0.8250	376
IE1-K21R 280 S6	IE1-K20R 250 S6	45	439	980	IE1-	91.5	92.0	89.4	0.86	82.5	5.9	2.0	1.6	2.2	1.28	465
IE1-K21R 280 M6	IE1-K20R 250 M6	55	535	982	IE1-	92.1	91.5	89.4	0.87	99	6.5	2.3	1.7	2.4	1.48	575
IE1-K21R 315 S6	IE1-K20R 280 S6	75	727	985	IE1-	92.7	92.0	91.0	0.87	134	7.0	1.8	1.4	2.1	2.63	690
IE1-K21R 315 M6	IE1-K20R 280 M6	90	868	990	IE1-	93.4	93.4	93.0	0.87	160	7.0	2.0	1.7	2.4	3.33	800
IE1-K21R 315 MX6	IE1-K20R 315 S6	110	1067	985	IE1-	93.3	93.3	93.3	0.87	196	6.5	2.0	1.6	2.4	3.60	880
IE1-K21R 315 MY6	IE1-K20R 315 M6	132	1273	990	IE1-	93.5	93.5	93.5	0.87	234	7.0	1.8	1.4	2.1	6.00	1050
IE1-K21R 315 L6	IE1-K20R 315 L6	160	1548	987	IE1-	93.8	93.5	93.0	0.87	283	6.5	1.7	1.2	2.0	6.67	1250
IE1-K21R 315 LX6	IE1-K20R 315 LX6	200	1929	990	IE1-	94.0	94.0	94.0	0.86	357	8.0	2.2	1.5	2.3	8.6	1460
IE1-K22R 355 MY6		200	1920	995	IE1-	94.4	94.4	94.4	0.84	364	7.0	1.5	1.3	2.4	8.1	1550
IE1-K22R 355 M6		250	2402	994	IE1-	94.5	94.2	93.3	0.81	471	7.0	1.8	1.3	2.3	8.2	1850
IE1-K22R 355 MX6		315	3023	995	IE1-	94.5	94.5	93.8	0.83	580	6.8	1.6	1.3	2.5	12.1	2200
IE1-K22R 355 LY6		355	3407	995	IE1-	94.4	94.2	92.4	0.78	696	7.4	1.9	1.4	2.6	14.0	2400

Three-phase motors with squirrel-cage rotor, Standard Efficiency IE1

with surface cooling, duty type S1, continuous duty
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz

Motor selection data																Design point 400 V, 50 Hz
Type		P_B	M_B	n_B		η_B IEC/EN 60034-2-1			$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
		kW	Nm	rpm		100 %	75 %	50 %	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 750 rpm – 8-pole version																
K21R 71 K8	K20R 63 K8	0.09	1.27	675	-	45.5	42.1	34.8	0.51	0.56	2.1	1.9	1.9	2.1	0.00050	6.6
K21R 71 G8	K20R 63 G8	0.12	1.71	670	-	46.5	42.1	33.7	0.51	0.73	2.3	1.8	1.8	2.1	0.00060	8.1
K21R 80 K8	K20R 71 K8	0.18	2.49	690	-	56.5	53.4	45.0	0.59	0.78	2.8	2.0	2.0	2.2	0.00130	10.5
K21R 80 G8	K20R 71 G8	0.25	3.44	695	-	57.5	54.1	46.1	0.56	1.12	3.0	2.3	2.3	2.5	0.00175	12.0
K21R 90 S8	K20R 80 K8	0.37	5.1	700	-	61.8	59.7	52.8	0.54	1.60	3.0	1.9	1.9	2.1	0.00300	15.0
K21R 90 L8	K20R 80 G8	0.55	7.6	695	-	64.8	62.5	55.8	0.60	2.04	3.2	1.9	1.9	2.2	0.00375	18.0
K21R 100 L8	K20R 90 L8	0.75	10.2	705	-	66.8	64.7	57.9	0.60	2.70	3.3	1.8	1.8	2.2	0.00625	23.0
K21R 100 LX8	K20R 100 S8	1.1	14.9	705	-	72.9	73.3	69.6	0.67	3.25	4.0	2.0	2.0	2.4	0.00900	28.0
K21R 112 M8	K20R 100 L8	1.5	20.3	705	-	75.4	75.7	72.4	0.70	4.10	4.4	2.2	2.1	2.5	0.01225	33.5
K21R 132 S8T		2.2	30.7	685	-	74.1	74.8	72.4	0.68	6.30	3.8	2.0	1.9	2.3	0.01390	39.0
K21R 132 S8	K20R 112 M8	2.2	29.8	705	-	75.5	75.0	72.0	0.76	5.5	4.5	1.7	1.6	2.3	0.01800	46
K21R 132 M8	K20R 112 MX8	3.0	40.6	705	-	78.0	78.0	75.0	0.75	7.4	4.5	1.7	1.6	2.3	0.0230	53
K21R 160 M8	K20R 132 S8	4.0	54	710	-	79.3	79.0	77.0	0.78	9.3	4.0	1.6	1.3	1.9	0.0430	70
K21R 160 MX8	K20R 132 M8	5.5	74	710	-	81.4	81.0	78.0	0.78	12.5	4.5	1.7	1.6	2.1	0.0530	86
K21R 160 L8	K20R 160 S8	7.5	99	725	-	83.0	83.0	79.0	0.78	16.5	4.5	1.8	1.6	2.1	0.1130	114
K21R 180 L8	K20R 160 M8	11.0	146	720	-	85.0	84.0	81.5	0.78	24	4.5	2.0	1.7	2.1	0.1450	136
K21R 200 L8	K20R 180 S8	15.0	198	725	-	86.5	86.0	83.0	0.79	31.5	5.0	2.0	1.7	2.3	0.228	175
	K20R 180 M8	18.5	244	725	-	87.5	86.5	86.0	0.80	38	5.0	1.9	1.7	2.2	0.268	200
K21R 225 S8		18.5	244	725	-	89.2	88.0	86.0	0.83	36	5.5	2.0	1.6	2.2	0.440	265
K21R 225 M8	K20R 200 M8	22	290	725	-	89.2	89.0	88.5	0.84	42.5	5.0	1.8	1.5	2.2	0.440	265
K21R 250 M8	K20R 225 M8	30	393	730	-	89.7	89.5	86.5	0.79	61	5.5	2.2	1.8	2.2	0.825	360
K21R 280 S8	K20R 250 S8	37	481	735	-	90.5	90.0	87.5	0.80	74	5.5	2.0	1.5	2.0	1.35	465
K21R 280 M8	K20R 250 M8	45	585	735	-	91.0	90.5	88.0	0.77	92.5	6.0	2.3	1.8	2.4	1.55	520
K21R 315 S8	K20R 280 S8	55	710	740	-	92.1	91.0	89.5	0.80	108	6.5	1.8	1.6	2.3	2.63	690
K21R 315 M8	K20R 280 M8	75	968	740	-	92.3	92.0	90.5	0.81	145	6.0	2.0	1.6	2.3	3.33	800
K21R 315 MX8	K20R 315 S8	90	1162	740	-	92.5	92.0	90.5	0.81	173	6.0	1.9	1.6	2.2	3.60	880
K21R 315 MY8	K20R 315 M8	110	1420	740	-	93.6	93.0	91.0	0.81	209	6.5	2.1	1.8	2.4	6.00	1100
K21R 315 L8	K20R 315 L8	132	1704	740	-	94.0	93.3	91.0	0.83	244	6.3	2.0	1.7	2.1	6.76	1250
K21R 315 LX8	K20R 315 LX8	160	2065	740	-	94.2	93.5	91.0	0.79	310	7.2	2.2	1.9	2.5	8.71	1430
K22R 355 MY8		160	2054	744	-	93.5	93.3	92.5	0.80	309	6.8	1.3	1.0	2.5	9.3	1700
K22R 355 M8		200	2571	743	-	93.9	93.6	92.8	0.77	399	6.5	1.6	1.0	2.7	9.5	1850
K22R 355 MX8		250	3209	744	-	94.1	93.9	92.8	0.78	492	6.6	1.3	1.0	2.8	13.4	2200
K22R 355 LY8		280	3594	744	-	93.6	93.4	92.3	0.78	554	8.2	1.2	1.0	2.8	15.8	2400

Three-phase motors with squirrel-cage rotor

with surface cooling, duty type S1, continuous duty
Thermal class 155, degree of protection IP 55

Motor selection data												Design point 400 V, 50 Hz	
Type		P_B	M_B	n_B	η_B	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
		kW	Nm	rpm	%	-	A	-	-	-	-	kgm²	kg
Synchronous speed 600 rpm – 10-pole version													
K21R 80 K10	K20R 71 K10	0.09	1.56	550	35.7	0.56	0.65	2.2	1.7	1.7	1.9	0.00130	11
K21R 80 G10	K20R 71 G10	0.12	2.10	545	43.9	0.58	0.68	2.2	1.6	1.6	1.8	0.00175	13
K21R 90 S10	K20R 80 K10	0.18	3.10	555	50.9	0.51	1.00	2.3	1.6	1.6	1.8	0.00325	16
K21R 90 L10	K20R 80 G10	0.25	4.30	555	49.1	0.49	1.50	2.3	1.5	1.5	1.9	0.00425	19
K21R 100 L10	K20R 90 L10	0.37	6.48	545	53.0	0.53	1.90	2.9	1.5	1.5	1.9	0.00625	24
K21R 100 LX10	K20R 100 S10	0.55	9.21	570	71.7	0.49	2.26	3.1	1.6	1.6	1.9	0.00900	28
K21R 112 M10	K20R 100 L10	0.75	13.1	545	61.2	0.61	2.90	3.4	1.7	1.7	1.9	0.01225	34
K21R 112 MX10	K20R 100 LX10	1.10	19.1	550	67.6	0.61	3.85	3.1	1.4	1.4	2.0	0.01390	37.0
K21R 132 S10	K20R 112 M10	1.1	18.4	570	67.0	0.65	3.6	3.7	1.7	1.6	2.5	0.0180	46
K21R 132 M10	K20R 112 MX10	1.5	25.1	570	71.5	0.65	4.7	3.8	1.8	1.8	2.6	0.0230	53
K21R 132 MX10	K20R 132 S10	2.2	36.5	575	75.0	0.65	6.5	3.7	1.7	1.6	2.2	0.0430	70
K21R 160 M10	K20R 132 M10	3.0	49.8	575	77.0	0.65	8.7	3.7	1.8	1.7	2.2	0.0530	86
K21R 160 L10	K20R 160 S10	5.5	91.3	575	80.5	0.68	14.5	4.0	1.8	1.7	2.1	0.113	114
K21R 180 L10	K20R 160 M10	6.0	99.7	575	82.0	0.68	15.5	3.9	2.0	1.7	2.1	0.145	136
K21R 200 L10	K20R 180 S10	9.0	147	585	83.0	0.65	24.0	4.6	2.3	2.0	2.7	0.228	175
K21R 200 LX10	K20R 180 M10	13	216	575	85.0	0.70	31.5	4.2	1.8	1.6	2.1	0.268	200
K21R 225 M10	K20R 200 M10	17	280	580	85.0	0.70	41	4.3	1.7	1.5	2.1	0.440	265
K21R 250 M10	K20R 225 M10	22	362	580	87.0	0.69	53	3.9	1.9	1.5	1.6	0.825	360
K21R 280 S10	K20R 250 S10	27	441	585	89.5	0.70	62	4.2	1.9	1.4	1.7	1.35	465
K21R 280 M10	K20R 250 M10	34	555	585	89.0	0.71	77.5	4.5	2.0	1.5	2.0	1.55	520
K21R 315 S10	K20R 280 S10	45	728	590	91.0	0.75	95	5.2	1.5	1.5	2.3	2.63	690
K21R 315 M10	K20R 280 M10	55	887	592	92.0	0.74	117	6.3	1.7	1.7	2.7	3.33	800
K21R 315 MX10	K20R 315 M10	75	1214	590	92.0	0.75	157	5.5	1.5	1.5	2.2	3.60	880
K21R 315 L10	K20R 315 L10	90	1449	593	93.0	0.69	202	6.0	1.8	1.5	2.2	6.76	1250
K21R 315 LX10	K20R 315 LX10	110	1765	595	93.5	0.66	257	6.0	1.6	1.5	2.1	8.71	1430
K22R 355 MY10		110	1766	595	94.7	0.74	227	5.3	0.9	0.8	2.3	9.3	1500
K22R 355 M10		132	2119	595	94.8	0.66	305	5.5	1.1	1.0	2.6	9.5	1600
K22R 355 MX10		160	2568	595				***)				9.5	1600
K22R 355 LY10		180	2889	595	95.3	0.74	370	5.7	1.3		2.4	11.6	2100
K22R 355 L10		200	3210	595	94.3	0.72	425	6.0	1.3	1.0	2.5	15.8	2400
Synchronous speed 500 rpm – 12-pole version													
K21R 80 K12	K20R 71 K12	0.1	1.95	440	31.1	0.58	0.72	1.9	1.6	1.6	2.0	0.0	11.0
K21R 80 G12	K20R 71 G12	0.1	2.58	445	42.4	0.47	0.87	2.0	1.9	1.9	2.1	0.0	12.5
K21R 90 S12	K20R 80 K12	0.18	3.82	450	39.2	0.51	1.30	1.8	1.6	1.6	1.9	0.00325	16.0
K21R 90 L12	K20R 80 G12	0.25	5.31	450	44.6	0.49	1.65	2.0	1.5	1.5	1.7	0.00425	19.0
K21R 100 L12	K20R 90 L12	0.37	7.85	450	50.6	0.48	2.20	2.1	1.5	1.5	1.7	0.00625	24.0
K21R 100 LX12	K20R 100 S12	0.55	11.5	455	53.5	0.53	2.80	2.4	1.4	1.4	1.9	0.00900	28.0
K21R 112 M12	K20R 100 L12	0.75	15.9	450	57.1	0.55	3.45	2.5	1.4	1.4	2.0	0.01225	33.5
K21R 132 S12	K20R 112 M12	0.75	15.1	475	60.0	0.57	3.2	3.0	2.2	2.0	2.2	0.0180	46
K21R 132 M12	K20R 112 MX12	1.1	22.4	470	63.0	0.60	4.2	3.2	1.6	1.6	2.4	0.0230	53
K21R 132 MX12	K20R 132 S12	1.5	29.8	480	67.0	0.57	5.7	3.0	1.5	1.5	2.1	0.0430	70
K21R 160 M12	K20R 132 M12	2.2	44.2	475	69.5	0.55	8.3	3.3	1.9	1.8	2.4	0.0530	86
K21R 160 L12	K20R 160 S12	3.0	59.7	480	77.0	0.60	9.4	3.4	2.0	1.7	2.0	0.113	114
K21R 180 L12	K20R 160 M12	5.5	111	475	76.0	0.60	17.5	3.0	1.8	1.7	2.0	0.145	136
K21R 200 L12	K20R 180 S12	6.0	119	480	83.0	0.65	16	3.3	1.6	1.5	1.9	0.228	175
K21R 200 LX12	K20R 180 M12	9.0	179	480	82.0	0.61	26	3.8	1.9	1.8	2.2	0.268	200
K21R 225 M12	K20R 200 M12	13	259	480	83.0	0.68	33	3.6	1.7	1.5	1.9	0.440	265
K21R 250 M12	K20R 225 M12	17	338	480	86.0	0.69	41.5	3.9	1.7	1.5	1.9	0.825	360
K21R 280 S12	K20R 250 S12	20	392	487	88.0	0.68	48	3.8	1.8	1.4	1.7	1.35	465
K21R 280 M12	K20R 250 M12	24	470	488	87.5	0.63	63	4.0	2.1	1.6	1.9	1.55	520
K21R 315 S12	K20R 280 S12	37	721	490	91.0	0.71	82.5	4.2	1.2	1.1	2.0	2.63	690
K21R 315 M12	K20R 280 M12	45	877	490	91.0	0.72	99	4.5	1.2	1.2	1.9	3.33	800
K21R 315 MX12	K20R 315 M12	55	1083	485	91.0	0.74	118	4.5	1.3	1.1	1.9	3.60	880
K21R 315 L12	K20R 315 L12	75	1450	494	92.0	0.55	215	4.5	1.5	1.2	1.9	6.76	1250
K21R 315 LX12	K20R 315 LX12	90	1747	492	93.3	0.67	208	5.0	1.6	1.5	2.2	8.71	1430
K22R 355 MY12		90	1754	490				***)				9.3	1500
K22R 355 M12		110	2122	495	91.7	0.53	327	4.0	1.3	1.0	1.6	9.3	1850
K22R 355 MX12		132	2573	495				***)				9.5	1600
K22R 355 LY12		145	2826	495				***)				15.8	2400
K22R 355 L12		160	3087	495	93.9	0.60	410	4.0	1.1	0.9	1.6	15.8	2400

***) upon request

Three-phase motors with squirrel-cage rotor

with surface cooling, duty type S1, continuous duty
Thermal class 155, degree of protection IP 55

Motor selection data												Design point 400 V, 50 Hz	
Type		P_B	M_B	n_B	η_B	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
		kW	Nm	rpm	%	-	A	-	-	-	-	kgm²	kg
Synchronous speed 375 rpm – 16-pole version													
K21R 132 S16	K20R 112 M16	0.55	15.0	350	42.0	0.43	4.4	2.0	1.8		2.3	0.0180	46
K21R 132 M16	K20R 112 MX16	0.75	20.5	350	45.0	0.43	5.6	2.0	1.7		2.2	0.0230	53
K21R 160 M16	K20R 132 S16	0.9	24.2	355	49.0	0.38	7.0	2.0	1.3		1.9	0.0430	70
K21R 160 MX16	K20R 132 M16	1.1	29.6	355	51.0	0.37	8.4	2.0	1.4		1.9	0.0530	86
K21R 160 L16	K20R 160 S16	1.5	39.8	360	58.0	0.40	9.3	2.5	1.5		2.2	0.113	114
K21R 180 L16	K20R 160 M16	2.2	58.3	360	65.0	0.44	11.0	2.5	1.4		1.9	0.145	136
K21R 200 L16	K20R 180 S16	3.0	79.6	360	71.0	0.40	15.0	2.8	1.5		2.2	0.228	175
K21R 200 LX16	K20R 180 M16	4.0	106	360	73.0	0.40	20.0	2.8	1.4		2.0	0.268	200
K21R 225 M16	K20R 200 M16	5.5	144	365	74.0	0.41	26.0	2.8	1.3		2.0	0.440	265
K21R 250 M16	K20R 225 M16	7.5	196	365	75.0	0.37	39.0	2.8	1.4		2.0	0.825	360
K21R 280 S16	K20R 250 S16	9.5	245	370	76.0	0.35	51.5	2.8	1.5		2.1	1.35	465
K21R 280 M16	K20R 250 M16	11	284	370	77.0	0.36	57.5	2.9	1.5		2.1	1.55	520
K21R 315 S16	K20R 280 S16	15	387	370	82.0	0.40	66	3.5	1.5		2.0	2.63	690
K21R 315 M16	K20R 280 M16	18.5	478	370	82.0	0.40	81.5	3.7	1.6		2.1	3.33	800
K21R 315 MX16	K20R 315 S16	22	568	370	87.5	0.46	79	3.5	1.5	1.2	1.9	3.60	880
K21R 315 MY16	K20R 315 M16	30	774	370	87.0	0.38	131	3.4	2.1	1.3	2.0	6.00	1050
K21R 315 L16	K20R 315 L16	37	955	370	84.5	0.38	166	3.2	1.2		1.7	6.76	1250
Synchronous speed 300 rpm – 20-pole version													
K21R 160 L20	K20R 160 S20	0.75	24.5	292	51.0	0.32	6.6	2.1	1.6		2.3	0.113	114
K21R 180 L20	K20R 160 M20	1.1	36.1	291	52.0	0.33	9.3	2.1	1.6		2.2	0.145	136
K21R 200 L20	K20R 180 S20	1.5	48.9	293	55.0	0.31	12.5	2.2	1.6		2.4	0.228	175
K21R 200 LX20	K20R 180 M20	1.8	58.9	292	58.0	0.32	14	2.2	1.5		2.2	0.268	200
K21R 225 M20	K20R 200 M20	2.1	68.0	295	61.0	0.28	17.5	2.3	1.5		2.6	0.440	265
K21R 250 M20	K20R 225 M20	3.0	97.1	295	63.0	0.29	23.5	2.3	1.5		2.3	0.825	360
K21R 280 S20	K20R 250 S20	4.0	129	296	62.0	0.25	37	2.2	1.6		2.2	1.35	465
K21R 280 M20	K20R 250 M20	5.5	177	296	67.0	0.27	44	2.2	1.4		2.2	1.55	520
K21R 315 S20	K20R 280 S20	7.5	241	297	79.0	0.25	55	2.4	1.4		2.4	2.63	690
K21R 315 M20	K20R 280 M20	9.5	305	297	72.0	0.25	76	2.4	1.4		2.4	3.33	800
K21R 315 MX20	K20R 315 S20	12	386	297	75.0	0.30	77	2.7	1.4		2.7	3.60	880
K21R 315 MY20	K20R 315 M20	16	516	296	80.0	0.32	90	3.0	1.4		3.0	6.00	1050
K21R 315 L20	K20R 315 L20	18	581	296	82.0	0.34	93	2.8	1.2		2.8	6.76	1250
Synchronous speed 250 rpm – 24-pole version													
K21R 160 L24	K20R 160 S24	0.37	14.7	240	40.0	0.29	4.6	1.6	1.5		2.0	0.113	114
K21R 180 L24	K20R 160 M24	0.55	21.9	240	42.0	0.28	6.8	1.6	1.5		2.0	0.145	136
K21R 200 L24	K20R 180 S24	0.75	29.2	245	44.0	0.28	8.8	1.7	1.4		2.0	0.228	175
K21R 200 LX24	K20R 180 M24	1.1	42.8	245	46.0	0.27	13	1.7	1.4		2.0	0.268	200
K21R 225 M24	K20R 200 M24	1.5	58.5	245	48.0	0.24	19	1.7	1.3		2.1	0.440	265
K21R 250 M24	K20R 225 M24	2.2	85.8	245	53.0	0.23	26	1.7	1.2		1.8	0.825	360
K21R 280 S24	K20R 250 S24	2.6	101	245	54.0	0.21	33	1.7	1.3		1.8	1.35	465
K21R 280 M24	K20R 250 M24	3	117	245	54.0	0.20	40	1.7	1.4		2.0	1.55	520
K21R 315 S24	K20R 280 S24	4	156	245	63.0	0.23	40	2.3	1.6		2.2	2.63	690
K21R 315 M24	K20R 280 M24	5.5	214	245	66.0	0.24	50	2.2	1.4		2.0	3.33	800
K21R 315 MX24	K20R 315 S24	7.5	292	245	65.0	0.23	72.5	2.2	1.4		1.9	3.60	880
K21R 315 MY24	K20R 315 M24	9.5	370	245	69.0	0.22	90.5	2.2	1.2		1.7	6.00	1050
K21R 315 L24	K20R 315 L24	11	429	245	72.0	0.24	92	2.2	1.2		1.7	6.76	1250

Three-phase motors with squirrel-cage rotor

with surface cooling, short-time duty S2, 10/30/60 min
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz
Efficiency determination according to IEC/EN 60034-2

Motor selection data														Design point 400 V, 50 Hz
Type		Short-time duty S2	P_B	M_B	n_B	η(100%)	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
			kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 3000 rpm – 2-pole version														
K21R 63 K2	K20R 56 K2	10 min	0.23	0.8	2710	63.0	0.86	0.61	3.5	1.6	1.5	1.8	0.00013	4.9
		30 min	0.22	0.8	2700	63.0	0.86	0.59	3.6	1.6	1.5	1.9		
		60 min	0.18	0.6	2790	67.1	0.76	0.51	4.1	1.9	1.9	2.2		
K21R 63 G2	K20R 56 G2	10 min	0.35	1.3	2660	65.0	0.86	0.90	3.7	1.8	1.7	1.9	0.00015	5.2
		30 min	0.33	1.2	2680	65.0	0.85	0.86	3.8	1.9	1.8	2.0		
		60 min	0.25	0.9	2800	68.1	0.72	0.74	4.2	2.2	2.2	2.4		
K21R 71 K2	K20R 63 K2	10 min	0.45	1.6	2690	68.0	0.88	1.08	3.9	1.5	1.5	1.7	0.00025	6.7
		30 min	0.42	1.5	2720	68.0	0.87	1.02	4.2	1.6	1.6	1.8		
		60 min	0.37	1.3	2780	71.5	0.79	0.94	4.4	2.1	2.1	2.3		
K21R 71 G2	K20R 63 G2	10 min	0.75	2.7	2680	70.0	0.88	1.76	3.8	1.5	1.5	1.7	0.00032	7.6
		30 min	0.65	2.3	2750	72.0	0.84	1.55	4.3	1.7	1.7	2.0		
		60 min	0.55	1.9	2775	74.3	0.81	1.32	5.1	2.3	2.1	2.6		
K21R 80 K2	K20R 71 K2	10 min	1.00	3.6	2680	70.0	0.90	2.30	4.3	2.0	1.8	2.0	0.00057	10.7
		30 min	0.90	3.1	2760	72.0	0.87	2.1	4.8	2.2	2.0	2.3		
		60 min	0.75	2.5	2825	77.5	0.81	1.72	5.9	2.4	2.4	2.4		
K21R 80 G2	K20R 71 G2	10 min	1.5	5.3	2715	73.0	0.88	3.37	4.4	1.6	1.6	1.8	0.00072	11.5
		30 min	1.35	4.7	2760	74.0	0.86	3.05	4.9	1.8	1.8	2.0		
		60 min	1.1	3.7	2835	77.8	0.80	2.55	6.0	2.4	2.3	2.6		
K21R 90 S2	K20R 80 K2	10 min	2.1	7.2	2800	78.0	0.88	4.42	5.3	1.8	1.6	1.8	0.00132	16.0
		30 min	1.8	6.1	2820	78.0	0.85	3.92	6.0	2.1	1.9	2.1		
		60 min	1.5	5.0	2840	81.2	0.86	3.1	7.0	2.5	2.5	2.8		
K21R 90 L2	K20R 80 G2	10 min	3	10.4	2760	78.0	0.90	6.20	5.3	2.0	1.8	2.1	0.0017	19.0
		30 min	2.7	9.2	2790	79.0	0.89	5.55	5.9	2.3	2.1	2.4		
		60 min	2.2	7.4	2850	82.0	0.85	4.55	7.5	2.8	2.3	2.9		
K21R 100 L2	K20R 90 L2	10 min	4.0	13.6	2810	81.5	0.89	8.00	5.4	1.5	1.5	2.0	0.00275	25.0
		30 min	3.6	12.2	2820	81.0	0.88	7.3	5.9	1.6	1.6	2.2		
		60 min	3.0	10.0	2865	83.4	0.84	6.15	6.8	2.4	2.2	2.8		
K21R 112 M2	K20R 100 S2	10 min	5.5	18.4	2850	83.0	0.86	11.10	5.4	1.5	1.5	2.0	0.0045	32
		30 min	4.8	16.0	2870	83.0	0.85	9.8	6.1	1.5	1.5	2.2		
		60 min	4.0	13.2	2900	85.0	0.81	8.4	7.0	2.2	2.1	2.9		
K21R 132 S 2 T	K20R 100 L2	10 min	7.2	24.2	2840	84.0	0.88	14.10	5.6	1.6	1.4	2.1	0.0055	38
		30 min	6.5	21.7	2860	84.0	0.87	12.8	6.2	1.8	1.5	2.3		
		60 min	5.5	18.2	2890	86.3	0.84	11	7.5	2.4	2.2	3.0		
K21R 132 S2	K20R 112MY2	10 min	6.9	23	2868	81.5	0.85	14.5	4.6	1.5	1.3	2.2	0.0081	50
		30 min	6.7	22	2880	81.5	0.85	14	4.8	1.6	1.4	2.3		
		60 min	6.5	22	2883	82.0	0.85	13.5	0.4	1.6	1.4	2.4		
K21R 132 SX2	K20R 112 M2	10 min	11.5	37	2957	80.5	0.90	23	4.1	1.1	1.1	1.8	0.0110	57
		30 min	10.0	34	2842	82.5	0.89	19.5	4.8	1.3	1.2	2.0		
		60 min	8.8	29	2850	82.5	0.88	17.5	0.5	1.4	1.4	2.3		
K21R 160 L2	K20R 160 M2	10 min	27.5	91	2880	87.0	0.90	50.5	4.5	1.5	1.1	1.8	0.0675	134
		30 min	24.5	81	2895	88.0	0.91	44	5.2	1.6	1.3	2.0		
		60 min	21.5	71	2910	88.0	0.92	38.5	5.9	1.9	1.5	2.3		
K21R 180 M2	K20R 180 S2	10 min	30.0	98	2910	87.0	0.90	55.5	4.1	1.3	1.0	1.8	0.105	165
		30 min	29.0	95	2916	88.0	0.90	53	4.2	1.4	1.1	1.9		
		60 min	25.5	83	2928	90.0	0.90	45.5	4.9	1.5	1.2	2.2		
K21R 200 L2	K20R 180 M2	10 min	43.0	142	2892	91.0	0.92	74	4.5	1.3	1.0	1.8	0.128	195
		30 min	40.0	132	2901	91.0	0.92	69	4.9	1.4	1.1	1.9		
		60 min	35.0	115	2916	91.0	0.92	60.5	5.5	1.6	1.3	2.2		
K21R 200 LX2	K20R 200 M2	10 min	49.0	160	2916	92.0	0.90	85.5	4.9	1.3	1.0	1.8	0.193	255
		30 min	49.0	160	2922	92.0	0.90	85.5	4.9	1.4	1.0	1.8		
		60 min	43.5	142	2934	92.0	0.90	76	5.5	1.5	1.1	2.0		
K21R 225 M2	K20R 200 L2	10 min	65.0	213	2910	92.0	0.90	113	4.8	1.4	1.0	1.8	0.220	290
		30 min	60.0	196	2925	92.0	0.90	105	5.2	1.5	1.1	1.9		
		60 min	52.5	171	2940	92.0	0.90	91.5	5.9	1.7	1.3	2.2		
K21R 250 M2	K20R 225 M2	10 min	76.0	247	2934	91.0	0.87	139	4.7	1.7	1.2	1.8	0.375	360
		30 min	73.0	237	2936	91.0	0.88	132	4.9	1.7	1.3	1.9		
		60 min	64.5	209	2943	92.0	0.90	112	5.8	2.0	1.4	2.1		

Three-phase motors with squirrel-cage rotor

with surface cooling, short-time duty S2, 10/30/60 min
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz
Efficiency determination according to IEC/EN 60034-2

Motor selection data														Design point 400 V, 50 Hz
Type		Short-time duty S2	P_B	M_B	n_B	η(100%)	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
			kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 3000 rpm – 2-pole version														
K21R 280 S2	K20R 250 S2	10 min	95.0	316	2868	93.0	0.90	164	4.9	1.3	1.1	1.8	0.650	490
		30 min	95.0	316	2874	93.0	0.91	162	5.0	1.3	1.1	1.8		
		60 min	88.0	292	2880	93.0	0.91	150	5.4	1.4	1.2	1.9		
K21R 280 M2	K20R 250 M2	10 min	130	420	2957	94.0	0.92	217	4.8	1.2	1.0	1.8	0.675	510
		30 min	120	387	2961	94.0	0.92	200	5.3	1.3	1.1	1.9		
		60 min	105	338	2967	94.0	0.91	177	5.9	1.5	1.3	2.2		
K21R 315 S2	K20R 280 S2	10 min	150	484	2958	93.5	0.90	257	5.0	1.3	1.2	1.8	1.21	720
		30 min	145	468	2961	94.0	0.90	247	5.2	1.4	1.3	1.9		
		60 min	125	402	2967	94.0	0.90	213	6.0	1.6	1.5	2.2		
K21R 315 M2	K20R 280 M2	10 min	175	565	2958	94.5	0.89	300	5.1	1.3	1.1	1.8	1.44	800
		30 min	175	564	2961	94.5	0.89	300	5.1	1.3	1.1	1.8		
		60 min	150	483	2967	94.5	0.90	255	6.0	1.5	1.3	2.1		
K21R 315 MX2	K20R 315 S2	10 min	220	710	2958	95.0	0.90	371	4.9	1.4	1.3	1.8	1.76	980
		30 min	210	677	2961	95.0	0.90	355	5.1	1.5	1.4	1.9		
		60 min	185	595	2967	95.0	0.90	312	5.8	1.7	1.6	2.2		
K21R 315 MY2	K20R 315 M2	10 min	300	973	2946	95.0	0.91	501	4.6	1.7	1.5	1.8	2.82	1170
		30 min	265	857	2952	95.0	0.92	438	5.2	2.0	1.7	2.0		
		60 min	230	743	2958	95.0	0.92	380	6.0	2.3	1.9	2.3		
K21R 315 L2	K20R 315 L2	10 min	315	1021	2946	95.5	0.91	523	5.7	1.7	1.1	1.6	3.66	1460
		30 min	330	1068	2952	95.5	0.92	542	5.5	1.6	1.1	1.5		
		60 min	290	936	2958	95.5	0.92	476	6.3	1.8	1.2	1.7		
K21R 315 LX2	K20R 315 LX2	10 min	400	1294	2952	95.5	0.92	657	5.8	1.9	1.1	1.6	4.43	1630
		30 min	400	1294	2952	95.5	0.92	657	5.8	1.9	1.1	1.6		
		60 min	350	1130	2958	95.5	0.92	575	6.6	2.1	1.3	1.8		

Three-phase motors with squirrel-cage rotor

with surface cooling, short-time duty S2, 10/30/60 min
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz
Efficiency determination according to IEC/EN 60034-2

Motor selection data														Design point 400 V, 50 Hz
Type		Short-time duty S2	P_B	M_B	n_B	η(100%)	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
			kW	Nm	rpm	%	-	A	-	-	-	-	kgm²	kg
Synchronous speed 1500 rpm – 4-pole version														
K21R 63 K4	K20R 56 K4	10 min	0.15	1.1	1325	56.0	0.78	0.50	2.8	1.4	1.4	1.7	0.00019	4.8
		30 min	0.14	1.0	1340	57.5	0.75	0.47	2.9	1.5	1.5	1.9		
		60 min	0.12	0.8	1370	57.5	0.68	0.44	3.2	1.9	1.8	2.2		
K21R 63 G4	K20R 56 G4	10 min	0.23	1.7	1290	59.0	0.78	0.72	2.9	1.6	1.6	1.7	0.00024	5.2
		30 min	0.22	1.6	1295	58.0	0.77	0.71	2.9	1.7	1.7	1.8		
		60 min	0.18	1.3	1360	61.0	0.66	0.65	3.3	2.0	2.0	2.3		
K21R 71 K4	K20R 63 K4	10 min	0.30	2.1	1340	61.0	0.80	0.89	3.0	1.4	1.4	1.6	0.00040	6.8
		30 min	0.28	2.0	1350	62.0	0.78	0.84	3.2	1.5	1.5	1.7		
		60 min	0.25	1.7	1385	64.6	0.72	0.78	3.6	1.8	1.8	2.1		
K21R 71 G4	K20R 63 G4	10 min	0.45	3.2	1325	64.0	0.81	1.25	3.3	1.5	1.5	1.7	0.00050	7.8
		30 min	0.40	2.8	1350	66.0	0.77	1.14	3.6	1.6	1.6	1.9		
		60 min	0.37	2.6	1370	67.8	0.74	1.06	3.8	2.0	2.0	2.2		
K21R 80 K4	K20R 71 K4	10 min	0.75	5.3	1350	67.0	0.82	1.97	3.3	1.4	1.4	1.7	0.00087	10.6
		30 min	0.70	4.9	1360	68.0	0.80	1.86	3.5	1.5	1.5	1.8		
		60 min	0.55	3.8	1400	71.5	0.69	1.60	4.1	2.1	2.0	2.3		
K21R 80 G4	K20R 71 G4	10 min	1.00	7.0	1360	70.0	0.80	2.58	3.9	1.7	1.7	1.9	0.00107	11.7
		30 min	0.90	6.3	1375	71.0	0.77	2.38	4.2	1.9	1.9	2.1		
		60 min	0.75	5.1	1400	73.5	0.70	2.10	4.6	2.2	2.1	2.3		
K21R 90 S4	K20R 80 K4	10 min	1.5	10.6	1350	70.0	0.89	3.45	4.0	1.3	1.3	1.6	0.00207	15.5
		30 min	1.4	9.8	1360	70.0	0.87	3.32	4.1	1.4	1.4	1.7		
		60 min	1.1	7.5	1410	76.6	0.79	2.62	5.5	2.3	2.2	2.5		
K21R 90 L4	K20R 80 G4	10 min	2	14.2	1345	72.0	0.89	4.50	4.2	1.4	1.4	1.7	0.00260	18.0
		30 min	1.8	12.6	1365	74.0	0.87	4.05	4.6	1.5	1.5	1.9		
		60 min	1.5	10.2	1400	78.8	0.81	3.40	5.5	2.5	2.4	2.6		
K21R 100 L4	K20R 90 L4	10 min	3	20.6	1390	78.0	0.84	6.70	4.8	1.9	1.5	2.0	0.00400	23.5
		30 min	2.8	19.2	1395	78.0	0.83	6.25	5.1	2.0	1.6	2.2		
		60 min	2.2	14.9	1410	81.2	0.79	4.95	6.0	2.5	2.3	2.7		
K21R 100 LX4	K20R 100 S4	10 min	4.0	27.2	1405	79.5	0.84	8.65	5.0	1.5	1.5	1.9	0.00725	30
		30 min	3.8	25.7	1415	79.5	0.84	8.20	5.3	1.6	1.6	2.0		
		60 min	3.0	20.0	1430	82.6	0.79	6.65	6.5	2.5	2.2	2.9		
K21R 112 M4	K20R 100 L4	10 min	5.5	38	1390	81.0	0.84	11.70	5.3	1.6	1.6	2.2	0.00900	37
		30 min	5.0	34	1400	80.0	0.84	10.7	5.8	1.8	1.8	2.4		
		60 min	4.0	27	1435	85.0	0.78	8.80	6.9	2.6	2.5	3.2		
K21R 132 S4	K20R 112 M4	10 min	8.5	58	1397	81.0	0.89	17	4.0	1.2	1.1	1.9	0.01500	50
		30 min	7.3	49	1413	81.5	0.90	14.5	4.7	1.4	1.3	2.2		
		60 min	6.5	44	1425	82.0	0.89	13	5.3	1.6	1.4	2.5		
K21R 132 M4	K20R 132 S4	10 min	12.0	81	1418	82.5	0.88	24	3.8	1.2	1.0	1.8	0.0280	70
		30 min	10.0	67	1436	84.0	0.87	20	4.5	1.5	1.3	2.2		
		60 min	8.8	58	1443	85.0	0.85	17.5	5.1	1.7	1.4	2.5		
K21R 160 M4	K20R 132 M4	10 min	16.0	107	1425	84.0	0.88	31	4.7	1.5	1.3	2.2	0.0350	92
		30 min	14.5	97	1434	85.0	0.88	28	5.2	1.7	1.4	2.5		
		60 min	12.5	83	1445	85.5	0.86	24.5	6.0	1.9	1.7	2.9		
K21R 160 L4	K20R 160 S4	10 min	22.0	147	1428	86.0	0.86	43	4.8	1.7	1.3	2.0	0.0780	120
		30 min	20.5	135	1449	87.0	0.87	39	5.3	1.8	1.4	2.2		
		60 min	17.5	115	1458	88.0	0.86	33.5	6.2	2.1	1.7	2.6		
K21R 180 M4	K20R 160 M4	10 min	29.0	194	1425	87.0	0.86	56	4.3	1.6	1.2	1.8	0.0900	136
		30 min	25.5	168	1448	87.5	0.87	48.5	4.9	1.8	1.4	2.1		
		60 min	21.5	141	1457	88.0	0.86	41	5.8	2.1	1.7	2.5		
K21R 180 L4	K20R 180 S4	10 min	34.0	225	1445	89.0	0.83	66.5	4.1	1.3	1.1	1.7	0.1380	170
		30 min	31.5	207	1452	89.0	0.84	61	4.5	1.4	1.2	1.8		
		60 min	26.0	170	1458	90.0	0.84	49.5	5.5	1.7	1.5	2.2		
K21R 200 L4	K20R 180 M4	10 min	45.0	297	1446	90.0	0.84	86	3.9	1.3	1.1	1.6	0.1680	200
		30 min	40.0	263	1452	90.0	0.86	74.5	4.5	1.5	1.3	1.9		
		60 min	35.0	229	1458	90.0	0.87	64.5	5.2	1.7	1.5	2.1		
K21R 225 S4	K20R 200 M4	10 min	55.0	361	1454	92.0	0.85	102	4.3	1.3	1.1	1.7	0.2750	270
		30 min	51.0	334	1460	92.0	0.85	94	4.6	1.4	1.2	1.8		
		60 min	45.0	294	1463	92.0	0.85	83	5.2	1.6	1.4	2.0		
K21R 225 M4	K20R 200 L4	10 min	65.0	429	1448	93.0	0.83	122	4.3	1.5	1.2	1.7	0.3130	300
		30 min	62.5	411	1452	93.0	0.83	117	4.5	1.6	1.2	1.8		
		60 min	55.0	360	1460	92.0	0.85	102	5.2	1.8	1.4	2.0		

Three-phase motors with squirrel-cage rotor

with surface cooling, short-time duty S2, 10/30/60 min
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz
Efficiency determination according to IEC/EN 60034-2

Motor selection data														Design point 400 V, 50 Hz
Type		Short-time duty S2	P_B	M_B	n_B	η(100%)	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
			kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 1500 rpm – 4-pole version														
K21R 250 M4	K20R 225 M4	10 min	75.0	489	1464	92.0	0.85	138	5.0	1.7	1.3	1.7	0.5250	375
		30 min	70.0	456	1467	92.0	0.85	129	5.3	1.9	1.4	1.8		
		60 min	65.0	422	1470	92.0	0.85	120	5.7	2.0	1.5	1.9		
K21R 280 S4	K20R 250 S4	10 min	95.0	618	1467	92.0	0.84	177	5.3	1.6	1.3	1.7	0.9500	520
		30 min	91.0	592	1469	92.0	0.84	170	5.5	1.6	1.4	1.8		
		60 min	85.0	551	1473	93.0	0.85	155	6.1	1.8	1.5	1.9		
K21R 280 M4	K20R 250 M4	10 min	115	745	1474	94.0	0.84	210	5.3	1.6	1.2	1.7	1.10	580
		30 min	110	712	1475	94.2	0.84	201	5.6	1.7	1.3	1.8		
		60 min	105	679	1476	94.0	0.85	190	5.9	1.8	1.4	1.9		
K21R 315 S4	K20R 280 S4	10 min	155	1002	1478	93.5	0.85	282	4.8	1.5	1.3	1.7	1.96	740
		30 min	145	936	1479	94.0	0.85	262	5.2	1.6	1.4	1.8		
		60 min	130	838	1482	94.0	0.85	235	5.8	1.8	1.6	2.0		
K21R 315 M4	K20R 280 M4	10 min	185	1199	1473	94.0	0.85	334	4.8	1.5	1.3	1.7	2.27	840
		30 min	175	1134	1474	94.0	0.85	316	5.1	1.6	1.4	1.8		
		60 min	155	1001	1479	94.0	0.85	280	5.8	1.8	1.5	2.0		
K21R 315 MX4	K20R 315 S4	10 min	205	1329	1473	94.0	0.85	370	4.9	1.4	1.3	1.7	2.73	1000
		30 min	195	1263	1475	94.0	0.86	348	5.2	1.5	1.4	1.8		
		60 min	185	1197	1476	94.0	0.86	330	5.5	1.6	1.5	1.9		
K21R 315 MY4	K20R 315 M4	10 min	275	1781	1475	95.0	0.87	480	4.9	1.4	1.3	1.7	4.82	1200
		30 min	265	1715	1476	95.0	0.87	463	5.0	1.5	1.4	1.8		
		60 min	235	1517	1479	95.0	0.88	406	5.7	1.7	1.5	2.0		
K21R 315 L4	K20R 315 L4	10 min	315	2039	1475	95.5	0.88	541	6.2	1.6	1.3	1.8	5.93	1450
		30 min	305	1973	1476	95.5	0.88	524	6.4	1.6	1.3	1.9		
		60 min	290	1873	1479	95.5	0.88	498	6.8	1.7	1.4	2.0		
K21R 315 LX4	K20R 315 LX4	10 min	390	2510	1484	96.0	0.86	682	6.7	1.5	1.2	2.0	6.82	1630
		30 min	375	2412	1485	96.0	0.87	648	7.1	1.6	1.3	2.1		
		60 min	360	2310	1488	96.0	0.87	622	7.4	1.7	1.3	2.2		

Three-phase motors with squirrel-cage rotor

with surface cooling, short-time duty S2, 10/30/60 min
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz
Efficiency determination according to IEC/EN 60034-2

Motor selection data														Design point 400 V, 50 Hz
Type		Short-time duty S2	P_B	M_B	n_B	η(100%)	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
			kW	Nm	rpm	%	-	A	-	-	-	-	kgm²	kg
Synchronous speed 1000 rpm – 6-pole version														
K21R 63 K6	K20R 56 K6	10 min	0.12	1.4	835	50.0	0.65	0.54	2.1	1.5	1.5	1.6	0.00024	4.9
		30 min	0.11	1.2	850	48.0	0.64	0.52	2.2	1.7	1.7	1.8		
		60 min	0.09	1.0	895	50.5	0.56	0.46	2.5	2.0	2.0	2.4		
K21R 63 G6	K20R 56 G6	10 min	0.15	1.7	845	50.0	0.64	0.68	2.2	1.4	1.4	1.6	0.00027	5.7
		30 min	0.14	1.6	855	50.0	0.62	0.65	2.3	1.5	1.5	1.8		
		60 min	0.12	1.3	880	52.0	0.56	0.59	2.5	2.0	2.0	2.3		
K21R 71 K6	K20R 63 K6	10 min	0.25	2.7	875	56.0	0.65	0.99	2.5	1.5	1.5	1.6	0.00045	7.4
		30 min	0.23	2.5	890	57.0	0.62	0.94	2.6	1.6	1.6	1.8		
		60 min	0.18	1.9	925	58.0	0.51	0.88	2.8	1.6	1.6	2.1		
K21R 71 G6	K20R 63 G6	10 min	0.30	3.3	875	59.0	0.60	1.23	2.6	1.6	1.6	1.8	0.00060	8.3
		30 min	0.28	3.0	880	58.0	0.59	1.18	2.8	1.7	1.7	1.9		
		60 min	0.25	2.6	915	60.0	0.55	1.10	2.9	2.0	2.0	2.2		
K21R 80 K6	K20R 71 K6	10 min	0.45	4.8	900	64.0	0.76	1.34	3.1	1.3	1.3	1.6	0.00130	11.0
		30 min	0.42	4.4	905	64.0	0.74	1.28	3.3	1.4	1.4	1.7		
		60 min	0.37	3.9	915	66.0	0.66	1.22	3.4	2.0	2.0	2.0		
K21R 80 G6	K20R 71 G6	10 min	0.65	6.9	900	65.0	0.75	1.93	3.2	1.5	1.5	1.8	0.00175	12.5
		30 min	0.60	6.3	905	65.0	0.72	1.85	3.4	1.6	1.6	2.0		
		60 min	0.55	5.7	915	68.0	0.67	1.73	3.7	2.2	2.2	2.4		
K21R 90 S6	K20R 80 K6	10 min	1.00	10.4	915	67.5	0.72	2.97	3.5	1.4	1.4	1.9	0.00325	16.0
		30 min	0.90	9.3	925	68.0	0.69	2.75	3.8	1.6	1.6	2.1		
		60 min	0.75	7.7	935	70.0	0.64	2.43	4.5	2.4	2.4	2.6		
K21R 90 L6	K20R 80 G6	10 min	1.5	15.9	900	69.0	0.76	4.15	3.4	1.5	1.5	1.7	0.00425	19.0
		30 min	1.4	14.8	905	68.0	0.75	3.95	3.6	1.6	1.6	1.8		
		60 min	1.1	11.2	935	73.0	0.69	3.15	4.6	2.2	2.2	2.6		
K21R 100 L6	K20R 90 L6	10 min	2	20.9	915	72.0	0.77	5.20	3.6	1.3	1.3	1.6	0.00625	24.0
		30 min	1.8	18.6	925	74.0	0.74	4.75	3.9	1.5	1.5	1.8		
		60 min	1.5	15.2	945	76.4	0.73	3.90	4.6	2.1	2.0	2.4		
K21R 112 M6	K20R 100 L6	10 min	3	31.1	920	76.0	0.84	6.80	4.2	1.5	1.5	1.9	0.01225	33.5
		30 min	2.8	28.9	925	77.0	0.83	6.35	4.5	1.6	1.6	2.0		
		60 min	2.2	22.1	950	79.8	0.74	5.35	5.3	2.2	2.1	2.7		
K21R 132 S6	K20R 112 M6	10 min	5.0	53	908	71.0	0.87	11.5	3.3	1.1	1.0	1.6	0.0180	46
		30 min	4.6	48	915	73.0	0.86	10.5	3.6	1.3	1.1	1.8		
		60 min	3.5	35	943	78.0	0.82	8	4.7	1.7	1.5	2.4		
K21R 132 M6	K20R 112 MX6	10 min	7.0	73	912	72.0	0.86	16.5	3.3	1.3	1.1	1.6	0.0230	53
		30 min	6.2	65	916	76.0	0.86	13.5	4.0	1.4	1.2	1.9		
		60 min	4.7	48	941	79.0	0.82	10.5	5.1	1.9	1.7	2.5		
K21R 132 MX6	K20R 132 S6	10 min	8.0	82	930	77.0	0.85	17.5	3.3	1.3	1.1	1.6	0.0430	70
		30 min	7.3	74	938	79.0	0.85	15.5	3.7	1.4	1.3	1.8		
		60 min	6.5	66	947	81.0	0.84	13.5	4.3	1.6	1.4	2.0		
K21R 160 M6	K20R 132 M6	10 min	12.0	123	932	77.0	0.84	27	3.2	1.2	1.0	1.5	0.0530	86
		30 min	10.5	106	944	81.0	0.84	22.5	3.8	1.4	1.1	1.8		
		60 min	8.8	88	953	82.0	0.84	18.5	4.6	1.7	1.4	2.1		
K21R 160 L6	K20R 160 S6	10 min	16.0	163	939	85.0	0.88	31	3.5	1.3	1.1	1.5	0.1130	114
		30 min	14.0	141	949	85.0	0.87	27.5	4.0	1.5	1.3	1.8		
		60 min	12.5	125	955	85.0	0.87	24.5	4.5	1.7	1.5	2.0		
K21R 180 L6	K20R 160 M6	10 min	24.0	244	940	85.0	0.83	49	3.4	1.5	1.3	1.6	0.1450	136
		30 min	22.5	227	945	85.0	0.83	46	3.6	1.6	1.4	1.8		
		60 min	17.5	174	960	85.0	0.82	36	4.7	2.0	1.9	2.3		
K21R 200 L6	K20R 180 S6	10 min	26.0	263	944	86.0	0.88	49.5	3.9	1.4	1.2	1.7	0.2280	175
		30 min	24.5	246	952	86.0	0.88	46.5	4.2	1.5	1.3	1.8		
		60 min	21.0	209	960	87.0	0.87	40	4.9	1.8	1.5	2.1		
K21R 200 LX6	K20R 180 M6	10 min	35.0	354	943	87.0	0.86	67.5	3.6	1.3	1.1	1.6	0.2680	200
		30 min	33.0	333	947	87.0	0.86	63.5	3.9	1.4	1.2	1.8		
		60 min	25.0	248	962	88.0	0.86	47.5	5.2	1.8	1.6	2.4		
K21R 225 M6	K20R 200 M6	10 min	45.0	452	950	89.0	0.88	83	4.0	1.4	1.1	1.6	0.4430	265
		30 min	41.5	415	955	89.0	0.88	76.5	4.3	1.6	1.2	1.8		
		60 min	35.0	347	964	89.0	0.88	64.5	5.1	1.9	1.4	2.1		
K21R 250 M6	K20R 225 M6	10 min	50.0	497	960	88.0	0.86	95.5	4.1	1.5	1.1	1.7	0.8250	360
		30 min	47.0	466	963	89.0	0.87	87.5	4.5	1.6	1.2	1.8		
		60 min	43.5	430	966	90.0	0.89	78.5	5.0	1.7	1.3	1.9		

Three-phase motors with squirrel-cage rotor

with surface cooling, short-time duty S2, 10/30/60 min
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz
Efficiency determination according to IEC/EN 60034-2

Motor selection data														Design point 400 V, 50 Hz
Type		Short-time duty S2	P_B	M_B	n_B	η(100%)	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
			kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 1000 rpm – 6-pole version														
K21R 280 S6	K20R 250 S6	10 min	55.0	539	975	90.0	0.86	103	4.7	1.6	1.2	1.6	1.28	465
		30 min	55.0	539	975	90.0	0.86	103	4.7	1.6	1.2	1.6		
		60 min	52.0	508	978	91.0	0.86	96	5.1	1.7	1.3	1.7		
K21R 280 M6	K20R 250 M6	10 min	72.0	705	975	90.0	0.85	136	4.3	1.6	1.2	1.7	1.48	520
		30 min	67.0	654	978	92.0	0.87	121	4.8	1.7	1.3	1.8		
		60 min	64.0	624	979	92.0	0.87	115	5.1	1.8	1.4	1.9		
K21R 315 S6	K20R 280 S6	10 min	110	1072	980	92.5	0.86	200	4.3	1.4	1.2	1.6	2.63	690
		30 min	100	973	982	93.0	0.86	180	4.8	1.5	1.3	1.8		
		60 min	88	853	985	93.0	0.87	157	5.5	1.7	1.4	2.0		
K21R 315 M6	K20R 280 M6	10 min	130	1267	980	93.0	0.86	235	4.3	1.4	1.2	1.6	3.33	800
		30 min	120	1166	983	93.0	0.86	217	4.7	1.5	1.3	1.8		
		60 min	105	1018	985	94.0	0.87	185	5.5	1.7	1.4	2.0		
K21R 315 MX6	K20R 315 S6	10 min	165	1611	978	93.0	0.86	298	4.5	1.5	1.3	1.7	3.60	880
		30 min	155	1510	980	93.0	0.86	280	4.8	1.6	1.3	1.8		
		60 min	125	1214	983	93.8	0.87	221	6.1	2.0	1.7	2.3		
K21R 315 MY6	K20R 315 M6	10 min	200	1953	978	94.5	0.88	347	4.6	1.6	1.3	1.7	6.00	1050
		30 min	190	1852	980	94.5	0.88	330	4.8	1.7	1.4	1.8		
		60 min	155	1503	985	94.5	0.88	269	5.9	2.0	1.7	2.2		
K21R 315 L6	K20R 315 L6	10 min	220	2148	978	94.5	0.88	382	5.4	1.7	1.4	1.7	6.67	1250
		30 min	210	2046	980	94.5	0.88	364	5.7	1.7	1.4	1.8		
		60 min	185	1794	985	94.5	0.88	321	6.4	2.0	1.6	2.1		
K21R 315 LX6	K20R 315 LX6	10 min	270	2637	978	94.0	0.85	488	5.9	1.6	1.5	2.0	8.6	1460
		30 min	250	2431	982	94.5	0.86	444	6.5	1.7	1.6	2.1		
		60 min	235	2269	989	95.0	0.86	415	7.0	1.9	1.7	2.3		

Three-phase motors with squirrel-cage rotor

with surface cooling, short-time duty S2, 10/30/60 min
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz
Efficiency determination according to IEC/EN 60034-2

Motor selection data														Design point 400 V, 50 Hz
Type		Short-time duty S2	P_B	M_B	n_B	η(100%)	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
			kW	Nm	rpm	%	-	A	-	-	-	-	kgm²	kg
Synchronous speed 750 rpm – 8-pole version														
K21R 71 K8	K20R 63 K8	10 min	0.105	1.5	655	45.0	0.58	0.58	2.0	1.5	1.5	1.8	0.00050	6.6
		30 min	0.10	1.4	665	44.0	0.58	0.57	2.1	1.6	1.6	1.8		
		60 min	0.09	1.3	675	45.5	0.51	0.56	2.1	1.9	1.9	2.1		
K21R 71 G8	K20R 63 G8	10 min	0.14	2.0	655	47.0	0.57	0.75	2.1	1.4	1.4	1.8	0.00060	8.1
		30 min	0.13	1.9	665	46.0	0.56	0.74	2.1	1.5	1.5	1.9		
		60 min	0.12	1.7	670	46.5	0.51	0.73	2.3	1.8	1.8	2.1		
K21R 80 K8	K20R 71 K8	10 min	0.22	3.1	670	56.0	0.68	0.83	2.4	1.3	1.3	1.6	0.00130	10.5
		30 min	0.21	3.0	675	56.0	0.67	0.81	2.5	1.4	1.4	1.7		
		60 min	0.18	2.5	690	56.5	0.59	0.78	2.8	2.0	2.0	2.2		
K21R 80 G8	K20R 71 G8	10 min	0.35	5.1	655	57.0	0.68	1.30	2.6	1.4	1.4	1.5	0.00175	12.0
		30 min	0.33	4.8	660	56.0	0.68	1.24	2.7	1.5	1.5	1.7		
		60 min	0.25	3.4	695	58.0	0.56	1.12	3.0	2.3	2.3	2.5		
K21R 90 S8	K20R 80 K8	10 min	0.50	7.0	680	59.0	0.65	1.87	2.6	1.3	1.3	1.6	0.00300	15.0
		30 min	0.45	6.2	690	60.0	0.62	1.75	2.8	1.4	1.4	1.8		
		60 min	0.37	5.1	700	61.5	0.54	1.6	3.0	1.9	1.9	2.1		
K21R 90 L8	K20R 80 G8	10 min	0.70	9.8	680	64.0	0.64	2.48	2.8	1.4	1.4	1.7	0.00375	18.0
		30 min	0.65	9.1	685	64.0	0.62	2.37	2.9	1.5	1.5	1.8		
		60 min	0.55	7.6	695	64.5	0.60	2.04	3.2	1.9	1.9	2.2		
K21R 100 L8	K20R 90 L8	10 min	0.95	13.2	690	64.0	0.65	3.30	2.8	1.3	1.3	1.6	0.00625	23.0
		30 min	0.90	12.4	695	64.0	0.64	3.15	2.9	1.4	1.4	1.7		
		60 min	0.75	10.2	705	67.0	0.60	2.7	3.3	2.0	2.0	2.3		
K21R 100 LX8	K20R 100 S8	10 min	1.5	21.1	680	70.0	0.76	4.05	3.2	1.4	1.4	1.6	0.00900	28.0
		30 min	1.4	19.5	685	71.0	0.74	3.85	3.4	1.5	1.5	1.8		
		60 min	1.1	14.9	705	73.0	0.67	3.25	4.0	2.0	2.0	2.4		
K21R 112 M8	K20R 100 L8	10 min	2	27.9	685	72.0	0.77	5.20	3.3	1.5	1.5	1.7	0.01225	33.5
		30 min	1.8	24.9	690	74.0	0.75	4.68	3.7	1.7	1.7	1.9		
		60 min	1.5	20.3	705	75.5	0.70	4.1	4.4	2.2	2.1	2.5		
K21R 132 S8	K20R 112 M8	10 min	2.8	39	694	72.6	0.79	7		1.3	1.2	1.8	0.01800	46
		30 min	2.8	39	694	72.6	0.79	7		1.3	1.2	1.8		
		60 min	2.6	36	699	73.5	0.77	6.6						
K21R 132 M8	K20R 112 MX8	10 min	3.8	53	686	73.6	0.80	9.3	3.2	1.3	1.2	1.8	0.0230	53
		30 min	3.8	53	686	73.6	0.80	9.3	3.2	1.3	1.2	1.8		
		60 min	3.5	48	692	75.0	0.77	8.7	3.4	1.4	1.4	1.9		
K21R 160 M8	K20R 132 S8	10 min	4.2	57	704	77.0	0.78	10	3.8	1.5	1.3	1.8	0.0430	70
		30 min	4.2	57	704	77.0	0.78	10	3.8	1.5	1.3	1.8		
		60 min	4.2	57	704	77.0	0.78	10	3.8	1.5	1.3	1.8		
K21R 160 MX8	K20R 132 M8	10 min	6.4	86	707	79.0	0.78	15	3.5	1.5	1.4	1.8	0.0530	86
		30 min	6.4	86	707	79.0	0.78	15	3.5	1.5	1.4	1.8		
		60 min	6.4	86	707	79.0	0.78	15	3.5	1.5	1.4	1.8		
K21R 160 L8	K20R 160 S8	10 min	8.8	117	720	81.0	0.78	20	3.7	1.5	1.4	1.8	0.1130	114
		30 min	8.8	117	720	81.0	0.78	20	3.7	1.5	1.4	1.8		
		60 min	8.8	117	720	81.0	0.78	20	3.7	1.5	1.4	1.8		
K21R 180 L8	K20R 160 M8	10 min	12.8	171	714	84.0	0.79	28	3.9	1.7	1.4	1.8	0.1450	136
		30 min	12.8	171	714	84.0	0.79	28	3.9	1.7	1.4	1.8		
		60 min	12.8	171	714	84.0	0.79	28	3.9	1.7	1.4	1.8		
K21R 200 L8	K20R 180 S8	10 min	19.2	257	714	84.0	0.80	41	4.0	1.5	1.3	1.8	0.228	175
		30 min	19.2	257	714	84.0	0.80	41	4.0	1.5	1.3	1.8		
		60 min	17.6	233	720	85.0	0.78	38.5	4.2	1.7	1.4	1.9		
	K20R 180 M8	10 min	23.5	316	711	86.0	0.82	48	4.0	1.6	1.3	1.7	0.268	200
		30 min	23.5	316	711	86.0	0.82	48	4.0	1.6	1.3	1.7		
		60 min	21.5	287	716	86.0	0.82	44	4.3	1.7	1.5	1.9		
K21R 225 S8		10 min	22.5	297	724	87.5	0.83	44.5	4.3	1.6	1.3	1.8	0.440	265
		30 min	22.5	297	724	87.5	0.83	44.5	4.3	1.6	1.3	1.8		
		60 min	21.5	283	726	88.0	0.82	43	4.4	1.7	1.4	1.9		
K21R 225 M8	K20R 200 M8	10 min	28.0	373	716	87.5	0.84	55	4.0	1.4	1.2	1.7	0.440	265
		30 min	28.0	373	716	87.5	0.84	55	4.0	1.4	1.2	1.7		
		60 min	25.5	338	720	88.5	0.84	49.5	4.5	1.5	1.3	1.9		
K21R 250 M8	K20R 225 M8	10 min	36.5	479	727	89.0	0.80	74	4.5	1.8	1.5	1.8	0.825	360
		30 min	36.5	479	727	89.0	0.80	74	4.5	1.8	1.5	1.8		
		60 min	35.0	459	728	90.0	0.80	70	4.7	1.9	1.5	1.9		

Three-phase motors with squirrel-cage rotor

with surface cooling, short-time duty S2, 10/30/60 min
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz
Efficiency determination according to IEC/EN 60034-2

Motor selection data														Design point 400 V, 50 Hz
Type		Short-time duty S2	P_B	M_B	n_B	η(100%)	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
			kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 750 rpm – 8-pole version														
K21R 280 S8	K20R 250 S8	10 min	45.0	588	731	90.0	0.80	90	4.5	1.6	1.2	1.6	1.35	465
		30 min	45.0	588	731	90.0	0.80	90	4.5	1.6	1.2	1.6		
		60 min	41.0	535	732	90.0	0.80	82	4.9	1.8	1.3	1.8		
K21R 280 M8	K20R 250 M8	10 min	55.0	717	733	91.0	0.79	110	4.6	1.8	1.2	1.6	1.55	520
		30 min	55.0	717	733	91.0	0.79	110	4.6	1.8	1.2	1.6		
		60 min	50.0	651	734	91.0	0.78	102	5.0	2.0	1.3	1.8		
K21R 315 S8	K20R 280 S8	10 min	73.0	946	737	92.0	0.79	145	4.4	1.5	1.2	1.8	2.63	690
		30 min	73.0	946	737	92.0	0.79	145	4.4	1.5	1.2	1.8		
		60 min	73.0	946	737	92.0	0.79	145	4.4	1.5	1.2	1.8		
K21R 315 M8	K20R 280 M8	10 min	100	1319	724	92.0	0.79	199	4.3	1.5	1.2	1.7	3.33	800
		30 min	100	1319	724	92.0	0.79	199	4.3	1.5	1.2	1.7		
		60 min	95	1250	726	92.0	0.81	184	4.7	1.5	1.2	1.8		
K21R 315 MX8	K20R 315 S8	10 min	110	1429	735	93.0	0.81	211	4.9	1.6	1.4	2.0	3.60	880
		30 min	110	1429	735	93.0	0.81	211	4.9	1.6	1.4	2.0		
		60 min	110	1429	735	93.0	0.81	211	4.9	1.6	1.4	2.0		
K21R 315 MY8	K20R 315 M8	10 min	160	2076	736	92.0	0.80	314	4.0	1.6	1.4	1.8	6.00	1050
		30 min	160	2076	736	92.0	0.80	314	4.0	1.6	1.4	1.8		
		60 min	150	1944	737	93.0	0.80	291	4.3	1.8	1.5	1.9		
K21R 315 L8	K20R 315 L8	10 min	165	2138	737	94.0	0.82	309	5.0	1.6	1.4	1.7	6.76	1250
		30 min	165	2138	737	94.0	0.82	309	5.0	1.6	1.4	1.7		
		60 min	155	2008	737	94.5	0.82	289	5.3	1.7	1.4	1.8		
K21R 315 LX8	K20R 315 LX8	10 min	210	2736	733	93.0	0.77	423	5.2	1.7	1.4	1.9	8.71	1430
		30 min	200	2602	734	94.0	0.77	399	5.5	1.7	1.5	2.0		
		60 min	180	2339	735	95.0	0.78	351	6.3	1.9	1.7	2.2		

Three-phase motors with squirrel-cage rotor

with surface cooling, intermittent periodic duty S3-25 %/40 %/60 %
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz
Efficiency determination according to IEC/EN 60034-2

Motor selection data														Design point 400 V, 50 Hz
Type		c.d.f.	P_B	M_B	n_B	η(100%)	$\cos\phi_B$	I_B	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
		S3						400 V						
			kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 3000 rpm – 2-pole version														
K210 56 K2		25 %	0.09	0.3	2865	69.0	0.75	0.25	4.9	2.3	2.3	2.8	0.00013	4.4
		40 %	0.09	0.3	2865	69.0	0.75	0.25	4.9	2.3	2.3	2.8		
		60 %	0.09	0.3	2865	69.0	0.75	0.25	4.9	2.3	2.3	2.8		
K21R 56 G2		25 %	0.12	0.4	2830	69.0	0.78	0.32	4.5	2.1	2.1	2.3	0.00013	4.5
		40 %	0.12	0.4	2830	69.0	0.78	0.32	4.5	2.1	2.1	2.3		
		60 %	0.12	0.4	2830	69.0	0.78	0.32	4.5	2.1	2.1	2.3		
K21R 63 K2	K20R 56 K2	25 %	0.23	0.8	2700	63	0.86	0.61	3.5	1.6	1.5	1.8	0.00013	4.9
		40 %	0.23	0.8	2710	63	0.86	0.61	3.5	1.6	1.5	1.8		
		60 %	0.22	0.8	2700	63.0	0.86	0.59	3.6	1.6	1.5	1.9		
K21R 63 G2	K20R 56 G2	25 %	0.35	1.3	2660	65	0.86	0.90	3.7	1.8	1.7	1.9	0.00015	5.2
		40 %	0.35	1.3	2660	65	0.86	0.90	3.7	1.8	1.7	1.9		
		60 %	0.33	1.2	2680	65.0	0.85	0.86	3.8	1.9	1.8	2.0		
K21R 71 K2	K20R 63 K2	25 %	0.45	1.6	2690	68	0.88	1.08	3.9	1.5	1.5	1.7	0.00025	6.7
		40 %	0.45	1.6	2690	68	0.88	1.08	3.9	1.5	1.5	1.7		
		60 %	0.42	1.5	2720	68.0	0.87	1.02	4.2	1.6	1.6	1.8		
K21R 71 G2	K20R 63 G2	25 %	0.75	2.7	2640	69	0.90	1.73	3.7	1.6	1.7	1.8	0.00032	7.6
		40 %	0.75	2.7	2680	70	0.88	1.76	3.8	1.5	1.5	1.7		
		60 %	0.65	2.3	2750	72.0	0.84	1.55	4.3	1.7	1.7	2.0		
K21R 80 K2	K20R 71 K2	25 %	1.00	3.6	2680	70	0.90	2.30	4.3	2.0	1.8	2.0	0.00057	10.7
		40 %	1.00	3.6	2680	70	0.90	2.30	4.3	2.0	1.8	2.0		
		60 %	0.90	3.1	2760	72.0	0.87	2.1	4.8	2.2	2.0	2.3		
K21R 80 G2	K20R 71 G2	25 %	1.5	5.3	2715	73	0.88	3.37	4.4	1.6	1.6	1.8	0.00072	11.5
		40 %	1.5	5.3	2715	73	0.88	3.37	4.4	1.6	1.6	1.8		
		60 %	1.35	4.7	2760	74.0	0.86	3.05	4.9	1.8	1.8	2.0		
K21R 90 S2	K20R 80 K2	25 %	2.1	7.3	2750	77.5	0.90	4.35	4.9	1.9	1.7	1.9	0.00132	16.0
		40 %	2.1	7.2	2800	78	0.88	4.35	5.3	1.8	1.6	1.8		
		60 %	1.8	6.1	2820	78.0	0.85	3.92	6.0	2.1	1.9	2.1		
K21R 90 L2	K20R 80 G2	25 %	3	10.4	2760	78	0.90	6.20	5.3	2.0	1.8	2.1	0.0017	19.0
		40 %	3	10.4	2760	78	0.90	6.20	5.3	2.0	1.8	2.1		
		60 %	2.7	9.2	2790	79.0	0.89	5.55	5.9	2.3	2.1	2.4		
K21R 100 L2	K20R 90 L2	25 %	4.0	13.6	2810	81.5	0.89	8.00	5.4	1.5	1.5	2.0	0.00275	25.0
		40 %	4.0	13.6	2810	81.5	0.89	8.00	5.4	1.5	1.5	2.0		
		60 %	3.6	12.2	2820	81.0	0.88	7.3	5.9	1.6	1.6	2.2		
K21R 112 M2	K20R 100 S2	25 %	5.5	18.4	2850	83	0.86	11.10	5.4	1.5	1.5	2.0	0.0045	32
		40 %	5.5	18.4	2850	83	0.86	11.10	5.4	1.5	1.5	2.0		
		60 %	4.8	16.0	2870	83.0	0.85	9.8	6.1	1.5	1.5	2.2		
K21R 132 S2 T	K20R 100 L2	25 %	7.2	24.2	2840	84	0.88	14.10	5.6	1.6	1.4	2.1	0.0055	38
		40 %	7.2	24.2	2840	84	0.88	14.10	5.6	1.6	1.4	2.1		
		60 %	6.5	21.7	2860	84.0	0.87	12.8	6.2	1.8	1.5	2.3		
K21R 132 S2	K20R 112 MY2	25 %	6.9	23	2868	81.5	0.85	14.5	4.6	1.5	1.3	2.2	0.0081	50
		40 %	6.7	22	2880	81.5	0.85	14	4.8	1.6	1.4	2.3		
		60 %	6.5	22	2883	82.0	0.85	13.5	0.4	1.6	1.4	2.4		
K21R 132 SX2	K20R 112 M2	25 %	10.0	33	2860	85.0	0.87	19.5	4.9	1.4	1.0	1.9	0.0110	57
		40 %	10.0	33	2860	85.0	0.87	19.5	4.9	1.4	1.0	1.9		
		60 %	8.8	29	2880	85.5	0.87	17.1	5.6	1.6	1.1	2.1		
K21R 160 M2	K20R 132 M2	25 %	16.5	55	2860	85.0	0.90	31.1	4.5	1.6	1.3	2.0	0.0258	81
		40 %	14.5	48	2875	85.5	0.91	26.9	5.2	1.8	1.5	2.2		
		60 %	12.5	41	2890	86.0	0.90	23.3	6.0	2.1	1.8	2.6		
K21R 160 MX2	K20R 160 S2	25 %	23.0	76	2900	88.0	0.91	41.5	4.6	1.5	1.1	1.9	0.0575	118
		40 %	20.0	66	2910	88.5	0.90	36.2	5.3	1.7	1.3	2.2		
		60 %	17.5	57	2920	88.5	0.90	31.7	6.0	1.9	1.5	2.5		
K21R 160 L2	K20R 160 M2	25 %	27.5	91	2880	87.0	0.90	50.5	4.5	1.5	1.1	1.8	0.0675	134
		40 %	24.5	81	2895	88.0	0.91	44	5.2	1.6	1.3	2.0		
		60 %	21.5	71	2910	88.0	0.92	38.5	5.9	1.9	1.5	2.3		
K21R 180 M2	K20R 180 S2	25 %	30.0	98	2910	87.0	0.90	55.5	4.1	1.3	1.0	1.8	0.105	165
		40 %	29.0	95	2916	88.0	0.90	53	4.2	1.4	1.1	1.9		
		60 %	25.5	83	2928	90.0	0.90	45.5	4.9	1.5	1.2	2.2		

Three-phase motors with squirrel-cage rotor

with surface cooling, intermittent periodic duty S3-25%/40%/60%
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz
Efficiency determination according to IEC/EN 60034-2

Motor selection data														Design point 400 V, 50 Hz
Type		c.d.f.	P_B	M_B	n_B	η(100%)	$\cos\phi_B$	I_B	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
		S3						400 V						
			kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 3000 rpm – 2-pole version														
K21R 200 L2	K20R 180 M2	25 %	43.0	142	2892	91.0	0.92	74	4.5	1.3	1.0	1.8	0.128	195
		40 %	40.0	132	2901	91.0	0.92	69	4.9	1.4	1.1	1.9		
		60 %	35.0	115	2916	91.0	0.92	60.5	5.5	1.6	1.3	2.2		
K21R 200 LX2	K20R 200 M2	25 %	49.0	160	2916	92.0	0.90	85.5	4.9	1.3	1.0	1.8	0.193	255
		40 %	49.0	160	2922	92.0	0.90	85.5	4.9	1.4	1.0	1.8		
		60 %	43.5	142	2934	92.0	0.90	76	5.5	1.5	1.1	2.0		
K21R 225 M2	K20R 200 L2	25 %	65.0	213	2910	92.0	0.90	113	4.8	1.4	1.0	1.8	0.220	290
		40 %	60.0	196	2925	92.0	0.90	105	5.2	1.5	1.1	1.9		
		60 %	52.5	171	2940	92.0	0.90	91.5	5.9	1.7	1.3	2.2		
K21R 250 M2	K20R 225 M2	25 %	76.0	247	2934	91.0	0.87	139	4.7	1.7	1.2	1.8	0.375	360
		40 %	73.0	237	2936	91.0	0.88	132	4.9	1.7	1.3	1.9		
		60 %	64.5	209	2943	92.0	0.90	112	5.8	2.0	1.4	2.1		
K21R 280 S2	K20R 250 S2	25 %	95.0	316	2868	93.0	0.90	164	4.9	1.3	1.1	1.8	0.650	490
		40 %	95.0	316	2874	93.0	0.91	162	5.0	1.3	1.1	1.8		
		60 %	88.0	292	2880	93.0	0.91	150	5.4	1.4	1.2	1.9		
K21R 280 M2	K20R 250 M2	25 %	130	420	2957	94.0	0.92	217	4.8	1.2	1.0	1.8	0.675	510
		40 %	120	387	2961	94.0	0.92	200	5.3	1.3	1.1	1.9		
		60 %	105	338	2967	94.0	0.91	177	5.9	1.5	1.3	2.2		
K21R 315 S2	K20R 280 S2	25 %	150	484	2958	93.5	0.90	257	5.0	1.3	1.2	1.8	1.21	720
		40 %	145	468	2961	94.0	0.90	247	5.2	1.4	1.3	1.9		
		60 %	125	402	2967	94.0	0.90	213	6.0	1.6	1.5	2.2		
K21R 315 M2	K20R 280 M2	25 %	175	565	2958	94.5	0.89	300	5.1	1.3	1.1	1.8	1.44	800
		40 %	175	564	2961	94.5	0.89	300	5.1	1.3	1.1	1.8		
		60 %	150	483	2967	94.5	0.90	255	6.0	1.5	1.3	2.1		
K21R 315 MX2	K20R 315 S2	25 %	220	710	2958	95.0	0.90	371	4.9	1.4	1.3	1.8	1.76	980
		40 %	210	677	2961	95.0	0.90	355	5.1	1.5	1.4	1.9		
		60 %	185	595	2967	95.0	0.90	312	5.8	1.7	1.6	2.2		
K21R 315 MY2	K20R 315 M2	25 %	300	973	2946	95.0	0.91	501	4.6	1.7	1.5	1.8	2.82	1170
		40 %	265	857	2952	95.0	0.92	438	5.2	2.0	1.7	2.0		
		60 %	230	743	2958	95.0	0.92	380	6.0	2.3	1.9	2.3		
K21R 315 L2	K20R 315 L2	25 %	315	1021	2946	95.5	0.91	523	5.7	1.7	1.1	1.6	3.66	1460
		40 %	330	1068	2952	95.5	0.92	542	5.5	1.6	1.1	1.5		
		60 %	290	936	2958	95.5	0.92	476	6.3	1.8	1.2	1.7		
K21R 315 LX2	K20R 315 LX2	25 %	400	1294	2952	95.5	0.92	657	5.8	1.9	1.1	1.6	4.43	1630
		40 %	400	1294	2952	95.5	0.92	657	5.8	1.9	1.1	1.6		
		60 %	350	1130	2958	95.5	0.92	575	6.6	2.1	1.3	1.8		
K22R 355 MY2		25 %	315	1008	2984	96.8	0.88	534	8.6	1.3	1.0	2.7	4.10	1900
		40 %	315	1008	2984	96.8	0.88	534	8.6	1.3	1.0	2.7		
		60 %	315	1008	2984	96.8	0.88	534	8.6	1.3	1.0	2.7		
K22R 355 M2		25 %	355	1137	2983	96.8	0.91	582	7.3	1.3	1.0	2.7	4.20	2000
		40 %	355	1137	2983	96.8	0.91	582	7.3	1.3	1.0	2.7		
		60 %	355	1137	2983	96.8	0.91	582	7.3	1.3	1.0	2.7		
K22R 355 MX2		25 %	400	1280	2984	96.9	0.91	649	7.5	1.3	1.0	2.6	5.50	2200
		40 %	400	1280	2984	96.9	0.91	649	7.5	1.3	1.0	2.6		
		60 %	400	1280	2984	96.9	0.91	649	7.5	1.3	1.0	2.6		
K22R 355 LY2		25 %	450	1441	2983	97.1	0.91	730	7.7	1.5	1.0	2.6	7.10	2400
		40 %	450	1441	2983	97.1	0.91	730	7.7	1.5	1.0	2.6		
		60 %	450	1441	2983	97.1	0.91	730	7.7	1.5	1.0	2.6		
K22R 355 L2		25 %	500	1599	2986	97.2	0.92	809	8.2	1.8	0.9	2.6	7.10	2400
		40 %	500	1599	2986	97.2	0.92	809	8.2	1.8	0.9	2.6		
		60 %	500	1599	2986	97.2	0.92	809	8.2	1.8	0.9	2.6		

Three-phase motors with squirrel-cage rotor

with surface cooling, intermittent periodic duty S3-25 %/40 %/60 %
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz
Efficiency determination according to IEC/EN 60034-2

Motor selection data														Design point 400 V, 50 Hz
Type		c.d.f.	P_B	M_B	n_B	η(100%)	$\cos\phi_B$	I_B	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
		S3						400 V						
			kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 1500 rpm – 4-pole version														
K21R 63 K4	K20R 56 K4	25 %	0.15	1.1	1325	56	0.78	0.50	2.8	1.4	1.4	1.7	0.00019	4.8
		40 %	0.15	1.1	1325	56	0.78	0.50	2.8	1.4	1.4	1.7		
		60 %	0.14	1.0	1340	57.5	0.75	0.47	2.9	1.5	1.5	1.9		
K21R 63 G4	K20R 56 G4	25 %	0.23	1.7	1290	59	0.78	0.72	2.9	1.6	1.6	1.7	0.00024	5.2
		40 %	0.23	1.7	1290	59	0.78	0.72	2.9	1.6	1.6	1.7		
		60 %	0.22	1.6	1295	58.0	0.77	0.71	2.9	1.7	1.7	1.8		
K21R 71 K4	K20R 63 K4	25 %	0.30	2.1	1340	61	0.80	0.89	3.0	1.4	1.4	1.6	0.00040	6.8
		40 %	0.30	2.1	1340	61	0.80	0.89	3.0	1.4	1.4	1.6		
		60 %	0.28	2.0	1350	62.0	0.78	0.84	3.2	1.5	1.5	1.7		
K21R 71 G4	K20R 63 G4	25 %	0.45	3.2	1325	64	0.81	1.25	3.3	1.5	1.5	1.7	0.00050	7.8
		40 %	0.45	3.2	1325	64	0.81	1.25	3.3	1.5	1.5	1.7		
		60 %	0.40	2.8	1350	66.0	0.77	1.14	3.6	1.6	1.6	1.9		
K21R 80 K4	K20R 71 K4	25 %	0.75	5.3	1350	67	0.82	1.97	3.3	1.4	1.4	1.7	0.00087	10.6
		40 %	0.75	5.3	1350	67	0.82	1.97	3.3	1.4	1.4	1.7		
		60 %	0.70	4.9	1360	68.0	0.80	1.86	3.5	1.5	1.5	1.8		
K21 80 G4	K20R 71 G4	25 %	1.00	7.0	1360	70	0.80	2.58	3.9	1.7	1.7	1.9	0.00107	11.7
		40 %	1.00	7.0	1360	70	0.80	2.58	3.9	1.7	1.7	1.9		
		60 %	0.90	6.3	1375	71.0	0.77	2.38	4.2	1.9	1.9	2.1		
K21R 90 S4	K20R 80 K4	25 %	1.5	10.6	1350	70	0.89	3.45	4.0	1.3	1.3	1.6	0.00207	15.5
		40 %	1.5	10.6	1350	70	0.89	3.45	4.0	1.3	1.3	1.6		
		60 %	1.4	9.8	1360	70.0	0.87	3.32	4.1	1.4	1.4	1.7		
K21R 90 L4	K20R 80 G4	25 %	2	14.2	1345	72	0.89	4.50	4.2	1.4	1.4	1.7	0.00260	18.0
		40 %	2	14.2	1345	72	0.89	4.50	4.2	1.4	1.4	1.7		
		60 %	1.8	12.6	1365	74.0	0.87	4.05	4.6	1.5	1.5	1.9		
K21R 100 L4	K20R 90 L4	25 %	3	20.8	1380	78	0.86	6.50	4.6	1.8	1.6	1.9	0.00400	23.5
		40 %	3	20.6	1390	77	0.84	6.70	4.8	1.9	1.5	2.0		
		60 %	2.8	19.2	1395	78.0	0.83	6.1	5.1	2.0	1.6	2.2		
K21R 100 LX4	K20R 100 S4	25 %	4.0	27.2	1405	79.5	0.84	8.65	5.0	1.5	1.5	1.9	0.00725	30
		40 %	4.0	27.2	1405	79.5	0.84	8.65	5.0	1.5	1.5	1.9		
		60 %	3.8	25.7	1415	79.5	0.84	8.20	5.3	1.6	1.6	2.0		
K21R 112 M4	K20R 100 L4	25 %	5.5	37.8	1390	81	0.84	11.70	5.3	1.6	1.6	2.2	0.00900	37
		40 %	5.5	37.8	1390	81	0.84	11.70	5.3	1.6	1.6	2.2		
		60 %	5.0	34	1400	80.0	0.84	10.7	5.8	1.8	1.8	2.4		
K21R 132 S4	K20R 112 M4	25 %	8.5	58	1397	81.0	0.89	17	4.0	1.2	1.1	1.9	0.01500	50
		40 %	7.3	49	1413	81.5	0.90	14.5	4.7	1.4	1.3	2.2		
		60 %	6.5	44	1425	82.0	0.89	13	5.3	1.6	1.4	2.5		
K21R 132 M4	K20R 132 S4	25 %	12.0	81	1418	82.5	0.88	24	3.8	1.2	1.0	1.8	0.0280	70
		40 %	10.0	67	1436	84.0	0.87	20	4.5	1.5	1.3	2.2		
		60 %	8.8	58	1443	85.0	0.85	17.5	5.1	1.7	1.4	2.5		
K21R 160 M4	K20R 132 M4	25 %	16.0	107	1425	84.0	0.88	31	4.7	1.5	1.3	2.2	0.0350	92
		40 %	14.5	97	1434	85.0	0.88	28	5.2	1.7	1.4	2.5		
		60 %	12.5	83	1445	85.5	0.86	24.5	6.0	1.9	1.7	2.9		
K21R 160 L4	K20R 160 S4	25 %	22.0	147	1428	86.0	0.86	43	4.8	1.7	1.3	2.0	0.0780	120
		40 %	20.5	135	1449	87.0	0.87	39	5.3	1.8	1.4	2.2		
		60 %	17.5	115	1458	88.0	0.86	33.5	6.2	2.1	1.7	2.6		
K21R 180 M4	K20R 160 M4	25 %	29.0	194	1425	87.0	0.86	56	4.3	1.6	1.2	1.8	0.0900	136
		40 %	25.5	168	1448	87.5	0.87	48.5	4.9	1.8	1.4	2.1		
		60 %	21.5	141	1457	88.0	0.86	41	5.8	2.1	1.7	2.5		
K21R 180 L4	K20R 180 S4	25 %	34.0	225	1445	89.0	0.83	66.5	4.1	1.3	1.1	1.7	0.1380	170
		40 %	31.5	207	1452	89.0	0.84	61	4.5	1.4	1.2	1.8		
		60 %	26.0	170	1458	90.0	0.84	49.5	5.5	1.7	1.5	2.2		
K21R 200 L4	K20R 180 M4	25 %	45.0	297	1446	90.0	0.84	86	3.9	1.3	1.1	1.6	0.1680	200
		40 %	40.0	263	1452	90.0	0.86	74.5	4.5	1.5	1.3	1.9		
		60 %	35.0	229	1458	90.0	0.87	64.5	5.2	1.7	1.5	2.1		
K21R 225 S4	K20R 200 M4	25 %	55.0	361	1454	92.0	0.85	102	4.3	1.3	1.1	1.7	0.2750	270
		40 %	51.0	334	1460	92.0	0.85	94	4.6	1.4	1.2	1.8		
		60 %	45.0	294	1463	92.0	0.85	83	5.2	1.6	1.4	2.0		
K21R 225 M4	K20R 200 L4	25 %	65.0	429	1448	93.0	0.83	122	4.3	1.5	1.2	1.7	0.3130	300
		40 %	62.5	411	1452	93.0	0.83	117	4.5	1.6	1.2	1.8		
		60 %	55.0	360	1460	92.0	0.85	102	5.2	1.8	1.4	2.0		

Three-phase motors with squirrel-cage rotor

with surface cooling, intermittent periodic duty S3-25%/40%/60%
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz
Efficiency determination according to IEC/EN 60034-2

Motor selection data														Design point 400 V, 50 Hz
Type		c.d.f.	P_B	M_B	n_B	η(100%)	$\cos\phi_B$	I_B	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
		S3						400 V						
			kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 1500 rpm – 4-pole version														
K21R 250 M4	K20R 225 M4	25 %	75.0	489	1464	92.0	0.85	138	5.0	1.7	1.3	1.7	0.5250	375
		40 %	70.0	456	1467	92.0	0.85	129	5.3	1.9	1.4	1.8		
		60 %	65.0	422	1470	92.0	0.85	120	5.7	2.0	1.5	1.9		
K21R 280 S4	K20R 250 S4	25 %	95.0	618	1467	92.0	0.84	177	5.3	1.6	1.3	1.7	0.9500	520
		40 %	91.0	592	1469	92.0	0.84	170	5.5	1.6	1.4	1.8		
		60 %	85.0	551	1473	93.0	0.85	155	6.1	1.8	1.5	1.9		
K21R 280 M4	K20R 250 M4	25 %	115	745	1474	94.0	0.84	210	5.3	1.6	1.2	1.7	1.10	580
		40 %	110	712	1475	94.2	0.84	201	5.6	1.7	1.3	1.8		
		60 %	105	679	1476	94.0	0.85	190	5.9	1.8	1.4	1.9		
K21R 315 S4	K20R 280 S4	25 %	155	1002	1478	93.5	0.85	282	4.8	1.5	1.3	1.7	1.96	740
		40 %	145	936	1479	94.0	0.85	262	5.2	1.6	1.4	1.8		
		60 %	130	838	1482	94.0	0.85	235	5.8	1.8	1.6	2.0		
K21R 315 M4	K20R 280 M4	25 %	185	1199	1473	94.0	0.85	334	4.8	1.5	1.3	1.7	2.27	840
		40 %	175	1134	1474	94.0	0.85	316	5.1	1.6	1.4	1.8		
		60 %	155	1001	1479	94.0	0.85	280	5.8	1.8	1.5	2.0		
K21R 315 MX4	K20R 315 S4	25 %	205	1329	1473	94.0	0.85	370	4.9	1.4	1.3	1.7	2.73	1000
		40 %	195	1263	1475	94.0	0.86	348	5.2	1.5	1.4	1.8		
		60 %	185	1197	1476	94.0	0.86	330	5.5	1.6	1.5	1.9		
K21R 315 MY4	K20R 315 M4	25 %	275	1781	1475	95.0	0.87	480	4.9	1.4	1.3	1.7	4.82	1200
		40 %	265	1715	1476	95.0	0.87	463	5.0	1.5	1.4	1.8		
		60 %	235	1517	1479	95.0	0.88	406	5.7	1.7	1.5	2.0		
K21R 315 L4	K20R 315 L4	25 %	315	2039	1475	95.5	0.88	541	6.2	1.6	1.3	1.8	5.93	1450
		40 %	305	1973	1476	95.5	0.88	524	6.4	1.6	1.3	1.9		
		60 %	290	1873	1479	95.5	0.88	498	6.8	1.7	1.4	2.0		
K21R 315 LX4	K20R 315 LX4	25 %	390	2510	1484	96.0	0.86	682	6.7	1.5	1.2	2.0	6.82	1630
		40 %	375	2412	1485	96.0	0.87	648	7.1	1.6	1.3	2.1		
		60 %	360	2310	1488	96.0	0.87	622	7.4	1.7	1.3	2.2		
K22R 355 MY4		25 %	315	2019	1490	96.5	0.84	560	7.1	1.4	1.0	2.9	5.60	1950
		40 %	315	2019	1490	96.5	0.84	560	7.1	1.4	1.0	2.9		
		60 %	315	2019	1490	96.5	0.84	560	7.1	1.4	1.0	2.9		
K22R 355 M4		25 %	355	2272	1492	96.8	0.85	623	8.1	1.8	1.0	3.1	7.9	2150
		40 %	355	2272	1492	96.8	0.85	623	8.1	1.8	1.0	3.1		
		60 %	355	2272	1492	96.8	0.85	623	8.1	1.8	1.0	3.1		
K22R 355 MX4		25 %	400	2560	1492	96.8	0.84	710	8.6	1.8	1.0	3.4	9.5	2400
		40 %	400	2560	1492	96.8	0.84	710	8.6	1.8	1.0	3.4		
		60 %	400	2560	1492	96.8	0.84	710	8.6	1.8	1.0	3.4		
K22R 355 LY4		25 %	450	2878	1493	96.8	0.82	818	8.0	1.9	1.0	3.6	10.0	2500
		40 %	450	2878	1493	96.8	0.82	818	8.0	1.9	1.0	3.6		
		60 %	450	2878	1493	96.8	0.82	818	8.0	1.9	1.0	3.6		
K22R 355 L4		25 %	500	3205	1490	96.7	0.79	945	7.9	1.9	1.0	3.6	10.0	2500
		40 %	500	3205	1490	96.7	0.79	945	7.9	1.9	1.0	3.6		
		60 %	500	3205	1490	96.7	0.79	945	7.9	1.9	1.0	3.6		

Three-phase motors with squirrel-cage rotor

with surface cooling, intermittent periodic duty S3-25 %/40 %/60 %
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz
Efficiency determination according to IEC/EN 60034-2

Motor selection data														Design point 400 V, 50 Hz
Type		c.d.f.	P_B	M_B	n_B	η(100%)	$\cos\phi_B$	I_B	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
		S3						400 V						
			kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 1000 rpm – 6-pole version														
K21R 63 K6	K20R 56 K6	25 %	0.12	1.4	835	50	0.65	0.54	2.1	1.5	1.5	1.6	0.00024	4.9
		40 %	0.12	1.4	835	50	0.65	0.54	2.1	1.5	1.5	1.6		
		60 %	0.11	1.2	850	48.0	0.64	0.52	2.2	1.7	1.7	1.8		
K21R 63 G6	K20R 56 G6	25 %	0.15	1.7	845	50	0.64	0.68	2.2	1.4	1.4	1.6	0.00027	5.7
		40 %	0.15	1.7	845	50	0.64	0.68	2.2	1.4	1.4	1.6		
		60 %	0.14	1.6	855	50.0	0.62	0.65	2.3	1.5	1.5	1.8		
K21R 71 K6	K20R 63 K6	25 %	0.25	2.7	875	56	0.65	0.99	2.5	1.5	1.5	1.6	0.00045	7.4
		40 %	0.25	2.7	875	56	0.65	0.99	2.5	1.5	1.5	1.6		
		60 %	0.23	2.5	890	57.0	0.62	0.94	2.6	1.6	1.6	1.8		
K21R 71 G6	K20R 63 G6	25 %	0.30	3.3	875	59	0.60	1.23	2.6	1.6	1.6	1.8	0.00060	8.3
		40 %	0.30	3.3	875	59	0.60	1.23	2.6	1.6	1.6	1.8		
		60 %	0.28	3.0	880	58.0	0.59	1.18	2.8	1.7	1.7	1.9		
K21R 80 K6	K20R 71 K6	25 %	0.45	4.8	900	64	0.76	1.34	3.1	1.3	1.3	1.6	0.00130	11.0
		40 %	0.45	4.8	900	64	0.76	1.34	3.1	1.3	1.3	1.6		
		60 %	0.42	4.4	905	64.0	0.74	1.28	3.3	1.4	1.4	1.7		
K21R 80 G6	K20R 71 G6	25 %	0.65	6.9	900	65	0.75	1.93	3.2	1.5	1.5	1.8	0.00175	12.5
		40 %	0.65	6.9	900	65	0.75	1.93	3.2	1.5	1.5	1.8		
		60 %	0.60	6.3	905	65.0	0.72	1.85	3.4	1.6	1.6	2.0		
K21R 90 S6	K20R 80 K6	25 %	1.00	10.4	915	67.5	0.72	2.97	3.5	1.4	1.4	1.9	0.00325	16.0
		40 %	1.00	10.4	915	67.5	0.72	2.97	3.5	1.4	1.4	1.9		
		60 %	0.90	9.3	925	68.0	0.69	2.75	3.8	1.6	1.6	2.1		
K21R 90 L6	K20R 80 G6	25 %	1.5	15.9	900	69	0.76	4.15	3.4	1.5	1.5	1.7	0.00425	19.0
		40 %	1.5	15.9	900	69	0.76	4.15	3.4	1.5	1.5	1.7		
		60 %	1.4	14.8	905	68.0	0.75	3.95	3.6	1.6	1.6	1.8		
K21R 100 L6	K20R 90 L6	25 %	2	20.9	915	72	0.77	5.20	3.6	1.3	1.3	1.6	0.00625	24.0
		40 %	2	20.9	915	72	0.77	5.20	3.6	1.3	1.3	1.6		
		60 %	1.8	18.6	925	74.0	0.74	4.75	3.9	1.5	1.5	1.8		
K21R 112 M6	K20R 100 L6	25 %	3	31.1	920	76	0.84	6.80	4.2	1.5	1.5	1.9	0.01225	33.5
		40 %	3	31.1	920	76	0.84	6.80	4.2	1.5	1.5	1.9		
		60 %	2.8	28.9	925	77.0	0.83	6.35	4.5	1.6	1.6	2.0		
K21R 132 S6	K20R 112 M6	25 %	5.0	53	908	71.0	0.87	11.5	3.3	1.1	1.0	1.6	0.0180	46
		40 %	4.6	48	915	73.0	0.86	10.5	3.6	1.3	1.1	1.8		
		60 %	3.5	35	943	78.0	0.82	8	4.7	1.7	1.5	2.4		
K21R 132 M6	K20R 112 MX6	25 %	7.0	73	912	72.0	0.86	16.5	3.3	1.3	1.1	1.6	0.0230	53
		40 %	6.2	65	916	76.0	0.86	13.5	4.0	1.4	1.2	1.9		
		60 %	4.7	48	941	79.0	0.82	10.5	5.1	1.9	1.7	2.5		
K21R 132 MX6	K20R 132 S6	25 %	8.0	82	930	77.0	0.85	17.5	3.3	1.3	1.1	1.6	0.0430	70
		40 %	7.3	74	938	79.0	0.85	15.5	3.7	1.4	1.3	1.8		
		60 %	6.5	66	947	81.0	0.84	13.5	4.3	1.6	1.4	2.0		
K21R 160 M6	K20R 132 M6	25 %	12.0	123	932	77.0	0.84	27	3.2	1.2	1.0	1.5	0.0530	86
		40 %	10.5	106	944	81.0	0.84	22.5	3.8	1.4	1.1	1.8		
		60 %	8.8	88	953	82.0	0.84	18.5	4.6	1.7	1.4	2.1		
K21R 160 L6	K20R 160 S6	25 %	16.0	163	939	85.0	0.88	31	3.5	1.3	1.1	1.5	0.1130	114
		40 %	14.0	141	949	85.0	0.87	27.5	4.0	1.5	1.3	1.8		
		60 %	12.5	125	955	85.0	0.87	24.5	4.5	1.7	1.5	2.0		
K21R 180 L6	K20R 160 M6	25 %	24.0	244	940	85.0	0.83	49	3.4	1.5	1.3	1.6	0.1450	136
		40 %	22.5	227	945	85.0	0.83	46	3.6	1.6	1.4	1.8		
		60 %	17.5	174	960	85.0	0.82	36	4.7	2.0	1.9	2.3		
K21R 200 L6	K20R 180 S6	25 %	26.0	263	944	86.0	0.88	49.5	3.9	1.4	1.2	1.7	0.2280	175
		40 %	24.5	246	952	86.0	0.88	46.5	4.2	1.5	1.3	1.8		
		60 %	21.0	209	960	87.0	0.87	40	4.9	1.8	1.5	2.1		
K21R 200 LX6	K20R 180 M6	25 %	35.0	354	943	87.0	0.86	67.5	3.6	1.3	1.1	1.6	0.2680	200
		40 %	33.0	333	947	87.0	0.86	63.5	3.9	1.4	1.2	1.8		
		60 %	25.0	248	962	88.0	0.86	47.5	5.2	1.8	1.6	2.4		
K21R 225 M6	K20R 200 M6	25 %	45.0	452	950	89.0	0.88	83	4.0	1.4	1.1	1.6	0.4430	265
		40 %	41.5	415	955	89.0	0.88	76.5	4.3	1.6	1.2	1.8		
		60 %	35.0	347	964	89.0	0.88	64.5	5.1	1.9	1.4	2.1		
K21R 250 M6	K20R 225 M6	25 %	50.0	497	960	88.0	0.86	95.5	4.1	1.5	1.1	1.7	0.8250	360
		40 %	47.0	466	963	89.0	0.87	87.5	4.5	1.6	1.2	1.8		
		60 %	43.5	430	966	90.0	0.89	78.5	5.0	1.7	1.3	1.9		

Three-phase motors with squirrel-cage rotor

with surface cooling, intermittent periodic duty S3-25%/40%/60%
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz
Efficiency determination according to IEC/EN 60034-2

Motor selection data														Design point 400 V, 50 Hz
Type		c.d.f.	P_B	M_B	n_B	η(100%)	$\cos\phi_B$	I_B	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
		S3						400 V						
			kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 1000 rpm – 6-pole version														
K21R 280 S6	K20R 250 S6	25 %	55.0	539	975	90.0	0.86	103	4.7	1.6	1.2	1.6	1.28	465
		40 %	55.0	539	975	90.0	0.86	103	4.7	1.6	1.2	1.6		
		60 %	52.0	508	978	91.0	0.86	96	5.1	1.7	1.3	1.7		
K21R 280 M6	K20R 250 M6	25 %	72.0	705	975	90.0	0.85	136	4.3	1.6	1.2	1.7	1.48	520
		40 %	67.0	654	978	92.0	0.87	121	4.8	1.7	1.3	1.8		
		60 %	64.0	624	979	92.0	0.87	115	5.1	1.8	1.4	1.9		
K21R 315 S6	K20R 280 S6	25 %	110	1072	980	92.5	0.86	200	4.3	1.4	1.2	1.6	2.63	690
		40 %	100	973	982	93.0	0.86	180	4.8	1.5	1.3	1.8		
		60 %	88	853	985	93.0	0.87	157	5.5	1.7	1.4	2.0		
K21R 315 M6	K20R 280 M6	25 %	130	1267	980	93.0	0.86	235	4.3	1.4	1.2	1.6	3.33	800
		40 %	120	1166	983	93.0	0.86	217	4.7	1.5	1.3	1.8		
		60 %	105	1018	985	94.0	0.87	185	5.5	1.7	1.4	2.0		
K21R 315 MX6	K20R 315 S6	25 %	165	1611	978	93.0	0.86	298	4.5	1.5	1.3	1.7	3.60	880
		40 %	155	1510	980	93.0	0.86	280	4.8	1.6	1.3	1.8		
		60 %	125	1214	983	93.8	0.87	221	6.1	2.0	1.7	2.3		
K21R 315 MY6	K20R 315 M6	25 %	200	1953	978	94.5	0.88	347	4.6	1.6	1.3	1.7	6.00	1050
		40 %	190	1852	980	94.5	0.88	330	4.8	1.7	1.4	1.8		
		60 %	155	1503	985	94.5	0.88	269	5.9	2.0	1.7	2.2		
K21R 315 L6	K20R 315 L6	25 %	220	2148	978	94.5	0.88	382	5.4	1.7	1.4	1.7	6.67	1250
		40 %	210	2046	980	94.5	0.88	364	5.7	1.7	1.4	1.8		
		60 %	185	1794	985	94.5	0.88	321	6.4	2.0	1.6	2.1		
K21R 315 LX6	K20R 315 LX6	25 %	270	2637	978	94.0	0.85	488	5.9	1.6	1.5	2.0	8.6	1460
		40 %	250	2431	982	94.5	0.86	444	6.5	1.7	1.6	2.1		
		60 %	235	2269	989	95.0	0.86	415	7.0	1.9	1.7	2.3		
K22R 355 MY6		25 %	200	1922	994	96.0	0.88	342	6.6	1.4	1.0	2.5	8.1	1550
		40 %	200	1922	994	96.0	0.88	342	6.6	1.4	1.0	2.5		
		60 %	200	1922	994	96.0	0.88	342	6.6	1.4	1.0	2.5		
K22R 355 M6		25 %	250	2402	994	96.0	0.84	447	7.4	1.6	1.1	2.9	8.2	1650
		40 %	250	2402	994	96.0	0.84	447	7.4	1.6	1.1	2.9		
		60 %	250	2402	994	96.0	0.84	447	7.4	1.6	1.1	2.9		
K22R 355 MX6		25 %	315	3029	993	96.6	0.85	554	8.6	1.7	1.1	2.9	12.1	2200
		40 %	315	3029	993	96.6	0.85	554	8.6	1.7	1.1	2.9		
		60 %	315	3029	993	96.6	0.85	554	8.6	1.7	1.1	2.9		
K22R 355 LY6		25 %	355	3414	993	96.6	0.84	631	7.8	1.8	1.0	3.0	14.0	2400
		40 %	355	3414	993	96.6	0.84	631	7.8	1.8	1.0	3.0		
		60 %	355	3414	993	96.6	0.84	631	7.8	1.8	1.0	3.0		

Three-phase motors with squirrel-cage rotor

with surface cooling, intermittent periodic duty S3-25 %/40 %/60 %
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz
Efficiency determination according to IEC/EN 60034-2

Motor selection data														Design point 400 V, 50 Hz
Type		c.d.f.	P_B	M_B	n_B	η(100%)	$\cos\phi_B$	I_B	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
		S3						400 V						
			kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 750 rpm – 8-pole version														
K21R 71 K8	K20R 63 K8	25 %	0.105	1.5	655	45	0.58	0.58	2.0	1.5	1.5	1.8	0.00050	6.6
		40 %	0.105	1.5	655	45	0.58	0.58	2.0	1.5	1.5	1.8		
		60 %	0.10	1.4	665	44.0	0.58	0.57	2.1	1.6	1.6	1.8		
K21R 71 G8	K20R 63 G8	25 %	0.14	2.0	655	47	0.57	0.75	2.1	1.4	1.4	1.8	0.00060	8.1
		40 %	0.14	2.0	655	47	0.57	0.75	2.1	1.4	1.4	1.8		
		60 %	0.13	1.9	665	46.0	0.56	0.74	2.1	1.5	1.5	1.9		
K21R 80 K8	K20R 71 K8	25 %	0.22	3.1	670	56	0.68	0.83	2.4	1.3	1.3	1.6	0.00130	10.5
		40 %	0.22	3.1	670	56	0.68	0.83	2.4	1.3	1.3	1.6		
		60 %	0.21	3.0	675	56.0	0.67	0.81	2.5	1.4	1.4	1.7		
K21R 80 G8	K20R 71 G8	25 %	0.35	5.1	655	57	0.68	1.30	2.6	1.4	1.4	1.5	0.00175	12.0
		40 %	0.35	5.1	655	57	0.68	1.30	2.6	1.4	1.4	1.5		
		60 %	0.33	4.8	660	56.0	0.68	1.24	2.7	1.5	1.5	1.7		
K21R 90 S8	K20R 80 K8	25 %	0.50	7.0	680	59	0.65	1.87	2.6	1.3	1.3	1.6	0.00300	15.0
		40 %	0.50	7.0	680	59	0.65	1.87	2.6	1.3	1.3	1.6		
		60 %	0.45	6.2	690	60.0	0.62	1.75	2.8	1.4	1.4	1.8		
K21R 90 L8	K20R 80 G8	25 %	0.70	9.8	680	64	0.64	2.48	2.8	1.4	1.4	1.7	0.00375	18.0
		40 %	0.70	9.8	680	64	0.64	2.48	2.8	1.4	1.4	1.7		
		60 %	0.65	9.1	685	64.0	0.62	2.37	2.9	1.5	1.5	1.8		
K21R 100 L8	K20R 90 L8	25 %	0.95	13.2	690	64	0.65	3.30	2.8	1.3	1.3	1.6	0.00625	23.0
		40 %	0.95	13.2	690	64	0.65	3.30	2.8	1.3	1.3	1.6		
		60 %	0.90	12.4	695	64.0	0.64	3.15	2.9	1.4	1.4	1.7		
K21R 100 LX8	K20R 100 S8	25 %	1.5	21.1	680	70	0.76	4.05	3.2	1.4	1.4	1.6	0.00900	28.0
		40 %	1.5	21.1	680	70	0.76	4.05	3.2	1.4	1.4	1.6		
		60 %	1.4	19.5	685	71.0	0.74	3.85	3.4	1.5	1.5	1.8		
K21R 112 M8	K20R 100 L8	25 %	2	27.9	685	72	0.77	5.20	3.3	1.5	1.5	1.7	0.01225	33.5
		40 %	2	27.9	685	72	0.77	5.20	3.3	1.5	1.5	1.7		
		60 %	1.8	24.9	690	74.0	0.75	4.68	3.7	1.7	1.7	1.9		
K21R 132 S8	K20R 112 M8	25 %	2.8	39	694	72.6	0.79	7	0.0	1.3	1.2	1.8	0.01800	46
		40 %	2.8	39	694	72.6	0.79	7	3.2	1.3	1.2	1.8		
		60 %	2.6	36	699	73.5	0.77	6.6	3.4	1.4	1.3	1.9		
K21R 132 M8	K20R 112 MX8	25 %	3.8	53	686	73.6	0.80	9.3	3.2	1.3	1.2	1.8	0.0230	53
		40 %	3.8	53	686	73.6	0.80	9.3	3.2	1.3	1.2	1.8		
		60 %	3.5	48	692	75.0	0.77	8.7	3.4	1.4	1.4	1.9		
K21R 160 M8	K20R 132 S8	25 %	4.2	57	704	77.0	0.78	10	3.8	1.5	1.3	1.8	0.0430	70
		40 %	4.2	57	704	77.0	0.78	10	3.8	1.5	1.3	1.8		
		60 %	4.2	57	704	77.0	0.78	10	3.8	1.5	1.3	1.8		
K21R 160 MX8	K20R 132 M8	25 %	6.4	86	707	79.0	0.78	15	3.5	1.5	1.4	1.8	0.0530	86
		40 %	6.4	86	707	79.0	0.78	15	3.5	1.5	1.4	1.8		
		60 %	6.4	86	707	79.0	0.78	15	3.5	1.5	1.4	1.8		
K21R 160 L8	K20R 160 S8	25 %	8.8	117	720	81.0	0.78	20	3.7	1.5	1.4	1.8	0.1130	114
		40 %	8.8	117	720	81.0	0.78	20	3.7	1.5	1.4	1.8		
		60 %	8.8	117	720	81.0	0.78	20	3.7	1.5	1.4	1.8		
K21R 180 L8	K20R 160 M8	25 %	12.8	171	714	84.0	0.79	28	3.9	1.7	1.4	1.8	0.1450	136
		40 %	12.8	171	714	84.0	0.79	28	3.9	1.7	1.4	1.8		
		60 %	12.8	171	714	84.0	0.79	28	3.9	1.7	1.4	1.8		
K21R 200 L8	K20R 180 S8	25 %	19.2	257	714	84.0	0.80	41	4.0	1.5	1.3	1.8	0.228	175
		40 %	19.2	257	714	84.0	0.80	41	4.0	1.5	1.3	1.8		
		60 %	17.6	233	720	85.0	0.78	38.5	4.2	1.7	1.4	1.9		
	K20R 180 M8	25 %	23.5	316	711	86.0	0.82	48	4.0	1.6	1.3	1.7	0.268	200
		40 %	23.5	316	711	86.0	0.82	48	4.0	1.6	1.3	1.7		
		60 %	21.5	287	716	86.0	0.82	44	4.3	1.7	1.5	1.9		
K21R 225 S8		25 %	22.5	297	724	87.5	0.83	44.5	4.3	1.6	1.3	1.8	0.440	265
		40 %	22.5	297	724	87.5	0.83	44.5	4.3	1.6	1.3	1.8		
		60 %	21.5	283	726	88.0	0.82	43	4.4	1.7	1.4	1.9		
K21R 225 M8	K20R 200 M8	25 %	28.0	373	716	87.5	0.84	55	4.0	1.4	1.2	1.7	0.440	265
		40 %	28.0	373	716	87.5	0.84	55	4.0	1.4	1.2	1.7		
		60 %	25.5	338	720	88.5	0.84	49.5	4.5	1.5	1.3	1.9		
K21R 250 M8	K20R 225 M8	25 %	36.5	479	727	89.0	0.80	74	4.5	1.8	1.5	1.8	0.825	360
		40 %	36.5	479	727	89.0	0.80	74	4.5	1.8	1.5	1.8		
		60 %	35.0	459	728	90.0	0.80	70	4.7	1.9	1.5	1.9		

Three-phase motors with squirrel-cage rotor

with surface cooling, intermittent periodic duty S3-25%/40%/60%
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz
Efficiency determination according to IEC/EN 60034-2

Motor selection data														Design point 400 V, 50 Hz
Type		c.d.f.	P_B	M_B	n_B	η(100%)	$\cos\phi_B$	I_B	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
		S3						400 V						
			kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 750 rpm – 8-pole version														
K21R 280 S8	K20R 250 S8	25 %	45.0	588	731	90.0	0.80	90	4.5	1.6	1.2	1.6	1.35	465
		40 %	45.0	588	731	90.0	0.80	90	4.5	1.6	1.2	1.6		
		60 %	41.0	535	732	90.0	0.80	82	4.9	1.8	1.3	1.8		
K21R 280 M8	K20R 250 M8	25 %	55.0	717	733	91.0	0.79	110	4.6	1.8	1.2	1.6	1.55	520
		40 %	55.0	717	733	91.0	0.79	110	4.6	1.8	1.2	1.6		
		60 %	50.0	651	734	91.0	0.78	102	5.0	2.0	1.3	1.8		
K21R 315 S8	K20R 280 S8	25 %	73.0	946	737	92.0	0.79	145	4.4	1.5	1.2	1.8	2.63	690
		40 %	73.0	946	737	92.0	0.79	145	4.4	1.5	1.2	1.8		
		60 %	73.0	946	737	92.0	0.79	145	4.4	1.5	1.2	1.8		
K21R 315 M8	K20R 280 M8	25 %	100	1319	724	92.0	0.79	199	4.3	1.5	1.2	1.7	3.33	800
		40 %	100	1319	724	92.0	0.79	199	4.3	1.5	1.2	1.7		
		60 %	95	1250	726	92.0	0.81	184	4.7	1.5	1.2	1.8		
K21R 315 MX8	K20R 315 S8	25 %	110	1429	735	93.0	0.81	211	4.9	1.6	1.4	2.0	3.60	880
		40 %	110	1429	735	93.0	0.81	211	4.9	1.6	1.4	2.0		
		60 %	110	1429	735	93.0	0.81	211	4.9	1.6	1.4	2.0		
K21R 315 MY8	K20R 315 M8	25 %	160	2076	736	92.0	0.80	314	4.0	1.6	1.4	1.8	6.00	1050
		40 %	160	2076	736	92.0	0.80	314	4.0	1.6	1.4	1.8		
		60 %	150	1944	737	93.0	0.80	291	4.3	1.8	1.5	1.9		
K21R 315 L8	K20R 315 L8	25 %	165	2138	737	94.0	0.82	309	5.0	1.6	1.4	1.7	6.76	1250
		40 %	165	2138	737	94.0	0.82	309	5.0	1.6	1.4	1.7		
		60 %	155	2008	737	94.5	0.82	289	5.3	1.7	1.4	1.8		
K21R 315 LX8	K20R 315 LX8	25 %	210	2736	733	93.0	0.77	423	5.2	1.7	1.4	1.9	8.71	1430
		40 %	200	2602	734	94.0	0.77	399	5.5	1.7	1.5	2.0		
		60 %	180	2339	735	95.0	0.78	351	6.3	1.9	1.7	2.2		
K22R 355 MY8		25 %	160	2051	745	95.2	0.80	303	6.8	1.6	1.2	2.7	9.3	1500
		40 %	160	2051	745	95.2	0.80	303	6.8	1.6	1.2	2.7		
		60 %	160	2051	745	95.2	0.80	303	6.8	1.6	1.2	2.7		
K22R 355 M8		25 %	200	2567	744	95.6	0.77	392	6.5	1.6	1.2	2.7	9.5	1600
		40 %	200	2567	744	95.6	0.77	392	6.5	1.6	1.2	2.7		
		60 %	200	2567	744	95.6	0.77	392	6.5	1.6	1.2	2.7		
K22R 355 MX8		25 %	250	3209	744	95.9	0.79	472	6.6	1.6	1.2	2.8	13.4	2200
		40 %	250	3209	744	95.9	0.79	472	6.6	1.6	1.2	2.8		
		60 %	250	3209	744	95.9	0.79	472	6.6	1.6	1.2	2.8		
K22R 355 LY8		25 %	280	3594	744	95.8	0.74	565	7.2	1.9	1.2	3.0	15.8	2400
		40 %	280	3594	744	95.8	0.74	565	7.2	1.9	1.2	3		
		60 %	280	3594	744	95.8	0.74	565	7.2	1.9	1.2	3		

Three-phase motors with squirrel-cage rotor

with surface cooling, duty type S6, continuous operation with periodic duty 25 %/40 %/60 %/80 %
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz
Efficiency determination according to IEC/EN 60034-2

Motor selection data														Design point 400 V, 50 Hz
Type		c.d.f.	P_B	M_B	n_B	η(100%)	$\cos\phi_B$	I_B	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
		S6						400 V						
			kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 3000 rpm – 2-pole version														
K21R 63 K2	K20R 56 K2	25 %	0.23	0.8	2700	63	0.86	0.61	3.5	1.6	1.5	1.8	0.00013	4.9
		40 %	0.23	0.8	2710	63	0.86	0.61	3.5	1.6	1.5	1.8		
		60 %	0.22	0.8	2700	63.0	0.86	0.59	3.6	1.6	1.5	1.9		
		80 %	0.18	0.6	2790	67.1	0.76	0.51	4.1	1.9	1.9	2.2		
K21R 63 G2	K20R 56 G2	25 %	0.35	1.3	2660	65	0.86	0.90	3.7	1.8	1.7	1.9	0.00015	5.2
		40 %	0.35	1.3	2660	65	0.86	0.90	3.7	1.8	1.7	1.9		
		60 %	0.33	1.2	2680	65.0	0.85	0.86	3.8	1.9	1.8	2.0		
		80 %	0.25	0.9	2800	68.1	0.72	0.74	4.2	2.2	2.2	2.4		
K21R 71 K2	K20R 63 K2	25 %	0.45	1.6	2690	68	0.88	1.08	3.9	1.5	1.5	1.7	0.00025	6.7
		40 %	0.45	1.6	2690	68	0.88	1.08	3.9	1.5	1.5	1.7		
		60 %	0.42	1.5	2720	68.0	0.87	1.02	4.2	1.6	1.6	1.8		
		80 %	0.37	1.3	2780	71.5	0.79	0.94	4.4	2.1	2.1	2.3		
K21R 71 G2	K20R 63 G2	25 %	0.75	2.7	2640	69	0.90	1.73	3.7	1.6	1.7	1.8	0.00032	7.6
		40 %	0.75	2.7	2680	70	0.88	1.76	3.8	1.5	1.5	1.7		
		60 %	0.65	2.3	2750	72.0	0.84	1.55	4.3	1.7	1.7	2.0		
		80 %	0.55	1.9	2775	74.3	0.81	1.32	5.1	2.3	2.1	2.6		
K21R 80 K2	K20R 71 K2	25 %	1.00	3.6	2680	70	0.90	2.30	4.3	2.0	1.8	2.0	0.00057	10.7
		40 %	1.00	3.6	2680	70	0.90	2.30	4.3	2.0	1.8	2.0		
		60 %	0.90	3.1	2760	72.0	0.87	2.1	4.8	2.2	2.0	2.3		
		80 %	0.75	2.5	2825	77.5	0.81	1.72	5.9	2.4	2.4	2.4		
K21R 80 G2	K20R 71 G2	25 %	1.5	5.3	2715	73	0.88	3.37	4.4	1.6	1.6	1.8	0.00072	11.5
		40 %	1.5	5.3	2715	73	0.88	3.37	4.4	1.6	1.6	1.8		
		60 %	1.35	4.7	2760	74.0	0.86	3.05	4.9	1.8	1.8	2.0		
		80 %	1.1	3.7	2835	77.8	0.80	2.55	6.0	2.4	2.3	2.6		
K21R 90 S2	K20R 80 K2	25 %	2.1	7.3	2750	77.5	0.90	4.35	4.9	1.9	1.7	1.9	0.00132	16.0
		40 %	2.1	7.2	2800	78	0.88	4.35	5.3	1.8	1.6	1.8		
		60 %	1.8	6.1	2820	78.0	0.85	3.92	6.0	2.1	1.9	2.1		
		80 %	1.5	5.0	2840	81.2	0.86	3.1	7.0	2.5	2.5	2.8		
K21R 90 L2	K20R 80 G2	25 %	3	10.4	2760	78	0.90	6.20	5.3	2.0	1.8	2.1	0.0017	19.0
		40 %	3	10.4	2760	78	0.90	6.20	5.3	2.0	1.8	2.1		
		60 %	2.7	9.2	2790	79.0	0.89	5.55	5.9	2.3	2.1	2.4		
		80 %	2.2	7.4	2850	82.0	0.85	4.55	7.5	2.8	2.3	2.9		
K21R 100 L2	K20R 90 L2	25 %	4.0	13.6	2810	81.5	0.89	8.00	5.4	1.5	1.5	2.0	0.00275	25.0
		40 %	4.0	13.6	2810	81.5	0.89	8.00	5.4	1.5	1.5	2.0		
		60 %	3.6	12.2	2820	81.0	0.88	7.3	5.9	1.6	1.6	2.2		
		80 %	3.0	10.0	2865	83.4	0.84	6.15	6.8	2.4	2.2	2.8		
K21R 112 M2	K20R 100 S2	25 %	5.5	18.4	2850	83	0.86	11.10	5.4	1.5	1.5	2.0	0.0045	32
		40 %	5.5	18.4	2850	83	0.86	11.10	5.4	1.5	1.5	2.0		
		60 %	4.8	16.0	2870	83.0	0.85	9.8	6.1	1.5	1.5	2.2		
		80 %	4.0	13.2	2900	85.0	0.81	8.4	7.0	2.2	2.1	2.9		
K21R 132 S2 T	K20R 100 L2	25 %	7.2	24.2	2840	84	0.88	14.10	5.6	1.6	1.4	2.1	0.0055	38
		40 %	7.2	24.2	2840	84	0.88	14.10	5.6	1.6	1.4	2.1		
		60 %	6.5	21.7	2860	84.0	0.87	12.8	6.2	1.8	1.5	2.3		
		80 %	5.5	18.2	2890	86.3	0.84	11	7.5	2.4	2.2	3.0		
K21R 132 S2	K20R 112MY2	25 %	6.9	23	2868	81.5	0.85	14.5	4.6	1.5	1.3	2.2	0.0081	50
		40 %	6.9	23	2868	81.5	0.85	14.5	4.6	1.5	1.3	2.2		
		60 %	6.7	22	2880	81.5	0.85	14	4.8	1.6	1.4	2.3		
		80 %	6.5	22	2883	82.0	0.85	13.5	5.0	1.6	1.4	2.4		
K21R 132 SX2	K20R 112 M2	25 %	11.5	39	2815	80.5	0.90	23	4.1	1.1	1.1	1.8	0.0110	57
		40 %	11.5	39	2815	80.5	0.90	23	4.1	1.1	1.1	1.8		
		60 %	10.0	34	2840	82.5	0.89	19.5	4.8	1.3	1.2	2.0		
		80 %	8.8	29	2860	82.5	0.88	17.5	5.3	1.4	1.4	2.3		
K21R 160 M2	K20R 132 M2	25 %	16.5	55	2845	84.5	0.92	30.5	4.9	1.5	1.2	2.0	0.0258	81
		40 %	16.5	55	2845	84.5	0.92	30.5	4.9	1.5	1.2	2.0		
		60 %	14.5	48	2870	85.0	0.92	27	5.6	1.7	1.4	2.3		
		80 %	12.5	41	2890	86.0	0.92	23	7.0	1.9	1.6	2.6		
K21R 160 MX2	K20R 160 S2	25 %	23.0	76	2890	89.0	0.89	42	4.5	1.5	1.2	1.9	0.0575	118
		40 %	23.0	76	2890	89.0	0.89	42	4.5	1.5	1.2	1.9		
		60 %	20.0	66	2910	88.0	0.91	36	5.3	1.7	1.3	2.2		
		80 %	17.5	57	2925	89.0	0.91	31	7.4	2.0	1.5	2.5		
K21R 160 L2	K20R 160 M2	25 %	27.5	91	2880	87.0	0.90	50.5	4.5	1.5	1.1	1.8	0.0675	134
		40 %	27.5	91	2880	87.0	0.90	50.5	4.5	1.5	1.1	1.8		
		60 %	24.5	81	2895	88.0	0.91	44	5.2	1.6	1.3	2.0		
		80 %	21.5	71	2910	88.0	0.92	38.5	5.9	1.9	1.5	2.3		

Three-phase motors with squirrel-cage rotor

with surface cooling, duty type S6, continuous operation with periodic duty 25 %/40 %/60 %/80 %
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz
Efficiency determination according to IEC/EN 60034-2

Motor selection data														Design point 400 V, 50 Hz
Type		c.d.f.	P_B	M_B	n_B	η(100%)	$\cos\phi_B$	I_B	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
		S6						400 V						
			kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 3000 rpm – 2-pole version														
K21R 180 M2	K20R 180 S2	25 %	30.0	98	2910	87.0	0.90	55.5	4.1	1.3	1.0	1.8	0.105	165
		40 %	30.0	98	2910	87.0	0.90	55.5	4.1	1.3	1.0	1.8		
		60 %	29.0	95	2916	88.0	0.90	53	4.2	1.4	1.1	1.9		
		80 %	25.5	83	2928	90.0	0.90	45.5	4.9	1.5	1.2	2.2		
K21R 200 L2	K20R 180 M2	25 %	43.0	142	2892	91.0	0.92	74	4.5	1.3	1.0	1.8	0.128	195
		40 %	43.0	142	2892	91.0	0.92	74	4.5	1.3	1.0	1.8		
		60 %	40.0	132	2901	91.0	0.92	69	4.9	1.4	1.1	1.9		
		80 %	35.0	115	2916	91.0	0.92	60.5	5.5	1.6	1.3	2.2		
K21R 200 LX2	K20R 200 M2	25 %	49.0	160	2916	92.0	0.90	85.5	4.9	1.3	1.0	1.8	0.193	255
		40 %	49.0	160	2916	92.0	0.90	85.5	4.9	1.3	1.0	1.8		
		60 %	49.0	160	2922	92.0	0.90	85.5	4.9	1.4	1.0	1.8		
		80 %	43.5	142	2934	92.0	0.90	76	5.5	1.5	1.1	2.0		
K21R 225 M2	K20R 200 L2	25 %	65.0	213	2910	92.0	0.90	113	4.8	1.4	1.0	1.8	0.220	290
		40 %	65.0	213	2910	92.0	0.90	113	4.8	1.4	1.0	1.8		
		60 %	60.0	196	2925	92.0	0.90	105	5.2	1.5	1.1	1.9		
		80 %	52.5	171	2940	92.0	0.90	91.5	5.9	1.7	1.3	2.2		
K21R 250 M2	K20R 225 M2	25 %	76.0	247	2934	91.0	0.87	139	4.7	1.7	1.2	1.8	0.375	360
		40 %	76.0	247	2934	91.0	0.87	139	4.7	1.7	1.2	1.8		
		60 %	73.0	237	2936	91.0	0.88	132	4.9	1.7	1.3	1.9		
		80 %	64.5	209	2943	92.0	0.90	112	5.8	2.0	1.4	2.1		
K21R 280 S2	K20R 250 S2	25 %	95.0	316	2868	93.0	0.90	164	4.9	1.3	1.1	1.8	0.650	490
		40 %	95.0	316	2868	93.0	0.90	164	4.9	1.3	1.1	1.8		
		60 %	95.0	316	2874	93.0	0.91	162	5.0	1.3	1.1	1.8		
		80 %	88.0	292	2880	93.0	0.91	150	5.4	1.4	1.2	1.9		
K21R 280 M2	K20R 250 M2	25 %	130	420	2957	94.0	0.92	217	4.8	1.2	1.0	1.8	0.675	510
		40 %	130	420	2957	94.0	0.92	217	4.8	1.2	1.0	1.8		
		60 %	120	387	2961	94.0	0.92	200	5.3	1.3	1.1	1.9		
		80 %	105	338	2968	94.0	0.91	177	5.9	1.5	1.3	2.2		
K21R 315 S2	K20R 280 S2	25 %	150	484	2958	93.5	0.90	257	5.0	1.3	1.2	1.8	1.21	720
		40 %	150	484	2958	93.5	0.90	257	5.0	1.3	1.2	1.8		
		60 %	145	468	2961	94.0	0.90	247	5.2	1.4	1.3	1.9		
		80 %	125	402	2967	94.0	0.90	213	6.0	1.6	1.5	2.2		
K21R 315 M2	K20R 280 M2	25 %	175	565	2958	94.5	0.89	300	5.1	1.3	1.1	1.8	1.44	800
		40 %	175	565	2958	94.5	0.89	300	5.1	1.3	1.1	1.8		
		60 %	175	564	2961	94.5	0.89	300	5.1	1.3	1.1	1.8		
		80 %	150	483	2967	94.5	0.90	255	6.0	1.5	1.3	2.1		
K21R 315 MX2	K20R 315 S2	25 %	220	710	2958	95.0	0.90	371	4.9	1.4	1.3	1.8	1.76	980
		40 %	220	710	2958	95.0	0.90	371	4.9	1.4	1.3	1.8		
		60 %	210	677	2961	95.0	0.90	355	5.1	1.5	1.4	1.9		
		80 %	185	595	2967	95.0	0.90	312	5.8	1.7	1.6	2.2		
K21R 315 MY2	K20R 315 M2	25 %	300	973	2946	95.0	0.91	501	4.6	1.7	1.5	1.8	2.82	1170
		40 %	300	973	2946	95.0	0.91	501	4.6	1.7	1.5	1.8		
		60 %	265	857	2952	95.0	0.92	438	5.2	2.0	1.7	2.0		
		80 %	230	743	2958	95.0	0.92	380	6.0	2.3	1.9	2.3		
K21R 315 L2	K20R 315 L2	25 %	315	1021	2946	95.5	0.91	523	5.7	1.7	1.1	1.6	3.66	1460
		40 %	315	1021	2946	95.5	0.91	523	5.7	1.7	1.1	1.6		
		60 %	330	1068	2952	95.5	0.92	542	5.5	1.6	1.1	1.5		
		80 %	290	936	2958	95.5	0.92	476	6.3	1.8	1.2	1.7		
K21R 315 LX2	K20R 315 LX2	25 %	400	1294	2952	95.5	0.92	657	5.8	1.9	1.1	1.6	4.43	1630
		40 %	400	1294	2952	95.5	0.92	657	5.8	1.9	1.1	1.6		
		60 %	400	1294	2952	95.5	0.92	657	5.8	1.9	1.1	1.6		
		80 %	350	1130	2958	95.5	0.92	575	6.6	2.1	1.3	1.8		

Three-phase motors with squirrel-cage rotor

with surface cooling, duty type S6, continuous operation with periodic duty 25 %/40 %/60 %/80 %
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz
Efficiency determination according to IEC/EN 60034-2

Motor selection data														Design point 400 V. 50 Hz	
Type		c.d.f.	P_B	M_B	n_B	η(100%)	$\cos\phi_B$	I_B	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
		S6						400 V						
			kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 1500 rpm – 4-pole version														
K21R 63 K4	K20R 56 K4	25 %	0.15	1.1	1325	56	0.78	0.50	2.8	1.4	1.4	1.7	0.00019	4.8
		40 %	0.15	1.1	1325	56	0.78	0.50	2.8	1.4	1.4	1.7		
		60 %	0.14	1.0	1340	57.5	0.75	0.47	2.9	1.5	1.5	1.9		
		80 %	0.12	0.8	1370	57.5	0.68	0.44	3.2	1.9	1.8	2.2		
K21R 63 G4	K20R 56 G4	25 %	0.23	1.7	1290	59	0.78	0.72	2.9	1.6	1.6	1.7	0.00024	5.2
		40 %	0.23	1.7	1290	59	0.78	0.72	2.9	1.6	1.6	1.7		
		60 %	0.22	1.6	1295	58.0	0.77	0.71	2.9	1.7	1.7	1.8		
		80 %	0.18	1.3	1360	61.0	0.66	0.65	3.3	2.0	2.0	2.3		
K21R 71 K4	K20R 63 K4	25 %	0.30	2.1	1340	61	0.80	0.89	3.0	1.4	1.4	1.6	0.00040	6.8
		40 %	0.30	2.1	1340	61	0.80	0.89	3.0	1.4	1.4	1.6		
		60 %	0.28	2.0	1350	62.0	0.78	0.84	3.2	1.5	1.5	1.7		
		80 %	0.25	1.7	1385	64.6	0.72	0.78	3.6	1.8	1.8	2.1		
K21R 71 G4	K20R 63 G4	25 %	0.45	3.2	1325	64	0.81	1.25	3.3	1.5	1.5	1.7	0.00050	7.8
		40 %	0.45	3.2	1325	64	0.81	1.25	3.3	1.5	1.5	1.7		
		60 %	0.40	2.8	1350	66.0	0.77	1.14	3.6	1.6	1.6	1.9		
		80 %	0.37	2.6	1370	67.8	0.74	1.06	3.8	2.0	2.0	2.2		
K21R 80 K4	K20R 71 K4	25 %	0.75	5.3	1350	67	0.82	1.97	3.3	1.4	1.4	1.7	0.00087	10.6
		40 %	0.75	5.3	1350	67	0.82	1.97	3.3	1.4	1.4	1.7		
		60 %	0.70	4.9	1360	68.0	0.80	1.86	3.5	1.5	1.5	1.8		
		80 %	0.55	3.8	1400	71.5	0.69	1.60	4.1	2.1	2.0	2.3		
K21 80 G4	K20R 71 G4	25 %	1.00	7.0	1360	70	0.80	2.58	3.9	1.7	1.7	1.9	0.00107	11.7
		40 %	1.00	7.0	1360	70	0.80	2.58	3.9	1.7	1.7	1.9		
		60 %	0.90	6.3	1375	71.0	0.77	2.38	4.2	1.9	1.9	2.1		
		80 %	0.75	5.1	1400	73.5	0.70	2.10	4.6	2.2	2.1	2.3		
K21R 90 S4	K20R 80 K4	25 %	1.5	10.6	1350	70	0.89	3.45	4.0	1.3	1.3	1.6	0.00207	15.5
		40 %	1.5	10.6	1350	70	0.89	3.45	4.0	1.3	1.3	1.6		
		60 %	1.4	9.8	1360	70.0	0.87	3.32	4.1	1.4	1.4	1.7		
		80 %	1.1	7.5	1410	76.6	0.79	2.62	5.5	2.3	2.2	2.5		
K21R 90 L4	K20R 80 G4	25 %	2	14.2	1345	72	0.89	4.50	4.2	1.4	1.4	1.7	0.00260	18.0
		40 %	2	14.2	1345	72	0.89	4.50	4.2	1.4	1.4	1.7		
		60 %	1.8	12.6	1365	74.0	0.87	4.05	4.6	1.5	1.5	1.9		
		80 %	1.5	10.2	1400	78.8	0.81	3.40	5.5	2.5	2.4	2.6		
K21R 100 L4	K20R 90 L4	25 %	3	20.8	1380	78	0.86	6.50	4.6	1.8	1.6	1.9	0.00400	23.5
		40 %	3	20.6	1390	77	0.84	6.70	4.8	1.9	1.5	2.0		
		60 %	2.8	19.2	1395	78.0	0.83	6.1	5.1	2.0	1.6	2.2		
		80 %	2.2	14.9	1410	81.2	0.79	4.95	6.0	2.5	2.3	2.7		
K21R 100 LX4	K20R 100 S4	25 %	4.0	27.2	1405	79.5	0.84	8.65	5.0	1.5	1.5	1.9	0.00725	30
		40 %	4.0	27.2	1405	79.5	0.84	8.65	5.0	1.5	1.5	1.9		
		60 %	3.8	25.7	1415	79.5	0.84	8.20	5.3	1.6	1.6	2.0		
		80 %	3.0	20.0	1430	82.6	0.79	6.65	6.5	2.5	2.2	2.9		
K21R 112 M4	K20R 100 L4	25 %	5.5	37.8	1390	81	0.84	11.70	5.3	1.6	1.6	2.2	0.00900	37
		40 %	5.5	37.8	1390	81	0.84	11.70	5.3	1.6	1.6	2.2		
		60 %	5.0	34.1	1400	80.0	0.84	10.7	5.8	1.8	1.8	2.4		
		80 %	4.0	26.6	1435	85.0	0.78	8.80	6.9	2.6	2.5	3.2		
K21R 132 S4	K20R 112 M4	25 %	8.5	58	1397	81.0	0.89	17	4.0	1.2	1.1	1.9	0.01500	50
		40 %	8.5	58	1397	81.0	0.89	17	4.0	1.2	1.1	1.9		
		60 %	7.3	49	1413	81.5	0.90	14.5	4.7	1.4	1.3	2.2		
		80 %	6.5	44	1425	82.0	0.89	13	5.3	1.6	1.4	2.5		
K21R 132 M4	K20R 132 S4	25 %	12.0	81	1418	82.5	0.88	24	3.8	1.2	1.0	1.8	0.0280	70
		40 %	12.0	81	1418	82.5	0.88	24	3.8	1.2	1.0	1.8		
		60 %	10.0	67	1436	84.0	0.87	20	4.5	1.5	1.3	2.2		
		80 %	8.8	58	1443	85.0	0.85	17.5	5.1	1.7	1.4	2.5		
K21R 160 M4	K20R 132 M4	25 %	16.0	107	1425	84.0	0.88	31	4.7	1.5	1.3	2.2	0.0350	92
		40 %	16.0	107	1425	84.0	0.88	31	4.7	1.5	1.3	2.2		
		60 %	14.5	97	1434	85.0	0.88	28	5.2	1.7	1.4	2.5		
		80 %	12.5	83	1445	85.5	0.86	24.5	6.0	1.9	1.7	2.9		
K21R 160 L4	K20R 160 S4	25 %	22.0	147	1428	86.0	0.86	43	4.8	1.7	1.3	2.0	0.0780	120
		40 %	22.0	147	1428	86.0	0.86	43	4.8	1.7	1.3	2.0		
		60 %	20.5	135	1449	87.0	0.87	39	5.3	1.8	1.4	2.2		

Three-phase motors with squirrel-cage rotor

with surface cooling, duty type S6, continuous operation with periodic duty 25 %/40 %/60 %/80 %
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz
Efficiency determination according to IEC/EN 60034-2

Motor selection data														Design point 400 V. 50 Hz
Type		c.d.f.	P_B	M_B	n_B	η(100%)	$\cos\phi_B$	I_B	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
		S6						400 V						
			kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 1500 rpm – 4-pole version														
		80 %	17.5	115	1458	88.0	0.86	33.5	6.2	2.1	1.7	2.6		
K21R 180 M4	K20R 160 M4	25 %	29.0	194	1425	87.0	0.86	56	4.3	1.6	1.2	1.8	0.0900	136
		40 %	29.0	194	1425	87.0	0.86	56	4.3	1.6	1.2	1.8		
		60 %	25.5	168	1448	87.5	0.87	48.5	4.9	1.8	1.4	2.1		
		80 %	21.5	141	1457	88.0	0.86	41	5.8	2.1	1.7	2.5		
K21R 180 L4	K20R 180 S4	25 %	34.0	225	1445	89.0	0.83	66.5	4.1	1.3	1.1	1.7	0.1380	170
		40 %	34.0	225	1445	89.0	0.83	66.5	4.1	1.3	1.1	1.7		
		60 %	31.5	207	1452	89.0	0.84	61	4.5	1.4	1.2	1.8		
		80 %	26.0	170	1458	90.0	0.84	49.5	5.5	1.7	1.5	2.2		
K21R 200 L4	K20R 180 M4	25 %	45.0	297	1446	90.0	0.84	86	3.9	1.3	1.1	1.6	0.1680	200
		40 %	45.0	297	1446	90.0	0.84	86	3.9	1.3	1.1	1.6		
		60 %	40.0	263	1452	90.0	0.86	74.5	4.5	1.5	1.3	1.9		
		80 %	35.0	229	1458	90.0	0.87	64.5	5.2	1.7	1.5	2.1		
K21R 225 S4	K20R 200 M4	25 %	55.0	361	1454	92.0	0.85	102	4.3	1.3	1.1	1.7	0.2750	270
		40 %	55.0	361	1454	92.0	0.85	102	4.3	1.3	1.1	1.7		
		60 %	51.0	334	1460	92.0	0.85	94	4.6	1.4	1.2	1.8		
		80 %	45.0	294	1463	92.0	0.85	83	5.2	1.6	1.4	2.0		
K21R 225 M4	K20R 200 L4	25 %	65.0	429	1448	93.0	0.83	122	4.3	1.5	1.2	1.7	0.3130	300
		40 %	65.0	429	1448	93.0	0.83	122	4.3	1.5	1.2	1.7		
		60 %	62.5	411	1452	93.0	0.83	117	4.5	1.6	1.2	1.8		
		80 %	55.0	360	1460	92.0	0.85	102	5.2	1.8	1.4	2.0		
K21R 250 M4	K20R 225 M4	25 %	75.0	489	1464	92.0	0.85	138	5.0	1.7	1.3	1.7	0.5250	375
		40 %	75.0	489	1464	92.0	0.85	138	5.0	1.7	1.3	1.7		
		60 %	70.0	456	1467	92.0	0.85	129	5.3	1.9	1.4	1.8		
		80 %	65.0	422	1470	92.0	0.85	120	5.7	2.0	1.5	1.9		
K21R 280 S4	K20R 250 S4	25 %	95.0	618	1467	92.0	0.84	177	5.3	1.6	1.3	1.7	0.9500	520
		40 %	95.0	618	1467	92.0	0.84	177	5.3	1.6	1.3	1.7		
		60 %	91.0	592	1469	92.0	0.84	170	5.5	1.6	1.4	1.8		
		80 %	85.0	551	1473	93.0	0.85	155	6.1	1.8	1.5	1.9		
K21R 280 M4	K20R 250 M4	25 %	115	745	1474	94.0	0.84	210	5.3	1.6	1.2	1.7	1.10	580
		40 %	115	745	1474	94.0	0.84	210	5.3	1.6	1.2	1.7		
		60 %	110	712	1475	94.2	0.84	201	5.6	1.7	1.3	1.8		
		80 %	105	679	1476	94.0	0.85	190	5.9	1.8	1.4	1.9		
K21R 315 S4	K20R 280 S4	25 %	155	1002	1478	93.5	0.85	282	4.8	1.5	1.3	1.7	1.96	740
		40 %	155	1002	1478	93.5	0.85	282	4.8	1.5	1.3	1.7		
		60 %	145	936	1479	94.0	0.85	262	5.2	1.6	1.4	1.8		
		80 %	130	838	1482	94.0	0.85	235	5.8	1.8	1.6	2.0		
K21R 315 M4	K20R 280 M4	25 %	185	1199	1473	94.0	0.85	334	4.8	1.5	1.3	1.7	2.27	840
		40 %	185	1199	1473	94.0	0.85	334	4.8	1.5	1.3	1.7		
		60 %	175	1134	1474	94.0	0.85	316	5.1	1.6	1.4	1.8		
		80 %	155	1001	1479	94.0	0.85	280	5.8	1.8	1.5	2.0		
K21R 315 MX4	K20R 315 S4	25 %	205	1329	1473	94.0	0.85	370	4.9	1.4	1.3	1.7	2.73	1000
		40 %	205	1329	1473	94.0	0.85	370	4.9	1.4	1.3	1.7		
		60 %	195	1263	1475	94.0	0.86	348	5.2	1.5	1.4	1.8		
		80 %	185	1197	1476	94.0	0.86	330	5.5	1.6	1.5	1.9		
K21R 315 MY4	K20R 315 M4	25 %	275	1781	1475	95.0	0.87	480	4.9	1.4	1.3	1.7	4.82	1200
		40 %	275	1781	1475	95.0	0.87	480	4.9	1.4	1.3	1.7		
		60 %	265	1715	1476	95.0	0.87	463	5.0	1.5	1.4	1.8		
		80 %	235	1517	1479	95.0	0.88	406	5.7	1.7	1.5	2.0		
K21R 315 L4	K20R 315 L4	25 %	315	2039	1475	95.5	0.88	541	6.2	1.6	1.3	1.8	5.93	1450
		40 %	315	2039	1475	95.5	0.88	541	6.2	1.6	1.3	1.8		
		60 %	305	1973	1476	95.5	0.88	524	6.4	1.6	1.3	1.9		
		80 %	290	1873	1479	95.5	0.88	498	6.8	1.7	1.4	2.0		
K21R 315 LX4	K20R 315 LX4	25 %	390	2510	1484	96.0	0.86	682	6.7	1.5	1.2	2.0	6.82	1630
		40 %	390	2510	1484	96.0	0.86	682	6.7	1.5	1.2	2.0		
		60 %	375	2412	1485	96.0	0.87	648	7.1	1.6	1.3	2.1		
		80 %	360	2310	1488	96.0	0.87	622	7.4	1.7	1.3	2.2		

Three-phase motors with squirrel-cage rotor

with surface cooling, duty type S6, continuous operation with periodic duty 25 %/40 %/60 %/80 % for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz
Efficiency determination according to IEC/EN 60034-2

Motor selection data														Design point 400 V, 50 Hz	
Type		c.d.f.	P_B	M_B	n_B	η(100%)	$\cos\phi_B$	I_B	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
		S6						400 V						
			kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 1000 rpm – 6-pole version														
K21R 63 K6	K20R 56 K6	25 %	0.12	1.4	835	50	0.65	0.54	2.1	1.5	1.5	1.6	0.00024	4.9
		40 %	0.12	1.4	835	50	0.65	0.54	2.1	1.5	1.5	1.6		
		60 %	0.11	1.2	850	48.0	0.64	0.52	2.2	1.7	1.7	1.8		
		80 %	0.09	1.0	895	50.5	0.56	0.46	2.5	2.0	2.0	2.4		
K21R 63 G6	K20R 56 G6	25 %	0.15	1.7	845	50	0.64	0.68	2.2	1.4	1.4	1.6	0.00027	5.7
		40 %	0.15	1.7	845	50	0.64	0.68	2.2	1.4	1.4	1.6		
		60 %	0.14	1.6	855	50.0	0.62	0.65	2.3	1.5	1.5	1.8		
		80 %	0.12	1.3	880	52.0	0.56	0.59	2.5	2.0	2.0	2.3		
K21R 71 K6	K20R 63 K6	25 %	0.25	2.7	875	56	0.65	0.99	2.5	1.5	1.5	1.6	0.00045	7.4
		40 %	0.25	2.7	875	56	0.65	0.99	2.5	1.5	1.5	1.6		
		60 %	0.23	2.5	890	57.0	0.62	0.94	2.6	1.6	1.6	1.8		
		80 %	0.18	1.9	925	58.0	0.51	0.88	2.8	1.6	1.6	2.1		
K21R 71 G6	K20R 63 G6	25 %	0.30	3.3	875	59	0.60	1.23	2.6	1.6	1.6	1.8	0.00060	8.3
		40 %	0.30	3.3	875	59	0.60	1.23	2.6	1.6	1.6	1.8		
		60 %	0.28	3.0	880	58.0	0.59	1.18	2.8	1.7	1.7	1.9		
		80 %	0.25	2.6	915	60.0	0.55	1.10	2.9	2.0	2.0	2.2		
K21R 80 K6	K20R 71 K6	25 %	0.45	4.8	900	64	0.76	1.34	3.1	1.3	1.3	1.6	0.00130	11.0
		40 %	0.45	4.8	900	64	0.76	1.34	3.1	1.3	1.3	1.6		
		60 %	0.42	4.4	905	64.0	0.74	1.28	3.3	1.4	1.4	1.7		
		80 %	0.37	3.9	915	66.0	0.66	1.22	3.4	2.0	2.0	2.0		
K21R 80 G6	K20R 71 G6	25 %	0.65	6.9	900	65	0.75	1.93	3.2	1.5	1.5	1.8	0.00175	12.5
		40 %	0.65	6.9	900	65	0.75	1.93	3.2	1.5	1.5	1.8		
		60 %	0.60	6.3	905	65.0	0.72	1.85	3.4	1.6	1.6	2.0		
		80 %	0.55	5.7	915	68.0	0.67	1.73	3.7	2.2	2.2	2.4		
K21R 90 S6	K20R 80 K6	25 %	1.00	10.4	915	67.5	0.72	2.97	3.5	1.4	1.4	1.9	0.00325	16.0
		40 %	1.00	10.4	915	67.5	0.72	2.97	3.5	1.4	1.4	1.9		
		60 %	0.90	9.3	925	68.0	0.69	2.75	3.8	1.6	1.6	2.1		
		80 %	0.75	7.7	935	70.0	0.64	2.43	4.5	2.4	2.4	2.6		
K21R 90 L6	K20R 80 G6	25 %	1.5	15.9	900	69	0.76	4.15	3.4	1.5	1.5	1.7	0.00425	19.0
		40 %	1.5	15.9	900	69	0.76	4.15	3.4	1.5	1.5	1.7		
		60 %	1.4	14.8	905	68.0	0.75	3.95	3.6	1.6	1.6	1.8		
		80 %	1.1	11.2	935	73.0	0.69	3.15	4.6	2.2	2.2	2.6		
K21R 100 L6	K20R 90 L6	25 %	2	20.9	915	72	0.77	5.20	3.6	1.3	1.3	1.6	0.00625	24.0
		40 %	2	20.9	915	72	0.77	5.20	3.6	1.3	1.3	1.6		
		60 %	1.8	18.6	925	74.0	0.74	4.75	3.9	1.5	1.5	1.8		
		80 %	1.5	15.2	945	76.4	0.73	3.90	4.6	2.1	2.0	2.4		
K21R 112 M6	K20R 100 L6	25 %	3	31.1	920	76	0.84	6.80	4.2	1.5	1.5	1.9	0.01225	33.5
		40 %	3	31.1	920	76	0.84	6.80	4.2	1.5	1.5	1.9		
		60 %	2.8	28.9	925	77.0	0.83	6.35	4.5	1.6	1.6	2.0		
		80 %	2.2	22.1	950	79.8	0.74	5.35	5.3	2.2	2.1	2.7		
K21R 132 S6	K20R 112 M6	25 %	5.0	53	908	71.0	0.87	11.5	3.3	1.1	1.0	1.6	0.0180	46
		40 %	5.0	53	908	71.0	0.87	11.5	3.3	1.1	1.0	1.6		
		60 %	4.6	48	915	73.0	0.86	10.5	3.6	1.3	1.1	1.8		
		80 %	3.5	35	943	78.0	0.82	8	4.7	1.7	1.5	2.4		
K21R 132 M6	K20R 112 MX6	25 %	7.0	73	912	72.0	0.86	16.5	3.3	1.3	1.1	1.6	0.0230	53
		40 %	7.0	73	912	72.0	0.86	16.5	3.3	1.3	1.1	1.6		
		60 %	6.2	65	916	76.0	0.86	13.5	4.0	1.4	1.2	1.9		
		80 %	4.7	48	941	79.0	0.82	10.5	5.1	1.9	1.7	2.5		
K21R 132 MX6	K20R 132 S6	25 %	8.0	82	930	77.0	0.85	17.5	3.3	1.3	1.1	1.6	0.0430	70
		40 %	8.0	82	930	77.0	0.85	17.5	3.3	1.3	1.1	1.6		
		60 %	7.3	74	938	79.0	0.85	15.5	3.7	1.4	1.3	1.8		
		80 %	6.5	66	947	81.0	0.84	13.5	4.3	1.6	1.4	2.0		
K21R 160 M6	K20R 132 M6	25 %	12.0	123	932	77.0	0.84	27	3.2	1.2	1.0	1.5	0.0530	86
		40 %	12.0	123	932	77.0	0.84	27	3.2	1.2	1.0	1.5		
		60 %	10.5	106	944	81.0	0.84	22.5	3.8	1.4	1.1	1.8		
		80 %	8.8	88	953	82.0	0.84	18.5	4.6	1.7	1.4	2.1		
K21R 160 L6	K20R 160 S6	25 %	16.0	163	939	85.0	0.88	31	3.5	1.3	1.1	1.5	0.1130	114
		40 %	16.0	163	939	85.0	0.88	31	3.5	1.3	1.1	1.5		
		60 %	14.0	141	949	85.0	0.87	27.5	4.0	1.5	1.3	1.8		

Three-phase motors with squirrel-cage rotor

with surface cooling, duty type S6, continuous operation with periodic duty 25 %/40 %/60 %/80 %
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz
Efficiency determination according to IEC/EN 60034-2

Motor selection data														Design point 400 V, 50 Hz
Type		c.d.f.	P_B	M_B	n_B	η(100%)	$\cos\phi_B$	I_B	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
		S6						400 V						
			kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 1000 rpm – 6-pole version														
		80 %	12.5	125	955	85.0	0.87	24.5	4.5	1.7	1.5	2.0		
K21R 180 L6	K20R 160 M6	25 %	24.0	244	940	85.0	0.83	49	3.4	1.5	1.3	1.6	0.1450	136
		40 %	24.0	244	940	85.0	0.83	49	3.4	1.5	1.3	1.6		
		60 %	22.5	227	945	85.0	0.83	46	3.6	1.6	1.4	1.8		
		80 %	17.5	174	960	85.0	0.82	36	4.7	2.0	1.9	2.3		
K21R 200 L6	K20R 180 S6	25 %	26.0	263	944	86.0	0.88	49.5	3.9	1.4	1.2	1.7	0.2280	175
		40 %	26.0	263	944	86.0	0.88	49.5	3.9	1.4	1.2	1.7		
		60 %	24.5	246	952	86.0	0.88	46.5	4.2	1.5	1.3	1.8		
		80 %	21.0	209	960	87.0	0.87	40	4.9	1.8	1.5	2.1		
K21R 200 LX6	K20R 180 M6	25 %	35.0	354	943	87.0	0.86	67.5	3.6	1.3	1.1	1.6	0.2680	200
		40 %	35.0	354	943	87.0	0.86	67.5	3.6	1.3	1.1	1.6		
		60 %	33.0	333	947	87.0	0.86	63.5	3.9	1.4	1.2	1.8		
		80 %	25.0	248	962	88.0	0.86	47.5	5.2	1.8	1.6	2.4		
K21R 225 M6	K20R 200 M6	25 %	45.0	452	950	89.0	0.88	83	4.0	1.4	1.1	1.6	0.4430	265
		40 %	45.0	452	950	89.0	0.88	83	4.0	1.4	1.1	1.6		
		60 %	41.5	415	955	89.0	0.88	76.5	4.3	1.6	1.2	1.8		
		80 %	35.0	347	964	89.0	0.88	64.5	5.1	1.9	1.4	2.1		
K21R 250 M6	K20R 225 M6	25 %	50.0	497	960	88.0	0.86	95.5	4.1	1.5	1.1	1.7	0.8250	360
		40 %	50.0	497	960	88.0	0.86	95.5	4.1	1.5	1.1	1.7		
		60 %	47.0	466	963	89.0	0.87	87.5	4.5	1.6	1.2	1.8		
		80 %	43.5	430	966	90.0	0.89	78.5	5.0	1.7	1.3	1.9		
K21R 280 S6	K20R 250 S6	25 %	55.0	539	975	90.0	0.86	103	4.7	1.6	1.2	1.6	1.28	465
		40 %	55.0	539	975	90.0	0.86	103	4.7	1.6	1.2	1.6		
		60 %	55.0	539	975	90.0	0.86	103	4.7	1.6	1.2	1.6		
		80 %	52.0	508	978	91.0	0.86	96	5.1	1.7	1.3	1.7		
K21R 280 M6	K20R 250 M6	25 %	72.0	705	975	90.0	0.85	136	4.3	1.6	1.2	1.7	1.48	520
		40 %	72.0	705	975	90.0	0.85	136	4.3	1.6	1.2	1.7		
		60 %	67.0	654	978	92.0	0.87	121	4.8	1.7	1.3	1.8		
		80 %	64.0	624	979	92.0	0.87	115	5.1	1.8	1.4	1.9		
K21R 315 S6	K20R 280 S6	25 %	110	1072	980	92.5	0.86	200	4.3	1.4	1.2	1.6	2.63	690
		40 %	110	1072	980	92.5	0.86	200	4.3	1.4	1.2	1.6		
		60 %	100	973	982	93.0	0.86	180	4.8	1.5	1.3	1.8		
		80 %	88	853	985	93.0	0.87	157	5.5	1.7	1.4	2.0		
K21R 315 M6	K20R 280 M6	25 %	130	1267	980	93.0	0.86	235	4.3	1.4	1.2	1.6	3.33	800
		40 %	130	1267	980	93.0	0.86	235	4.3	1.4	1.2	1.6		
		60 %	120	1166	983	93.0	0.86	217	4.7	1.5	1.3	1.8		
		80 %	105	1018	985	94.0	0.87	185	5.5	1.7	1.4	2.0		
K21R 315 MX6	K20R 315 S6	25 %	165	1611	978	93.0	0.86	298	4.5	1.5	1.3	1.7	3.60	880
		40 %	165	1611	978	93.0	0.86	298	4.5	1.5	1.3	1.7		
		60 %	155	1510	980	93.0	0.86	280	4.8	1.6	1.3	1.8		
		80 %	125	1214	983	93.8	0.87	221	6.1	2.0	1.7	2.3		
K21R 315 MY6	K20R 315 M6	25 %	200	1953	978	94.5	0.88	347	4.6	1.6	1.3	1.7	6.00	1050
		40 %	200	1953	978	94.5	0.88	347	4.6	1.6	1.3	1.7		
		60 %	190	1852	980	94.5	0.88	330	4.8	1.7	1.4	1.8		
		80 %	155	1503	985	94.5	0.88	269	5.9	2.0	1.7	2.2		
K21R 315 L6	K20R 315 L6	25 %	220	2148	978	94.5	0.88	382	5.4	1.7	1.4	1.7	6.67	1250
		40 %	220	2148	978	94.5	0.88	382	5.4	1.7	1.4	1.7		
		60 %	210	2046	980	94.5	0.88	364	5.7	1.7	1.4	1.8		
		80 %	185	1794	985	94.5	0.88	321	6.4	2.0	1.6	2.1		
K21R 315 LX6	K20R 315 LX6	25 %	270	2637	978	94.0	0.85	488	5.9	1.6	1.5	2.0	8.6	1460
		40 %	270	2637	978	94.0	0.85	488	5.9	1.6	1.5	2.0		
		60 %	250	2431	982	94.5	0.86	444	6.5	1.7	1.6	2.1		
		80 %	235	2269	989	95.0	0.86	415	7.0	1.9	1.7	2.3		

Three-phase motors with squirrel-cage rotor

with surface cooling, duty type S6, continuous operation with periodic duty 25 %/40 %/60 %/80 %
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz
Efficiency determination according to IEC/EN 60034-2

Motor selection data														Design point 400 V, 50 Hz	
Type		c.d.f.	P_B	M_B	n_B	η(100%)	$\cos\phi_B$	I_B	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
		S6						400 V						
			kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 750 rpm – 8-pole version														
K21R 71 K8	K20R 63 K8	25 %	0.105	1.5	655	45	0.58	0.58	2.0	1.5	1.5	1.8	0.00050	6.6
		40 %	0.105	1.5	655	45	0.58	0.58	2.0	1.5	1.5	1.8		
		60 %	0.10	1.4	665	44.0	0.58	0.57	2.1	1.6	1.6	1.8		
		80 %	0.09	1.3	675	45.5	0.51	0.56	2.1	1.9	1.9	2.1		
K21R 71 G8	K20R 63 G8	25 %	0.14	2.0	655	47	0.57	0.75	2.1	1.4	1.4	1.8	0.00060	8.1
		40 %	0.14	2.0	655	47	0.57	0.75	2.1	1.4	1.4	1.8		
		60 %	0.13	1.9	665	46.0	0.56	0.74	2.1	1.5	1.5	1.9		
		80 %	0.12	1.7	670	46.5	0.51	0.73	2.3	1.8	1.8	2.1		
K21R 80 K8	K20R 71 K8	25 %	0.22	3.1	670	56	0.68	0.83	2.4	1.3	1.3	1.6	0.00130	10.5
		40 %	0.22	3.1	670	56	0.68	0.83	2.4	1.3	1.3	1.6		
		60 %	0.21	3.0	675	56.0	0.67	0.81	2.5	1.4	1.4	1.7		
		80 %	0.18	2.5	690	56.5	0.59	0.78	2.8	2.0	2.0	2.2		
K21R 80 G8	K20R 71 G8	25 %	0.35	5.1	655	57	0.68	1.30	2.6	1.4	1.4	1.5	0.00175	12.0
		40 %	0.35	5.1	655	57	0.68	1.30	2.6	1.4	1.4	1.5		
		60 %	0.33	4.8	660	56.0	0.68	1.24	2.7	1.5	1.5	1.7		
		80 %	0.25	3.4	695	58.0	0.56	1.12	3.0	2.3	2.3	2.5		
K21R 90 S8	K20R 80 K8	25 %	0.50	7.0	680	59	0.65	1.87	2.6	1.3	1.3	1.6	0.00300	15.0
		40 %	0.50	7.0	680	59	0.65	1.87	2.6	1.3	1.3	1.6		
		60 %	0.45	6.2	690	60.0	0.62	1.75	2.8	1.4	1.4	1.8		
		80 %	0.37	5.1	700	61.5	0.54	1.6	3.0	1.9	1.9	2.1		
K21R 90 L8	K20R 80 G8	25 %	0.70	9.8	680	64	0.64	2.48	2.8	1.4	1.4	1.7	0.00375	18.0
		40 %	0.70	9.8	680	64	0.64	2.48	2.8	1.4	1.4	1.7		
		60 %	0.65	9.1	685	64.0	0.62	2.37	2.9	1.5	1.5	1.8		
		80 %	0.55	7.6	695	64.5	0.60	2.04	3.2	1.9	1.9	2.2		
K21R 100 L8	K20R 90 L8	25 %	0.95	13.2	690	64	0.65	3.30	2.8	1.3	1.3	1.6	0.00625	23.0
		40 %	0.95	13.2	690	64	0.65	3.30	2.8	1.3	1.3	1.6		
		60 %	0.90	12.4	695	64.0	0.64	3.15	2.9	1.4	1.4	1.7		
		80 %	0.75	10.2	705	67.0	0.60	2.7	3.3	2.0	2.0	2.3		
K21R 100 LX8	K20R 100 S8	25 %	1.5	21.1	680	70	0.76	4.05	3.2	1.4	1.4	1.6	0.00900	28.0
		40 %	1.5	21.1	680	70	0.76	4.05	3.2	1.4	1.4	1.6		
		60 %	1.4	19.5	685	71.0	0.74	3.85	3.4	1.5	1.5	1.8		
		80 %	1.1	14.9	705	73.0	0.67	3.25	4.0	2.0	2.0	2.4		
K21R 112 M8	K20R 100 L8	25 %	2	28	685	72	0.77	5.20	3.3	1.5	1.5	1.7	0.01225	33.5
		40 %	2	28	685	72	0.77	5.20	3.3	1.5	1.5	1.7		
		60 %	1.8	25	690	74.0	0.75	4.68	3.7	1.7	1.7	1.9		
		80 %	1.5	20	705	75.5	0.70	4.1	4.4	2.2	2.1	2.5		
K21R 132 S8	K20R 112 M8	25 %	2.8	39	694	72.6	0.79	7		1.3	1.2	1.8	0.01800	46
		40 %	2.8	39	694	72.6	0.79	7		1.3	1.2	1.8		
		60 %	2.8	39	694	72.6	0.79	7	3.2	1.3	1.2	1.8		
		80 %	2.6	36	699	73.5	0.77	6.6	3.4	1.4	1.3	1.9		
K21R 132 M8	K20R 112 MX8	25 %	3.8	37	986	73.6	0.80	9.3	3.2	1.3	1.2	1.8	0.0230	53
		40 %	3.8	53	686	73.6	0.80	9.3	3.2	1.3	1.2	1.8		
		60 %	3.8	53	686	73.6	0.80	9.3	3.2	1.3	1.2	1.8		
		80 %	3.5	48	692	75.0	0.77	8.7	3.4	1.4	1.4	1.9		
K21R 160 M8	K20R 132 S8	25 %	4.2	57	704	77.0	0.78	10	3.8	1.5	1.3	1.8	0.0430	70
		40 %	4.2	57	704	77.0	0.78	10	3.8	1.5	1.3	1.8		
		60 %	4.2	57	704	77.0	0.78	10	3.8	1.5	1.3	1.8		
		80 %	4.2	57	704	77.0	0.78	10	3.8	1.5	1.3	1.8		
K21R 160 MX8	K20R 132 M8	25 %	6.4	86	707	79.0	0.78	15	3.5	1.5	1.4	1.8	0.0530	86
		40 %	6.4	86	707	79.0	0.78	15	3.5	1.5	1.4	1.8		
		60 %	6.4	86	707	79.0	0.78	15	3.5	1.5	1.4	1.8		
		80 %	6.4	86	707	79.0	0.78	15	3.5	1.5	1.4	1.8		
K21R 160 L8	K20R 160 S8	25 %	8.8	117	720	81.0	0.78	20	3.7	1.5	1.4	1.8	0.1130	114
		40 %	8.8	117	720	81.0	0.78	20	3.7	1.5	1.4	1.8		
		60 %	8.8	117	720	81.0	0.78	20	3.7	1.5	1.4	1.8		
		80 %	8.8	117	720	81.0	0.78	20	3.7	1.5	1.4	1.8		
K21R 180 L8	K20R 160 M8	25 %	12.8	171	714	84.0	0.79	28	3.9	1.7	1.4	1.8	0.1450	136
		40 %	12.8	171	714	84.0	0.79	28	3.9	1.7	1.4	1.8		
		60 %	12.8	171	714	84.0	0.79	28	3.9	1.7	1.4	1.8		

Three-phase motors with squirrel-cage rotor

with surface cooling, duty type S6, continuous operation with periodic duty 25 %/40 %/60 %/80 %
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz
Efficiency determination according to IEC/EN 60034-2

Motor selection data														Design point 400 V, 50 Hz
Type		c.d.f.	P_B	M_B	n_B	η(100%)	$\cos\phi_B$	I_B	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
		S6						400 V						
			kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 750 rpm – 8-pole version														
		80 %	12.8	171	714	84.0	0.79	28	3.9	1.7	1.4	1.8		
K21R 200 L8	K20R 180 S8	25 %	19.2	257	714	84.0	0.80	41	4.0	1.5	1.3	1.8	0.228	175
		40 %	19.2	257	714	84.0	0.80	41	4.0	1.5	1.3	1.8		
		60 %	19.2	257	714	84.0	0.80	41	4.0	1.5	1.3	1.8		
		80 %	17.6	233	720	85.0	0.78	38.5	4.2	1.7	1.4	1.9		
	K20R 180 M8	25 %	23.5	316	711	86.0	0.82	48	4.0	1.6	1.3	1.7	0.268	200
		40 %	23.5	316	711	86.0	0.82	48	4.0	1.6	1.3	1.7		
		60 %	23.5	316	711	86.0	0.82	48	4.0	1.6	1.3	1.7		
		80 %	21.5	287	716	86.0	0.82	44	4.3	1.7	1.5	1.9		
K21R 225 S8		25 %	22.5	297	724	87.5	0.83	44.5	4.3	1.6	1.3	1.8	0.440	265
		40 %	22.5	297	724	87.5	0.83	44.5	4.3	1.6	1.3	1.8		
		60 %	22.5	297	724	87.5	0.83	44.5	4.3	1.6	1.3	1.8		
		80 %	21.5	283	726	88.0	0.82	43	4.4	1.7	1.4	1.9		
K21R 225 M8	K20R 200 M8	25 %	28.0	373	716	87.5	0.84	55	4.0	1.4	1.2	1.7	0.440	265
		40 %	28.0	373	716	87.5	0.84	55	4.0	1.4	1.2	1.7		
		60 %	28.0	373	716	87.5	0.84	55	4.0	1.4	1.2	1.7		
		80 %	25.5	338	720	88.5	0.84	49.5	4.5	1.5	1.3	1.9		
K21R 250 M8	K20R 225 M8	25 %	36.5	479	727	89.0	0.80	74	4.5	1.8	1.5	1.8	0.825	360
		40 %	36.5	479	727	89.0	0.80	74	4.5	1.8	1.5	1.8		
		60 %	36.5	479	727	89.0	0.80	74	4.5	1.8	1.5	1.8		
		80 %	35.0	459	728	90.0	0.80	70	4.7	1.9	1.5	1.9		
K21R 280 S8	K20R 250 S8	25 %	45.0	588	731	90.0	0.80	90	4.5	1.6	1.2	1.6	1.35	465
		40 %	45.0	588	731	90.0	0.80	90	4.5	1.6	1.2	1.6		
		60 %	45.0	588	731	90.0	0.80	90	4.5	1.6	1.2	1.6		
		80 %	41.0	535	732	90.0	0.80	82	4.9	1.8	1.3	1.8		
K21R 280 M8	K20R 250 M8	25 %	55.0	717	733	91.0	0.79	110	4.6	1.8	1.2	1.6	1.55	520
		40 %	55.0	717	733	91.0	0.79	110	4.6	1.8	1.2	1.6		
		60 %	55.0	717	733	91.0	0.79	110	4.6	1.8	1.2	1.6		
		80 %	50.0	651	734	91.0	0.78	102	5.0	2.0	1.3	1.8		
K21R 315 S8	K20R 280 S8	25 %	73.0	946	737	92.0	0.79	145	4.4	1.5	1.2	1.8	2.63	690
		40 %	73.0	946	737	92.0	0.79	145	4.4	1.5	1.2	1.8		
		60 %	73.0	946	737	92.0	0.79	145	4.4	1.5	1.2	1.8		
		80 %	73.0	946	737	92.0	0.79	145	4.4	1.5	1.2	1.8		
K21R 315 M8	K20R 280 M8	25 %	100	1319	724	92.0	0.79	199	4.3	1.5	1.2	1.7	3.33	800
		40 %	100	1319	724	92.0	0.79	199	4.3	1.5	1.2	1.7		
		60 %	100	1319	724	92.0	0.79	199	4.3	1.5	1.2	1.7		
		80 %	95	1250	726	92.0	0.81	184	4.7	1.5	1.2	1.8		
K21R 315 MX8	K20R 315 S8	25 %	110	1429	735	93.0	0.81	211	4.9	1.6	1.4	2.0	3.60	880
		40 %	110	1429	735	93.0	0.81	211	4.9	1.6	1.4	2.0		
		60 %	110	1429	735	93.0	0.81	211	4.9	1.6	1.4	2.0		
		80 %	110	1429	735	93.0	0.81	211	4.9	1.6	1.4	2.0		
K21R 315 MY8	K20R 315 M8	25 %	160	2076	736	92.0	0.80	314	4.0	1.6	1.4	1.8	6.00	1050
		40 %	160	2076	736	92.0	0.80	314	4.0	1.6	1.4	1.8		
		60 %	160	2076	736	92.0	0.80	314	4.0	1.6	1.4	1.8		
		80 %	150	1944	737	93.0	0.80	291	4.3	1.8	1.5	1.9		
K21R 315 L8	K20R 315 L8	25 %	165	2138	737	94.0	0.82	309	5.0	1.6	1.4	1.7	6.76	1250
		40 %	165	2138	737	94.0	0.82	309	5.0	1.6	1.4	1.7		
		60 %	165	2138	737	94.0	0.82	309	5.0	1.6	1.4	1.7		
		80 %	155	2008	737	94.5	0.82	289	5.3	1.7	1.4	1.8		
K21R 315 LX8	K20R 315 LX8	25 %	210	2736	733	93.0	0.77	423	5.2	1.7	1.4	1.9	8.71	1430
		40 %	210	2736	733	93.0	0.77	423	5.2	1.7	1.4	1.9		
		60 %	200	2602	734	94.0	0.77	399	5.5	1.7	1.5	2.0		
		80 %	180	2339	735	95.0	0.78	351	6.3	1.9	1.7	2.2		

Three-phase motors with squirrel-cage rotor

Pole-changing, for constant load torque
with Δ-YY-Dahlander winding
with surface cooling, duty type S1, continuous duty
Thermal class 155, degree of protection IP 55

Motor selection data															Design point 400 V, 50 Hz
Type				P_B	M_B	n_B	η_B	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
				kW	Nm	rpm	%	-	A	-	-	-	-	kgm²	kg
Synchronous speed 1500/3000 rpm – 4- to 2-pole version															
K21R	63 G	K20R	56 G	0.12	0.82	1405	53.0	0.65	0.55	3.0	1.9	1.9	2.5	0.00024	5.2
	4-2		4-2	0.18	0.61	2840	63.0	0.82	0.50	4.2	2.0	1.8	2.2		4.8[1]
K21R	71 K	K20R	63 K	0.17	1.16	1405	58.5	0.69	0.61	3.3	1.3	1.3	2.1	0.00040	6.8
	4-2		4-2	0.23	0.77	2840	63.5	0.82	0.64	4.3	1.5	1.5	2.0		6.3[1]
K21R	71 G	K20R	63 G	0.30	2.06	1390	60.0	0.73	1.00	3.5	1.5	1.5	2.0	0.00050	7.8
	4-2		4-2	0.45	1.55	2770	62.0	0.88	1.20	3.8	1.1	1.1	1.6		7.1[1]
K21R	80 K	K20R	71 K	0.48	3.29	1395	67.0	0.77	1.35	4.1	1.5	1.5	2.0	0.00087	10.6
	4-2		4-2	0.55	1.84	2855	66.0	0.86	1.40	5.1	1.3	1.3	2.1		9.9[1]
K21R	80 G	K20R	71 G	0.70	4.78	1400	67.5	0.75	2.00	3.7	1.6	1.6	1.8	0.00107	11.7
	4-2		4-2	0.85	2.84	2860	68.0	0.84	2.15	4.9	1.4	1.4	1.7		11.0[1]
K21R	90 S	K20R	80 K	1.10	7.45	1410	73.0	0.80	2.71	4.7	1.4	1.4	1.9	0.00207	15.5
	4-2		4-2	1.40	4.70	2845	70.0	0.90	3.20	5.5	1.5	1.5	1.7		14.5[1]
K21R	90 L	K20R	80 G	1.40	9.48	1410	73.5	0.80	3.45	4.6	1.5	1.5	2.1	0.00260	18.0
	4-2		4-2	1.80	6.02	2855	70.0	0.90	4.15	5.6	1.7	1.7	1.9		17.0[1]
K21R	100 L	K20R	90 L	2.00	13.6	1405	76.0	0.85	4.50	5.1	1.5	1.5	2.1	0.00400	23.5
	4-2		4-2	2.40	8.00	2865	74.0	0.91	5.10	5.8	1.4	1.4	2.0		22.5[1]
K21R	100 LX	K20R	100 S	2.60	17.2	1440	80.0	0.80	5.85	6.1	1.7	1.7	2.5	0.00725	30.0
	4-2		4-2	3.10	10.2	2900	76.0	0.87	6.80	7.3	1.6	1.6	2.6		30.0[1]
K21R	112 M	K20R	100 L	3.70	24.8	1425	80.0	0.86	7.80	5.7	1.5	1.5	2.3	0.00900	37.0
	4-2		4-2	4.40	14.5	2890	77.5	0.90	9.10	7.0	1.6	1.6	2.4		36.0[1]
K21R	132 S	K20R	112 M	4.2	28.1	1430	83.0	0.87	8.4	6.3	1.7	1.5	2.4	0.015	50
	4-2		4-2	5.3	17.6	2870	80.0	0.92	10.5	6.5	2.1	1.3	2.6		
K21R	132 M	K20R	132 S	5.3	34.9	1450	86.0	0.84	10.5	5.3	1.7	1.4	2.2	0.028	69
	4-2		4-2	6.5	21.3	2910	81.0	0.90	13	6.2	2.0	2.0	2.4		
K21R	160 M	K20R	132 M	7.6	50.2	1445	86.0	0.86	15	5.4	1.7	1.3	2.2	0.035	86
	4-2		4-2	9.5	31.3	2900	83.0	0.92	18	6.5	1.9	1.0	2.4		
K21R	160 L	K20R	160 S	10.5	68.7	1460	88.5	0.88	19.5	5.8	1.7	1.0	2.0	0.078	120
	4-2		4-2	13.0	42.6	2915	86.0	0.91	24	6.2	1.8	0.8	1.9		
K21R	180 M	K20R	160 M	12.5	81.8	1460	89.0	0.89	23	6.1	2.0	1.4	2.3	0.090	136
	4-2		4-2	16.0	52.3	2920	86.0	0.92	29	6.7	1.9	0.8	2.2		
K21R	180 L	K20R	180 S	15.5	101	1470	90.0	0.89	28	6.0	1.4	1.1	2.2	0.138	170
	4-2		4-2	18.5	60.3	2930	89.0	0.93	32.5	7.2	1.4	0.6	2.1		
K21R	200 L	K20R	180 M	21.0	137	1465	91.0	0.89	37.5	6.0	1.5	1.1	2.1	0.168	220
	4-2		4-2	25.0	81.2	2940	90.0	0.93	43	7.4	1.7	0.7	2.3		
K21R	225 S	K20R	200 M	25.0	162	1470	92.3	0.87	45	6.6	1.8	1.4	2.4	0.275	270
	4-2		4-2	31.0	101	2940	90.0	0.91	54.5	7.2	1.6	0.8	2.2		
K21R	225 M	K20R	200 L	30.0	194	1475	92.3	0.87	54	7.0	1.8	1.4	2.4	0.313	300
	4-2		4-2	37.0	120	2945	90.0	0.91	65	8.0	1.7	0.7	2.5		
K21R	250 M	K20R	225 M	37.0	240	1475	92.5	0.86	67	6.9	1.7	1.3	2.1	0.525	375
	4-2		4-2	45.0	145	2955	87.0	0.91	82	7.8	1.7	0.5	2.1		
K21R	280 S	K20R	250 S	48.0	310	1480	93.2	0.84	88.5	7.5	1.6	1.4	2.3	0.950	520
	4-2		4-2	60.0	193	2965	89.5	0.91	106	8.1	1.3	0.8	2.5		
K21R	280 M	K20R	250 M	60.0	387	1480	93.5	0.85	109	6.9	1.6	1.4	2.1	1.11	580
	4-2		4-2	70.0	225	2965	90.0	0.92	122	8.2	1.2	0.8	2.2		
K21R	315 S	K20R	280 S	75.0	482	1485	94.5	0.84	136	6.9	1.6	1.4	2.2	1.96	740
	4-2		4-2	90.0	289	2975	93.0	0.92	152	8.0	1.7	1.2	2.8		
K21R	315 M	K20R	280 M	95.0	611	1485	95.0	0.85	170	7.8	1.7	1.6	2.3	2.27	840
	4-2		4-2	115	370	2970	93.0	0.91	196	8.5	1.8	1.0	3.2		
K21R	315 MX	K20R	315 S	110	707	1485	95.0	0.85	197	8.0	1.7	1.5	2.3	2.73	1000
	4-2		4-2	132	424	2970	93.5	0.91	224	8.5	1.8	1.0	2.9		
K21R	315 MY	K20R	315 M	135	865	1490	95.8	0.86	237	8.0	2.0	1.5	2.8	4.82	1200
	4-2		4-2	165	529	2980	94.8	0.92	273	8.5	2.1	1.1	2.9		
K21R	315 L	K20R	315 L	145	929	1490	95.7	0.87	251	8.0	1.7	1.2	2.3	5.93	1450
	4-2		4-2	190	609	2980	93.8	0.93	314	9.8	1.5	1.1	2.7		
K21R	315 LX	K20R	315 LX	160	1025	1490	95.6	0.87	278	8.5	1.7	1.4	2.4	6.82	1630
	4-2		4-2	220	705	2980	93.2	0.94	362	10.0	2.0	1.0	2.4		

[1] Weights for K20R

Three-phase motors with squirrel-cage rotor

Pole-changing, enhanced output, for constant load torque
with Δ-YY-Dahlander winding
with surface cooling, duty type S1, continuous duty
Thermal class 155, degree of protection IP 55

Motor selection data															Design point 400 V, 50 Hz	
Type				P_B	M_B	n_B	η_B	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
				kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 1500/3000 rpm – 4- to 2-pole version																
K21R	132 S	K20R	112 M	4.9	32.6	1435	83.0	0.85	10	6.3	1.8	1.5	2.4	0.015	50
	4-2		4-2	5.9	19.5	2890	79.0	0.89	12	6.5	1.8	1.3	2.5		
K21R	132 M	K20R	132 S	6.8	45.1	1440	86.0	0.83	14	4.9	1.6	1.3	2.0	0.028	69
	4-2		4-2	8.0	26.4	2895	81.0	0.88	16	5.4	1.9	1.3	2.2		
K21R	160 M	K20R	132 M	9.5	63.0	1440	87.0	0.84	19	5.4	1.7	1.3	2.2	0.035	86
	4-2		4-2	11.0	36.2	2900	81.0	0.87	22.5	6.3	2.0	1.1	2.4		
K21R	160 L	K20R	160 S	12.5	81.8	1460	88.5	0.87	23.5	5.8	1.7	1.3	2.0	0.078	120
	4-2		4-2	15.0	49.1	2915	85.0	0.86	29.5	6.0	1.8	1.0	1.9		
K21R	180 M	K20R	160 M	15.0	98.1	1460	89.0	0.87	28	6.1	2.1	1.4	2.3	0.090	136
	4-2		4-2	19.0	62.1	2920	85.0	0.87	37	6.2	1.9	0.9	2.2		
K21R	180 L	K20R	180 S	18.5	121	1465	90.0	0.85	35	6.2	1.6	1.2	2.2	0.138	170
	4-2		4-2	22.0	71.6	2935	88.0	0.89	40.5	7.0	1.5	0.7	2.2		
K21R	200 L	K20R	180 M	25.0	162	1470	91.0	0.85	46.5	7.0	2.0	1.5	2.4	0.168	220
	4-2		4-2	30.0	97.2	2950	88.0	0.89	55.5	7.4	1.8	0.9	2.4		
K21R	225 S	K20R	200 M	30.0	195	1470	92.0	0.85	55.5	6.6	1.8	1.3	2.3	0.275	270
	4-2		4-2	35.0	114	2945	90.0	0.89	63	7.2	1.6	0.8	2.2		
K21R	225 M	K20R	200 L	36.0	235	1460	91.5	0.85	67	7.0	1.8	1.4	2.4	0.313	300
	4-2		4-2	43.0	140	2940	90.0	0.90	76.5	7.6	1.7	0.7	2.5		
K21R	250 M	K20R	225 M	47.0	304	1475	93.0	0.84	87	7.0	1.8	1.3	2.0	0.525	375
	4-2		4-2	54.0	174	2955	90.0	0.88	98.5	7.7	1.7	0.7	2.2		
K21R	280 S	K20R	250 S	60.0	386	1485	94.5	0.86	107	7.0	1.5	1.3	2.4	0.950	520
	4-2		4-2	72.0	232	2965	92.5	0.89	126	8.1	1.4	0.8	2.6		
K21R	280 M	K20R	250 M	75.0	484	1480	94.5	0.86	133	7.2	1.8	1.4	2.2	1.11	580
	4-2		4-2	85.0	274	2960	92.0	0.90	148	8.2	1.4	0.8	2.4		
K21R	315 S	K20R	280 S	85.0	547	1485	94.5	0.84	155	8.0	1.9	1.4	2.6	1.96	740
	4-2		4-2	95.0	305	2975	93.0	0.91	162	9.0	2.0	1.1	3.5		
K21R	315 M	K20R	280 M	95.0	611	1485	94.0	0.85	172	9.0	2.0	1.4	3.0	2.27	840
	4-2		4-2	115	370	2970	93.0	0.91	196	9.5	2.0	1.1	3.8		
K21R	315 MX	K20R	315 S	110	707	1485	95.0	0.85	197	9.0	1.7	1.5	2.5	2.73	1000
	4-2		4-2	132	424	2970	93.5	0.91	224	9.5	1.8	1.0	2.9		
K21R	315 MY	K20R	315 M	135	865	1490	95.8	0.85	239	9.0	2.0	1.5	2.8	4.82	1300
	4-2		4-2	165	529	2980	94.8	0.92	273	10.0	2.1	1.1	2.9		

Three-phase motors with squirrel-cage rotor

Pole-changing, for quadratically increasing load torque
Fan drives with Y-YY-Dahlander winding
with surface cooling, duty type S1, continuous duty
Thermal class 155, degree of protection IP 55

Motor selection data															Design point 400 V, 50 Hz	
Type				P_B	M_B	n_B	η_B	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
				kW	Nm	rpm	%	-	A	-	-	-	-	kgm²	kg
Synchronous speed 1500/3000 rpm – 4- to 2-pole version																
K21R	71 K	K20R	63 K	0.08	0.54	1415	59.0	0.70	0.28	3.6	1.3	1.3	1.9	0.00040	6.8
	4-2L		4-2L	0.30	1.01	2830	56.0	0.82	0.95	4.2	1.1	1.1	1.8		6.3[1)]
K21R	71 G	K20R	63 G	0.12	0.82	1405	67.0	0.77	0.34	3.1	1.5	1.5	1.8	0.00050	7.8
	4-2L		4-2L	0.48	1.64	2795	65.0	0.88	1.21	4.2	1.6	1.6	1.9		7.1[1)]
K21R	80 K	K20R	71 K	0.18	1.22	1415	70.0	0.79	0.47	4.4	1.7	1.7	2.0	0.00087	10.6
	4-2L		4-2L	0.70	2.36	2830	66.0	0.88	1.75	5.1	1.8	1.8	2.1		9.9[1)]
K21R	80 G	K20R	71 G	0.25	1.70	1405	73.0	0.79	0.63	4.6	1.5	1.5	2.0	0.00107	11.7
	4-2L		4-2L	0.90	3.03	2840	69.0	0.86	2.19	5.8	2.0	2.0	2.1		11.0[1)]
K21R	90 S	K20R	80 K	0.37	2.45	1440	74.0	0.83	0.87	4.9	1.4	1.4	2.1	0.00207	15.5
	4-2L		4-2L	1.50	5.04	2840	71.0	0.89	3.45	5.0	1.5	1.5	1.7		14.5[1)]
K21R	90 L	K20R	80 G	0.50	3.34	1430	78.0	0.83	1.12	4.6	1.5	1.5	2.2	0.00260	18.0
	4-2L		4-2L	2.00	6.73	2840	73.0	0.89	4.45	5.5	1.5	1.5	1.8		17.0[1)]
K21R	100 L	K20R	90 L	0.70	4.66	1435	78.0	0.84	1.55	5.3	1.5	1.5	2.3	0.00400	23.5
	4-2L		4-2L	2.80	9.35	2860	74.0	0.89	6.10	6.3	1.5	1.5	2.0		22.5[1)]
K21R	100 LX	K20R	100 S	0.90	5.91	1455	80.0	0.82	2.00	6.1	1.5	1.5	2.3	0.00725	30.0
	4-2L		4-2L	3.60	11.9	2890	76.5	0.89	7.70	6.7	1.9	1.9	2.5		30.0[1)]
K21R	112 M	K20R	100 L	1.20	7.96	1440	80.0	0.85	2.50	5.3	1.5	1.5	2.2	0.009	37.0
	4-2L		4-2L	4.80	16.0	2870	74.0	0.92	10.2	7.0	1.5	1.5	2.1		36.0[1)]
K21R	132 S	K20R	112 M	1.5	9.88	1450	82.0	0.88	3	5.2	1.4	1.2	2.2	0.015	50
	4-2L		4-2L	5.5	18.3	2870	78.0	0.92	11	6.0	1.9	1.0	2.5		
K21R	132 M	K20R	132 S	2.2	14.4	1460	82.0	0.87	4.5	5.2	1.4	1.0	1.9	0.028	69
	4-2L		4-2L	8.2	27.0	2900	76.0	0.88	17.5	6.0	2.0	1.1	2.4		
K21R	160 M	K20R	132 M	3.3	21.7	1450	86.0	0.87	6.4	5.0	1.3	1.0	1.8	0.038	86
	4-2L		4-2L	12.0	39.7	2890	83.0	0.88	23.5	6.6	1.8	1.0	2.4		
K21R	160 L	K20R	160 S	4.3	28.2	1460	83.0	0.89	8.4	5.8	1.8	1.1	2.0	0.078	120
	4-2		4-2	17.0	55.7	2915	80.0	0.89	34.5	6.5	1.6	0.8	2.5		
K21R	180 M	K20R	160 M	5.5	35.7	1470	89.0	0.87	10.5	5.8	1.7	1.2	2.2	0.090	136
	4-2L		4-2L	20.0	65.4	2920	82.0	0.86	41	6.5	1.8	1.0	2.5		
K21R	180 L	K20R	180 S	6.4	41.3	1480	88.5	0.89	11.5	6.0	1.5	1.1	2.2	0.138	170
	4-2L		4-2L	24.0	78.1	2935	85.0	0.88	46.5	7.0	2.0	0.9	2.6		
K21R	200 L	K20R	180 M	7.8	50.5	1475	90.0	0.89	14	6.5	1.5	1.2	2.4	0.168	220
	4-2L		4-2L	30.0	97.5	2940	88.0	0.90	54.5	7.5	2.1	1.3	2.8		
K21R	225 S	K20R	200 M	9.5	61.1	1485	89.5	0.88	17.5	7.0	1.8	1.5	2.6	0.275	270
	4-2L		4-2L	37.0	120	2950	86.0	0.86	72	8.0	2.4	1.5	3.0		
K21R	225 M	K20R	200 L	12.0	77.4	1480	92.0	0.88	21.5	6.5	1.4	1.1	2.4	0.313	300
	4-2L		4-2L	45.0	146	2950	88.0	0.88	84	7.5	2.0	1.0	2.6		
K21R	250 M	K20R	225 M	15.0	96.8	1480	90.0	0.85	28.5	6.2	1.5	0.9	1.8	0.525	375
	4-2L		4-2L	55.0	178	2950	88.0	0.88	103	7.5	2.2	0.7	2.4		
K21R	280 S	K20R	250 S	20.0	128	1485	91.5	0.81	39	6.0	1.1	0.9	1.7	0.950	520
	4-2L		4-2L	75.0	242	2965	90.0	0.88	137	8.0	2.0	1.3	2.4		
K21R	280 M	K20R	250 M	24.0	154	1485	92.0	0.82	46	6.1	1.1	0.9	1.7	1.10	580
	4-2L		4-2L	90.0	290	2965	91.0	0.91	157	8.0	2.0	1.3	2.4		
K21R	315 S	K20R	280 S	29.0	186	1490	94.0	0.81	55	6.9	1.1	1.0	1.9	1.96	740
	4-2L		4-2L	110	353	2975	93.0	0.89	192	9.6	1.6	1.2	3.0		
K21R	315 M	K20R	280 M	35.0	225	1488	94.0	0.81	66.5	7.0	1.4	1.2	1.7	2.27	840
	4-2L		4-2L	132	424	2975	92.6	0.90	229	9.6	1.6	0.8	2.6		
K21R	315 MY	K20R	315 M	50.0	320	1490	95.0	0.86	88.5	7.2	1.4	1.0	2.2	4.82	1200
	4-2L		4-2L	160	513	2980	94.5	0.91	269	12.0	2.4	1.2	3.5		

[1)] Weights for K20R

Three-phase motors with squirrel-cage rotor

Pole-changing, for quadratically increasing load torque
Fan drives with two separate windings in Y-Y configuration
with surface cooling, duty type S1, continuous duty
Thermal class 155, degree of protection IP 55

Motor selection data															Design point 400 V, 50 Hz
Type				P_B	M_B	n_B	η_B	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
				kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 1000/3000 rpm – 6- to 2-pole version															
K21R	132 S	K20R	112 M	0.55	5.36	980	65.0	0.61	2	5.2	1.5		2.9	0.015	50
	6-2L		6-2L	4.5	14.9	2890	82.0	0.89	8.9	6.6	2.2		2.4		
K21R	132 M	K20R	132 S	0.8	7.76	985	69.5	0.64	2.6	4.9	1.4		2.8	0.028	69
	6-2L		6-2L	7.0	23.6	2830	86.0	0.93	12.5	6.2	1.7		2.2		
K21R	160 M	K20R	132 M	1.2	11.7	982	72.0	0.69	3.5	5.0	1.3		2.5	0.035	86
	6-2L		6-2L	9.0	29.6	2900	87.5	0.93	16	6.5	1.8		2.3		
K21R	160 L	K20R	160 S	1.5	14.5	985	80.0	0.76	3.6	6.2	1.7		2.8	0.078	120
	6-2L		6-2L	13.0	42.8	2900	87.0	0.93	23	6.2	1.8		2.2		
K21R	180 M	K20R	160 M	2.0	19.4	983	81.0	0.79	4.5	5.7	1.5		2.5	0.090	136
	6-2L		6-2L	17.0	55.8	2910	88.0	0.93	30	6.8	2.1		2.4		
K21R	180 L	K20R	180 S	2.5	24.1	989	76.5	0.72	6.6	5.8	1.3		2.7	0.138	170
	6-2L		6-2L	22.0	71.8	2925	89.5	0.93	38	7.0	2.0		2.4		
K21R	200 L	K20R	180 M	3.5	33.8	988	80.5	0.74	8.5	6.0	1.5		2.7	0.168	220
	6-2L		6-2L	27.0	88.3	2920	90.0	0.93	46.5	6.7	1.8		2.2		
K21R	225 S	K20R	200 M	4.0	38.6	990	85.0	0.73	9.3	6.5	1.6		2.8	0.275	270
	6-2L		6-2L	32.0	104	2950	90.0	0.93	55	7.8	1.9		2.6		
K21R	225 M	K20R	200 L	4.5	43.4	990	84.0	0.74	10.5	6.4	1.6		2.7	0.313	300
	6-2L		6-2L	37.0	120	2950	90.5	0.93	63.5	7.7	1.9		2.5		
K21R	250 M	K20R	225 M	5.0	48.2	990	82.0	0.78	11.5	6.6	1.8		2.5	0.525	375
	6-2L		6-2L	45.0	146	2945	91.0	0.93	76.5	7.0	1.9		2.2		
K21R	280 S	K20R	250 S	6.5	62.6	992	86.0	0.76	14.5	7.4	2.2		2.7	0.950	520
	6-2L		6-2L	55.0	177	2965	91.0	0.93	94	7.5	1.5		2.5		
K21R	280 M	K20R	250 M	8.0	77.2	989	86.0	0.76	17.5	7.0	1.9		2.7	1.11	580
	6-2L		6-2L	75.0	242	2960	91.5	0.93	127	7.0	1.6		2.3		
K21R	315 S	K20R	280 S	10.0	96.6	989	85.5	0.81	21	6.9	1.9		2.3	1.96	740
	6-2L		6-2L	90.0	290	2960	92.0	0.93	152	7.2	1.3		2.4		
K21R	315 M	K20R	280 M	13.0	125	990	83.5	0.82	27.5	6.8	1.8		2.3	2.27	840
	6-2L		6-2L	110	354	2965	93.0	0.93	184	7.5	1.5		2.5		
K21R	315 MX	K20R	315 S	16.0	154	992	82.0	0.77	36.5	7.7	2.0		2.8	2.73	1000
	6-2L		6-2L	132	426	2960	93.5	0.93	219	7.8	1.7		2.5		
K21R	315 MY	K20R	315 M	20.0	192	993	84.5	0.83	41	7.1	2.0		2.4	4.82	1200
	6-2L		6-2L	160	515	2970	93.5	0.93	266	8.0	1.8		2.7		

[1] Delta configuration possible upon request

Three-phase motors with squirrel-cage rotor

Pole-changing, for constant load torque
with two separate windings in Y-Y configuration
with surface cooling, duty type S1, continuous duty
Thermal class 155, degree of protection IP 55

Motor selection data															Design point 400 V, 50 Hz	
Type				P_B	M_B	n_B	η_B	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
				kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 1000/1500 rpm – 6- to 4-pole version																
K21R	71 K	K20R	63 K	0.10	1.03	925	37.0	0.69	0.57	2.4	1.2	1.2	1.8	0.00045	7.8
	6-4		6-4	0.15	1.00	1440	54.0	0.70	0.57	3.2	1.2	1.2	1.8		7.1[1)]
K21R	71 G	K20R	63 G	0.13	1.35	920	41.0	0.68	0.67	2.4	1.3	1.3	1.8	0.00060	8.1
	6-4		6-4	0.20	1.34	1430	53.0	0.73	0.75	3.2	1.2	1.2	1.8		7.4[1)]
K21R	80 K	K20R	71 K	0.20	2.03	940	49.0	0.69	0.86	2.8	1.5	1.5	2.0	0.00130	11.0
	6-4		6-4	0.28	1.86	1440	56.0	0.69	1.05	3.5	1.3	1.3	2.0		10.0[1)]
K21R	80 G	K20R	71 G	0.25	2.51	950	59.0	0.66	0.93	2.8	1.6	1.6	2.1	0.00175	12.5
	6-4		6-4	0.37	2.44	1450	70.0	0.73	1.05	3.9	1.4	1.4	2.1		11.0[1)]
K21R	90 S	K20R	80 K	0.35	3.52	950	63.0	0.73	1.10	3.4	1.3	1.3	1.7	0.00325	16.0
	6-4		6-4	0.60	3.95	1450	69.0	0.78	1.60	4.5	1.3	1.3	1.8		15.0[1)]
K21R	90 L	K20R	80 G	0.50	5.05	945	63.0	0.74	1.55	3.4	1.5	1.5	1.7	0.00425	19.0
	6-4		6-4	0.90	5.99	1435	68.0	0.81	2.35	4.3	1.4	1.4	1.7		18.0[1)]
K21R	100L	K20R	90 L	0.80	7.96	960	72.0	0.73	2.20	4.1	1.4	1.4	1.9	0.00625	24.0
	6-4		6-4	1.20	7.93	1445	74.0	0.83	2.80	4.9	1.2	1.2	1.8		24.0[1)]
K21R	100 LX	K20R	100 S	1.10	10.9	965	72.0	0.74	3.00	4.1	1.3	1.3	2.0	0.00900	28.0
	6-4		6-4	1.60	10.5	1450	73.0	0.83	3.80	4.9	1.3	1.3	1.8		28.0[1)]
K21R	112 M	K20R	100 L	1.60	16.1	950	70.0	0.79	4.15	5.5	1.4	1.4	2.0	0.01225	33.5
	6-4		6-4	2.40	16.0	1435	75.0	0.87	5.30	5.5	1.6	1.6	2.0		32.5[1)]
K21R	132 S	K20R	112 M	1.5	14.8	970	74.0	0.79	3.7	5.3	1.4	1.3	2.5	0.018	46
	6-4		6-4	2.2	14.5	1445	74.5	0.91	4.7	5.4	1.1	1.0	2.2		
K21R	132 M	K20R	112 MX	2.2	21.7	965	75.0	0.80	5.3	5.6	1.4	1.3	2.6	0.023	53
	6-4		6-4	3.0	19.8	1450	78.0	0.90	6.2	6.1	1.4	1.0	2.4		
K21R	132 MX	K20R	132 S	2.6	25.6	970	79.0	0.83	5.7	5.2	1.7	1.5	2.4	0.043	70
	6-4		6-4	3.8	24.9	1460	81.0	0.90	7.5	5.5	1.4	1.1	2.2		
K21R	160 M	K20R	132 M	3.4	33.5	970	81.0	0.83	7.3	5.9	1.7	1.5	2.5	0.053	86
	6-4		6-4	5.0	32.7	1460	82.0	0.91	9.7	5.8	1.4	1.0	2.2		
K21R	160 L	K20R	160 S	5.5	54.1	970	81.0	0.87	11.5	5.2	1.6	1.3	2.1	0.113	114
	6-4		6-4	7.5	49.2	1455	82.0	0.91	14.5	5.2	1.3	1.1	2.2		
K21R	180 L	K20R	160 M	7.5	73.8	970	83.0	0.88	15	5.4	1.7	1.4	2.1	0.145	138
	6-4		6-4	10.5	68.7	1460	83.0	0.91	20	5.6	1.5	1.0	2.0		
K21R	200 L	K20R	180 S	9.0	87.7	980	86.0	0.88	17	6.0	1.7	1.1	2.3	0.228	175
	6-4		6-4	12.5	81.2	1470	84.0	0.90	24	5.8	1.5	0.7	2.4		
K21R	200 LX	K20R	180 M	11.0	107	980	86.0	0.88	21	7.2	2.1	1.5	2.7	0.268	200
	6-4		6-4	15.0	97.5	1470	86.0	0.91	27.5	7.5	1.6	1.0	2.6		
K21R	225 M	K20R	200 M	15.0	146	980	88.0	0.90	27.5	7.3	2.3	1.7	2.8	0.443	265
	6-4		6-4	20.0	130	1475	88.0	0.92	35.5	8.0	1.9	1.3	3.0		
K21R	250 M	K20R	225 M	18.0	175	985	89.0	0.88	33	7.5	2.8	2.3	2.7	0.825	360
	6-4		6-4	25.0	162	1470	89.0	0.91	44.5	6.3	1.7	1.1	2.3		
K21R	280 S	K20R	250 S	22.0	212	990	89.0	0.88	40.5	7.8	2.5	1.9	2.6	1.28	465
	6-4		6-4	30.0	193	1482	89.0	0.91	53.5	7.5	1.9	1.1	2.4		
K21R	280 M	K20R	250 M	27.0	261	988	89.5	0.89	49	8.0	2.7	2.0	2.6	1.48	520
	6-4		6-4	37.0	240	1475	89.5	0.92	65	6.1	1.6	0.8	1.9		
K21R	315 S	K20R	280 S	37.0	357	990	91.5	0.88	66.5	9.0	2.6	2.4	3.2	2.63	690
	6-4		6-4	50.0	322	1485	91.0	0.91	87	7.5	1.6	1.3	2.7		
K21R	315 M	K20R	280 M	45.0	434	990	91.5	0.86	82.5	8.1	2.0	1.8	2.6	3.33	800
	6-4		6-4	60.0	386	1485	92.0	0.91	103	6.7	1.4	0.8	2.1		
K21R	315 MX	K20R	315 S	60.0	579	990	91.4	0.88	108	8.0	2.3	2.1	3.0	3.60	880
	6-4		6-4	90.0	579	1485	90.5	0.88	163	8.0	1.8	1.3	3.0		
K21R	315 MY	K20R	315 M	75.0	724	990	92.8	0.88	133	8.0	2.2	2.0	2.8	6.00	1050
	6-4		6-4	110	706	1488	91.5	0.87	199	8.0	2.0	1.5	3.0		
K21R	315 L	K20R	315 L	100					upon request					6.76	1250
	6-4		6-4	150											

[1)] Weights for K20R
Delta configuration possible upon request

Three-phase motors with squirrel-cage rotor

Pole-changing, enhanced output, for constant load torque
with two separate windings in Y-Y configuration
with surface cooling, duty type S1, continuous duty
Thermal class 155, degree of protection IP 55

Motor selection data															Design point 400 V, 50 Hz
Type				P_B	M_B	n_B	η_B	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
				kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 1000/1500 rpm – 6- to 4-pole version															
K21R	132 S	K20R	112 M	2.0	20.0	955	69.0	0.86	4.9	4.3	1.2	1.0	1.9	0.018	46
	6-4		6-4	3.1	20.4	1450	76.0	0.86	6.8	6.6	1.7	1.3	2.6		
K21R	132 M	K20R	112 MX	2.6	27.9	960	71.0	0.86	6.6	5.1	1.3	1.2	2.4	0.023	53
	6-4		6-4	4.2	28.3	1450	75.0	0.88	9.4	6.6	1.9	1.4	2.6		
K21R	132 MX	K20R	132 S	3.3	32.3	975	80.0	0.82	7.3	5.2	1.6	1.4	2.5	0.043	70
	6-4		6-4	4.9	31.9	1465	78.0	0.85	10.5	6.7	1.9	1.4	2.6		
K21R	160 M	K20R	132 M	4.5	44.3	970	79.0	0.81	10	5.2	1.6	1.3	2.5	0.053	86
	6-4		6-4	6.9	45.0	1465	78.0	0.89	14.5	6.6	1.8	1.4	2.4		
K21R	160 L	K20R	160 S	6.5	64.0	970	82.0	0.85	13.5	6.2	2.0	1.6	2.6	0.113	114
	6-4		6-4	9.5	62.4	1455	82.0	0.88	19	6.8	1.7	1.5	2.6		
K21R	180 L	K20R	160 M	9.5	93.1	975	84.0	0.87	19	5.3	1.6	1.2	2.0	0.145	138
	6-4		6-4	14.0	91.9	1455	84.0	0.90	26.5	5.7	1.7	1.3	2.1		
K21R	200 L	K20R	180 S	13.5	132	975	86.0	0.88	25.5	6.5	2.0	1.5	2.5	0.228	175
	6-4		6-4	16.0	104	1470	82.0	0.85	33	6.3	1.7	1.3	2.5		
K21R	200 LX	K20R	180 M	15.0	146	980	87.0	0.88	28.5	7.0	2.2	1.5	2.7	0.268	200
	6-4		6-4	18.0	117	1475	82.0	0.85	37.5	7.7	2.0	1.4	2.8		
K21R	225 M	K20R	200 M	20.0	196	975	88.0	0.89	37	7.2	2.1	1.5	2.8	0.443	265
	6-4		6-4	26.0	170	1465	88.0	0.90	47.5	7.0	1.6	1.2	2.2		
K21R	250 M	K20R	225 M	25.0	244	980	89.0	0.88	46	6.9	2.2	1.5	2.5	0.825	360
	6-4		6-4	35.0	227	1470	89.0	0.89	64	6.4	1.6	1.1	2.2		
K21R	280 S	K20R	250 S	30.0	290	987	89.0	0.87	56	7.5	2.4	1.7	2.4	1.28	465
	6-4		6-4	40.0	257	1485	84.5	0.82	83.5	7.8	2.0	1.3	2.5		
K21R	280 M	K20R	250 M	37.0	359	985	89.5	0.90	66.5	6.8	2.0	1.5	2.2	1.48	520
	6-4		6-4	45.0	289	1485	88.0	0.87	85	6.2	1.6	1.1	2.0		
K21R	315 S	K20R	280 S	55.0	532	988	91.5	0.88	98.5	7.5	2.4	1.9	2.7	2.63	690
	6-4		6-4	63.0	407	1480	91.0	0.89	112	7.5	1.6	1.1	2.7		
K21R	315 M	K20R	280 M	65.0	627	990	92.0	0.89	115	7.7	2.0	1.6	2.5	3.33	800
	6-4		6-4	80.0	513	1490	89.0	0.83	156	8.2	1.8	1.1	2.7		
K21R	315 MX	K20R	315 S	80.0	773	988	90.5	0.89	143	8.0	2.2	1.7	2.8	3.60	880
	6-41)		6-4[1)]	100	642	1487	90.0	0.88	182	9.0	2.1	1.3	3.0		
K21R	315 MY	K20R	315 M	100	965	990	92.0	0.88	178	8.5	2.2	1.8	2.8	6.00	1050
	6-4		6-4	120	770	1488	88.0	0.83	237	8.0	1.9	1.5	2.9		
K21R	315 L	K20R	315 L	100	965	990				upon request				6.76	1250
	6-4		6-4	150	965	1485									

[1)] Only available in WKL
Delta configuration possible upon request

Three-phase motors with squirrel-cage rotor

Pole-changing, for quadratically increasing load torque
Fan drives with two separate windings in Y-Y configuration
with surface cooling, duty type S1, continuous duty
Thermal class 155, degree of protection IP 55

Motor selection data															Design point 400 V, 50 Hz	
Type				P_B	M_B	n_B	η_B	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
				kW	Nm	rpm	%	-	A	-	-	-	-	kgm²	kg
Synchronous speed 1000/1500 rpm – 6- to 4-pole version																
K21R	71 K	K20R	63 K	0.06	0.61	940	36.0	0.69	0.35	2.3	1.3	1.3	1.7	0.00045	7.8
	6-4L		6-4L	0.18	1.22	1415	62.0	0.73	0.58	3.4	1.4	1.4	1.8		7.1[1]
K21R	71 G	K20R	63 G	0.08	0.81	945	37.5	0.67	0.46	2.4	1.4	1.4	1.8	0.00060	8.1
	6-4L		6-4L	0.25	1.70	1405	61.0	0.78	0.76	3.2	1.3	1.3	1.7		7.4[1]
K21R	80 K	K20R	71 K	0.12	1.21	950	48.0	0.69	0.52	2.5	1.3	1.3	1.8	0.00130	11.0
	6-4L		6-4L	0.40	2.71	1410	60.0	0.77	1.25	3.8	1.4	1.4	1.8		10.0[1]
K21R	80 G	K20R	71 G	0.16	1.60	955	53.0	0.69	0.63	3.0	1.3	1.3	1.7	0.00175	12.5
	6-4L		6-4L	0.55	3.69	1425	65.0	0.79	1.55	4.1	1.4	1.4	1.8		11.5[1]
K21R	90 S	K20R	80 K	0.25	2.51	950	57.0	0.73	0.87	3.1	1.4	1.4	1.7	0.00325	16.0
	6-4L		6-4L	0.75	5.03	1425	68.5	0.83	1.90	4.8	1.5	1.5	1.8		15.0[1]
K21R	90 L	K20R	80 G	0.37	3.70	955	59.0	0.73	1.25	3.4	1.3	1.3	1.6	0.00425	19.0
	6-4L		6-4L	1.10	7.37	1425	71.0	0.83	2.70	4.7	1.5	1.5	1.8		18.0[1]
K21R	100 L	K20R	90 L	0.50	4.95	965	63.0	0.71	1.60	3.9	1.5	1.5	1.9	0.00625	24.0
	6-4L		6-4L	1.50	9.95	1440	76.0	0.83	3.45	5.2	1.5	1.5	1.9		24.0[1]
K21R	100 LX	K20R	100 S	0.75	7.38	970	67.0	0.69	2.35	4.4	1.4	1.4	2.0	0.00900	28.0
	6-4L		6-4L	2.00	13.3	1440	74.5	0.85	4.55	6.1	1.8	1.8	2.4		28.0[1]
K21R	112 M	K20R	100 L	1.00	9.90	965	66.0	0.77	2.85	4.0	1.2	1.2	1.7	0.01225	33.5
	6-4L		6-4L	3.00	19.9	1440	77.0	0.82	6.85	6.0	1.8	1.8	2.5		32.5[1]
K21R	132 S	K20R	112 M	1.5	14.8	970	68.5	0.80	4	4.3	1.2	1.1	2.2	0.018	46
	6-4L		6-4L	3.7	24.5	1445	73.5	0.86	8.5	5.1	1.2	1.1	2.3		
K21R	132 MX	K20R	132 S	2.2	21.5	975	77.5	0.82	5	5.0	1.7	1.2	2.4	0.043	70
	6-4L		6-4L	6	39.2	1460	77.5	0.83	13.5	5.8	2.0	1.4	2.9		
K21R	160 M	K20R	132 M	3	29.4	975	76.5	0.84	6.7	4.6	1.4	1.1	2.0	0.053	86
	6-4L		6-4L	8.2	54.2	1445	80.0	0.88	17	5.4	1.6	1.1	2.1		
K21R	160 L	K20R	160 S	4.4	43.1	975	78.0	0.81	10	4.8	1.7	1.5	2.1	0.078	120
	6-4L		6-4L	13	85.6	1450	85.0	0.87	25.5	4.9	1.5	1.2	1.9		
K21R	180 M	K20R	160 M	5.4	52.5	982	79.0	0.76	13	5.2	1.9	1.6	2.5	0.090	136
	6-4L		6-4L	16	105	1450	86.0	0.88	30.5	4.9	1.5	1.2	1.9		
K21R	180 L	K20R	180 S	6.7	65.3	980	82.0	0.81	14.5	4.7	1.4	1.3	2.1	0.138	170
	6-4L		6-4L	20	130	1470	89.0	0.84	38.5	5.8	1.7	1.5	2.5		
K21R	200 L	K20R	180 M	9	87.3	985	84.0	0.79	19.5	5.0	1.4	1.3	2.1	0.168	220
	6-4L		6-4L	26	169	1470	90.0	0.85	49	6.4	1.6	1.5	2.5		
K21R	225 S	K20R	200 M	12	117	982	84.0	0.79	26	5.0	1.3	1.2	2.0	0.275	270
	6-4L		6-4L	34	220	1475	90.5	0.82	66	6.4	1.9	1.4	2.5		
K21R	225 M	K20R	200 L	14	136	985	86.0	0.78	30	5.4	1.8	1.5	2.3	0.313	300
	6-4L		6-4L	40	259	1475	91.0	0.86	74	6.5	1.9	1.6	2.5		
K21R	250 M	K20R	225 M	18	174	988	86.0	0.75	40.5	5.5	1.7	1.5	2.0	0.525	375
	6-4L		6-4L	50	323	1478	92.0	0.85	92.5	7.0	1.9	1.3	2.3		
K21R	280 S	K20R	250 S	23	222	988	86.0	0.74	52	5.4	1.5	1.1	1.8	0.950	520
	6-4L		6-4L	68	439	1480	92.0	0.84	127	7.0	1.8	1.6	2.4		
K21R	280 M	K20R	250 M	28	271	988	88.0	0.73	63	5.5	1.6	1.4	1.9	1.11	580
	6-4L		6-4L	80	515	1485	93.0	0.84	148	7.0	2.0	1.8	2.6		
K21R	315 S	K20R	280 S	34	329	988	87.0	0.73	77.5	5.5	1.4	1.3	1.8	1.96	740
	6-4L		6-4L	95	611	1485	93.5	0.84	175	7.0	1.6	1.3	2.2		
K21R	315 M	K20R	280 M	40	386	990	88.0	0.73	90	6.0	1.3	1.3	1.7	2.27	840
	6-4L		6-4L	115	740	1485	94.0	0.85	208	7.5	1.9	1.7	2.4		
K21R	315 MX	K20R	315 S	45	434	990	89.0	0.73	100	6.5	1.3	1.2	1.7	2.73	1000
	6-4L		6-4L	125	804	1485	94.0	0.85	226	7.5	1.9	1.7	2.4		
K21R	315 MY	K20R	315 M	55	530	992	91.5	0.77	113	6.4	1.5	1.3	2.0	4.82	1200
	6-4L		6-4L	145	931	1487	94.5	0.87	255	7.0	1.6	1.4	2.3		
K21R	315 L	K20R	315 L	55	528	995				upon request				5.93	1450
	6-4L		6-4L	185	1186	1490									

[1] Weights for K20R
Delta configuration possible upon request

Three-phase motors with squirrel-cage rotor

Pole-changing, for constant load torque
with two separate windings in Y-Y configuration
with surface cooling, duty type S1, continuous duty
Thermal class 155, degree of protection IP 55

Motor selection data																Design point 400 V, 50 Hz
Type				P_B	M_B	n_B	η_B	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B		M_S/M_B	M_K/M_B	J	m
				kW	Nm	rpm	%	-	A	-	-		-	-	kgm^2	kg
Synchronous speed 750/3000 rpm – 8- to 2-pole version																
K21R	71 K	K20R	63 K	0.025	0.33	720	17.0	0.57	0.37	1.8	2.9			4.0	0.00040	6.8
	8-2		8-2	0.09	0.29	2950	28.5	0.65	0.71	3.5	1.9			4.0		6.3[1]
K21R	71 G	K20R	63 G	0.04	0.54	705	27.5	0.62	0.34	2.0	1.7			2.4	0.00050	7.8
	8-2		8-2	0.16	0.52	2945	50.5	0.66	0.69	4.3	1.8			2.6		7.1[1]
K21RW	80 K	K20RW	71 K	0.075	1.07	670	34.5	0.55	0.56	2.0	2.6			2.6	0.00087	10.6
	8-2		8-2	0.30	1.00	2855	57.5	0.77	1.00	4.6	2.5			2.6		9.9[1]
K21RW	80 G	K20RW	71 G	0.11	1.59	660	37.0	0.56	0.77	2.0	2.3			2.4	0.00107	11.7
	8-2		8-2	0.45	1.51	2850	60.0	0.80	1.35	4.8	2.2			2.3		11.0[1]
K21RW	90 S	K20RW	80 K	0.18	2.55	675	43.0	0.60	1.05	2.3	2.2			2.3	0.00207	15.5
	8-2		8-2	0.75	2.55	2805	66.0	0.87	1.89	5.0	2.0			1.9		14.5[1]
K21RW	90 L	K20RW	80 G	0.25	3.59	665	44.0	0.61	1.35	2.6	2.4			2.8	0.00260	18.0
	8-2		8-2	1.00	3.40	2810	69.0	0.89	2.35	5.8	2.2			1.8		17.0[1]
K21RW	100 L	K20RW	90 L	0.33	4.60	685	46.5	0.54	1.90	2.6	2.8			2.9	0.00400	23.5
	8-2		8-2	1.30	4.38	2835	72.0	0.87	3.00	5.8	2.0			2.1		22.5[1]
K21RW	100 LX	K20RW	100 S	0.55	7.72	680	53.0	0.61	2.45	2.8	1.9			2.3	0.00725	30.0
	8-2		8-2	2.20	7.40	2840	73.0	0.87	5.00	6.1	2.4			2.5		30.0[1]
K21RW	112 M	K20RW	100 L	0.75	10.5	680	57.0	0.60	3.15	3.0	1.9			2.4	0.00900	37.0
	8-2		8-2	3.00	10.1	2840	75.0	0.90	6.45	6.1	2.0			2.0		36.0[1]
K21RW	112 MX	K20RW	100 LX	1.0	14.4	665	60.0	0.64	3.75	2.8	1.9			2.0	0.0111	45
	8-2		8-2	4.0	13.5	2820	75.0	0.91	8.45	6.1	2.1			2.0		44.0[1]
K21R	132 S	K20R	112 M	1.1	14.5	725	61.5	0.57	4.5	3.7	1.5			2.4	0.015	50
	8-2		8-2	4.5	15.1	2850	78.0	0.92	9.1	6.0	1.8			2.1		
K21R	132 M	K20R	132 S	1.3	17.0	730	64.0	0.50	5.9	3.6	1.5			2.6	0.028	69
	8-2		8-2	5.5	18.1	2910	80.5	0.85	11.50	6.3	1.6			2.4		
K21R	160 M	K20R	132 M	1.8	23.5	730	68.5	0.50	7.6	3.8	1.5			2.6	0.035	86
	8-2		8-2	7.5	24.5	2920	83.0	0.89	14.5	7.0	1.7			2.5		
K21R	160 L	K20R	160 S	2.7	35.1	735	77.5	0.54	9.3	4.6	1.7			2.8	0.078	120
	8-2		8-2	11.0	35.9	2930	84.5	0.87	21.5	7.2	1.8			2.6		
K21R	180 M	K20R	160 M	3.7	48.1	735	76.0	0.59	12	4.4	1.5			2.5	0.090	136
	8-2		8-2	15.0	48.9	2930	84.5	0.84	30.5	7.1	1.9			2.7		
K21R	180 L	K20R	180 S	4.6	59.8	735	78.0	0.55	15.5	4.3	1.4			2.5	0.138	170
	8-2		8-2	18.5	60.2	2935	86.5	0.90	34.5	6.9	1.5			2.4		
K21R	200 L	K20R	180 M	5.5	71.5	735	80.0	0.52	19	4.6	1.6			2.7	0.168	200
	8-2		8-2	22.0	71.3	2945	88.0	0.92	39	7.8	1.7			2.8		
K21R	225 S	K20R	200 M	7.5	96.8	740	82.0	0.47	28	4.6	1.6			2.8	0.275	270
	8-2		8-2	30.0	97.2	2950	88.5	0.90	54.5	7.8	1.7			2.6		
K21R	225 M	K20R	200 L	9.2	119	740	82.5	0.50	32	4.6	1.5			2.6	0.313	300
	8-2		8-2	37.0	120	2950	89.0	0.90	66.5	7.8	1.7			2.6		
K21R	250 M	K20R	225 M	11.0	142	740	83.5	0.58	33	5.4	1.7			2.7	0.525	375
	8-2		8-2	45.0	146	2950	90.0	0.91	79.5	8.1	1.6			2.7		
K21R	280 S	K20R	250 S	13.0	168	740	85.0	0.60	37	6.5	2.0			2.8	0.95	520
	8-2		8-2	55.0	178	2955	92.0	0.92	94	7.6	1.4			2.4		
K21R	280 M	K20R	250 M	18.0	232	740	86.0	0.63	48	6.2	2.0			2.6	1.11	580
	8-2		8-2	75.0	242	2960	92.0	0.92	128	8.3	1.6			2.6		
K21R	315 S	K20R	280 S	22.0	284	740	87.5	0.64	56.5	6.6	2.0			2.6	1.96	740
	8-2		8-2	90.0	290	2965	92.0	0.92	153	8.1	1.2			2.7		
K21R	315 M	K20R	280 M	24.5	317	740	87.0	0.64	63.5	6.7	2.0			2.7	2.27	840
	8-2		8-2	100	322	2965	92.5	0.92	170	8.9	1.2			2.7		
K21R	315 MX	K20R	315 S	28	361	740	87.0	0.68	68.5	6.2	1.9			2.3	2.73	1000
	8-2		8-2	110	354	2965	92.0	0.92	188	8.1	1.3			2.6		
K21R	315 MY	K20R	315 M	37	474	745	88.5	0.67	90	6.6	2.0			2.6	4.82	1200
	8-2		8-2	145	466	2970	92.4	0.93	244	8.5	1.4			2.7		
K21R	315 L	K20R	317 L	42.5	545	745	89.0	0.65	106	6.5	1.9			2.7	5.93	1450
	8-2		8-2	170	546	2975	93.0	0.93	284	8.5	1.4			2.7		

[1] Weights for K20R
Delta configuration possible upon request

Three-phase motors with squirrel-cage rotor

Pole-changing, for quadratically increasing load torque
Fan drives with two separate windings in Y-Y configuration
with surface cooling, duty type S1, continuous duty
Thermal class 155, degree of protection IP 55

Motor selection data															Design point 400 V, 50 Hz
Type				P_B	M_B	n_B	η_B	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
				kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 750/3000 rpm – 8- to 2-pole version															
K21R	132 S	K20R	112 M	0.42	5.46	735	55.0	0.57	1.9	3.5	1.4		2.8	0.015	50
	8-2L		8-2L	4.5	15.0	2870	82.0	0.94	8.4	6.6	2.2		2.4		
K21R	132 M	K20R	132 S	0.65	8.45	735	58.0	0.57	2.8	3.5	1.4		2.6	0.028	69
	8-2L		8-2L	7.0	23.6	2830	86.0	0.93	12.5	6.2	1.7		2.2		
K21R	160 M	K20R	132 M	0.8	10.4	735	59.0	0.57	3.4	3.6	1.4		2.6	0.035	86
	8-2L		8-2L	9.0	29.6	2900	87.5	0.93	16	6.5	1.8		2.3		
K21R	160 L	K20R	160 S	1.2	15.6	735	70.0	0.69	3.6	4.0	1.5	1.3	2.0	0.078	120
	8-2L		8-2L	13.0	42.4	2925	84.0	0.87	25.5	6.2	1.8	0.8	2.3		
K21R	180 M	K20R	160 M	1.5	19.5	735	68.0	0.71	4.5	4.0	1.6	1.4	2.2	0.090	136
	8-2L		8-2L	17.0	55.8	2910	85.5	0.92	31	6.0	1.6	0.9	2.0		
K21R	180 L	K20R	180 S	1.9	24.5	740	68.0	0.61	6.6	4.2	1.3		2.5	0.138	170
	8-2L		8-2L	22.0	71.8	2925	89.5	0.93	38	7.0	2.0		2.4		
K21R	200 L	K20R	180 M	2.5	32.2	740	74.0	0.63	7.7	4.6	1.4		2.5	0.168	220
	8-2L		8-2L	27.0	88.3	2920	90.0	0.93	46.5	6.7	1.8		2.2		
K21R	225 S	K20R	200 M	3.2	41.3	740	79.0	0.59	9.9	4.8	1.5		2.6	0.275	270
	8-2L		8-2L	32.0	104	2950	90.0	0.93	55	7.8	1.9		2.6		
K21R	225 M	K20R	200 L	3.6	46.5	740	77.0	0.62	11	4.6	1.3		2.4	0.313	300
	8-2L		8-2L	37.0	120	2950	90.5	0.93	63.5	7.7	1.9		2.5		
K21R	250 M	K20R	225 M	4.0	51.6	740	79.0	0.66	11	5.5	1.8		2.5	0.525	375
	8-2L		8-2L	45.0	146	2945	91.0	0.93	76.5	7.0	1.9		2.2		
K21R	280 S	K20R	250 S	5.2	67.1	740	82.0	0.64	14.5	6.0	2.0		2.5	0.950	520
	8-2L		8-2L	55.0	177	2965	91.0	0.93	94	7.5	1.5		2.5		
K21R	280 M	K20R	250 M	6.5	83.9	740	83.0	0.66	17	5.4	1.7		2.3	1.11	580
	8-2L		8-2L	75.0	242	2960	91.5	0.93	127	7.0	1.6		2.3		
K21R	315 S	K20R	280 S	8.0	103	740	84.0	0.69	20	6.3	2.0		2.3	1.96	740
	8-2L		8-2L	90.0	290	2960	92.0	0.93	152	7.2	1.3		2.4		
K21R	315 M	K20R	280 M	10.0	128	745	81.0	0.69	26	6.0	1.9		2.3	2.27	840
	8-2L		8-2L	110	354	2965	93.0	0.93	184	7.5	1.5		2.5		
K21R	315 MX	K20R	315 S	13.0	167	745	80.0	0.65	36	6.3	2.1		2.5	2.73	1000
	8-2L		8-2L	132	612	2060	93.5	0.93	219	7.8	1.7		2.5		
K21R	315 MY	K20R	315 M	17.0	218	745	83.0	0.67	44	7.2	2.4		2.6	4.82	1200
	8-2L		8-2L	160	515	2970	93.5	0.93	266	8.0	1.8		2.7		

Delta configuration possible upon request

Three-phase motors with squirrel-cage rotor

Pole-changing, for quadratically increasing load torque
Fan drives with two separate windings in Y-Y configuration
with surface cooling, duty type S1, continuous duty
Thermal class 155, degree of protection IP 55

Motor selection data															Design point 400 V, 50 Hz
Type				P_B	M_B	n_B	η_B	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
				kW	Nm	rpm	%	-	A	-	-	-	-	kgm²	kg
Synchronous speed 750/1500 rpm – 8- to 4-pole version															
K21R	71 K	K20R	63 K	0.09	1.30	660	31.0	0.64	0.66	2.0	2.0	2.0	2.1	0.00050	6.6
	8-4		8-4	0.12	0.79	1445	61.0	0.59	0.48	4.0	2.4	2.4	3.0		6.6[1)]
K21R	71 G	K20R	63 G	0.12	1.74	660	35.5	0.63	0.77	2.2	1.9	1.9	2.1	0.00060	8.3
	8-4		8-4	0.20	1.34	1425	65.5	0.72	0.61	4.2	1.8	1.8	2.3		7.6[1)]
K21R	80 K	K20R	71 K	0.18	2.51	685	44.0	0.70	0.85	2.5	1.6	1.6	2.0	0.00130	10.5
	8-4		8-4	0.30	2.05	1400	67.0	0.87	0.74	3.8	1.4	1.4	1.6		9.9[1)]
K21R	80 G	K20R	71 G	0.25	3.56	670	45.0	0.69	1.17	2.4	1.3	1.3	1.7	0.00175	12.0
	8-4		8-4	0.40	2.73	1400	73.0	0.84	0.94	4.1	1.3	1.3	1.8		11.3[1)]
K21R	90 S	K20R	80 K	0.35	4.78	700	53.5	0.65	1.45	2.8	1.5	1.5	1.8	0.00300	15.0
	8-4		8-4	0.55	3.70	1420	70.0	0.88	1.30	4.3	1.4	1.4	1.9		14.0[1)]
K21R	90 L	K20R	80 G	0.44	6.05	695	56.0	0.60	1.89	2.8	1.5	1.5	1.8	0.00375	18.0
	8-4		8-4	0.75	5.08	1410	72.0	0.86	1.74	4.2	1.3	1.3	1.7		17.0[1)]
K21R	100 L	K20R	90 L	0.70	9.28	720	62.5	0.55	2.95	3.5	1.8	1.8	2.3	0.00625	24.0
	8-4		8-4	1.10	7.22	1455	78.5	0.85	2.35	6.0	1.9	1.9	2.3		24.0[1)]
K21R	100 LX	K20R	100 S	1.00	13.5	705	70.0	0.68	3.00	3.7	1.5	1.5	2.0	0.00900	28.0
	8-4		8-4	1.50	10.1	1420	84.0	0.85	3.00	5.6	1.3	1.3	2.0		28.0[1)]
K21R	112 M	K20R	100 L	1.40	19.0	705	68.5	0.66	4.40	4.0	1.8	1.8	2.3	0.01225	33.5
	8-4		8-4	2.20	14.6	1435	78.5	0.90	4.50	5.8	1.3	1.3	2.2		32.5[1)]
K21R	132 S	K20R	112 M	1.7	22.9	710	72.0	0.72	4.7	4.3	1.7	1.5	2.5	0.018	46
	8-4		8-4	2.6	17.3	1435	79.0	0.91	5.2	5.8	1.5	1.3	2.5		
K21R	132 M	K20R	112 MX	2.2	29.4	715	72.0	0.71	6.2	4.4	1.8	1.7	2.6	0.023	53
	8-4		8-4	3.7	24.7	1430	78.0	0.93	7.4	5.4	1.4	1.2	2.3		
K21R	132 MX	K20R	132 S	3.1	40.8	725	76.0	0.70	8.4	4.1	1.6	1.5	2.3	0.043	70
	8-4		8-4	4.8	31.6	1450	82.0	0.91	9.3	5.6	1.5	1.1	2.3		
K21R	160 M	K20R	132 M	4.3	57.0	720	77.0	0.71	11.5	4.3	1.7	1.6	2.4	0.053	86
	8-4		8-4	6.5	42.8	1450	83.0	0.91	12.5	6.2	1.7	1.3	2.4		
K21R	160 L	K20R	160 S	6.2	81.7	725	82.0	0.76	14.5	4.7	1.8	1.6	2.2	0.113	114
	8-4		8-4	9.0	59.1	1455	83.0	0.91	17	6.0	1.7	1.3	2.4		
K21R	180 L	K20R	160 M	8.5	113	720	83.0	0.79	18.5	4.3	1.7	1.5	2.0	0.145	138
	8-4		8-4	12.5	82.3	1450	85.0	0.91	23.5	5.4	1.6	1.2	2.0		
K21R	200 L	K20R	180 S	11.0	144	730	86.0	0.78	23.5	5.0	1.8	1.5	2.1	0.228	175
	8-4		8-4	16.0	105	1460	86.0	0.91	29.5	6.2	1.8	1.2	2.2		
K21R	200 LX	K20R	180 M	13.0	170	730	87.0	0.79	27.5	5.3	1.9	1.6	2.3	0.268	220
	8-4		8-4	19.0	124	1460	88.0	0.92	34	6.9	1.6	1.2	2.7		
K21R	225 M	K20R	200 M	17.5	229	730	88.0	0.78	37	5.7	2.2	1.8	2.4	0.443	265
	8-4		8-4	25.0	162	1470	88.0	0.92	44.5	7.4	2.1	1.0	2.6		
K21R	250 M	K20R	225 M	24.0	314	730	89.0	0.81	48	5.6	2.0	1.6	2.2	0.825	360
	8-4		8-4	30.0	195	1470	89.0	0.92	53	8.2	2.5	1.4	2.8		
K21R	280 S	K20R	250 S	28.0	364	735	90.0	0.78	57.5	5.4	2.1	1.5	1.9	1.28	465
	8-4		8-4	38.0	246	1475	89.5	0.90	68	7.2	2.1	1.2	2.4		
K21R	280 M	K20R	250 M	34.0	441	737	90.5	0.79	68.5	5.4	2.1	1.5	2.1	1.48	520
	8-4		8-4	45.0	291	1478	90.0	0.90	80	7.7	2.4	1.3	2.5		
K21R	315 S	K20R	280 S	42.0	542	740	92.0	0.81	81.5	5.7	1.6	1.3	2.0	2.63	690
	8-4		8-4	55.0	355	1480	92.0	0.92	94	8.5	1.9	1.2	2.5		
K21R	315 M	K20R	280 M	55.0	710	740	92.5	0.79	109	5.8	1.7	1.5	2.1	3.33	800
	8-4		8-4	75.0	482	1485	92.5	0.91	129	7.7	2.0	1.3	2.6		
K21R	315 MX	K20R	315 S	70.0	901	742	92.5	0.76	144	7.0	2.3	1.8	2.5	3.60	880
	8-4		8-4	105	675	1485	91.5	0.89	186	8.5	2.5	1.6	3.0		
K21R	315 MY	K20R	315 M	85.0	1097	740	93.8	0.78	168	7.0	2.3	1.9	2.7	6.00	1050
	8-4		8-4	125	804	1485	92.6	0.90	216	8.5	2.5	1.6	2.8		
K21R	315 L	K20R	315 L	120	1570	730				upon request				6.76	1250
	8-4		8-4	150	965	1485									

[1)] Weights for K20R

Three-phase motors with squirrel-cage rotor

Pole-changing, enhanced output, for constant load torque with Δ-YY-Dahlander winding
with surface cooling, duty type S1, continuous duty
Thermal class 155, degree of protection IP 55

Motor selection data															Design point 400 V, 50 Hz
Type				P_B	M_B	n_B	η_B	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
				kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 750/1500 rpm – 8- to 4-pole version															
K21R	132 S	K20R	112 M	2.2	29.8	705	71.0	0.75	6	3.5	1.5	1.5	2.1	0.018	46
	8-4		8-4	3.3	22.1	1425	76.0	0.93	6.7	4.6	1.3	1.2	2.0		
K21R	132 M	K20R	112 MX	2.6	35.0	710	73.0	0.72	7.1	4.1	1.7	1.7	2.5	0.023	53
	8-4		8-4	4.2	28.0	1430	79.0	0.93	8.3	4.9	1.4	1.3	2.3		
K21R	132 MX	K20R	132 S	4.0	53.0	720	76.0	0.68	11	3.5	1.6	1.5	2.1	0.043	70
	8-4		8-4	6.0	40.0	1445	80.0	0.89	12	4.8	1.5	1.2	2.1		
K21R	160 M	K20R	132 M	5.0	66.8	715	76.0	0.71	13.5	4.4	1.8	1.7	2.2	0.053	86
	8-4		8-4	7.8	51.8	1440	83.0	0.91	15	5.5	1.6	1.2	2.2		
K21R	160 L	K20R	160 S	7.0	92.2	725	82.0	0.76	16	4.5	2.0	1.6	2.2	0.113	114
	8-4		8-4	11.0	72.5	1450	83.0	0.92	21	5.4	1.8	1.3	2.3		
K21R	180 L	K20R	160 M	10.0	132	725	83.0	0.75	23	4.8	2.0	1.7	2.2	0.145	138
	8-4		8-4	16.0	106	1445	85.0	0.90	30	5.4	1.8	1.2	2.3		
K21R	200 L	K20R	180 S	15.0	198	725	86.0	0.80	31.5	4.0	1.6	1.4	1.9	0.228	175
	8-4		8-4	21.0	138	1455	85.0	0.91	39	5.5	1.7	1.1	2.1		
K21R	200 LX	K20R	180 M	17.5	232	720	86.0	0.76	38.5	4.7	1.8	1.5	2.2	0.268	200
	8-4		8-4	25.0	166	1440	84.0	0.89	48.5	6.2	1.5	1.1	2.5		
K21R	225 M	K20R	200 M	22.0	290	725	87.0	0.79	46	5.1	2.0	1.7	2.2	0.443	265
	8-4		8-4	30.0	197	1455	87.0	0.89	56	6.6	1.9	0.9	2.4		
K21R	250 M	K20R	225 M	28.0	366	730	90.0	0.77	58.5	5.2	2.0	1.6	2.2	0.825	360
	8-4		8-4	38.0	247	1470	89.5	0.90	68	7.1	2.5	1.4	2.8		
K21R	280 S	K20R	250 S	35.0	455	735	91.0	0.78	71	4.8	2.0	1.5	1.8	1.28	465
	8-4		8-4	50.0	324	1475	89.0	0.90	90	6.1	2.0	1.2	2.3		
K21R	280 M	K20R	250 M	45.0	585	735	90.0	0.79	91.5	5.5	2.1	1.5	2.2	1.48	520
	8-4		8-4	60.0	389	1475	90.0	0.88	109	7.2	1.9	1.3	2.6		
K21R	315 S	K20R	280 S	55.0	710	740	92.0	0.79	109	6.0	1.6	1.5	2.2	2.63	690
	8-4		8-4	80.0	516	1480	91.0	0.91	139	7.0	1.7	1.3	2.4		
K21R	315 M	K20R	280 M	75.0	968	740	92.0	0.79	149	5.1	1.6	1.3	1.9	3.33	800
	8-4		8-4	100	643	1485	91.0	0.90	176	7.0	1.9	1.2	2.4		
K21R	315 MX	K20R	315 S	80.0	1032	740	93.0	0.77	161	6.5	2.0	1.7	2.5	3.60	880
	8-4		8-4	115	740	1485	91.5	0.90	202	7.5	1.9	1.3	2.8		
K21R	315 MY	K20R	315 M	100	1291	740	93.7	0.80	193	6.5	1.9	1.7	2.3	6.00	1050
	8-4		8-4	140	900	1485	92.7	0.91	240	7.5	2.0	1.4	2.5		
K21R	315 L	K20R	315 L	120	1549	740				upon request				6.76	1250
	8-4		8-4	150	965	1485									

Three-phase motors with squirrel-cage rotor

Pole-changing, for quadratically increasing load torque
Fan drives with Y-YY-Dahlander winding
with surface cooling, duty type S1, continuous duty
Thermal class 155, degree of protection IP 55

Motor selection data															Design point 400 V, 50 Hz
Type				P_B	M_B	n_B	η_B	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
				kW	Nm	rpm	%	-	A	-	-	-	-	kgm²	kg
Synchronous speed 750/1500 rpm – 8- to 4-pole version															
K21R	71 K	K20R	63 K	0.05	0.70	680	39.0	0.62	0.30	1.9	1.4	1.4	1.7	0.00050	7.8
	8-4L		8-4L	0.20	1.34	1430	61.0	0.67	0.71	3.8	1.7	1.7	2.2		7.1[1]
K21R	71 G	K20R	63 G	0.075	1.07	670	40.0	0.62	0.44	2.1	1.2	1.2	1.7	0.00060	8.3
	8-4L		8-4L	0.30	2.01	1425	60.0	0.67	1.08	3.7	1.4	1.4	2.1		7.6[1]
K21R	80 K	K20R	71 K	0.12	1.65	695	50.0	0.70	0.49	2.6	1.2	1.2	2.0	0.00130	10.5
	8-4L		8-4L	0.50	3.41	1400	65.0	0.85	1.31	3.8	1.3	1.3	2.0		9.9[1]
K21R	80 G	K20R	71 G	0.18	2.51	685	56.0	0.66	0.70	2.6	1.5	1.5	1.8	0.00175	12.0
	8-4L		8-4L	0.70	4.76	1405	68.0	0.83	1.79	4.2	1.6	1.6	2.0		11.3[1]
K21R	90 S	K20R	80 K	0.25	3.41	700	59.0	0.63	0.97	2.7	1.1	1.1	1.5	0.00300	15.0
	8-4L		8-4L	1.00	6.72	1420	70.0	0.81	2.55	4.5	1.5	1.5	1.8		14.0[1]
K21R	90 L	K20R	80 G	0.37	5.12	690	63.0	0.64	1.33	2.6	1.2	1.2	1.4	0.00375	18.0
	8-4L		8-4L	1.50	10.2	1400	70.0	0.84	3.70	1.6	1.7	1.7	1.9		17.0[1]
K21R	100 L	K20R	90 L	0.50	6.82	700	61.0	0.60	1.80	2.8	1.2	1.2	1.9	0.00400	23.5
	8-4L		8-4L	2.00	13.5	1415	74.0	0.81	4.80	5.0	1.3	1.3	1.6		22.5[1]
K21R	100 LX	K20R	100 S	0.65	8.74	710	68.0	0.58	2.38	3.2	1.3	1.3	2.0	0.00725	30.0
	8-4L		8-4L	2.50	16.6	1440	81.0	0.81	5.50	7.0	1.4	1.4	2.0		30.0[1]
K21R	112 M	K20R	100 L	0.90	12.1	710	69.0	0.57	3.30	3.3	1.7	1.7	2.3	0.00900	37.0
	8-4L		8-4L	3.60	23.9	1440	81.0	0.81	7.90	6.3	2.2	2.2	2.5		36.0[1]
K21R	132 M	K20R	112 MX	1.1	14.6	720	65.0	0.67	3.6	4.4	2.0	2.0	3.1	0.023	53
	8-4L		8-4L	4.5	29.7	1445	71.0	0.83	11	6.1	1.9	1.8	3.4		
K21R	132 MX	K20R	132 S	1.8	24.2	710	76.0	0.79	4.5	3.6	1.3	1.0	1.7	0.043	70
	8-4L		8-4L	6.5	43.1	1440	80.0	0.91	13	5.8	2.0	1.0	2.2		
K21R	160 M	K20R	132 M	2.3	30.5	720	80.0	0.76	5.5	3.6	1.5	1.2	1.7	0.053	86
	8-4L		8-4L	9.0	59.5	1445	79.5	0.88	18.5	5.4	1.8	1.2	2.3		
K21R	160 L	K20R	160 S	3.5	46.1	725	82.0	0.68	9.1	3.2	1.5	1.0	1.6	0.078	120
	8-4LF		8-4LF	12.5	81.5	1465	86.0	0.83	25.5	7.0	2.4	1.9	2.9		
K21R	180 M	K20R	160 M	4.5	59.3	725	83.0	0.69	11.5	4.0	1.5	1.3	1.8	0.090	136
	8-4LF		8-4LF	16.0	104	1470	87.0	0.82	32.5	7.5	2.4	1.8	3.0		
K21R	180 L	K20R	180 S	5.0	65.4	730	84.0	0.67	13	5.0	1.8	1.5	2.1	0.138	170
	8-4LF		8-4LF	20.0	130	1475	88.0	0.82	40	6.2	1.8	1.2	2.2		
K21R	200 L	K20R	180 M	7.2	94.2	730	87.0	0.69	17.5	5.3	1.9	1.6	2.3	0.168	220
	8-4LF		8-4LF	26.0	169	1470	89.0	0.83	51	6.9	1.6	1.2	2.7		
K21R	225 S	K20R	200 M	9.5	123	735	87.5	0.67	23.5	5.7	2.2	1.8	2.4	0.275	270
	8-4LF		8-4LF	35.0	226	1478	89.0	0.78	73	7.4	2.1	1.0	2.6		
K21R	225 M	K20R	200 L	11.5	149	735	89.0	0.67	28	5.6	2.0	1.6	2.2	0.313	300
	8-4LF		8-4LF	42.0	271	1478	90.0	0.78	86.5	8.2	2.5	1.4	2.8		
K21R	250 M	K20R	225 M	12.0	155	740	89.0	0.63	31	5.4	2.1	1.5	1.9	0.53	375
	8-4LF		8-4LF	48.0	309	1485	91.0	0.82	93	7.2	2.1	1.2	2.4		
K21R	280 S	K20R	250 S	14.0	181	738	90.0	0.80	28	5.4	2.1	1.5	2.1	1.28	465
	8-4L		8-4L	50.0	323	1480	86.0	0.86	97.5	7.7	2.4	1.3	2.5		
K21R	280 M	K20R	250 M	17.0	220	738	90.0	0.82	33	5.7	1.6	1.3	2.0	1.48	520
	8-4L		8-4L	60.0	388	1478	88.0	0.88	112	8.5	1.9	1.2	2.5		
K21R	315 S	K20R	280 S	21.0	270	742	92.0	0.78	42	5.8	1.7	1.5	2.1	2.63	690
	8-4L		8-4L	80.0	515	1485	91.0	0.89	143	7.7	2.0	1.3	2.6		
K21R	315 M	K20R	280 M	28.0	361	740	92.0	0.80	55	7.0	2.3	1.8	2.5	3.33	800
	8-4L		8-4L	95.0	611	1485	91.0	0.91	166	8.5	2.5	1.6	3.0		
K21R	315 MX	K20R	315 S	36.0	465	740	92.5	0.78	72	7.0	2.3	1.9	2.7	3.60	880
	8-4L		8-4L	110	707	1485	90.0	0.87	203	8.5	2.5	1.6	2.8		
K21R	315 MY	K20R	315 M	44.0	570	738	93.3	0.80	85	7.0	2.3	1.8	2.5	6.00	1050
	8-4L		8-4L	135	869	1485	93.0	0.90	233	8.5	2.5	1.6	2.7		
K21R	315 L	K20R	315 L	48.0	618	742				upon request				6.67	1250
	8-4L		8-4L	160	1026	1490									
K21R	315 LX	K20R	315 LX	55.0	705	745				upon request				8.60	1630
	8-4L		8-4L	220	1409	1491									

[1] Weights for K20R

Three-phase motors with squirrel-cage rotor

Pole-changing, for quadratically increasing load torque
Fan drives with two separate windings in Y-Y configuration
with surface cooling, duty type S1, continuous duty
Thermal class 155, degree of protection IP 55

Motor selection data															Design point 400 V, 50 Hz
Type				P_B	M_B	n_B	η_B	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
				kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 750/1500 rpm – 8- to 4-pole version															
K21R	80 K	K20R	71 K	0.09	1.25	690	36.0	0.66	0.55	2.0	1.6	1.5	1.9	0.00087	10.6
	8-4L		8-4L	0.37	2.49	1420	61.0	0.76	1.15	3.7	1.3	1.3	1.8		9.9[1)]
K21R	80 G	K20R	71 G	0.12	1.66	690	40.0	0.67	0.65	2.20	1.35	1.35	1.80	0.00107	11.7
	8-4L		8-4L	0.50	3.39	1410	66.5	0.79	1.37	4.0	1.50	1.45	1.90		11.0[1)]
K21R	90 S	K20R	80 K	0.18	2.40	715	44.0	0.60	0.98	2.50	1.35	1.35	1.00	0.00325	16.0
	8-4L		8-4L	0.75	5.03	1425	69.0	0.81	1.94	4.10	1.30	1.25	1.70		15.0[1)]
K21R	90L	K20R	80G	0.25	3.32	720	51.0	0.56	1.26	2.60	1.40	1.35	1.90	0.00425	19.0
	8-4L		8-4L	1.00	6.65	1435	70.0	0.80	2.58	4.90	1.60	1.50	1.85		18.0[1)]
K21R	100 L	K20R	90 L	0.37	4.87	725	60.0	0.55	1.62	3.00	1.90	1.80	2.10	0.00625	24.0
	8-4L		8-4L	1.50	9.95	1440	75.5	0.81	3.55	5.20	1.40	1.30	1.85		24.0[1)]
K21R	100 LX	K20R	100S	0.50	6.63	720	53.0	0.64	2.12	3.30	1.20	1.20	2.30	0.00900	28.0
	8-4L		8-4L	2.20	14.64	1435	72.0	0.82	5.40	5.40	1.60	1.60	2.50		28.0[1)]
K21R	112 M	K20R	100 L	0.62	8.22	720	52.0	0.65	2.65	3.20	1.40	1.40	2.10	0.01225	33.5
	8-4L		8-4L	3.00	20.0	1435	76.0	0.82	6.95	6.00	2.10	2.00	2.60		32.5[1)]
K21R	132 S	K20R	112 M	0.9	11.9	720	65.0	0.65	3.7	4.0	1.4	1.4	2.3	0.015	50
	8-4LZ		8-4LZ	3.6	23.6	1455	80.0	0.80	6.2	5.9	1.5	1.0	2.9		
K21R	132 M	K20R	132 S	1.1	14.3	735	65.0	0.55	4.4	3.8	2.1	1.9	2.8	0.028	69
	8-4LZ		8-4LZ	4.5	29.6	1455	83.0	0.82	9.5	5.0	1.3	1.1	2.2		
K21R	160 M	K20R	132 M	1.4	18.2	735	69.0	0.54	5.4	4.0	2.2	2.1	2.8	0.035	86
	8-4LZ		8-4LZ	6.0	39.0	1470	84.5	0.82	12.5	6.4	1.8	1.4	2.7		
K21R	160 L	K20R	160 S	2.2	28.6	735	75.5	0.67	6.3	4.3	1.7	1.5	2.2	0.078	120
	8-4LZ		8-4LZ	9.0	58.5	1470	87.0	0.87	17	6.6	2.0	1.6	2.6		
K21R	180 M	K20R	160 M	3.0	39.0	735	80.0	0.64	8.5	4.8	2.2	1.8	2.5	0.090	136
	8-4LZ		8-4LZ	11.0	70.7	1485	87.0	0.86	21	7.2	2.0	1.7	2.9		
K21R	180 L	K20R	180 S	4.5	58.1	740	80.5	0.65	12.5	4.5	1.7	1.6	2.3	0.138	170
	8-4LZ		8-4LZ	16.0	104	1475	89.0	0.85	30.5	6.8	1.9	1.7	2.7		
K21R	200 L	K20R	180 M	5.0	64.5	740	82.0	0.65	13.5	5.0	1.7	1.7	2.7	0.168	220
	8-4LZ		8-4LZ	18.5	120	1475	90.5	0.86	34.5	7.3	1.9	1.5	2.9		
K21R	225 S	K20R	200 M	7.0	90.4	740	84.0	0.56	21.5	5.3	2.2	2.0	3.0	0.275	270
	8-4LZ		8-4LZ	28.0	181	1480	90.0	0.80	56	7.4	2.0	1.8	3.0		
K21R	225 M	K20R	200 L	9.5	123	740	84.0	0.55	29.5	5.2	2.3	2.1	3.1	0.313	300
	8-4LZ		8-4LZ	35.0	226	1480	90.0	0.78	72	7.6	2.2	1.8	3.1		
K21R	250 M	K20R	225 M	11.5	149	737	85.5	0.65	30	4.5	1.4	1.2	1.6	0.525	375
	8-4LZ		8-4LZ	42.0	271	1480	92.5	0.84	78	7.8	2.2	1.6	2.6		
K21R	280 S	K20R	250 S	14.0	181	740	88.0	0.63	36.5	4.6	1.4	1.1	1.6	0.950	520
	8-4LZ		8-4LZ	48.0	309	1485	93.5	0.85	87	8.3	2.2	1.8	2.6		
K21R	280 M	K20R	250 M	19.0	245	740	86.0	0.63	50.5	4.4	1.3	1.1	1.6	1.11	580
	8-4LZ		8-4LZ	70.0	456	1465	92.0	0.82	134	8.0	2.4	1.9	2.7		
K21R	315 S	K20R	280 S	23.0	297	740	86.5	0.63	61	5.0	1.2	1.2	1.6	1.96	740
	8-4LZ		8-4LZ	83.0	534	1485	93.5	0.88	146	6.7	1.4	1.3	1.9		
K21R	315 M	K20R	280 M	28.0	360	742	88.0	0.68	67.5	5.9	1.9		2.3	2.27	840
	8-4LZ		8-4LZ	95.0	611	1485	92.5	0.87	170	7.8	1.9		2.5		
K21R	315 MX	K20R	315 S	36.0	463	742	85.5	0.61	99.5	5.0	1.4	1.3	1.7	2.73	1000
	8-4LZ		8-4LZ	110	708	1483	93.5	0.84	202	6.4	1.3	1.3	2.0		
K21R	315 MY	K20R	315 M	40.0	513	745	87.0	0.65	102	6.0	1.5		1.8	4.82	1200
	8-4LZ		8-4LZ	160	1029	1485	94.0	0.86	286	8.0	1.6		2.2		

[1)] Weights for K20R
Delta configuration possible upon request

Three-phase motors with squirrel-cage rotor

Pole-changing, for constant load torque
with two separate windings in Y-Y configuration
with surface cooling, duty type S1, continuous duty
Thermal class 155, degree of protection IP 55

Motor selection data															Design point 400 V, 50 Hz
Type				P_B	M_B	n_B	η_B	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
				kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 750/1500 rpm – 8- to 6-pole version															
K21R	132 S	K20R	112 M	1.3	17.2	720	65.0	0.70	4.1	4.2	1.5		2.3	0.018	46
	8-6		8-6	1.8	17.7	970	75.0	0.73	4.7	6.0	1.7		2.5		
K21R	132 M	K20R	112 MX	2.3	30.5	720	69.0	0.71	6.8	4.0	1.5		2.3	0.023	53
	8-6		8-6	3.0	29.6	970	74.0	0.74	7.9	5.2	1.6		2.6		
K21R	132 MX	K20R	132 S	2.8	37.1	720	73.0	0.74	7.5	4.4	1.8		2.5	0.043	70
	8-6		8-6	4.0	39.6	965	76.0	0.81	9.4	4.6	1.5		2.4		
K21R	160 M	K20R	132 M	4.0	53.4	715	73.5	0.76	10.5	4.3	1.7		2.4	0.053	86
	8-6		8-6	5.5	53.9	975	78.5	0.81	12.5	4.8	1.5		2.4		
K21R	160 L	K20R	160 S	6.0	79.6	720	80.0	0.76	14	5.0	1.9		2.5	0.113	114
	8-6		8-6	8.0	78.4	975	82.0	0.77	18.5	6.0	1.8		2.4		
K21R	180 L	K20R	160 M	8.0	106	720	81.0	0.81	17.5	5.2	2.0		2.5	0.145	138
	8-6		8-6	10.5	103	970	83.0	0.85	21.5	5.1	1.7		2.2		
K21R	200 L	K20R	180 S	10.5	139	720	83.0	0.83	22	5.0	1.8		2.2	0.228	175
	8-6		8-6	13.0	127	975	85.0	0.83	26.5	5.9	1.7		2.3		
K21R	200 LX	K20R	180 M	11.0	144	730	84.0	0.74	25.5	6.4	2.2		2.5	0.268	200
	8-6		8-6	15.0	146	980	85.0	0.79	32	6.4	2.0		2.5		
K21R	225 M	K20R	200 M	14.0	182	735	86.0	0.81	29	6.5	2.0		2.6	0.443	265
	8-6		8-6	18.5	179	985	86.0	0.83	37.5	7.0	3.0		3.0		
K21R	250 M	K20R	225 M	19.0	247	735				upon request				0.825	360
	8-6		8-6	25.0	242	985									
K21R	280 S	K20R	250 S	24.0	310	740	89.0	0.83	47	6.0	2.0		2.5	1.28	465
	8-6		8-6	30.0	291	985	89.0	0.87	56	6.8	2.0		2.5		
K21R	280 M	K20R	250 M	30.0	387	740	89.0	0.81	60	6.6	2.2		2.3	1.48	520
	8-6		8-6	38.0	368	985	89.0	0.82	75	7.0	2.0		2.3		
K21R	315 S	K20R	280 S	36.0	463	742	91.0	0.79	72.5	7.0	2.4		2.6	2.63	690
	8-6		8-6	45.0	435	988	92.0	0.86	82	5.9	1.3		2.2		
K21R	315 M	K20R	280 M	60.0	774	740	90.0	0.77	125	7.3	2.1		2.3	3.33	800
	8-6		8-6	80.0	773	988	92.0	0.85	148	6.5	1.7		2.4		
K21R	315 MX	K20R	315 S	65.0	839	740	90.0	0.81	129	6.4	2.0		2.1	3.60	880
	8-6		8-6	87.0	839	990	90.0	0.85	164	7.0	1.8		2.4		
K21R	315 MY	K20R	315 M	80.0	1032	740	92.0	0.80	157	7.2	2.5		2.5	6.00	1050
	8-6		8-6	110	1061	990	92.0	0.86	201	6.8	1.5		1.9		
K21R	315 L	K20R	315 L	80.0	1032	740				upon request				6.76	1250
	8-6		8-6	120	1158	990									

Delta configuration possible upon request

Three-phase motors with squirrel-cage rotor

Pole-changing, for quadratically increasing load torque
Fan drives with two separate windings in Y-Y configuration
with surface cooling, duty type S1, continuous duty
Thermal class 155, degree of protection IP 55

Motor selection data															Design point 400 V, 50 Hz
Type				P_B	M_B	n_B	η_B	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
				kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 750/1000 rpm – 8- to 6-pole version															
K21R	71 G	K20R	63 G	0.05	0.70	685	30.0	0.65	0.37	1.9	1.7	1.7	2.0	0.00060	8.3
	8-6L		8-6L	0.11	1.17	895	36.0	0.79	0.56	2.1	1.2	1.2	1.4		7.6[1)]
K21R	80 K	K20R	71 K	0.09	1.20	715	34.0	0.64	0.60	2.3	1.7	1.7	2.4	0.00130	11
	8-6L		8-6L	0.18	1.79	960	48.0	0.60	0.90	3.1	2.0	1.8	2.6		10[1)]
K21R	80 G	K20R	71 G	0.12	1.64	700	44.0	0.68	0.58	2.4	1.5	1.5	1.9	0.00175	12.5
	8-6L		8-6L	0.25	2.51	950	57.0	0.67	0.94	3.4	1.7	1.7	2.1		11.5[1)]
K21R	90 S	K20R	80 K	0.24	3.23	710	47.0	0.70	1.05	2.4	1.1	1.0	1.5	0.00325	16.0
	8-6L		8-6L	0.48	4.83	950	63.5	0.68	1.60	3.3	1.3	1.3	1.8		15.0[1)]
K21R	90 L	K20R	80 G	0.33	4.47	705	48.0	0.66	1.50	2.6	1.3	1.3	1.8	0.00425	19.0
	8-6L		8-6L	0.66	6.63	950	65.0	0.66	2.25	3.7	1.6	1.6	2.0		18.0[1)]
K21R	100 L	K20R	90 L	0.45	6.05	710	51.5	0.68	1.85	2.8	1.5	1.5	1.7	0.00625	24.0
	8-6L		8-6L	0.90	9.14	940	66.0	0.77	2.55	3.5	1.3	1.2	1.6		24.0[1)]
K21R	100 LX	K20R	100 S	0.60	8.24	695	53.5	0.75	2.15	2.8	1.5	1.5	1.7	0.00900	28.0
	8-6L		8-6L	1.20	12.6	910	70.5	0.83	2.95	3.5	1.3	1.2	1.6		28.0[1)]
K21R	112 M	K20R	100 L	0.80	10.7	715	59.5	0.67	2.90	3.6	1.5	1.5	2.3	0.01225	33.5
	8-6L		8-6L	1.60	16.0	955	76.0	0.76	4.00	4.7	1.5	1.5	2.3		32.5[1)]
K21R	112 MX	K20R	100 LX	1.00	13.6	700	63.0	0.75	3.05	3.2	1.2	1.1	1.6	0.01390	37.0
	8-6L		8-6L	2.20	22.4	940	75.0	0.78	5.45	4.4	1.4	1.3	1.9		36.0[1)]
K21R	132 S	K20R	112 M	1.0	13.4	710	60.0	0.79	3.05	3.6	1.1	1.0	1.9	0.018	46
	8-6L		8-6L	2.2	22.0	955	71.5	0.81	5.45	5.0	1.4	1.3	2.5		
K21R	132 M	K20R	112 MX	1.7	22.7	715	61.5	0.74	5.4	4.5	1.9	1.9	2.9	0.023	53
	8-6L		8-6L	3.5	35.2	950	73.0	0.81	8.5	4.5	1.3	1.2	2.4		
K21R	132 MX	K20R	132 S	2.2	29.0	725	70.0	0.74	6.1	4.4	1.6	1.5	2.4	0.043	70
	8-6L		8-6L	4.5	44.3	970	76.5	0.78	11	5.5	1.8	1.6	2.7		
K21R	160 M	K20R	132 M	2.5	32.7	730	72.0	0.75	6.7	4.5	1.7	1.7	2.4	0.053	86
	8-6L		8-6L	5.5	54.4	965	81.0	0.83	12	5.1	1.6	1.4	2.3		
K21R	160 L	K20R	160 S	4.5	58.9	730	78.0	0.80	10.5	5.0	1.9	1.8	2.5	0.113	114
	8-6L		8-6L	9.0	88.6	970	82.0	0.84	19	5.0	1.5	1.3	2.2		
K21R	180 L	K20R	160 M	6.0	78.5	730	77.0	0.83	13.5	4.6	1.7	1.5	2.1	0.145	138
	8-6L		8-6L	12.0	118	970	83.5	0.86	24	5.5	1.6	1.3	2.3		
K21R	200 L	K20R	180 S	7.0	91.6	730	78.0	0.85	15	4.3	1.3	1.3	1.8	0.228	175
	8-6L		8-6L	17.0	168	965	86.5	0.87	32.5	4.8	1.3	1.4	2.0		
K21R	200 LX	K20R	180 M	10.0	131	730	80.0	0.82	22	5.7	2.0	1.2	2.6	0.268	200
	8-6L		8-6L	21.0	208	965	87.0	0.87	40	5.2	1.7	1.7	2.2		
K21R	225 M	K20R	200 M	12.0	156	735	82.0	0.85	25	6.3	2.0	1.7	2.7	0.443	265
	8-6L		8-6L	26.0	253	980	87.0	0.85	50.5	6.9	2.2	1.7	3.0		
K21R	250 M	K20R	225 M	15.0	198	725	85.0	0.85	30	4.4	1.6	1.4	1.7	0.825	360
	8-6L		8-6L	35.0	343	975	89.0	0.87	65	5.4	1.6	1.3	2.0		
K21R	280 S	K20R	250 S	20.0	258	740	86.0	0.82	41	6.5	2.1	1.6	2.6	1.28	465
	8-6L		8-6L	45.0	436	985	90.0	0.83	87	6.5	2.1	1.4	2.6		
K21R	280 M	K20R	250 M	25.0	323	740	86.0	0.82	51	5.2	1.8	1.6	2.1	1.48	520
	8-6L		8-6L	55.0	533	985	90.5	0.86	102	5.7	1.8	1.4	2.1		
K21R	315 S	K20R	280 S	30.0	384	745	89.5	0.79	61	6.3	2.0	1.4	2.3	2.63	690
	8-6L		8-6L	65.0	627	990	93.0	0.85	119	7.1	1.8	1.3	2.6		
K21R	315 M	K20R	280 M	35.0	451	740	88.0	0.84	68.5	4.2	1.7	1.4	2.0	3.33	800
	8-6L		8-6L	75.0	724	990	92.0	0.86	137	7.4	1.9	1.6	2.6		
K21R	315 MX	K20R	315 S	40.0	516	740	91.0	0.79	80.5	4.0	1.4	1.2	1.7	3.60	880
	8-6L		8-6L	85.0	820	990	92.0	0.82	163	6.5	1.5	1.4	2.2		
K21R	315 MY	K20R	315 M	55.0	705	745	90.0	0.81	109	4.5	1.5	1.2	1.9	6.00	1050
	8-6L		8-6L	115	1109	990	94.0	0.82	215	7.0	1.6	1.4	2.3		

[1)] Weights for K20R
Delta configuration possible upon request

Three-phase motors with squirrel-cage rotor

Pole-changing, for quadratically increasing load torque
Fan drives with two separate windings in Y-Y configuration
with surface cooling, duty type S1, continuous duty
Thermal class 155, degree of protection IP 55

Motor selection data															Design point 400 V, 50 Hz
Type				P_B	M_B	n_B	η_B	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
				kW	Nm	rpm	%	-	A	-	-	-	-	kgm²	kg
Synchronous speed 500/3000 rpm – 12- to 2-pole version															
K21R	132 S	K20R	112 M	0.25	4.92	485	34.0	0.54	2	2.2	1.7		2.5	0.015	50
	12-2L		12-2L	4.5	15.0	2870	82.0	0.93	8.5	6.6	2.2		2.4		
K21R	132 M	K20R	132 S	0.35	6.82	490	42.0	0.43	2.8	2.3	1.6		2.5	0.028	69
	12-2L		12-2L	7.0	23.1	2890	84.0	0.93	13	5.8	1.5		2.0		
K21R	160 M	K20R	132 M	0.45	8.77	490	44.0	0.44	3.4	2.4	1.5		2.5	0.035	86
	12-2L		12-2L	9.0	29.7	2895	86.0	0.93	16	6.2	1.7		2.2		
K21R	160 L	K20R	160 S	0.55	10.6	495	46.0	0.44	3.9	2.9	2.0		2.5	0.078	120
	12-2L		12-2L	12.0	39.3	2915	87.0	0.93	21.5	6.8	2.0		2.3		
K21R	180 M	K20R	160 M	0.65	12.7	490	53.0	0.47	3.8	3.0	1.7		2.5	0.090	136
	12-2L		12-2L	13.0	42.5	2920	87.0	0.93	23	7.0	2.0		2.3		
K21R	180 L	K20R	180 S	0.8	15.4	495	46.0	0.47	5.3	2.7	1.4		2.5	0.138	170
	12-2L		12-2L	17.0	55.4	2930	89.0	0.93	29.5	6.9	1.7		2.3		
K21R	200 L	K20R	180 M	1.1	21.2	495	52.0	0.44	6.9	2.9	1.7		2.5	0.168	200
	12-2L		12-2L	22.0	71.5	2940	90.0	0.93	38	8.0	2.0		2.5		
K21R	225 S	K20R	200 M	1.5	28.9	495	59.0	0.37	9.9	3.0	1.6		2.5	0.275	270
	12-2L		12-2L	28.0	91.1	2935	90.0	0.93	48.5	6.3	1.5		2.0		
K21R	225 M	K20R	200 L	1.7	32.8	495	57.0	0.38	11.5	3.0	1.6		2.5	0.313	300
	12-2L		12-2L	34.0	110	2940	90.0	0.93	58.5	6.8	1.6		2.1		
K21R	250 M	K20R	225 M	2.0	38.6	495	62.0	0.42	11	3.8	2.0		2.5	0.525	375
	12-2L		12-2L	39.0	127	2940	90.0	0.92	68	5.8	1.4		2.0		
K21R	280 S	K20R	250 S	2.5	48.2	495	67.0	0.40	13.5	4.0	2.1		2.5	0.950	520
	12-2L		12-2L	50.0	161	2965	90.0	0.92	87	8.3	1.7		2.5		
K21R	280 M	K20R	250 M	3.5	67.5	495	71.0	0.45	16	3.8	1.6		2.2	1.11	580
	12-2L		12-2L	68.0	219	2960	90.0	0.92	119	7.7	1.6		2.2		
K21R	315 S	K20R	280 S	4.0	77.1	495	72.0	0.45	18	4.8	2.3		2.5	1.96	740
	12-2L		12-2L	80.0	258	2965	91.0	0.93	136	8.0	1.5		2.5		
K21R	315 M	K20R	280 M	4.5	86.8	495	71.0	0.49	18.5	4.6	2.0		2.4	2.27	840
	12-2L		12-2L	90.0	290	2960	92.0	0.92	153	6.8	1.3		2.2		
K21R	315 MX	K20R	315 S	5.5	106	495	71.0	0.50	22.5	4.5	2.0		2.3	2.73	1000
	12-2L		12-2L	105	338	2970	92.0	0.93	177	9.5	2.0		2.5		
K21R	315 MY	K20R	315 M	6.5	125	496	74.0	0.50	25.5	4.7	2.1		2.3	4.82	1200
	12-2L		12-2L	125	402	2970	92.0	0.93	211	7.7	1.7		2.5		

Delta configuration possible upon request

Three-phase motors with squirrel-cage rotor

Pole-changing, for constant load torque
with Δ-YY-Dahlander winding
with surface cooling, duty type S1, continuous duty
Thermal class 155, degree of protection IP 55

Motor selection data															Design point 400 V, 50 Hz
Type				P_B	M_B	n_B	η_B	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
				kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 500/1000 rpm – 12- to 6-pole version															
K21R	90 L	K20R	80 G	0.20	4.11	465	40.0	0.48	1.50	2.1	2.1	2.1	2.3	0.00425	19.0
	12-6		12-6	0.40	3.98	960	73.0	0.67	1.18	4.5	1.8	1.8	2.3		18.0[1]
K21R	100 L	K20R	90 L	0.30	6.37	450	41.0	0.53	2.00	1.9	1.3	1.2	1.6	0.00625	24.0
	12-6		12-6	0.60	6.00	955	71.0	0.73	1.67	3.8	1.6	1.5	1.8		24.0[1]
K21R	100 LX	K20R	100 S	0.50	10.4	460	49.5	0.57	2.60	2.6	1.7	1.7	2.3	0.00900	28.0
	12-6		12-6	1.00	10.1	950	71.5	0.80	2.55	4.5	1.5	1.5	2.1		28.0[1]
K21R	112 M	K20R	100 L	0.60	12.2	470	49.0	0.49	3.60	2.8	2.5	2.5	2.9	0.01225	33.5
	12-6		12-6	1.20	11.9	965	76.0	0.72	3.15	5.5	2.0	1.9	2.6		32.5[1]
K21R	112 MX	K20R	100 LX	0.80	16.8	455	52.0	0.56	3.95	2.5	1.8	1.8	2.1	0.01390	37.0
	12-6		12-6	1.50	14.9	960	76.0	0.77	3.70	4.9	1.8	1.6	2.3		36.0[1]
K21R	132 S	K20R	112 M	0.7	14.1	475	55.0	0.55	3.3	2.9	1.7	1.6	2.5	0.018	46
	12-6		12-6	1.0	9.85	970	79.0	0.78	2.3	6.0	1.8	1.7	2.9		
K21R	132 M	K20R	112 MX	0.9	18.1	475	56.0	0.52	4.5	3.0	1.9	1.9	2.9	0.023	53
	12-6		12-6	1.4	13.8	970	81.0	0.79	3.2	6.2	1.9	1.9	3.0		
K21R	132 MX	K20R	132 S	1.3	25.9	480	62.0	0.53	5.7	2.4	1.6	1.5	2.2	0.043	70
	12-6		12-6	2.0	19.6	975	82.0	0.82	4.3	5.5	1.7	1.4	2.7		
K21R	160 M	K20R	132 M	1.9	38.2	475	64.0	0.57	7.5	3.0	1.6	1.5	1.9	0.053	86
	12-6		12-6	3.0	29.7	965	83.0	0.84	6.2	5.4	1.6	1.4	2.1		
K21R	160 L	K20R	160 S	3.2	63.7	480	73.0	0.60	10.5	3.3	1.7	1.5	2.0	0.113	114
	12-6		12-6	5.0	49.0	975	84.0	0.88	9.8	5.5	1.7	1.4	2.3		
K21R	180 L	K20R	160 M	4.5	89.5	480	75.0	0.60	14.5	3.1	1.9	1.7	1.9	0.145	138
	12-6		12-6	7.5	73.8	970	85.0	0.88	14.5	5.8	1.8	1.5	2.1		
K21R	200 L	K20R	180 S	5.5	108	485	82.0	0.60	16	3.9	1.9	1.3	2.2	0.228	175
	12-6		12-6	8.8	85.8	980	88.0	0.87	16.5	6.3	1.8	1.4	2.4		
K21R	200 LX	K20R	180 M	6.5	128	485	81.0	0.60	19.5	4.4	2.0	1.8	2.4	0.268	200
	12-6		12-6	10.5	102	980	87.0	0.87	20	6.8	2.0	1.5	2.7		
K21R	225 M	K20R	200 M	9.0	177	485	83.0	0.62	25	4.4	2.2	2.0	2.7	0.443	265
	12-6		12-6	14.0	136	980	88.0	0.87	26.5	7.1	2.4	1.6	3.0		
K21R	250 M	K20R	225 M	11.0	217	485	86.0	0.65	28.5	4.1	1.7	1.4	1.8	0.825	360
	12-6		12-6	17.5	171	980	89.0	0.88	32.5	6.3	1.8	1.3	2.3		
K21R	280 S	K20R	250 S	13.5	263	490	87.0	0.62	36	4.3	2.1	1.6	1.9	1.28	465
	12-6		12-6	21.0	203	987	90.0	0.87	38.5	7.0	2.0	1.4	2.3		
K21R	280 M	K20R	250 M	16.5	320	492	87.0	0.60	45.5	4.9	2.3	1.9	2.4	1.48	520
	12-6		12-6	26.0	251	990	90.5	0.87	47.5	7.8	2.4	1.7	2.7		
K21R	315 S	K20R	280 S	22.0	425	494	88.0	0.60	60	4.6	1.6	1.4	2.1	2.63	690
	12-6		12-6	35.0	338	990	92.0	0.85	64.5	6.7	1.6	1.3	2.3		
K21R	315 M	K20R	280 M	32.0	620	493	89.5	0.60	86	4.2	1.7	1.4	2.0	3.33	800
	12-6		12-6	48.0	463	991	93.5	0.86	86	7.4	1.9	1.6	2.6		
K21R	315 MX	K20R	315 S	48.0	936	490	89.5	0.66	117	4.0	1.4	1.2	1.7	3.60	880
	12-6		12-6	70.0	677	987	92.6	0.87	125	6.5	1.5	1.4	2.2		
K21R	315 MY	K20R	315 M	55.0	1072	490	90.0	0.68	130	4.5	1.5	1.2	1.9	6.00	1050
	12-6		12-6	85.0	824	985	92.6	0.88	151	7.0	1.6	1.4	2.3		
K21R	315 L	K20R	315 L	65.0	1267	490				upon request				6.76	1250
	12-6		12-6	95.0	921	985									

[1] Weights for K20R

Three-phase motors with squirrel-cage rotor

Pole-changing, for constant load torque
with Δ-YY-Dahlander winding
with surface cooling, duty type S1, continuous duty
Thermal class 155, degree of protection IP 55

Motor selection data															Design point 400 V, 50 Hz
Type				P_B	M_B	n_B	η_B	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
				kW	Nm	rpm	%	-	A	-	-	-	-	kgm²	kg
Synchronous speed 500/1000 rpm – 12- to 6-pole version															
K21R	132 S	K20R	112 M	0.9	18.2	473	56.0	0.66	3.5	2.8	1.5	1.4	1.8	0.018	46
	12-6		12-6	1.3	13.1	950	77.0	0.85	2.9	4.8	1.4	1.3	2.0		
K21R	132 M	K20R	112 MX	1.1	22.4	470	57.0	0.59	4.7	2.9	1.5	1.5	2.5	0.023	53
	12-6		12-6	1.7	17.0	955	79.0	0.84	3.7	5.1	1.5	1.5	2.3		
K21R	132 MX	K20R	132 S	1.6	32.2	475	61.0	0.54	7	2.3	1.4	1.3	1.9	0.043	70
	12-6		12-6	2.5	24.7	965	81.0	0.85	5.2	4.9	1.5	1.2	2.3		
K21R	160 M	K20R	132 M	2.3	46.7	470	59.0	0.57	9.9	2.9	1.5	1.4	1.7	0.053	86
	12-6		12-6	3.6	36.0	955	81.0	0.83	7.7	5.2	1.6	1.4	2.0		
K21R	160 L	K20R	160 S	3.7	74.2	476	71.0	0.60	12.5	3.1	1.6	1.4	1.8	0.113	114
	12-6		12-6	6.0	59.2	968	83.0	0.87	12	3.1	1.6	1.3	1.8		
K21R	180 L	K20R	160 M	5.5	110	476	74.0	0.63	17	5.6	1.6	1.4	1.5	0.145	138
	12-6		12-6	9.0	89.2	963	84.0	0.86	18	5.3	1.6	1.4	1.8		
K21R	200 L	K20R	180 S	7.5	150	478	80.0	0.64	21	3.5	1.6	1.1	1.7	0.228	175
	12-6		12-6	11.0	108	975	87.0	0.88	20.5	5.3	1.5	1.1	1.9		
K21R	200 LX	K20R	180 M	9.5	189	480	80.0	0.63	27	3.9	1.6	1.4	1.8	0.268	200
	12-6		12-6	15.0	147	975	87.0	0.89	28	5.9	1.7	1.1	2.1		
K21R	225 M	K20R	200 M	11.0	218	482	82.0	0.63	30.5	4.1	2.1	1.9	2.4	0.443	265
	12-6		12-6	18.0	177	973	88.0	0.87	34	6.0	2.1	1.4	2.4		
K21R	250 M	K20R	225 M	13.0	256	485	81.0	0.61	38	3.8	1.8	1.4	2.0	0.825	360
	12-6		12-6	22.0	215	978	88.0	0.88	41	6.5	1.9	1.4	2.3		
K21R	280 S	K20R	250 S	16.0	313	488	86.0	0.61	44	4.3	2.2	1.7	1.9	1.28	465
	12-6		12-6	28.0	273	981	89.0	0.87	52	6.6	1.9	1.3	2.0		
K21R	280 M	K20R	250 M	20.0	392	487	86.0	0.61	55	4.8	2.4	2.0	2.3	1.48	520
	12-6		12-6	35.0	339	987	90.0	0.88	64	7.1	2.3	1.6	2.3		
K21R	315 S	K20R	280 S	27.0	522	494	89.0	0.62	70.5	4.4	1.6	1.4	2.1	2.63	690
	12-6		12-6	50.0	485	985	92.0	0.88	89	5.7	1.4	1.1	2.0		
K21R	315 M	K20R	280 M	35.0	681	491	89.0	0.59	96	4.3	1.8	1.5	1.9	3.33	800
	12-6		12-6	60.0	582	985	92.0	0.86	109	7.3	1.8	1.5	2.4		
K21R	315 MX	K20R	315 S	52.0	1011	491	89.0	0.63	134	4.5	1.8	1.6	2.0	3.60	880
	12-6		12-6	80.0	776	985	92.0	0.87	144	7.4	1.8	1.7	2.5		
K21R	315 MY	K20R	315 M	58.0	1128	491	90.0	0.66	141	4.9	1.8	1.4	2.1	6.00	1050
	12-6		12-6	95.0	921	985	93.0	0.88	168	7.3	1.7	1.5	2.3		

Three-phase motors with squirrel-cage rotor

Pole-changing, for quadratically increasing load torque
Fan drives with Y-YY-Dahlander winding
with surface cooling, duty type S1, continuous duty
Thermal class 155, degree of protection IP 55

Motor selection data															Design point 400 V, 50 Hz
Type				P_B	M_B	n_B	η_B	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
				kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 500/1000 rpm – 12- to 6-pole version															
K21R	80 K	K20R	71 K	0.04	0.87	440	28.0	0.65	0.32	1.6	1.5		1.7	0.00130	11.0
	12-6L		12-6L	0.20	2.03	940	53.0	0.74	0.74	3.0	1.4		2.0		10.0[1]
K21R	80 G	K20R	71 G	0.075	1.69	425	36.0	0.69	0.44	1.9	1.2		1.4	0.00175	12.5
	12-6L		12-6L	0.30	3.06	935	60.0	0.72	1.00	3.5	1.5		2.0		11.5[1]
K21R	90 S	K20R	80 K	0.10	2.10	455	35.0	0.55	0.75	1.7	1.0		1.2	0.00325	16.0
	12-6L		12-6L	0.40	3.96	965	58.5	0.58	1.70	3.9	1.8		2.3		15.0[1]
K21R	90 L	K20R	80 G	0.12	2.49	460	40.0	0.49	0.88	1.8	1.2		1.6	0.00425	19.0
	12-6L		12-6L	0.55	5.44	965	66.0	0.60	2.00	4.1	2.0		2.6		18.0[1]
K21R	100 L	K20R	90 L	0.18	3.74	460	46.0	0.52	1.09	1.9	1.4		1.6	0.00625	24.0
	12-6L		12-6L	1.10	11.2	940	72.0	0.77	2.85	4.0	1.4		1.8		24.0[1]
K21R	100 LX	K20R	100 S	0.33	7.00	450	49.0	0.62	1.55	2.5	1.4		2.2	0.00900	28.0
	12-6L		12-6L	1.30	13.0	955	65.0	0.69	4.20	4.6	1.4		2.0		28.0[1]
K21R	112 M	K20R	100 L	0.45	9.55	450	52.0	0.63	2.00	2.9	1.2		1.5	0.01225	33.5
	12-6L		12-6L	1.80	18.0	955	69.0	0.74	5.10	4.5	1.5		2.0		32.5[1]
K21R	112 MX	K20R	100 LX	0.40	8.21	465	57.0	0.49	2.07	2.4	1.3	1.2	1.9	0.01390	37.0
	12-6L		12-6L	2.50	25.3	945	74.0	0.77	6.4	4.6	1.6	1.3	2.1		36.0[1]
K21R	132 S	K20R	112 M	0.35	7.11	470	61.0	0.61	1.4	3.0	1.7		2.2	0.018	46
	12-6L		12-6L	1.7	17.09	950	77.0	0.85	3.7	4.4	1.4		2.0		
K21R	132 M	K20R	112 MX	0.5	10.2	470	58.0	0.60	2.1	2.7	1.4		1.9	0.023	53
	12-6L		12-6L	2.3	23.1	950	78.0	0.83	5.1	5.0	1.5		2.3		
K21R	132 MX	K20R	132 S	0.7	13.9	480	69.0	0.59	2.5	2.5	1.4		1.8	0.043	70
	12-6L		12-6L	3.3	32.7	965	82.0	0.85	6.8	4.7	1.6		2.2		
K21R	160 M	K20R	132 M	0.9	17.9	480	71.0	0.58	3.2	2.5	1.4		1.5	0.053	86
	12-6L		12-6L	4.4	43.7	960	82.0	0.85	9.1	5.0	1.6		2.0		
K21R	160 L	K20R	160 S	1.1	21.7	485	75.0	0.60	3.5	3.0	1.9		1.8	0.113	114
	12-6L		12-6L	5.5	53.6	980	84.0	0.83	11.5	6.5	2.5		2.7		
K21R	180 L	K20R	160 M	2.0	39.4	485	77.0	0.60	6.2	3.1	1.9		1.8	0.145	138
	12-6L		12-6L	9.0	88.2	975	84.0	0.84	18.5	6.2	2.3		2.6		
K21R	200 L	K20R	180 S	2.3	45.3	485	82.0	0.60	6.7	4.0	1.9		2.5	0.228	175
	12-6L		12-6L	10.0	97.5	980	88.5	0.85	19	6.5	1.6		2.5		
K21R	200 LX	K20R	180 M	3.0	59.1	485	83.0	0.62	8.4	4.4	1.7		2.2	0.268	200
	12-6L		12-6L	13.0	127	980	88.0	0.85	25	6.7	2.0		2.6		
K21R	225 M	K20R	200 M	3.9	76.3	488	83.0	0.67	10	3.6	1.3		1.8	0.443	265
	12-6L		12-6L	17.0	166	980	87.0	0.88	32	5.0	1.4		2.1		
K21R	250 M	K20R	225 M	5.0	97.4	490	83.0	0.58	15	4.8	2.1		2.3	0.825	360
	12-6L		12-6L	22.0	213	985	89.5	0.83	42.5	7.9	2.2		2.5		
K21R	280 S	K20R	250 S	6.0	117	490	85.0	0.59	17.5	4.0	1.8		2.1	1.28	465
	12-6L		12-6L	26.0	251	990	90.0	0.84	49.5	6.2	1.6		2.3		
K21R	280 M	K20R	250 M	7.5	146	490	88.0	0.70	17.5	3.7	1.6		1.8	1.48	520
	12-6L		12-6L	30.0	289	990	90.5	0.88	54.5	6.0	1.5		2.3		
K21R	315 S	K20R	280 S	12.0	234	490	87.0	0.63	31.5	4.2	1.5		1.9	2.63	690
	12-6L		12-6L	52.0	502	990	91.0	0.85	97	6.8	1.9		2.1		
K21R	315 M	K20R	280 M	15.0	292	490	90.0	0.63	38	5.2	2.3		1.8	3.33	800
	12-6L		12-6L	60.0	579	990	93.0	0.87	107	7.7	2.2		2.4		
K21R	315 MX	K20R	315 S	18.0	347	495	90.0	0.60	48	5.2	2.3		1.9	3.60	880
	12-6L		12-6L	80.0	772	990	93.0	0.88	141	7.2	2.0		2.2		
K21R	315 MY	K20R	315 M	20.0	390	490	90.0	0.63	51	5.0	2.0		1.7	6.00	1050
	12-6L		12-6L	90.0	868	990	93.0	0.86	162	6.5	1.7		1.8		

[1] Weights for K20R

Three-phase motors with squirrel-cage rotor

Pole-changing, for constant load torque
with two separate windings in Y-Δ-YY configuration
with surface cooling, duty type S1, continuous duty
Thermal class 155, degree of protection IP 55

Motor selection data															Design point 400 V, 50 Hz
Type				P_B	M_B	n_B	η_B	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
				kW	Nm	rpm	%	-	A	-	-	-	-	kgm²	kg
Synchronous speed 750/1500/3000 rpm - 8-, 4-, 2-pole version															
K21R	80 G	K20R	71 G	0.10	1.36	700	37.0	0.59	0.66	2.3	1.5	1.5	2.3	0.00107	11.7
	8-4-2		8-4-2	0.18	1.17	1465	55.5	0.60	0.78	3.9	1.7	1.7	3.0		11.0[1)]
				0.30	0.98	2925	64.0	0.80	0.85	5.0	1.2	1.0	2.0		
K21RW	100 L	K20RW	90 L	0.37	5.35	660	50.0	0.67	1.60	2.4	1.8	1.8	1.8	0.00400	23.5
	8-4-2		8-4-2	0.75	5.03	1425	70.5	0.73	2.10	4.8	2.2	2.0	2.45		22.5[1)]
				1.50	5.22	2745	66.5	0.95	3.45	4.1	1.4	1.1	1.4		
K21RW	100 LX	K20RW	100 S	0.55	7.72	680	53.0	0.61	2.45	2.8	2.2	2.2	2.3	0.00725	30.0
	8-4-2		8-4-2	1.50	10.2	1405	72.0	0.81	3.70	4.7	2.0	1.8	2.1		30.0[1)]
				1.80	6.03	2850	71.0	0.89	4.15	5.6	2.1	1.7	2.1		
K21RW	112 M	K20RW	100 L	0.70	9.69	690	59.0	0.56	3.05	3.0	2.7	2.7	2.7	0.009	37.0
	8-4-2		8-4-2	2.00	13.5	1410	75.0	0.80	4.80	5.0	2.0	1.7	2.1		36.0[1)]
				2.40	7.96	2880	75.0	0.87	5.3	6.1	2.0	1.4	2.0		
K21R	132 S	K20R	112 M	1.1	14.6	720	66.0	0.74	3.3	3.6	1.4	1.3	2.3	0.018	46
	8-4-2		8-4-2	1.5	9.81	1460	76.0	0.89	3.2	5.6	1.3	1.0	2.3		
				1.8	5.93	2900	69.0	0.92	4.1	5.3	1.5	1.0	2.3		
K21R	132 M	K20R	112 MX	1.6	21.2	720	65.0	0.75	4.7	4.1	1.4	1.3	2.4	0.023	53
	8-4-2		8-4-2	2.2	14.5	1450	77.0	0.91	4.5	4.8	1.1	1.0	2.2		
				2.8	9.22	2900	71.0	0.93	6.1	4.9	1.1	0.8	2.1		
K21R	132 MX	K20R	132 S	2.2	29.0	725	72.0	0.75	5.9	4.1	1.6	1.4	2.2	0.043	70
	8-4-2		8-4-2	2.8	18.2	1470	79.0	0.89	5.7	6.2	1.6	1.1	2.5		
				3.5	11.4	2920	69.0	0.92	8.0	5.9	1.5	0.9	2.2		
K21R	160 M	K20R	132 M	2.8	36.9	725	73.0	0.75	7.4	3.4	1.6	1.5	2.0	0.053	86
	8-4-2		8-4-2	3.8	24.7	1470	81.0	0.90	7.5	5.1	1.4	1.1	2.3		
				4.5	14.7	2930	72.0	0.91	9.9	5.6	1.3	0.9	2.5		
K21R	160 L	K20R	160 S	3.7	48.4	730	78.0	0.72	9.5	3.8	1.5	1.3	1.8	0.078	120
	8-4-2		8-4-2	5.2	33.7	1475	84.0	0.87	10.5	6.4	1.5	1.2	2.5		
				6.5	21.0	2950	80.0	0.92	12.5	7.1	1.7	0.7	2.2		
K21R	180 M	K20R	160 M	4.4	57.6	730	80.0	0.72	11.0	4.0	1.6	1.4	1.8	0.090	136
	8-4-2		8-4-2	6.5	42.1	1475	85.0	0.88	12.5	6.1	1.5	1.2	2.3		
				7.5	24.3	2950	80.0	0.92	14.5	7.2	1.7	0.8	2.5		
K21R	180 L	K20R	180 S	5.3	69.3	730	83.0	0.71	13.0	3.7	1.2	1.1	1.8	0.138	170
	8-4-2		8-4-2	7.7	49.7	1480	87.0	0.83	15.5	7.5	1.7	1.4	2.9		
				9.2	29.7	2960	83.0	0.92	17.5	8.5	2.0	0.9	2.6		
K21R	200 L	K20R	180 M	7.0	91.6	730	82.0	0.69	18	4.0	1.2	1.1	1.9	0.168	200
	8-4-2		8-4-2	10.5	67.8	1480	89.0	0.89	19	7.0	1.4	1.1	2.5		
				12.5	40.6	2940	85.0	0.93	23	8.6	1.6	0.6	2.7		

[1)] Weights for K20R

Three-phase motors with squirrel-cage rotor

Pole-changing, for constant load torque
with two separate windings in Y-Δ-YY configuration
with surface cooling, duty type S1, continuous duty
Thermal class 155, degree of protection IP 55

Motor selection data														Design point 400 V, 50 Hz	
Type				P_B	M_B	n_B	η_B	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
				kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 750/1500/3000 rpm – 8-, 4- to 6-pole version															
K21R	225 S	K20R	200 M	8.8	114	735	86.0	0.66	22.5	4.6	1.4	1.3	2.0	0.275	270
	8-4-2		8-4-2	12.5	80.7	1480	89.0	0.86	23.5	8.0	1.6	1.3	2.9		
				15.5	49.9	2970	83.0	0.93	29.0	9.0	1.7	0.7	3.0		
K21R	225 M	K20R	200 L	11.0	143	735	86.0	0.67	27.5	4.6	1.4	1.4	2.0	0.313	300
	8-4-2		8-4-2	15.5	100	1480	90.0	0.86	29.0	7.7	1.5	1.2	2.8		
				19.0	61.1	2970	83.0	0.93	35.5	8.8	1.8	0.7	2.7		
K21R	250 M	K20R	225 M	13.0	168	740	88.0	0.63	34.0	5.0	1.7	1.3	1.8	0.525	375
	8-4-2		8-4-2	19.0	122	1485	90.0	0.84	36.5	7.3	1.6	1.3	2.3		
				23.0	73.9	2970	82.0	0.92	44.0	8.3	1.6	0.5	2.3		
K21R	280 S	K20R	250 S	18.0	233	740	89.5	0.60	48.5	5.0	1.7	1.4	1.8	0.95	520
	8-4-2		8-4-2	25.0	161	1487	90.5	0.82	48.5	6.9	1.2	1.1	2.3		
				31.0	99.7	2970	84.0	0.92	58.0	8.3	1.1	0.9	2.6		
K21R	280 M	K20R	250 M	22.0	284	740	89.0	0.60	59.5	4.7	1.5	1.2	1.6	1.10	580
	8-4-2		8-4-2	30.0	193	1487	90.5	0.82	58.5	6.4	1.3	1.1	2.1		
				38.0	122	2970	84.0	0.91	72.0	7.7	1.4	0.8	2.4		
K21R	315 S	K20R	280 S[1)]	30.0	385	745	88.0	0.55	89.5	5.6	1.5		2.3	1.96	740
	8-4-2		8-4-2	44.0	283	1485	89.0	0.89	80.0	8.5	1.4		2.6		
				54.0	173	2975	89.5	0.92	94.5	9.2	1.2		2.9		
K21R	315 M	K20R	280 M[1)]	35.0	449	745	88.0	0.56	103	5.6	1.5		2.3	2.27	840
	8-4-2		8-4-2	50.0	320	1490	89.5	0.89	90.5	8.5	1.4		2.6		
				62.0	199	2975	90.0	0.93	107	9.3	1.2		2.9		
K21R	315 MX	K20R	315 S[1)]	40.0	513	745	88.5	0.59	111	5.4	1.3		2.2	2.73	1000
	8-4-2		8-4-2	60.0	386	1485	90.0	0.90	107	8.0	1.5		2.5		
				75.0	241	2975	90.5	0.93	129	9.0	1.2		2.9		
K21R	315 MY	K20R	315 M[1)]	48.0	615	745	90.0	0.63	122	5.9	1.5		2.3	4.82	1200
	8-4-2		8-4-2	70.0	449	1490	91.0	0.91	122	8.0	1.5		2.5		
				84.0	269	2985	91.5	0.93	142	9.1	1.2		2.9		
K21R	315 L	K20R	315 L[1)]	55.0	705	745	91.0	0.65	134	5.8	1.5		2.1	5.93	1450
	8-4-2		8-4-2	80.0	513	1490	91.5	0.91	139	8.3	1.6		2.5		
				100.0	320	2985	92.0	0.94	167	9.5	1.2		3.0		

[1)] Provisional operating values

Three-phase motors with squirrel-cage rotor

Pole-changing, for quadratically increasing load torque
Fan drives with two separate windings in Y-Y-YY configuration
with surface cooling, duty type S1, continuous duty
Thermal class 155, degree of protection IP 55

Motor selection data														Design point 400 V, 50 Hz	
Type				P_B	M_B	n_B	η_B	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
				kW	Nm	rpm	%	-	A	-	-	-	-	kgm²	kg
Synchronous speed 750/1500/3000 rpm – 8-, 4- to 2-pole version															
K21RW	80 K	K20RW	71 K	0.04	0.55	695	24.0	0.63	0.39	1.8	2.0	2.0	2.5	0.00087	10.6
	8-4-2L		8-4-2L	0.12	0.85	1355	63.0	0.81	0.34	3.2	1.5	1.4	1.6		9.9[1)]
				0.4	1.38	2775	62.0	0.86	1.08	4.1	1.2	1.1	1.9		
K21R	80 G	K20R	71 G	0.05	0.67	715	24.0	0.68	0.44	2.0	1.25	1.2	2.5	0.00107	11.7
	8-4-2L		8-4-2L	0.15	0.99	1440	70.0	0.75	0.41	4.3	1.6	1.5	2.2		11.0[1)]
				0.5	1.64	2910	68.0	0.79	1.35	5.7	2.5	2.3	3.6		
K21R	90 S	K20R	80 K	0.06	0.79	725	21.0	0.77	0.54	1.9	1.2	1.1	2.2	0.00207	15.5
	8-4-2L		8-4-2L	0.20	1.32	1445	73.0	0.80	0.5	5.1	1.7	1.6	2.4		14.5[1)]
				0.9	2.99	2870	72.0	0.91	2	5.3	1.3	1.2	2.0		
K21R	90 L	K20R	80 G	0.11	1.48	710	28.0	0.77	0.74	2.1	1.2	1.1	2.0	0.00260	18.0
	8-4-2L		8-4-2L	0.30	1.99	1440	75.0	0.82	0.7	5.2	1.7	1.7	2.4		17.0[1)]
				1.2	3.98	2880	75.0	0.91	2.55	5.9	1.6	1.3	2.2		
K21R	100 L	K20R	90 L	0.15	1.99	720	30.0	0.74	0.98	2.1	1.2	1.1	1.7	0.00400	23.5
	8-4-2L		8-4-2L	0.37	2.43	1455	76.0	0.78	0.9	5.6	1.7	1.6	2.3		22.5[1)]
				1.7	5.64	2880	73.0	0.91	3.7	6.0	1.7	1.3	1.8		
K21R	100 LX	K20R	100 S	0.18	2.37	725	32.0	0.72	1.15	2.1	1.1	1.1	1.7	0.00725	30.0
	8-4-2L		8-4-2L	0.45	2.93	1465	80.0	0.75	1.08	5.4	2.2	2.0	2.8		30.0[1)]
				2.2	7.24	2900	78.0	0.90	4.5	6.9	1.7	1.2	2.0		
K21R	112 M	K20R	100 L	0.22	2.90	725	32.0	0.71	1.4	2.3	1.1	1.0	1.6	0.009	37.0
	8-4-2L		8-4-2L	0.55	3.59	1465	80.0	0.75	1.32	7.0	2.2	2.0	3.1		36.0[1)]
				3.0	9.88	2900	80.0	0.92	5.9	6.7	1.7	1.2	2.0		
K21R	132 S	K20R	112 M	0.23	3.02	728	59.0	0.69	0.8	3.5	1.4		2.5	0.018	46
	8-4-2L		8-4-2L	0.7	4.56	1465	77.0	0.88	1.5	6.3	1.4		2.7		
				2.7	8.87	2908	64.0	0.89	6.8	4.5	1.3		2.2		
K21R	132 M	K20R	112 MX	0.35	4.60	727	60.0	0.69	1.2	4.2	1.3		2.5	0.023	53
	8-4-2L		8-4-2L	1.0	6.57	1455	78.0	0.89	2.1	6.4	1.5		3.0		
				4.0	13.2	2900	67.0	0.90	9.6	4.9	1.4		2.4		
K21R	132 MX	K20R	132 S	0.45	5.85	735	70.0	0.71	1.3	5.0	1.8		2.7	0.043	70
	8-4-2L		8-4-2L	1.3	8.44	1470	80.0	0.89	2.6	7.0	1.5		2.8		
				5.2	17.1	2905	72.0	0.88	12.0	5.0	1.3		2.1		
K21R	160 M	K20R	132 M	0.6	7.85	730	70.0	0.77	1.6	4.0	1.5		2.2	0.053	86
	8-4-2L		8-4-2L	1.8	11.7	1475	83.0	0.87	3.6	7.7	2.1		3.4		
				7.0	22.9	2925	71.0	0.83	17.0	6.0	1.9		2.8		
K21R	160 L	K20R	160 S	0.9	11.8	730	76.0	0.74	2.3	4.0	1.5		2.0	0.078	120
	8-4-2L		8-4-2L	2.9	18.8	1475	84.0	0.88	5.7	6.4	1.8		2.5		
				11.0	35.7	2945	80.0	0.91	22.0	6.5	1.8		2.5		

[1)] Weights for K20R

Three-phase motors with squirrel-cage rotor

Pole-changing, for quadratically increasing load torque
Fan drives, with two separate windings in Y-Y-YY configuration
with surface cooling, duty type S1, continuous duty
Thermal class 155, degree of protection IP 55

Motor selection data															Design point 400 V, 50 Hz
Type				P_B	M_B	n_B	η_B	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
				kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 750/1500/3000 rpm – 8-, 4- to 2-pole version															
K21R	180 M	K20R	160 M	1.2	15.7	731	77.2	0.73	3.1	4.3	1.7		2.1	0.09	136
	8-4-2L		8-4-2L	3.8	24.6	1476	85.5	0.89	7.2	6.6	1.9		2.6		
				15.0	48.7	2942	83.5	0.92	28.0	6.3	1.7		2.8		
K21R	180 L	K20R	180 S	1.4	18.1	737	79.7	0.66	3.8	4.5	1.4		2.3	0.138	170
	8-4-2L		8-4-2L	4.3	27.7	1482	86.4	0.85	8.5	7.4	1.5		3.1		
				16.0	51.6	2959	84.7	0.91	30.0	7.6	1.5		2.3		
K21R	200 L	K20R	180 M[1)]	2.0	25.8	740	73.0	0.48	8.2	4.3	1.3		2.8	0.168	220
	8-4-2L		8-4-2L	6.3	40.8	1475	88.0	0.88	11.5	5.8	1.1		2.2		
				24.0	78.0	2940	88.0	0.92	43.0	6.5	1.1		2.5		
K21R	225 S	K20R	200 M[1)]	2.5	32.2	740	74.0	0.48	10.0	4.4	1.2		3.2	0.275	270
	8-4-2L		8-4-2L	8.0	51.8	1475	88.0	0.89	14.5	6.6	1.1		2.7		
				30.0	97.3	2945	87.0	0.87	57.0	6.9	1.2		2.9		
K21R	225 M	K20R	200 L[1)]	3.5	45.2	740	74.0	0.51	13.5	4.3	1.1		2.8	0.313	300
	8-4-2L		8-4-2L	12.0	78.2	1465	89.0	0.90	21.5	5.5	1.0		2.3		
				40.0	130	2940	88.0	0.87	75.5	6.6	1.1		2.9		
K21R	250 M	K20R	225 M[1)]	4.0	51.3	745	69.0	0.54	15.5	4.9	1.4		2.7	0.525	375
	8-4-2L		8-4-2L	13.0	83.9	1480	90.0	0.88	23.5	6.5	1.3		2.4		
				50.0	162	2940	89.5	0.90	89.5	6.5	1.1		2.6		
K21R	280 S	K20R	250 S[1)]	5.0	64.1	745	74.5	0.57	17.0	4.8	1.2		2.4	0.95	520
	8-4-2L		8-4-2L	16.0	103	1485	91.0	0.87	29.0	6.8	1.2		2.4		
				60.0	193	2965	91.0	0.91	105	7.3	1.0		2.6		
K21R	280 M	K20R	250 M[1)]	6.0	76.9	745	75.0	0.56	20.5	4.9	1.2		2.5	1.1	580
	8-4-2L		8-4-2L	19.0	122	1485	91.0	0.88	34.0	7.1	1.3		2.4		
				73.0	234	2970	91.5	0.91	127	7.6	1.1		2.7		
K21R	315 S	K20R	280 S[1)]	7.5	96.1	745	77.5	0.57	24.5	5.6	1.3		2.6	1.96	740
	8-4-2L		8-4-2L	23.0	147	1490	91.0	0.88	41.5	8.6	1.4		2.7		
				88.0	282	2975	91.0	0.91	153	8.7	1.0		3.1		
K21R	315 M	K20R	280 M[1)]	8.5	109	745	79.0	0.56	27.5	5.7	1.4		2.7	2.27	840
	8-4-2L		8-4-2L	27.0	174	1485	91.5	0.89	48.0	7.9	1.3		2.6		
				103	331	2975	91.5	0.92	177	8.4	1.0		2.9		
K21R	315 MX	K20R	315 S[1)]	10.0	128	745	79.5	0.57	32.0	5.7	1.3		2.6	2.73	1000
	8-4-2L		8-4-2L	30.0	193	1485	91.0	0.89	53.5	7.5	1.3		2.5		
				110	353	2975	92.0	0.92	188	8.6	1.1		3.0		
K21R	315 MY	K20R	315 M[1)]	12.0	154	745	83.5	0.65	32.0	6.2	1.5		2.5	4.82	1200
	8-4-2L		8-4-2L	35.0	224	1490	92.0	0.90	61.0	6.6	1.3		2.2		
				120	385	2980	93.0	0.93	200	8.0	1.0		2.7		
K21R	315 L	K20R	315 L[1)]	15.0	192	745	84.0	0.65	39.5	6.1	1.4		2.5	5.93	1450
	8-4-2L		8-4-2L	42.0	269	1490	92.0	0.90	73.0	7.5	1.4		2.4		
				145	464	2985	93.0	0.93	242	9.3	1.2		3.0		

[1)] Provisional operating values

Three-phase motors with squirrel-cage rotor

Pole-changing, for constant load torque
with two separate windings in Δ-Y-YY configuration
with surface cooling, duty type S1, continuous duty
Thermal class 155, degree of protection IP 55, 50 Hz

Motor selection data															Design point 400 V, 50 Hz
Type				P_B	M_B	n_B	η_{1B}	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
				kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 750/1000/1500 rpm – 8-, 6- to 4-pole version															
K21R	100 LX	K20R	100 S	0.60	7.85	730	56.0	0.53	2.85	4.0		upon request		0.00900	28
	8-6-4		8-6-4	0.8	7.88	970	66.0	0.66	2.65	4.5	1.8	1.3	2.2		28.0[1]
				1.1	7.20	1460	72.0	0.82	2.65	6.5		upon request			
K21R	112 M	K20R	100 L	0.9	11.9	725	59.5	0.52	4.2	3.8	2.5	2.3	3.2	0.01225	33.5
	8-6-4		8-6-4	1.2	11.8	970	65.0	0.72	3.7	4.1	1.3	1.0	1.7		32.5[1]
				1.8	11.9	1450	78.0	0.85	3.9	6.1	1.6	1.5	2.2		
K21R	132 S	K20R	112 M	0.9	11.7	730	63.0	0.65	3.2	4.0	1.7	1.6	2.8	0.018	46
	8-6-4		8-6-4	1.1	10.8	970	71.0	0.75	3.0	4.0	1.2	1.1	2.5		
				1.4	9.16	1460	77.0	0.88	3.0	6.0	1.4	1.3	2.6		
K21R	132 M	K20R	112 MX	1.2	15.9	720	63.0	0.73	3.8	3.7	1.6	1.6	2.3	0.023	53
	8-6-4		8-6-4	1.5	14.8	970	70.0	0.76	4.1	4.0	1.3	1.2	2.5		
				2.0	13.2	1450	74.0	0.93	4.2	4.3	1.2	1.1	2.2		
K21R	132 MX	K20R	132 S	1.6	20.8	735	66.0	0.65	5.4	4.2	1.9	1.7	2.6	0.043	70
	8-6-4		8-6-4	2.1	20.5	980	76.0	0.75	5.3	5.0	1.5	1.3	2.6		
				2.8	18.3	1460	79.0	0.90	5.7	5.9	1.3	1.0	2.3		
K21R	160 M	K20R	132 M	2.3	30.1	730	71.0	0.67	7.0	4.4	1.9	1.7	2.7	0.053	86
	8-6-4		8-6-4	2.9	28.3	980	78.0	0.79	6.8	5.0	1.5	1.3	2.6		
				3.9	25.4	1465	80.0	0.90	7.8	6.0	1.3	1.0	2.3		
K21R	160 L	K20R	160 S	3.4	44.5	730	78.0	0.78	8.1	4.9	1.7	1.6	2.5	0.113	114
	8-6-4		8-6-4	4.0	39.0	980	80.0	0.84	8.6	5.1	1.2	1.1	2.1		
				5.8	37.9	1460	80.0	0.93	11.5	5.2	1.2	0.9	2.0		
K21R	180 L	K20R	160 M	4.8	62.8	730	78.0	0.79	11.0	4.7	1.6	1.4	2.1	0.145	138
	8-6-4		8-6-4	5.5	53.6	980	82.0	0.85	11.5	5.5	1.3	1.0	2.1		
				8.0	52.3	1460	80.0	0.93	15.5	4.8	1.2	0.7	1.8		
K21R	200 L	K20R	180 S	5.9	76.7	735	82.0	0.81	13.0	5.7	1.9	1.5	2.4	0.228	175
	8-6-4		8-6-4	6.6	64.0	985	85.0	0.84	13.5	6.3	1.6	1.3	2.5		
				9.0	58.5	1470	83.0	0.94	16.5	6.6	1.7	1.0	2.4		
K21R	200 LX	K20R	180 M	7.0	91.0	735	83.0	0.78	15.5	6.0	2.0	1.7	2.7	0.268	200
	8-6-4		8-6-4	7.9	76.6	985	86.0	0.82	16.0	7.1	1.8	1.4	3.0		
				11.0	71.5	1470	85.0	0.94	20.0	6.8	1.8	1.4	2.6		

[1] Weights for K20R

Three-phase motors with squirrel-cage rotor

Pole-changing, for constant load torque
with two separate windings in Δ-Y-YY configuration
with surface cooling, duty type S1, continuous duty
Thermal class 155, degree of protection IP 55

Motor selection data															Design point 400 V, 50 Hz
Type				P_B	M_B	n_B	η_B	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
				kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 750/1500/3000 rpm – 8-, 6- to 4-pole version															
K21R	225 M	K20R	200 M	9.5	132	735	85.0	0.79	20.5	6.8	2.2	1.8	2.6	0.443	265
	8-6-4		8-6-4	10.5	102	985	87.0	0.83	21.0	7.3	2.0	1.6	3.0		
				15.0	97.1	1475	86.0	0.92	27.5	7.6	2.1	1.1	2.7		
K21R	250 M	K20R	225 M	11.5	148	740	85.0	0.79	24.5	7.1	2.4	1.8	2.8	0.825	360
	8-6-4		8-6-4	13.0	125	990	89.0	0.84	25.0	8.2	2.2	1.8	3.1		
				18.5	119	1480	86.0	0.92	33.5	8.1	2.2	1.2	2.6		
K21R	280 S	K20R	250 S	14.0	181	740	88.0	0.80	28.5	6.5	2.2	1.6	2.4	1.28	465
	8-6-4		8-6-4	16.0	154	992	89.0	0.84	31.0	7.4	1.9	1.3	2.7		
				20.0	129	1483	86.0	0.92	36.5	7.9	2.0	1.0	2.5		
K21R	280 M	K20R	250 M	17.0	219	742	88.0	0.77	36.0	7.3	2.6	2.0	2.9	1.48	520
	8-6-4		8-6-4	20.0	193	990	89.0	0.84	38.5	7.7	2.2	1.4	2.9		
				25.0	161	1485	87.0	0.92	45.0	9.8	2.6	1.4	3.0		
K21R	315 S	K20R	280 S	24.0	308	744	88.0	0.77	51.0	7.0	2.2	1.9	2.8	2.63	690
	8-6-4		8-6-4	27.0	260	992	91.0	0.80	53.5	8.0	1.9	1.6	3.2		
				37.0	238	1487	89.0	0.92	65.0	8.5	1.9	1.4	2.8		
K21R	315 M	K20R	280 M	30.0	386	742	89.0	0.79	61.5	6.5	1.8	1.6	2.4	3.33	800
	8-6-4		8-6-4	36.0	347	992	91.5	0.84	67.5	6.5	1.4	1.2	2.4		
				45.0	289	1485	89.0	0.92	79.5	7.5	1.6	1.1	2.4		
K21R	315 MX	K20R	315 S	45.0	580	741	90.5	0.80	89.5	7.0	2.2	1.7	2.4	3.6	880
	8-6-4		8-6-4	55.0	531	990	91.8	0.86	101	6.0	1.2	1.0	2.1		
				68.0	437	1485	91.0	0.93	116	8.0	2.0	1.4	2.4		
K21R	315 MY	K20R	315 M	55.0	707	743	92.6	0.80	107	7.5	2.2	1.9	2.6	6	1050
	8-6-4		8-6-4	68.0	655	992	93.4	0.86	122	7.0	1.7	1.3	2.6		
				80.0	513	1488	92.3	0.92	136	8.5	2.2	1.5	2.7		

Three-phase motors with squirrel-cage rotor

Pole-changing, for quadratically increasing load torque
Fan drives, with two separate windings in Y-Y-YY configuration
with surface cooling, duty type S1, continuous duty
Thermal class 155, degree of protection IP 55, 50 Hz

Motor selection data															Design point 400 V, 50 Hz
Type				P_B	M_B	n_B	η_B	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
				kW	Nm	rpm	%	-	A	-	-	-	-	kgm²	kg
Synchronous speed 750/1000/1500 rpm – 8-, 6- to 4-pole version															
K21R	80 K	K20R	71 K	0.05	0.67	715	32.0	0.71	0.32	2.0	1.2	1.2	1.8	0.00130	11.0
	8-6-4L		8-6-4L	0.06	0.59	970	46.0	0.63	0.3	2.8	1.6	1.6	2.4		10.0[1]
				0.21	1.38	1450	58.0	0.76	0.69	3.6	1.1	1.1	1.8		
K21R	80 G	K20R	71 G	0.09	1.25	690	38.0	0.68	0.5	2.1	1.3	1.3	1.8	0.00175	12.5
	8-6-4L		8-6-4L	0.12	1.21	945	52.0	0.72	0.46	2.8	1.3	1.2	1.8		11.5[1]
				0.37	2.47	1430	62.0	0.76	1.12	3.7	1.1	1.1	1.9		
K21R	90 S	K20R	80 K	0.15	2.00	715	49.0	0.59	0.74	2.4	1.4	1.4	2.0	0.00325	16.0
	8-6-4L HL		8-6-4L HL	0.22	2.18	965	50.0	0.70	0.9	3.0	1.2	1.2	1.9		15.0[1]
				0.7	4.67	1430	67.0	0.80	1.87	4.0	1.2	1.2	1.6		
K21R	90 L	K20R	80 G	0.22	2.98	705	55.0	0.63	0.92	2.7	1.4	1.4	2.0	0.00425	19.0
	8-6-4L HL		8-6-4L HL	0.3	2.97	965	55.0	0.71	1.11	3.2	1.2	1.2	2.0		18.0[1]
				0.95	6.37	1425	71.0	0.82	2.36	4.4	1.2	1.2	2.0		
K21R	100 L	K20R	90 L	0.37	4.94	715	60.0	0.61	1.45	2.8	1.4	1.3	1.7	0.00625	24.0
	8-6-4L HL		8-6-4L HL	0.55	5.41	970	62.0	0.71	1.8	3.0	1.2	1.1	1.7		24.0[1]
				1.5	9.91	1445	70.0	0.81	3.8	4.7	1.2	1.1	1.8		
K21R	100 LX	K20R	100 S	0.45	6.01	715	65.0	0.64	1.55	3.5	1.4	1.4	2.1	0.00900	28.0
	8-6-4L HL		8-6-4L HL	0.7	6.89	970	63.0	0.71	2.26	4.2	1.2	1.1	2.0		28.0[1]
				1.9	12.6	1435	69.0	0.84	4.7	4.8	1.1	1.1	1.9		
K21R	112 M	K20R	100 L	0.75	10.1	710	66.0	0.68	2.4	3.6	1.6	1.6	2.2	0.01225	33.5
	8-6-4L HL		8-6-4L HL	1.1	10.9	965	63.0	0.80	3.35	3.7	1.1	1.1	1.7		32.5[1]
				2.6	17.2	1440	66.5	0.85	6.6	5.0	1.4	1.4	2.7		
K21R	132 S	K20R	112 M	0.75	9.88	725	65.0	0.70	2.4	3.9	1.4		2.5	0.018	46
	8-6-4L		8-6-4L	1.1	10.7	980	63.0	0.66	3.8	4.6	1.4		2.9		
				3.0	19.7	1458	73.1	0.85	7.0	5.0	1.2		2.2		
K21R	132 M	K20R	112 MX	1.0	13.2	725	67.0	0.68	3.2	4.6	1.7		2.8	0.023	53
	8-6-4L		8-6-4L	1.4	13.6	980	68.5	0.75	3.9	4.9	1.4		2.8		
				4.0	26.3	1455	69.0	0.85	9.8	6.1	1.7		2.7		
K21R	132 MX	K20R	132 S	1.2	15.7	730	77.3	0.68	3.3	4.7	1.6		2.9	0.043	70
	8-6-4L		8-6-4L	1.7	16.5	983	68.8	0.71	5.0	4.7	1.1		2.6		
				5.0	32.6	1463	79.8	0.88	10.5	6.0	1.5		3.0		
K21R	160 M	K20R	132 M	1.9	25.1	723	79.0	0.75	4.6	4.3	1.4		2.4	0.053	86
	8-6-4L		8-6-4L	2.5	24.3	983	70.0	0.70	7.4	4.9	1.4		2.8		
				7.5	49.3	1453	80.0	0.90	15.0	5.7	1.6		2.7		
K21R	160 L	K20R	160 S	2.5	32.8	729	83.0	0.80	5.4	5.8	2.2		2.6	0.113	114
	8-6-4L		8-6-4L	4.0	38.8	984	76.0	0.77	9.9	5.3	1.3		2.7		
				11.0	72.4	1450	83.0	0.92	21.0	5.7	1.8		2.5		
K21R	180 L	K20R	160 M	3.5	56.3	722	83.0	0.84	7.2	4.9	1.8		2.1	0.145	138
	8-6-4L		8-6-4L	5.0	48.5	985	74.0	0.76	13.0	5.4	1.2		2.6		
				14.0	92.8	1441	83.0	0.94	26.0	5.3	1.8		2.3		

[1] Weights for K20R

Three-phase motors with squirrel-cage rotor

Pole-changing, for quadratically increasing load torque
Fan drives, with two separate windings Y-Y-YY configuration
with surface cooling, duty type S1, continuous duty
Thermal class 155, degree of protection IP 55, 50 Hz

Motor selection data															Design point 400 V, 50 Hz
Type				P_B	M_B	n_B	η_B	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
				kW	Nm	rpm	%	-	A	-	-	-	-	kgm^2	kg
Synchronous speed 750/1000/1500 rpm – 8-, 6- to 4-pole version															
K21R	200 L	K20R	180 S	4.0	52.0	735	84.0	0.78	8.8	6.0	2.1		2.8	0.228	175
	8-6-4L		8-6-4L	6.5	63.0	985	80.0	0.82	14.5	6.0	1.5		2.7		
				18.0	117	1470	82.0	0.89	35.5	7.5	2.3		3.2		
K21R	200 LX	K20R	180 M	5.5	71.5	735	86.0	0.80	11.5	5.1	1.4		2.6	0.268	200
	8-6-4L		8-6-4L	7.5	72.4	990	76.0	0.78	18.5	6.1	1.4		2.8		
				22.0	144	1460	84.0	0.90	42.0	6.1	1.7		2.9		
K21R	225 M	K20R	200 M	7.0	91.0	735	86.5	0.82	14.0	6.2	1.7		3.2	0.443	265
	8-6-4L		8-6-4L	10.0	97.0	985	81.5	0.83	21.5	6.8	1.5		2.9		
				30.0	196	1460	86.0	0.92	54.5	7.1	1.8		3.5		
K21R	250 M	K20R	225 M	8.0	103	738	88.0	0.81	16.0	5.7	1.5		2.7	0.825	360
	8-6-4L		8-6-4L	12.0	116	988	84.0	0.85	24.5	6.6	1.4		2.6		
				35.0	227	1472	87.0	0.93	62.5	6.5	1.7		3.0		
K21R	280 S	K20R	250 S	10.0	129	740	89.0	0.81	20.0	5.7	2.0		2.4	1.28	465
	8-6-4L		8-6-4L	15.0	145	990	88.0	0.85	29.0	6.5	1.6		2.6		
				44.0	285	1475	89.0	0.92	78.0	7.0	2.0		2.5		
K21R	280 M	K20R	250 M	16.0	206	740	90.0	0.82	31.5	5.6	1.6		2.6	1.48	520
	8-6-4L		8-6-4L	22.0	212	993	86.0	0.81	45.5	6.8	1.5		2.8		
				65.0	421	1475	88.0	0.90	118	6.9	1.9		3.2		
K21R	315 S	K20R	280 S	18.0	231	744	91.5	0.77	37.0	5.6	1.6		2.3	2.63	690
	8-6-4L		8-6-4L	28.0	689	995	85.5	0.79	59.5	7.4	1.5		2.9		
				80.0	515	1485	90.5	0.90	142	6.9	1.9		2.7		
K21R	315 M	K20R	280 M	23.0	295	745	92.5	0.79	45.5	7.0	1.8		2.5	3.33	800
	8-6-4L		8-6-4L	35.0	336	995	87.5	0.83	69.5	8.5	1.6		3.0		
				100	643	1485	91.5	0.90	175	9.2	2.0		2.9		
K21R	315 MX	K20R	315 S	25.0	323	740	90.0	0.82	49.0	5.5	1.5		1.9	3.6	880
	8-6-4L		8-6-4L	35.0	336	995	87.5	0.84	69.0	7.0	1.2		2.3		
				100	645	1480	91.5	0.92	171	8.5	2.0		2.4		
K21R	315 MY	K20R	315 M	28.0	360	742	92.6	0.83	52.5	5.8	1.4		2.3	6	1050
	8-6-4L		8-6-4L	42.0	404	992	88.6	0.87	78.5	6.8	1.4		2.4		
				110	709	1482	92.3	0.93	185	7.1	1.4		2.4		

Three-phase motors with squirrel-cage rotor

Pole-changing, for constant load torque
with two separate windings Δ-Δ-YY-YY configuration
with surface cooling, duty type S1, continuous duty
Klasse 155, degree of protection IP 55, 50 Hz

Motor selection data															Design point 400 V, 50 Hz
Type				P_B	M_B	n_B	η_B	$\cos\phi_B$	I_B 400 V	I_A/I_B	M_A/M_B	M_S/M_B	M_K/M_B	J	m
				kW	Nm	rpm	%	-	A	-	-	-	-	kgm²	kg
Synchronous speed 500/750/1000/1500 rpm – 12-, 8-, 6- to 4-pole version															
K21R	160 L	K20R	160 S	1.9	37.8	480	64.0	0.70	6.1	2.9	1.4	1.3	1.7	0.113	114
12-8-6-4		12-8-6-4		2.5	32.5	735	76.0	0.74	6.4	4.5	1.4	1.3	2.3		
				3.0	29.4	975	76.0	0.89	6.4	4.5	1.1	1.0	1.9		
				3.7	24.0	1475	81.0	0.92	7.2	6.2	1.2	0.9	2.3		
K21R	180 L	K20R	160 M	2.6	51.7	480	66.0	0.70	8.1	3.2	1.5	1.3	1.7	0.145	138
12-8-6-4		12-8-6-4		3.6	46.8	735	79.0	0.76	8.7	4.8	1.5	1.4	2.1		
				4.0	39.2	975	78.0	0.90	8.2	4.8	1.3	1.0	1.9		
				5.4	35.0	1475	82.0	0.92	10.5	6.0	1.5	0.9	2.2		
K21R	200 L	K20R	180 S	3.2	63.0	485	75.0	0.66	9.3	4.0	2.0	1.8	2.4	0.228	175
12-8-6-4		12-8-6-4		4.2	54.2	740	80.0	0.74	10.0	5.8	1.8	1.5	2.8		
				5.0	48.7	980	83.0	0.89	9.8	6.3	1.8	1.3	2.4		
				6.5	41.9	1480	82.0	0.91	12.5	7.4	1.6	0.9	3.0		
K21R	200 LX	K20R	180 M	3.8	74.1	490	75.0	0.64	11.5	4.3	1.9	1.6	2.3	0.268	200
12-8-6-4		12-8-6-4		5.0	64.5	740	81.0	0.72	12.5	5.9	1.8	1.6	2.9		
				5.9	57.2	985	83.0	0.87	12.0	6.6	1.8	1.5	2.6		
				7.7	49.7	1480	84.0	0.90	14.5	7.6	1.7	1.1	2.8		
K21R	225 M	K20R	200 M	5.2	101	490	78.0	0.64	15.0	4.7	2.1	1.9	2.5	0.443	265
12-8-6-4		12-8-6-4		6.9	89.1	740	84.0	0.76	15.5	6.0	1.6	1.4	2.6		
				8.1	78.5	985	86.0	0.88	15.5	7.3	1.9	1.4	2.8		
				10.5	67.8	1480	85.0	0.92	19.5	7.3	1.5	0.7	2.5		
K21R	250 M	K20R	225 M	6.5	127	490	81.0	0.67	17.5	4.2	1.7	1.4	1.7	0.825	360
12-8-6-4		12-8-6-4		8.5	110	740	85.0	0.77	18.5	5.8	1.7	1.4	2.2		
				10.0	97.5	980	85.0	0.88	19.5	6.3	1.8	1.2	2.1		
				13.0	83.9	1480	85.0	0.92	24.0	7.0	1.5	0.7	2.2		
K21R	280 S	K20R	250 S	7.8	151	492	82.0	0.65	21.0	4.6	2.1	1.6	2.1	1.28	465
12-8-6-4		12-8-6-4		10.0	128	745	86.0	0.74	22.5	6.4	2.0	1.5	2.7		
				12.0	116	990	86.0	0.88	23.0	6.8	2.0	1.4	2.4		
				15.5	99.5	1488	85.0	0.91	29.0	7.9	1.9	0.9	2.6		
K21R	280 M	K20R	250 M	9.6	186	493	82.0	0.65	26.0	4.4	2.1	1.7	2.2	1.48	520
12-8-6-4		12-8-6-4		12.5	161	743	86.0	0.75	28.0	6.3	2.1	1.5	2.7		
				15.0	145	990	87.0	0.89	28.0	7.2	2.1	1.4	2.3		
				19.0	122	1488	85.0	0.92	35.0	8.1	1.9	0.9	2.7		
K21R	315 S	K20R	280 s	13.0	251	495	84.0	0.62	36.0	4.9	1.8	1.6	2.2	2.630	690
12-8-6-4		12-8-6-4		17.0	218	744	89.0	0.74	37.5	6.5	1.4	1.3	2.5		
				20.0	193	991	89.0	0.87	37.5	7.5	1.7	1.4	2.4		
				26.0	167	1488	86.0	0.91	48.0	8.0	1.2	0.8	2.5		
K21R	315 M	K20R	280 M	18.0	348	494	84.0	0.64	48.5	4.4	1.6	1.4	2.0	3.33	800
12-8-6-4		12-8-6-4		22.0	282	745	90.0	0.74	47.5	6.3	1.3	1.2	2.5		
				26.0	250	992	90.0	0.87	48.0	7.5	1.8	1.4	2.4		
				32.0	205	1490	90.0	0.91	56.5	8.1	1.4	0.9	2.5		
K21R	315 MX	K20R	315 S	26.0	504	493	85.0	0.66	67.0	4.5	1.5	1.4	1.8	3.60	880
12-8-6-4		12-8-6-4		32.0	411	744	89.0	0.75	69.0	6.0	1.3	1.2	2.2		
				38.0	366	991	90.0	0.88	69.5	7.0	1.6	1.2	2.1		
				45.0	288	1490	90.0	0.92	78.5	7.5	1.3	0.7	2.5		
K21R	315 MY	K20R	315 M	32.0	624	490	87.0	0.70	76.0	4.3	1.4	1.1	1.6	6.00	1050
12-8-6-4		12-8-6-4		38.0	487	745	92.4	0.76	78.0	6.5	1.8	1.6	2.5		
				45.0	434	990	91.4	0.89	80.0	7.0	1.6	1.5	2.1		
				55.0	352	1491	92.5	0.92	93.5	8.5	1.6	1.4	2.8		

Bearings

Series IE3-W4.R
Standard version

Type	D-end					N-end				Figure		Fixed bearing
	Anti-friction bearing	V-ring	γ-ring	Wave spring	Disc spring	Anti-friction bearing	V-ring	γ-ring	Wave spring	NS	DS	
IE3-W41R 56 G2	6201 2Z C3	-	-	-	-	6201 2Z C3	-	-	32	1	2	without
IE3-W42R 63 K2, 4	6201 2Z C3	-	-	-	-	6201 2Z C3	-	-	32	1	2	without
IE3-W41R 63 G2, 4, 6	6202 2Z C3	-	-	-	-	6202 2Z C3	-	-	35	1	2	without
IE3-W42R 71 K2, 4, KY6	6202 2Z C3	-	-	-	-	6202 2Z C3	-	-	35	1	2	without
IE3-W41R 71 GY2,4, 6, G8	6204 2Z C3	-	-	-	-	6204 2Z C3	-	-	47	1	2	without
IE3-W42R 80 K2, 8	6204 2Z C3	-	-	-	-	6204 2Z C3	-	-	47	1	2	without
IE3-W41R 80 K2, 4, 6, GY2	6205 2Z C3	-	-	-	-	6205 2Z C3	-	-	52	1	2	without
IE3-W41R 80 G2, 4, 6, GY4	6205 2Z C3	-	-	-	-	6205 2Z C3	-	-	52	1	2	without
IE3-W42R 90 S2, SY8	6205 2Z C3	-	-	-	-	6205 2Z C3	-	-	52	1	2	without
IE3-W41R 90 S2, 8, SY4, 6	6205 2Z C3	-	-	-	-	6205 2Z C3	-	-	52	1	2	without
IE3-W41R 90 LY2	6205 2Z C3	-	-	-	-	6205 2Z C3	-	-	52	1	2	without
IE3-W41R 90 S4, 6	6205 2Z C3	-	-	-	-	6205 2Z C3	-	-	52	1	2	without
IE3-W41R 90 L2, 4, 6, 8	6205 2Z C3	-	-	-	-	6205 2Z C3	-	-	52	1	2	without
IE3-W41R 90 LX4	6205 2Z C3	-	-	-	-	6205 2Z C3	-	-	52	1	2	without
IE3-W41R 100 L8, LY2, 8	6206 2Z C3	-	-	-	-	6206 2Z C3	-	-	62	1	2	without
IE3-W41R 100 LY4	6206 2Z C3	-	-	-	-	6206 2Z C3	-	-	62	1	2	without
IE3-W41R 100 L2	6206 2Z C3	-	-	-	-	6206 2ZN C3	-	-	62	1	2	without
IE3-W41R 100 LW8, LX6, 8	6206 2ZN C3	-	-	-	-	6206 2ZN C3	-	-	62	1	2	without
IE3-W41R 100 L4, LX4	6206 2Z C3	-	-	-	-	6206 2ZN C3	-	-	62	1	2	without
IE3-W41R 100 LW4, LZ4	6206 2Z C3	-	-	-	-	6206 2ZN C3	-	-	62	1	2	without
IE3-W41R 112 MY2	6206 2Z C3	-	-	-	-	6206 2ZN C3	-	-	62	1	2	without
IE3-W41R 112 M2, 8, MV6	6206 2Z C3	-	-	-	-	6206 2ZN C3	-	-	62	1	2	without
IE3-W41R 112 MZ6, 8	6206 2ZN C3	-	-	-	-	6206 2ZN C3	-	-	62	1	2	without
IE3-W41R 112 M4	6207 2ZN C3	-	-	-	-	6207 2ZN C3	-	-	72	1	2	without
IE3-W41R 112 MW4, W40R 112 M2	6207 2ZN C3	-	-	-	-	6207 2ZN C3	-	-	72	1	2	without
IE3-W41R 132 S2T	6208 2ZN C3	-	-	80	-	6206 2Z C3	-	-	-	3	5	without
IE3-W41R 132 S2	6208 2ZN C3	-	-	80	-	6207 2ZN C3	-	-	-	3	5	without
IE3-W41R 132 S6	6208 2ZN C3	-	-	80	-	6207 2ZN C3	-	-	-	3	5	without
IE3-W41R 132 SX2, 6; S4, 8; M4, 6, 8	6308 ZZ C3	-	RB40	90	-	6308 ZZ C3	-	RB40		6	8	N-end
IE3-W41R 160 M2, 4, 6, 8; MX2, 8	6310 ZZ C3	-	RB50	110	-	6309 ZZ C3	-	RB45		6	8	N-end
IE3-W41R 160 L2, 8; L4C, L6C	6310 ZZ C3	-	RB50	110	-	6309 ZZ C3	-	RB45		6	8	N-end
IE3-W41R 180 M2C, M4, L4, L6C, L8	6310 C3	50A	-	110	-	6310 C3	50A	-		6	8	N-end
IE3-W41R 200 L2; LX2C, LX6C, L4C, L6	6312 C3	60A	-	-	130	6312 C3	60A	-		6	8	N-end
IE3-W41R 200 L8	6310 C3	50A	-	110	-	6310 C3	50A			6	8	N-end
IE3-W41R 225 M2	6313 C3	65A	-	-	140	6313 C3	65A	-		6	8	N-end
IE3-W41R 225 S4C	6313 C3	65A	-	-	140	6312 C3	60A	-		6	8	N-end
IE3-W41R 225 M4, 6, 8	6314 C3	70A	-	-	150	6313 C3	65A	-		6	8	N-end
IE3-W41R 225 S8	6312 C3	60A	-	-	130	6312 C3	60A	-		6	8	N-end
IE3-W41R 250 M2	6314 C3	70A	-	-	150	6314 C3	70A	-		6	8	N-end
IE3-W41R 250 M4, 6	6316 C3	80A	-	-	170	6314 C3	70A	-		6	8	N-end
IE3-W41R 250 M8	6314 C3	70A	-	-	150	6313 C3	65A	-		6	8	N-end
IE3-W41R 280 S2, M2	6314 C3	70A	-	-	150	6314 C3	70A	-		6	8	N-end
IE3-W41R 280 S4, 8	6316 C3	80A	-	-	170	6314 C3	70A	-		6	8	N-end
IE3-W41R 280 M4, 6, 8; S6	6317 C3	85A	-	-	180	6316 C3	80A	-		6	8	N-end
IE3-W41R 315 S2, M2	6316 C3	80A	-	-	170	6316 C3	80A	-		6	8	N-end
IE3-W41R 315 MX2, MY2, L2, LX2	6317 C3	85A	-	-	180	6317 C31)	85A	-		6	8	N-end
IE3-W41R 315 S4, M4	6317 C3	85A	-	-	180	6316 C3	80A	-		6	8	N-end
IE3-W41R 315 S6; M6, 8; MX4, 6, 8	6320 C3	-	RB100	-	215	6317 C31)	85A	-		18	19	N-end
IE3-W41R 315 MY4, 6, 8; L4, 8; LX4	6320 C3	-	RB100	-	215	6317 C31)	85A	-		18	19	N-end
IE3-W41R 315 S8	6317 C3	85A	-	-	180	6316 C3	80A	-		18	19	N-end
IE3-W41R 355 M2	6317 C3	-	RB85A	-	180	6317 C31)	85A	-		18	19	N-end
IE3-W41R 355 M4, 6, 8	6324 C3	-	RB120	-	260	6317 C31)	85A	-		18	19	N-end

[1] For types for vertical mounting Q317 C3; figures 18, 21
IE3-W41R from 2-pole 315 MX, 4-pole 315 MX, 6-pole 315 S with relubrication device as standard
IE3-W41R 315 M8, MX8, MY8, L8; IE3-W41R 355 M8 with relubrication device as standard

Series IE3-W41R
Reinforced Bearings

Type	D-end			N-end			Figure		Fixed bearing
	Anti-friction bearing	V-ring	γ-ring	Anti-friction bearing	V-ring	γ-ring	DS	NS	
IE3-W41R 132 SX2	NU 308 E	-	RB40	6308 ZZ C3	-	RB40	7	9	N-end
IE3-W41R 132 M6; MX6	NU 308 E	-	RB45	6308 ZZ C3	-	RB40	7	9	N-end
IE3-W41R 132 S8; M8	NU 308 E	-	RBRB45	6308 ZZ C3	-	RB40	7	9	N-end
IE3-W41R 160 M2, 4, 6, 8; MX2, 8	NU 310 E	-	RB50	6309 ZZ C3	-	RB45	7	9	N-end
IE3-W41R 160 L2, 8; L4C, L6C	NU 310 E	-	RB50	6309 ZZ C3	-	RB45	7	9	N-end
IE3-W41R 180 M2C, M4, L6C; L4, 8	NU 310 E	50A	-	6310 C3	50A	-	7	9	N-end
IE3-W41R 200 L2, 6; LX2C; LX6C, L4C	NU 312 E	60A	-	6312 C3	60A	-	7	9	N-end
IE3-W41R 200 L8	NU 310 E	50A	-	6310 C3	50A		7	9	N-end
IE3-W41R 225 M2	NU 313 E	65A	-	6313 C3	60A	-	7	9	N-end
IE3-W41R 225 S4C	NU 313 E	65A	-	6312 C3	60A	-	7	9	N-end
IE3-W41R 225 M4, 6, 8	NU 314 E	70A	-	6313 C3	65A	-	7	9	N-end
IE3-W41R 225 S8	NU 312 E	60A	-	6312 C3	60A	-	7	9	N-end
IE3-W41R 250 M2	NU 314 E	70A	-	6314 C3	70A	-	7	9	N-end
IE3-W41R 250 M4, 6	NU 316 E	80A	-	6314 C3	70A	-	7	9	N-end
IE3-W41R 250 M8	NU 314 E	70A	-	6313 C3	65A	-	7	9	N-end
IE3-W41R 280 S2, M2	NU 314 E	70A	-	6314 C3	70A	-	7	9	N-end
IE3-W41R 280 S4, 8	NU 316 E	80A	-	6314 C3	70A	-	7	9	N-end
IE3-W41R 280 S6, M4, 6, 8	NU 317 E	85A	-	6316 C3	80A	-	7	9	N-end
IE3-W41R 315 S2, M2	NU 316 E	80A	-	6316 C3	80A	-	7	9	N-end
IE3-W41R 315 MX2, MY2, L2, LX2	NU 317 E	85A	-	6317 C31)	85A	-	7	9	N-end
IE3-W41R 315 S4, M4	NU 317 E	85A	-	6316 C3	80A	-	7	9	N-end
IE3-W41R 315 L4, 8; LX4, S6	NU 320 E	-	RB100	6317 C31)	85A	-	20	19	N-end
IE3-W41R 315 M6, 8; MX4, 6, 8; MY4, 6, 8	NU 320 E	-	RB100	6317 C31)	85A	-	20	19	N-end
IE3-W41R 315 S8	NU 317 E	85A	-	6316 C3	80A	-	20	19	N-end
IE3-W41R 355 M2	NU 317 E	-	RB85	6317 C31)	85A	-	20	19	N-end
IE3-W41R 355 M4, 6, 8	NU 324 E	-	RB120	6317 C31)	85A	-	20	19	N-end

[1] For types for vertical mounting Q317 C3; figures 18, 21

IE3-W41R from 2-pole 315 MX, 4-pole 315 MX, 6-pole 315 S with relubrication device as standard

IE3-W41R 315 M8, MX8, MY8, L8; IE3-W41R 355 M8 with relubrication device as standard

Series IE3-W41R
Relubrication device

Type	D-end						N-end			Figure				Fixed bearing
	Anti-friction bearing						Anti-friction bearing			DS	NS	DS	NS	
	Light-duty bearings	Reinforced bearings	V-ring	γ-ring	Wave spring[1]	Disc spring[1]		V-ring	γ-ring	Light-duty bearings	Light-duty bearings	Reinforced bearings	Reinforced bearings	
IE3-W41R 132 SX2, MX6	6308 C3	NU 308	-	RB40	90	-	6308 C3		RB40	13	14	15	14	N-end
IE3-W41R 160 M2, 4, 8	6310 C3	NU 310 E	-	RB50	110	-	6309 C3	-	RB45	13	14	15	14	N-end
IE3-W41R 160 MX2, 8; L2, 8; L4C	6310 C3	NU 310 E	-	RB50	110	-	6309 C3	-	RB45	13	14	15	14	N-end
IE3-W41R 160 M6	6310 C3	NU 310 E	-	50	110	-	6309 C3	-	RB45	13	14	15	14	N-end
IE3-W41R 160 L6C	6310 C3	NU 310 E	-	50	110	-	6309 C3	-	RB45	13	14	15	14	N-end
IE3-W41R 180 M2C; M4; L4, 8; L6C	6310 C3	NU 310 E	-	RB50	110	-	6310 C3	50A	-	13	14	15	14	N-end
IE3-W41R 200 L2, 6; LX2C, LX6C; L4C	6312 C3	NU 312 E	-	RB60	-	130	6312 C3	60A	-	13	14	15	14	N-end
IE3-W41R 200 L8	6310 C3	NU 310 E	-	RB50	110	-	6310 C3	50A		13	14	15	14	N-end
IE3-W41R 225 M2	6313 C3	NU 313 E	-	RB65	-	140	6313 C3	65A	-	13	14	15	14	N-end
IE3-W41R 225 S4C	6313 C3	NU 313 E	-	RB65	-	140	6312 C3	60A	-	13	14	15	14	N-end
IE3-W41R 225 M4, 6, 8	6314 C3	NU 314 E	-	RB70	-	150	6313 C3	65A	-	13	14	15	14	N-end
IE3-W41R 225 S8	6312 C3	NU 312 E	-	RB60	-	130	6312 C3	60A	-	13	14	15	14	N-end
IE3-W41R 250 M2	6314 C3	NU 314 E	-	RB70	-	150	6314 C3	70A	-	13	14	15	14	N-end
IE3-W41R 250 M4, 6	6316 C3	NU 316 E	-	RB80	-	170	6314 C3	70A	-	13	14	15	14	N-end
IE3-W41R 250 M8	6314 C3	NU 314 E	-	RB70	-	150	6313 C3	65A	-	13	14	15	14	N-end
IE3-W41R 280 S2, M2	6314 C3	NU 314 E	-	RB70	-	150	6314 C3	70A	-	13	14	15	14	N-end
IE3-W41R 280 S4, 8	6316 C3	NU 316 E	-	RB80	-	170	6314 C3	70A	-	13	14	15	14	N-end
IE3-W41R 280 M4, 6, 8; S6	6317 C3	NU 317 E	-	RB85	-	180	6316 C3	80A	-	13	14	15	14	N-end
IE3-W41R 315 S2, M2	6316 C3	NU 316 E	-	RB80	-	170	6316 C3	80A	-	13	14	15	14	N-end
IE3-W41R 315 S4, 8; M4	6317 C3	NU 317 E	-	RB85	-	180	6316 C3	80A	-	13	14	15	14	N-end
IE3-W41R 315 L2, 4, 8; LX2, 4							see basic version							
IE3-W41R 315 M6, 8; MX2, 4, 6, 8; MY2, 4, 6, 8							see basic version							
IE3-W41R 355 M2, 4, 6, 8; S6							see basic version							

[1] Light-duty bearings only

Series IE2-W..R
Standard version

Type	D-end						N-end					Figure		Fixed bearing
	Anti-friction bearing	Felt ring	V-ring	γ-ring	Wave spring	Disc spring	Anti-friction bearing	Felt ring	V-ring	γ-ring	Wave spring	DS	NS	
IE2-W21R 56 K2, 4, G2, 4, WE2R 56 G2	6201 2Z C3	11 x 19 x 4	-	-	-	-	6201 2Z C3	12 x 25 x 1	-	-	32	1	2	without
IE2-WE2R 63 K2, 4, G2,6	6201 2Z C3	11 x 19 x 4	-	-	-	-	6201 2Z C3	12 x 25 x 1	-	-	32	1	2	without
IE2-W21R 63 K2, 4,G2, 4, WE1R 63 GY4	6202 2Z C3	14 x 21 x 4	-	-	-	-	6202 2Z C3	15 x 28 x 1	-	-	35	1	2	without
IE2-WE2R 71 K2, 4, 6, G2, 6, 8	6202 2Z C3	14 x 21 x 4	-	-	-	-	6202 2Z C3	15 x 28 x 1	-	-	35	1	2	without
IE2-W21R 71 K2, 4, 6, G2, 4, 6, WE1R 71 GY4	6204 2Z C3	19 x 26 x 4	-	-	-	-	6204 2Z C3	20 x 36 x 2	-	-	47	1	2	without
IE2-WE2R 80 K2, 4, 6, 8, G2, 8	6204 2Z C3	19 x 26 x 4	-	-	-	-	6204 2Z C3	20 x 36 x 2	-	-	47	1	2	without
IE2-W21R 80 K2, 4, 6, 8, WE1R 80 GY4, 6	6205 2Z C3	24.2 x 35 x 4	-	-	-	-	6205 2Z C3	25 x 40 x 2	-	-	52	1	2	without
IE2-WE(2)1R 80 G2, 4, 6	6205 2Z C3	24.2 x 35 x 4	-	-	-	-	6205 2Z C3	25 x 40 x 2	-	-	52	1	2	without
IE2-WE2R 90 S2, 8	6205 2Z C3	24 x 35 x 4	-	-	-	-	6205 2Z C3	25 x 40 x 2	-	-	52	1	2	without
IE2-WE2R 90 S4, 6	6205 2Z C3	24 x 35 x 4	-	-	-	-	6205 2Z C3	25 x 40 x 2	-	-	52	1	2	without
IE2-WE2R 90 L2, 8	6205 2Z C3	24 x 35 x 4	-	-	-	-	6205 2Z C3	25 x 40 x 2	-	-	52	1	2	without
IE2-WE(2)1R 90 S2, 4, 6, 8	6205 2Z C3	24.2 x 35 x 4	-	-	-	-	6205 2Z C3	25 x 40 x 2	-	-	52	1	2	without
IE2-WE1R 90 L2, LW4, 6	6205 2Z C3	24.2 x 35 x 4	-	-	-	-	6205 2Z C3	25 x 40 x 2	-	-	52	1	2	without
IE2-WE(2)1R 90 L4, 6, 8	6205 2Z C3	24.2 x 35 x 4	-	-	-	-	6205 2Z C3	25 x 40 x 2	-	-	52	1	2	without
IE2-WE2R 100 L8	6206 2Z C3	29 x 40 x 4	-	-	-	-	6205 2Z C3	25 x 40 x 2	-	-	52	1	2	without
IE2-WE2R 100 L6, LY2	6206 2Z C3	29 x 40 x 4	-	-	-	-	6205 2Z C3	25 x 40 x 2	-	-	52	1	2	without
IE2-WE(2)1R 100 L2, 8, S4, LY8	6206 2Z C3	29 x 40 x 4	-	-	-	-	6206 2Z C3	30 x 50 x 2	-	-	62	1	2	without
IE2-WE1R 100 LX4	6206 2Z C3	29 x 40 x 4	-	-	-	-	6206 2ZN C3	30 x 50 x 2	-	-	62	1	2	without
IE2-WE1R 100 L4, LW4	6206 2Z C3	29 x 40 x 4	-	-	-	-	6206 2Z C3	30 x 50 x 2	-	-	62	1	2	without
IE2-W21R 100 LX6, 8	6206 2ZN C3	29 x 40 x 4	-	-	-	-	6206 2ZN C3	30 x 50 x 2	-	-	62	1	2	without
IE2-WE1R 112 M2	6206 2Z C3	29 x 40 x 4	-	-	-	-	6206 2Z C3	30 x 50 x 2	-	-	62	1	2	without
IE2-WE1R 112 MX2	6206 2Z C3	29 x 40 x 4	-	-	-	-	6206 2ZN C3	30 x 50 x 2	-	-	62	1	2	without
IE2-WE1R 112 MX6, M8	6206 2ZN C3	29 x 40 x 4	-	-	-	-	6206 2ZN C3	30 x 50 x 2	-	-	62	1	2	without
IE2-WE1R 112 MV2	6206 2Z C3	29 x 40 x 4	-	-	-	-	6206 2ZN C3	30 x 50 x 2	-	-	62	1	2	without
IE2-W21R 112 MV6, 8	6206 2ZN C3	29 x 40 x 4	-	-	-	-	6206 2ZN C3	30 x 50 x 2	-	-	62	1	2	without
IE2-WE1R 112 MZ4	6206 2Z C3	29 x 40 x 4	-	-	-	-	6206 2ZN C3	30 x 50 x 2	-	-	62	1	2	without
IE2-WE1R 112 MZ6	6206 2ZN C3	29 x 40 x 4	-	-	-	-	6206 2ZN C3	30 x 50 x 2	-	-	62	1	2	without
IE2-WE1R 132 SY2T	6208 2ZN C3	39 x 50 x 4	-	-	80	-	6206 2Z C3	30 x 50 x 2	-	-	-	3	5	without
IE2-WE1R 132 S2T, SX2T	6208 2ZN C3	39 x 50 x 4	-	-	80	-	6206 2Z C3	30 x 50 x 2	-	-	-	3	5	without
IE2-WE1R 132 SX6T	6208 2ZN C3	39 x 50 x 4	-	-	80	-	6206 2Z C3	30 x 50 x 2	-	-	-	3	5	without
IE2-WE1R 112 M4	6207 2ZN C3	34 x 45 x 4	-	-	-	-	6207 2ZN C3	34 x 45 x 4	-	-	72	1	2	without
IE2-WE1R 132 S2, 6, 8, WE2R 132 SY4	6208 2ZN C3	39 x 50 x 4	-	-	72	-	6207 2ZN C3	34 x 45 x 4	-	-	-	3	5	without
IE2-WE2R 132 S4	6208 2ZN C3	39 x 50 x 4	-	-	72	-	6207 2ZN C3	34 x 45 x 4	-	-	-	3	5	without
IE2-WE2R 132 M6, 8	6208 2ZN C3	39 x 50 x 4	-	-	72	-	6207 2ZN C3	34 x 45 x 4	-	-	-	3	5	without
IE2-WE1R 132 SX2, S4, M4, 6, MX6	6308 ZZ C3	-	-	RB40	90	-	6308 ZZ C3	-	-	RB40	-	6	8	N-end
IE2-WE1R 132 M8	6308 ZZ C3	-	-	RB40	90		6308 ZZ C3	-	-	RB40	-	6	8	N-end
IE2-WE1R 160 M2, 4	6310 ZZ C3	-	-	RB50	110	-	6309 ZZ C3	-	-	RB45	-	6	8	N-end
IE2-WE(2)1R 160 MX2, L2, 4	6310 ZZ C3	-	-	RB50	110	-	6309 ZZ C3	-	-	RB45	-	6	8	N-end
IE2-WE1R 160 M6, L6, 8; MX8	6310 ZZ C3	-	-	RB50	110	-	6309 ZZ C3	-	-	RB45	-	6	8	N-end
IE2-WE1R 160 M8	6309 ZZ C3	-	-	RB45	100	-	6308 ZZ C3	-	-	RB40	-	6	8	N-end
IE2-WE1R 180 M2, M4, L4, 6	6310 C3	-	50A	-	110	-	6310 C3	-	50A	-	-	6	8	N-end
IE2-WE1R 180 L8	6310 ZZ C3	-	-	RB50	110	-	6310 ZZ C3	-	-	RB50	-	6	8	N-end
IE2-WE(2)1R 200 L2, 6, 8; LX2	6312 C3	-	60A	-	-	130	6310 C3	-	50A	-	-	6	8	N-end
IE2-WE1R 200 L4, LX6	6312 C3	-	60A	-	-	130	6312 C3	-	60A	-	-	6	8	N-end
IE2-WE1R 225 M2	6312 C3	-	60A	-	-	140	6312 C3	-	60A	-	-	6	8	N-end
IE2-WE1R 225 S4, 8	6313 C3	-	65A	-	-	140	6312 C3	-	60A	-	-	6	8	N-end
IE2-WE1R 225 M4, 6	6314 C3	-	70A	-	-	140	6313 C3	-	65A	-	-	6	8	N-end
IE2-WE1R 225 M8	6314 C3	-	70A	-	-	150	6313 C3	-	65A	-	-	6	8	N-end
IE2-WE1R 250 M2	6313 C3	-	65A	-	-	140	6313 C3	-	65A	-	-	6	8	N-end
IE2-WE1R 250 M4	6314 C3	-	70A	-	-	150	6313 C3	-	65A	-	-	6	8	N-end
IE2-WE1R 250 M6	6316 C3	-	70A	-	-	150	6314 C3	-	70A	-	-	6	8	N-end
IE2-WE1R 250 M8	6316 C3	-	80A	-	-	170	6314 C3	-	70A	-	-	6	8	N-end

[1] For types for vertical mounting Q317 C3; figures 18, 21

(IE2-)WE1R 315 M6; MX; MY; L; LX with relubrication device as standard

Series IE2-W..R
Standard version

Type	D-end						N-end					Figure		Fixed bearing
	Anti-friction bearing	Felt ring	V-ring	γ-ring	Wave spring	Disc spring	Anti-friction bearing	Felt ring	V-ring	γ-ring	Wave spring	DS	NS	
IE2-WE1R 280 S2, M2	6314 C3	-	70A	-	-	150	6314 C3	-	70A	-	-	6	8	N-end
IE2-WE1R 280 S4, M4	6316 C3	-	80A	-	-	170	6314 C3	-	70A	-	-	6	8	N-end
IE2-WE1R 280 S6, 8	6316 C3	-	80A	-	-	170	6314 C3	-	70A	-	-	6	8	N-end
IE2-WE1R 280 M6	6317 C3	-	85A	-	-	170	6316 C3	-	80A	-	-	6	8	N-end
IE2-WE1R 280 M8	6317 C3	-	85A	-	-	180	6316 C3	-	80A	-	-	6	8	N-end
IE2-WE1R 315 S2 ,M2	6316 C3	-	80A	-	-	170	6316 C3	-	80A	-	-	6	8	N-end
IE2-WE1R 315 S4,6; M4	6317 C3	-	85A	-	-	180	6316 C3	-	80A	-	-	6	8	N-end
IE2-WE1R 315 M6, MX4	6220 C3	-	-	RB100	-	180	6316 C3	-	80A	-	-	13	16	N-end
IE2-WE1R 315 MX2	6317 C3	-	-	RB85	-	180	6316 C3	-	80A	-	-	13	16	N-end
IE2-WE1R 315 MY2, L2, LX2	6317 C3	-	-	RB85	-	180	6317 C3[1)]	-	85A	-	-	18	19	N-end
IE2-WE1R 315 L4,6; LX4,6, MX6	6320 C3	-	-	RB100	-	215	6317 C3[1)]	-	85A	-	-	18	19	N-end
IE2-WE1R 315 S8	6317 C3	-	85A	-	-	180	6316 C3	-	80A	-	-	6	8	N-end
IE2-WE1R 315 M8	6220 C3	-	-	RB100	-	180	6316 C3	-	80A	-	-	13	16	N-end
IE2-WE1R 315 MX8	6320 C3	-	-	RB100	-	215	6317 C3[1)]	-	85A	-	-	18	19	N-end
IE2-WE1R 315 MY8	6320 C3	-	-	RB100	-	215	6317 C3[1)]	-	85A	-	-	18	19	N-end
IE2-WE1R 315 L8, LX8	6320 C3	-	-	RB100	-	215	6317 C3[1)]	-	85A	-	-	18	19	N-end

Series IE2-W.1R
Reinforced Bearings

Type	D-end			N-end				Figure		Fixed bearing
	Anti-friction bearing	V-ring	γ-ring	Anti-friction bearing	Felt ring	V-ring	γ-ring	DS	NS	
IE2-WE1R 132 SX2, S4, M4, 6, 8; MX6	NU 308 E	-	RB40	6308 ZZ C3	-	-	RB40	7	9	N-end
IE2-WE1R 160 M2, 4, 6, 8	NU 310 E	-	RB50	6309 ZZ C3	-	-	RB45	7	9	N-end
IE2-WE1R 160 L2, 4, 8	NU 310 E	-	RB50	6309 ZZ C3	-	-	RB45	7	9	N-end
IE2-WE1R 160 MX2, 8	NU 310 E	-	RB50	6309 ZZ C3	-	-	RB45	7	9	N-end
IE2-WE1R 180 M2, M4, L4, L6	NU 310 E	50A	-	6310 C3	-	50A	-	7	9	N-end
IE2-WE1R 180 L8	NU 310 E	-	RB50	6310 ZZ C3	-	-	RB50	7	9	N-end
IE2-WE1R 200 L2, 6, 8; LX2	NU 312 E	60A	-	6310 C3	-	50A	-	7	9	N-end
IE2-WE1R 200 L4, LX6	NU 312 E	60A	-	6312 C3	-	60A	-	7	9	N-end
IE2-WE1R 225 M2	NU 312 E	60A	-	6312 C3	-	60A	-	7	9	N-end
IE2-WE1R 225 S4, 8	NU 313 E	65A	-	6312 C3	-	60A	-	7	9	N-end
IE2-WE1R 225 M4, 6, 8	NU 314 E	70A	-	6313 C3	-	65A	-	7	9	N-end
IE2-WE1R 250 M2	NU 313 E	65A	-	6313 C3	-	65A	-	7	9	N-end
IE2-WE1R 250 M4	NU 314 E	70A	-	6313 C3	-	65A	-	7	9	N-end
IE2-WE1R 250 M6	NU 316 E	80A	-	6314 C3	-	65A	-	7	9	N-end
IE2-WE1R 250 M8	NU 316 E	80A	-	6314 C3	-	70A	-	7	9	N-end
IE2-WE1R 280 S2, M2	NU 314 E	70A	-	6314 C3	-	70A	-	7	9	N-end
IE2-WE1R 280 S4, 6, 8; M4	NU 316 E	80A	-	6314 C3	-	70A	-	7	9	N-end
IE2-WE1R 280 M6, 8	NU 317 E	85A	-	6316 C3	-	80A	-	7	9	N-end
IE2-WE1R 315 S2,M2	NU 316 E	80A	-	6316 C3	-	80A	-	7	9	N-end
IE2-WE1R 315 S4,6, 8; M4	NU 317 E	85A	-	6316 C3	-	80A	-	7	9	N-end
IE2-WE1R 315 MX4, M6	NU 2220 E	-	RB100	6316 C3	-	80A	-	15	16	N-end
IE2-WE1R 315 MX2	NU 317 E	-	RB85	6316 C3	-	80A	-	15	16	N-end
IE2-WE1R 315 MY2, L2, LX2	NU 317 E	-	RB85	6317 C3[1)]	-	85A	-	20	19	N-end
IE2-WE1R 315 L4,6; LX4,6; MX6, 8	NU 320 E	-	RB100	6317 C3[1)]	-	85A	-	20	19	N-end
IE2-WE1R 315 M8	NU 2220 E	-	RB100	6316 C3	-	80A	-	15	16	N-end
IE2-WE1R 315 MY8, L8, LX8	NU 320 E	-	RB100	6317 C3[1)]	-	85A	-	20	19	N-end

[1)] For types for vertical mounting Q317 C3; figures 18, 21
(IE2-)WE1R 315 M6; MX; MY; L; LX with relubrication device as standard

Series IE2-W.1R
Relubrication device

Type	D-end						N-end		Figure				
	Anti-friction bearing						Anti-friction bearing		DS	NS	DS	NS	Fixed bearing
	Light-duty bearings	Reinforced bearings	V-ring	γ-ring	Wave spring[1]	Disc spring[1]		V-ring	Light-duty bearings	Light-duty bearings	Reinforced bearings	Reinforced bearings	
IE2-WE1R 132 SX2	6308 C3	NU 308 E	-	RB40	90	-	6308 C3	40A	13	14	15	14	N-end
IE2-WE1R 132 S4, M4,6; MX6	6308 C3	NU 308 E	-	RB40	90	-	6308 C3	40A	13	14	15	14	N-end
IE2-WE1R 132 S6, 8	not possible at D-end for design reasons												
IE2-WE1R 132 M8	6308 C3	NU 308 E		RB40	90	-	6308 C3	40A	13	14	15	14	N-end
IE2-WE1R 160 M2, 4, 6	6310 C3	NU 310 E	-	RB50	110	-	6309 C3	45A	13	14	15	14	N-end
IE2-WE(2)1R 160 MX2, L2, 4, 6	6310 C3	NU 310 E	-	RB50	110	-	6309 C3	45A	13	14	15	14	N-end
IE2-WE1R 160 M8	not possible at D-end for design reasons												
IE2-WE1R 160 MX8, L8	6310 C3	NU 310 E	-	RB50	110	-	6309 2Z C3	-	13	14	15	14	N-end
IE2-WE1R 180 M2, 4; L4, 6	6310 C3	NU 310 E	-	RB50	110	-	6310 C3	50A	13	14	15	14	N-end
IE2-WE1R 180 L8	6310 C3	NU 310 E	-	RB50	110	-	6310 2Z C3	-	13	14	15	14	N-end
IE2-WE(2)1R 200 L2, 6, 8; LX2	6312 C3	NU 312 E	-	RB60	-	130	6310 C3	50A	13	14	15	14	N-end
IE2-WE1R 200 L4, LX6	6312 C3	NU 312 E	-	RB60	-	130	6312 C3	60A	13	14	15	14	N-end
IE2-WE1R 225 M2	6312 C3	NU 312 E	-	RB60	-	130	6312 C3	60A	13	14	15	14	N-end
IE2-WE1R 225 S4, 8	6313 C3	NU 313 E	-	RB65	-	140	6312 C3	60A	13	14	15	14	N-end
IE2-WE1R 225 M4, 6	6314 C3	NU 314 E	-	RB70	-	150	6313 C3	60A	13	14	15	14	N-end
IE2-WE1R 225 M8	6314 C3	NU 314 E	-	RB70	-	150	6313 C3	65A	13	14	15	14	N-end
IE2-WE1R 250 M2	6313 C3	NU 313 E	-	RB65	-	140	6313 C3	65A	13	14	15	14	N-end
IE2-WE1R 250 M4	6314 C3	NU 314 E	-	RB70	-	150	6313 C3	65A	13	14	15	14	N-end
IE2-WE1R 250 M6, 8	6316 C3	NU 316 E	-	RB80	-	170	6314 C3	70A	13	14	15	14	N-end
IE2-WE1R 280 S2, M2	6314 C3	NU 314 E	-	RB70	-	150	6314 C3	70A	13	14	15	14	N-end
IE2-WE1R 280 S4, 6, 8; M4	6316 C3	NU 316 E	-	RB80	-	170	6314 C3	70A	13	14	15	14	N-end
IE2-WE1R 280 M6, 8	6317 C3	NU 317 E	-	RB85	-	180	6316 C3	80A	13	14	15	14	N-end
IE2-WE1R 315 S2,M2	6316 C3	NU 316 E	-	RB80	-	170	6316 C3	80A	13	14	15	14	N-end
IE2-WE1R 315 S4,6; M4	6317 C3	NU 317 E	-	RB85	-	180	6316 C3	80A	13	14	15	14	N-end
IE2-WE1R 315 M6, 8	see basic version												
IE2-WE1R 315 MX2, 4, 6, 8	see basic version												
IE2-WE1R 315 MY2, 8	see basic version												
IE2-W21R 315 LX2, 4, 6, 8	see basic version												
IE2-WE1R 315 S8	6317 C3	NU 317 E	-	RB85	-	180	6316 C3	80A	13	14	15	14	N-end
IE2-WE1R 315 L2, 4, 6, 8	see basic version												

[1] Light-duty bearings only

Series IE2-WE2R
Standard version

Type	D-end					N-end			Figure		Fixed bearing
	Anti-friction bearing	V-ring	γ-ring	Wave spring	Disc spring	Anti-friction bearing	V-ring	γ-ring	DS	NS	
IE2-WE2R 132 S4	6208 ZZ C3		RB40	80	-	6207 ZZ C3		RB35	6	8	N-end
IE2-WE2R 160 M4	6309 ZZ C3		RB45	100	-	6308 ZZ C3		RB40	6	8	N-end
IE2-WE2R 160 L4	6310 ZZ C3	-	RB50	110	-	6309 ZZ C3	-	RB45	6	8	N-end
IE2-WE2R 180 M4	6310 C3	50A	-	110	-	6310 C3	50A	-	6	8	N-end
IE2-WE2R 200 LX2	6312 C3	60A	-	-	130	6310 C3	50A	-	6	8	N-end
IE2-WE2R 225 M4	6313 C3	65A	-	-	140	6312 C3	60A	-	6	8	N-end
IE2-WE2R 250 M4	6314 C3	70A	-	-	150	6313 C3	65A	-	6	8	N-end
IE2-WE2R 132 M6, 8	6208 ZZ C3		RB40	80	-	6207 ZZ C3		RB35	6	8	N-end
IE2-WE2R 160 M6, MX8	6309 ZZ C3		RB45	100	-	6308 ZZ C3		RB40	6	8	N-end
IE2-WE2R 180 L6	6310 ZZ C3	-	RB50	110	-	6309 ZZ C3	-	RB45	6	8	N-end
IE2-WE2R 180 L8	6310 ZZ C3	-	RB50	110	-	6309 ZZ C3	-	RB50	6	8	N-end
IE2-WE2R 200 LX6	6312 C3	60A	-	-	130	6310 C3	50A	-	6	8	N-end
IE2-WE2R 225 M6, 8; S8	6313 C3	65A	-	-	140	6312 C3	60A	-	6	8	N-end
IE2-WE2R 250 M6, 8	6314 C3	70A	-	-	150	6313 C3	65A	-	6	8	N-end

Series IE2-WE2R
Reinforced Bearings

Type	D-end					N-end			Figure		Fixed bearing
	Anti-friction bearing	V-ring	γ-ring	Wave spring	Disc spring	Anti-friction bearing	V-ring	γ-ring	DS	NS	
IE2-WE2R 132 S4; M6, 8	NU 208 E	-	RB40	80	-	6207 ZZ C3	-	RB35	7	9	N-end
IE2-WE2R 160 M4, 6; MX8	NU 309 E	-	RB45	100		6308 ZZ C3	-	RB40	7	9	N-end
IE2-WE2R 160 L4	NU 310 E	-	RB50	110	-	6309 ZZ C3	-	RB45	7	9	N-end
IE2-WE2R 180 M4	NU 310 E	50A	-	110	-	6310 C3	50A	-	7	9	N-end
IE2-WE2R 180 L6, 8	NU 310 E	-	RB50	110	-	6309 ZZ C3	-	RB45	7	9	N-end
IE2-WE2R 200 LX2, 6	NU 312 E	60A	-	-	130	6310 C3	50A	-	7	9	N-end
IE2-WE2R 225 M4, 6, 8; S8	NU 313 E	65A	-	-	140	6312 C3	60A	-	7	9	N-end
IE2-WE2R 250 M4, 6, 8	NU 314 E	70A	-	-	150	6313 C3	65A	-	7	9	N-end

Series IE2-WE2R
Relubrication device

Type	D-end						N-end			Figure				Fixed bearing
	Anti-friction bearing						Anti-friction bearing			DS	NS	DS	NS	
	Light-duty bearings	Reinforced bearings	V-ring	γ-ring	Wave spring[1)]	Disc spring[1)]		V-ring	γ-ring	Light-duty bearings	Light-duty bearings	Reinforced bearings	Reinforced bearings	
IE2-WE2R 132 S4; M6, 8	not possible at D-end for design reasons													
IE2-WE2R 160 M4, 6; MX8	not possible at D-end for design reasons													
IE2-WE2R 160 L4	6310 C3	NU 310 E	-	RB50	110	-	6309 C3	-	RB45	13	14	15	14	N-end
IE2-WE2R 180 M4	6310 C3	NU 310 E	-	RB50	110	-	6310 C3	50A	-	13	14	15	14	N-end
IE2-WE2R 180 L6, 8	6310 C3	NU 310 E	-	RB50	110	-	6309 C3	-	RB45	13	14	15	14	N-end
IE2-WE2R 200 LX2, 6	6312 C3	NU 312 E	-	RB60	-	130	6310 C3	50A	-	13	14	15	14	N-end
IE2-WE2R 225 M4, 6, 8	6313 C3	NU 313 E	-	RB65	-	140	6312 C3	60A	-	13	14	15	14	N-end
IE2-WE2R 225 S8	6313 C3	NU 312 E	-	RB60	-	140	6312 C3	60A	-	13	14	15	14	N-end
IE2-WE2R 250 M4, 6, 8	6314 C3	NU 314 E	-	RB70	-	150	6313 C3	65A	-	13	14	15	14	N-end

[1)] Light-duty bearings only

Series K21R
Standard version

Type	D-end						N-end					Figure		Fixed bearing
	Anti-friction bearing	V-ring	γ-ring	Felt ring	Wave spring	Disc spring	Anti-friction bearing	V-ring	γ-ring	Wave spring	Felt ring	DS	NS	
K21R 56	6201 ZZ C3	-	-	11.5 x 19	-	-	6201 ZZ C3	-	-	32	12 x 22	1	2	without
K21R 63	6201 ZZ C3	-	-	11.5 x 19	-	-	6201 ZZ C3	-	-	32	12 x 22	1	2	without
K21R 71	6202 ZZ C3	-	-	14.5 x 21	-	-	6202 ZZ C3	-	-	35	15 x 24	1	2	without
(IE1-)K21R 80	6204 ZZ C3	-	-	19.5 x 26	-	-	6204 ZZ C3	-	-	47	20 x 32	1	2	without
(IE1-)K21R 90	6205 ZZ C3	-	-	24.5 x 35	-	-	6205 ZZ C3	-	-	52	25 x 40	1	2	without
(IE1-)K21R 100	6206 ZZ C3	-	-	29.2 x 40	-	-	6205 ZZ C3	-	-	52	25 x 40	1	2	without
(IE1-)K21R 100 LX	6206 ZZ C3	-	-	29.2 x 40	-	-	6206 ZZ C3	-	-	62	30 x 50	1	2	without
(IE1-)K21R 112 M	6206 ZZ C3	-	-	29.2 x 40	-	-	6206 ZZ C3	-	-	62	30 x 50	1	2	without
(IE1-)K21R 132 S2, 4T	6208 ZZ C3	-	-	39 x 60	-	-	6206 ZZ C3	-	-	62	30 x 50	1	2	without
(IE1-)K21R 132 S, SX2, M6, 8	6208 ZZ C3	-	RB40	-	80		6207 ZZ C3	-	RB35	-	-	6	8	N-end
(IE1-)K21R 132 M4, MX6	6308 ZZ C3	-	RB40	-	90	-	6308 ZZ C3	-	RB40	-	-	6	8	N-end
(IE1-)K21R 160 M, MX6	6309 ZZ C3	-	RB45	-	100	-	6308 ZZ C3	-	RB40	-	-	6	8	N-end
(IE1-)K21R 160 MX2, L	6310 ZZ C3	-	RB50	-	110	-	6309 ZZ C3	-	RB45	-	-	6	8	N-end
(IE1-)K21R 180 M4, L6, 8	6310 ZZ C3	-	RB50	-	110	-	6309 ZZ C3	-	RB45	-	-	6	8	N-end
(IE1-)K21R 180 M2, L4	6310 C3	50A	-	-	110	-	6310 C3	50A	-	-	-	6	8	N-end
(IE1-)K21R 200 L, LX6	6312 C3	60A	-	-	-	130	6310 C3	50A	-	-	-	6	8	N-end
(IE1-)K21R 200 LX2	6312 C3	60A	-	-	-	130	6312 C3	60A	-	-	-	6	8	N-end
(IE1-)K21R 225 M2	6312 C3	60A	-	-	-	130	6312 C3	60A	-	-	-	6	8	N-end
(IE1-)K21R 225 S4,8, M4, 6, 8	6313 C3	65A	-	-	-	140	6312 C3	60A	-	-	-	6	8	N-end
(IE1-)K21R 250 M2	6313 C3	65A	-	-	-	140	6313 C3	65A	-	-	-	6	8	N-end
(IE1-)K21R 250 M4, 6, 8	6314 C3	70A	-	-	-	150	6313 C3	65A	-	-	-	6	8	N-end
(IE1-)K21R 280 S2, M2	6314 C3	70A	-	-	-	150	6314 C3	70A	-	-	-	6	8	N-end
(IE1-)K21R 280 S4, 6, 8, M4, 6, 8	6316 C3	80A	-	-	-	170	6314 C3	70A	-	-	-	6	8	N-end
(IE1-)K21R 315 S2, M2	6316 C3	80A	-	-	-	170	6316 C3	80A	-	-	-	6	8	N-end
(IE1-)K21R 315 S4, 6, 8, M4, 6, 8	6317 C3	85A	-	-	-	180	6316 C3	80A	-	-	-	6	8	N-end
(IE1-)K21R 315 MX2	6317 C3	-	RB85	-	-	180	6316 C3	80A	-	-	-	13	16	N-end
(IE1-)K21R 315 MX4, 6, 8	6220 C3	-	RB100	-	-	180	6316 C3	80A	-	-	-	13	16	N-end
(IE1-)K21R 315 MY2	6317 C3	-	RB85	-	-	180	6317 C3[1)]	85A	-	-	-	18	19	N-end
(IE1-)K21R 315 MY4, 6, 8	6320 C3	-	RB100	-	-	215	6317 C3[1)]	85A	-	-	-	18	19	N-end
(IE1-)K21R 315 L2, LX2	6317 C3	-	RB85	-	-	180	6317 C3[1)]	85A	-	-	-	18	19	N-end
(IE1-)K21R 315 L4, 6, 8, LX4, 6, 8	6320 C3	-	RB100	-	-	215	6317 C3[1)]	85A	-	-	-	18	19	N-end
(IE1-)K22R 355 MY/M/MX/LY/L 2	6317 C3	-	RB85	-	-	180	6317 C3[1)]	85A	-	-	-	18	19	N-end
(IE1-)K22R 355 MY/M/MX/LY/L 4, 6, 8	6324 C3	-	RB120	-	-	260	6317 C3[1)]	85A	-	-	-	18	19	N-end

[1)] For types for vertical mounting Q317 C3; figures 18, 21
From size (IE1-)K21R 315 MX with relubrication device as standard

Series K20R
Standard version

Type	D-end						N-end					Figure		Fixed bearing
	Anti-friction bearing	V-ring	γ-ring	Felt ring	Wave spring	Disc spring	Anti-friction bearing	V-ring	γ-ring	Wave spring	Felt ring	DS	NS	
K20R 56	6201 ZZ C3	-	-	11.5 x 19	-	-	6201 ZZ C3	-	-	32	12 x 22	1	2	without
K20R 63	6202 ZZ C3	-	-	14.5 x 21	-	-	6202 ZZ C3	-	-	35	15 x 24	1	2	without
(IE1)-K20R 71	6204 ZZ C3	-	-	19.5 x 26	-	-	6204 ZZ C3	-	-	47	20 x 32	1	2	without
(IE1)-K20R 80	6205 ZZ C3	-	-	24.2 x 35	-	-	6205 ZZ C3	-	-	52	25 x 40	1	2	without
(IE1)-K20R 90	6205 ZZ C3	-	-	24.5 x 35	-	-	6205 ZZ C3	-	-	52	25 x 40	1	2	without
(IE1)-K20R 100	6206 ZZ C3	-	-	29.2 x 40	-	-	6206 ZZ C3	-	-	62	30 x 50	1	2	without
(IE1)-K20R 112 M2, 4, 6, 8	6207 ZZ C3	-	RB35	-	72		6207 ZZ C3	-	RB35	-	-	6	8	N-end
(IE1)-K20R 112 MX6, 8	6207 ZZ C3	-	RB35	-	72		6207 ZZ C3	-	RB35	-	-	6	8	N-end
(IE1)-K20R 132 S, M	6308 ZZ C3	-	RB40	-	90	-	6308 ZZ C3	-	RB40	-	-	6	8	N-end
(IE1)-K20R 160 S, M	6310 ZZ C3	-	RB50	-	110	-	6309 ZZ C3	-	RB45	-	-	6	8	N-end
(IE1)-K20R 180 S2, M2	6310 C3	50A	-	-	110	-	6310 C3	50A	-	-	-	6	8	N-end
(IE1)-K20R 180 S4, 6, 8, M4, 6, 8	6312 C3	60A	-	-	-	130	6310 C3	50A	-	-	-	6	8	N-end
(IE1)-K20R 200 M2, L2	6312 C3	60A	-	-	-	130	6312 C3	60A	-	-	-	6	8	N-end
(IE1)-K20R 200 M4, 6, 8, L4, 6, 8	6313 C3	65A	-	-	-	140	6312 C3	60A	-	-	-	6	8	N-end
(IE1)-K20R 225 M2	6313 C3	65A	-	-	-	140	6313 C3	65A	-	-	-	6	8	N-end
(IE1)-K20R 225 M4, 6, 8	6314 C3	70A	-	-	-	150	6313 C3	65A	-	-	-	6	8	N-end
(IE1)-K20R 250 S2, M2	6314 C3	70A	-	-	-	150	6314 C3	70A	-	-	-	6	8	N-end
(IE1)-K20R 250 S4, 6, 8, M4, 6, 8	6316 C3	80A	-	-	-	170	6314 C3	70A	-	-	-	6	8	N-end
(IE1)-K20R 280 S2, M2	6316 C3	80A	-	-	-	170	6316 C3	80A	-	-	-	6	8	N-end
(IE1)-K20R 280 S4, 6, 8, M4, 6, 8	6317 C3	85A	-	-	-	180	6316 C3	80A	-	-	-	6	8	N-end
(IE1)-K20R 315 S2	6317 C3	-	RB85	-	-	180	6316 C3	80A	-	-	-	13	16	N-end
(IE1)-K20R 315 S4, 6, 8	6220 C3	-	RB100	-	-	180	6316 C3	80A	-	-	-	13	16	N-end
(IE1)-K20R 315 M2, L2, LX2	6317 C3	-	RB85	-	-	180	6317 C3[1)]	85A	-	-	-	18	19	N-end
(IE1)-K20R 315 M4, 6, 8, L4, 6, 8, LX4, 6, 8	6320 C3	-	RB100	-	-	215	6317 C3[1)]	85A	-	-	-	18	19	N-end

[1)] For types for vertical mounting Q317 C3; figures 18, 21
From size IE1-K20R 315 with relubrication device as standard

Series K21R
Reinforced Bearings

Type	D-end			N-end		Figure		Fixed bearing
	Anti-friction bearing	V-ring	γ-ring	Anti-friction bearing	V-ring	DS	NS	
(IE1-)K21R 132 S, SX2, M6, 8 VL	NU 208 E	40A	-	6207 RS C3	-	4	10	N-end
(IE1-)K21R 132 M4, MX6 VL	NU 308 E	40A	-	6308 RS C3	-	4	10	N-end
(IE1-)K21R 160 M, MX8 VL	NU 309 E	45A	-	6308 RS C3	-	4	10	N-end
(IE1-)K21R 160 MX2, L VL	NU 310 E	50A	-	6309 RS C3	-	7	10	N-end
(IE1-)K21R 180 M4, L6, 8 VL	NU 310 E	50A	-	6309 RS C3	-	7	10	N-end
(IE1-)K21R 180 M2, L4 VL	NU 310 E	50A	-	6310 C3	50A	7	9	N-end
(IE1-)K21R 200 L, LX6 VL	NU 312 E	60A	-	6310 C3	50A	7	9	N-end
(IE1-)K21R 200 LX2 VL	NU 312 E	60A	-	6312 C3	60A	7	9	N-end
(IE1-)K21R 225 M2 VL	NU 312 E	-	RB60	6312 C3	60A	7	9	N-end
(IE1-)K21R 225 S4, 8, M4, 6, 8 VL	NU 313 E	-	RB65	6312 C3	60A	7	9	N-end
(IE1-)K21R 250 M2 VL	NU 313 E	-	RB65	6313 C3	65A	7	9	N-end
(IE1-)K21R 250 M4, 6, 8 VL	NU 314 E	-	RB70	6313 C3	65A	7	9	N-end
(IE1-)K21R 280 S2, M2 VL	NU 314 E	-	RB70	6314 C3	70A	7	9	N-end
(IE1-)K21R 280 S4, 6, 8, M4, 6, 8 VL	NU 316 E	-	RB80	6314 C3	70A	7	9	N-end
(IE1-)K21R 315 S2, M2 VL	NU 316 E	-	RB80	6316 C3	80A	7	9	N-end
(IE1-)K21R 315 S4, 6, 8, M4, 6, 8 VL	NU 317 E	-	RB85	6316 C3	80A	7	9	N-end
(IE1-)K21R 315 MX2 VL	NU 317 E	-	RB85	6316 C3	80A	15	16	N-end
(IE1-)K21R 315 MX4, 6, 8 VL	NU 2220 E	-	RB100	6316 C3	80A	15	16	N-end
(IE1-)K21R 315 MY2 VL	NU 317 E	-	RB85	6317 C3[1)]	85A	20	19	N-end
(IE1-)K21R 315 MY4, 6, 8 VL	NU 320 E	-	RB100	6317 C3[1)]	85A	20	19	N-end
(IE1-)K21R 315 L2, LX2 VL	NU 317 E	-	RB85	6317 C3[1)]	85A	20	19	N-end
(IE1-)K21R 315 L4, 6, 8, LX4, 6, 8 VL	NU 320 E	-	RB100	6317 C3[1)]	85A	20	19	N-end
(IE1-)K22R 355 MY/M/MX/LY/L 2	NU 317 E	-	RB85	6317 C3[1)]	85A	20	19	N-end
(IE1-)K22R 355 MY/M/MX/LY/L 4, 6, 8 VL	NU 324 E	-	RB120	6317 C3[1)]	85A	20	19	N-end

[1)] For types for vertical mounting Q317 C3; figures 20, 21
From size (IE1-)K21R 315 MX with relubrication device as standard

Series K20R
Reinforced Bearings

Type	D-end			N-end		Figure		Fixed bearing
	Anti-friction bearing	V-ring	γ-ring	Anti-friction bearing	V-ring	DS	NS	
(IE1-)K20R 112 M2, 4, 6, 8 VL	NU 207 E	35A	-	6207 RS C3	-	4	10	N-end
(IE1-)K20R 112 MX6, 8 VL	NU 207 E	35A	-	6207 RS C3	-	4	10	N-end
(IE1-)K20R 132 S, M VL	NU 308 E	40A	-	6308 RS C3	-	4	10	N-end
(IE1-)K20R 160 S, M VL	NU 310 E	50A	-	6309 RS C3	-	7	10	N-end
(IE1-)K20R 180 S2, M2 VL	NU 310 E	50A	-	6310 C3	50A	7	9	N-end
(IE1-)K20R 180 S4, 6, 8, M4, 6, 8 VL	NU 312 E	60A	-	6310 C3	50A	7	9	N-end
(IE1-)K20R 200 M2, L2 VL	NU 312 E	-	RB60	6312 C3	60A	7	9	N-end
(IE1-)K20R 200 M4, 6, 8, L4, 6, 8 VL	NU 313 E	-	RB65	6312 C3	60A	7	9	N-end
(IE1-)K20R 225 M2 VL	NU 313 E	-	RB65	6313 C3	65A	7	9	N-end
(IE1-)K20R 225 M4, 6, 8 VL	NU 314 E	-	RB70	6313 C3	65A	7	9	N-end
(IE1-)K20R 250 S2, M2 VL	NU 314 E	-	RB70	6314 C3	70A	7	9	N-end
(IE1-)K20R 250 S4, 6, 8, M4, 6, 8 VL	NU 316 E	-	RB80	6314 C3	70A	7	9	N-end
(IE1-)K20R 280 S2, M2 VL	NU 316 E	-	RB80	6316 C3	80A	7	9	N-end
(IE1-)K20R 280 S4, 6, 8, M4, 6, 8 VL	NU 317 E	-	RB85	6316 C3	80A	7	9	N-end
(IE1-)K20R 315 S2 VL	NU 317 E	-	RB85	6316 C3	80A	15	16	N-end
(IE1-)K20R 315 S4, 6, 8 VL	NU 2220 E	-	RB100	6316 C3	80A	15	16	N-end
(IE1-)K20R 315 M2, L2, LX2 VL	NU 317 E	-	RB85	6317 C3 [1)]	85A	20	19	N-end
(IE1-)K20R 315 M4, 6, 8, L4, 6, 8, LX4, 6, 8 VL	NU 320 E	-	RB100	6317 C3 [1)]	85A	20	19	N-end

[1)] For types for vertical mounting Q317 C3; figures 20, 21
From size (IE1-)K20R 315 with relubrication device as standard

Series K21R
Relubrication device

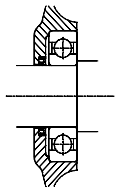
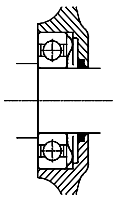
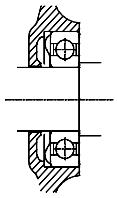
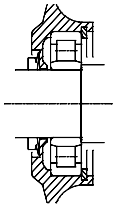
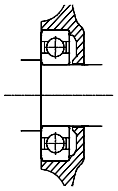
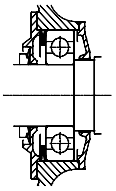
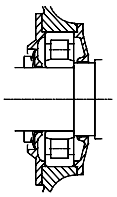
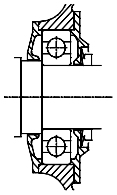
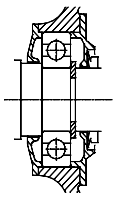
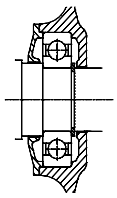
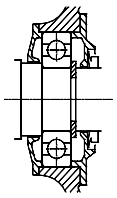
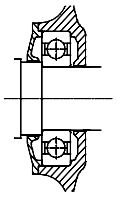
Type	D-end						N-end		Figure				Fixed bearing
	Anti-friction bearing						Anti-friction bearing		DS	NS	DS	NS	
	Light-duty Bearings	Reinforced Bearings	V-ring	γ-ring	Wave spring[1]	Disc spring[1]		V-ring	Light-duty Bearings	Light-duty Bearings	Reinforced Bearings	Reinforced Bearings	
(IE1-)K21R 132 S, SX2, M6, 8	not possible at D-end for design reasons												
(IE1-)K21R 132 M4, MX6	6308 C3	NU308 E		RB40	90		6308 C3	40A	13	14	15	14	N-end
(IE1-)K21R 160 M, MX8	not possible at D-end for design reasons												
(IE1-)K21R 160 MX2, L	6310 C3	NU 310 E	-	RB50	110	-	6309 C3	45A	13	14	15	14	N-end
(IE1-)K21R 180 M4, L6, 8	6310 C3	NU 310 E	-	RB50	110	-	6309 C3	45A	13	14	15	14	N-end
(IE1-)K21R 180 M2, L4	6310 C3	NU 310 E	-	RB50	110	-	6310 C3	50A	13	14	15	14	N-end
(IE1-)K21R 200 L, LX6	6312 C3	NU 312 E	-	RB60	-	130	6310 C3	50A	13	14	15	14	N-end
(IE1-)K21R 200 LX2	6312 C3	NU 312 E	-	RB60	-	130	6312 C3	60A	13	14	15	14	N-end
(IE1-)K21R 225 M2	6312 C3	NU 312 E	-	RB60	-	130	6312 C3	60A	13	14	15	14	N-end
(IE1-)K21R 225 S4, 8, M4, 6, 8	6313 C3	NU 313 E	-	RB65	-	140	6312 C3	60A	13	14	15	14	N-end
(IE1-)K21R 250 M2	6313 C3	NU 313 E	-	RB65	-	140	6313 C3	65A	13	14	15	14	N-end
(IE1-)K21R 250 M4, 6, 8	6314 C3	NU 314 E	-	RB70	-	150	6313 C3	65A	13	14	15	14	N-end
(IE1-)K21R 280 S2, M2	6314 C3	NU 314 E	-	RB70	-	150	6314 C3	70A	13	14	15	14	N-end
(IE1-)K21R 280 S4, 6, 8, M4, 6, 8	6316 C3	NU 316 E	-	RB80	-	170	6314 C3	70A	13	14	15	14	N-end
(IE1-)K21R 315 S2, M2	6316 C3	NU 316 E	-	RB80	-	170	6316 C3	80A	13	14	15	14	N-end
(IE1-)K21R 315 S4, 6, 8, M4, 6, 8	6317 C3	NU 317 E	-	RB85	-	180	6316 C3	80A	13	14	15	14	N-end
(IE1-)K21R 315 MX2	see basic version												
(IE1-)K21R 315 MX4, 6, 8	see basic version												
(IE1-)K21R 315 MY2	see basic version												
(IE1-)K21R 315 MY4, 6, 8	see basic version												
(IE1)-K21R 315 L2, LX2	see basic version												
(IE1-)K21R 315 L4, 6, 8, LX4, 6, 8	see basic version												
(IE1-)K22R 355 MY/M/MX/LY/L 2	see basic version												
(IE1-)K22R 355 MY/M/MX/LY/L 4, 6, 8	see basic version												

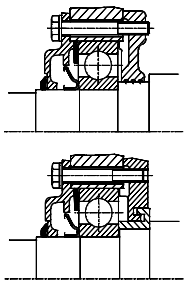
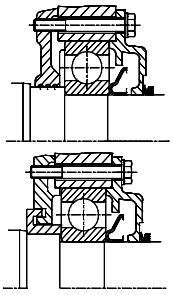
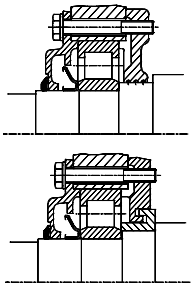
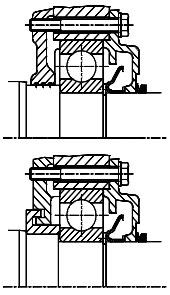
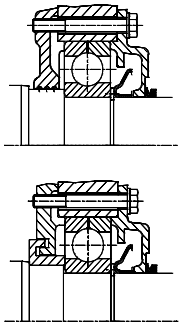
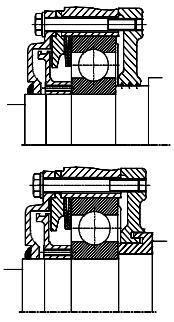
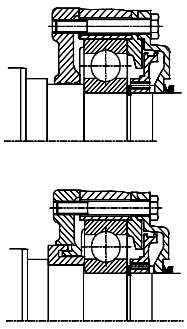
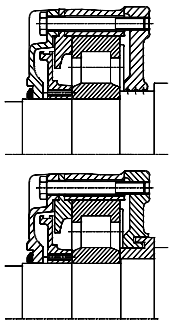
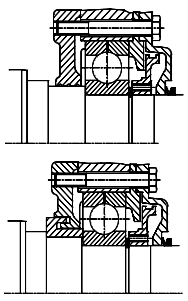
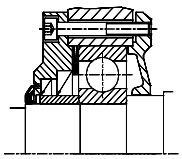
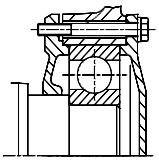
[1] Light-duty bearings only

Series K20R
Relubrication device

Type	D-end						N-end		Figure				Fixed bearing
	Anti-friction bearing						Anti-friction bearing		DS	NS	DS	NS	
	Light-duty Bearings	Reinforced Bearings	V-ring	γ-ring	Wave spring[1]	Disc spring[1]		V-ring	Light-duty Bearings	Light-duty Bearings	Reinforced Bearings	Reinforced Bearings	
(IE1-)K20R 132 S, M	6308 C3	NU 308 E	-	RB40	90	-	6308 C3	40A	13	14	15	14	N-end
(IE1-)K20R 160 S, M	6310 C3	NU 310 E	-	RB50	110	-	6309 C3	45A	13	14	15	14	N-end
(IE1-)K20R 180 S2, M2	6310 C3	NU 310 E	-	RB50	110	-	6310 C3	50A	13	14	15	14	N-end
(IE1-)K20R 180 S4, 6, 8, M4, 6, 8	6312 C3	NU 312 E	-	RB60	-	130	6310 C3	50A	13	14	15	14	N-end
(IE1-)K20R 200 M2, L2	6312 C3	NU 312 E	-	RB60	-	130	6312 C3	60A	13	14	15	14	N-end
(IE1-)K20R 200 M4, 6, 8, L4, 6, 8	6313 C3	NU 313 E	-	RB65	-	140	6312 C3	60A	13	14	15	14	N-end
(IE1-)K20R 225 M2	6313 C3	NU 313 E	-	RB65	-	140	6313 C3	65A	13	14	15	14	N-end
(IE1-)K20R 225 M4, 6, 8	6314 C3	NU 314 E	-	RB70	-	150	6313 C3	65A	13	14	15	14	N-end
(IE1-)K20R 250 S2, M2	6314 C3	NU 314 E	-	RB70	-	150	6314 C3	70A	13	14	15	14	N-end
(IE1-)K20R 250 S4, 6, 8, M4, 6, 8	6316 C3	NU 316 E	-	RB80	-	170	6314 C3	70A	13	14	15	14	N-end
(IE1-)K20R 280 S2, M2	6316 C3	NU 316 E	-	RB80	-	170	6316 C3	80A	13	14	15	14	N-end
(IE1-)K20R 280 S4, 6, 8, M4, 6, 8	6317 C3	NU 317 E	-	RB85	-	180	6316 C3	80A	13	14	15	14	N-end

[1] Light-duty bearings only

			
Figure 1	Figure 2	Figure 3	Figure 4
			
Figure 5	Figure 6	Figure 7	Figure 8
			
Figure 9	Figure 10	Figure 11	Figure 12

			
Figure 13	Figure 14	Figure 15	Figure 16
			
Figure 17	Figure 18	Figure 19	Figure 20
			
Figure 21	Figure 22	Figure 23	

Standard version
Horizontal shaft, permissible axial and radial forces (values in kN)

Series/Size			2-pole			4-pole			6-pole			8-pole		
IE3-W4.R	IE2-WE.R	(IE1-)K21R	F_a	$F_{r0,5}$	$F_{r1,0}$	F_a	$F_{r0,5}$	$F_{r1,0}$	F_a	$F_{r0,5}$	$F_{r1,0}$	F_a	$F_{r0,5}$	$F_{r1,0}$
IE3-W41R 56/W42R 63	IE2-WE2R 56/WE2R 63	(IE1-)K21R 56/63	0.05	0.32		0.09	0.39		0.16	0.39		-	-	
IE3-W41R 63/W42R 71	IE2-WE1R 63/WE2R 71	(IE1-)K21R 71	0.07	0.34		0.12	0.43		0.19	0.43		0.25	0.43	
IE3-W41R 71/W42R 80	IE2-WE1R 71/WE2R 80	(IE1-)K21R 80	0.13	0.58		0.24	0.73		0.36	0.73		0.46	0.73	
IE3-W41R 80	IE2-WE1R 80	(IE1-)K20R 80	0.13	0.6		0.2	0.77		0.36	0.77		0.44	0.77	
IE3-W42R 90	IE2-WE2R 90	(IE1-)K21R 90	0.13	0.6		0.26	0.77		0.36	0.77		0.5	0.77	
IE3-W41R 90	IE2-WE1R 90	(IE1-)K21R 100	0.15	0.58		0.24	0.86		0.34	0.86		0.44	0.86	
IE3-W41R 100 /112/132..T	IE2-WE1R 100 /112 /132..T/ WE2R 100	(IE1-)K21R 100/112	0.17	0.77		0.31	0.98		0.42	0.98		0.52	0.98	
IE3-W41R 112 MW	IE2-WE1R 112 M	(IE1-)K20R 112 MX	-	-		1.05	1.35	1.19	-	-		-	-	
IE3-W42R 132 S	IE2-WE2R 132 / W21R 132	(IE1-)K20R 112 M	0.75	1.1	1.0	1.05	1.35	1.19	1.2	1.55	1.4	1.4	1.7	1.5
IE3-W41R 132 S	IE2-WE1R 132 S	(IE1-)K21R 132 S	0.75	1.15	1.03	1.05	1.45	1.29	1.4	1.65	1.47	1.4	1.85	1.65
IE3-W41R 132 SX	IE2-WE1R 132 SX	(IE1-)K21R 132 SX	0.75	1.15	1.03	-	-	-	-	-	-	-	-	-
IE3-W41R 132 M	IE2-WE1R 132 M	(IE1-)K21R 132 M	-	-	-	1.6	2.05	1.8	1.2	1.65	1.47	1.4	1.85	1.65
IE3-W41R 132 MX	IE2-WE1R 132 MX	(IE1-)K21R 132 MX	-	-	-	-	-	-	1.9	2.3	2.05	-	-	-
IE3-W41R 160 M	IE2-WE1R 160 M	(IE1-)K21R 160 M	1.1	2.0	1.8	1.5	2.5	2.2	1.9	2.9	2.6	2.1	3.25	2.8
	IE2-WE2R 160 M		-	-	-	1.3	2.2	2	1.7	2.6	2.3	-	-	-
IE3-W41R 160 MX	IE2-WE1R 160 MX	(IE1-)K21R 160 MX	1.5	2.3	2.05	-	-	-	-	-	-	2.1	3.25	2.6
IE3-W41R 160 L	IE2-WE1R 160 L	(IE1-)K21R 160 L	1.5	2.3	2.05	1.9	3.0	2.7	2.3	3.4	3.0	2.5	3.8	3.4
	IE2-WE2R 160 L		-	-	-	1.7	2.7	2.4	2.1	3.1	2.7	-	-	-
IE3-W41R 180 M	IE2-WE1R 180 M	(IE1-)K21R 180 M	1.5	2.4	2.15	1.9	3.0	2.7	-	-	-	-	-	-
	IE2-WE2R 180 M		-	-	-	2.2	2.7	2.4	-	-	-	-	-	-
IE3-W41R 180 L	IE2-WE1R 180 L	(IE1-)K21R 180 L	-	-	-	2.5	3.1	2.75	2.3	3.4	3.0	2.5	3.8	3.4
	IE2-WE2R 180 L		-	-	-	-	-	-	2.0	3.0	2.7	-	-	-
IE3-W41R 200 L	IE2-WE1R 200 L	(IE1-)K21R 200 L	1.8	3.2	2.8	2.4	4.0	3.5	2.8	4.6	4.1	3.0	5.2	4.6
IE3-W41R 200 LX	IE2-WE1R 200 LX	(IE1-)K21R 200 LX	1.8	3.2	2.8	-	-	-	2.8	4.6	4.1	-	-	-
	IE2-WE2R 200 LX		1.6	2.8	2.5	-	-	-	2.5	4.1	3.6	-	-	-
IE3-W41R 225 S	IE2-WE1R 225 S	(IE1-)K21R 225 S	-	-	-	3.0	4.4	3.9	-	-	-	4.2	5.6	5.0
IE3-W41R 225 M	IE2-WE1R 225 M	(IE1-)K21R 225 M	2.5	3.2	2.8	3.0	4.4	3.9	3.5	5.1	4.5	4.2	5.6	5.0
	IE2-WE2R 225 M		-	-	-	2.7	4.0	3.5	3.1	4.6	4.0	-	-	-
IE3-W41R 250 M	IE2-WE1R 250 M	(IE1-)K21R 250 M	2.5	3.4	3.0	3.5	4.9	4.3	3.8	5.6	5.0	4.5	6.3	5.6
	IE2-WE2R 250 M		-	-	-	3.1	4.4	3.8	3.4	5.0	4.5	-	-	-
IE3-W41R 280 S	IE2-WE1R 280 S	(IE1-)K21R 280 S	3.5	5.05	4.6	4.5	7.5	6.8	5.0	8.7	8.0	6.0	9.6	8.9
IE3-W41R 280 M	IE2-WE1R 280 M	(IE1-)K21R 280 M	4.0	5.1	4.6	4.5	7.5	6.9	5.0	8.7	8.05	6.0	9.7	9.0
IE3-W41R 315 S	IE2-WE1R 315 S	(IE1-)K21R 315 S	4.5	5.9	5.4	6.0	7.3	6.7	7.0	8.5	7.6	7.5	9.5	8.7
IE3-W41R 315 M	IE2-WE1R 315 M	(IE1-)K21R 315 M	4.5	5.9	5.4	6.0	7.3	6.8	7.0	8.3	7.8	7.5	9.4	8.8
IE3-W41R 315 MX	IE2-WE1R 315 MX	(IE1-)K21R 315 MX	4.5	6.0	5.6	5.0	10.0	9.4	6.0	11.3	10.6	6.0	12.8	12.0
IE3-W41R 315 MY	IE2-WE1R 315 MY	(IE1-)K21R 315 MY	6.0	9.6	9.0	6.0	9.6	9.0	7.0	11.1	10.7	7.5	12.5	12.3

Reinforced Bearings
Horizontal shaft, permissible axial and radial forces (values in kN)

Series/Size			2-pole			4-pole			6-pole			8-pole		
IE3-W4.R	IE2-WE.R	(IE1-)K21R	F_a	$F_{r0,5}$	$F_{r1,0}$	F_a	$F_{r0,5}$	$F_{r1,0}$	F_a	$F_{r0,5}$	$F_{r1,0}$	F_a	$F_{r0,5}$	$F_{r1,0}$
IE3-W41R 132 S	IE2-WE1R 132 S	(IE1-)K21R 132 S	0.75	2.3	2.06	1.05	2.9	2.4	1.4	3.3	2.9	1.4	3.7	3.3
IE3-W41R 132 SX	IE2-WE1R 132 SX	(IE1-)K21R 132 SX	0.75	2.3	2.06	-	-	-	-	-	-	-	-	-
IE3-W41R 132 M	IE2-WE1R 132 M	(IE1-)K21R 132 M	-	-	-	1.6	4.1	3.6	1.2	3.3	2.9	1.4	3.7	3.3
IE3-W41R 132 MX	IE2-WE1R 132 MX	(IE1-)K21R 132 MX	-	-	-	-	-	-	1.9	4.6	4.1	-	-	-
IE3-W41R 160 M	IE2-WE1R 160 M	(IE1-)K21R 160 M	1.1	3.9	3.5	1.5	4.9	4.3	1.9	5.7	5.1	2.1	6.3	5.5
	IE2-WE2R 160 M		-	-	-	1.3	3.9	3.4	1.7	4.5	4.0	-	-	-
IE3-W41R 160 MX	IE2-WE1R 160 MX	(IE1-)K21R 160 MX	1.5	4.5	4.0	-	-	-	-	-	-	2.1	6.3	5.1
IE3-W41R 160 L	IE2-WE1R 160 L	(IE1-)K21R 160 L	1.5	4.5	4.0	1.9	5.9	5.3	2.3	6.6	5.9	2.5	7.4	6.6
	IE2-WE2R 160 L		-	-	-	1.7	4.7	4.2	2.1	5.2	4.7	-	-	-
IE3-W41R 180 M	IE2-WE1R 180 M	(IE1-)K21R 180 M	1.5	4.7	4.2	1.9	5.9	5.3	-	-	-	-	-	-
	IE2-WE2R 180 M		-	-	-	2.2	4.8	4.2	-	-	-	-	-	-
IE3-W41R 180 L	IE2-WE1R 180 L	(IE1-)K21R 180 L	-	-	-	2.5	6.0	5.4	2.3	6.6	5.9	2.5	7.4	6.6
	IE2-WE2R 180 L		-	-	-	-	-	-	2.0	5.2	4.7	-	-	-
IE3-W41R 200 L	IE2-WE1R 200 L	(IE1-)K21R 200 L	1.8	6.1	5.3	2.4	7.6	6.7	2.8	8.7	7.8	3.0	9.9	8.8
IE3-W41R 200 LX	IE2-WE1R 200 LX	(IE1-)K21R 200 LX	1.8	6.1	5.3	-	-	-	2.8	8.7	7.8	-	-	-
	IE2-WE2R 200 LX		1.6	4.8	4.2	-	-	-	2.5	6.9	6.2	-	-	-
IE3-W41R 225 S	IE2-WE1R 225 S	(IE1-)K21R 225 S	-	-	-	3.0	8.4	7.4	-	-	-	4.2	10.6	9.5
IE3-W41R 225 M	IE2-WE1R 225 M	(IE1-)K21R 225 M	2.5	6.1	5.3	3.0	8.4	7.4	3.5	9.7	8.6	4.2	10.6	9.5
	IE2-WE2R 225 M		-	-	-	2.7	6.7	5.9	3.1	7.7	6.8	-	-	-
IE3-W41R 250 M	IE2-WE1R 250 M	(IE1-)K21R 250 M	2.5	6.3	5.6	3.5	9.1	8.0	3.8	10.4	9.3	4.5	11.7	10.4
	IE2-WE2R 250 M		-	-	-	3.1	7.2	6.4	3.4	8.3	7.4	-	-	-
IE3-W41R 280 S	IE2-WE1R 280 S	(IE1-)K21R 280 S	3.0	7.2	6.5	3.1	19.5	15.5	3.5	21.8	16.3	3.8	23.5	15.3
IE3-W41R 280 M	IE2-WE1R 280 M	(IE1-)K21R 280 M	2.6	6.6	6.1	3.1	19.5	15.5	3.5	22.3	14.5	4.3	23.0	14.9
IE3-W41R 315 S	IE2-WE1R 315 S	(IE1-)K21R 315 S	3.5	8.1	7.4	3.8	18.8	16.6	4.4	21.2	17.7	5.0	23.4	17.2
IE3-W41R 315 M	IE2-WE1R 315 M	(IE1-)K21R 315 M	2.8	7.6	6.8	3.9	18.0	15.9	4.6	21.5	16.7	5.2	23.4	17.2
IE3-W41R 315 MX	IE2-WE1R 315 MX	(IE1-)K21R 315 MX	3.4	18.3	16.6	3.7	26.0	21.7	4.1	28.5	18.4	4.5	31.5	20.3
IE3-W41R 315 MY	IE2-WE1R 315 MY	(IE1-)K21R 315 MY	3.6	18.3	14.9	4.3	25.5	16.5	4.7	27.8	19.2	5.6	27.5	19.0

For sizes 315 L, LX and 355 upon request

Standard version
Vertical shaft, permissible axial and radial forces (values in kN)

Series/Size			2-pole			4-pole			6-pole			8-pole		
IE3-W4.R	IE2-WE.R	(IE1-)K21R	F_a	$F_{r0,5}$	$F_{r1,0}$	F_a	$F_{r0,5}$	$F_{r1,0}$	F_a	$F_{r0,5}$	$F_{r1,0}$	F_a	$F_{r0,5}$	$F_{r1,0}$
IE3-W41R 56/W42R 63	IE2-WE2R 56/WE2R 63	(IE1-)K21R 56/63	0.05	0.32		0.09	0.39		0.16	0.39		-	-	
IE3-W41R 63/W42R 71	IE2-WE1R 63/WE2R 71	(IE1-)K21R 71	0.07	0.34		0.12	0.43		0.19	0.43		0.25	0.43	
IE3-W41R 71/W42R 80	IE2-WE1R 71/WE2R 80	(IE1-)K21R 80	0.13	0.58		0.24	0.73		0.36	0.73		0.46	0.73	
IE3-W41R 80	IE2-WE1R 80	(IE1-)K20R 80	0.13	0.6		0.2	0.77		0.36	0.77		0.44	0.77	
IE3-W42R 90	IE2-WE2R 90	(IE1-)K21R 90	0.13	0.6		0.2	0.77		0.36	0.77		0.44	0.77	
IE3-W41R 90	IE2-WE1R 90	(IE1-)K21R 100	0.15	0.58		0.24	0.86		0.34	0.86		0.44	0.86	
IE3-W41R 100 /112/132..T	IE2-WE1R 100 /112 /132..T/ WE2R 100	(IE1-)K21R 100/112	0.17	0.77		0.31	0.98		0.42	0.98		0.52	0.98	
IE3-W41R 112 MW	IE2-WE1R 112 M	(IE1-)K20R 112 MX	-	-		0.85	1.4	1.2	-	-		-	-	
IE3-W42R 132 S	IE2-WE2R 132 / W21R 132	(IE1-)K20R 112 M	0.75	1.15	1.0	0.9	1.4	1.2	1.1	1.6	1.4	1.3	1.75	1.5
IE3-W41R 132 S	IE2-WE1R 132 S	(IE1-)K21R 132 S	0.7	1.2	1.06	0.9	1.5	1.33	1.1	1.75	1.55	1.25	1.9	1.68
IE3-W41R 132 SX	IE2-WE1R 132 SX	(IE1-)K21R 132 SX	0.7	1.2	1.06	-	-	-	-	-	-	-	-	-
IE3-W41R 132 M	IE2-WE1R 132 M	(IE1-)K21R 132 M	-	-	-	1.4	2.1	1.9	1.05	1.7	1.5	1.25	1.9	1.68
IE3-W41R 132 MX	IE2-WE1R 132 MX	(IE1-)K21R 132 MX	-	-	-	-	-	-	1.65	2.4	2.1	-	-	-
IE3-W41R 160 M	IE2-WE1R 160 M	(IE1-)K21R 160 M	0.95	2.1	1.9	1.3	2.6	2.3	1.5	3.0	2.7	1.75	3.3	2.8
	IE2-WE2R 160 M		-	-	-	1.0	2.3	2.1	1.2	2.7	2.4	-	-	-
IE3-W41R 160 MX	IE2-WE1R 160 MX	(IE1-)K21R 160 MX	1.2	2.4	2.1	-	-	-	-	-	-	1.75	3.3	2.7
IE3-W41R 160 L	IE2-WE1R 160 L	(IE1-)K21R 160 L	1.1	2.5	2.2	1.5	3.1	2.7	1.8	3.6	3.2	2.1	3.9	3.5
	IE2-WE2R 160 L		-	-	-	1.2	2.7	2.4	1.4	3.2	2.8	-	-	-
IE3-W41R 180 M	IE2-WE1R 180 M	(IE1-)K21R 180 M	1.4	2.5	2.2	1.5	3.1	2.7	-	-	-	-	-	-
	IE2-WE2R 180 M		-	-	-	1.5	2.8	2.5	-	-	-	-	-	-
IE3-W41R 180 L	IE2-WE1R 180 L	(IE1-)K21R 180 L	-	-	-	1.9	3.2	2.8	1.8	3.6	3.2	2.1	3.9	3.5
	IE2-WE2R 180 L		-	-	-	-	-	-	1.4	3.2	2.8	-	-	-
IE3-W41R 200 L	IE2-WE1R 200 L	(IE1-)K21R 200 L	1.3	3.4	3.0	1.8	4.2	3.7	2.0	4.9	4.3	2.4	5.4	4.8
IE3-W41R 200 LX	IE2-WE1R 200 LX	(IE1-)K21R 200 LX	1.9	3.4	3.0	-	-	-	2.0	4.8	4.2	-	-	-
	IE2-WE2R 200 LX		1.5	3.1	2.7	-	-	-	1.6	4.3	3.7	-	-	-
IE3-W41R 225 S	IE2-WE1R 225 S	(IE1-)K21R 225 S	-	-	-	2.3	4.6	4.1	-	-	-	3.2	6.0	5.3
IE3-W41R 225 M	IE2-WE1R 225 M	(IE1-)K21R 225 M	1.7	3.4	3.0	2.2	4.8	4.2	2.7	5.4	4.8	3.3	5.9	5.2
	IE2-WE2R 225 M		-	-	-	1.7	4.3	3.7	2.1	4.8	4.3	-	-	-
IE3-W41R 250 M	IE2-WE1R 250 M	(IE1-)K21R 250 M	1.8	3.8	3.4	2.4	5.3	4.7	3.0	6.1	5.4	3.3	6.7	5.9
	IE2-WE2R 250 M		-	-	-	1.9	4.7	4.2	2.4	5.4	4.8	-	-	-
IE3-W41R 280 S	IE2-WE1R 280 S	(IE1-)K21R 280 S	2.0	5.5	5.0	3.0	8.1	7.4	3.8	9.3	8.6	4.0	10.3	9.5
IE3-W41R 280 M	IE2-WE1R 280 M	(IE1-)K21R 280 M	2.0	5.6	5.1	2.3	8.2	7.6	3.0	9.5	8.9	3.0	10.6	9.9
IE3-W41R 315 S	IE2-WE1R 315 S	(IE1-)K21R 315 S	2.5	6.5	6.0	3.0	8.3	7.5	3.0	9.5	8.7	4.0	10.5	9.6
IE3-W41R 315 M	IE2-WE1R 315 M	(IE1-)K21R 315 M	2.5	6.6	6.1	3.0	8.4	7.8	3.0	9.7	9.1	4.0	10.8	10.2
IE3-W41R 315 MX	IE2-WE1R 315 MX	(IE1-)K21R 315 MX	2.0	7.0	6.5	1.5	11.4	7.3	2.3	12.9	12.1	3.0	14.3	13.5
IE3-W41R 315 MY	IE2-WE1R 315 MY	(IE1-)K21R 315 MY	1.5	7.0	6.6	1.5	11.5	10.9	1.5	13.5	13.0	2.0	15.1	14.8

Reinforced Bearings
Vertical shaft, permissible axial and radial forces (values in kN)

Series/Size			2-pole			4-pole			6-pole			8-pole		
IE3-W4.R	IE2-WE.R	(IE1-)K21R	F_a	$F_{r0,5}$	$F_{r1,0}$	F_a	$F_{r0,5}$	$F_{r1,0}$	F_a	$F_{r0,5}$	$F_{r1,0}$	F_a	$F_{r0,5}$	$F_{r1,0}$
IE3-W41R 132 S	IE2-WE1R 132 S	(IE1-)K21R 132 S	0.7	2.4	1.12	0.9	3.0	2.66	2.2	3.5	3.1	1.25	3.8	3.36
IE3-W41R 132 SX	IE2-WE1R 132 SX	(IE1-)K21R 132 SX	0.7	2.4	1.12	-	-	-	-	-	-	-	-	-
IE3-W41R 132 M	IE2-WE1R 132 M	(IE1-)K21R 132 M	-	-	-	1.4	4.2	3.8	1.05	3.4	3.0	1.25	3.8	3.36
IE3-W41R 132 MX	IE2-WE1R 132 MX	(IE1-)K21R 132 MX	-	-	-	-	-	-	1.65	4.8	4.2	-	-	-
IE3-W41R 160 M	IE2-WE1R 160 M	(IE1-)K21R 160 M	0.95	4.2	3.8	1.3	5.2	4.6	3.0	6.0	5.4	1.75	6.6	5.6
	IE2-WE2R 160 M		-	-	-	1.0	4.1	3.7	2.4	4.8	4.3	-	-	-
IE3-W41R 160 MX	IE2-WE1R 160 MX	(IE1-)K21R 160 MX	1.2	4.8	4.2	-	-	-	-	-	-	1.75	6.6	5.4
IE3-W41R 160 L	IE2-WE1R 160 L	(IE1-)K21R 160 L	1.1	4.9	4.3	1.5	6.0	5.3	1.8	7.0	6.2	2.1	7.6	6.8
	IE2-WE2R 160 L		-	-	-	1.2	4.8	4.2	1.4	5.6	4.9	-	-	-
IE3-W41R 180 M	IE2-WE1R 180 M	(IE1-)K21R 180 M	1.4	4.9	4.3	1.5	6.0	5.3	-	-	-	-	-	-
	IE2-WE2R 180 M		-	-	-	1.5	4.9	4.4	-	-	-	-	-	-
IE3-W41R 180 L	IE2-WE1R 180 L	(IE1-)K21R 180 L	-	-	-	1.9	6.2	5.5	1.8	7.0	6.2	2.1	7.6	6.8
	IE2-WE2R 180 L		-	-	-				1.6	5.6	4.9	-	-	-
IE3-W41R 200 L	IE2-WE1R 200 L	(IE1-)K21R 200 L	1.3	6.6	5.9	1.8	8.2	7.2	2.0	9.6	8.4	2.4	10.5	9.4
IE3-W41R 200 LX	IE2-WE1R 200 LX	(IE1-)K21R 200 LX	1.9	6.6	5.7	-	-	-	2.0	9.1	8.0	-	-	-
	IE2-WE2R 200 LX		1.5	5.2	4.5	-	-	-	1.6	7.2	6.4	-	-	-
IE3-W41R 225 S	IE2-WE1R 225 S	(IE1-)K21R 225 S	-	-	-	2.3	8.7	7.8	-	-	-	3.2	11.4	10.1
IE3-W41R 225 M	IE2-WE1R 225 M	(IE1-)K21R 225 M	1.7	6.6	5.7	2.2	9.1	8.0	2.7	10.3	9.1	3.3	11.2	9.9
	IE2-WE2R 225 M		-	-	-	1.7	7.2	6.4	2.1	8.2	7.2	-	-	-
IE3-W41R 250 M	IE2-WE1R 250 M	(IE1-)K21R 250 M	1.8	7.0	6.3	2.4	9.8	8.7	3.0	12.3	10.0	3.3	12.4	10.0
	IE2-WE2R 250 M		-	-	-	1.9	7.8	6.9	2.4	9.8	8.0	-	-	-
IE3-W41R 280 S	IE2-WE1R 280 S	(IE1-)K21R 280 S	2.0	7.8	6.8	1.4	20.1	15.8	1.9	21.6	16.1	2.3	23.6	15.3
IE3-W41R 280 M	IE2-WE1R 280 M	(IE1-)K21R 280 M	1.1	7.8	6.8	1.3	20.1	15.8	1.8	21.0	13.6	2.3	20.8	13.5
IE3-W41R 315 S	IE2-WE1R 315 S	(IE1-)K21R 315 S	1.9	8.8	7.7	1.3	19.8	17.5	1.9	22.4	18.7	2.4	24.0	17.5
IE3-W41R 315 M	IE2-WE1R 315 M	(IE1-)K21R 315 M	1.7	8.8	7.7	1.2	20.0	17.7	1.5	22.6	17.7	2.1	23.8	17.4
IE3-W41R 315 MX	IE2-WE1R 315 MX	(IE1-)K21R 315 MX	0.9	19.0	16.8	0.8	27.0	23.9	0.8	28.6	18.5	1.2	28.6	18.5
IE3-W41R 315 MY	IE2-WE1R 315 MY	(IE1-)K21R 315 MY	0.5	19.5	17.3	0.5	19.5	17.3	1.5	24.0	16.6	2.0	24.0	16.6

For sizes 315 L, LX and 355 upon request

Series K20R
Basic version
Horizontal shaft, permissible axial and radial forces (values in kN)

Size	2-pole			4-pole			6-pole			8-pole		
	F_a	$F_{r0,5}$	$F_{r1,0}$	F_a	$F_{r0,5}$	$F_{r1,0}$	F_a	$F_{r0,5}$	$F_{r1,0}$	F_a	$F_{r0,5}$	$F_{r1,0}$
(IE1-)K20R 56	0.05	0.32		0.09	0.39		0.16	0.39		-	-	
(IE1-)K20R 63	0.07	0.34		0.12	0.43		0.19	0.43		0.25	0.43	
(IE1-)K20R 71	0.13	0.58		0.24	0.73		0.36	0.73		0.46	0.73	
(IE1-)K20R 80	0.13	0.60		0.20	0.77		0.36	0.77		0.44	0.77	
(IE1-)K20R 90	0.15	0.58		0.24	0.86		0.34	0.86		0.44	0.86	
(IE1-)K20R 100	0.17	0.77		0.31	0.98		0.42	0.98		0.52	0.98	
(IE1-)K20R 112 M	0.75	1.1	1.0	1.05	1.35	1.19	1.2	1.55	1.4	1.4	1.7	1.5
(IE1-)K20R 112 MX	-	-	-	-	-	-	1.2	1.55	1.4	1.4	1.7	1.5
(IE1-)K20R 132 S	-	-	-	0.8	1.95	1.7	1.0	2.35	2.1	1.1	2.6	2.3
(IE1-)K20R 132 M	0.7	1.6	1.4	0.8	1.95	1.7	1.0	2.35	2.1	1.1	2.6	2.3
(IE1-)K20R 160 S	1.7	2.3	2.0	1.9	3.0	2.7	2.3	3.4	3.0	2.5	3.8	3.7
(IE1-)K20R 160 M	1.5	2.3	2.0	1.9	3.0	2.7	2.3	3.4	3.0	2.5	3.8	3.7
(IE1-)K20R 180 S	1.7	2.3	2.0	2.4	4.1	3.6	2.8	4.6	4.1	3.0	5.1	4.5
(IE1-)K20R 180 M	1.7	2.3	2.0	2.4	4.1	3.6	2.8	4.6	4.1	3.0	5.1	4.5
(IE1-)K20R 200 M	2.4	3.2	2.8	3.0	4.4	3.9	3.5	5.0	4.4	4.3	5.6	5.0
(IE1-)K20R 200 L	2.4	3.2	2.8	3.0	4.4	3.9	-	-	-	-	-	-
(IE1-)K20R 225 M	1.9	2.5	2.2	3.5	5.1	4.5	3.8	5.8	5.1	4.5	6.4	5.7
(IE1-)K20R 250 S	3.5	5.05	4.6	4.5	7.5	6.8	5.0	8.7	8.0	6.0	9.6	8.9
(IE1-)K20R 250 M	4.0	5.1	4.6	4.5	7.5	6.9	5.0	8.7	8.05	6.0	9.7	9.0
(IE1-)K20R 280 S	4.5	5.9	5.4	6.0	7.3	6.7	7.0	8.5	7.6	7.5	9.5	8.7
(IE1-)K20R 280 M	4.5	5.9	5.4	6.0	7.3	6.8	7.0	8.3	7.8	7.5	9.4	8.8
(IE1-)K20R 315 S	4.5	6.0	5.6	5.0	10.0	9.4	6.0	11.3	10.6	6.0	12.8	12.0
(IE1-)K20R 315 M	6.0	9.6	9.0	6.0	9.6	9.0	7.0	11.1	10.7	7.5	12.5	12.3

Series K20R
Reinforced Bearings
Horizontal shaft, permissible axial and radial forces (values in kN)

Size	2-pole			4-pole			6-pole			8-pole		
	F_a	$F_{r0,5}$	$F_{r1,0}$	F_a	$F_{r0,5}$	$F_{r1,0}$	F_a	$F_{r0,5}$	$F_{r1,0}$	F_a	$F_{r0,5}$	$F_{r1,0}$
(IE1-)K20R 112 M	0.75	2.2	2.4	1.05	2.7	2.38	1.2	3.1	2.8	1.4	3.4	3.0
(IE1-)K20R 112 MX	-	-	-	-	-	-	1.2	3.1	2.8	1.4	3.4	3.0
(IE1-)K20R 132 S	-	-	-	0.8	3.9	3.4	1.0	4.7	4.2	1.1	5.2	4.6
(IE1-)K20R 132 M	0.7	3.2	2.8	0.8	3.9	3.4	1.0	4.7	4.2	1.1	5.2	4.6
(IE1-)K20R 160 S	1.7	2.3	2.6	1.9	3.0	2.7	2.3	3.4	3.0	2.5	3.8	3.7
(IE1-)K20R 160 M	1.5	2.3	2.6	1.9	3.0	2.7	2.3	3.4	3.0	2.5	3.8	3.7
(IE1-)K20R 180 S	1.7	4.5	5.1	2.4	8.0	7.0	2.8	9.0	8.0	3.0	9.9	8.8
(IE1-)K20R 180 M	1.7	4.5	5.1	2.4	8.0	7.0	2.8	9.0	8.0	3.0	9.9	4.5
(IE1-)K20R 200 M	2.4	6.1	6.8	3.0	8.4	7.4	3.5	9.5	8.4	4.3	10.6	9.5
(IE1-)K20R 200 L	2.4	6.1	6.8	3.0	8.4	7.4	-	-	-	-	-	-
(IE1-)K20R 225 M	1.9	4.6	5.2	3.5	9.4	8.3	3.8	10.7	9.4	4.5	11.8	10.5
(IE1-)K20R 250 S	2.9	7.0	8.0	3.1	19.5	15.4	3.5	21.8	16.3	3.8	23.8	15.6
(IE1-)K20R 250 M	2.6	6.5	7.4	3.1	19.4	15.3	3.5	22.0	14.2	4.3	22.8	14.9
(IE1-)K20R 280 S	3.5	7.9	7.2	3.7	18.8	16.6	4.5	21.3	16.6	5.0	23.5	17.3
(IE1-)K20R 280 M	2.9	7.7	8.8	3.8	19.0	16.8	4.6	21.5	15.8	5.2	23.7	17.4
(IE1-)K20R 315 S	3.4	18.3	16.2	3.6	26.0	22.4	4.1	28.5	19.7	4.5	31.5	20.3
(IE1-)K20R 315 M	3.6	18.3	16.2	4.4	25.5	16.5	4.7	27.5	17.7	5.6	27.5	19.0

For size 315 L upon request

Series K20R
Basic version
Vertical shaft, permissible axial and radial forces (values in kN)

Size	2-pole			4-pole			6-pole			8-pole		
	F_a	$F_{r0,5}$	$F_{r1,0}$	F_a	$F_{r0,5}$	$F_{r1,0}$	F_a	$F_{r0,5}$	$F_{r1,0}$	F_a	$F_{r0,5}$	$F_{r1,0}$
(IE1-)K20R 56	0.05	0.32		0.09	0.39		0.16	0.39		-	-	
(IE1-)K20R 63	0.07	0.34		0.12	0.43		0.19	0.43		0.25	0.43	
(IE1-)K20R 71	0.13	0.58		0.24	0.73		0.36	0.73		0.46	0.73	
(IE1-)K20R 80	0.13	0.60		0.20	0.77		0.36	0.77		0.44	0.77	
(IE1-)K20R 90	0.15	0.58		0.24	0.86		0.34	0.86		0.44	0.86	
(IE1-)K20R 100	0.17	0.77		0.31	0.98		0.42	0.98		0.52	0.98	
(IE1-)K20R 112 M	0.75	1.15	1.0	0.9	1.4	1.2	1.1	1.6	1.4	1.3	1.75	1.5
(IE1-)K20R 112 MX	-	-	-	-	-	-	1.05	1.6	1.4	1.25	1.75	1.5
(IE1-)K20R 132 S	-	-	-	0.7	2.0	1.8	0.8	2.3	2.0	0.9	2.6	2.3
(IE1-)K20R 132 M	0.5	1.65	1.45	0.65	2.15	1.9	0.75	2.45	2.2	0.85	2.7	2.4
(IE1-)K20R 160 S	1.1	2.4	2.1	1.6	3.05	2.7	1.8	3.5	3.1	2.2	3.9	3.5
(IE1-)K20R 160 M	1.2	2.4	2.1	1.6	3.05	2.7	1.8	3.6	3.2	2.1	4.0	3.5
(IE1-)K20R 180 S	1.4	2.5	2.1	1.8	4.1	3.6	2.1	4.8	4.2	2.5	5.2	4.6
(IE1-)K20R 180 M	1.3	2.6	2.3	1.8	4.3	3.8	2.0	5.0	4.4	2.4	5.4	4.8
(IE1-)K20R 200 M	1.8	3.4	3.0	2.4	4.7	4.2	2.75	5.4	4.8	3.2	5.9	5.2
(IE1-)K20R 200 L	1.7	3.4	3.0	2.2	4.8	4.2	-	-	-	-	-	-
(IE1-)K20R 225 M	1.5	2.8	2.5	2.5	5.4	4.8	3.0	6.2	5.5	3.5	6.8	6.0
(IE1-)K20R 250 S	2.0	5.5	5.0	3.0	8.1	7.4	3.8	9.3	8.6	4.0	10.3	9.5
(IE1-)K20R 250 M	2.0	5.6	5.1	2.3	8.2	7.6	3.0	9.5	8.9	3.0	10.6	9.9
(IE1-)K20R 280 S	2.5	6.5	6.0	3.0	8.3	7.5	3.0	9.5	8.7	4.0	10.5	9.6
(IE1-)K20R 280 M	2.5	6.6	6.1	3.0	8.4	7.8	3.0	9.7	9.1	4.0	10.8	10.2
(IE1-)K20R 315 S	2.0	7.0	6.5	1.5	11.4	7.3	2.3	12.9	12.1	3.0	14.3	13.5
(IE1-)K20R 315 M	1.5	7.0	6.6	1.5	11.5	10.9	1.5	13.5	13.0	2.0	15.1	14.8

Series K20R
Reinforced Bearings
Vertical shaft, permissible axial and radial forces (values in kN)

Size	2-pole			4-pole			6-pole			8-pole		
	F_a	$F_{r0,5}$	$F_{r1,0}$	F_a	$F_{r0,5}$	$F_{r1,0}$	F_a	$F_{r0,5}$	$F_{r1,0}$	F_a	$F_{r0,5}$	$F_{r1,0}$
(IE1-)K20R 112 M	0.75	2.3	2.0	0.9	2.8	2.4	1.1	3.2	2.8	1.3	3.5	3.0
(IE1-)K20R 112 MX	-	-	-	-	-	-	1.05	3.2	2.8	1.25	3.5	3.0
(IE1-)K20R 132 S	-	-	-	0.7	4.0	3.6	0.8	4.6	4.0	0.9	5.2	4.6
(IE1-)K20R 132 M	0.5	3.3	2.9	0.65	4.3	3.8	0.75	4.9	4.4	0.85	5.4	4.8
(IE1-)K20R 160 S	1.1	4.7	4.1	1.6	5.9	5.3	1.8	6.8	6.0	2.2	7.6	6.8
(IE1-)K20R 160 M	1.2	4.7	4.1	1.6	5.9	5.3	1.8	7.0	6.2	2.1	7.8	6.8
(IE1-)K20R 180 S	1.4	4.9	4.1	1.8	8.0	7.0	2.1	9.4	8.2	2.5	10.1	9.0
(IE1-)K20R 180 M	1.3	5.1	4.5	1.8	8.4	7.4	2.0	9.8	8.6	2.4	10.5	9.4
(IE1-)K20R 200 M	1.8	6.5	5.7	2.4	8.9	8.0	2.75	10.3	9.1	3.2	11.2	9.9
(IE1-)K20R 200 L	1.7	6.5	5.7	2.2	9.1	8.0	-	-	-	-	-	-
(IE1-)K20R 225 M	1.5	5.3	4.8	2.5	10.3	9.1	3.0	11.8	10.5	3.5	12.9	11.4
(IE1-)K20R 250 S	1.9	7.8	6.8	1.4	20.4	16.0	1.8	22.6	17.0	2.2	23.8	15.4
(IE1-)K20R 250 M	1.1	8.0	8.0	1.3	20.1	15.8	1.8	20.8	13.4	2.2	20.6	13.3
(IE1-)K20R 280 S	1.9	9.1	8.1	1.4	19.8	17.5	1.9	22.4	18.7	2.4	24.1	17.7
(IE1-)K20R 280 M	1.7	9.3	8.1	1.2	20.1	17.8	1.5	22.5	17.6	2.1	23.9	17.6
(IE1-)K20R 315 S	0.9	19.2	17.0	0.8	27.0	23.1	0.8	28.5	18.4	1.5	28.5	18.4
(IE1-)K20R 315 M	0.5	20.5	18.1	0.5	20.5	13.2	1.4	24.0	15.5	2.0	24	15.5

For size 315 L upon request

Series IE3-W41R
Bearings with backstop

Type		Basic type	D-end					N-end			Fixed bearing	Backstop (Ringspann)
			Anti-friction bearing	V-ring	γ-ring	Wave spring	Disc spring	Anti-friction bearing	V-ring	γ-ring		
IE3-W41R 132 SX2	W40R	132	6308 ZZ C3	-	RB40	90	-	6308 ZZ C3	-	RB40	N-end	FXM66DX
IE3-W41R 132 S4	W40R	132	6308 ZZ C3	-	RB40	90	-	6308 ZZ C3	-	RB40	N-end	FXM66DX
IE3-W41R 132 M4	W40R	132	6308 ZZ C3	-	RB40	90	-	6308 ZZ C3	-	RB40	N-end	FXM66DX
IE3-W41R 160 M2	W40R	160	6310 ZZ C3	-	RB50	110	-	6309 ZZ C3	-	RB45	N-end	FXM66DX
IE3-W41R 160 MX2	W40R	160	6310 ZZ C3	-	RB50	110	-	6309 ZZ C3	-	RB45	N-end	FXM66DX
IE3-W41R 160 L2	W40R	160	6310 ZZ C3	-	RB50	110	-	6309 ZZ C3	-	RB45	N-end	FXM66DX
IE3-W41R 160 M4	W40R	160	6310 ZZ C3	-	RB50	110	-	6309 ZZ C3	-	RB45	N-end	FXM66DX
IE3-W41R 160 L4C	W40R	160	6310 ZZ C3	-	RB50	110	-	6309 ZZ C3	-	RB45	N-end	FXM66DX
IE3-W41R 180 M2C	W40R	180	6310 C3	50A	-	110	-	6310 C3	50A	-	N-end	FXM86DX
IE3-W41R 200 L2	W40R	200	6312 C3	60A	-	-	130	6312 C3	60A	-	N-end	FXM85SX
IE3-W41R 200 LX2C	W40R	200	6312 C3	60A	-	-	130	6312 C3	60A	-	N-end	FXM85SX
IE3-W41R 225 M2	W40R	225	6313 C3	65A	-	-	140	6313 C3	65A	-	N-end	FXM86DX
IE3-W41R 250 M2	W40R	250	6314 C3	70A	-	-	150	6314 C3	70A	-	N-end	FXM100SX
IE3-W41R 180 M4	W40R	180	6310 C3	50A	-	110	-	6310 C3	50A	-	N-end	FXM86DX
IE3-W41R 180 L4	W40R	180	6310 C3	50A	-	110	-	6310 C3	50A	-	N-end	FXM86DX
IE3-W41R 200 L4C	W40R	200	6312 C3	60A	-	-	130	6312 C3	60A	-	N-end	FXM85SX
IE3-W41R 225 S4C	W40R	200	6313 C3	65A	-	-	140	6312 C3	60A	-	N-end	FXM85SX
IE3-W41R 225 M4	W40R	225	6314 C3	70A	-	-	150	6313 C3	65A	-	N-end	FXM86DX
IE3-W41R 250 M4	W40R	250	6316 C3	80A	-	-	170	6314 C3	70A	-	N-end	FXM100SX
IE3-W41R 132 S6	W40R	112	6208 ZZ C3	-	RB40	80	-	6207 ZZ C3	-	RB35	N-end	FXM51DX
IE3-W41R 132 M6	W40R	132	6308 ZZ C3	-	RB40	90	-	6308 ZZ C3	-	RB40	N-end	FXM66DX
IE3-W41R 132 MX6	W40R	132	6308 ZZ C3	-	RB40	90	-	6308 ZZ C3	-	RB40	N-end	FXM66DX
IE3-W41R 160 M6	W40R	160	6310 ZZ C3	-	RB50	110	-	6309 ZZ C3	-	RB45	N-end	FXM66DX
IE3-W41R 160 L6C	W40R	160	6310 ZZ C3	-	RB50	110	-	6309 ZZ C3	-	RB45	N-end	FXM66DX
IE3-W41R 180 L6C	W40R	180	6310 C3	50A	-	110	-	6310 C3	50A	-	N-end	FXM86DX
IE3-W41R 200 L6	W40R	200	6312 C3	60A	-	-	130	6312 C3	60A	-	N-end	FXM85SX
IE3-W41R 200 LX6C	W40R	200	6312 C3	60A	-	-	130	6312 C3	60A	-	N-end	FXM85SX
IE3-W41R 225 M6	W40R	225	6314 C3	70A	-	-	150	6313 C3	65A	-	N-end	FXM86DX
IE3-W41R 250 M6	W40R	250	6316 C3	80A	-	-	170	6314 C3	70A	-	N-end	FXM100SX
IE3-W41R 280 S2	W40R	250	6314 C3	70A	-	-	150	6314 C3	70A	-	N-end	FXM100SX
IE3-W41R 280 M2	W40R	250	6314 C3	70A	-	-	150	6314 C3	70A	-	N-end	FXM100SX
IE3-W41R 280 S4	W40R	250	6316 C3	80A	-	-	170	6314 C3	70A	-	N-end	FXM100SX
IE3-W41R 280 M4	W40R	280	6317 C3	85A	-	-	180	6316 C3	80A	-	N-end	FXM120SX
IE3-W41R 280 S6, M6	W40R	280	6317 C3	85A	-	-	180	6316 C3	80A	-	N-end	FXM120SX
IE3-W41R 315 S2, M2	W40R	280	6316 C3	80A	-	-	170	6316 C3	80A	-	N-end	FXM120SX
IE3-W41R 315 MX2	W40R	315	6317 C3	85A	-	-	180	6317 C3[1)]	85A	-	N-end	FXM120SX
IE3-W41R 315 MY2, L2, LX2	W40R	315	6317 C3	85A	-	-	180	6317 C3[1)]	85A	-	N-end	FXM120SX
IE3-W41R 315 S4, M4	W40R	280	6317 C3	85A	-	-	180	6316 C3	80A	-	N-end	FXM120SX
IE3-W41R 315 MX4	W40R	315	6320 C3	-	RB100	-	215	6317 C3[1)]	85A	-	N-end	FXM120SX
IE3-W41R 315 MY4	W40R	315	6320 C3	-	RB100	-	215	6317 C3[1)]	85A	-	N-end	FXM120SX
IE3-W41R 315 L4, LX4	W40R	315	6320 C3	-	RB100	-	215	6317 C3[1)]	85A	-	N-end	FXM120SX
IE3-W41R 315 S6	W40R	315	6320 C3	-	RB100	-	215	6317 C3[1)]	85A	-	N-end	FXM120SX
IE3-W41R 315 M6, MX6, MY6	W40R	315	6320 C3	-	RB100	-	215	6317 C3[1)]	85A	-	N-end	FXM120SX
IE3-W41R 355 M2	W40R	355	6317 C3	-	RB85A	-	180	6317 C3[1)]	85A	-	N-end	FXM120SX
IE3-W41R 355 M4, 6	W40R	355	6324 C3	-	RB120	-	260	6317 C3[1)]	85A	-	N-end	FXM120SX

[1)] For types for vertical mounting Q317 C3; figures 18, 21

IE3-W41R from 2-pole 315 MX, 4-pole 315 MX, 6-pole 315 S with relubrication device as standard

Type	Basic type		D-end					N-end			Fixed bearing	Backstop (Ringspann)
			Anti-friction bearing	V-ring	γ-ring	Wave spring	Disc spring	Anti-friction bearing	V-ring	γ-ring		
IE3-W41R 132 S8	W40R	132	6308 ZZ C3	-	RB40	90	-	6308 ZZ C3	-	RB40	N-end	FXM66DX
IE3-W41R 132 M8	W40R	132	6308 ZZ C3	-	RB40	90	-	6308 ZZ C3	-	RB40	N-end	FXM66DX
IE3-W41R 160 M8	W40R	160	6310 ZZ C3	-	RB50	110	-	6309 ZZ C3	-	RB45	N-end	FXM66DX
IE3-W41R 160 MX8	W40R	160	6310 ZZ C3	-	RB50	110	-	6309 ZZ C3	-	RB45	N-end	FXM66DX
IE3-W41R 160 L8	W40R	160	6310 ZZ C3	-	RB50	110	-	6309 ZZ C3	-	RB45	N-end	FXM66DX
IE3-W41R 180 L8	W40R	180	6310 C3	50A	-	110	-	6310 C3	50A		N-end	FXM86DX
IE3-W41R 200 L8	W40R	180	6310 C3	50A	-	110	-	6310 C3	50A		N-end	FXM86DX
IE3-W41R 225 S8	W40R	200	6312 C3	60A	-	-	130	6312 C3	60A	-	N-end	FXM85SX
IE3-W41R 225 M8	W40R	225	6314 C3	70A	-	-	150	6313 C3	65A	-	N-end	FXM86SX
IE3-W41R 250 M8	W40R	225	6314 C3	70A	-	-	150	6313 C3	65A	-	N-end	FXM86SX
IE3-W41R 280 S8	W40R	250	6316 C3	80A	-	-	170	6314 C3	70A	-	N-end	FXM100SX
IE3-W41R 280 M8	W40R	280	6317 C3	85A	-	-	180	6316 C3	80A	-	N-end	FXM120SX
IE3-W41R 315 S8	W40R	280	6317 C3	85A	-	-	180	6316 C3	80A	-	N-end	FXM120SX
IE3-W41R 315 M8, MX8, MY8, L8	W40R	315	6320 C3	-	RB100	-	215	6317 C3[1)]	85A	-	N-end	FXM120SX
IE3-W41R 355 M8	W40R	355	6324 C3	-	RB120	-	260	6317 C3[1)]	85A	-	N-end	FXM120SX

[1)] For types for vertical mounting Q317 C3; figures 18, 21
IE3-W41R ab 315 M with relubrication device as standard

Series IE2-W..R
Bearings with backstop

Type	Basic type	D-end						N-end					Figure		Fixed bearing	Backstop (Ringspann)
		Anti-friction bearing	Felt ring	V-ring	γ-ring	Wave spring	Disc spring	Anti-friction bearing	Felt ring	V-ring	γ-ring	Wave spring	DS	NS		
IE2-WE1R 132 S2	112	6208 ZZ C3	-	-	RB40	80	-	6207 ZZ C3	-	-	RB35	-	6	8	N-end	FXM51DX
IE2-WE1R 132 SX2	132	6308 ZZ C3	-	-	RB40	90	-	6308 ZZ C3	-	-	RB40	-	6	8	N-end	FXM66DX
IE2-WE1R 132 S4, M4, M6, MX6	132	6308 ZZ C3	-	-	RB40	90	-	6308 ZZ C3	-	-	RB40	-	6	8	N-end	FXM66DX
IE2-WE1R 132 S6	112	6208 ZZ C3	-	-	RB40	80		6207 ZZ C3	-	-	RB35	-	6	8	N-end	FXM51DX
IE2-WE1R 160 M2, M4	160	6310 ZZ C3	-	-	RB50	110	-	6309 ZZ C3	-	-	RB45	-	6	8	N-end	FXM66DX
IE2-WE(2)1R 160 MX2, L2, L4	160	6310 ZZ C3	-	-	RB50	110	-	6309 ZZ C3	-	-	RB45	-	6	8	N-end	FXM66DX
IE2-WE1R 160 M6	160	6310 ZZ C3	-	-	RB50	110	-	6309 ZZ C3	-	-	RB45	-	6	8	N-end	FXM66DX
IE2-WE1R 160 L6	160	6310 ZZ C3	-	-	RB50	110	-	6309 ZZ C3	-	-	RB45	-	6	8	N-end	FXM66DX
IE2-WE1R 180 M2, M4, L4, L6	180	6310 C3	-	50A	-	110	-	6310 C3	-	50A	-	-	6	8	N-end	FXM86DX
IE2-WE(2)1R 200 L2, LX2	180	6312 C3	-	60A	-	-	130	6310 C3	-	50A	-	-	6	8	N-end	FXM86DX
IE2-WE1R 200 L4, LX6	200	6312 C3	-	60A	-	-	130	6312 C3	-	60A	-	-	6	8	N-end	FXM85SX
IE2-W21R 200 L6	180	6312 C3	-	60A	-	-	130	6310 C3	-	50A	-	-	6	8	N-end	FXM86DX
IE2-WE1R 225 M2	200	6312 C3	-	60A	-	-	140	6312 C3	-	60A	-	-	6	8	N-end	FXM85SX
IE2-WE1R 225 S4	200	6313 C3	-	65A	-	-	140	6312 C3	-	60A	-	-	6	8	N-end	FXM85SX
IE2-WE1R 225 M4, M6	225	6314 C3	-	70A	-	-	140	6313 C3	-	65A	-	-	6	8	N-end	FXM86DX
IE2-WE1R 250 M2	225	6313 C3	-	65A	-	-	140	6313 C3	-	65A	-	-	6	8	N-end	FXM86DX
IE2-WE1R 250 M4	225	6314 C3	-	70A	-	-	150	6313 C3	-	65A	-	-	6	8	N-end	FXM86DX
IE2-W21R 250 M6	250	6316 C3	-	70A	-	-	150	6314 C3	-	70A	-	-	6	8	N-end	FXM100SX
IE2-WE1R 280 S2, M2	250	6314 C3	-	70A	-	-	150	6314 C3	-	70A	-	-	6	8	N-end	FXM100SX
IE2-WE1R 280 S4, M4	250	6316 C3	-	80A	-	-	170	6314 C3	-	70A	-	-	6	8	N-end	FXM100SX
IE2-WE1R 280 S6	250	6316 C3	-	80A	-	-	170	6314 C3	-	70A	-	-	6	8	N-end	FXM100SX
IE2-WE1R 280 M6	280	6317 C3	-	85A	-	-	170	6316 C3	-	80A	-	-	6	8	N-end	FXM120SX
IE2-WE1R 315 S2, M2	280	6316 C3	-	80A	-	-	170	6316 C3	-	80A	-	-	6	8	N-end	FXM120SX
IE2-WE1R 315 S4,6, M4	280	6317 C3	-	85A	-	-	180	6316 C3	-	80A	-	-	6	8	N-end	FXM120SX
IE2-WE1R 315 M6	280	6220 C3	-	-	RB100	-	180	6316 C3	-	80A	-	-	13	16	N-end	FXM120SX
IE2-WE1R 315 MX2	280	6317 C3	-	-	RB85	-	180	6316 C3	-	80A	-	-	13	16	N-end	FXM120SX
IE2-WE1R 315 MX4	280	6220 C3	-	-	RB100	-	180	6316 C3	-	80A	-	-	13	16	N-end	FXM120SX
IE2-WE1R 315 MX6	315	6320 C3	-	-	RB100	-	215	6317 C3[1)]	-	85A	-	-	18	19	N-end	FXM120SX
IE2-WE1R 315 MY2	315	6317 C3	-	-	RB85	-	180	6317 C3[1)]	-	85A	-	-	18	19	N-end	FXM120SX
IE2-WE1R 315 L2, LX2	315	6317 C3	-	-	RB85	-	180	6317 C3[1)]	-	85A	-	-	18	19	N-end	FXM120SX
IE2-WE1R 132 S8	112	6208 ZZ C3	-	-	RB40	80		6207 ZZ C3	-	-	RB35	-	6	8	N-end	FXM51DX
IE2-WE1R 132 M8	132	6308 ZZ C3	-	-	RB40	90		6308 ZZ C3	-	-	RB40	-	6	8	N-end	FXM66DX
IE2-WE1R 160 M8	132	6309 ZZ C3	-	-	RB45	100	-	6308 ZZ C3	-	-	RB40	-	6	8	N-end	FXM66DX
IE2-WE1R 160 MX8, L8	160	6310 ZZ C3	-	-	RB50	110	-	6309 ZZ C3	-	-	RB45	-	6	8	N-end	FXM66DX
IE2-WE1R 180 L8	160	6310 ZZ C3	-	-	RB50	110	-	6310 ZZ C3	-	-	RB50	-	6	8	N-end	FXM66DX
IE2-WE1R 200 L8	180	6312 C3	-	60A	-	-	130	6310 C3	-	50A	-	-	6	8	N-end	FXM86DX
IE2-WE1R 225 S8	200	6313 C3	-	65A	-	-	140	6312 C3	-	60A	-	-	6	8	N-end	FXM85SX
IE2-WE1R 225 M8	225	6314 C3	-	70A	-	-	150	6313 C3	-	65A	-	-	6	8	N-end	FXM86DX
IE2-WE1R 250 M8	250	6316 C3	-	80A	-	-	170	6314 C3	-	70A	-	-	6	8	N-end	FXM100SX
IE2-WE1R 280 S8	250	6316 C3	-	80A	-	-	170	6314 C3	-	70A	-	-	6	8	N-end	FXM100SX
IE2-WE1R 280 M8	280	6317 C3	-	85A	-	-	180	6316 C3	-	80A	-	-	6	8	N-end	FXM120SX
IE2-WE1R 315 S8	280	6317 C3	-	85A	-	-	180	6316 C3	-	80A	-	-	6	8	N-end	FXM120SX
IE2-WE1R 315 M8	280	6220 C3	-	-	RB100	-	180	6316 C3	-	80A	-	-	13	16	N-end	FXM120SX
IE2-WE1R 315 MX8	315	6320 C3	-	-	RB100	-	215	6317 C3[1)]	-	85A	-	-	18	19	N-end	FXM120SX
IE2-WE1R 315 MY8	315	6320 C3	-	-	RB100	-	215	6317 C3[1)]	-	85A	-	-	18	19	N-end	FXM120SX
IE2-WE1R 315 L8, LX8	315	6320 C3	-	-	RB100	-	215	6317 C3[1)]	-	85A	-	-	18	19	N-end	FXM120SX

[1)] For types for vertical mounting Q317 C3; figures 18, 21
W21R 315 M; MX; MY; L; LX with relubrication device as standard

Series IE2-WE2R
Bearings with backstop

Type	Basic type	D-end					N-end			Fixed bearing	Backstop (Ringspann)
		Anti-friction bearing	V-ring	γ-ring	Wave spring	Disc spring	Anti-friction bearing	V-ring	γ-ring		
IE2-WE2R 132 S4	112	6208 ZZ C3		RB40	80	-	6207 ZZ C3		RB35	N-end	FXM51DX
IE2-WE2R 160 M4	132	6309 ZZ C3		RB45	100	-	6308 ZZ C3		RB40	N-end	FXM66DX
IE2-WE2R 160 L4	160	6310 ZZ C3	-	RB50	110	-	6309 ZZ C3	-	RB45	N-end	FXM66DX
IE2-WE2R 180 M4	180	6310 C3	50A	-	110	-	6310 C3	50A	-	N-end	FXM86DX
IE2-WE2R 200 LX2	180	6312 C3	60A	-	-	130	6310 C3	50A	-	N-end	FXM86DX
IE2-WE2R 225 M4	200	6313 C3	65A	-	-	140	6312 C3	60A	-	N-end	FXM85SX
IE2-WE2R 250 M4	225	6314 C3	70A	-	-	150	6313 C3	65A	-	N-end	FXM86DX
IE2-WE2R 132 M6	112	6208 ZZ C3		RB40	80	-	6207 ZZ C3		RB35	N-end	FXM51DX
IE2-WE2R 160 M6	132	6309 ZZ C3		RB45	100	-	6308 ZZ C3		RB40	N-end	FXM66DX
IE2-WE2R 180 L6	160	6310 ZZ C3	-	RB50	110	-	6309 ZZ C3	-	RB45	N-end	FXM66DX
IE2-WE2R 200 LX6	180	6312 C3	60A	-	-	130	6310 C3	50A	-	N-end	FXM86DX
IE2-WE2R 225 M6	200	6313 C3	65A	-	-	140	6312 C3	60A	-	N-end	FXM85SX
IE2-WE2R 250 M6	225	6314 C3	70A	-	-	150	6313 C3	65A	-	N-end	FXM86DX
IE2-WE2R 132 M8	112	6208 ZZ C3		RB40	80	-	6207 ZZ C3		RB35	N-end	FXM51DX
IE2-WE2R 160 MX8	132	6309 ZZ C3		RB45	100	-	6308 ZZ C3		RB40	N-end	FXM66DX
IE2-WE2R 180 L8	160	6310 ZZ C3	-	RB50	110	-	6309 ZZ C3	-	RB50	N-end	FXM66DX
IE2-WE2R 225 S8	200	6313 C3	65A	-	-	140	6312 C3	60A	-	N-end	FXM85SX
IE2-WE2R 225 M8	200	6313 C3	65A	-	-	140	6312 C3	60A	-	N-end	FXM85SX
IE2-WE2R 250 M8	225	6314 C3	70A	-	-	150	6313 C3	65A	-	N-end	FXM86DX

Series K21R
Bearings with backstop

Type	D-end						N-end					Fixed bearing	Backstop (Ringspann)
	Anti-friction bearing	V-ring	γ-ring	Felt ring	Wave spring	Disc spring	Anti-friction bearing	V-ring	γ-ring	Wave spring	Felt ring		
K21R 63	6201 ZZ C3	-	-	11.5 x 19	-	-	6201 ZZ C3	-	-	32	12 x 22	without	without
K21R 71	6202 ZZ C3	-	-	14.5 x 21	-	-	6202 ZZ C3	-	-	35	15 x 24	without	without
(IE1-)K21R 80	6204 ZZ C3	-	-	19.5 x 26	-	-	6204 ZZ C3	-	-	47	20 x 32	without	without
(IE1-)K21R 90	6205 ZZ C3	-	-	24.5 x 35	-	-	6205 ZZ C3	-	-	52	25 x 40	without	without
(IE1-)K21R 100	6206 ZZ C3	-	-	29.2 x 40	-	-	6205 ZZ C3	-	-	52	25 x 40	without	without
(IE1-)K21R 100 LX	6206 ZZ C3	-	-	29.2 x 40	-	-	6206 ZZ C3	-	-	62	30 x 50	without	without
(IE1-)K21R 112 M	6206 ZZ C3	-	-	29.2 x 40	-	-	6206 ZZ C3	-	-	62	30 x 50	without	without
(IE1-)K21R 132 S2, 4T	6208 ZZ C3	-	-	39 x 60	-	-	6206 ZZ C3	-	-	62	30 x 50	without	without
(IE1-)K21R 132 S, SX2, M6, 8	6208 ZZ C3	-	RB40	-	80		6207 ZZ C3	-	RB35	-	-	N-end	FXM51DX
(IE1-)K21R 132 M4, MX6	6308 ZZ C3	-	RB40	-	90	-	6308 ZZ C3	-	RB40	-	-	N-end	FXM66DX
(IE1-)K21R 160 M, MX8	6309 ZZ C3	-	RB45	-	100	-	6308 ZZ C3	-	RB40	-	-	N-end	FXM66DX
(IE1-)K21R 160 MX2, L	6310 ZZ C3	-	RB50	-	110	-	6309 ZZ C3	-	RB45	-	-	N-end	FXM66DX
(IE1-)K21R 180 M4, L6, 8	6310 ZZ C3	-	RB50	-	110	-	6309 ZZ C3	-	RB45	-	-	N-end	FXM66DX
(IE1-)K21R 180 M2, L4	6310 C3	50A	-	-	110	-	6310 C3	50A	-	-	-	N-end	FXM86DX
(IE1-)K21R 200 L, LX6	6312 C3	60A	-	-	-	130	6310 C3	50A	-	-	-	N-end	FXM86DX
(IE1-)K21R 200 LX2	6312 C3	60A	-	-	-	130	6312 C3	60A	-	-	-	N-end	FXM85SX
(IE1-)K21R 225 M2	6312 C3	60A	-	-	-	130	6312 C3	60A	-	-	-	N-end	FXM85SX
(IE1-)K21R 225 S4, 8, M4, 6, 8	6313 C3	65A	-	-	-	140	6312 C3	60A	-	-	-	N-end	FXM85SX
(IE1-)K21R 250 M2	6313 C3	65A	-	-	-	140	6313 C3	65A	-	-	-	N-end	FXM86DX
(IE1-)K21R 250 M4, 6, 8	6314 C3	70A	-	-	-	150	6313 C3	65A	-	-	-	N-end	FXM86DX
(IE1-)K21R 280 S2, M2	6314 C3	70A	-	-	-	150	6314 C3	70A	-	-	-	N-end	FXM100SX
(IE1-)K21R 280 S4, 6, 6, M4, 6, 8	6316 C3	80A	-	-	-	170	6314 C3	70A	-	-	-	N-end	FXM100SX
(IE1-)K21R 315 S2, M2	6316 C3	80A	-	-	-	170	6316 C3	80A	-	-	-	N-end	FXM120SX
(IE1-)K21R 315 S4, 6, 8, M4, 6, 8	6317 C3	85A	-	-	-	180	6316 C3	80A	-	-	-	N-end	FXM120SX
(IE1-)K21R 315 MX2	6317 C3	-	RB85	-	-	180	6316 C3	80A	-	-	-	N-end	FXM120SX
(IE1-)K21R 315 MX4, 6, 8	6220 C3	-	RB100	-	-	180	6316 C3	80A	-	-	-	N-end	FXM120SX
(IE1-)K21R 315 MY2	6317 C3	-	RB85	-	-	180	6317 C3[1)]	85A	-	-	-	N-end	FXM120SX
(IE1-)K21R 315 MY4, 6, 8	6320 C3	-	RB100	-	-	215	6317 C3[1)]	85A	-	-	-	N-end	FXM120SX
(IE1-)K21R 315 L2, LX2	6317 C3	-	RB85	-	-	180	6317 C3[1)]	85A	-	-	-	N-end	FXM120SX
(IE1-)K21R 315 L4, 6, 8 Lx4, 6, 8	6320 C3	-	RB100	-	-	215	6317 C3[1)]	85A	-	-	-	N-end	FXM120SX
(IE1-)K22R 355 MY/M/MX/LY/L 2	6317 C3	-	RB85	-	-	180	6317 C3[1)]	85A	-	-	-	N-end	FXM120SX
(IE1-)K22R 355 MY/M/MX/LY/L 4, 6, 8	6324 C3	-	RB120	-	-	260	6317 C3[1)]	85A	-	-	-	N-end	FXM120SX

[1)] For types for vertical mounting Q317 C3; figures 18, 21
From size IE1-K20R 315 with relubrication device as standard

Series K20R
Bearings with backstop

Type	D-end						N-end					Fixed bearing	Backstop (Ringspann)
	Anti-friction bearing	V-ring	γ-ring	Felt ring	Wave spring	Disc spring	Anti-friction bearing	V-ring	γ-ring	Wave spring	Felt ring		
K20R 56	6201 ZZ C3	-	-	11.5 x 19	-	-	6201 ZZ C3	-	-	32	12 x 22	without	without
K20R 63	6202 ZZ C3	-	-	14.5 x 21	-	-	6202 ZZ C3	-	-	35	15 x 24	without	without
(IE1)-K20R 71	6204 ZZ C3	-	-	19.5 x 26	-	-	6204 ZZ C3	-	-	47	20 x 32	without	without
(IE1)-K20R 80	6205 ZZ C3	-	-	24.2 x 35	-	-	6205 ZZ C3	-	-	52	25 x 40	without	without
(IE1)-K20R 90	6205 ZZ C3	-	-	24.5 x 35	-	-	6205 ZZ C3	-	-	52	25 x 40	without	without
(IE1)-K20R 100	6206 ZZ C3	-	-	29.2 x 40	-	-	6206 ZZ C3	-	-	62	30 x 50	without	without
(IE1)-K20R 112 M2, 4, 6, 8	6207 ZZ C3	-	RB35	-	72		6207 ZZ C3	-	RB35	-	-	N-end	FXM51DX
(IE1)-K20R 112 MX6, 8	6207 ZZ C3	-	RB35	-	72		6207 ZZ C3	-	RB35	-	-	N-end	FXM51DX
(IE1)-K20R 132 S, M	6308 ZZ C3	-	RB40	-	90	-	6308 ZZ C3	-	RB40	-	-	N-end	FXM66DX
(IE1)-K20R 160 S, M	6310 ZZ C3	-	RB50	-	110	-	6309 ZZ C3	-	RB45	-	-	N-end	FXM66DX
(IE1)-K20R 180 S2, M2	6310 C3	50A	-	-	110	-	6310 C3	50A	-	-	-	N-end	FXM86DX
(IE1)-K20R 180 S4, 6, 8, M4, 6, 8	6312 C3	60A	-	-	-	130	6310 C3	50A	-	-	-	N-end	FXM86DX
(IE1)-K20R 200 M2, L2	6312 C3	60A	-	-	-	130	6312 C3	60A	-	-	-	N-end	FXM85SX
(IE1)-K20R 200 M4, 6, 8, L4, 6, 8	6313 C3	65A	-	-	-	140	6312 C3	60A	-	-	-	N-end	FXM85SX
(IE1)-K20R 225 M2	6313 C3	65A	-	-	-	140	6313 C3	65A	-	-	-	N-end	FXM86DX
(IE1)-K20R 225 M4, 6, 8	6314 C3	70A	-	-	-	150	6313 C3	65A	-	-	-	N-end	FXM86DX
(IE1)-K20R 250 S2, M2	6314 C3	70A	-	-	-	150	6314 C3	70A	-	-	-	N-end	FXM100SX
(IE1)-K20R 250 S4, 6, 8, M4, 6, 8	6316 C3	80A	-	-	-	170	6314 C3	70A	-	-	-	N-end	FXM100SX
(IE1)-K20R 280 S2, M2	6316 C3	80A	-	-	-	170	6316 C3	80A	-	-	-	N-end	FXM120SX
(IE1)-K20R 280 S4, 6, 8, M4, 6, 8	6317 C3	85A	-	-	-	180	6316 C3	80A	-	-	-	N-end	FXM120SX
(IE1)-K20R 315 S2	6317 C3	-	RB85	-	-	180	6316 C3	80A	-	-	-	N-end	FXM120SX
(IE1)-K20R 315 S4, 6, 8	6220 C3	-	RB100	-	-	180	6316 C3	80A	-	-	-	N-end	FXM120SX
(IE1)-K20R 315 M2, L2, LX2	6317 C3	-	RB85	-	-	180	6317 C3[1)]	85A	-	-	-	N-end	FXM120SX
(IE1)-K20R 315 M4, 6, 8, LX4, 6, 8	6320 C3	-	RB100	-	-	215	6317 C3[1)]	85A	-	-	-	N-end	FXM120SX

[1)] For types for vertical mounting Q317 C3; figures 18, 21
From size IE1-K20R 315 with relubrication device as standard

Terminal boxes

Standard design, sealed cable glands, power station design, VIK design

Type	Material	Adapter flange	Dimensions				Cable gland thread	Max. cable diameter	Terminal mounting	Number of terminals	Thread of terminal stud	Thread of protective conductor	Figure
			AG	LL	AH	BE	O	O max					
			x	z	-	-	r	$..r_{max}$					
Standard version													
KA 05	Alu	-	92	92	-	-	M20 x 1.5	Ø 13 mm	K1M4	6	M4	M4	
KA 05	Alu	-	92	92	-	-	M25 x 1.5	Ø 17 mm	K1M4	6	M4	M4	
KA 05-13	Alu	-	104	112	-	-	M20 x 1.5	Ø 13 mm	K1M4	6	M4	M4	
KA 05-13	Alu	-	104	112	-	-	M25 x 1.5	Ø 17 mm	K1M4	6	M4	M4	
KA 05-13	Alu	-	104	112	-	-	M32 x 1.5	Ø 21 mm	K1M4	6	M4	M4	
25 A	Alu	-	156	145	-	-	M32 x 1.5	Ø 21 mm	SB 5/K1M5	6	M5	M6	01
25 A SS	GG-15	-	143	134	-	-	M32 x 1.5	Ø 21 mm	SB 5/K1M5	6	M5	M6	01
63/25 A	Alu	-	193	167	-	-	M40 x 1.5	Ø 28 mm	SB 5/K1M5	6	M5	M6	01
63 A	Alu	-	193	167	-	-	M40 x 1.5	Ø 28 mm	SB 6/K1M6	6	M6	M6	01
63 A	GG-15	-	174	162	-	-	M40 x 1.5	Ø 28 mm	SB 6/K1M6	6	M6	M6	01
63 A	Alu	-	193	167	-	-	M50 x 1.5	Ø 35 mm	SB 6/K1M6	6	M6	M6	01
63 A	GG-15	-	174	162	-	-	M50 x 1.5	Ø 35 mm	SB 6/K1M6	6	M6	M6	01
100 A	GG-15	-	213	207	-	-	M50 x 1.5	Ø 35 mm	SB 8	6	M8	M8	01
200/100 A	GG-15	-	282	242	-	-	M63 x 1.5	Ø 45 mm	SB 8	6	M8	M8	01
200 A	GG-15	-	282	242	-	-	M63 x 1.5	Ø 45 mm	SB 10	6	M10	M10	01
400 A	GG-15	-	315	294	-	-	M63 x 1.5	Ø 45 mm	SB 12	6	M12	M10	02
400 B	GG-15	-	415	340	265	-	M63 x 1.5	Ø 45 mm	KM 12	6	M12	LK	03
400 B	GG-15	-	415	340	265	-	M72 x 2	Ø 56.5 mm	KM 12	6	M12	LK	03
630 A	GG-15	straight	496	390	301	140	M72 x 2	Ø 56.5 mm	KLP 630-20	6	M20	LK	04G
630 A	GG-15	inclined	496	390	301	140	M72 x 2	Ø 56.5 mm	KLP 630-20	6	M20	LK	04S
1000 A	GG-15	straight	615	474	385	200	M72 x 2	Ø 56.5 mm	KLSO 1000	6	StS	LK	05G
1000 A	GG-15	inclined	615	474	385	200	M72 x 2	Ø 56.5 mm	KLSO 1000	6	StS	LK	05S
1000 A	GG-15	straight	615	474	385	200	M80 x 2	Ø 68 mm	KLSO 1000	6	StS	LK	05G
1000 A	GG-15	inclined	615	474	385	200	M80 x 2	Ø 68 mm	KLSO 1000	6	StS	LK	05S
Sealed cable glands													
VGK 200 A	GG-15	-	387	242	-	-	Ø 66	Ø 66 mm	SB 10	6	M10	M10	06
VGK 400 A	GG-15	-	422	296	-	-	Ø 95	Ø 95 mm	SB 12	6	M12	M10	06
Power station design													
25 A KA	GG-15	-	143	134	-	-	M32 x 1.5	Ø 21 mm	KL 155	6	M5	M6	07
63 A KA	GG-15	-	184	172	-	-	M40 x 1.5	Ø 28 mm	KL 155	6	M5	M6	07
63 A KA	GG-15	-	184	172	-	-	M40 x 1.5	Ø 28 mm	K1 M6	6	M6	M6	07
63/100 A KA	GG-15	-	223	214	-	-	M50 x 1.5	Ø 35 mm	K1 M6	6	M6	M6	07
100 A KA	GG-15	-	213	207	-	-	M50 x 1.5	Ø 35 mm	K1 M8	6	M8	M8	07
200 A KA	GG-15	-	285	258	-	-	M63 x 1.5	Ø 45 mm	K1 M10	6	M10	M10	07
200 B KA	GG-15	-	330	270	200	-	M63 x 1.5	Ø 45 mm	K1 M10	6	M10	LK	03
400 A KA	GG-15	-	315	306	-	-	M63 x 1.5	Ø 45 mm	KM 12	6	M12	M10	07
VIK design													
KA 05-13	Alu	-	104	112	-	-	M20 x 1.5	Ø 13 mm	K1M4	6	M4	M4	
KA 05-13	Alu	-	104	112	-	-	M25 x 1.5	Ø 17 mm	K1M4	6	M4	M4	
KA 05-13	Alu	-	104	112	-	-	M32 x 1.5	Ø 21 mm	K1M4	6	M4	M4	
25 AV Ex e II	GG-15	-	143	134	-	-	M32 x 1.5	Ø 21 mm	KL 155	6	M5	M6	07
63 AV Ex e II	GG-15	-	184	172	-	-	M40 x 1.5	Ø 28 mm	KL 155	6	M5	M6	07
100/63 AV Ex e IIC	GG-15	-	223	214	-	-	M40 x 1.5	Ø 28 mm	KM 8/6	6	M6	M6	08
100/63 AV Ex e IIC	GG-15	-	223	214	-	-	M50 x 1.5	Ø 35 mm	KM 8/6	6	M6	M6	08
200 A-SB Ex e IIC	GG-15	-	335	270	200	-	M50 x 1.5	Ø 35 mm	KM 10/8	6	LK	LK	09
200 A-SB Ex e IIC	GG-15	-	335	270	200	-	M63 x 1.5	Ø 45 mm	KM 10/8	6	LK	LK	09
400 A-SB Ex e IIC	GG-15	-	415	340	265	-	M63 x 1.5	Ø 45 mm	KM 16/12	6	LK	LK	09
630 A Ex e IIC	GG-15	straight	496	390	301	140	M75 x 1.5	Ø 45 mm	KLP 630-20	6	LK	LK	10G
630 A Ex e IIC	GG-15	inclined	496	390	301	140	M75 x 1.5	Ø 45 mm	KLP 630-20	6	LK	LK	10S
1000 A Ex e IIC	GG-15	straight	615	474	385	200	M80 x 1.5	Ø 68 mm	KLSO 1000	6	StS	LK	11G
1000 A Ex e IIC	GG-15	inclined	615	474	385	200	M80 x 1.5	Ø 68 mm	KLSO 1000	6	StS	LK	11S

StS… Busbars
LK…Terminal tabs

Standard design, sealed cable glands, power station design

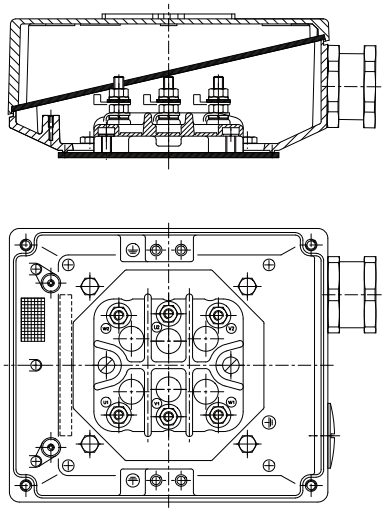


Figure 01

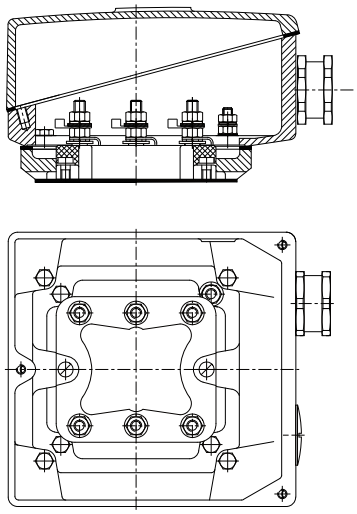


Figure 02

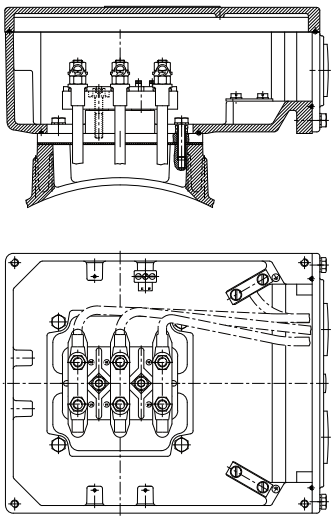


Figure 03

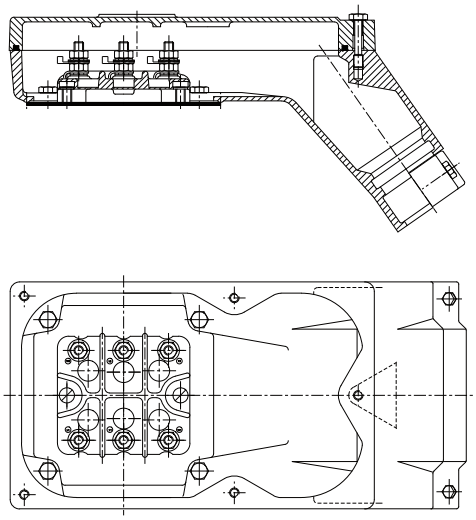


Figure 06

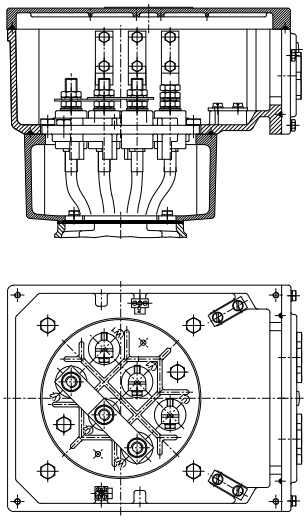


Figure 04G

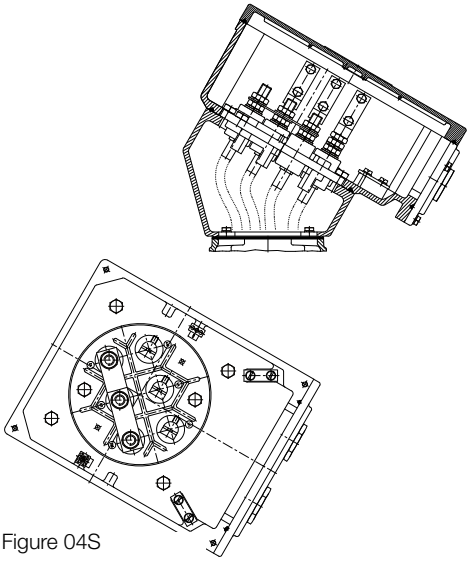


Figure 04S

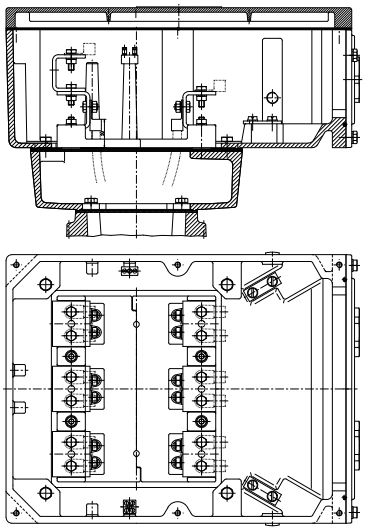


Figure 05G

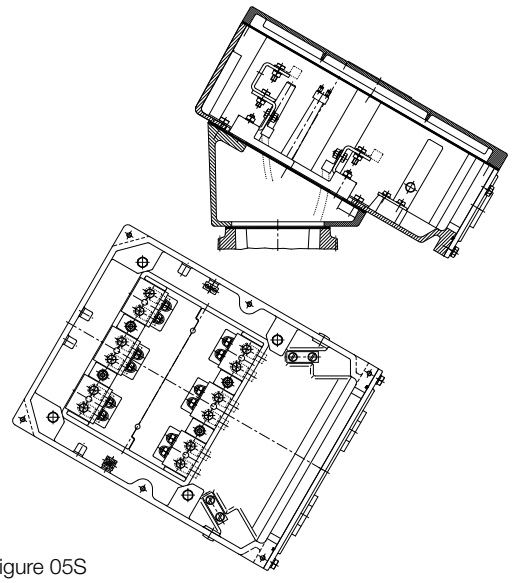


Figure 05S

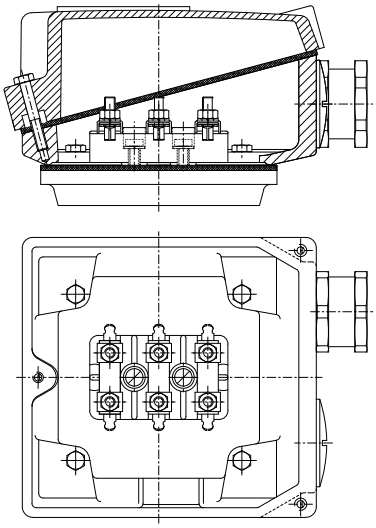


Figure 07

Dimensions

Flange dimensions

Flanges with threaded holes

Flange type to E DIN EN 50347	Flange type to DIN 42948	LA c_1	M e_1	N b_1	P a_1	S s_1	T f_1
FT 65	C 80	6,5	65	50	80	M5	2,5
FT 75	C 90	8	75	60	90	M5	2,5
FT 85	C 105	8,5	85	70	105	M6	2,5
FT 100	C 120	8	100	80	120	M6	3
FT 115	C 140	10	115	95	140	M8	3
FT 130	C 160	10	130	110	160	M8	3,5
FT 165	C 200	12	165	130	200	M10	3,5
FT 215	C 250	12	215	180	250	M12	4

Flanges with through-holes

Flange type to E DIN EN 50347	Flange type to DIN 42948	LA c_1	M e_1	N b_1	P a_1	S s_1	T f_1
FF 100	A 120	9	100	80	120	7	3
FF 115	A 140	9	115	95	140	9	3
FF 130	A 160	9	130	110	160	9	3,5
FF 165	A 200	10	165	130	200	11	3,5
FF 215	A 250	11	215	180	250	14	4
FF 265	A 300	12	265	230	300	14	4
FF 300	A 350	13	300	250	350	18	5
FF 350	A 400	15	350	300	400	18	5
FF 400	A 450	16	400	350	450	18	5
FF 500	A 550	18	500	450	550	18	5
FF 600	A 660	22	600	550	660	22	6
FF 740	A 800	25	740	680	800	22	6

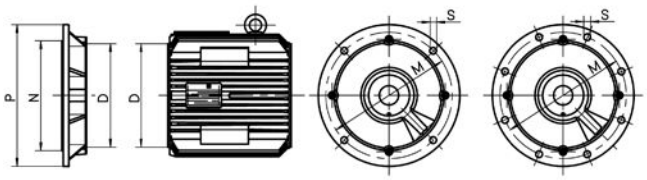
According to DIN EN 50347, the different sizes of FF flanges possess through-holes, while FT flanges possess threaded holes.
The flange designations A and C defined in DIN 42948 remain valid.

Flange assignments which deviate from the standard are specified in the flange assignment tables.

For tolerances for the dimension N (b1), refer to the corresponding dimension tables
LA (c1) depth of engagement

Flange variants

Type of construction IM B5/IM 3001



IE3-W42R		63	71	80	90				IE3-W40R																	
IE3-W41R		56	63	71	80	90	100	112	112	132...T	132	SX2, M4, M6, MX6, S8, M8	160	180	200 L8	200	225 S4C, S8	225	250 M8	250	280 S2, M2, S4, S8	280 M4, S6, M6, M8	315 S2, M2, S4, M4	315	355 M, MY, L
D in mm		88	100	115	131	145	164	164	185	164	185	216	266	300	300	335	335	378	378	428	428	488	488	530	624
P	a_1	120[1]	120[1]	120[1]	120[1]																				
N	b_1	80	80	80	80																				
M	**e_1**	**100**	**100**	**100**	**100**																				
S	s_1	7	7	7	7																				
P	a_1	140	140[1]	140[1]																					
N	b_1	95	95	95																					
M	**e_1**	**115**	**115**	**115**																					
S	s_1	9	9	9																					
P	a_1	160[1]	160	160[1]	160[1]	160[1]	160[1]	160[1]																	
N	b_1	110	110	110	110	110	110	110																	
M	**e_1**	**130**	**130**	**130**	**130**	**130**	**130**	**130**																	
S	s_1	9	9	9	9	9	9	9																	
P	a_1			200	200	200[1]	200[1]	200[1]		200[1]	200[1]														
N	b_1			130	130	130	130	130		130	130														
M	**e_1**			**165**	**165**	**165**	**165**	**165**		**165**	**165**														
S	s_1			11	11	11	11	11		11	11														
P	a_1			250[1]	250[1]	250	250	250	250	250	250														
N	b_1			180	180	180	180	180	180	180	180														
M	**e_1**			**215**	**215**	**215**	**215**	**215**	**215**	**215**	**215**														
S	s_1			14	14	14	14	14	14	14	14														
P	a_1				300[1]					300	300	300	300[2]												
N	b_1				230					230	230	230	230												
M	**e_1**				**265**					**265**	**265**	**265**	**265**												
S	s_1				14					14	14	14	14												
P	a_1											350	350	350	350										
N	b_1											250	250	250	250										
M	e_1											300	300	300	300										
S	s_1											18	18	18	18										
P	a_1												400[4]	400	400	400	400[6]	400[7]	400[7]						
N	b_1												300	300	300	300	300	300	300						
M	**e_1**												**350**	**350**	**350**	**350**	**350**	**350**	**350**						
S	s_1												18	18	18	18	18	18	18						
P	a_1													450	450	450	450	450	450						
N	b_1													350	350	350	350	350	350						
M	**e_1**													**400**	**400**	**400**	**400**	**400**	**400**						
S	s_1													18	18	18	18	18	18						
P	a_1																		550	550	550	550	550		
N	b_1																		450	450	450	450	450		
M	**e_1**																		**500**	**500**	**500**	**500**	**500**		
S	s_1																		18	18	18	18	18		
P	a_1																						660	660	
N	b_1																						550	550	
M	**e_1**																						**600**	**600**	
S	s_1																						22	22	
P	a_1																								800
N	b_1																								680
M	**e_1**																								**740**
S	s_1																								22

[1] Protruding flange

[2] Flange fixing by studs only on customer side

[3] For shaft diameter 42 mm: Flange fixing by studs only on customer side

[4] KPR flange (with corners)

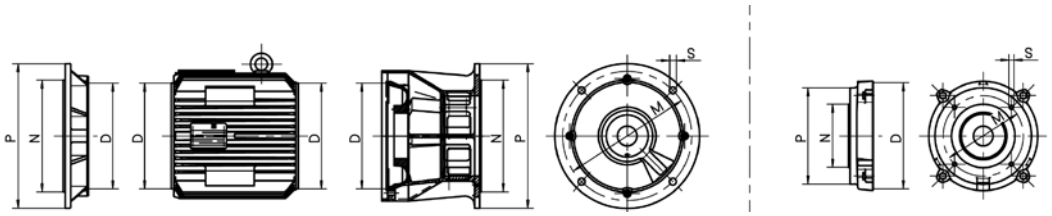
[6] For shaft diameter 55 mm

[7] For shaft diameter 60 mm

Flange variants

Type of construction IM 2202

IM B14



IE3-W4.R		63	71	80	90	100	100LX	112	112	132	SX2, M4, M6, MX6, S8, M8	160	180	200 L8	200	225 S4C, S8	225	250 M8	250	280 S2, M2, S4, S8	280 M4, S6, M6, M8	315 S 2, M2, S4, M4	315	355 M, MY, L
D in mm		88	100	115	131	145	164	164	185	185	216	266	300	300	335	335	378	378	428	428	488	488	530	624
P	**a_1**											**350**	**350**	**350**										
N	b_1											250	250	250										
M	e_1											300	300	300										
S	s_1											18	18	18										
P	**a_1**												**400**	**400**	**400**	**400**								
N	b_1												300	300	300	300								
M	e_1												350	350	350	350								
S	s_1												18	18	18	18								
P	**a_1**														**450**	**450**								
N	b_1														350	350								
M	e_1														400	400								
S	s_1														18	18								
P	**a_1**																**550**	**550**	**550**	**550**				
N	b_1																450	450	450	450				
M	e_1																500	500	500	500				
S	s_1																18	18	18	18				
P	**a_1**																				**660**	**660**		
N	b_1																				550	550		
M	e_1																				600	600		
S	s_1																				22	22		

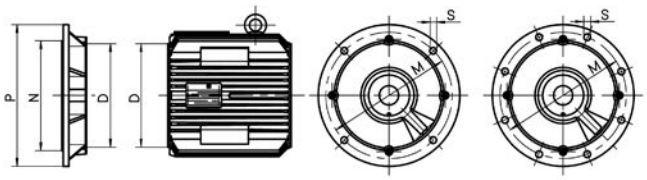
Type of construction IM B14 K, G

IE3-W42R		63	71	80	90				IE3-W40R 112 M2															
IE3-W41R		56	63	71	80	90	100	112	112	132…T	132	SX2, M4, M6, MX6, S8, M8	160	180	200 L8	200	225 S4C, S8	225	250 M8	250	280 S2, M2, S4, S8	280 M4, S6, M6, M8	315 S2, M2, S4, M4	315	355 M, MY, L
D in mm		88	100	115	131	145	164	164	185	164	185	216	266	300	300	335	335	378	378	428	428	488	488	530	624
P	a_1	80	90	105																				
N	b_1	50	60	70																				
M	**e_1**	**65**	**75**	**85**																				
S	s_1	M5	M5	M6																				
P	a_1	90	105	120	120	140	140	140		160	160													
N	b_1	60	70	80	80	95	95	95		110	110													
M	**e_1**	**75**	**85**	**100**	**100**	**115**	**115**	**115**		**130**	**130**													
S	s_1	M5	M6	M6	M6	M8	M8	M8		M8	M8													
P	a_1	105[1)]	120	140	140	160	160	160	160	200	200													
N	b_1	70	80	95	95	110	110	110	110	130	130													
M	**e_1**	**85**	**100**	**115**	**115**	**130**	**130**	**130**	**130**	**165**	**165**													
S	s_1	M6	M6	M8	M8	M8	M8	M8	M8	M10	M10													
P	a_1	120	140	160	160	200	200	200	200	250	250	250	300											
N	b_1	80	95	110	110	130	130	130	130	180	180	180	230											
M	**e_1**	**100**	**115**	**130**	**130**	**165**	**165**	**165**	**165**	**215**	**215**	**215**	**265**											
S	s_1	M6	M8	M8	M8	M10	M10	M10	M10	M12	M12	M12	M12											

[1)] Protruding flange

Flange variants

Type of construction IM B5/IM 3001



IE2-WE2R		63	71	80	90	100					132		160 M4, M6	160 L4, L6	180 L6	180 M4	200 LX2, LX6		225 M4, M6		250 M4, M6			280 M6				
IE2-WE1R		56	63	71	80	90		100	112	132…T	112	132	132 SX2, M4, MX6, M8	160 M8	160		180 M2, L4	200 L2, L6, L8	200 L4	225 M2, S4, S8	225 M4, M6, M8	250 M2, M8	250 M4, M6, M8	280		315S, M	315 MX	315 MY, L, LX	355 M, MY, L
D in mm		88	100	115	131	145	145	164	164	164	185	185	216	216	266	266	300	300	335	335	378	378	428	428	488	488	488	530	624
P	a_1	120[1]	120[1]	120[1]	120[1]		120[1]																					
N	b_1	80	80	80	80		80																					
M	**e_1**	**100**	**100**	**100**	**100**		**100**																					
S	s_1	7	7	7	7		7																					
P	a_1	140	140[1]	140[1]																								
N	b_1	95	95	95																								
M	**e_1**	**115**	**115**	**115**																								
S	s_1	9	9	9																								
P	a_1	160[1]	160	160[1]	160[1]	160[1]	160[1]	160[1]	160[1]																			
N	b_1	110	110	110	110	110	110	110	110																			
M	**e_1**	**130**	**130**	**130**	**130**	**130**	**130**	**130**	**130**																			
S	s_1	9	9	9	9	9	9	9	9																			
P	a_1			200	200	200[1]	200[1]	200[1]	200[1]	200[1]		200[1]																
N	b_1			130	130	130	130	130	130	130		130																
M	**e_1**			**165**	**165**	**165**	**165**	**165**	**165**	**165**		**165**																
S	s_1			11	11	11	11	11	11	11		11																
P	a_1			250[1]	250[1]	250	250	250	250	250	250	250																
N	b_1			180	180	180	180	180	180	180	180	180																
M	**e_1**			**215**	**215**	**215**	**215**	**215**	**215**	**215**	**215**	**215**																
S	s_1			14	14	14	14	14	14	14	14	14																
P	a_1				300[1]		300[1]			300		300	300	300	300[2]	300[3]												
N	b_1				230		230			230		230	230	230	230	230												
M	**e_1**				**265**		**265**			**265**		**265**	**265**	**265**	**265**	**265**												
S	s_1				14		14			14		14	14	14	14	14												
P	a_1												350	350	350	350	350	350										
N	b_1												250	250	250	250	250	250										
M	**e_1**												**300**	**300**	**300**	**300**	**300**	**300**										
S	s_1												18	18	18	18	18	18										
P	a_1														400[4]	400[4]	400	400	400	400[6]	400[7]	400[7]						
N	b_1														300	300	300	300	300	300	300	300						
M	**e_1**														**350**	**350**	**350**	**350**	**350**	**350**	**350**	**350**						
S	s_1														18	18	18	18	18	18	18	18						
P	a_1																450	450	450	450	450	450						
N	b_1																350	350	350	350	350	350						
M	**e_1**																**400**	**400**	**400**	**400**	**400**	**400**						
S	s_1																18	18	18	18	18	18						
P	a_1																					550	550	550	550	550	550	
N	b_1																					450	450	450	450	450	450	
M	**e_1**																					**500**	**500**	**500**	**500**	**500**	**500**	
S	s_1																					18	18	18	18	18	18	
P	a_1																									660	660	660
N	b_1																									550	550	550
M	**e_1**																									**600**	**600**	**600**
S	s_1																									22	22	22
P	a_1																											800
N	b_1																											680
M	**e_1**																											**740**
S	s_1																											22

[1] Protruding flange

[2] Flange fixing by studs only on customer side

[3] For shaft diameter 42 mm: Flange fixing by studs only on customer side

[4] KPR flange (with corners)

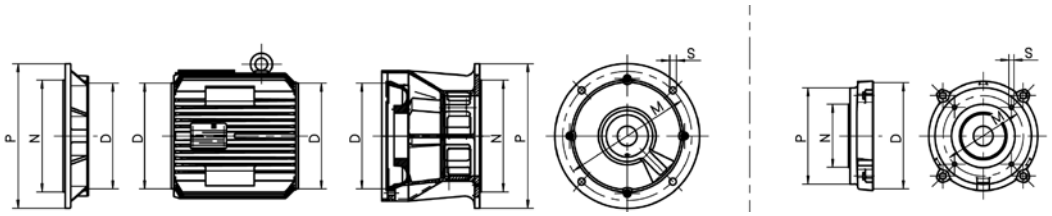
[6] For shaft diameter 55 mm

[7] For shaft diameter 60 mm

Flange variants

Type of construction IM 2202

IM B14



IE2-WE1R		63	71	80	90	100	100LX	112	132	112	132	132 SX2, M4, MX6, M8	160 M8	160	180 M2, L4	200 L2, L6, L8	200 L4	225 M2, S4, S8	225 M4, M6, M8	250 M2, M8	250 M4, M6, M8	280	315 S, M	315 MX	315 MY, L, LX	355 M, MY, L
IE2-WE2R											132 M6		160 M4, M6	160 L4, L6	180 L6	180 M4	200 LX2, LX6		225 M4, M6		250 M4, M6		280 M6				
D in mm		88	100	115	131	145	164	164	164	185	185	216	216	266	266	300	300	335	335	378	378	428	428	488	488	488	530	624
P	**a_1**													**350**	**350**	**350**	**350**											
N	b_1													250	250	250	250											
M	e_1													300	300	300	300											
S	s_1													18	18	18	18											
P	**a_1**															**400**	**400**	**400**	**400**									
N	b_1															300	300	300	300									
M	e_1															350	350	350	350									
S	s_1															18	18	18	18									
P	**a_1**																	**450**	**450**									
N	b_1																	350	350									
M	e_1																	400	400									
S	s_1																	18	18									
P	**a_1**																			**550**	**550**	**550**	**550**					
N	b_1																			450	450	450	450					
M	e_1																			500	500	500	500					
S	s_1																			18	18	18	18					
P	**a_1**																							**660**	**660**	**660**		
N	b_1																							550	550	550		
M	e_1																							600	600	600		
S	s_1																							22	22	22		

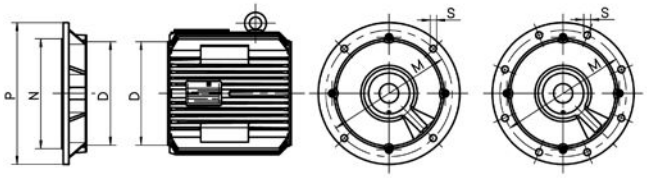
Type of construction IM B14 K, G

IE2-WE2R		63	71	80	90	100					132		160 M4, M6	160 L4, L6	180 L6	180 M4	200 LX2, LX6		225 M4, M6		250 M4, M6		280 M6				
IE2-WE1R		56	63	71	80	90	100	112	132...T	112	132	132 SX2, M4, MX6, M8	160M8	160		180 M2, L4	200L2, L6, L8	200 L4	225 M2, S4, S8	225 M4, M6, M8	250 M2, M8	250 M4, M6, M8	280	315 S, M	315 MX	315 MY, L, LX	355 M, MY, L
D in mm		88	100	115	131	145	164	164	164	185	185	216	216	266	266	300	300	335	335	378	378	428	428	488	488	488	530	624
P	a_1	80	90	105																								
N	b_1	50	60	70																								
M	**e_1**	**65**	**75**	**85**																								
S	s_1	M5	M5	M6																								
P	a_1	90	105	120	120	140	140	140	160		160																	
N	b_1	60	70	80	80	95	95	95	110		110																	
M	**e_1**	**75**	**85**	**100**	**100**	**115**	**115**	**115**	**130**		**130**																	
S	s_1	M5	M6	M6	M6	M8	M8	M8	M8		M8																	
P	a_1	105[1)]	120	140	140	160	160	160	200	160	200																	
N	b_1	70	80	95	95	110	110	110	130	110	130																	
M	**e_1**	**85**	**100**	**115**	**115**	**130**	**130**	**130**	**165**	**130**	**165**																	
S	s_1	M6	M6	M8	M8	M8	M8	M8	M10	M8	M10																	
P	a_1	120	140	160	160	200	200	200	250	200	250	250	250	300	300													
N	b_1	80	95	110	110	130	130	130	180	130	180	180	180	230	230													
M	**e_1**	**100**	**115**	**130**	**130**	**165**	**165**	**165**	**215**	**165**	**215**	**215**	**215**	**265**	**265**													
S	s_1	M6	M8	M8	M8	M10	M10	M10	M12	M10	M12	M12	M12	M12	M12													

[1)] Protruding flange

Flange variants

Type of construction IM B5/IM 3001



(IE1-)K21R (IE1-)K22R (IE1-)KPER (IE1-)K11R	(IE1-)K20R (IE1-)KPR																													
			63	71	80	90		100	100 LX	112	132…T		132	132 M4, MX6	160	160	180 M4, L6, 8	180	200 L, LX6	200 LX2	225	250	280	315 S, M	315 MX	315 MY, L, LX	355 M, MY, L
			56	63	71	80	90		100	100		112		132	132	160	160	180	180	200	200	225	250	280	315 S	315 M		
D in mm				100	115	131	145	145	164	164	164	185	185	216	216	266	266	300	300	335	335	378	428	488	488	530	624	
P		a_1	120[1]	120[1]	120[1]	120[1]		120[1]																				
N		b_1	80	80	80	80		80																				
M		**e_1**	**100**	**100**	**100**	**100**		**100**																				
S		s_1	7	7	7	7		7																				
P		a_1	140	140[1]	140[1]																							
N		b_1	95	95	95																							
M		**e_1**	**115**	**115**	**115**																							
S		s_1	9	9	9																							
P		a_1	160[1]	160	160[1]	160[1]	160[1]	160[1]	160[1]	160[1]																		
N		b_1	110	110	110	110	110	110	110	110																		
M		**e_1**	**130**	**130**	**130**	**130**	**130**	**130**	**130**	**130**																		
S		s_1	9	9	9	9	9	9	9	9																		
P		a_1			200	200	200[1]	200[1]	200[1]	200[1]	200[1]		200[1]															
N		b_1			130	130	130	130	130	130	130		130															
M		**e_1**			**165**	**165**	**165**	**165**	**165**	**165**	**165**		**165**															
S		s_1			11	11	11	11	11	11	11		11															
P		a_1			250[1]	250[1]	250	250	250	250	250	250	250															
N		b_1			180	180	180	180	180	180	180	180	180															
M		**e_1**			**215**	**215**	**215**	**215**	**215**	**215**	**215**	**215**	**215**															
S		s_1			14	14	14	14	14	14	14	14	14															
P		a_1				300[1]		300[1]			300		300	300	300	300[2]	300[3]											
N		b_1				230		230			230		230	230	230	230	230											
M		**e_1**				**265**		**265**			**265**		**265**	**265**	**265**	**265**	**265**											
S		s_1				14		14			14		14	14	14	14	14											
P		a_1												350	350	350	350	350	350									
N		b_1												250	250	250	250	250	250									
M		**e_1**												**300**	**300**	**300**	**300**	**300**	**300**									
S		s_1												18	18	18	18	18	18									
P		a_1														400[4]	400[4]	400	400	400	400[6]	400[7]						
N		b_1														300	300	300	300	300	300	300						
M		**e_1**														**350**	**350**	**350**	**350**	**350**	**350**	**350**						
S		s_1														18	18	18	18	18	18	18						
P		a_1																450	450	450	450	450						
N		b_1																350	350	350	350	350						
M		**e_1**																**400**	**400**	**400**	**400**	**400**						
S		s_1																18	18	18	18	18						
P		a_1																				550	550	550	550			
N		b_1																				450	450	450	450			
M		**e_1**																				**500**	**500**	**500**	**500**			
S		s_1																				18	18	18	18			
P		a_1																						660	660	660		
N		b_1																						550	550	550		
M		**e_1**																						**600**	**600**	**600**		
S		s_1																						22	22	22		
P		a_1																										800
N		b_1																										680
M		**e_1**																										**740**
S		s_1																										22

[1] Protruding flange

[2] Flange fixing by studs only on customer side

[3] For shaft diameter 42 mm: Flange fixing by studs only on customer side

[4] KPR flange (with corners)

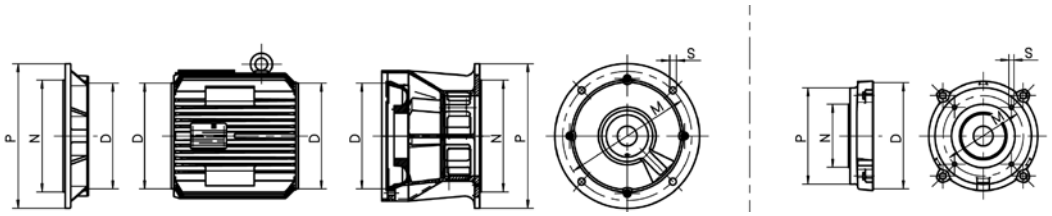
[6] For shaft diameter 55 mm

[7] For shaft diameter 60 mm

Flange variants

Type of construction IM 2202

IM B14



(IE1-)K21R, (IE1-)K22R (IE1-)KPER (IE1-)K11R		63	71	80	90	100	100 LX	112	112	132	132 M4, MX6	160	160	180 M4, L6, 8	180	200 L, LX6	200 LX2	225	250	280	315 S, M	315 MX	315 MY, L, LX	355 M, MY, L
(IE1-)K20R (IE1-)KPR		56	63	71	80	90	100	100	112	112	132	132	160	160	180	180	200	200	225	250	280	315S	315 M	
D in mm		88	100	115	131	145	164	164	164	185	216	216	266	266	300	300	335	335	378	428	488	488	530	624
P	**a_1**												**350**	**350**	**350**	**350**								
N	b_1												250	250	250	250								
M	e_1												300	300	300	300								
S	s_1												18	18	18	18								
P	**a_1**														**400**	**400**	**400**	**400**						
N	b_1														300	300	300	300						
M	e_1														350	350	350	350						
S	s_1														18	18	18	18						
P	**a_1**																**450**	**450**						
N	b_1																350	350						
M	e_1																400	400						
S	s_1																18	18						
P	**a_1**																		**550**	**550**				
N	b_1																		450	450				
M	e_1																		500	500				
S	s_1																		18	18				
P	**a_1**																				**660**	**660**		
N	b_1																				550	550		
M	e_1																				600	600		
S	s_1																				22	22		

Type of construction IM B14 K, G

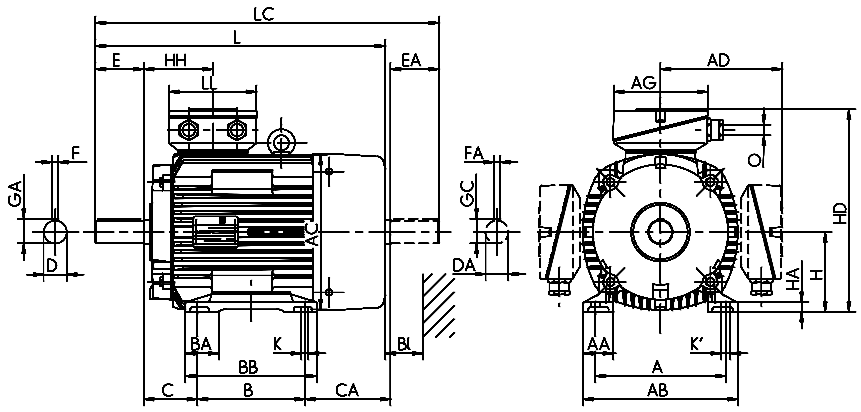
(IE1-)K21R, (IE1-)K22R (IE1-)KPER (IE1-)K11R		63	71	80	90	100	100 LX	112	132...T	132	132 M4, MX6	160	160	180 M4, L6, 8	180	200 L, LX6	200 LX2	225	250	280	315S, M	315 MX	315 MY, L, LX	355 M, MY, L
(IE1-)K20R (IE1-)KPR		56	63	71	80	90	100	100		112		132	132	160	160	180	180	200	200	225	250	280	315 S	315 M	
D in mm		88	100	115	131	145	164	164	164	185		216	216	266	266	300	300	335	335	378	428	488	488	530	624
P	a_1	80	90	105																				
N	b_1	50	60	70																				
M	**e_1**	**65**	**75**	**85**																				
S	s_1	M5	M5	M6																				
P	a_1	90	105	120	120	140	140	140	160		160													
N	b_1	60	70	80	80	95	95	95	110		110													
M	**e_1**	**75**	**85**	**100**	**100**	**115**	**115**	**115**	**130**		**130**													
S	s_1	M5	M6	M6	M6	M8	M8	M8	M8		M8													
P	a_1	105[1)]	120	140	140	160	160	160	200	160	200													
N	b_1	70	80	95	95	110	110	110	130	110	130													
M	**e_1**	**85**	**100**	**115**	**115**	**130**	**130**	**130**	**165**	**130**	**165**													
S	s_1	M6	M6	M8	M8	M8	M8	M8	M10	M8	M10													
P	a_1	120	140	160	160	200	200	200	250	200	250	250	250	300	300									
N	b_1	80	95	110	110	130	130	130	180	130	180	180	180	230	230									
M	**e_1**	**100**	**115**	**130**	**130**	**165**	**165**	**165**	**215**	**165**	**215**	**215**	**215**	**265**	**265**									
S	s_1	M6	M8	M8	M8	M10	M10	M10	M12	M10	M12	M12	M12	M12	M12									

[1)] Protruding flange

Energy-saving motor for Premium Efficiency IE3
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 56 to 160

Type of construction IM B3 [IM 1001]

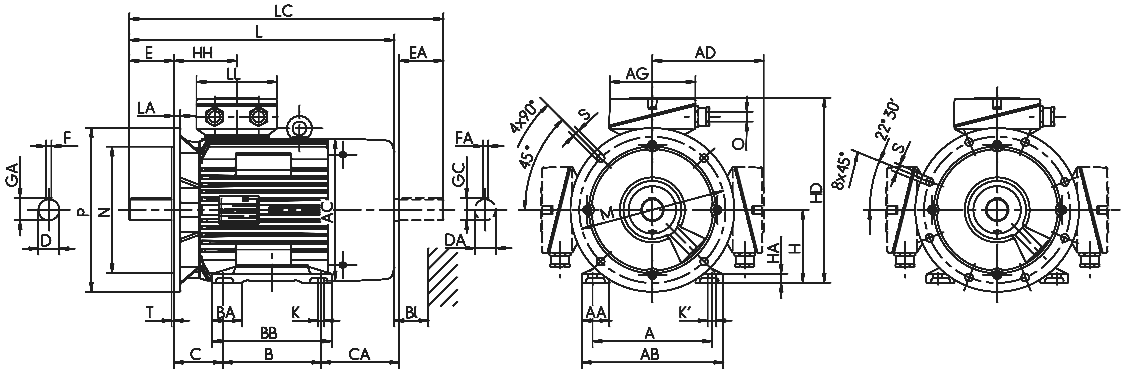


*) Centre holes to DIN 332-DS

Energy-saving motor for Premium Efficiency IE3
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 56 to 160

Type of construction IM B35 [IM 2001]
Flange dimensions, see page 2/109



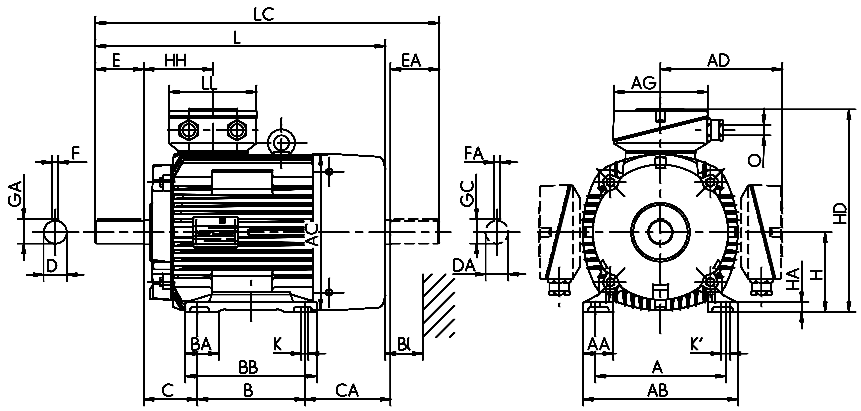
2

) Terminal box left/right *) upon request

Energy-saving motor for Premium Efficiency IE3
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 180 to 280

Type of construction IM B3 [IM 1001]



Type designation	Flange size	A	AA	AB	AC	AD	AD VIK	B	BA	BB	C	CA	D	DA	DB*)	E	EA	F	FA
		b	n	f	g	g1	g1	a	m	e	w1	w2	d	d1		l	l1	u	u1
IE3-W41R 180 M2C	FF 300	279	62	328	351	261	294	241	65	288	121	214	48	48	M16	110	110	14	14
IE3-W41R 180 M4	FF 300	279	62	328	351	261	294	241	65	288	121	214	48	48	M16	110	110	14	14
IE3-W41R 180 L4	FF 300	279	62	328	351	261	294	279	65	326	121	226	48	48	M16	110	110	14	14
IE3-W41R 180 L6C	FF 300	279	62	328	351	261	294	279	65	326	121	176	48	48	M16	110	110	14	14
IE3-W41R 180 L8	FF 300	279	62	328	351	261	294	279	65	326	121	226	48	48	M16	110	110	14	14
IE3-W41R 200 L2	FF 350	318	70	372	390	300	378	305	70	360	133	233	55	55	M20	110	110	16	16
IE3-W41R 200 LX2C	FF 350	318	70	372	390	300	378	305	70	360	133	233	55	55	M20	110	110	16	16
IE3-W41R 200 L4C	FF 350	318	70	372	390	300	378	305	70	360	133	233	55	55	M20	110	110	16	16
IE3-W41R 200 L6	FF 350	318	70	372	390	300	378	305	70	360	133	233	55	55	M20	110	110	16	16
IE3-W41R 200 LX6C	FF 350	318	70	372	390	300	378	305	70	360	133	233	55	55	M20	110	110	16	16
IE3-W41R 200 L8	FF 350	318	70	372	351	261	294	305	70	360	133	188	55	48	M20	110	110	16	14
IE3-W41R 225 M2	FF 400	356	75	413	440	324	406	311	75	368	149	267	55	55	M20	110	110	16	16
IE3-W41R 225 S4C	FF 400	356	75	413	390	300	378	286	75	343	149	286	60	55	M20	140	110	18	16
IE3-W41R 225 M4	FF 400	356	75	413	440	324	406	311	75	368	149	267	60	55	M20	140	110	18	16
IE3-W41R 225 M6	FF 400	356	75	413	440	324	406	311	75	368	149	267	60	55	M20	140	110	18	16
IE3-W41R 225 S8	FF 400	356	75	413	390	300	378	286	75	343	149	236	60	55	M20	140	110	18	16
IE3-W41R 225 M8	FF 400	356	75	413	440	324	406	311	75	368	149	267	60	55	M20	140	110	18	16
IE3-W41R 250 M2	FF 500	406	84	469	490	386	399	349	84	374	168	275	60	55	M20	140	110	18	16
IE3-W41R 250 M4	FF 500	406	84	469	490	386	399	349	84	412	168	275	65	55	M20	140	110	18	16
IE3-W41R 250 M6	FF 500	406	84	469	490	386	399	349	84	412	168	275	65	55	M20	140	110	18	16
IE3-W41R 250 M8	FF 500	406	84	471	440	386	406	349	84	412	168	260	65	55	M20	140	110	18	16
IE3-W41R 280 S2	FF 500	457	94	522	490	386	399	368	96	431	190	234	65	65	M20	140	140	18	18
IE3-W41R 280 M2	FF 500	457	94	522	490	386	399	419	96	482	190	234	65	65	M20	140	140	18	18
IE3-W41R 280 S4	FF 500	457	94	522	490	386	399	368	96	431	190	234	75	65	M20	140	140	20	18
IE3-W41R 280 M4	FF 500	457	94	522	550	416	460	419	94	482	190	384	75	65	M20	140	140	20	18
IE3-W41R 280 S6	FF 500	457	94	522	550	416	460	368	94	431	190	380	75	65	M20	140	140	20	18
IE3-W41R 280 M6	FF 500	457	94	522	550	416	460	419	94	482	190	384	75	65	M20	140	140	20	18
IE3-W41R 280 S8	FF 500	457	94	522	550	416	460	368	94	431	190	380	75	65	M20	140	140	20	18
IE3-W41R 280 M8	FF 500	457	94	522	550	416	460	419	94	482	190	384	75	65	M20	140	140	20	18

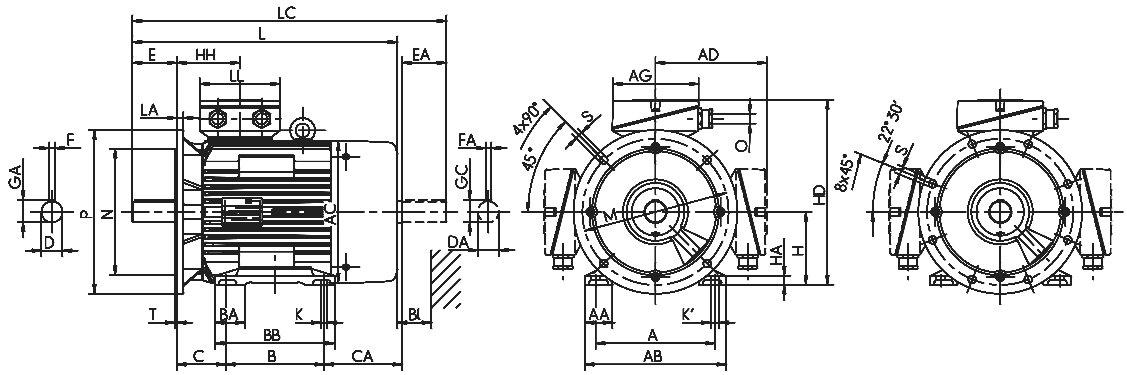
*) Centre holes to DIN 332-DS

Energy-saving motor for Premium Efficiency IE3
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 180 to 280

Type of construction IM B35 [IM 2001]

Flange dimensions, see page 2/109



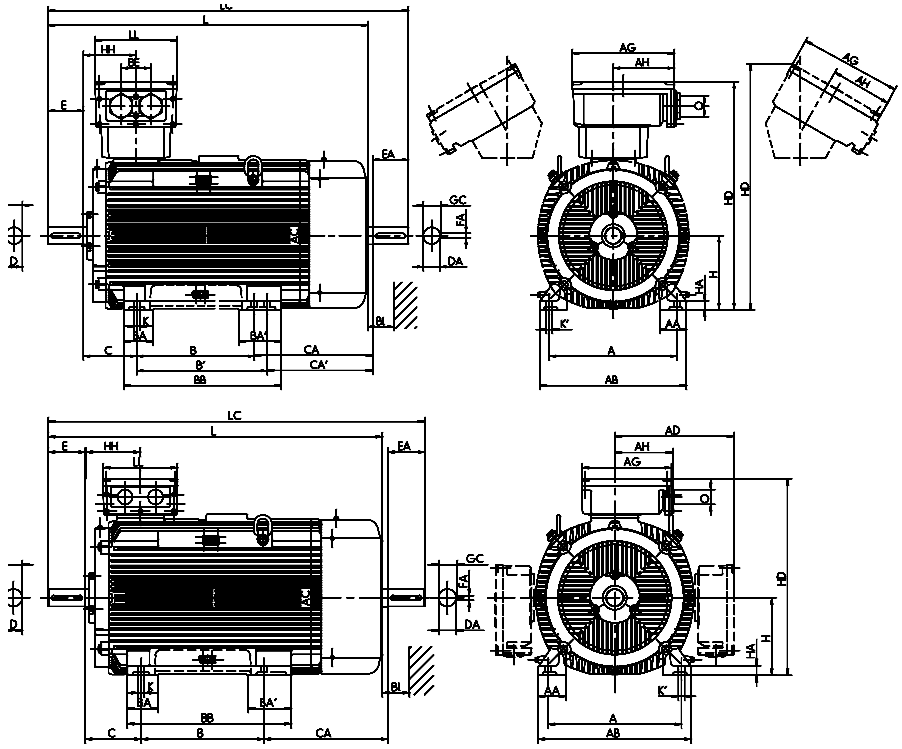
Type designation	GA	GC	H	HA	HD	HD**)	HD VIK	HH	K	K'	L	LC	TB Type	AG	LL	TB Type	AG	LL	O	Hole pattern	Bl.
	t	t1	h	c	p	p	p	A	s	s'	k	k1		x	z	VIK	x	z	-		Bl
IE3-W41R 180 M2C	51.5	51.5	180	20	441	369	474	147	15	20	680	796	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE3-W41R 180 M4	51.5	51.5	180	20	441	369	474	147	15	20	680	796	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE3-W41R 180 L4	51.5	51.5	180	20	441	369	474	147	15	20	730	846	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE3-W41R 180 L6C	51.5	51.5	180	20	441	369	474	147	15	20	680	796	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE3-W41R 180 L8	51.5	51.5	180	20	441	369	474	147	15	20	680	796	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE3-W41R 200 L2	59	59	200	22	500	417	577	168	19	25	767	891	100 A	213	207	200 A-SB	335	270	M50 x 1.5	4L	40
IE3-W41R 200 LX2C	59	59	200	22	500	417	577	168	19	25	767	891	100 A	213	207	200 A-SB	335	270	M50 x 1.5	4L	40
IE3-W41R 200 L4C	59	59	200	22	500	417	577	168	19	25	767	891	100 A	213	207	200 A-SB	335	270	M50 x 1.5	4L	35
IE3-W41R 200 L6	59	59	200	22	500	417	577	168	19	25	767	891	100 A	213	207	200 A-SB	335	270	M50 x 1.5	4L	35
IE3-W41R 200 LX6C	59	59	200	22	500	417	577	168	19	25	767	891	100 A	213	207	200 A-SB	335	270	M50 x 1.5	4L	35
IE3-W41R 200 L8	59	51.5	200	22	461	389	494	147	19	25	730	846	63 A	193	167	100/63 AV	223	214	M50 x 1.5	4L	35
IE3-W41R 225 M2	59	59	225	25	549	450	626	177	19	25	832	947	100 A	213	207	200 A-SB	335	270	M50 x 1.5	8L	45
IE3-W41R 225 S4C	64	59	225	25	527	442	604	168	19	25	847	971	100 A	213	207	200 A-SB	335	270	M50 x 1.5	8L	40
IE3-W41R 225 M4	64	59	225	25	549	450	626	177	19	25	912	1027	100 A	213	207	200 A-SB	335	270	M50 x 1.5	8L	45
IE3-W41R 225 M6	64	59	225	25	549	450	626	177	19	25	912	1027	100 A	213	207	200 A-SB	335	270	M50 x 1.5	8L	45
IE3-W41R 225 S8	64	59	225	25	527	442	604	168	19	25	797	921	100 A	213	207	200 A-SB	335	270	M50 x 1.5	8L	40
IE3-W41R 225 M8	64	59	225	25	549	450	626	177	19	25	862	977	100 A	213	207	200 A-SB	335	270	M50 x 1.5	8L	45
IE3-W41R 250 M2	64	59	250	28	636	507	652	206	24	30	924	1072	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	55
IE3-W41R 250 M4	69	59	250	28	636	507	652	206	24	30	924	1072	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	50
IE3-W41R 250 M6	69	59	250	28	636	507	652	206	24	30	924	1072	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	50
IE3-W41R 250 M8	69	59	250	28	636	484	652	177	24	30	912	1112	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	50
IE3-W41R 280 S2	69	69	280	32	666	537	682	206	24	30	924	1072	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	55
IE3-W41R 280 M2	69	69	280	32	666	537	682	206	24	30	970	1118	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	55
IE3-W41R 280 S4	79.5	69	280	32	666	537	682	206	24	30	970	1118	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	50
IE3-W41R 280 M4	79.5	69	280	40	696	575	712	211	24	30	1105	1273	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	55
IE3-W41R 280 S6	79.5	69	280	40	696	575	712	211	24	30	1050	1218	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	55
IE3-W41R 280 M6	79.5	69	280	40	696	575	712	211	24	30	1105	1273	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	55
IE3-W41R 280 S8	79.5	69	280	40	696	537	712	211	24	30	1050	1218	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	55
IE3-W41R 280 M8	79.5	69	280	40	696	575	712	211	24	30	1105	1273	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	55

**) Terminal box left/right

Energy-saving motor for Premium Efficiency IE3
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 315

Type of construction IM B3 [IM 1001]



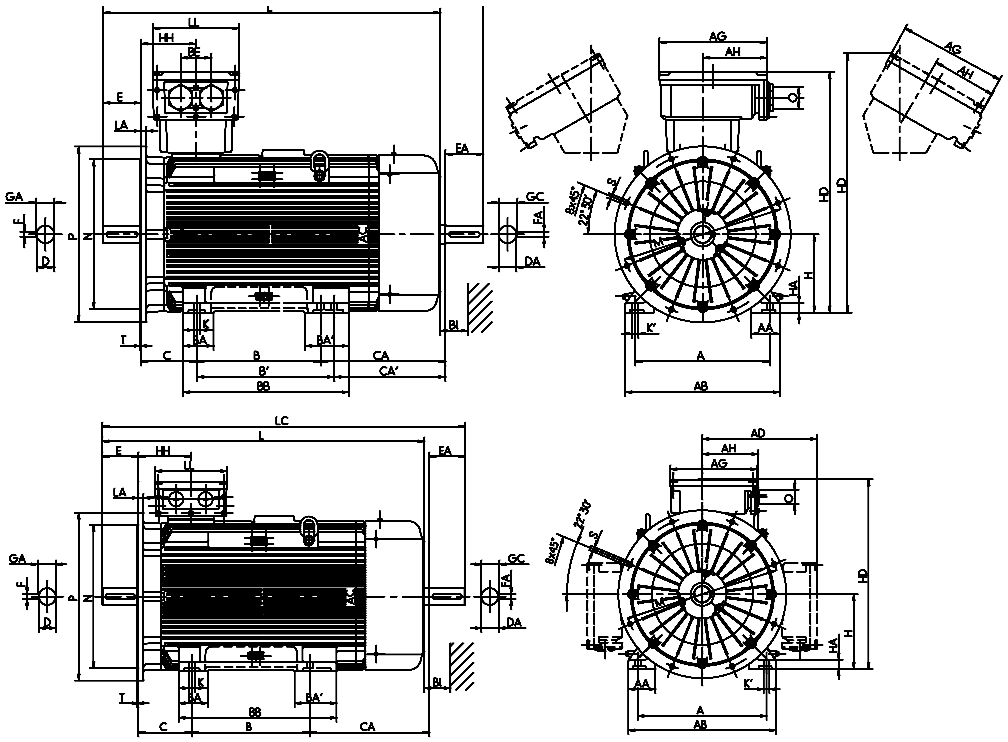
Type designation	Flange size	A	AA	AB	AC	AD	AD VIK	B	BA	BA'	BB	C	CA	D	DA	DB*)	E	EA	F	FA
		b	n	f	g	g1	g1	a	m	m1	e	w1	w2	d	d1		l	l1	u	u1
IE3-W41R 315 S2	FF 600	508	126	590	550	416	460	406	120	-	503	216	316	65	65	M20	140	140	18	18
IE3-W41R 315 M2	FF 600	508	126	590	550	416	460	457	120	150	554	216	320	65	65	M20	140	140	18	18
IE3-W41R 315 MX2	FF 600	508	110	590	610	494	498	457	120	150	554	216	495	65	65	M20	140	140	18	18
IE3-W41R 315 MY2	FF 600	508	110	590	610	494	498	457	120	-	573	216	495	65	65	M20	140	140	18	18
IE3-W41R 315 L2	FF 600	508	110	590	610	494	498	508	120	-	624	216	564	65	65	M20	140	140	18	18
IE3-W41R 315 LX2	FF 600	508	110	590	610	494	498	508	120	-	624	216	684	65	65	M20	140	140	18	18
IE3-W41R 315 S4	FF 600	508	126	590	550	416	460	406	120	150	503	216	316	80	70	M20	170	140	22	20
IE3-W41R 315 M4	FF 600	508	126	590	550	416	460	457	120	150	554	216	320	80	70	M20	170	140	22	20
IE3-W41R 315 MX4	FF 600	508	110	590	610	494	498	457	120	150	554	216	495	80	70	M20	170	140	22	20
IE3-W41R 315 MY4	FF 600	508	110	590	610	494	498	457	120	-	573	216	495	80	70	M20	170	140	22	20
IE3-W41R 315 L4	FF 600	508	110	590	610	494	498	508	120	-	624	216	564	80	70	M20	170	140	22	20
IE3-W41R 315 LX4	FF 600	508	110	590	610	494	498	508	120	-	624	216	684	80	70	M20	170	140	22	20
IE3-W41R 315 S6	FF 600	508	126	590	550	416	460	406	120	150	554	216	371	80	70	M20	170	140	22	20
IE3-W41R 315 M6	FF 600	508	110	590	610	494	498	457	120	-	573	216	495	80	70	M20	170	140	22	20
IE3-W41R 315 MX6	FF 600	508	110	590	610	494	498	457	120	-	573	216	495	80	70	M20	170	140	22	20
IE3-W41R 315 L6	FF 600	508	110	590	610	494	498	508	120	-	624	216	564	80	70	M20	170	140	22	20
IE3-W41R 315 S8	FF 600	508	126	590	550	416	460	406	120	150	554	216	371	80	70	M20	170	140	22	20
IE3-W41R 315 M8	FF 600	508	110	590	610	494	498	457	120	150	573	216	495	80	70	M20	170	140	22	20
IE3-W41R 315 MX8	FF 600	508	110	590	610	494	498	457	120	-	624	216	564	80	70	M20	170	140	22	20
IE3-W41R 315 L8	FF 600	508	110	590	610	494	498	508	120	-	624	216	564	80	70	M20	170	140	22	20

*) Centre holes to DIN 332-DS

Energy-saving motor for Premium Efficiency IE3
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 315

Type of construction IM B35 [IM 2001]
Flange dimensions, see page 2/109



Type designation	GA	GC	H	HA	HD	HD**)	HD	HH	K	K'	L	LC	TB Type	AG	LL	AH	TB Type	AG	LL	AH	O	BI
	t	t1	h	c	p	p	VIK	A	s	s'	k	k1		x	z	-	VIK	x	z	-	r	BI
IE3-W41R 315 S2	69	69	315	44	731	610	775	211	28	35	1050	1218	200 A	282	242	-	400 A-SB	415	340	265	M63 x 1.5	55
IE3-W41R 315 M2	69	69	315	44	731	610	775	211	28	35	1105	1273	200 A	282	242	-	400 A-SB	415	340	265	M63 x 1.5	55
IE3-W41R 315 MX2	69	69	315	44	809	628	996	230	28	35	1200	1378	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE3-W41R 315 MY2	69	69	315	44	809	628	996	230	28	35	1270	1448	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE3-W41R 315 L2	69	69	315	44	809	628	996	230	28	35	1390	1568	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE3-W41R 315 LX2	69	69	315	44	809	628	996	230	28	35	1510	1688	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE3-W41R 315 S4	85	74.5	315	44	731	610	775	211	28	35	1080	1248	200 A	282	242	-	400 A-SB	415	340	265	M63 x 1.5	55
IE3-W41R 315 M4	85	74.5	315	44	731	610	775	211	28	35	1135	1303	200 A	282	242	-	400 A-SB	415	340	265	M63 x 1.5	55
IE3-W41R 315 MX4	85	74.5	315	44	809	628	996	230	28	35	1230	1408	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE3-W41R 315 MY4	85	74.5	315	44	809	628	996	230	28	35	1300	1478	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE3-W41R 315 L4	85	74.5	315	44	809	628	996	230	28	35	1420	1598	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE3-W41R 315 LX4	85	74.5	315	44	809	628	996	230	28	35	1540	1718	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE3-W41R 315 S6	85	74.5	315	44	731	595	775	211	28	35	1135	1303	200 A	282	242	-	400 A-SB	415	340	265	M63 x 1.5	55
IE3-W41R 315 M6	85	74.5	315	44	809	628	996	230	28	35	1300	1478	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE3-W41R 315 MX6	85	74.5	315	44	809	628	996	230	28	35	1300	1478	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE3-W41R 315 L6	85	74.5	315	44	809	628	996	230	28	35	1420	1598	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE3-W41R 315 S8	85	74.5	315	44	731	610	775	211	28	35	1135	1303	200 A	282	242	-	400 A-SB	415	340	265	M63 x 1.5	55
IE3-W41R 315 M8	85	74.5	315	44	809	628	996	230	28	35	1300	1478	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE3-W41R 315 MX8	85	74.5	315	44	809	628	996	230	28	35	1420	1598	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE3-W41R 315 L8	85	74.5	315	44	809	628	996	230	28	35	1420	1598	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55

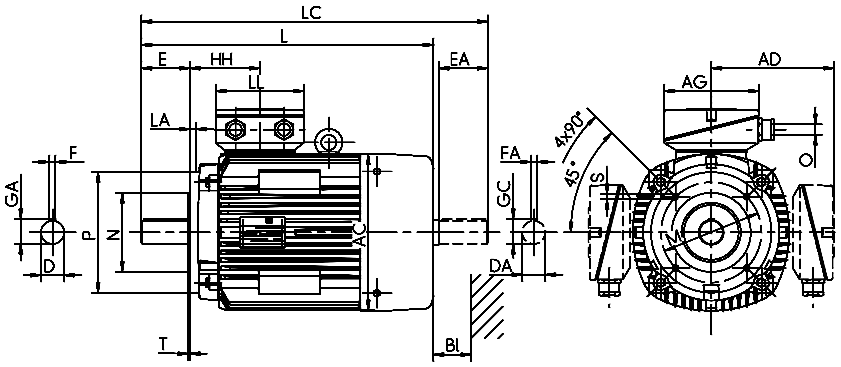
**) Terminal box left/right

Energy-saving motor for Premium Efficiency IE3
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 56 to 160

Type of construction IM B14 [IM 3601]

Flange dimensions, see page 2/109



Type designation	Flange size small	Flange size large	A	AA	AB VIK	AC	AD	AD	B	BA	BB	C	CA	D	DA	DB*)	E	EA	F	FA
			b	n	f	g	g1	g1	a	m	e	w1	w2	d	d1		i	l1	u	u1
IE3-W41R 56 G2	FT 65	FT 85	90	18	110	109	98	117	71	-	86	36	52	9	-	M3	20	-	3	3
IE3-W42R 63 K2, 4	FT 75	FT 100	100	28	128	109	98	118	80	-	100	40	39	11	11	M4	23	23	4	4
IE3-W41R 63 G2, 4, 6	FT 75	FT 100	100	21	120	124	104	124	80	-	95	40	59	11	11	M4	23	23	4	4
IE3-W42R 71 K2, 4/KY6	FT 85	FT 115	112	32	138	124	104	124	90	-	116	45	43.5	14	14	M5	30	30	5	5
IE3-W41R 71 G8/GY2, 4, 6	FT 85	FT 115	112	24	135	139	111	131	90	-	114	45	78	14	14	M5	30	30	5	5
IE3-W42R 80 K2, 8	FT 100	FT 130	125	38	168	139	111	131	100	-	125	50	63	19	19	M6	40	40	6	6
IE3-W41R 80 K2, 4, 6/GY2/G8	FT 100	FT 130	125	26	152	157	120	140	100	-	125	50	80	19	19	M6	40	40	6	6
IE3-W41R 80 G2, 4, 6/GX4	FT 100	FT 130	125	26	152	157	120	140	100	-	146	50	102	19	19	M6	40	40	6	6
IE3-W42R 90 S2/SY8	FT 115	FT 130	140	40	178	157	120	140	100	-	130	56	96	24	24	M8	50	50	8	6
IE3-W41R 90 S2, 8/SY4, 6	FT 115	FT 130	140	40	178	177	127	147	100	-	130	56	120	24	24	M8	50	50	8	6
IE3-W41R 90 S4, 6	FT 115	FT 130	140	40	178	177	127	147	100	-	130	56	125	24	24	M8	50	50	8	6
IE3-W41R 90 LY2	FT 115	FT 130	140	40	178	177	127	147	125	-	155	56	95	24	24	M8	50	50	8	6
IE3-W41R 90 LX4	FT 115	FT 130	140	40	178	177	127	147	125	-	155	56	150	24	24	M8	50	50	8	6
IE3-W41R 90 L2, 4, 6, 8	FT 115	FT 130	140	40	178	177	127	147	125	-	155	56	125	24	24	M8	50	50	8	6
IE3-W41R 100 LY8	FT 130	FT 165	160	32	188	196	137	157	140	-	171	63	102	28	28	M10	60	50	8	8
IE3-W41R 100 LY2/L8	FT 130	FT 165	160	42	193	196	137	156	140	-	175	63	102	28	28	M10	60	60	8	8
IE3-W41R 100 L2/LY4/LX6/LW8	FT 130	FT 165	160	42	193	196	137	156	140	-	175	63	136	28	28	M10	60	60	8	8
IE3-W41R 100 L4/LX4	FT 130	FT 165	160	42	193	196	137	156	140	-	175	63	166	28	28	M10	60	60	8	8
IE3-W41R 100 LX8	FT 130	FT 165	160	42	193	196	137	156	140	-	175	63	136	28	28	M10	60	60	8	8
IE3-W41R 100 LZ4, LW4	FT 130	FT 165	160	42	193	196	137	156	140	-	175	63	206	28	28	M10	60	60	8	8
IE3-W41R 112 M2, 8/MV6	FT 130	FT 165	190	52	225	196	136	156	140	-	180	70	159	28	28	M10	60	60	8	8
IE3-W41R 112 MY2	FT 130	FT 165	190	52	225	196	136	156	140	-	180	70	129	28	28	M10	60	60	8	8
IE3-W41R 112 MZ6, 8	FT 130	FT 165	190	52	225	196	137	156	140	-	180	70	199	28	28	M10	60	60	8	8
IE3-W40R 112 M2, W41R 112 MW4	FT 130	FT 165	190	45	226	217	178	189	140	42	172	70	192	28	28	M10	60	60	8	8
IE3-W41R 112 M4	FT 130	FT 165	190	45	226	217	178	189	140	42	172	70	242	28	28	M10	60	60	8	8
IE3-W41R 132 S2T	FT 165	FT 215	216	50	256	196	155	155	140	-	180	89	129	38	28	M12	80	60	10	8
IE3-W41R 132 S2, W42R 132 S8	FT 165	FT 215	216	50	256	217	178	189	140	55	180	89	173	38	32	M12	80	80	10	10
IE3-W41R 132 S6	FT 165	FT 215	216	50	256	217	178	189	140	55	180	89	223	38	32	M12	80	80	10	10
IE3-W41R 132 SX2	FT 165	FT 215	216	50	256	258	199	210	140	47	180	89	176	38	32	M12	80	80	10	10
IE3-W41R 132 S4	FT 165	FT 215	216	50	256	258	199	210	140	47	180	89	186	38	32	M12	80	80	10	10
IE3-W41R 132 M4	FT 165	FT 215	216	50	256	258	199	210	178	47	218	89	236	38	38	M12	80	80	10	10
IE3-W41R 132 M6	FT 165	FT 215	216	50	256	258	199	210	178	55	218	89	138	38	32	M12	80	80	10	10
IE3-W41R 132 MX6	FT 165	FT 215	216	50	256	258	199	210	178	47	218	89	236	38	38	M12	80	80	10	10
IE3-W41R 132 S8	FT 130	FT 165	216	50	256	258	199	210	140	55	180	89	223	38	32	M12	80	80	10	10
IE3-W41R 132 M8	FT 165	FT 215	216	50	256	258	199	210	178	55	218	89	138	38	32	M12	80	80	10	10
IE3-W41R 160 M2	FT 215	C300	254	55	296	313	242	275	210	60	257	108	148	42	42	M16	110	110	12	12
IE3-W41R 160 MX2	FT 215	C300	254	55	296	313	242	275	210	56	257	108	186	42	42	M16	110	110	12	12
IE3-W41R 160 L2	FT 215	C300	254	55	296	313	242	275	254	60	301	108	192	42	42	M16	110	110	12	12
IE3-W41R 160 M4	FT 215	C300	254	55	296	313	242	275	210	60	257	108	148	42	42	M16	110	110	12	12
IE3-W41R 160 L4C	FT 215	C300	254	55	296	313	242	275	254	60	301	108	192	42	42	M16	110	110	12	12
IE3-W41R 160 M6	FT 215	C300	254	55	296	313	242	275	210	56	257	108	186	42	42	M16	110	110	12	12
IE3-W41R 160 L6C	FT 215	C300	254	55	296	313	242	275	254	60	301	108	192	42	42	M16	110	110	12	12
IE3-W41R 160 M8	FT 215	C300	254	55	296	313	242	275	210	60	257	108	185	42	42	M16	110	110	12	12
IE3-W41R 160 MX8	FT 215	C300	254	55	296	313	242	275	210	56	257	108	186	42	42	M16	110	110	12	12
IE3-W41R 160 L8	FT 215	C300	254	55	296	313	242	275	254	60	301	108	192	42	42	M16	110	110	12	12

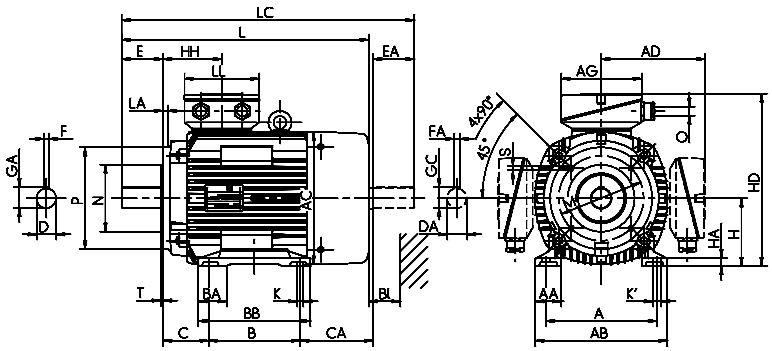
*) Centre holes to DIN 332-DS

Energy-saving motor for Premium Efficiency IE3
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 56 to 160

Type of construction IM B34 [IM 2101]

Flange dimensions, see page 2/109



Type designation	GA	GC	H	HA	HD	HD**)	HD	HH	K	K'	L	LC	TB Type	AG	LL	TB Type	AG	LL	O	Hole pattern	BI.
	t	t1	h	c	p	p	VIK	A	s	s'	k	k1		x	z	VIK	x	z	-		BI
IE3-W41R 56 G2	10	10.2	56	7	154	***)	174	58	6	6	176	199	KA 05	92	92	KA 05-13	104	112	M20 x 1.5	4L	14
IE3-W42R 63 K2, 4	13	12.5	63	10	161	***)	181	58	8	8	179	205	KA 05	92	92	KA 05-13	104	112	M20 x 1.5	4L	14
IE3-W41R 63 G2, 4, 6	13	12.5	63	7.5	167	***)	187	61	7	7	199	225	KA 05	92	92	KA 05-13	104	112	M20 x 1.5	4L	14
IE3-W42R 71 K2, 4/KY6	16	16	71	11	175	***)	195	61	8	8	206	239	KA 05	92	92	KA 05-13	104	112	M20 x 1.5	4L	14
IE3-W41R 71 G8/GY2, 4, 6	16	16	71	8	182	***)	202	67	7	7	238	273	KA 05	92	92	KA 05-13	104	112	M20 x 1.5	4L	14
IE3-W42R 80 K2, 8	22	21.5	80	12	191	***)	211	67	10	10	249	293	KA 05	92	92	KA 05-13	104	112	M20 x 1.5	4L	16
IE3-W41R 80 K2, 4, 6/GY2/G8	22	21.5	80	9	200	***)	220	70	10	10	265	310	KA 05	92	92	KA 05-13	104	112	M20 x 1.5	4L	16
IE3-W41R 80 G2, 4, 6/GX4	22	21.5	80	9	200	***)	220	70	10	10	287	332	KA 05	92	92	KA 05-13	104	112	M20 x 1.5	4L	16
IE3-W42R 90 S2/SY8	27	24.5	90	14	210	***)	230	70	10	10	297	352	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	16
IE3-W41R 90 S2, 8/SY4, 6	27	24.5	90	10.5	217	***)	237	75	10	10	321	376	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	18
IE3-W41R 90 S4, 6	27	24.5	90	10.5	217	***)	237	75	10	10	351	406	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	18
IE3-W41R 90 LY2	27	24.5	90	11	217	***)	237	75	10	10	321	376	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	18
IE3-W41R 90 LX4	27	24.5	90	10.5	217	***)	237	75	10	10	376	431	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	18
IE3-W41R 90 L2, 4, 6, 8	27	24.5	90	10.5	217	***)	237	75	10	10	351	406	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	18
IE3-W41R 100 LY8	31	31	100	11	237	***)	257	77	12	12	357	425	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	20
IE3-W41R 100 LY2/L8	31	31	100	13	236	***)	256	77	12	12	357	425	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	20
IE3-W41R 100 L2/LY4/LX6/LW8	31	31	100	13	236	***)	256	77	12	12	391	459	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	20
IE3-W41R 100 L4/LX4	31	31	100	13	236	***)	256	77	12	12	421	489	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	20
IE3-W41R 100 LX8	31	31	100	13	236	***)	256	77	12	12	391	459	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	20
IE3-W41R 100 LZ4, LW4	31	31	100	18	236	***)	256	77	12	12	461	529	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	20
IE3-W41R 112 M2, 8/MV6	31	31	112	18	248	***)	268	77	12	12	421	489	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	20
IE3-W41R 112 MY2	31	31	112	18	248	***)	268	77	12	12	391	459	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	20
IE3-W41R 112 MZ6, 8	31	31	112	18	248	***)	268	77	12	12	461	529	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	20
IE3-W40R 112 M2, W41R 112 MW4	31	31	112	15	290	236.5	297	108	12	12	459	522	25 A	156	145	25 AV	156	145	M32 x 1.5	4L	35
IE3-W41R 112 M4	31	31	112	15	290	236.5	297	108	12	12	509	572	25 A	156	145	25 AV	156	145	M32 x 1.5	4L	35
IE3-W41R 132 S2T	41	31	132	18	287	***)	287	105	12	12	460	528	KA 05-13	104	112	KA 05-13	104	112	M25 x 1.5	4L	20
IE3-W41R 132 S2, W42R 132 S8	41	35	132	16	310	256.5	317	108	12	12	479	562	25 A	156	145	25 AV	156	145	M32 x 1.5	4L	35
IE3-W41R 132 S6	41	35	132	16	310	256.5	317	108	12	12	529	612	25 A	156	145	25 AV	156	145	M32 x 1.5	4L	35
IE3-W41R 132 SX2	41	41	132	15	331	279	338	114	12	12	481	565	25 A	156	145	25 AV	156	145	M32 x 1.5	4L	35
IE3-W41R 132 S4	41	41	132	15	331	279	338	114	12	12	529	613	25 A	156	145	25 AV	156	145	M32 x 1.5	4L	35
IE3-W41R 132 M4	41	41	132	15	331	279	338	114	12	12	579	663	25 A	156	145	25 AV	156	145	M32 x 1.5	4L	35
IE3-W41R 132 M6	41	35	132	16	331	279	338	114	12	12	481	565	25 A	156	145	25 AV	156	145	M32 x 1.5	4L	35
IE3-W41R 132 MX6	41	41	132	15	331	279	338	114	12	12	579	663	25 A	156	145	25 AV	156	145	M32 x 1.5	4L	35
IE3-W41R 132 S8	41	35	132	16	331	279	338	114	12	12	481	565	25 A	156	145	25 AV	156	145	M32 x 1.5	4L	35
IE3-W41R 132 M8	41	35	132	16	331	279	338	114	12	12	481	565	25 A	156	145	25 AV	156	145	M32 x 1.5	4L	35
IE3-W41R 160 M2	45	45	160	18	402	336	435	138	15	20	571	686	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE3-W41R 160 MX2	45	45	160	18	402	336	435	138	15	20	609	724	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE3-W41R 160 L2	45	45	160	18	402	336	435	138	15	20	659	774	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE3-W41R 160 M4	45	45	160	18	402	336	435	138	15	20	571	686	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE3-W41R 160 L4C	45	45	160	18	402	336	435	138	15	20	659	774	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE3-W41R 160 M6	45	45	160	18	402	336	435	138	15	20	609	724	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE3-W41R 160 L6C	45	45	160	18	402	336	435	138	15	20	659	774	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE3-W41R 160 M8	45	45	160	18	402	336	435	138	15	20	571	693	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE3-W41R 160 MX8	45	45	160	18	402	336	435	138	15	20	571	724	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE3-W41R 160 L8	45	45	160	18	402	336	435	138	15	20	659	774	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35

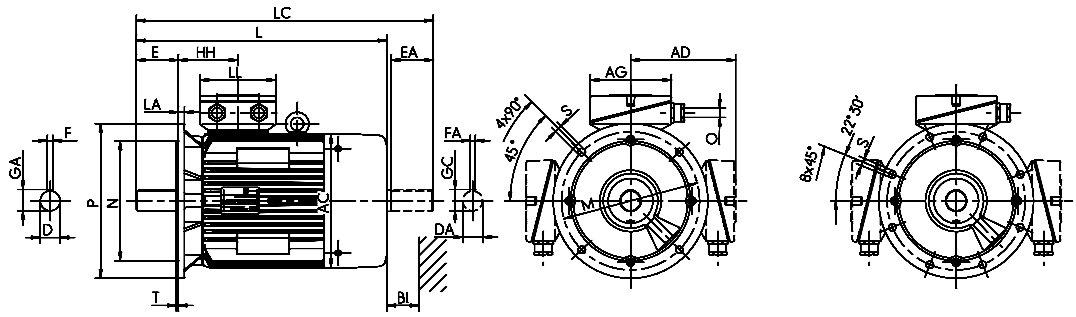
**) Terminal box left/right

***) upon request

Energy-saving motor for Premium Efficiency IE3
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 56 to 132

Type of construction IM B5 [IM 3001]
Type of construction IM V1 [IM 3011]
Flange dimensions, see page 2/109



Type designation	Flange size	AC	AD	AD VIK	D	DA	DB*)	E	EA	F	FA	GA	GC	H	HH
		g	g1	g1	d	d1		l	l1	u	u1	t	t1	h	A
IE3-W41R 56 G2	FF 100	109	98	117	9	-	M3	20	-	3	3	10	10.2	56	81
IE3-W42R 63 K2, 4	FF 115	109	98	118	11	11	M4	23	23	4	4	13	12.5	63	58
IE3-W41R 63 G2, 4, 6	FF 115	124	104	124	11	11	M4	23	23	4	4	13	12.5	63	94
IE3-W42R 71 K2, 4/KY6	FF 130	124	104	124	14	14	M5	30	30	5	5	16	16	71	61
IE3-W41R 71 G8/GY2, 4, 6	FF 130	139	111	131	14	14	M5	30	30	5	5	16	16	71	97
IE3-W42R 80 K2, 8	FF 165	139	111	131	19	19	M6	40	40	6	6	22	21.5	80	67
IE3-W41R 80 K2, 4, 6/GY2/G8	FF 165	157	120	140	19	19	M6	40	40	6	6	22	21.5	80	70
IE3-W41R 80 G2, 4, 6/GX4	FF 165	157	120	140	19	19	M6	40	40	6	6	22	21.5	80	70
IE3-W42R 90 S2/SY8	FF 165	157	120	140	24	24	M8	50	50	8	6	27	24.5	90	70
IE3-W41R 90 S2, 8/SY4, 6	FF 165	177	127	147	24	24	M8	50	50	8	6	27	24.5	90	114
IE3-W41R 90 S4, 6	FF 165	177	127	147	24	24	M8	50	50	8	6	27	24.5	90	114
IE3-W41R 90 LY2	FF 165	177	127	147	24	24	M8	50	50	8	6	27	24.5	90	114
IE3-W41R 90 LX4	FF 165	177	127	147	24	24	M8	50	50	8	6	27	24.5	90	114
IE3-W41R 90 L2, 4, 6, 8	FF 165	177	127	147	24	24	M8	50	50	8	6	27	24.5	90	114
IE3-W41R 100 LY8	FF 215	196	137	157	28	28	M10	60	50	8	8	31	31	100	77
IE3-W41R 100 LY2/L8	FF 215	196	137	156	28	28	M10	60	60	8	8	31	31	100	77
IE3-W41R 100 L2/LY4/LX6/LW8	FF 215	196	137	156	28	28	M10	60	60	8	8	31	31	100	77
IE3-W41R 100 L4/LX4	FF 215	196	137	156	28	28	M10	60	60	8	8	31	31	100	77
IE3-W41R 100 LX8	FF 215	196	137	156	28	28	M10	60	60	8	8	31	31	100	77
IE3-W41R 100 LZ4, LW4	FF 215	196	137	156	28	28	M10	60	60	8	8	31	31	100	77
IE3-W41R 112 M2, 8/MV6	FF 215	196	136	156	28	28	M10	60	60	8	8	31	31	112	77
IE3-W41R 112 MY2	FF 215	196	136	156	28	28	M10	60	60	8	8	31	31	112	77
IE3-W41R 112 MZ6, 8	FF 215	196	137	156	28	28	M10	60	60	8	8	31	31	112	77
IE3-W40R 112 M2, W41R 112 MW4	FF 215	217	178	189	28	28	M10	60	60	8	8	31	31	112	107
IE3-W41R 112 M4	FF 215	217	178	189	28	28	M10	60	60	8	8	31	31	112	107
IE3-W41R 132 S2T	FF 265	196	155	155	38	28	M12	80	60	10	8	41	31	132	105
IE3-W41R 132 S2, W42R 132 S8	FF 265	217	178	189	38	32	M12	80	80	10	10	41	35	132	107
IE3-W41R 132 S6	FF 265	217	178	189	38	32	M12	80	80	10	10	41	35	132	107
IE3-W41R 132 SX2	FF 265	258	199	210	38	32	M12	80	80	10	10	41	35	132	114
IE3-W41R 132 S4	FF 265	258	199	210	38	32	M12	80	80	10	10	41	35	132	114
IE3-W41R 132 M4	FF 265	258	199	210	38	38	M12	80	80	10	10	41	41	132	114
IE3-W41R 132 M6	FF 265	258	199	210	38	32	M12	80	80	10	10	41	35	132	114
IE3-W41R 132 MX6	FF 265	258	199	210	38	38	M12	80	80	10	10	41	41	132	114
IE3-W41R 132 S8	FF 265	258	199	210	38	32	M12	80	80	10	10	41	35	132	114
IE3-W41R 132 M8	FF 265	258	199	210	38	32	M12	80	80	10	10	41	35	132	114

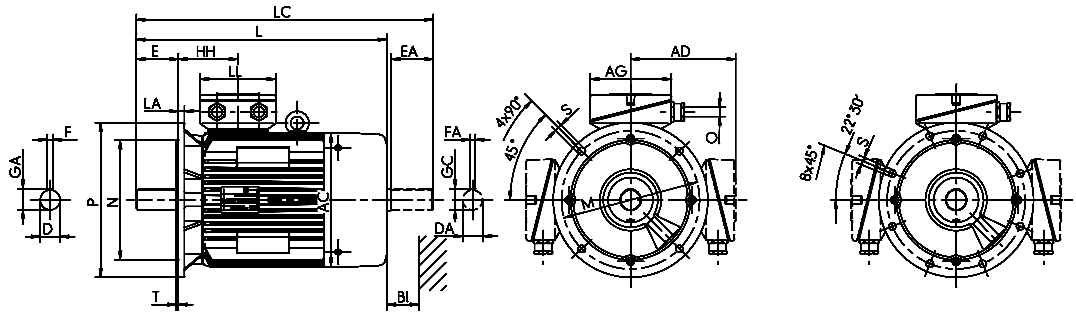
*) Centre holes to DIN 332-DS

Type designation	L	LC	TB Type	AG	LL	TB Type	AG	LL	O	Hole pattern	Bl.
	k	k1		x	z	VIK	x	z	-		Bl
IE3-W41R 56 G2	199	223	KA 05	92	92	KA 05-13	104	112	M20 x 1.5	4L	14
IE3-W42R 63 K2, 4	179	205	KA 05	92	92	KA 05-13	104	112	M20 x 1.5	4L	14
IE3-W41R 63 G2, 4, 6	232	258	KA 05	92	92	KA 05-13	104	112	M20 x 1.5	4L	14
IE3-W42R 71 K2, 4/KY6	206	239	KA 05	92	92	KA 05-13	104	112	M20 x 1.5	4L	14
IE3-W41R 71 G8/GY2 ,4, 6	269	303	KA 05	92	92	KA 05-13	104	112	M20 x 1.5	4L	14
IE3-W42R 80 K2, 8	249	293	KA 05	92	92	KA 05-13	104	112	M20 x 1.5	4L	16
IE3-W41R 80 K2, 4, 6/GY2/G8	265	310	KA 05	92	92	KA 05-13	104	112	M20 x 1.5	4L	16
IE3-W41R 80 G2, 4, 6/GX4	287	332	KA 05	92	92	KA 05-13	104	112	M20 x 1.5	4L	16
IE3-W42R 90 S2/SY8	297	352	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	16
IE3-W41R 90 S2, 8/SY4, 6	360	415	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	18
IE3-W41R 90 S4, 6	390	445	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	18
IE3-W41R 90 LY2	360	415	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	18
IE3-W41R 90 LX4	416	471	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	18
IE3-W41R 90 L2, 4, 6, 8	390	445	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	18
IE3-W41R 100 LY8	357	425	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	20
IE3-W41R 100 LY2/L8	357	425	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	20
IE3-W41R 100 L2/LY4/LX6/LW8	391	459	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	20
IE3-W41R 100 L4/LX4	421	489	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	20
IE3-W41R 100 LX8	391	459	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	20
IE3-W41R 100 LZ4, LW4	461	529	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	20
IE3-W41R 112 M2, 8/MV6	421	489	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	20
IE3-W41R 112 MY2	391	459	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	20
IE3-W41R 112 MZ6, 8	461	529	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	20
IE3-W40R 112 M2, W41R 112 MW4	457	522	25 A	156	145	25 AV	156	145	M32 x 1.5	4L	35
IE3-W41R 112 M4	507	572	25 A	156	145	25 AV	156	145	M32 x 1.5	4L	35
IE3-W41R 132 S2T	460	528	KA 05-13	104	112	KA 05-13	104	112	M32 x 1.5	4L	20
IE3-W41R 132 S2, W42R 132 S8	479	562	25 A	156	145	25 AV	156	145	M32 x 1.5	4L	35
IE3-W41R 132 S6	529	612	25 A	156	145	25 AV	156	145	M32 x 1.5	4L	35
IE3-W41R 132 SX2	481	565	25 A	156	145	25 AV	156	145	M32 x 1.5	4L	35
IE3-W41R 132 S4	529	613	25 A	156	145	25 AV	156	145	M32 x 1.5	4L	35
IE3-W41R 132 M4	579	663	25 A	156	145	25 AV	156	145	M32 x 1.5	4L	35
IE3-W41R 132 M6	481	565	25 A	156	145	25 AV	156	145	M32 x 1.5	4L	35
IE3-W41R 132 MX6	579	663	25 A	156	145	25 AV	156	145	M32 x 1.5	4L	35
IE3-W41R 132 S8	481	565	25 A	156	145	25 AV	156	145	M32 x 1.5	4L	35
IE3-W41R 132 M8	481	565	25 A	156	145	25 AV	156	145	M32 x 1.5	4L	35

Energy-saving motor for Premium Efficiency IE3
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 160 to 280

Type of construction IM B5 [IM 3001]
Type of construction IM V1 [IM 3011]
Flange dimensions, see page 2/109



Type designation	Flange size	AC	AD	AD VIK	D	DA	DB*)	E	EA	F	FA	GA	GC	H	HH
		g	g1	g1	d	d1		l	l1	u	u1	t	t1	h	A
IE3-W41R 160 M2	FF 300	313	242	275	42	42	M16	110	110	12	12	45	45	160	138
IE3-W41R 160 MX2	FF 300	313	242	275	42	42	M16	110	110	12	12	45	45	160	138
IE3-W41R 160 L2	FF 300	313	242	275	42	42	M16	110	110	12	12	45	45	160	138
IE3-W41R 160 M4	FF 300	313	242	275	42	42	M16	110	110	12	12	45	45	160	138
IE3-W41R 160 L4C	FF 300	313	242	275	42	42	M16	110	110	12	12	45	45	160	138
IE3-W41R 160 M6	FF 300	313	242	275	42	42	M16	110	110	12	12	45	45	160	138
IE3-W41R 160 L6C	FF 300	313	242	275	42	42	M16	110	110	12	12	45	45	160	138
IE3-W41R 160 M8	FF 300	313	242	275	42	42	M16	110	80	12	10	45	45	160	138
IE3-W41R 160 MX8	FF 300	313	242	275	42	42	M16	110	110	12	12	45	45	160	138
IE3-W41R 160 L8	FF 300	313	242	275	42	42	M16	110	110	12	12	45	45	160	138
IE3-W41R 180 M2C	FF 300	351	261	294	48	48	M16	110	110	14	14	51.5	51.5	180	147
IE3-W41R 180 M4	FF 300	351	261	294	48	48	M16	110	110	14	14	51.5	51.5	180	147
IE3-W41R 180 L4	FF 300	351	261	294	48	48	M16	110	110	14	14	51.5	51.5	180	147
IE3-W41R 180 L6C	FF 300	351	261	294	48	48	M16	110	110	14	14	51.5	51.5	180	147
IE3-W41R 180 L8	FF 300	351	261	294	48	48	M16	110	110	14	14	51.5	51.5	180	147
IE3-W41R 200 L2	FF 350	390	300	378	55	55	M20	110	110	16	16	59	59	200	168
IE3-W41R 200 LX2C	FF 350	390	300	378	55	55	M20	110	110	16	16	59	59	200	168
IE3-W41R 200 L4C	FF 350	390	300	378	55	55	M20	110	110	16	16	59	59	200	168
IE3-W41R 200 L6	FF 350	390	300	378	55	55	M20	110	110	16	16	59	59	200	168
IE3-W41R 200 LX6C	FF 350	390	300	378	55	55	M20	110	110	16	16	59	59	200	168
IE3-W41R 200 L8	FF 350	351	261	294	55	48	M20	110	110	16	14	59	51.5	200	147
IE3-W41R 225 M2	FF 400	440	324	406	55	55	M20	110	110	16	16	59	59	225	177
IE3-W41R 225 S4C	FF 400	390	300	378	60	55	M20	140	110	18	16	64	59	225	168
IE3-W41R 225 M4	FF 400	440	324	406	60	55	M20	140	110	18	16	64	59	225	177
IE3-W41R 225 M6	FF 400	440	324	406	60	55	M20	140	110	18	16	64	59	225	177
IE3-W41R 225 S8	FF 400	390	300	378	60	55	M20	140	110	18	16	64	59	225	168
IE3-W41R 225 M8	FF 400	440	324	406	60	55	M20	140	110	18	16	64	59	225	177
IE3-W41R 250 M2	FF 500	490	386	399	60	55	M20	140	110	18	18	64	59	250	206
IE3-W41R 250 M4	FF 500	490	386	399	65	55	M20	140	110	18	18	69	59	280	206
IE3-W41R 250 M6	FF 500	490	386	399	65	55	M20	140	110	18	16	69	59	250	206
IE3-W41R 250 M8	FF 500	440	386	406	65	55	M20	140	110	18	16	69	59	250	206
IE3-W41R 280 S2	FF 500	490	386	399	65	65	M20	140	140	18	18	69	69	280	206
IE3-W41R 280 M2	FF 500	490	386	399	65	65	M20	140	140	18	18	69	69	280	206
IE3-W41R 280 S4	FF 500	490	386	399	75	65	M20	140	140	20	18	79.5	69	280	206
IE3-W41R 280 M4	FF 500	550	416	460	75	65	M20	140	140	20	18	79.5	69	280	211
IE3-W41R 280 S6	FF 500	550	416	460	75	65	M20	140	110	20	18	79.5	69	280	211
IE3-W41R 280 M6	FF 500	550	416	460	75	65	M20	140	140	20	18	79.5	69	280	211
IE3-W41R 280 S8	FF 500	550	416	460	75	65	M20	140	110	20	18	79.5	69	280	211
IE3-W41R 280 M8	FF 500	550	416	460	75	65	M20	140	140	20	18	79.5	69	280	211

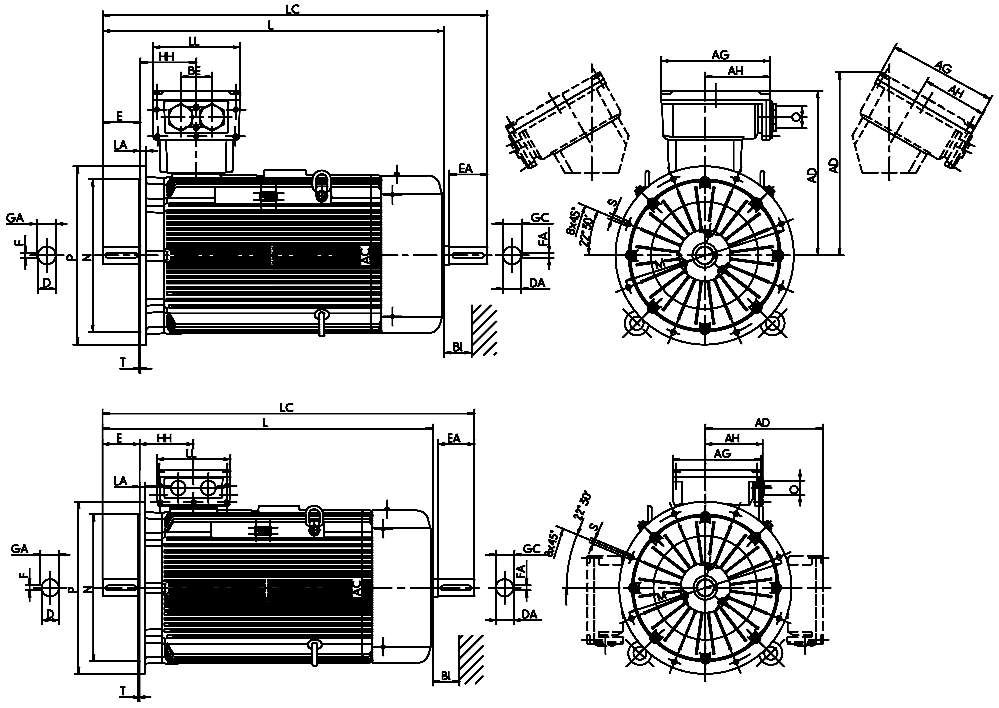
*) Centre holes to DIN 332-DS

Type designation	L	LC	TB Type	AG	LL	TB Type	AG	LL	O	Hole pattern	Bl.
	k	k1		x	z	VIK	x	z	-		Bl
IE3-W41R 160 M2	571	686	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE3-W41R 160 MX2	609	724	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE3-W41R 160 L2	659	774	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE3-W41R 160 M4	571	686	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE3-W41R 160 L4C	659	774	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE3-W41R 160 M6	609	724	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE3-W41R 160 L6C	659	774	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE3-W41R 160 M8	571	724	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE3-W41R 160 MX8	571	724	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE3-W41R 160 L8	659	774	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE3-W41R 180 M2C	680	796	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE3-W41R 180 M4	680	796	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE3-W41R 180 L4	730	846	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE3-W41R 180 L6C	680	796	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE3-W41R 180 L8	680	796	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE3-W41R 200 L2	767	891	100 A	213	207	200 A-SB	335	270	M50 x 1.5	4L	40
IE3-W41R 200 LX2C	767	891	100 A	213	207	200 A-SB	335	270	M50 x 1.5	4L	40
IE3-W41R 200 L4C	767	891	100 A	213	207	200 A-SB	335	270	M50 x 1.5	4L	35
IE3-W41R 200 L6	767	891	100 A	213	207	200 A-SB	335	270	M50 x 1.5	4L	35
IE3-W41R 200 LX6C	767	891	100 A	213	207	200 A-SB	335	270	M50 x 1.5	4L	35
IE3-W41R 200 L8	730	846	63 A	193	167	100/63 AV	223	214	M50 x 1.5	4L	35
IE3-W41R 225 M2	832	947	100 A	213	207	200 A-SB	335	270	M50 x 1.5	8L	45
IE3-W41R 225 S4C	847	971	100 A	213	207	200 A-SB	335	270	M50 x 1.5	8L	40
IE3-W41R 225 M4	912	1027	100 A	213	207	200 A-SB	335	270	M50 x 1.5	8L	45
IE3-W41R 225 M6	912	1027	100 A	213	207	200 A-SB	335	270	M50 x 1.5	8L	45
IE3-W41R 225 S8	797	921	100 A	213	207	200 A-SB	335	270	M50 x 1.5	8L	40
IE3-W41R 225 M8	862	977	100 A	213	207	200 A-SB	335	270	M50 x 1.5	8L	45
IE3-W41R 250 M2	924	1072	200 A	282	242	200 A-SB	335	270	M50 x 1.5	8L	55
IE3-W41R 250 M4	924	1072	200 A	282	242	200 A-SB	335	270	M50 x 1.5	8L	50
IE3-W41R 250 M6	924	1042	200 A	282	242	200 A-SB	335	270	M50 x 1.5	8L	50
IE3-W41R 250 M8	924	1042	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	50
IE3-W41R 280 S2	924	1072	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	55
IE3-W41R 280 M2	970	1118	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	55
IE3-W41R 280 S4	970	1118	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	50
IE3-W41R 280 M4	1105	1273	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	55
IE3-W41R 280 S6	1050	1218	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	55
IE3-W41R 280 M6	1105	1273	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	55
IE3-W41R 280 S8	1050	1218	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	55
IE3-W41R 280 M8	1105	1273	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	55

Energy-saving motor for Premium Efficiency IE3
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 315

Type of construction IM B5 [IM 3001]
Type of construction IM V1 [IM 3011]
Flange dimensions, see page 2/109



Type designation	Flange size	AC	AD	AD VIK	D	DA	DB*)	E	EA	F	FA	GA	GC
		g	g1	g1	d	d1		l	l1	u	u1	t	t1
IE3-W41R 315 S2	FF 600	550	416	460	65	65	M20	140	140	18	18	69	69
IE3-W41R 315 M2	FF 600	550	416	460	65	65	M20	140	140	18	18	69	69
IE3-W41R 315 MX2	FF 600	610	494	498	65	65	M20	140	140	18	18	69	69
IE3-W41R 315 MY2	FF 600	610	494	498	65	65	M20	140	140	18	18	69	69
IE3-W41R 315 L2	FF 600	610	494	498	65	65	M20	140	140	18	18	69	69
IE3-W41R 315 LX2	FF 600	610	494	498	65	65	M20	140	140	18	18	69	69
IE3-W41R 315 S4	FF 600	550	416	460	80	70	M20	170	140	22	20	85	75
IE3-W41R 315 M4	FF 600	550	416	460	80	70	M20	170	140	22	20	85	75
IE3-W41R 315 MX4	FF 600	610	494	498	80	70	M20	170	140	22	20	85	75
IE3-W41R 315 MY4	FF 600	610	494	498	80	70	M20	170	140	22	20	85	75
IE3-W41R 315 L4	FF 600	610	494	498	80	70	M20	170	140	22	20	85	75
IE3-W41R 315 LX4	FF 600	610	494	498	80	70	M20	170	140	22	20	85	75
IE3-W41R 315 S6	FF 600	550	416	460	80	70	M20	170	140	22	20	85	75
IE3-W41R 315 M6	FF 600	610	494	498	80	70	M20	170	140	22	20	85	75
IE3-W41R 315 MX6	FF 600	610	494	498	80	70	M20	170	140	22	20	85	75
IE3-W41R 315 L6	FF 600	610	494	498	80	70	M20	170	140	22	20	85	75
IE3-W41R 315 S8	FF 600	550	416	460	80	70	M20	170	140	22	20	85	75
IE3-W41R 315 M8	FF 600	610	494	498	80	70	M20	170	140	22	20	85	75
IE3-W41R 315 MX8	FF 600	610	494	498	80	70	M20	170	140	22	20	85	75
IE3-W41R 315 L8	FF 600	610	494	498	80	70	M20	170	140	22	20	85	75

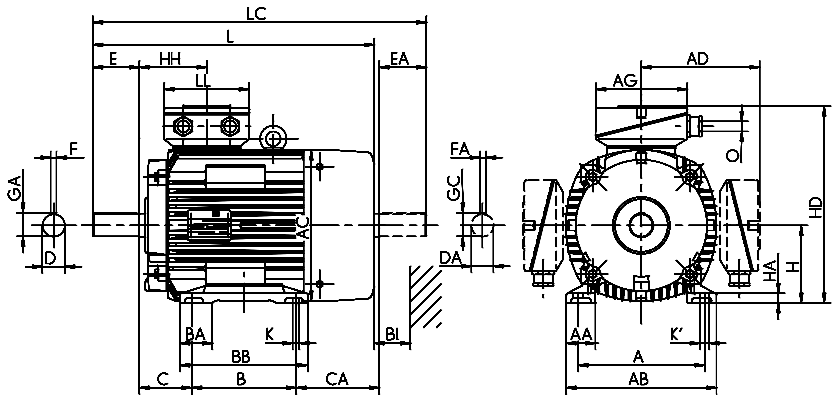
*) Centre holes to DIN 332-D

Type designation	H	HH	L	LC	TB Type	AG	LL	AH	TB Type	AG	LL	AH	O	Bl.
	h	A	k	k1		x	z	-	VIK	x	z	-	r	Bl
IE3-W41R 315 S2	315	211	1050	1218	200 A	282	242	-	400 A-SB	415	340	265	M63 x 1.5	55
IE3-W41R 315 M2	315	211	1105	1273	200 A	282	242	-	400 A-SB	415	340	265	M63 x 1.5	55
IE3-W41R 315 MX2	315	211	1200	1378	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE3-W41R 315 MY2	315	230	1270	1448	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE3-W41R 315 L2	315	230	1390	1568	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE3-W41R 315 LX2	315	230	1510	1688	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE3-W41R 315 S4	315	211	1080	1248	200 A	282	242	-	400 A-SB	415	340	265	M63 x 1.5	55
IE3-W41R 315 M4	315	211	1135	1303	200 A	282	242	-	400 A-SB	415	340	265	M63 x 1.5	55
IE3-W41R 315 MX4	315	230	1230	1408	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE3-W41R 315 MY4	315	230	1300	1478	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE3-W41R 315 L4	315	230	1420	1598	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE3-W41R 315 LX4	315	230	1540	1718	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE3-W41R 315 S6	315	211	1135	1303	200 A	282	242	-	400 A-SB	415	340	265	M63 x 1.5	55
IE3-W41R 315 M6	315	230	1300	1478	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE3-W41R 315 MX6	315	230	1300	1478	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE3-W41R 315 L6	315	230	1420	1598	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE3-W41R 315 S8	315	211	1135	1303	200 A	282	242	-	400 A-SB	415	340	265	M63 x 1.5	55
IE3-W41R 315 M8	315	230	1300	1478	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE3-W41R 315 MX8	315	230	1300	1478	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE3-W41R 315 L8	315	230	1420	1598	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55

Energy-saving motor for High Efficiency IE2
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 56 to 160

Type of construction IM B3 [IM 1001]



Type designation	Flange size	A	AA	AB	AC	AD	AD VIK	B	BA	BB	C	CA	D	DA	DB*)	E	EA	F	FA	GA	GC
		b	n	f	g	g1	g1	a	m	e	w1	w2	d	d1		i	l1	u	u1	t	t1
IE2-W21R 56 K2, 4/G2, 4/WE2R 56 G2	FF 100	90	18	110	109	98	118	71	-	86	36	52	9	-	M3	20	-	3	3	10	10.2
IE2-WE2R 63 K2, 4/G2, 6	FF 115	100	28	128	109	98	118	80	-	100	40	39	11	11	M4	23	23	4	4	13	12.5
IE2-W21R 63 K2, 4/G2, 4/WE1R 63 GY4	FF 115	100	21	120	124	104	124	80	-	95	40	59	11	11	M4	23	23	4	4	13	12.5
IE2-WE2R 71 K2, 4, 6/G2, 6, 8	FF 130	112	32	138	124	104	124	90	-	116	45	43.5	14	14	M5	30	30	5	5	16	16
IE2-W21R 71 K2, 4, 6/G2 ,4, 6/WE1R 71 GY4	FF 130	112	24	135	139	111	131	90	-	114	45	78	14	14	M5	30	30	5	5	16	16
IE2-WE2R 80 K2, 4, 6, 8/G2, 8	FF 165	125	38	168	139	111	131	100	-	125	50	63	19	19	M6	40	40	6	6	22	21.5
IE2-W21R 80 K2, 4, 6/WE1R 80 GY4, 6/K8	FF 165	125	26	152	157	120	140	100	-	125	50	80	19	19	M6	40	40	6	6	22	21.5
IE2-W21R 80 G4, 6/WE1R 80 G2	FF 165	125	26	152	157	120	140	100	-	146	50	102	19	19	M6	40	40	6	6	22	21.5
IE2-WE2R 90 S2, 8	FF 165	140	40	178	157	120	140	100	-	130	56	74	24	24	M8	50	50	8	8	27	27
IE2-WE2R 90 S4, 6	FF 165	140	40	178	157	120	140	100	-	130	56	96	24	24	M8	50	50	8	8	27	27
IE2-WE2R 90 L2, 8	FF 165	140	40	178	157	120	140	125	-	155	56	71	24	24	M8	50	50	8	8	27	27
IE2-WE1R 90 S2, 4/W21R S6, 8	FF 165	140	40	178	177	127	147	100	-	130	56	120	24	24	M8	50	50	8	8	27	27
IE2-WE1R 90 L2/LW4, 6	FF 165	140	40	178	177	127	147	125	-	155	56	96	24	24	M8	50	50	8	8	27	27
IE2-WE1R 90 L4/W21R 90 L6, 8	FF 165	140	40	178	177	127	147	125	-	155	56	125	24	24	M8	50	50	8	8	27	27
IE2-WE2R 100 L8	FF 215	160	47	192	177	127	147	140	-	175	63	73	28	24	M10	60	50	8	8	31	27
IE2-WE2R 100 LY2, L6	FF 215	160	47	192	177	127	147	140	-	175	63	103	28	24	M10	60	50	8	8	31	27
IE2-WE1R 100 LX4	FF 215	160	42	193	196	137	156	140	-	175	63	166	28	28	M10	60	60	8	8	31	31
IE2-WE1R 100 L2, S4, LY8/W21R 100 L8	FF 215	160	42	193	196	137	156	140	-	175	63	102	28	28	M10	60	60	8	8	31	31
IE2-WE1R 100 L4, LW4/W21R 100 LX6, 8	FF 215	160	42	193	196	137	156	140	-	175	63	136	28	28	M10	60	60	8	8	31	31
IE2-WE1R 112 ML2, MX2, 6/M8	FF 215	190	52	225	196	136	156	140	-	180	70	129	28	28	M10	60	60	8	8	31	31
IE2-W21R 112 MV2, 6, 8	FF 215	190	52	225	196	136	156	140	-	180	70	159	28	28	M10	60	60	8	8	31	31
IE2-WE1R 112 M2	FF 215	190	52	225	196	136	156	140	-	180	70	95	28	28	M10	60	60	8	8	31	31
IE2-WE1R 112 MZ4, 6	FF 215	190	52	225	196	137	156	140	-	180	70	199	28	28	M10	60	60	8	8	31	31
IE2-WE1R 112 M4	FF 215	190	45	226	217	178	189	140	42	172	70	192	28	28	M10	60	60	8	8	31	31
IE2-WE1R 132 SY2T	FF 265	216	52	256	196	155	175	140	-	180	89	129	38	28	M12	80	60	10	8	41	31
IE2-WE1R 132 S2T, SX2T	FF 265	216	52	256	196	155	175	140	-	180	89	159	38	28	M12	80	60	10	8	41	31
IE2-WE1R 132 S2, 6, 8/WE2R 132 SY4	FF 265	216	50	256	217	178	189	140	53	180	89	173	38	32	M12	80	80	10	10	41	35
IE2-WE1R 132 SX2	FF 265	216	50	256	258	199	210	140	53	180	89	176	38	38	M12	80	80	10	10	41	41
IE2-WE1R 132 M4	FF 265	216	50	256	258	199	210	178	53	218	89	186	38	38	M12	80	80	10	10	41	41
IE2-WE1R 132 MX6	FF 265	216	50	256	258	199	210	178	53	218	89	186	38	38	M12	80	80	10	10	41	41
IE2-WE2R 132 S4	FF 265	216	50	256	217	178	189	140	53	180	89	223	38	32	M12	80	80	10	10	41	35
IE2-WE2R 132 M6, 8	FF 265	216	50	256	217	178	189	178	53	218	89	185	38	32	M12	80	80	10	10	41	35
IE2-WE1R 160 M2	FF 300	254	55	296	313	242	275	210	60	257	108	148	42	42	M16	110	110	12	10	45	41
IE2-WE1R 160 M4	FF 300	254	55	296	313	242	275	210	60	257	108	148	42	42	M16	110	110	12	10	45	41
IE2-WE1R 160 M8	FF 300	254	55	296	258	214	214	210	60	257	108	135	42	38	M16	110	80	12	10	45	41
IE2-WE1R 160 M6, MX8	FF 300	254	55	296	313	242	275	210	60	257	108	148	42	42	M16	110	110	12	10	45	41
IE2-WE1R 160 MX2	FF 300	254	55	296	313	242	275	210	56	257	108	185	42	42	M16	110	110	12	12	45	45
IE2-WE1R 160 L2	FF 300	254	55	296	313	242	275	254	60	301	108	142	42	42	M16	110	110	12	12	45	45
IE2-WE1R 160 L4	FF 300	254	55	296	313	242	275	254	60	301	108	200	42	42	M16	110	110	12	12	45	45
IE2-WE1R 160 L6, 8	FF 300	254	55	296	313	242	275	254	60	301	108	142	42	42	M16	110	110	12	12	45	45
IE2-WE2R 160 M4	FF 300	254	55	296	258	214	210	210	60	257	108	185	42	38	M16	110	80	12	10	45	41
IE2-WE2R 160 M6, MX8	FF 300	254	55	296	258	214	210	210	60	257	108	185	42	38	M16	110	80	12	10	45	41

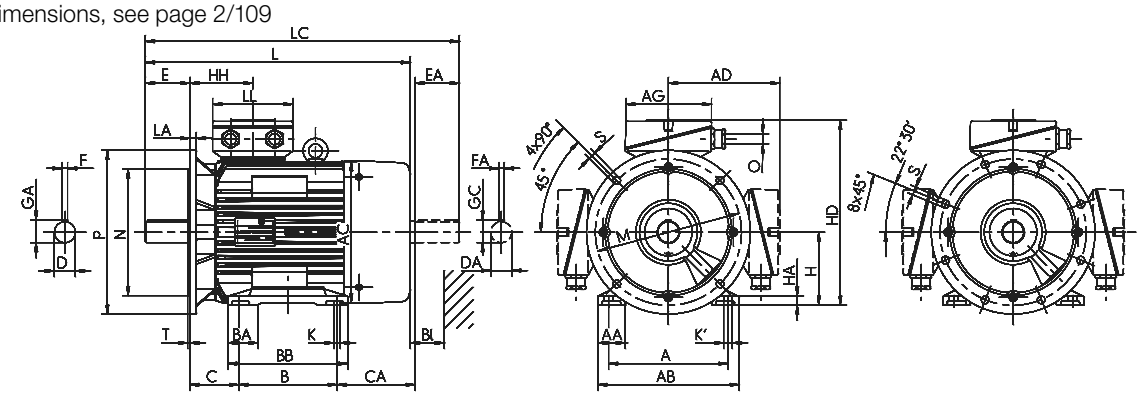
*) Centre holes to DIN 332-DS

Energy-saving motor for High Efficiency IE2
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 56 to 160

Type of construction IM B35 [IM 2001]

Flange dimensions, see page 2/109



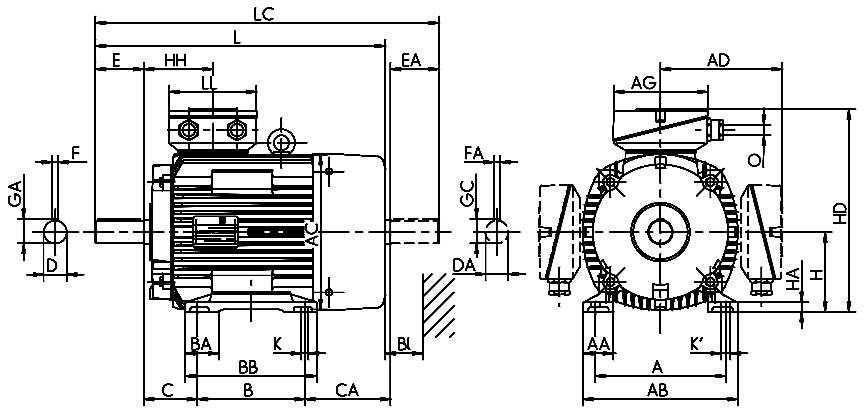
Type designation	H	HA	HD	HD**)	HD VIK	HH	K	K'	L	LC	TB Type	AG	LL	O	TB Type	AG	LL	O	Loch-bild	Bl.
	h	c	p	p	p	A	s	s'	k	k1	Standard	x	z	-	VIK	x	z	-		Bl
IE2-W21R 56 K2, 4/G2, 4/WE2R 56 G2	56	7	154	***)	174	58	6	6	176	199	KA 05	92	92	M20 x 1.5	KA 05-13	104	112	M20 x 1.5	4L	14
IE2-WE2R 63 K2, 4/G2, 6	63	10	161	***)	181	58	8	8	179	205	KA 05	92	92	M20 x 1.5	KA 05-13	104	112	M20 x 1.5	4L	14
IE2-W21R 63 K2, 4/G2, 4/WE1R 63 GY4	63	7.5	167	***)	187	61	7	7	199	225	KA 05	92	92	M20 x 1.5	KA 05-13	104	112	M20 x 1.5	4L	14
IE2-WE2R 71 K2, 4, 6/G2, 6, 8	71	11	175	***)	195	61	8	8	206	239	KA 05	92	92	M20 x 1.5	KA 05-13	104	112	M20 x 1.5	4L	14
IE2-W21R 71 K2, 4, 6/G2 ,4, 6/WE1R 71 GY4	71	8	182	***)	202	67	7	7	239	273	KA 05	92	92	M20 x 1.5	KA 05-13	104	112	M20 x 1.5	4L	16
IE2-WE2R 80 K2, 4, 6, 8/G2, 8	80	12	191	***)	211	67	10	10	249	293	KA 05	92	92	M20 x 1.5	KA 05-13	104	112	M20 x 1.5	4L	16
IE2-W21R 80 K2, 4, 6/WE1R 80 GY4, 6/K8	80	9	200	***)	220	70	10	10	265	310	KA 05	92	92	M20 x 1.5	KA 05-13	104	112	M20 x 1.5	4L	16
IE2-W21R 80 G4, 6/WE1R 80 G2	80	9	200	***)	220	70	10	10	287	332	KA 05	92	92	M20 x 1.5	KA 05-13	104	112	M20 x 1.5	4L	16
IE2-WE2R 90 S2, 8	90	14	210	***)	230	70	10	10	275	330	KA 05	92	92	M25 x 1.5	KA 05-13	104	112	M25 x 1.5	4L	16
IE2-WE2R 90 S4, 6	90	14	210	***)	230	70	10	10	297	352	KA 05	92	92	M25 x 1.5	KA 05-13	104	112	M25 x 1.5	4L	16
IE2-WE2R 90 L2, 8	90	14	210	***)	230	70	10	10	297	352	KA 05	92	92	M25 x 1.5	KA 05-13	104	112	M25 x 1.5	4L	18
IE2-WE1R 90 S2, 4/W21R S6, 8	90	10.5	217	***)	237	75	10	10	321	376	KA 05	92	92	M25 x 1.5	KA 05-13	104	112	M25 x 1.5	4L	18
IE2-WE1R 90 L2/LW4, 6	90	11	217	***)	237	75	10	10	321	376	KA 05	92	92	M25 x 1.5	KA 05-13	104	112	M25 x 1.5	4L	18
IE2-WE1R 90 L4/W21R 90 L6, 8	90	10.5	217	***)	237	75	10	10	351	406	KA 05	92	92	M25 x 1.5	KA 05-13	104	112	M25 x 1.5	4L	18
IE2-WE2R 100 L8	100	15	227	***)	247	75	12	12	331	386	KA 05	92	92	M25 x 1.5	KA 05-13	104	112	M25 x 1.5	4L	18
IE2-WE2R 100 LY2, L6	100	15	227	***)	247	75	12	12	361	416	KA 05	92	92	M25 x 1.5	KA 05-13	104	112	M25 x 1.5	4L	18
IE2-WE1R 100 LX4	100	13	236	***)	256	77	12	12	421	489	KA 05	92	92	M25 x 1.5	KA 05-13	104	112	M25 x 1.5	4L	20
IE2-WE1R 100 L2, S4, LY8/W21R 100 L8	100	13	236	***)	256	77	12	12	357	425	KA 05	92	92	M25 x 1.5	KA 05-13	104	112	M25 x 1.5	4L	20
IE2-WE1R 100 L4, LW4/W21R 100 LX6, 8	100	13	236	***)	256	77	12	12	391	459	KA 05	92	92	M25 x 1.5	KA 05-13	104	112	M25 x 1.5	4L	20
IE2-WE1R 112 ML2, MX2, 6/M8	112	18	248	***)	268	77	12	12	391	459	KA 05	92	92	M25 x 1.5	KA 05-13	104	112	M25 x 1.5	4L	20
IE2-W21R 112 MV2, 6, 8	112	18	248	***)	268	77	12	12	421	489	KA 05	92	92	M25 x 1.5	KA 05-13	104	112	M25 x 1.5	4L	20
IE2-WE1R 112 M2	112	18	248	***)	268	77	12	12	357	425	KA 05	92	92	M25 x 1.5	KA 05-13	104	112	M25 x 1.5	4L	20
IE2-WE1R 112 MZ4, 6	112	18	248	***)	268	77	12	12	461	529	KA 05	92	92	M25 x 1.5	KA 05-13	104	112	M25 x 1.5	4L	20
IE2-WE1R 112 M4	112	15	290	236.5	297	108	12	12	459	522	25 A	156	145	M32 x 1.5	25 AV	156	145	M32 x 1.5	4L	35
IE2-WE1R 132 SY2T	132	19	287	***)	307	105	12	12	430	498	KA 05 - 13	104	112	M32 x 1.5	KA 05 - 13	104	112	M32 x 1.5	4L	20
IE2-WE1R 132 S2T, SX2T	132	19	287	***)	307	105	12	12	460	528	KA 05 - 13	104	112	M32 x 1.5	KA 05 - 13	104	112	M32 x 1.5	4L	20
IE2-WE1R 132 S2, 6, 8, SY4	132	16	310	256.5	317	108	12	12	479	562	25 A	156	145	M32 x 1.5	25 AV	143	134	M32 x 1.5	4L	35
IE2-WE1R 132 SX2	132	15	331	279	331	114	12	12	481	565	25 A	156	145	M32 x 1.5	25 AV	143	134	M32 x 1.5	4L	35
IE2-WE1R 132 M4	132	15	331	279	331	114	12	12	529	613	25 A	156	145	M32 x 1.5	25 AV	143	134	M32 x 1.5	4L	35
IE2-WE1R 132 MX6	132	15	331	279	331	114	12	12	529	613	25 A	156	145	M32 x 1.5	25 AV	143	134	M32 x 1.5	4L	35
IE2-WE2R 132 S4	132	16	310	256.5	310	108	12	12	529	612	25 A	156	145	M32 x 1.5	25 AV	156	145	M32 x 1.5	4L	35
IE2-WE2R 132 M6, 8	132	16	310	256.5	310	108	12	12	529	612	25 A	156	145	M32 x 1.5	25 AV	156	145	M32 x 1.5	4L	35
IE2-WE1R 160 M2	160	18	409	336	435	138	15	20	571	686	63 A	193	167	M40 x 1.5	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE1R 160 M4	160	18	409	336	435	138	15	20	571	686	63 A	193	167	M40 x 1.5	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE1R 160 M8	160	18	363	307	370	138	15	15	559	643	25 A	156	145	M32 x 1.5	25 AV	143	134	M32 x 1.5	4L	35
IE2-WE1R 160 M6, MX8	160	18	409	336	435	138	15	20	571	686	63 A	193	167	M40 x 1.5	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE1R 160 MX2	160	18	409	336	435	138	15	20	609	724	63 A	193	167	M40 x 1.5	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE1R 160 L2	160	18	409	336	435	138	15	20	609	724	63 A	193	167	M40 x 1.5	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE1R 160 L4	160	18	409	336	435	138	15	20	667	783	63 A	193	167	M40 x 1.5	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE1R 160 L6, 8	160	18	409	336	435	138	15	20	609	724	63 A	193	167	M40 x 1.5	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE2R 160 M4	160	18	370	307	370	114	15	15	609	693	63 A	193	167	M40 x 1.5	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE2R 160 M6, MX8	160	18	370	307	370	114	15	15	609	693	63 A	193	167	M40 x 1.5	100/63 AV	223	214	M40 x 1.5	4L	35

**) Terminal box left/right
Sizes 56/63/71/90: Deviating dimensions C, HH, L, LC for B35, see B5
***) upon request

Energy-saving motor for High Efficiency IE2
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 180 to 280

Type of construction IM B3 [IM 1001]



Type designation	Flange size	A	AA	AB	AC	AD	AD VIK	B	BA	BB	C	CA	D	DA	DB*)	E	EA	F	FA	GA	GC
		b	n	f	g	g1	g1	a	m	e	w1	w2	d	d1		i	l1	u	u1	t	t1
IE2-WE1R 180 M4	FF 300	279	62	328	351	261	294	241	65	288	121	214	48	48	M16	110	110	14	14	51.5	45
IE2-WE1R 180 L4	FF 300	279	62	328	351	261	294	279	65	326	121	176	48	48	M16	110	110	14	14	51.5	51.5
IE2-WE1R 180 L6, 8	FF 300	279	62	328	351	261	294	279	65	326	121	176	48	42	M16	110	110	14	14	51.5	45
IE2-WE2R 180 M4	FF 300	279	62	328	351	261	294	241	65	288	121	194	48	48	M16	110	110	14	14	51.5	51.5
IE2-WE1R 200 L2	FF 350	318	70	372	351	261	294	305	70	360	133	138	55	48	M20	110	110	16	14	59	51.5
IE2-WE1R 200 LX2	FF 350	318	70	372	351	261	294	305	70	360	133	188	55	48	M20	110	110	16	14	59	51.5
IE2-WE1R 200 L4	FF 350	318	70	372	390	300	378	305	70	360	133	193	55	55	M20	110	110	16	16	59	59
IE2-WE1R 200 LX6	FF 350	318	70	372	390	300	378	305	70	360	133	193	55	55	M20	110	110	16	16	59	59
IE2-WE1R 200 L6, 8	FF 350	318	70	372	351	261	294	305	70	360	133	138	55	48	M20	110	110	16	14	59	51.5
IE2-WE1R 225 M2	FF 400	356	75	413	390	300	378	311	75	368	149	211	55	55	M20	110	110	16	16	59	59
IE2-WE1R 225 S4	FF 400	356	75	413	390	300	378	286	75	343	149	196	60	55	M20	140	110	18	16	64	59
IE2-WE1R 225 M4	FF 400	356	75	413	440	324	406	311	75	368	149	267	60	55	M20	140	110	18	16	64	59
IE2-WE1R 225 S8	FF 400	356	75	413	390	300	378	286	75	368	149	211	60	55	M20	140	110	18	16	64	59
IE2-WE1R 225 M6	FF 400	356	75	413	440	324	406	311	75	368	149	267	60	55	M20	140	110	18	16	64	59
IE2-WE1R 225 M8	FF 400	356	75	413	440	324	406	311	75	368	149	267	60	55	M20	140	110	18	16	64	59
IE2-WE2R 225 M4	FF 400	356	75	413	390	300	378	311	75	343	149	261	60	55	M20	140	110	18	16	64	59
IE2-WE2R 225 M6, 8	FF 400	356	75	413	390	300	378	311	75	368	149	221	60	55	M20	140	110	18	16	64	59
IE2-WE1R 250 M4	FF 500	406	84	469	490	386	399	349	84	412	168	275	65	55	M20	140	110	18	16	69	59
IE2-WE1R 250 M6, 8	FF 500	406	84	469	490	386	399	349	84	412	168	275	65	55	M20	140	110	18	16	69	59
IE2-WE2R 250 M4, 6	FF 500	406	84	469	440	386	406	349	84	412	168	325	65	55	M20	140	110	18	16	69	59
IE2-WE1R 280 S2	FF 500	457	94	522	490	386	399	368	96	431	190	234	65	65	M20	140	140	18	18	69	69
IE2-WE1R 280 M2	FF 500	457	94	522	490	386	399	419	96	482	190	229	65	65	M20	140	140	18	18	69	69
IE2-WE1R 280 S4	FF 500	457	94	522	490	386	399	368	96	431	190	234	75	65	M20	140	140	20	18	79.5	69
IE2-WE1R 280 M4	FF 500	457	94	522	490	386	399	419	96	482	190	229	75	65	M20	140	140	20	18	79.5	69
IE2-WE1R 280 S6	FF 500	457	94	522	490	386	399	368	96	431	190	229	75	65	M20	140	140	20	18	79.5	69
IE2-WE1R 280 S8	FF 500	457	94	522	490	386	399	368	96	431	190	229	75	65	M20	140	140	20	18	79.5	69
IE2-WE1R 280 M6, 8	FF 500	457	88	522	550	416	460	419	94	482	190	384	75	65	M20	140	140	20	18	79.5	69

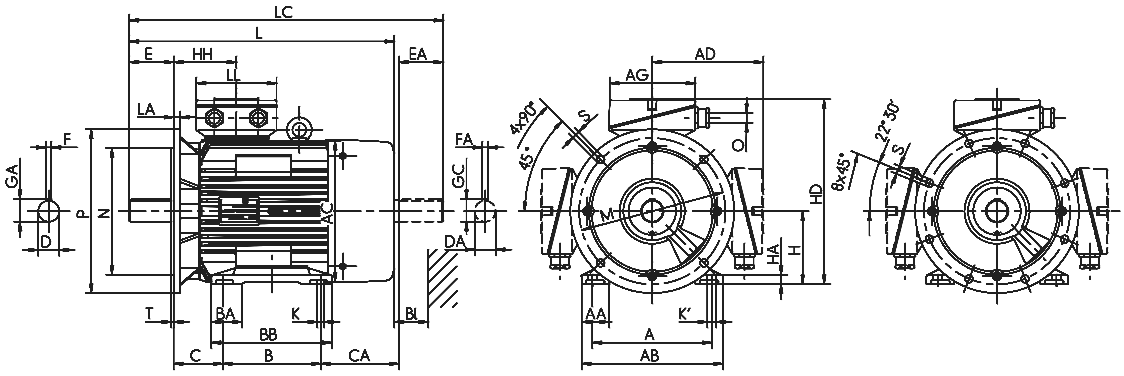
*) Centre holes to DIN 332-DS

Energy-saving motor for High Efficiency IE2
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 180 to 280

Type of construction IM B35 [IM 2001]

Flange dimensions, see page 2/109



Type designation	H	HA	HD	HD**)	HD VIK	HH	K	K'	L	LC	TB Type	AG	LL	O	TB Type	AG	LL	O	Hole pattern	Bl.
	h	c	p	p	p	A	s	s'	k	k1	Standard	x	z	-	VIK	x	z	-		Bl
IE2-WE1R 180 M4	180	20	441	369	476	147	15	20	680	796	63 A	193	167	M40 x 1.5	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE1R 180 L4	180	20	441	369	476	147	15	20	680	796	63 A	193	167	M40 x 1.5	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE1R 180 L6, 8	180	20	441	369	476	147	15	20	680	796	63 A	193	167	M40 x 1.5	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE2R 180 M4	180	20	441	369	476	147	15	20	635	751	63 A	193	167	M40 x 1.5	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE1R 200 L2	200	22	461	389	498	147	19	25	680	796	63 A	193	167	M50 x 1.5	100/63 AV	223	214	M50 x 1.5	4L	35
IE2-WE1R 200 LX2	200	22	461	389	498	147	19	25	730	846	63 A	193	167	M50 x 1.5	100/63 AV	223	214	M50 x 1.5	4L	35
IE2-WE1R 200 L4	200	22	500	417	579	168	19	25	727	851	KK 100 A	213	207	M50 x 1.5	200 A-SB	335	270	M50 x 1.5	4L	35
IE2-WE1R 200 LX6	200	22	500	417	579	168	19	25	727	851	KK 100 A	213	207	M50 x 1.5	200 A-SB	335	270	M50 x 1.5	4L	35
IE2-WE1R 200 L6, 8	200	22	461	389	498	147	19	25	680	796	63 A	193	167	M50 x 1.5	100/63 AV	223	214	M50 x 1.5	4L	35
IE2-WE1R 225 M2	225	25	527	442	605	168	19	25	767	891	100 A	213	207	M50 x 1.5	200 A-SB	335	270	M50 x 1.5	8L	40
IE2-WE1R 225 S4	225	25	527	442	605	168	19	25	797	921	100 A	213	207	M50 x 1.5	200 A-SB	335	270	M50 x 1.5	8L	40
IE2-WE1R 225 M4	225	25	549	450	625	177	19	25	862	977	100 A	213	207	M50 x 1.5	200 A-SB	335	270	M50 x 1.5	8L	45
IE2-WE1R 225 S8	225	25	527	442	605	168	19	25	797	921	100 A	213	207	M50 x 1.5	200 A-SB	335	270	M50 x 1.5	8L	40
IE2-WE1R 225 M6	225	25	549	450	625	177	19	25	862	977	100 A	213	207	M50 x 1.5	200 A-SB	335	270	M50 x 1.5	8L	45
IE2-WE1R 225 M8	225	25	549	450	625	177	19	25	862	977	100 A	213	207	M50 x 1.5	200 A-SB	335	270	M50 x 1.5	8L	45
IE2-WE2R 225 M4	225	25	527	442	605	168	19	25	847	971	100 A	213	207	M50 x 1.5	200 A-SB	335	270	M50 x 1.5	8L	40
IE2-W22R 225 M8	225	25	527	442	605	168	19	25	797	921	100 A	213	207	M50 x 1.5	200 A-SB	335	270	M50 x 1.5	8L	40
IE2-WE1R 250 M4	250	28	636	507	647	206	24	30	924	1042	200 A	282	242	M63 x 1.5	200 A-SB	335	270	M63 x 1.5	8L	50
IE2-WE1R 250 M6, 8	250	28	636	507	647	206	24	30	924	1042	200 A	282	242	M63 x 1.5	200 A-SB	335	270	M63 x 1.5	8L	50
IE2-WE2R 250 M4	250	28	636	484	650	177	24	30	912	1027	200 A	282	242	M63 x 1.5	200 A-SB	335	270	M63 x 1.5	8L	50
IE2-WE1R 280 S2	280	32	666	537	677	206	24	30	924	1072	200 A	282	242	M63 x 1.5	200 A-SB	335	270	M63 x 1.5	8L	50
IE2-WE1R 280 M2	280	32	666	537	677	206	24	30	970	1118	200 A	282	242	M63 x 1.5	200 A-SB	335	270	M63 x 1.5	8L	50
IE2-WE1R 280 S4	280	32	666	537	677	206	24	30	924	1072	200 A	282	242	M63 x 1.5	200 A-SB	335	270	M63 x 1.5	8L	50
IE2-WE1R 280 M4	280	32	666	537	677	206	24	30	970	1118	200 A	282	242	M63 x 1.5	200 A-SB	335	270	M63 x 1.5	8L	50
IE2-WE1R 280 S6	280	32	666	537	677	206	24	30	970	1118	200 A	282	242	M63 x 1.5	200 A-SB	335	270	M63 x 1.5	8L	50
IE2-WE1R 280 S8	280	32	666	537	677	206	24	30	970	1118	200 A	282	242	M63 x 1.5	200 A-SB	335	270	M63 x 1.5	8L	50
IE2-WE1R 280 M6, 8	280	40	696	575	707	211	24	30	1105	1273	200 A	282	242	M63 x 1.5	200 A-SB	335	270	M63 x 1.5	8L	55

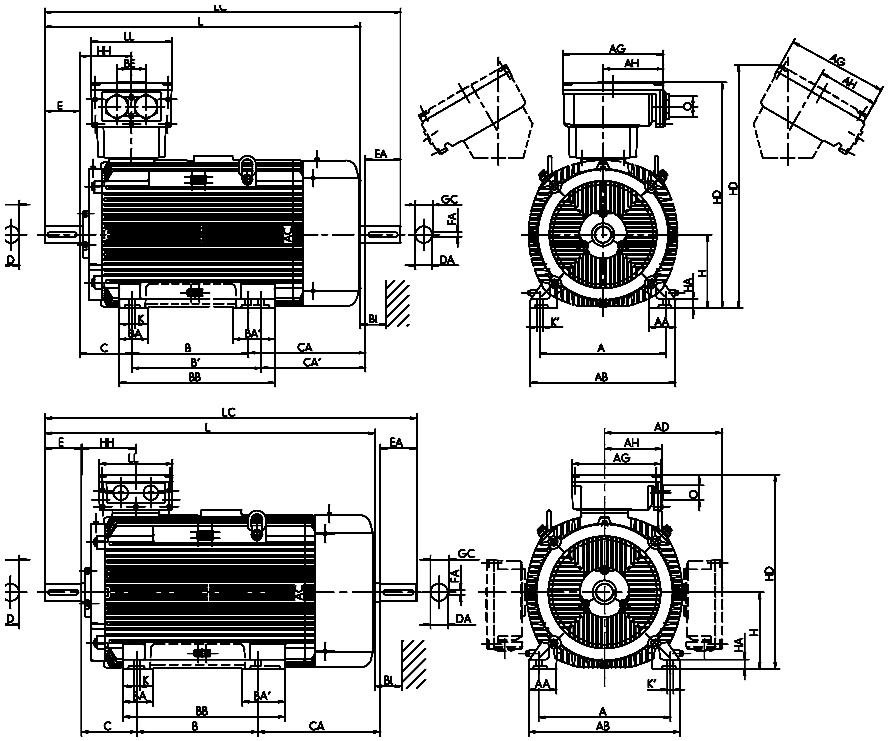
**) Terminal box left/right

Sizes 56/63/71/90: Deviating dimensions C, HH, L, LC for B35, see B5

Energy-saving motor for High Efficiency IE2
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 315

Type of construction IM B3 [IM 1001]



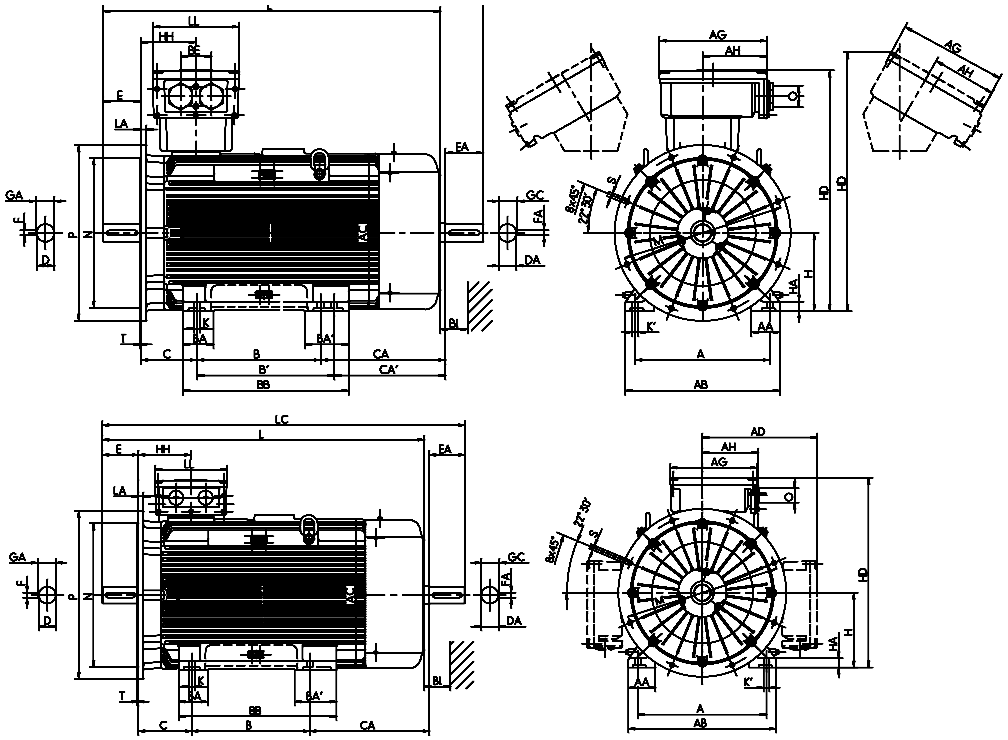
Type designation	Flange size	A	AA	AB	AC	AD	AD	B	BA	BA'	BB	C	CA	D	DA	DB*)	E	EA	F	FA
							VIK													
		b	n	f	g	g1	g1	a	m	m1	e	w1	w2	d	d1		l	l1	u	u1
IE2-WE1R 315 S2	FF 600	508	126	590	550	416	460	406	120	-	503	216	316	65	65	M20	140	140	18	18
IE2-WE1R 315 M2	FF 600	508	126	590	550	416	460	457	120	150	554	216	320	65	65	M20	140	140	18	18
IE2-WE1R 315 MX2	FF 600	508	126	590	550	416	460	457	120	150	554	216	400	65	65	M20	140	140	18	18
IE2-WE1R 315 MY2	FF 600	508	110	590	610	498	681	457	120	-	573	216	495	65	65	M20	140	140	18	18
IE2-WE1R 315 L2	FF 600	508	110	590	610	498	681	508	120	-	624	216	539	65	65	M20	140	140	18	18
IE2-WE1R 315 LX2	FF 600	508	110	590	610	498	681	508	120	-	624	216	684	65	65	M20	140	140	18	18
IE2-WE1R 315 S4	FF 600	508	126	590	550	416	460	406	120	-	503	216	316	80	70	M20	170	140	22	20
IE2-WE1R 315 M4	FF 600	508	126	590	550	416	460	457	120	150	554	216	320	80	70	M20	170	140	22	20
IE2-WE1R 315 MX4	FF 600	508	126	590	550	416	460	457	120	150	554	216	400	80	70	M20	170	140	22	20
IE2-WE1R 315 MY4	FF 600	508	110	590	610	498	681	457	120	-	573	216	495	80	70	M20	170	140	22	20
IE2-WE1R 315 L4	FF 600	508	110	590	610	498	681	508	120	-	624	216	564	80	70	M20	170	140	22	20
IE2-WE1R 315 LX4	FF 600	508	110	590	610	498	681	508	120	-	624	216	689	80	70	M20	170	140	22	20
IE2-WE1R 315 S6	FF 600	508	126	590	550	416	460	406	120	150	554	216	320	80	70	M20	170	140	22	20
IE2-WE1R 315 M6	FF 600	508	126	590	550	416	460	457	120	150	554	216	320	80	70	M20	170	140	22	20
IE2-WE1R 315 MX6	FF 600	508	110	590	610	498	681	457	120	-	573	216	495	80	70	M20	170	140	22	20
IE2-WE1R 315 MY6	FF 600	508	110	590	610	498	681	457	120	-	573	216	495	80	70	M20	170	140	22	20
IE2-WE1R 315 L6	FF 600	508	110	590	610	498	681	508	120	-	624	216	564	80	70	M20	170	140	22	20
IE2-WE1R 315 LX6	FF 600	508	110	590	610	498	681	508	120	-	624	216	564	80	70	M20	170	140	22	20
IE2-WE1R 315 S8	FF 600	508	126	590	550	416	460	406	120	150	554	216	320	80	70	M20	170	140	22	20
IE2-WE1R 315 M8	FF 600	508	126	590	550	416	460	457	120	150	554	216	320	80	70	M20	170	140	22	20
IE2-WE1R 315 MX8	FF 600	508	110	590	610	498	681	457	120	-	573	216	495	80	70	M20	170	140	22	20
IE2-WE1R 315 MY8	FF 600	508	110	590	610	498	681	457	120	-	573	216	495	80	70	M20	170	140	22	20
IE2-WE1R 315 L8	FF 600	508	110	590	610	498	681	508	120	-	624	216	564	80	70	M20	170	140	22	20
IE2-WE1R 315 LX8	FF 600	508	110	590	610	498	681	508	120	-	624	216	564	80	70	M20	170	140	22	20

*) Centre holes to DIN 332-DS

Energy-saving motor for High Efficiency IE2
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 315

Type of construction IM B35 [IM 2001]
Flange dimensions, see page 2/109



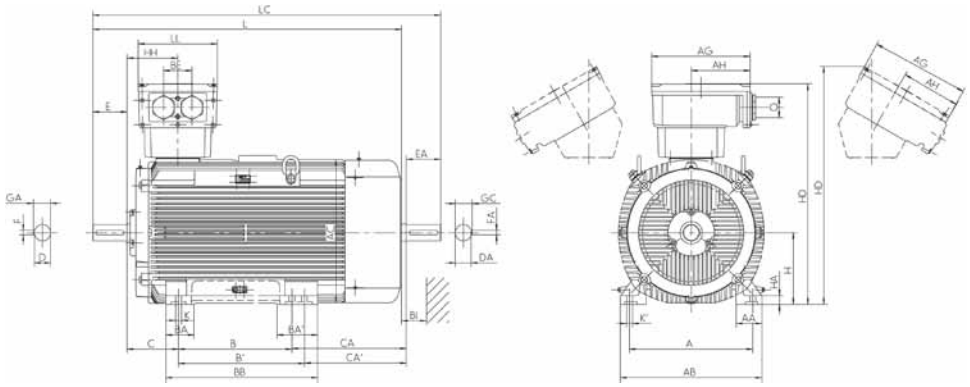
Type designation	GA	GC	H	HA	HD	HD**)	HD	HH	K	K'	L	LC	TB Type	AG	LL	AH	TB Type	AG	LL	AH	O	BI.
							VIK															
	t	t1	h	c	p	p	p	A	s	s'	k	k1	Standard	x	z	-	VIK	x	z	-	r	Bl
IE2-WE1R 315 S2	69	69	315	44	731	610	775	211	28	35	1050	1218	200 A	282	242	-	400 A SB	415	340	265	M63 x 1.5	55
IE2-WE1R 315 M2	69	69	315	44	731	610	775	211	28	35	1105	1273	200 A	282	242	-	400 A SB	415	340	265	M63 x 1.5	55
IE2-WE1R 315 MX2	69	69	315	44	731	610	775	211	28	35	1185	1353	200 A	282	242	-	400 A SB	415	340	265	M63 x 1.5	55
IE2-WE1R 315 MY2	69	69	315	44	809	628	996	230	28	35	1270	1448	400 A SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE2-WE1R 315 L2	69	69	315	44	809	628	996	230	28	35	1390	1568	400 A SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE2-WE1R 315 LX2	69	69	315	44	809	628	996	230	28	35	1510	1688	400 A SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE2-WE1R 315 S4	85	75	315	44	731	610	775	211	28	35	1080	1248	200 A	282	242	-	400 A SB	415	340	265	M63 x 1.5	55
IE2-WE1R 315 M4	85	75	315	44	731	610	775	211	28	35	1135	1303	200 A	282	242	-	400 A SB	415	340	265	M63 x 1.5	55
IE2-WE1R 315 MX4	85	75	315	44	731	610	775	211	28	35	1215	1383	200 A	282	242	-	400 A SB	415	340	265	M63 x 1.5	55
IE2-WE1R 315 MY4	85	75	315	44	809	628	996	230	28	35	1300	1478	400 A SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE2-WE1R 315 L4	85	75	315	44	809	628	996	230	28	35	1420	1598	400 A SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE2-WE1R 315 LX4	85	75	315	44	809	628	996	230	28	35	1540	1718	400 A SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE2-WE1R 315 S6	85	75	315	44	731	610	775	211	28	35	1135	1303	200 A	282	242	-	400 A SB	415	340	265	M63 x 1.5	55
IE2-WE1R 315 M6	85	75	315	44	731	610	775	211	28	35	1135	1303	200 A	282	242	265	400 A SB	415	340	265	M63 x 1.5	55
IE2-WE1R 315 MX6	85	75	315	44	809	628	996	230	28	35	1300	1478	400 A SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE2-WE1R 315 MY6	85	75	315	44	809	628	996	230	28	35	1300	1478	400 A SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE2-WE1R 315 L6	85	75	315	44	809	628	996	230	28	35	1420	1598	400 A SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE2-WE1R 315 LX6	85	75	315	44	809	628	996	230	28	35	1420	1598	400 A SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE2-WE1R 315 S8	85	75	315	44	731	610	775	211	28	35	1135	1303	200 A	282	242	-	400 A SB	415	340	265	M63 x 1.5	55
IE2-WE1R 315 M8	85	75	315	44	731	610	775	211	28	35	1135	1303	200 A	282	242	-	400 A SB	415	340	265	M63 x 1.5	55
IE2-WE1R 315 MX8	85	75	315	44	809	628	996	230	28	35	1300	1478	400 A SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE2-WE1R 315 MY8	85	75	315	44	809	628	996	230	28	35	1300	1478	400 A SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE2-WE1R 315 L8	85	75	315	44	809	628	996	230	28	35	1420	1598	400 A SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE2-WE1R 315 LX8	85	75	315	44	809	628	996	230	28	35	1420	1598	400 A SB	415	340	265	630 A	496	390	301	M63 x 1.5	55

**) Terminal box left/right

Energy-saving motor for High Efficiency IE2
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 355

Type of construction IM B3 [IM 1001]



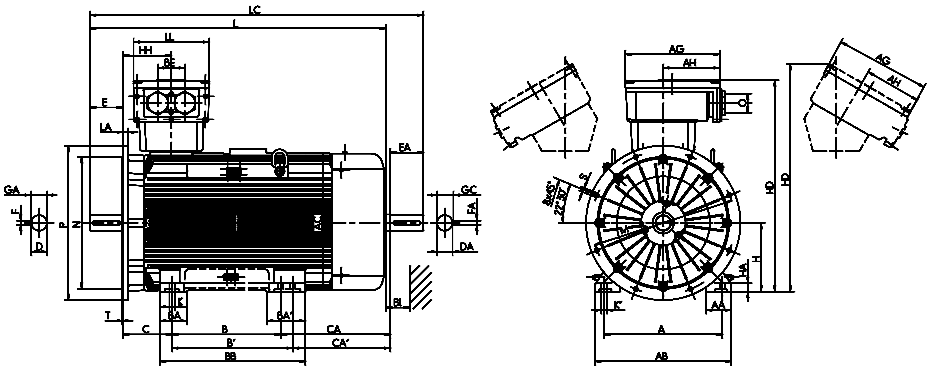
Type designation	Flange size	A	AA	AB	AC	B	BA	BA'	BB	C	CA	D	DA	DB*)	E	EA	F	FA
		b	n	f	g	a	m	m1	e	w1	w2	d	d1		l	l1	u	u1
IE2-WE2R 355 M2	FF 740	610	130	700	715	560	140	200	750	254	561	80	80	M20	170	170	22	22
IE2-WE2R 355 M4	FF 740	610	130	700	715	560	140	200	750	254	561	100	80	M24	210	170	28	22
IE2-WE2R 355 M6, 8	FF 740	610	130	700	715	560	140	200	750	254	561	100	80	M24	210	170	28	22
IE2-WE2R 355 MX6, 8	FF 740	610	130	700	715	560	140	200	750	254	681	100	80	M24	210	170	28	22
IE2-WE2R 355 MX2	FF 740	610	130	700	715	560	140	200	750	254	681	80	80	M20	170	170	22	22
IE2-WE2R 355 LY2, L2	FF 740	610	130	700	715	630	140	200	750	254	611	80	80	M20	170	170	22	22
IE2-WE2R 355 MX4	FF 740	610	130	700	715	560	140	200	750	254	681	100	80	M24	210	170	28	22
IE2-WE2R 355 LY4, L4	FF 740	610	130	700	715	630	140	200	750	254	611	100	80	M24	210	170	28	22
IE2-WE2R 355 LY6, 8	FF 740	610	130	700	715	630	140	200	750	254	611	100	80	M24	210	170	28	22

*) Centre holes to DIN 332-DS
**) Terminal box inclined left/right

Energy-saving motor for High Efficiency IE2
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 355

Type of construction IM B35 [IM 2001]
Flange dimensions, see page 2/109



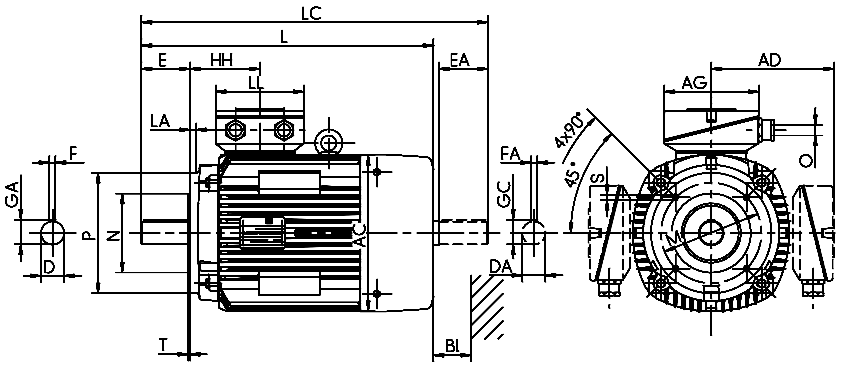
Type designation	GA	GC	H	HA	HD	HD**)	HH	K	K'	L	LC	TB Type Standard	AG	LL	AH	BE	O	Bl.
	t	t1	h	c	p	p	A	s	s'	k	k1	VIK	x	z	-	-	r	Bl
IE2-WE2R 355 M2	85	85	355	44	1091	1172	250	28	35	1530	1715	630 A	496	390	301	140	M72 x 2	60
IE2-WE2R 355 M4	106	85	355	44	1091	1172	250	28	35	1570	1755	630 A	496	390	301	140	M72 x 2	60
IE2-WE2R 355 M6, 8	106	85	355	44	1091	1172	250	28	35	1570	1755	630 A	496	390	301	140	M72 x 2	60
IE2-WE2R 355 MX6, 8	106	85	355	44	1091	1172	327	28	35	1690	1875	630 A	496	390	301	140	M72 x 2	60
IE2-WE2R 355 MX2	85	85	355	44	1083	1174	327	28	35	1650	1835	1000 A	615	474	385	200	M72 x 2	60
IE2-WE2R 355 LY2, L2	85	85	355	44	1083	1174	327	28	35	1650	1835	1000 A	615	474	385	200	M72 x 2	60
IE2-WE2R 355 MX4	106	85	355	44	1083	1174	327	28	35	1690	1875	1000 A	615	474	385	200	M72 x 2	60
IE2-WE2R 355 LY4, L4	106	85	355	44	1083	1174	327	28	35	1690	1875	1000 A	615	474	385	200	M72 x 2	60
IE2-WE2R 355 LY6, 8	106	85	355	44	1083	1174	327	28	35	1690	1875	1000 A	615	474	385	200	M72 x 2	60

Energy-saving motor for High Efficiency IE2
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 56 to 160

Type of construction IM B14 [IM 3601]

Flange dimensions, see page 2/109



Type designation	Flange size		A	AA	AB	AC	AD	AD VIK	B	BA	BB	C	CA	D	DA	DB*)	E	EA	F	FA
	small	large	b	n	f	g	g1	g1	a	m	e	w1	w2	d	d1		l	l1	u	u1
IE2-W21R 56 K2, 4/G2, 4/WE2R 56 G2	FT 65	FT 85	90	18	110	109	98	118	71	-	86	36	52	9	-	M3	20	-	3	3
IE2-WE2R 63 K2, 4/G2, 6	FT 75	FT 100	100	28	128	109	98	118	80	-	100	40	39	11	11	M4	23	23	4	4
IE2-W21R 63 K2, 4/G2, 4/WE1R 63 GY4	FT 75	FT 100	100	21	120	124	104	124	80	-	95	40	59	11	11	M4	23	23	4	4
IE2-WE2R 71 K2, 4, 6/G2, 6, 8	FT 85	FT 115	112	32	138	124	104	124	90	-	116	45	43.5	14	14	M5	30	30	5	5
IE2-W21R 71 K2, 4, 6/G2, 4, 6/WE1R 71 GY4	FT 85	FT 115	112	24	135	139	111	131	90	-	114	45	78	14	14	M5	30	30	5	5
IE2-WE2R 80 K2, 4, 6, 8/G2, 8	FT 100	FT 130	125	38	168	139	111	131	100	-	125	50	63	19	19	M6	40	40	6	6
IE2-W21R 80 K2, 4, 6/WE1R 80 GY4, 6/K8	FT 100	FT 130	125	26	152	157	120	140	100	-	125	50	80	19	19	M6	40	40	6	6
IE2-W21R 80 G4, 6/WE1R 80 G2	FT 100	FT 130	125	26	152	157	120	140	100	-	146	50	102	19	19	M6	40	40	6	6
IE2-WE2R 90 S2, 8	FT 115	FT 130	140	40	178	157	120	140	100	-	130	56	74	24	24	M8	50	50	8	8
IE2-WE2R 90 S4, 6	FT 115	FT 130	140	40	178	157	120	140	100	-	130	56	96	24	24	M8	50	50	8	8
IE2-WE2R 90 L2, 8	FT 115	FT 130	140	40	178	157	120	140	125	-	155	56	71	24	24	M8	50	50	8	8
IE2-WE1R 90 S2, 4/W21R S6, 8	FT 115	FT 130	140	40	178	177	127	147	100	-	130	56	120	24	24	M8	50	50	8	8
IE2-WE1R 90 L2/LW4, 6	FT 115	FT 130	140	40	178	177	127	147	125	-	155	56	96	24	24	M8	50	50	8	8
IE2-WE1R 90 L4/W21R 90 L6, 8	FT 115	FT 130	140	40	178	177	127	147	125	-	155	56	125	24	24	M8	50	50	8	8
IE2-WE2R 100 L8	FT 130	FT 165	160	47	192	177	127	147	140	-	175	63	73	28	24	M10	60	50	8	8
IE2-WE2R 100 LY2, L6	FT 130	FT 165	160	47	192	177	127	147	140	-	175	63	103	28	24	M10	60	50	8	8
IE2-WE1R 100 LX4	FT 130	FT 165	160	42	193	196	137	156	140	-	175	63	166	28	28	M10	60	60	8	8
IE2-WE1R 100 L2, S4, LY8/W21R 100 L8	FT 130	FT 165	160	42	193	196	137	156	140	-	175	63	102	28	28	M10	60	60	8	8
IE2-WE1R 100 L4, LW4/W21R 100 LX6, 8	FT 130	FT 165	160	42	193	196	137	156	140	-	175	63	136	28	28	M10	60	60	8	8
IE2-WE1R 112 ML2, MX2, 6/M8	FT 130	FT 165	190	52	225	196	136	156	140	-	180	70	129	28	28	M10	60	60	8	8
IE2-W21R 112 MV2, 6, 8	FT 130	FT 165	190	52	225	196	136	156	140	-	180	70	159	28	28	M10	60	60	8	8
IE2-WE1R 112 M2	FT 130	FT 165	190	52	225	196	136	156	140	-	180	70	95	28	28	M10	60	60	8	8
IE2-WE1R 112 MZ4, 6	FT 130	FT 165	190	52	225	196	137	156	140	-	180	70	199	28	28	M10	60	60	8	8
IE2-WE1R 112 M4	FT 130	FT 165	190	45	226	217	178	178	140	42	172	70	192	28	28	M10	60	60	8	8
IE2-WE1R 132 SY2T	FT 165	FT 215	216	52	256	196	155	175	140	-	180	89	129	38	28	M12	80	60	10	8
IE2-WE1R 132 S2T, SX2T	FT 165	FT 215	216	52	256	196	155	175	140	-	180	89	159	38	28	M12	80	60	10	8
IE2-WE1R 132 S2, 6, 8/WE2R 132 SY4	FT 165	FT 215	216	50	256	217	178	178	140	55	180	89	173	38	32	M12	80	80	10	10
IE2-WE2R 132 S4	FT 165	FT 215	216	50	256	217	178	178	140	55	180	89	223	38	32	M12	80	80	10	10
IE2-WE2R 132 M6, 8	FT 165	FT 215	216	50	256	217	178	178	178	55	218	89	185	38	32	M12	80	80	10	10
IE2-WE1R 132 SX2	FT 165	FT 215	216	50	256	258	199	258	140	55	180	89	176	38	38	M12	80	80	10	10
IE2-WE1R 132 M4	FT 165	FT 215	216	50	256	258	199	258	178	55	218	89	186	38	38	M12	80	80	10	10
IE2-WE1R 132 MX6	FT 165	FT 215	216	50	256	258	199	258	178	55	218	89	186	38	38	M12	80	80	10	10
IE2-WE1R 160 M2	FT 215	FT 268	254	55	296	313	242	275	210	60	257	108	185	42	42	M16	110	110	12	10
IE2-WE1R 160 M4	FT 215	FT 268	254	55	296	313	242	275	210	60	257	108	178	42	42	M16	110	110	12	10
IE2-WE1R 160 M8	FT 165	FT 215	254	55	296	258	214	210	210	60	257	108	135	42	38	M16	110	80	12	10
IE2-WE1R 160 M6, MX8	FT 215	FT 265	254	55	296	313	242	275	210	60	257	108	148	42	42	M16	110	110	12	10
IE2-WE1R 160 MX2	FT 215	FT 265	254	55	296	313	242	275	210	56	257	108	185	42	42	M16	110	110	12	12
IE2-WE1R 160 L2	FT 215	FT 265	254	55	296	313	242	275	254	60	301	108	142	42	42	M16	110	110	12	12
IE2-WE1R 160 L4	FT 215	FT 265	254	55	296	313	242	275	254	60	301	108	200	42	42	M16	110	110	12	12
IE2-WE1R 160 L6, 8	FT 215	FT 265	254	55	296	313	242	275	254	60	301	108	142	42	42	M16	110	110	12	12
IE2-WE2R 132 S4	FT 130	FT 165	216	50	256	217	178	217	140	55	180	89	223	38	32	M12	80	80	10	10
IE2-WE2R 132 M6, 8	FT 130	FT 165	216	50	256	217	178	217	178	55	218	89	185	38	32	M12	80	80	10	10
IE2-WE2R 160 M4, 6, MX8	FT 165	FT 215	254	55	296	258	214	210	210	60	257	108	185	42	38	M16	110	80	12	10
IE2-WE2R 160 L4	FT 215	FT 265	254	55	296	313	242	275	254	60	301	108	192	42	42	M16	110	110	12	12

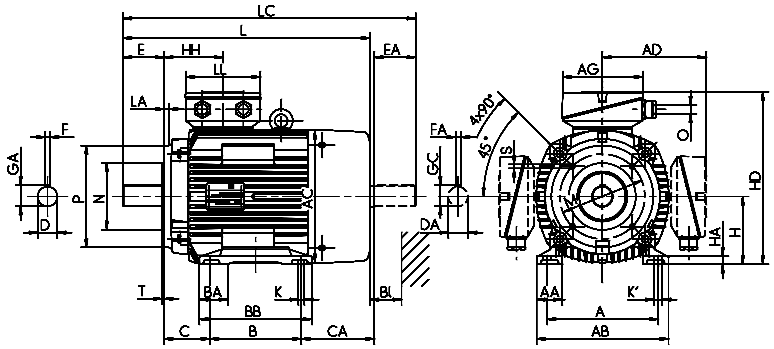
*) Centre holes to DIN 332-DS

Energy-saving motor for High Efficiency IE2
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 56 to 160

Type of construction IM B34 [IM 2101]

Flange dimensions, see page 2/109



Type designation	GA	GC	H	HA	HD	HD**)	HD VIK	HH	K	K'	L	LC	TB Type	AG	LL	TB Type	AG	LL	O	Hole patterm	BI.
	t	t1	h	c	p	p	p	A	s	s'	k	k1	Standard	x	z	VIK	x	z	-		BI
IE2-W21R 56 K2, 4/G2, 4/WE2R 56 G2	10	10.2	56	7	154	***)	174	58	6	6	176	199	KA 05	92	92	KA 05-13	104	112	M20 x 1.5	4L	14
IE2-WE2R 63 K2, 4/G2, 6	13	12.5	63	10	161	***)	181	58	8	8	179	205	KA 05	92	92	KA 05-13	104	112	M20 x 1.5	4L	14
IE2-W21R 63 K2, 4/G2, 4/WE1R 63 GY4	13	12.5	63	7.5	167	***)	187	61	7	7	199	225	KA 05	92	92	KA 05-13	104	112	M20 x 1.5	4L	14
IE2-WE2R 71 K2, 4, 6/G2, 6, 8	16	16	71	11	175	***)	195	61	8	8	206	239	KA 05	92	92	KA 05-13	104	112	M20 x 1.5	4L	14
IE2-W21R 71 K2, 4, 6/G2, 4, 6/WE1R 71 GY4	16	16	71	8	182	***)	202	67	7	7	239	273	KA 05	92	92	KA 05-13	104	112	M20 x 1.5	4L	16
IE2-WE2R 80 K2, 4, 6, 8/G2, 8	22	21.5	80	12	191	***)	211	67	10	10	249	293	KA 05	92	92	KA 05-13	104	112	M20 x 1.5	4L	16
IE2-W21R 80 K2, 4, 6/WE1R 80 GY4, 6/K8	22	21.5	80	9	200	***)	220	70	10	10	265	310	KA 05	92	92	KA 05-13	104	112	M20 x 1.5	4L	16
IE2-W21R 80 G4, 6/WE1R 80 G2	22	21.5	80	9	200	***)	220	70	10	10	287	332	KA 05	92	92	KA 05-13	104	112	M20 x 1.5	4L	16
IE2-WE2R 90 S2, 8	27	27	90	14	210	***)	230	70	10	10	275	330	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	16
IE2-WE2R 90 S4, 6	27	27	90	14	210	***)	230	70	10	10	297	352	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	16
IE2-WE2R 90 L2, 8	27	27	90	14	210	***)	230	70	10	10	297	352	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	18
IE2-WE1R 90 S2, 4/W21R S6, 8	27	27	90	10.5	217	***)	237	75	10	10	321	376	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	18
IE2-WE1R 90 L2/LW4, 6	27	27	90	11	217	***)	237	75	10	10	321	376	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	18
IE2-WE1R 90 L4/W21R 90 L6, 8	27	27	90	10.5	217	***)	237	75	10	10	351	406	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	18
IE2-WE2R 100 L8	31	27	100	15	227	***)	247	75	12	12	331	386	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	18
IE2-WE2R 100 LY2, L6	31	27	100	15	227	***)	247	75	12	12	361	416	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	18
IE2-WE1R 100 LX4	31	31	100	13	236	***)	256	77	12	12	421	489	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	20
IE2-WE1R 100 L2, S4, LY8/W21R 100 L8	31	31	100	13	236	***)	256	77	12	12	357	425	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	20
IE2-WE1R 100 L4, LW4/W21R 100 LX6, 8	31	31	100	13	236	***)	256	77	12	12	391	459	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	20
IE2-WE1R 112 ML2, MX2, 6/M8	31	31	112	18	248	***)	268	77	12	12	391	459	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	20
IE2-W21R 112 MV2, 6, 8	31	31	112	18	248	***)	268	77	12	12	421	489	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	20
IE2-WE1R 112 M2	31	31	112	18	248	***)	268	77	12	12	357	425	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	20
IE2-WE1R 112 MZ4, 6	31	31	112	18	248	***)	268	77	12	12	461	529	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	20
IE2-WE1R 112 M4	31	31	112	15	290	236.5	290	108	12	12	459	522	25 A	156	145	25 AV	156	145	M32 x 1.5	4L	35
IE2-WE1R 132 SY2T	41	31	132	19	287	***)	307	105	12	12	430	498	KA 05-13	104	112	KA 05-13	104	112	M32 x 1.5	4L	20
IE2-WE1R 132 S2T, SX2T	41	31	132	19	287	***)	307	105	12	12	460	528	KA 05-13	104	112	KA 05-13	104	112	M32 x 1.5	4L	20
IE2-WE1R 132 S2, 6, 8/WE2R 132 SY4	41	35	132	16	310	256.5	310	108	12	12	479	562	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE2-WE2R 132 S4	41	35	132	16	310	256.5	310	108	12	12	529	612	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE2-WE2R 132 M6, 8	41	35	132	16	310	257.0	310	108	12	12	529	612	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE2-WE1R 132 SX2	41	41	132	15	331	279	331	114	12	12	481	565	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE2-WE1R 132 M4	41	41	132	16	331	279.0	331	114	12	12	529	613	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE2-WE1R 132 MX6	41	41	132	15	331	279	331	114	12	12	529	613	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE2-WE1R 160 M2	45	41	160	18	402	307	435	114	15	15	571	686	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE1R 160 M4	45	41	160	18	402	336	435	138	15	20	571	686	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE1R 160 M8	45	41	160	18	374	307	370	138	15	15	559	643	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE1R 160 M6, MX8	45	41	160	18	402	336	435	138	15	20	571	686	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE1R 160 MX2	45	45	160	18	402	336	435	138	15	20	609	724	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE1R 160 L2	45	45	160	18	402	336	435	138	15	20	609	724	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE1R 160 L4	45	45	160	18	402	336	435	138	15	20	667	783	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE1R 160 L6, 8	45	45	160	18	402	336	435	138	15	20	609	724	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE2R 132 S4	41	35	132	16	310	256.5	310	108	12	12	529	612	25 A	156	145	100/63 AV	223	214	M32 x 1.5	4L	35
IE2-WE2R 132 M6, 8	41	35	132	16	310	256.5	310	108	12	12	529	612	25 A	156	145	100/63 AV	223	214	M32 x 1.5	4L	35
IE2-WE2R 160 M4, 6, MX8	45	41	160	18	370	307	370	114	15	15	609	693	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE2R 160 L4	45	45	160	18	402	336	435	138	15	20	659	774	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35

**) Terminal box left/right
***) upon request

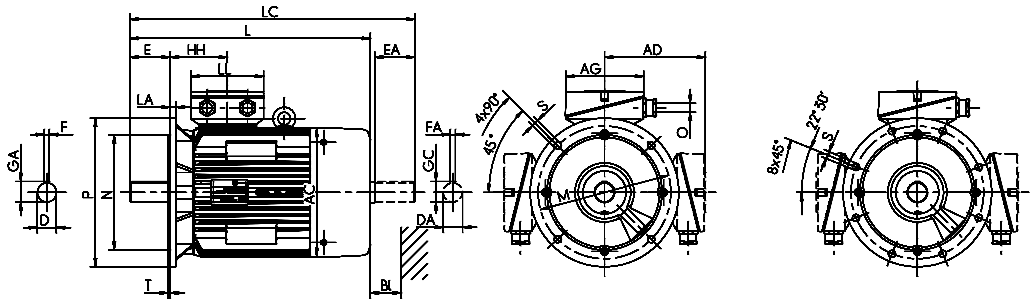
Energy-saving motor for High Efficiency IE2
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 56 to 280

Type of construction IM B5 [IM 3001]
Type of construction IM V1 [IM 3011]
Flange dimensions, see page 2/109

Type designation	Flange size	AC	AD	AD VIK	D	DA	DB*)	E	EA	F	FA	GA	GC
		g	g1	g1	d	d1		l	l1	u	u1	t	t1
IE2-W21R 56 K2, 4/G2, 4/WE2R 56 G2	FF 100	109	98	118	9	-	M3	20	-	3	3	10	10.2
IE2-WE2R 63 K2, 4/G2, 6	FF 115	109	98	118	11	11	M4	23	23	4	4	13	12.5
IE2-W21R 63 K2, 4/G2, 4/WE1R 63 GY4	FF 115	124	104	124	11	11	M4	23	23	4	4	13	12.5
IE2-WE2R 71 K2, 4, 6/G2, 6, 8	FF 130	124	104	124	14	14	M5	30	30	5	5	16	16
IE2-W21R 71 K2, 4, 6/G2, 4, 6/WE1R 71 GY4	FF 130	139	111	131	14	14	M5	30	30	5	5	16	16
IE2-WE2R 80 K2, 4, 6, 8/G2, 8	FF 165	139	111	131	19	19	M6	40	40	6	6	22	21.5
IE2-W21R 80 K2, 4, 6/WE1R 80 GY4, 6/K8	FF 165	157	120	140	19	19	M6	40	40	6	6	22	21.5
IE2-W21R 80 G4, 6/WE1R 80 G2	FF 165	157	120	140	19	19	M6	40	40	6	6	22	21.5
IE2-WE2R 90 S2, 8	FF 165	157	120	140	24	24	M8	50	50	8	8	27	27
IE2-WE2R 90 S4, 6	FF 165	157	120	140	24	24	M8	50	50	8	8	27	27
IE2-WE2R 90 L2, 8	FF 165	157	120	140	24	24	M8	50	50	8	8	27	27
IE2-WE1R 90 S2, 4/W21R S6, 8	FF 165	177	127	147	24	24	M8	50	50	8	8	27	27
IE2-WE1R 90 L2/LW4, 6	FF 165	177	127	147	24	24	M8	50	50	8	8	27	27
IE2-WE1R 90 L4/W21R 90 L6, 8	FF 165	177	127	147	24	24	M8	50	50	8	8	27	27
IE2-WE2R 100 L8	FF 215	177	127	147	28	24	M10	60	50	8	8	31	27
IE2-WE2R 100 LY2, L6	FF 215	177	127	147	28	24	M10	60	50	8	8	31	27
IE2-WE1R 100 LX4	FF 215	196	137	156	28	28	M10	60	60	8	8	31	31
IE2-WE1R 100 L2, S4, LY8/W21R 100 L8	FF 215	196	137	156	28	28	M10	60	60	8	8	31	31
IE2-WE1R 100 L4, LW4/W21R 100 LX6, 8	FF 215	196	137	156	28	28	M10	60	60	8	8	31	31
IE2-WE1R 112 ML2, MX2, 6/M8	FF 215	196	136	156	28	28	M10	60	60	8	8	31	31
IE2-W21R 112 MV2, 6, 8	FF 215	196	136	156	28	28	M10	60	60	8	8	31	31
IE2-WE1R 112 M2	FF 215	196	136	156	28	28	M10	60	60	8	8	31	31
IE2-WE1R 112 MZ4, 6	FF 215	196	137	156	28	28	M10	60	60	8	8	31	31
IE2-WE1R 112 M4	FF 215	217	178	189	28	28	M10	60	60	8	8	31	31
IE2-WE1R 132 SY2T	FF 265	196	155	175	38	28	M12	80	60	10	8	41	31
IE2-WE1R 132 S2T/SX2T	FF 265	196	155	175	38	28	M12	80	60	10	8	41	31
IE2-WE1R 132 S2, 6, 8, SY4	FF 265	217	178	189	38	32	M12	80	80	10	10	41	35
IE2-WE2R 132 S4	FF 265	217	178	189	38	32	M12	80	80	10	10	41	35
IE2-WE2R 132 M6, 8	FF 265	217	178	189	38	32	M12	80	80	10	10	41	35
IE2-WE1R 132 SX2	FF 265	258	210	210	38	32	M12	80	80	10	10	41	41
IE2-WE1R 132 M4	FF 265	258	210	210	38	38	M12	80	80	10	10	41	41
IE2-WE1R 132 MX6	FF 265	258	210	210	38	38	M12	80	80	10	10	41	41
IE2-WE1R 160 M2	FF 300	313	242	275	42	38	M16	110	80	12	10	45	41
IE2-WE1R 160 M4	FF 300	313	242	275	42	38	M16	110	80	12	10	45	41
IE2-WE1R 160 M8	FF 300	258	214	214	42	38	M16	110	80	12	10	45	41
IE2-WE1R 160 M6, MX8	FF 300	313	242	275	42	38	M16	110	80	12	10	45	41
IE2-WE1R 160 MX2	FF 300	313	242	275	42	42	M16	110	110	12	12	45	45
IE2-WE1R 160 L2	FF 300	313	242	275	42	42	M16	110	110	12	12	45	45
IE2-WE1R 160 L4	FF 300	313	242	275	42	42	M16	110	110	12	12	45	45
IE2-WE1R 160 L6, 8	FF 300	313	242	275	42	42	M16	110	110	12	12	45	45
IE2-WE1R 180 M2	FF 300	351	261	294	48	48	M16	110	110	14	14	51.5	51.5
IE2-WE1R 180 M4	FF 300	351	261	294	48	42	M16	110	110	14	12	51.5	45
IE2-WE1R 180 L4	FF 300	351	261	294	48	48	M16	110	110	14	14	51.5	51.5
IE2-WE1R 180 L6, 8	FF 300	351	261	294	48	42	M16	110	110	14	12	51.5	45
IE2-WE1R 200 L2	FF 350	351	261	294	55	48	M20	110	110	16	14	59	51.5
IE2-WE1R 200 LX2	FF 350	351	261	294	55	48	M20	110	110	16	14	59	51.5
IE2-WE1R 200 L4	FF 350	390	300	378	55	55	M20	110	110	16	16	59	59
IE2-WE1R 200 LX6	FF 350	390	300	378	55	55	M20	110	110	16	16	59	59
IE2-WE1R 200 L6, 8	FF 350	351	261	294	55	48	M20	110	110	16	14	59	51.5
IE2-WE1R 225 M2	FF 400	390	300	378	55	55	M20	110	110	16	16	59	59
IE2-WE1R 225 S4	FF 400	390	300	378	60	55	M20	140	110	18	16	64	59
IE2-WE1R 225 M4	FF 400	440	324	406	60	55	M20	140	110	18	16	64	59
IE2-WE1R 225 S8	FF 400	390	300	378	60	55	M20	140	110	18	16	64	59
IE2-WE1R 225 M6	FF 400	440	324	406	60	55	M20	140	110	18	16	64	59
IE2-WE1R 225 M8	FF 400	440	324	406	60	55	M20	140	110	18	16	64	59
IE2-WE1R 250 M2	FF 500	440	358	406	60	55	M20	140	110	18	16	64	59
IE2-WE1R 250 M4	FF 500	490	386	399	65	55	M20	140	110	18	16	69	59
IE2-WE1R 250 M6, 8	FF 500	490	386	399	65	55	M20	140	110	18	16	69	59
IE2-WE1R 280 S2	FF 500	490	386	399	65	65	M20	140	140	18	18	69	69
IE2-WE1R 280 M2	FF 500	490	386	399	65	65	M20	140	140	18	18	69	69
IE2-WE1R 280 S4	FF 500	490	386	399	75	65	M20	140	140	20	18	79.5	69
IE2-WE1R 280 M4	FF 500	490	386	399	75	65	M20	140	140	20	18	79.5	69
IE2-WE1R 280 S6	FF 500	490	386	399	75	65	M20	140	140	20	18	79.5	69
IE2-WE1R 280 S8	FF 500	490	386	399	75	65	M20	140	140	20	18	79.5	69
IE2-WE1R 280 M6, 8	FF 500	550	416	460	75	65	M20	140	140	20	18	79.5	69

*) Centre holes to DIN 332-DS

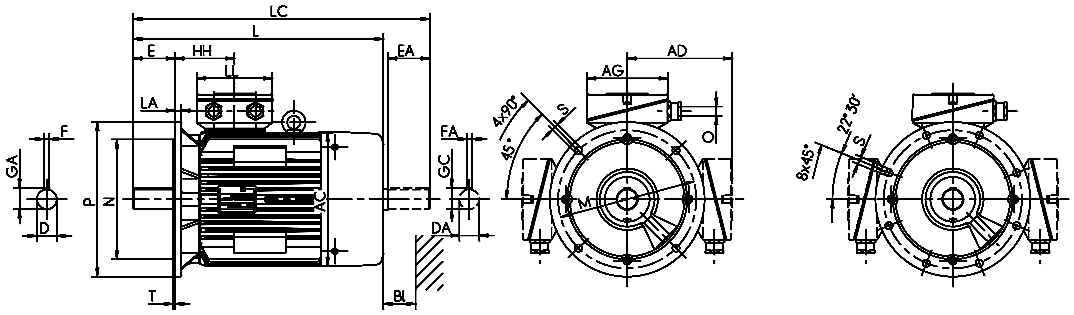


Type designation	H	HH	L	LC	TB Type	AG	LL	TB Type	AG	LL	O	Hole pattern	Bl.
	h	A	k	k1	Standard	x	z	VIK			-		Bl
IE2-W21R 56 K2, 4/G2, 4/WE2R 56 G2	56	81	199	222	KA 05	92	92	KA 05-13	104	112	M20 x 1.5	4L	14
IE2-WE2R 63 K2, 4/G2, 6	63	58	179	205	KA 05	92	92	KA 05-13	104	112	M20 x 1.5	4L	14
IE2-W21R 63 K2, 4/G2, 4/WE1R 63 GY4	63	94	232	258	KA 05	92	92	KA 05-13	104	112	M20 x 1.5	4L	14
IE2-WE2R 71 K2, 4, 6/G2, 6, 8	71	61	206	239	KA 05	92	92	KA 05-13	104	112	M20 x 1.5	4L	14
IE2-W21R 71 K2, 4, 6/G2, 4, 6/WE1R 71 GY4	71	97	269	303	KA 05	92	92	KA 05-13	104	112	M20 x 1.5	4L	16
IE2-WE2R 80 K2, 4, 6, 8/G2, 8	80	67	249	293	KA 05	92	92	KA 05-13	104	112	M20 x 1.5	4L	16
IE2-W21R 80 K2, 4, 6/WE1R 80 GY4, 6/K8	80	70	265	310	KA 05	92	92	KA 05-13	104	112	M20 x 1.5	4L	16
IE2-W21R 80 G4, 6/WE1R 80 G2	80	70	287	332	KA 05	92	92	KA 05-13	104	112	M20 x 1.5	4L	16
IE2-WE2R 90 S2, 8	90	70	275	330	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	16
IE2-WE2R 90 S4, 6	90	70	297	352	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	16
IE2-WE2R 90 L2, 8	90	70	297	352	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	18
IE2-WE1R 90 S2, 4/W21R S6, 8	90	114	360	415	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	18
IE2-WE1R 90 L2/LW4, 6	90	114	360	415	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	18
IE2-WE1R 90 L4/W21R 90 L6, 8	90	114	390	445	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	18
IE2-WE2R 100 L8	100	75	331	386	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	18
IE2-WE2R 100 LY2, L6	100	75	361	416	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	18
IE2-WE1R 100 LX4	100	77	421	489	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	20
IE2-WE1R 100 L2, S4, LY8/W21R 100 L8	100	77	357	425	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	20
IE2-WE1R 100 L4, LW4/W21R 100 LX6, 8	100	77	391	459	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	20
IE2-WE1R 112 ML2, MX2, 6/M8	112	77	391	459	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	20
IE2-W21R 112 MV2, 6, 8	112	77	421	489	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	20
IE2-WE1R 112 M2	112	77	357	425	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	20
IE2-WE1R 112 MZ4, 6	112	77	461	529	KA 05	92	92	KA 05-13	104	112	M25 x 1.5	4L	20
IE2-WE1R 112 M4	112	108	459	522	25 A	156	145	25 AV	156	145	M32 x 1.5	4L	35
IE2-WE1R 132 SY2T	132	105	430	498	KA 05-13	104	112	KA 05-13	104	112	M32 x 1.5	4L	20
IE2-WE1R 132 S2T/SX2T	132	105	460	528	KA 05-13	104	112	KA 05-13	104	112	M32 x 1.5	4L	20
IE2-WE1R 132 S2, 6, 8, SY4	132	108	479	562	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE2-WE2R 132 S4	132	108	529	612	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE2-WE2R 132 M6, 8	132	108	529	612	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE2-WE1R 132 SX2	132	114	481	565	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE2-WE1R 132 M4	132	114	529	613	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE2-WE1R 132 MX6	132	114	529	613	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE2-WE1R 160 M2	160	138	571	656	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE1R 160 M4	160	138	571	656	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE1R 160 M8	160	138	559	643	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE1R 160 M6, MX8	160	138	571	656	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE1R 160 MX2	160	138	609	724	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE1R 160 L2	160	138	609	724	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE1R 160 L4	160	138	667	783	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE1R 160 L6, 8	160	138	609	724	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE1R 180 M2	180	147	635	751	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE1R 180 M4	180	147	680	796	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE1R 180 L4	180	147	680	796	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE1R 180 L6, 8	180	147	680	796	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE1R 200 L2	200	147	680	796	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE1R 200 LX2	200	147	730	846	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE2-WE1R 200 L4	200	168	727	851	100 A	213	207	200 A-SB	335	270	M50 x 1.5	4L	35
IE2-WE1R 200 LX6	200	168	727	851	100 A	213	207	200 A-SB	335	270	M50 x 1.5	4L	35
IE2-WE1R 200 L6, 8	200	147	680	796	63 A	193	167	100/63 AV	223	214	M50 x 1.5	4L	35
IE2-WE1R 225 M2	225	168	767	891	100 A	213	207	200 A-SB	335	270	M50 x 1.5	8L	40
IE2-WE1R 225 S4	225	168	797	921	100 A	213	207	200 A-SB	335	270	M50 x 1.5	8L	40
IE2-WE1R 225 M4	225	177	862	977	100 A	213	207	200 A-SB	335	270	M50 x 1.5	8L	45
IE2-WE1R 225 S8	225	168	797	921	100 A	213	207	200 A-SB	335	270	M50 x 1.5	8L	40
IE2-WE1R 225 M6	225	177	862	977	100 A	213	207	200 A-SB	335	270	M50 x 1.5	8L	45
IE2-WE1R 225 M8	225	177	862	977	100 A	213	207	200 A-SB	335	270	M50 x 1.5	8L	45
IE2-WE1R 250 M2	250	177	862	977	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	45
IE2-WE1R 250 M4	250	206	924	1042	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	50
IE2-WE1R 250 M6, 8	250	206	924	1042	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	50
IE2-WE1R 280 S2	280	206	924	1072	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	50
IE2-WE1R 280 M2	280	206	970	1118	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	50
IE2-WE1R 280 S4	280	206	924	1072	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	50
IE2-WE1R 280 M4	280	206	970	1118	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	50
IE2-WE1R 280 S6	280	206	970	1118	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	50
IE2-WE1R 280 S8	280	206	970	1118	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	50
IE2-WE1R 280 M6, 8	280	211	1105	1273	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	55

Energy-saving motor for High Efficiency IE2
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 132 to 250

Type of construction IM B5 [IM 3001]
Type of construction IM V1 [IM 3011]
Flange dimensions, see page 2/109



Type designation	Flange size	AC	AD	AD VIK	D	DA	DB*)	E	EA	F	FA	GA	GC
		g	g1	g1	d	d1		l	l1	u	u1	t	t1
IE2-WE2R 132 S4	FF 265	217	189	189	38	32	M12	80	80	10	10	41	35
IE2-WE2R 132 M6, 8	FF 265	217	189	189	38	32	M12	80	80	10	10	41	35
IE2-WE2R 160 M4	FF 300	258	214	210	42	38	M16	110	80	12	10	45	41
IE2-WE2R 160 M6, MX8	FF 300	258	214	210	42	38	M16	110	80	12	10	45	41
IE2-WE2R 160 L4	FF 300	313	242	275	42	42	M16	110	110	12	12	45	45
IE2-WE2R 180 M4	FF 300	351	261	294	48	48	M16	110	110	14	14	51.5	51.5
IE2-WE2R 200 LX2	FF 350	351	261	294	55	48	M20	110	110	16	14	59	51.5
IE2-WE2R 225 M4	FF 400	390	300	378	60	55	M20	140	110	18	16	64	59
IE2-WE2R 225 M6, 8	FF 400	390	300	378	60	55	M20	140	110	18	16	64	59
IE2-WE2R 250 M6, 8	FF 500	440	386	406	65	55	M20	140	110	18	16	69	59

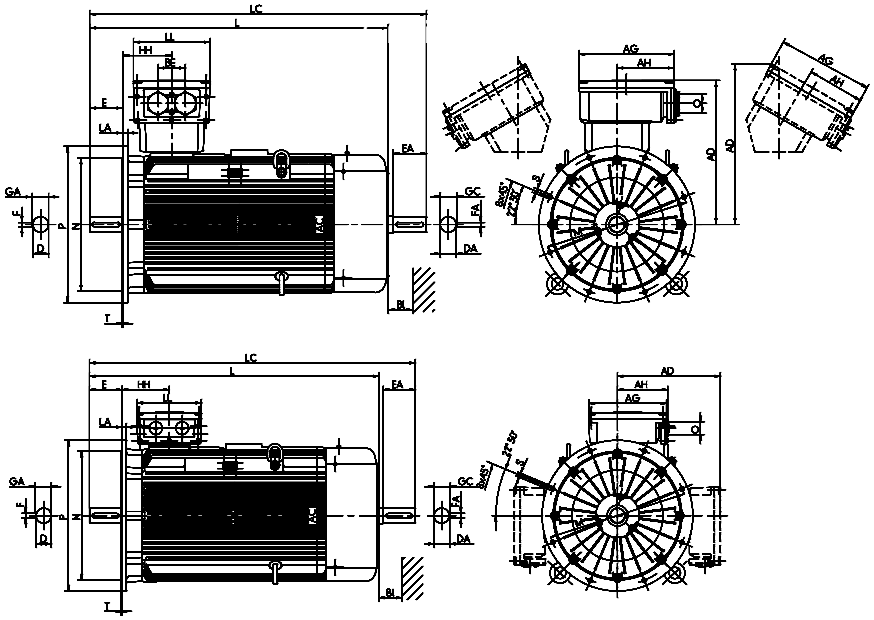
*) Centre holes to DIN 332-DS

Type designation	H	HH	L	LC	TB Type	AG	LL	TB Type	AG	LL	O	Hole pattern	Bl.
	h	A	k	k1	Standard	x	z	VIK			-		Bl
IE2-WE2R 132 S4	132	108	529	612	25 A	156	145	25 AV	156	145	M32x1.5	4L	35
IE2-WE2R 132 M6, 8	132	108	529	612	25 A	156	145	25 AV	156	145	M32x1.5	4L	35
IE2-WE2R 160 M4	160	114	609	693	63 A	193	167	100/63 AV	223	214	M40x1.5	4L	35
IE2-WE2R 160 M6, MX8	160	114	609	693	63 A	193	167	100/63 AV	223	214	M40x1.5	4L	35
IE2-WE2R 160 L4	160	138	659	774	63 A	193	167	100/63 AV	223	214	M40x1.5	4L	35
IE2-WE2R 180 M4	180	147	635	751	63 A	193	167	100/63 AV	223	214	M40x1.5	4L	35
IE2-WE2R 200 LX2	200	147	730	846	63 A	193	167	100/63 AV	223	214	M50x1.5	4L	35
IE2-WE2R 225 M4	225	168	847	971	100 A	213	207	200 A-SB	335	270	M50x1.5	8L	40
IE2-WE2R 225 M6, 8	225	168	797	921	100 A	213	207	200 A-SB	335	270	M50x1.5	8L	40
IE2-WE2R 250 M6, 8	250	177	912	1027	200 A	282	242	200 A-SB	335	270	M63x1.5	8L	50

Energy-saving motor for High Efficiency IE2
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 315

Type of construction IM B5 [IM 3001] to Size 315 MY
Type of construction IM V1 [IM 3011]
Flange dimensions, see page 2/109



Type designation	Flange size	AC	AD	AD VIK	D	DA	DB*)	E	EA	F	FA	GA	GC
		g	g1	g1	d	d1		l	l1	u	u1	t	t1
IE2-WE1R 315 S2	FF 600	550	416	460	65	65	M20	140	140	18	18	69	69
IE2-WE1R 315 M2	FF 600	550	416	460	65	65	M20	140	140	18	18	69	69
IE2-WE1R 315 MX2	FF 600	550	416	460	65	65	M20	140	140	18	18	69	69
IE2-WE1R 315 MY2	FF 600	610	498	681	65	65	M20	140	140	18	18	69	69
IE2-WE1R 315 L2	FF 600	610	498	681	65	65	M20	140	140	18	18	69	69
IE2-WE1R 315 LX2	FF 600	610	498	681	65	65	M20	140	140	18	18	69	69
IE2-WE1R 315 S4	FF 600	550	416	460	80	70	M20	170	140	22	20	85	75
IE2-WE1R 315 M4	FF 600	550	416	460	80	70	M20	170	140	22	20	85	75
IE2-WE1R 315 MX4	FF 600	550	416	460	80	70	M20	170	140	22	20	85	75
IE2-WE1R 315 MY4	FF 600	610	498	681	80	70	M20	170	140	22	20	85	75
IE2-WE1R 315 L4	FF 600	610	498	681	80	70	M20	170	140	22	20	85	75
IE2-WE1R 315 LX4	FF 600	610	498	681	80	70	M20	170	140	22	20	85	75
IE2-WE1R 315 S6	FF 600	550	416	460	80	70	M20	170	140	22	20	85	75
IE2-WE1R 315 M6	FF 600	550	416	460	80	70	M20	170	140	22	20	85	75
IE2-WE1R 315 MX6	FF 600	610	498	681	80	70	M20	170	140	22	20	85	75
IE2-WE1R 315 MY6	FF 600	610	498	681	80	70	M20	170	140	22	20	85	75
IE2-WE1R 315 L6	FF 600	610	498	681	80	70	M20	170	140	22	20	85	75
IE2-WE1R 315 LX6	FF 600	610	498	681	80	70	M20	170	140	22	20	85	75
IE2-WE1R 315 S8	FF 600	550	416	460	80	70	M20	170	140	22	20	85	75
IE2-WE1R 315 M8	FF 600	550	416	460	80	70	M20	170	140	22	20	85	75
IE2-WE1R 315 MX8	FF 600	610	498	681	80	70	M20	170	140	22	20	85	75
IE2-WE1R 315 MY8	FF 600	610	498	681	80	70	M20	170	140	22	20	85	75
IE2-WE1R 315 L6	FF 600	610	498	681	80	70	M20	170	140	22	20	85	75
IE2-WE1R 315 LX8	FF 600	610	498	681	80	70	M20	170	140	22	20	85	75

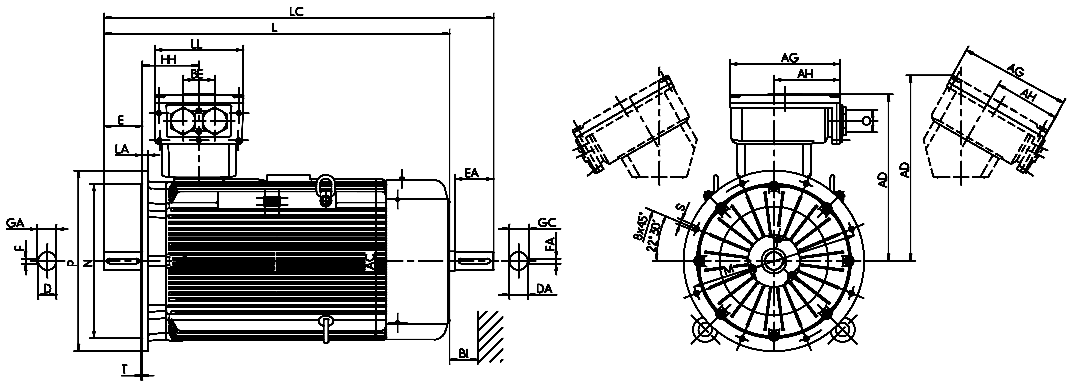
*) Centre holes to DIN 332-DS

Type designation	H	HH	L	LC	TB Type	AG	LL	AH	TB Type	AG	LL	AH	O	Bl.
	h	A	k	k1	Standard	x	z	-	VIK				r	Bl
IE2-WE1R 315 S2	315	211	1050	1218	200 A	282	242	-	400 A- SB	415	340	265	M63 x 1.5	55
IE2-WE1R 315 M2	315	211	1105	1273	200 A	282	242	-	400 A- SB	415	340	265	M63 x 1.5	55
IE2-WE1R 315 MX2	315	211	1185	1353	200 A	282	242	-	400 A- SB	415	340	265	M63 x 1.5	55
IE2-WE1R 315 MY2	315	230	1270	1448	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE2-WE1R 315 L2	315	230	1390	1543	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE2-WE1R 315 LX2	315	230	1510	1688	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE2-WE1R 315 S4	315	211	1080	1248	200 A	282	242	-	400 A- SB	415	340	265	M63 x 1.5	55
IE2-WE1R 315 M4	315	211	1135	1303	200 A	282	242	-	400 A- SB	415	340	265	M63 x 1.5	55
IE2-WE1R 315 MX4	315	211	1215	1383	200 A	282	242	-	400 A- SB	415	340	265	M63 x 1.5	55
IE2-WE1R 315 MY4	315	230	1300	1478	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE2-WE1R 315 L4	315	230	1420	1598	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE2-WE1R 315 LX4	315	230	1540	1723	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE2-WE1R 315 S6	315	211	1135	1303	200 A	282	242	-	400 A- SB	415	340	265	M63 x 1.5	55
IE2-WE1R 315 M6	315	211	1135	1303	200 A	282	242	265	400 A- SB	415	340	265	M63 x 1.5	55
IE2-WE1R 315 MX6	315	230	1300	1478	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE2-WE1R 315 MY6	315	230	1300	1478	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE2-WE1R 315 L6	315	230	1420	1598	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE2-WE1R 315 LX6	315	230	1420	1598	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE2-WE1R 315 S8	315	211	1135	1303	200 A	282	242	-	400 A- SB	415	340	265	M63 x 1.5	55
IE2-WE1R 315 M8	315	211	1135	1303	200 A	282	242	-	400 A- SB	415	340	265	M63 x 1.5	55
IE2-WE1R 315 MX8	315	230	1300	1478	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE2-WE1R 315 MY8	315	230	1300	1478	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE2-WE1R 315 L6	315	230	1420	1598	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE2-WE1R 315 LX8	315	230	1420	1598	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55

Energy-saving motor for High Efficiency IE2
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 355

Type of construction IM V1 [IM 3011]]
Flange dimensions, see page 2/109



Type designation	Flange size	AC	AD	AD **)	D	DA	DB *)	E	EA	F	FA
		g	g1	g1	d	d1		l	l1	u	u1
IE2-WE2R 355 M2	FF 740	715	736	817	80	80	M20	170	170	22	22
IE2-WE2R 355 M4	FF 740	715	736	817	100	80	M24	210	170	28	22
IE2-WE2R 355 M6, 8	FF 740	715	736	817	100	80	M24	210	170	28	22
IE2-WE2R 355 MX6, 8	FF 740	715	736	817	100	80	M24	210	170	28	22
IE2-WE2R 355 MX2	FF 740	715	728	819	80	80	M20	170	170	22	22
IE2-WE2R 355 LY2, L2	FF 740	715	728	819	80	80	M20	170	170	22	22
IE2-WE2R 355 MX4	FF 740	715	728	819	100	80	M24	210	170	28	22
IE2-WE2R 355 LY, L4	FF 740	715	728	819	100	80	M24	210	170	28	22
IE2-WE2R 355 LY6, 8	FF 740	715	728	819	100	80	M24	210	170	28	22

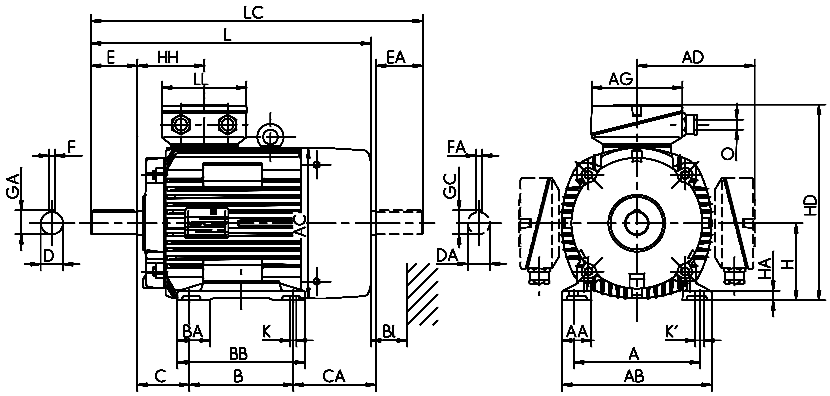
*) Centre holes to DIN 332-DS
**) Terminal box inclined left/right

Type designation	GA	GC	H	HH	L	LC	TB Type Standard	AG	LL	AH	BE	O	Bl.
	t	t1	h	A	K	K1	VIK	x	z	-	-	r	Bl
IE2-WE2R 355 M2	85	85	355	250	1530	1715	630 A	496	390	301	140	M72 x 2	60
IE2-WE2R 355 M4	106	85	355	250	1570	1755	630 A	496	390	301	140	M72 x 2	60
IE2-WE2R 355 M6, 8	106	85	355	250	1570	1755	630 A	496	390	301	140	M72 x 2	60
IE2-WE2R 355 MX6, 8	106	85	355	327	1690	1875	630 A	496	390	301	140	M72 x 2	60
IE2-WE2R 355 MX2	85	85	355	327	1650	1835	1000 A	615	474	385	200	M72 x 2	60
IE2-WE2R 355 LY2, L2	85	85	355	327	1650	1835	1000 A	615	474	385	200	M72 x 2	60
IE2-WE2R 355 MX4	106	85	355	327	1690	1875	1000 A	615	474	385	200	M72 x 2	60
IE2-WE2R 355 LY, L4	106	85	355	327	1690	1875	1000 A	615	474	385	200	M72 x 2	60
IE2-WE2R 355 LY6, 8	106	85	355	327	1690	1875	1000 A	615	474	385	200	M72 x 2	60

Energy-saving motor for Standard Efficiency IE1
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 56 to 280

Type of construction IM B3 [IM 1001]



Type designation	Flange size	A	AA	AB	AC	AD	AD VIK	B	BA	BB	C	CA	D	DA	DB*)	E	EA	F	FA
		b	n	f	g	g1	g1	a	m	e	w1	w2	d	d1		l	l1	u	u1
K210 56 K2, 4 U	FF100	90	18	110	-	98		71	-	86	36	28	9	9	M3	20	20	3	3
K21R 56 G2, 4	FF100	90	18	110	109	98		71	-	86	36	52	9	9	M3	20	20	3	3
K21R 63 K2, 4, 6	FF115	100	28	128	109	98		80	-	100	40	39	11	11	M4	23	23	4	4
K21R 63 G2, 4, 6	FF115	100	28	128	109	98		80	-	100	40	39	11	11	M4	23	23	4	4
K21R 71 K2, 4, 6, 8	FF130	112	32	138	124	104		90	-	116	45	43.5	14	14	M5	30	30	5	5
K21R 71 G2, 4, 6, 8	FF130	112	32	138	124	104		90	-	116	45	43.5	14	14	M5	30	30	5	5
IE1-K21R 80 K2, 4, 6, 8	FF 165	125	38	168	139	111		100	-	125	50	63	19	19	M6	40	40	6	6
IE1-K21R 80 G2, 4, 6, 8	FF 165	125	38	168	139	111		100	-	125	50	63	19	19	M6	40	40	6	6
IE1-K21R 90 S2, 4, 6, 8	FF 165	140	40	178	157	119		100	-	130	56	74	24	22	M8	50	50	8	6
IE1-K21R 90 L2, 4, 6, 8	FF 165	140	40	178	157	119		125	-	155	56	71	24	22	M8	50	50	8	6
IE1-K21R 100 L2, 4, 6, 8	FF 215	160	47	192	177	126		140	-	175	63	73	28	24	M10	60	50	8	8
IE1-K21R 100 LX4, 8	FF 215	160	42	193	196	136		140	-	175	63	102	28	28	M10	60	60	8	8
IE1-K21R 112 M2	FF 215	190	52	225	196	136		140	-	180	70	95	28	28	M10	60	60	8	8
IE1-K21R 112 M6, 8	FF 215	190	52	225	196	136		140	-	180	70	95	28	28	M10	60	60	8	8
IE1-K21R 112 MX2	FF 215	190	52	225	196	136		140	-	180	70	129	28	28	M10	60	60	8	8
IE1-K21R 112 M4	FF 215	190	52	225	196	136		140	-	180	70	129	28	28	M10	60	60	8	8
IE1-K21R 132 S2, 6, 8T	FF265	216	52	257	196	155		140	-	180	89	129	38	28	M12	80	60	10	8
IE1-K21R 132 S4T	FF265	216	52	257	196	155		140	-	180	89	129	38	28	M12	80	60	10	8
IE1-K21R 132 S2	FF265	216	50	256	217	178	189	140	55	180	89	153	38	32	M12	80	80	10	10
IE1-K21R 132 SX2T	FF265	216	52	257	196	155		140	-	180	89	129	38	28	M12	80	60	10	8
IE1-K21R 132 SX2	FF265	216	50	256	217	178	189	140	55	180	89	173	38	32	M12	80	80	10	10
IE1-K21R 132 S4, 6, 8	FF265	216	50	256	217	178	189	140	55	180	89	153	38	32	M12	80	80	10	10
IE1-K21R 132 M4	FF265	216	50	256	258	199	210	178	55	218	89	138	38	38	M12	80	80	10	10
IE1-K21R 132 MX6	FF265	216	50	256	258	199	210	178	55	218	89	138	38	38	M12	80	80	10	10
IE1-K21R 132 M6, 8	FF265	216	50	256	217	178	189	178	55	218	89	135	38	32	M12	80	80	10	10
IE1-K21R 160 M2	FF300	254	55	296	258	214	214	210	60	257	108	135	42	38	M16	110	80	12	10
IE1-K21R 160 M4, 6, 8	FF300	254	55	296	258	214	214	210	60	257	108	135	42	38	M16	110	80	12	10
IE1-K21R 160 MX8	FF300	254	55	296	258	214	214	210	60	257	108	135	42	38	M16	110	80	12	10
IE1-K21R 160 MX2	FF300	254	55	296	313	242	275	210	60	257	108	148	42	42	M16	110	110	12	12
IE1-K21R 160 L2, 4, 6, 8	FF300	254	55	296	313	242	275	254	60	301	108	142	42	42	M16	110	110	12	12
IE1-K21R 180 M2	FF300	279	62	328	351	261	294	241	65	288	121	169	48	48	M16	110	110	14	14
IE1-K21R 180 M4	FF300	279	62	328	313	242	275	241	65	288	121	142	48	42	M16	110	110	14	12
IE1-K21R 180 L4	FF300	279	62	328	351	261	294	279	65	326	121	176	48	48	M16	110	110	14	14
IE1-K21R 180 L6, 8	FF300	279	62	328	313	242	275	279	65	326	121	104	48	42	M16	110	110	14	12
IE1-K21R 200 L2, 4, 6, 8	FF 350	318	70	372	351	261	294	305	70	360	133	138	55	48	M20	110	110	16	14
IE1-K21R 200 LX6	FF 350	318	70	372	351	261	294	305	70	360	133	138	55	48	M20	110	110	16	14
IE1-K21R 200 LX2	FF 350	318	70	372	390	300	378	305	70	360	133	193	55	55	M20	110	110	16	16
IE1-K21R 225 S4, 8	FF 400	356	75	413	390	300	378	286	75	343	149	196	60	55	M20	140	110	18	16
IE1-K21R 225 M2	FF 400	356	75	413	390	300	378	311	75	368	149	211	55	55	M20	110	110	16	16
IE1-K21R 225 M4	FF 400	356	75	413	390	300	378	311	75	368	149	211	60	55	M20	140	110	18	16
IE1-K21R 225 M6, 8	FF 400	356	75	413	390	300	378	311	75	368	149	171	60	55	M20	140	110	18	16
IE1-K21R 250 M2	FF 500	406	84	471	440	358	406	349	84	412	168	210	60	55	M20	140	110	18	16
IE1-K21R 250 M4, 6, 8	FF 500	406	84	471	440	358	406	349	84	412	168	210	65	55	M20	140	110	18	16
IE1-K21R 280 S2	FF 500	457	94	522	490	386	399	368	96	431	190	234	65	65	M20	140	140	18	18
IE1-K21R 280 S4, 6, 8	FF 500	457	94	522	490	386	399	368	96	431	190	234	75	65	M20	140	140	20	18
IE1-K21R 280 M2	FF 500	457	94	522	490	386	399	419	96	482	190	229	65	65	M20	140	140	18	18
IE1-K21R 280 M4, 6, 8	FF 500	457	94	522	490	386	399	419	96	482	190	229	75	65	M20	140	140	20	18

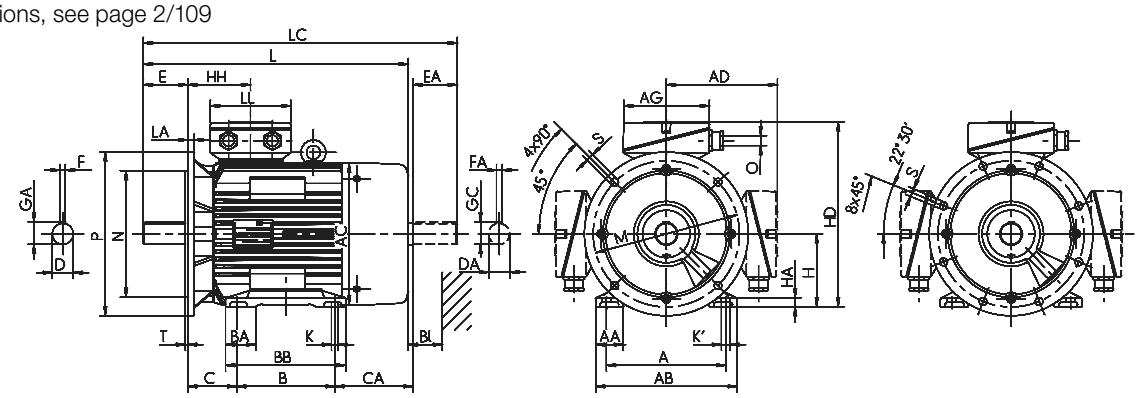
*) Centre holes to DIN 332-DS

Energy-saving motor for Standard Efficiency IE1
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 56 to 280

Type of construction IM B35 [IM 2001]

Flange dimensions, see page 2/109



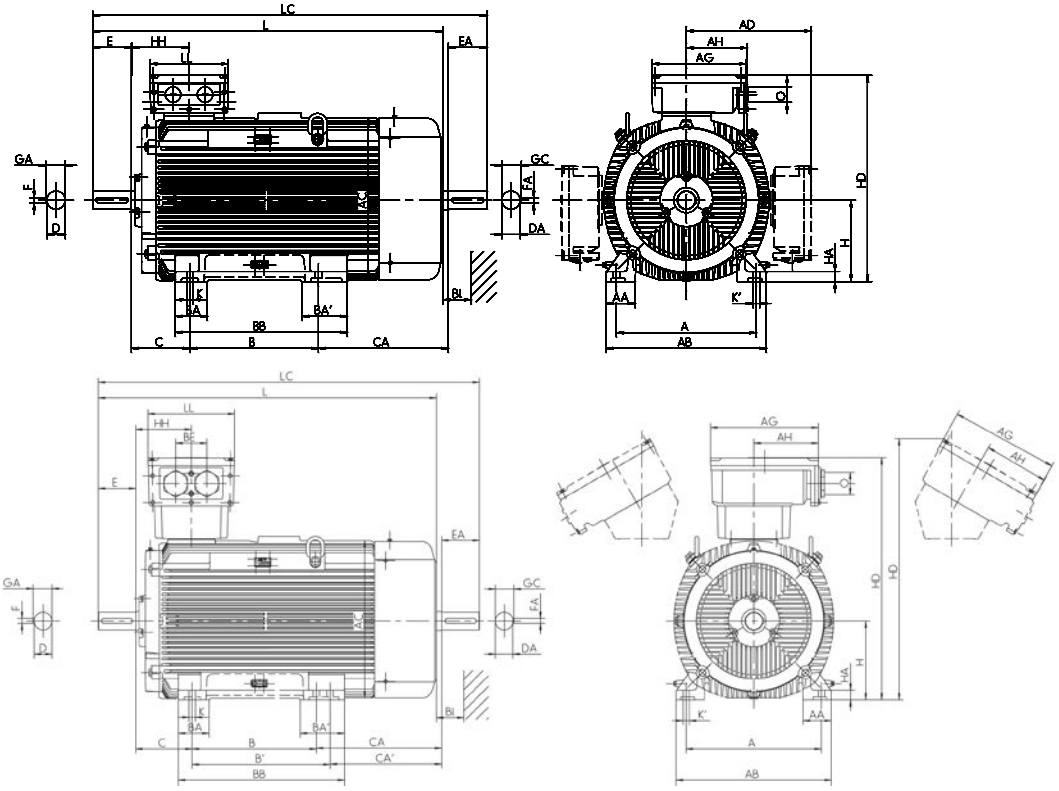
Type designation	GA	GC	H	HA	HD	HD**)	HD	HH	K	K'	L	LC	TB Type	AG	LL	TB Type	AG	LL	O	Hole pattern	Bl.
	t	t1	h	c	p	p	p	A	s	s'	k	k1		X	Z	VIK	X	Z			Bl
K21O 56 K2, 4 U	10.2	10.2	56	7	154	***)		58	6	6	150	175	KA 05	92	92				M20 x 1.5	4L	14
K21R 56 G2, 4	10.2	10.2	56	7	154	***)		58	6	6	176	199	KA 05	92	92				M20 x 1.5	4L	14
K21R 63 K2, 4, 6	12.5	12.5	63	10	161	***)		58	8	8	179	205	KA 05	92	92				M20 x 1.5	4L	14
K21R 63 G2, 4, 6	12.5	12.5	63	10	161	***)		58	8	8	179	205	KA 05	92	92				M20 x 1.5	4L	14
K21R 71 K2, 4, 6, 8	16	16	71	11	175	***)		61	8	8	206	239	KA 05	92	92				M20 x 1.5	4L	14
K21R 71 G2, 4, 6, 8	16	16	71	11	175	***)		61	8	8	206	239	KA 05	92	92				M20 x 1.5	4L	14
IE1-K21R 80 K2, 4, 6, 8	21.5	21.5	80	12	191	***)		67	10	10	249	293	KA 05	92	92				M20 x 1.5	4L	16
IE1-K21R 80 G2, 4, 6, 8	21.5	21.5	80	12	191	***)		67	10	10	249	293	KA 05	92	92				M20 x 1.5	4L	16
IE1-K21R 90 S2, 4, 6, 8	27	24.5	90	14	210	***)		70	10	10	275	330	KA 05	92	92				M25 x 1.5	4L	16
IE1-K21R 90 L2, 4, 6, 8	27	24.5	90	14	210	***)		70	10	10	297	352	KA 05	92	92				M25 x 1.5	4L	16
IE1-K21R 100 L2, 4, 6, 8	31	27	100	15	227	***)		75	12	12	331	386	KA 05	92	92				M25 x 1.5	4L	18
IE1-K21R 100 LX4, 8	31	31	100	13	237	***)		77	12	12	357	425	KA 05	92	92				M25 x 1.5	4L	20
IE1-K21R 112 M2	31	31	112	18	249	***)		77	12	12	357	425	KA 05	92	92				M25 x 1.5	4L	20
IE1-K21R 112 M6, 8	31	31	112	18	249	***)		77	12	12	357	425	KA 05	92	92				M25 x 1.5	4L	20
IE1-K21R 112 MX2	31	31	112	18	249	***)		77	12	12	391	459	KA 05	92	92				M25 x 1.5	4L	20
IE1-K21R 112 M4	31	31	112	18	249	***)		77	12	12	391	459	KA 05	92	92				M25 x 1.5	4L	20
IE1-K21R 132 S2, 6, 8T	41	31	132	18	287	***)		105	12	12	430	498	KA 05-13	104	112				M25 x 1.5	4L	20
IE1-K21R 132 S4T	41	31	132	18	287	***)		105	12	12	460	528	KA 05-13	104	112				M25 x 1.5	4L	20
IE1-K21R 132 S2	41	35	132	16	310	256.5	310	108	12	12	459	542	25 A	156	145	25 AV	143	134	M25 x 1.5	4L	35
IE1-K21R 132 SX2T	41	31	132	18	287	***)		105	12	12	460	528	KA 05-13	104	112				M25 x 1.5	4L	20
IE1-K21R 132 SX2	41	35	132	16	310	256.5	310	108	12	12	479	562	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE1-K21R 132 S4, 6, 8	41	35	132	16	310	256.5	310	108	12	12	459	542	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE1-K21R 132 M4	41	41	132	16	331	279	331	114	12	12	481	565	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE1-K21R 132 MX6	41	41	132	16	331	279	331	114	12	12	481	565	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE1-K21R 132 M6, 8	41	35	132	16	310	256.5	310	108	12	12	479	562	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE1-K21R 160 M2	45	41	160	18	363	307	370	114	15	15	559	643	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE1-K21R 160 M4, 6, 8	45	41	160	18	363	307	370	114	15	15	559	643	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE1-K21R 160 MX8	45	41	160	18	363	307	370	114	15	15	559	643	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE1-K21R 160 MX2	45	45	160	18	409	336	435	138	15	20	571	686	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE1-K21R 160 L2, 4, 6, 8	45	45	160	18	409	336	435	138	15	20	609	724	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE1-K21R 180 M2	51.5	51.5	180	20	441	369	476	147	15	20	635	751	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE1-K21R 180 M4	51.5	45	180	20	422	356	459	138	15	20	609	724	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE1-K21R 180 L4	51.5	51.5	180	20	441	369	476	147	15	20	680	796	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE1-K21R 180 L6, 8	51.5	45	180	20	422	369	459	138	15	20	609	724	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE1-K21R 200 L2, 4, 6, 8	59	51.5	200	22	461	389	498	147	19	25	680	796	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE1-K21R 200 LX6	59	51.5	200	22	461	389	498	147	19	25	680	796	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE1-K21R 200 LX2	59	59	200	22	500	417	579	168	19	25	727	851	100 A	213	207	200 A-SB	335	270	M50 x 1.5	4L	35
IE1-K21R 225 S4, 8	64	59	225	25	527	442	605	168	19	25	757	881	100 A	213	207	200 A-SB	335	270	M50 x 1.5	8L	40
IE1-K21R 225 M2	59	59	225	25	527	442	605	168	19	25	767	891	100 A	213	207	200 A-SB	335	270	M50 x 1.5	8L	40
IE1-K21R 225 M4	64	59	225	25	527	442	605	168	19	25	797	921	100 A	213	207	200 A-SB	335	270	M50 x 1.5	8L	40
IE1-K21R 225 M6, 8	64	59	225	25	527	442	605	168	19	25	757	881	100 A	213	207	200 A-SB	335	270	M50 x 1.5	8L	40
IE1-K21R 250 M2	64	59	250	28	608	484	650	177	24	30	862	977	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	45
IE1-K21R 250 M4, 6, 8	69	59	250	28	608	484	650	177	24	30	862	977	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	45
IE1-K21R 280 S2	69	69	280	32	666	546	677	206	24	30	924	1072	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	50
IE1-K21R 280 S4, 6, 8	79.5	69	280	32	666	546	677	206	24	30	924	1072	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	50
IE1-K21R 280 M2	69	69	280	32	666	546	677	206	24	30	970	1118	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	50
IE1-K21R 280 M4, 6, 8	79.5	69	280	32	666	546	677	206	24	30	970	1118	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	50

**) Terminal box left/right
***) upon request

Energy-saving motor for Standard Efficiency IE1
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 315

Type of construction IM B3 [IM 1001]



Type designation	Flange size	A	AA	AB	AC	AD	AD VIK	B	BA	BA'	BB	C	CA	D	DA	DB*)	E	EA	F	FA
		b	n	f	g	g1	g1	a	m	m1	e	w1	w2	d	d1		l	l1	u	u1
IE1-K21R 315 S2	FF 600	508	126	590	550	416	460	406	120	-	503	216	316	65	65	M20	140	140	18	18
IE1-K21R 315 S4, 6, 8	FF 600	508	126	590	550	416	460	406	120	-	503	216	316	80	70	M20	170	140	22	20
IE1-K21R 315 M2	FF 600	508	126	590	550	416	460	457	120	-	554	216	320	65	65	M20	140	140	18	18
IE1-K21R 315 M4, 6, 8	FF 600	508	126	590	550	416	460	457	120	-	554	216	320	80	70	M20	170	140	22	20
IE1-K21R 315 MX2	FF 600	508	126	590	550	416	460	457	120	150	554	216	400	65	65	M20	140	140	18	18
IE1-K21R 315 MX4	FF 600	508	126	590	550	416	460	457	120	150	554	216	400	80	70	M20	170	140	22	20
IE1-K21R 315 MX6, 8	FF 600	508	126	590	550	416	460	457	120	150	554	216	320	80	70	M20	170	140	22	20
IE1-K21R 315 MX10, 12	FF 600	508	126	590	550	416	460	457	120	150	554	216	320	80	70	M20	170	140	22	20
IE1-K21R 315 MY2	FF 600	508	110	590	610	498	681	457	120	-	573	216	495	65	65	M20	140	140	18	18
IE1-K21R 315 MY4, 6, 8	FF 600	508	110	590	610	498	681	457	120	-	573	216	495	80	70	M20	170	140	22	20
IE1-K21R 315 L2	FF 600	508	110	590	610	498	681	508	120	-	624	216	539	65	65	M20	140	140	18	18
IE1-K21R 315 L4, 6, 8	FF 600	508	110	590	610	498	681	508	120	-	624	216	564	80	70	M20	170	140	22	20
IE1-K21R 315 LX2	FF 600	508	110	590	610	481	681	508	120	-	624	216	684	65	65	M20	140	140	18	18
IE1-K21R 315 LX4	FF 600	508	110	590	610	481	681	508	120	-	624	216	689	80	70	M20	170	140	22	20
IE1-K21R 315 LX6, 8	FF 600	508	110	590	610	498	681	508	120	-	624	216	564	80	70	M20	170	140	22	20

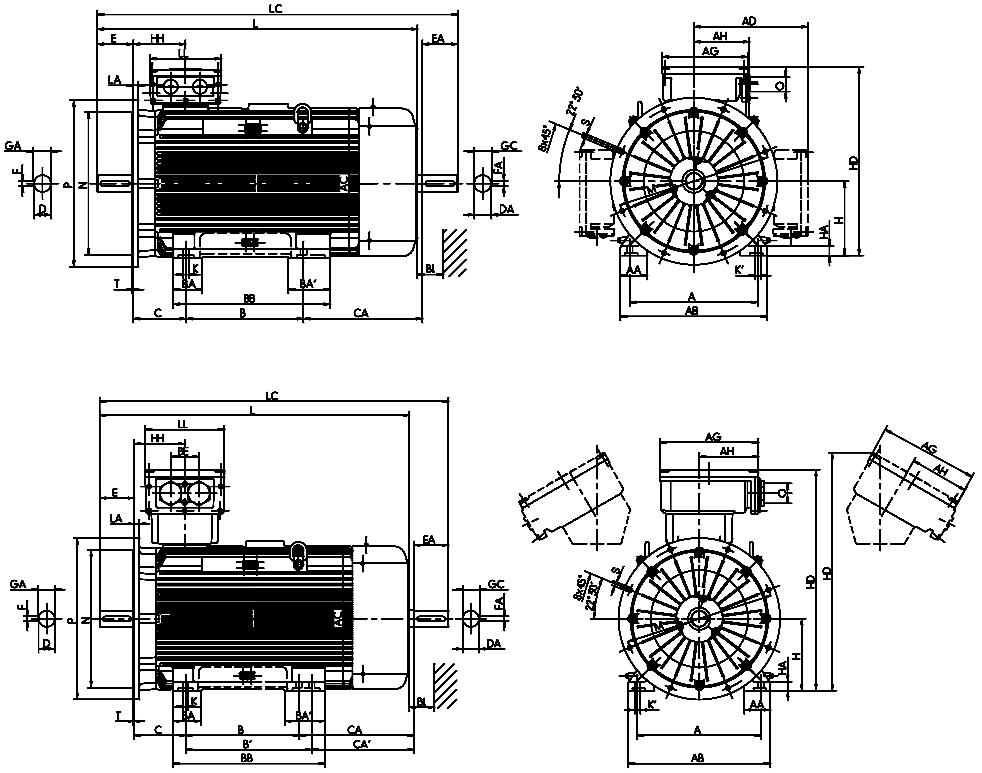
*) Centre holes to DIN 332-DS

Energy-saving motor for Standard Efficiency IE1
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 315

Type of construction IM B35 [IM 2001]

Flange dimensions, see page 2/109



Type designation	GA	GC	H	HA	HD	HD**)	HD	HH	K	K'	L	LC	TB Type	AG	LL	AH	TB Type	AG	LL	AH	O	Bl.
							VIK															
	t	t1	h	c	p	p	p	A	s	s'	k	k1		x	z	-	VIK	x	z	-	r	Bl
IE1-K21R 315 S2	69	69	315	44	731	595	775	211	28	35	1050	1218	200 A	282	242	-	400 A-SB	415	340	265	M63 x 1.5	55
IE1-K21R 315 S4, 6, 8	85	74.5	315	44	731	595	775	211	28	35	1080	1248	200 A	282	242	-	400 A-SB	415	340	265	M63 x 1.5	55
IE1-K21R 315 M2	69	69	315	44	731	595	775	211	28	35	1105	1273	200 A	282	242	-	400 A-SB	415	340	265	M63 x 1.5	55
IE1-K21R 315 M4, 6, 8	85	74.5	315	44	731	595	775	211	28	35	1135	1303	200 A	282	242	-	400 A-SB	415	340	265	M63 x 1.5	55
IE1-K21R 315 MX2	69	69	315	44	731	595	775	211	28	35	1185	1353	200 A	282	242	-	400 A-SB	415	340	265	M63 x 1.5	55
IE1-K21R 315 MX4	85	74.5	315	44	731	595	775	211	28	35	1210	1383	200 A	282	242	-	400 A-SB	415	340	265	M63 x 1.5	55
IE1-K21R 315 MX6, 8	85	74.5	315	44	731	595	775	211	28	35	1135	1303	200 A	282	242	-	400 A-SB	415	340	265	M63 x 1.5	55
IE1-K21R 315 MX10, 12	85	74.5	315	44	731	595	775	211	28	35	1135	1303	200 A	282	242	-	400 A-SB	415	340	265	M63 x 1.5	55
IE1-K21R 315 MY2	69	69	315	44	774	628	996	230	28	35	1270	1448	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE1-K21R 315 MY4, 6, 8	85	74.5	315	44	774	628	996	230	28	35	1300	1478	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE1-K21R 315 L2	69	69	315	44	774	628	996	230	28	35	1390	1543	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE1-K21R 315 L4, 6, 8	85	74.5	315	44	774	628	996	230	28	35	1420	1598	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE1-K21R 315 LX2	69	69	315	44	796	628	996	230	28	35	1510	1688	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE1-K21R 315 LX4	85	74.5	315	44	796	628	996	230	28	35	1540	1723	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE1-K21R 315 LX6, 8	85	74.5	315	44	796	628	996	230	28	35	1420	1598	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55

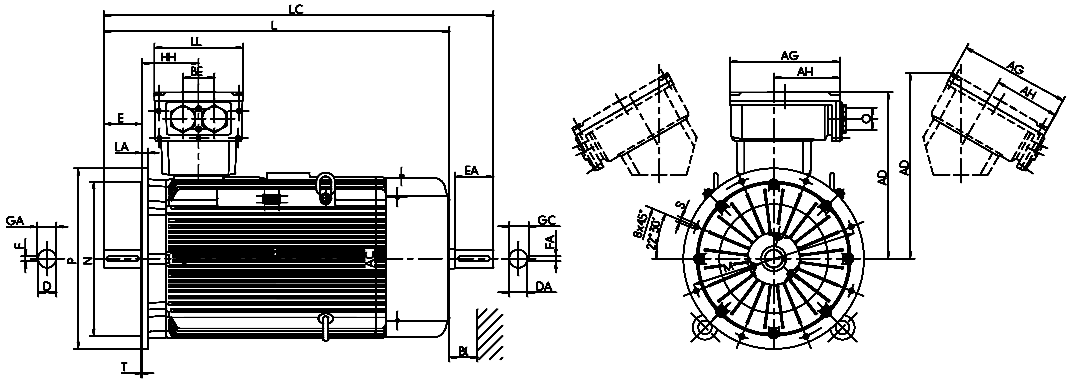
**) Terminal box left/right

Energy-saving motor for Standard Efficiency IE1
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 355

Type of construction IM V1 [IM 3011]

Flange dimensions, see page 2/109



Type designation	Flange size	AC	AD	AD**)	D	DA	DB*)	E	EA	F	FA
		g	g1	g1	d	d1		l	l1	u	u1
IE1-K22R 355 MY2G, M2 G	FF 740	715	736	817	80	80	M20	170	-	22	-
IE1-K22R 355 MY4, 6, 8	FF 740	715	736	817	100	80	M24	210	170	28	22
IE1-K22R 355 M4	FF 740	715	736	817	100	80	M24	210	170	28	22
IE1-K22R 355 M6, 8	FF 740	715	736	817	100	80	M24	210	170	28	22
IE1-K22R 355 MX6, 8	FF 740	715	736	817	100	80	M24	210	170	28	22
IE1-K22R 355 MX2 G	FF 740	715	728	819	80	80	M20	170	-	22	-
IE1-K22R 355 LY2 G, L2 G	FF 740	715	728	819	80	80	M20	170	-	22	-
IE1-K22R 355 MX4	FF 740	715	728	819	100	80	M24	210	170	28	22
IE1-K22R 355 LY, L4	FF 740	715	728	819	100	80	M24	210	170	28	22
IE1-K22R 355 LY6, 8	FF 740	715	728	819	100	80	M24	210	170	28	22

*) Centre holes to DIN 332-DS
**) Terminal box inclined left/right

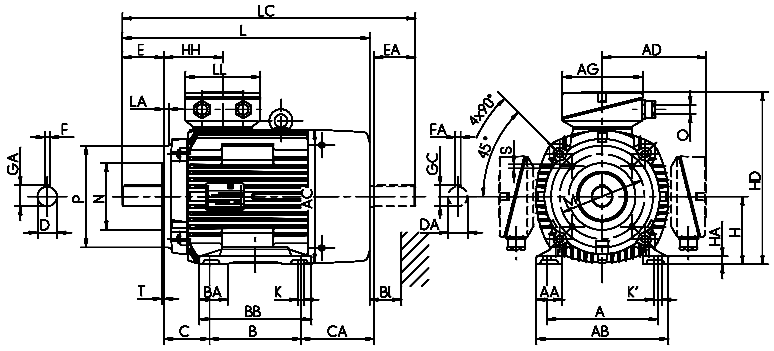
Type designation	GA	GC	H	HH	L	LC	TB Type Standard	AG	LL	AH	BE	O	Bl.
	t	t1	h	A	K	K1	VIK	x	z	-	-	r	Bl
IE1-K22R 355 MY2G, M2 G	85	-	355	250	1530	-	KK 630 A	496	390	301	140	M72 x 2	60
IE1-K22R 355 MY4, 6, 8	106	85	355	250	1570	1755	KK 630 A	496	390	301	140	M72 x 2	60
IE1-K22R 355 M4	106	85	355	250	1570	1755	KK 630 A	496	390	301	140	M72 x 2	60
IE1-K22R 355 M6, 8	106	85	355	250	1570	1755	KK 630 A	496	390	301	140	M72 x 2	60
IE1-K22R 355 MX6, 8	106	85	355	327	1690	1875	KK 630 A	496	390	301	140	M72 x 2	60
IE1-K22R 355 MX2 G	85	-	355	327	1650	-	KK 1000 A	615	474	385	200	M72 x 2	60
IE1-K22R 355 LY2G, L2 G	85	-	355	327	1650	-	KK 1000 A	615	474	385	200	M72 x 2	60
IE1-K22R 355 MX4	106	85	355	327	1690	1875	KK 1000 A	615	474	385	200	M72 x 2	60
IE1-K22R 355 LY, L4	106	85	355	327	1690	1875	KK 1000 A	615	474	385	200	M72 x 2	60
IE1-K22R 355 LY6, 8	106	85	355	327	1690	1875	KK 1000 A	615	474	385	200	M72x2	60

Energy-saving motor for Standard Efficiency IE1
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 56 to 180

Type of construction IM B34 [IM 2101]

Flange dimensions, see page 2/109



Type designation	Flange size		A	AA	AB	AC	AD	AD VIK	B	BA	BB	C	CA	D	DA	DB*)	E	EA	F	FA
	small	large	b	n	f	g	g1	g1	a	m	e	w1	w2	d	d1		l	l1	u	u1
K210 56 K2, 4 U	FT 65	FT 85	90	18	110	-	98		71	-	86	36	28	9	9	M3	20	20	3	3
K21R 56 G2, 4	FT 65	FT 85	90	18	110	109	98		71	-	86	36	52	9	9	M3	20	20	3	3
K21R 63 K2, 4, 6	FT 75	FT 100	100	28	128	109	98		80	-	100	40	39	11	11	M4	23	23	4	4
K21R 63 G2, 4, 6	FT 75	FT 100	100	28	128	109	98		80	-	100	40	39	11	11	M4	23	23	4	4
K21R 71 K2, 4, 6, 8	FT 85	FT 115	112	32	138	124	104		90	-	116	45	43.5	14	14	M5	30	30	5	5
K21R 71 G2, 4, 6, 8	FT 85	FT 115	112	32	138	124	104		90	-	116	45	43.5	14	14	M5	30	30	5	5
IE1-K21R 80 K2, 4, 6, 8	FT 100	FT 130	125	38	168	139	111		100	-	125	50	63	19	19	M6	40	40	6	6
IE1-K21R 80 G2, 4, 6, 8	FT 100	FT 130	125	38	168	139	111		100	-	125	50	63	19	19	M6	40	40	6	6
IE1-K21R 90 S2, 4, 6, 8	FT 115	FT 130	140	40	178	157	119		100	-	130	56	74	24	22	M8	50	50	8	6
IE1-K21R 90 L2, 4, 6, 8	FT 115	FT 130	140	40	178	157	119		125	-	155	56	71	24	22	M8	50	50	8	6
IE1-K21R 100 L2, 4, 6, 8	FT 130	FT 165	160	47	192	177	126		140	-	175	63	73	28	24	M10	60	50	8	8
IE1-K21R 100 LX4, 8	FT 130	FT 165	160	42	193	196	136		140	-	175	63	102	28	28	M10	60	60	8	8
IE1-K21R 112 M2	FT 130	FT 165	190	50	224	196	136		140	-	180	70	95	28	28	M10	60	60	8	8
IE1-K21R 112 M6, 8	FT 130	FT 165	190	50	224	196	136		140	-	180	70	95	28	28	M10	60	60	8	8
IE1-K21R 112 MX2	FT 130	FT 165	190	50	224	196	136		140	-	180	70	129	28	28	M10	60	60	8	8
IE1-K21R 112 M4	FT 130	FT 165	190	50	224	196	136		140	-	180	70	129	28	28	M10	60	60	8	8
IE1-K21R 132 S2, 6, 8T	FT 130	FT 165	216	52	257	196	155		140	-	180	89	129	38	28	M12	80	60	10	8
IE1-K21R 132 S4T	FT 130	FT 165	216	52	257	196	155		140	-	180	89	129	38	28	M12	80	60	10	8
IE1-K21R 132 S2	FT 130	FT 165	216	50	256	217	178	189	140	55	180	89	153	38	32	M12	80	80	10	10
IE1-K21R 132 SX2T	FT 130	FT 165	216	52	257	196	155		140	-	180	89	129	38	28	M12	80	60	10	8
IE1-K21R 132 SX2	FT 130	FT 165	216	50	256	217	178	189	140	55	180	89	173	38	32	M12	80	80	10	10
IE1-K21R 132 S4, 6, 8	FT 130	FT 165	216	50	256	217	178	189	140	55	180	89	153	38	32	M12	80	80	10	10
IE1-K21R 132 M4	FT 165	FT 215	216	50	256	258	199	210	178	55	218	89	138	38	38	M12	80	80	10	10
IE1-K21R 132 MX6	FT 165	FT 215	216	50	256	258	199	210	178	55	218	89	138	38	38	M12	80	80	10	10
IE1-K21R 132 M6, 8	FT 130	FT 165	216	50	256	217	178	189	178	55	218	89	135	38	32	M12	80	80	10	10
IE1-K21R 160 M2	FT 165	FT 215	254	55	296	258	214	214	210	60	257	108	135	42	38	M16	110	80	12	10
IE1-K21R 160 M4, 6, 8	FT 165	FT 215	254	55	296	258	214	214	210	60	257	108	135	42	38	M16	110	80	12	10
IE1-K21R 160 MX8	FT 165	FT 215	254	55	296	258	199	214	210	60	257	108	135	42	38	M16	110	80	12	10
IE1-K21R 160 MX2	FT 215	FT 265	254	55	296	313	242	275	210	60	257	108	148	42	42	M16	110	110	12	12
IE1-K21R 160 L2, 4, 6, 8	FT 215	FT 265	254	55	296	313	242	275	254	60	301	108	142	42	42	M16	110	110	12	12
IE1-K21R 180 M4	FT 265	-	279	62	328	313	242	275	241	65	288	121	142	48	42	M16	110	110	14	12
IE1-K21R 180 L6, 8	FT 265	-	279	62	328	313	242	275	279	65	326	121	104	48	42	M16	110	110	14	12

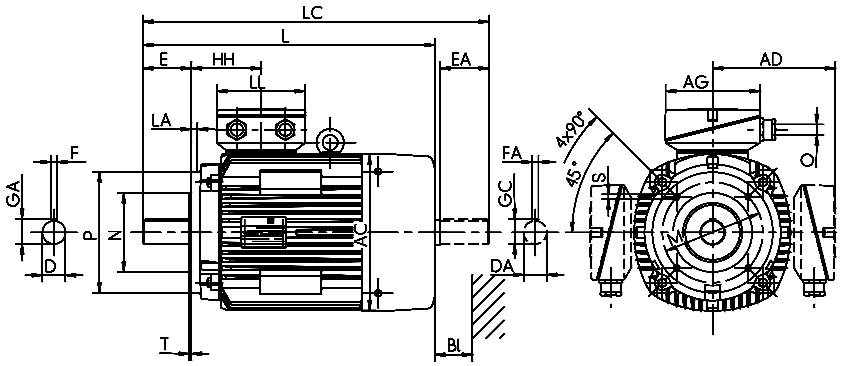
*) Centre holes to DIN 332-DS

Energy-saving motor for Standard Efficiency IE1
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 56 to 180

Type of construction IM B14 [IM 3601]

Flange dimensions, see page 2/109



Type designation	GA	GC	H	HA	HD	HD**)	HD VIK	HH	K	K'	L	LC	TB Type	AG	LL	TB Type	AG	LL	O	Hole pattern	Bl.
	t	t1	h	c	p	p	p	A	s	s'	k	k1	-	x	z	VIK	x	z	r		Bl.
K210 56 K2, 4 U	10.2	10.2	56	7	154	***)		58	6	6	150	175	KA 05	92	92				M20 x 1.5	4L	-
K21R 56 G2, 4	10.2	10.2	56	7	154	***)		58	6	6	176	199	KA 05	92	92				M20 x 1.5	4L	14
K21R 63 K2, 4, 6	12.5	12.5	63	10	161	***)		58	8	8	179	205	KA 05	92	92				M20 x 1.5	4L	14
K21R 63 G2, 4, 6	12.5	12.5	63	10	161	***)		58	8	8	179	205	KA 05	92	92				M20 x 1.5	4L	14
K21R 71 K2, 4, 6, 8	16	16	71	11	175	***)		61	8	8	206	239	KA 05	92	92				M20 x 1.5	4L	14
K21R 71 G2, 4, 6, 8	16	16	71	11	175	***)		61	8	8	206	239	KA 05	92	92				M20 x 1.5	4L	14
IE1-K21R 80 K2, 4, 6, 8	21.5	21.5	80	12	191	***)		67	10	10	249	293	KA 05	92	92				M20 x 1.5	4L	16
IE1-K21R 80 G2, 4, 6, 8	21.5	21.5	80	12	191	***)		67	10	10	249	293	KA 05	92	92				M20 x 1.5	4L	16
IE1-K21R 90 S2, 4, 6, 8	27	24.5	90	14	210	***)		70	10	10	275	330	KA 05	92	92				M25 x 1.5	4L	16
IE1-K21R 90 L2, 4, 6, 8	27	24.5	90	14	210	***)		70	10	10	297	352	KA 05	92	92				M25 x 1.5	4L	16
IE1-K21R 100 L2, 4, 6, 8	31	27	100	15	227	***)		75	12	12	331	386	KA 05	92	92				M25 x 1.5	4L	18
IE1-K21R 100 LX4, 8	31	31	100	13	237	***)		77	12	12	357	425	KA 05	92	92				M25 x 1.5	4L	20
IE1-K21R 112 M2	31	31	112	18	249	***)		77	12	12	357	425	KA 05	92	92				M25 x 1.5	4L	20
IE1-K21R 112 M6, 8	31	31	112	18	249	***)		77	12	12	357	425	KA 05	92	92				M25 x 1.5	4L	20
IE1-K21R 112 MX2	31	31	112	18	249	***)		77	12	12	391	459	KA 05	92	92				M25 x 1.5	4L	20
IE1-K21R 112 M4	31	31	112	18	249	***)		77	12	12	391	459	KA 05	92	92				M25 x 1.5	4L	20
IE1-K21R 132 S2, 6, 8T	41	31	132	18	287	***)		105	12	12	430	498	KA 05-13	104	112				M32 x 1.5	4L	20
IE1-K21R 132 S4T	41	31	132	18	287	***)		105	12	12	460	528	KA 05-13	104	112				M32 x 1.5	4L	20
IE1-K21R 132 S2	41	35	132	16	328	275	310	108	12	12	459	542	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE1-K21R 132 SX2T	41	31	132	18	287	***)		105	12	12	460	528	KA 05-13	104	112				M32 x 1.5	4L	20
IE1-K21R 132 SX2	41	35	132	16	328	275	310	108	12	12	479	562	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE1-K21R 132 S4, 6, 8	41	35	132	16	328	275	310	108	12	12	459	542	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE1-K21R 132 M4	41	41	132	16	349	297	331	114	12	12	481	565	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE1-K21R 132 MX6	41	41	132	16	349	297	331	114	12	12	481	565	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE1-K21R 132 M6, 8	41	35	132	16	328	275	310	108	12	12	479	562	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE1-K21R 160 M2	45	41	160	18	389	322	370	114	15	15	559	643	63 A	193	167	25 AV	143	134	M32 x 1.5	4L	35
IE1-K21R 160 M4, 6, 8	45	41	160	18	389	322	370	114	15	15	559	643	63 A	193	167	25 AV	143	134	M32 x 1.5	4L	35
IE1-K21R 160 MX8	45	41	160	18	389	322	370	114	15	15	559	643	63 A	193	167	25 AV	143	134	M32 x 1.5	4L	35
IE1-K21R 160 MX2	45	45	160	18	417	351	435	138	15	20	571	686	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE1-K21R 160 L2, 4, 6, 8	45	45	160	18	417	351	435	138	15	20	609	724	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE1-K21R 180 M4	51.5	45	180	20	417	351	459	138	15	20	609	724	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE1-K21R 180 L6, 8	51.5	45	180	20	417	364	459	138	15	20	609	724	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35

**) Terminal box left/right
***) upon request

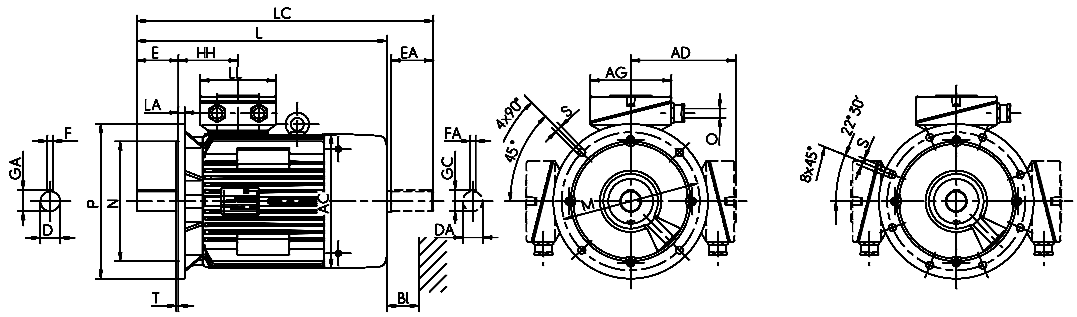
Energy-saving motor for Standard Efficiency IE1
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 56 to 280

Type of construction IM B5 [IM 3001]
Type of construction IM V1 [IM 3011]
Flange dimensions, see page 2/109

Type designation	Flange size	AC	AD	AD VIK	D	DA	DB*)	E	EA	F	FA	GA	GC
		g	g1	g1	d	d1		l	l1	u	u1	t	t1
K210 56 K2, 4 U	FF100	-	98		9	9	M3	20	20	3	3	10.2	10.2
K21R 56 G2, 4	FF100	109	98		9	9	M3	20	20	3	3	10.2	10.2
K21R 63 K2, 4, 6	FF115	109	98		11	11	M4	23	23	4	4	12.5	12.5
K21R 63 G2, 4, 6	FF115	109	98		11	11	M4	23	23	4	4	12.5	12.5
K21R 71 K2, 4, 6, 8	FF130	124	104		14	14	M5	30	30	5	5	16	16
K21R 71 G2, 4, 6, 8	FF130	124	104		14	14	M5	30	30	5	5	16	16
IE1-K21R 80 K2, 4, 6, 8	FF 165	139	111		19	19	M6	40	40	6	6	21.5	21.5
IE1-K21R 80 G2, 4, 6, 8	FF 165	139	111		19	19	M6	40	40	6	6	21.5	21.5
IE1-K21R 90 S2, 4, 6, 8	FF 165	157	119		24	22	M8	50	50	8	6	27	24.5
IE1-K21R 90 L2, 4, 6, 8	FF 165	157	119		24	22	M8	50	50	8	6	27	24.5
IE1-K21R 100 L2, 4, 6, 8	FF 215	177	126		28	24	M10	60	50	8	8	31	27
IE1-K21R 100 LX4, 8	FF 215	196	136		28	28	M10	60	60	8	8	31	31
IE1-K21R 112 M2	FF 215	196	136		28	28	M10	60	60	8	8	31	31
IE1-K21R 112 M6, 8	FF 215	196	136		28	28	M10	60	60	8	8	31	31
IE1-K21R 112 MX2	FF 215	196	136		28	28	M10	60	60	8	8	31	31
IE1-K21R 112 M4	FF 215	196	136		28	28	M10	60	60	8	8	31	31
IE1-K21R 132 S2, 6, 8T	FF265	196	155		38	28	M12	80	60	10	8	41	31
IE1-K21R 132 S4T	FF265	196	155		38	28	M12	80	60	10	8	41	31
IE1-K21R 132 S2	FF265	217	178	189	38	32	M12	80	80	10	10	41	35
IE1-K21R 132 SX2T	FF265	196	155		38	28	M12	80	60	10	8	41	31
IE1-K21R 132 SX2	FF265	217	178	189	38	32	M12	80	80	10	10	41	35
IE1-K21R 132 S4, 6, 8	FF265	217	178	189	38	32	M12	80	80	10	10	41	35
IE1-K21R 132 M4	FF265	258	199	210	38	38	M12	80	80	10	10	41	41
IE1-K21R 132 MX6	FF265	258	199	210	38	38	M12	80	80	10	10	41	41
IE1-K21R 132 M6, 8	FF265	217	178	189	38	32	M12	80	80	10	10	41	35
IE1-K21R 160 M2	FF300	258	214	214	42	38	M16	110	80	12	10	45	41
IE1-K21R 160 M4, 6, 8	FF300	258	214	214	42	38	M16	110	80	12	10	45	41
IE1-K21R 160 MX8	FF300	258	199	214	42	38	M16	110	80	12	10	45	41
IE1-K21R 160 MX2	FF300	313	242	275	42	42	M16	110	110	12	12	45	45
IE1-K21R 160 L2, 4, 6, 8	FF300	313	242	275	42	42	M16	110	110	12	12	45	45
IE1-K21R 180 M2	FF300	351	261	294	48	48	M16	110	110	14	14	51.5	51.5
IE1-K21R 180 M4	FF300	313	242	275	48	42	M16	110	110	14	12	51.5	45
IE1-K21R 180 L4	FF300	351	261	294	48	48	M16	110	110	14	14	51.5	51.5
IE1-K21R 180 L6, 8	FF300	313	242	275	48	42	M16	110	110	14	12	51.5	45
IE1-K21R 200 L2, 4, 6, 8	FF 350	351	261	294	55	48	M20	110	110	16	14	59	51.5
IE1-K21R 200 LX6	FF 350	351	261	294	55	48	M20	110	110	16	14	59	51.5
IE1-K21R 200 LX2	FF 350	390	300	378	55	55	M20	110	110	16	16	59	59
IE1-K21R 225 S4, 8	FF 400	390	300	378	60	55	M20	140	110	18	16	64	59
IE1-K21R 225 M2	FF 400	390	300	378	55	55	M20	110	110	16	16	59	59
IE1-K21R 225 M4	FF 400	390	300	378	60	55	M20	140	110	18	16	64	59
IE1-K21R 225 M6, 8	FF 400	390	300	378	60	55	M20	140	110	18	16	64	59
IE1-K21R 250 M2	FF 500	440	358	406	60	55	M20	140	110	18	16	64	59
IE1-K21R 250 M4, 6, 8	FF 500	440	358	406	65	55	M20	140	110	18	16	69	59
IE1-K21R 280 S2	FF 500	490	386	399	65	65	M20	140	140	18	18	69	69
IE1-K21R 280 S4, 6, 8	FF 500	490	386	399	75	65	M20	140	140	20	18	79.5	69
IE1-K21R 280 M2	FF 500	490	386	399	65	65	M20	140	140	18	18	69	69
IE1-K21R 280 M4, 6, 8	FF 500	490	386	399	75	65	M20	140	140	20	18	79.5	69

*) Centre holes to DIN 332-DS



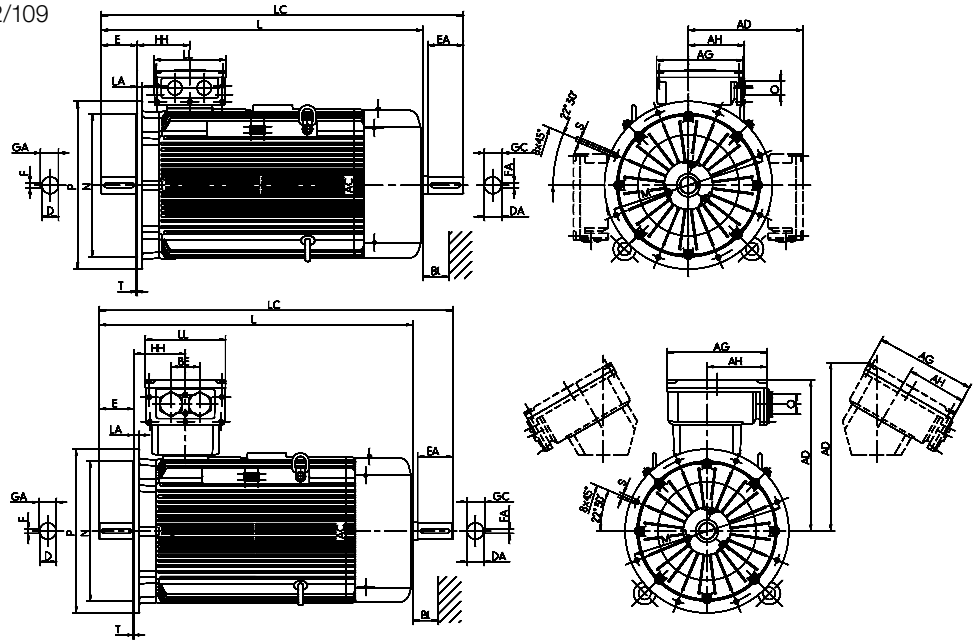
Type designation	H	HH	L	LC	TB Type	AG	LL	TB Type	AG	LL	O	Hole pattern	BI.
	h	A	k	k1				VIK					BI
K210 56 K2, 4 U	56	81	173	197	KA 05	92	92				M20 x 1.5	4L	14
K21R 56 G2, 4	56	81	199	223	KA 05	92	92				M20 x 1.5	4L	14
K21R 63 K2, 4, 6	63	58	179	205	KA 05	92	92				M20 x 1.5	4L	14
K21R 63 G2, 4, 6	63	58	179	205	KA 05	92	92				M20 x 1.5	4L	14
K21R 71 K2, 4, 6, 8	71	61	206	239	KA 05	92	92				M20 x 1.5	4L	14
K21R 71 G2, 4, 6, 8	71	61	206	239	KA 05	92	92				M20 x 1.5	4L	14
IE1-K21R 80 K2, 4, 6, 8	80	67	249	293	KA 05	92	92				M20 x 1.5	4L	16
IE1-K21R 80 G2, 4, 6, 8	80	67	249	293	KA 05	92	92				M20 x 1.5	4L	16
IE1-K21R 90 S2, 4, 6, 8	90	70	275	330	KA 05	92	92				M25 x 1.5	4L	16
IE1-K21R 90 L2, 4, 6, 8	90	70	297	352	KA 05	92	92				M25 x 1.5	4L	16
IE1-K21R 100 L2, 4, 6, 8	100	75	331	386	KA 05	92	92				M25 x 1.5	4L	18
IE1-K21R 100 LX4, 8	100	77	357	425	KA 05	92	92				M25 x 1.5	4L	20
IE1-K21R 112 M2	112	77	357	425	KA 05	92	92				M25 x 1.5	4L	20
IE1-K21R 112 M6, 8	112	77	391	425	KA 05	92	92				M25 x 1.5	4L	20
IE1-K21R 112 MX2	112	77	391	459	KA 05	92	92				M25 x 1.5	4L	20
IE1-K21R 112 M4	112	77	391	459	KA 05	92	92				M25 x 1.5	4L	20
IE1-K21R 132 S2, 6, 8T	132	105	430	498	KA 05-13	104	112				M32 x 1.5	4L	20
IE1-K21R 132 S4T	132	105	460	528	KA 05-13	104	112				M32 x 1.5	4L	20
IE1-K21R 132 S2	132	108	459	542	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE1-K21R 132 SX2T	132	105	460	528	KA 05-13	104	112				M32 x 1.5	4L	20
IE1-K21R 132 SX2	132	108	479	562	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE1-K21R 132 S4, 6, 8	132	108	459	542	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE1-K21R 132 M4	132	114	481	565	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE1-K21R 132 MX6	132	114	481	565	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE1-K21R 132 M6, 8	132	108	479	562	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE1-K21R 160 M2	160	114	559	643	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE1-K21R 160 M4, 6, 8	160	114	559	643	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE1-K21R 160 MX8	160	114	559	643	25 A	156	145	25 AV	143	134	M32 x 1.5	4L	35
IE1-K21R 160 MX2	160	138	571	686	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE1-K21R 160 L2, 4, 6, 8	160	138	609	724	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE1-K21R 180 M2	180	147	635	751	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE1-K21R 180 M4	180	138	609	724	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE1-K21R 180 L4	180	147	680	796	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE1-K21R 180 L6, 8	180	138	609	724	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE1-K21R 200 L2, 4, 6, 8	200	147	680	796	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE1-K21R 200 LX6	200	147	680	796	63 A	193	167	100/63 AV	223	214	M40 x 1.5	4L	35
IE1-K21R 200 LX2	200	168	727	851	100 A	213	207	200 A-SB	335	270	M50 x 1.5	4L	35
IE1-K21R 225 S4, 8	225	168	757	881	100 A	213	207	200 A-SB	335	270	M50 x 1.5	8L	40
IE1-K21R 225 M2	225	168	767	891	100 A	213	207	200 A-SB	335	270	M50 x 1.5	8L	40
IE1-K21R 225 M4	225	168	797	921	100 A	213	207	200 A-SB	335	270	M50 x 1.5	8L	40
IE1-K21R 225 M6, 8	225	168	757	881	100 A	213	207	200 A-SB	335	270	M50 x 1.5	8L	40
IE1-K21R 250 M2	250	177	862	977	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	45
IE1-K21R 250 M4, 6, 8	250	177	862	977	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	45
IE1-K21R 280 S2	280	206	924	1072	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	50
IE1-K21R 280 S4, 6, 8	280	206	924	1072	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	50
IE1-K21R 280 M2	280	206	970	1118	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	50
IE1-K21R 280 M4, 6, 8	280	206	970	1118	200 A	282	242	200 A-SB	335	270	M63 x 1.5	8L	50

Energy-saving motor for Standard Efficiency IE1
Three-phase motors with squirrel-cage rotor

with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 315

Type of construction IM B5 [IM 3001] to Size 315 MY
Type of construction IM V1 [IM 3011]

Flange dimensions, see page 2/109



Type designation	Flange size	AC	AD	AD VK	D	DA	DB*)	E	EA	F	FA	GA	GC
		g	g1	g1	d	d1		l	l1	u	u1	t	t1
IE1-K21R 315 S2	FF 600	550	416	460	65	65	M20	140	140	18	18	69	69
IE1-K21R 315 S4, 6, 8	FF 600	550	416	460	80	70	M20	170	140	22	20	85	74.5
IE1-K21R 315 M2	FF 600	550	416	460	65	65	M20	140	140	18	18	69	69
IE1-K21R 315 M4, 6, 8	FF 600	550	416	460	80	70	M20	170	140	22	20	85	74.5
IE1-K21R 315 MX2	FF 600	550	416	460	65	65	M20	140	140	18	18	69	69
IE1-K21R 315 MX4	FF 600	550	416	460	80	70	M20	170	140	22	20	85	74.5
IE1-K21R 315 MX6, 8	FF 600	550	416	460	80	70	M20	170	140	22	20	85	74.5
IE1-K21R 315 MX10, 12	FF 600	550	416	460	80	70	M20	170	140	22	20	85	74.5
IE1-K21R 315 MY2	FF 600	610	498	681	65	65	M20	140	140	18	18	69	69
IE1-K21R 315 MY4, 6, 8	FF 600	610	498	681	80	70	M20	170	140	22	20	85	74.5
IE1-K21R 315 L2	FF 600	610	498	681	65	65	M20	140	140	18	18	69	69
IE1-K21R 315 L4, 6, 8	FF 600	610	498	681	80	70	M20	170	140	22	20	85	74.5
IE1-K21R 315 LX2	FF 600	610	481	681	65	65	M20	140	140	18	18	69	69
IE1-K21R 315 LX4	FF 600	610	481	681	80	70	M20	170	140	22	20	85	74.5
IE1-K21R 315 LX6, 8	FF 600	610	498	681	80	70	M20	170	140	22	20	85	74.5

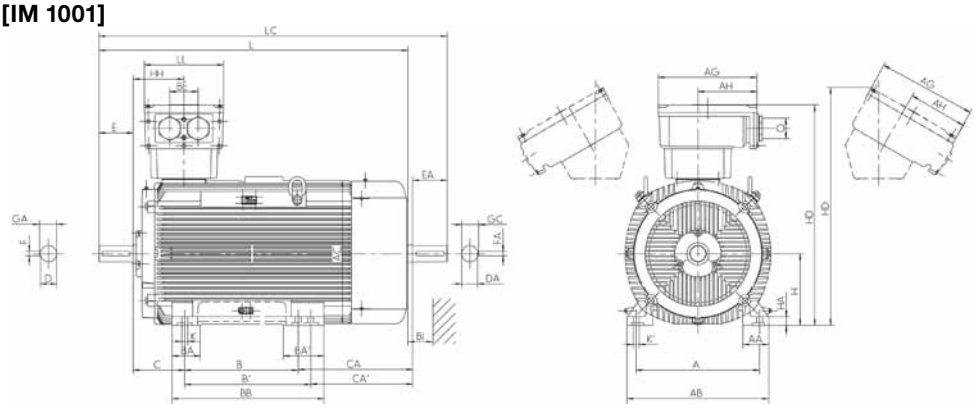
Type designation	H	HH	L	LC	TB Type	AG	LL	AH	TB Type	AG	LL	AH	O	Bl.
	h	A	k	k1		x	z	-	VIK	x	z	-	r	Bl
IE1-K21R 315 S2	315	211	1050	1218	200 A	282	242	-	400 A-SB	415	340	265	M63 x 1.5	55
IE1-K21R 315 S4, 6, 8	315	211	1080	1248	200 A	282	242	-	400 A-SB	415	340	265	M63 x 1.5	55
IE1-K21R 315 M2	315	211	1105	1273	200 A	282	242	-	400 A-SB	415	340	265	M63 x 1.5	55
IE1-K21R 315 M4, 6, 8	315	211	1135	1303	200 A	282	242	-	400 A-SB	415	340	265	M63 x 1.5	55
IE1-K21R 315 MX2	315	211	1185	1353	200 A	282	242	-	400 A-SB	415	340	265	M63 x 1.5	55
IE1-K21R 315 MX4	315	211	1215	1383	200 A	282	242	-	400 A-SB	415	340	265	M63 x 1.5	55
IE1-K21R 315 MX6, 8	315	211	1135	1303	200 A	282	242	-	400 A-SB	415	340	265	M63 x 1.5	55
IE1-K21R 315 MX10, 12	315	211	1135	1303	200 A	282	242	-	400 A-SB	415	340	265	M63 x 1.5	55
IE1-K21R 315 MY2	315	230	1270	1448	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE1-K21R 315 MY4, 6, 8	315	230	1300	1478	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE1-K21R 315 L2	315	230	1390	1543	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE1-K21R 315 L4, 6, 8	315	230	1420	1598	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE1-K21R 315 LX2	315	230	1510	1688	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE1-K21R 315 LX4	315	230	1540	1723	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1.5	55
IE1-K21R 315 LX6, 8	315	230	1420	1598	400 A-SB	415	340	265	630 A	496	390	301	M63 x 1,5	55

*) Centre holes to DIN 332-DS

Energy-saving motor for Standard Efficiency IE1
Three-phase motors with squirrel-cage rotor

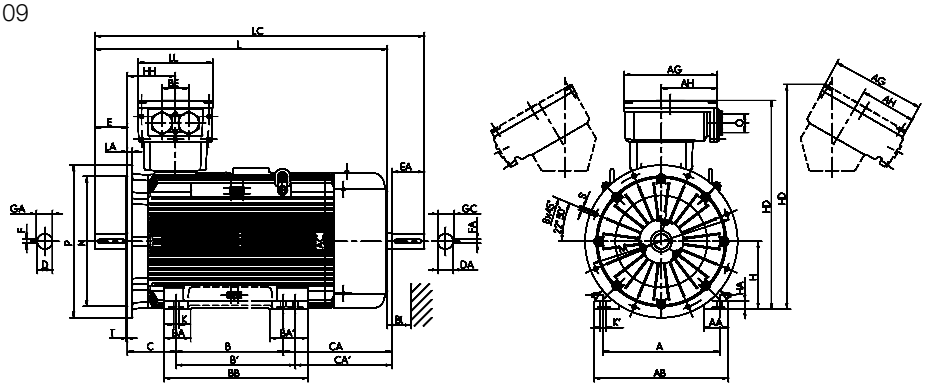
with surface cooling, type of cooling IC 411, degree of protection IP 55
Size 355

Type of construction IM B3 [IM 1001]



Type of construction IM B35 [IM 2001]

Flange dimensions, see page 2/109



Type designation	Flange size	A	AA	AB	AC	B	BA	BA'	BB	C	CA	D	DA	DB*)	E	EA	F	FA
		b	n	f	g	a	m	m1	e	w1	w2	d	d1		l	l1	u	u1
IE1-K22R 355 MY2G, M2G	FF 740	610	130	700	715	560	140	200	750	254	561	80	80	M20	170	-	22	-
IE1-K22R 355 MY4, 6, 8	FF 740	610	130	700	715	560	140	200	750	254	561	100	80	M24	210	170	28	22
IE1-K22R 355 M4	FF 740	610	130	700	715	560	140	200	750	254	561	100	80	M24	210	170	28	22
IE1-K22R 355 M6, 8	FF 740	610	130	700	715	560	140	200	750	254	561	100	80	M24	210	170	28	22
IE1-K22R 355 MX6, 8	FF 740	610	130	700	715	560	140	200	750	254	681	100	80	M24	210	170	28	22
IE1-K22R 355 MX2G	FF 740	610	130	700	715	560	140	200	750	254	681	80	80	M20	170	-	22	-
IE1-K22R 355 LY2G, L2G	FF 740	610	130	700	715	630	140	200	750	254	611	80	80	M20	170	-	22	-
IE1-K22R 355 MX4	FF 740	610	130	700	715	560	140	200	750	254	681	100	80	M24	210	170	28	22
IE1-K22R 355 LY4, L4	FF 740	610	130	700	715	630	140	200	750	254	611	100	80	M24	210	170	28	22
IE1-K22R 355 LY6, 8	FF 740	610	130	700	715	630	140	200	750	254	611	100	80	M24	210	170	28	22

Type designation	GA	GC	H	HA	HD	HD**)	HH	K	K'	L	LC	TB Type Standard	AG	LL	AH	BE	O	Bl.
	t	t1	h	c	p	p	A	s	s'	k	k1	VIK	x	z	-	-	r	Bl
IE1-K22R 355 MY2G, M2G	85	-	355	44	1091	1172	250	28	35	1530	-	KK 630 A	496	390	301	140	M72 x 2	60
IE1-K22R 355 MY4, 6, 8	106	85	355	44	1091	1172	250	28	35	1570	1755	KK 630 A	496	390	301	140	M72 x 2	60
IE1-K22R 355 M4	106	85	355	44	1091	1172	250	28	35	1570	1755	KK 630 A	496	390	301	140	M72 x 2	60
IE1-K22R 355 M6, 8	106	85	355	44	1091	1172	250	28	35	1570	1755	KK 630 A	496	390	301	140	M72 x 2	60
IE1-K22R 355 MX6, 8	106	85	355	44	1091	1172	327	28	35	1690	1875	KK 630 A	496	390	301	140	M72 x 2	60
IE1-K22R 355 MX2G	85	-	355	44	1083	1174	327	28	35	1650	-	KK 1000 A	615	474	385	200	M72 x 2	60
IE1-K22R 355 LY2G, L2G	85	-	355	44	1083	1174	327	28	35	1650	-	KK 1000 A	615	474	385	200	M72 x 2	60
IE1-K22R 355 MX4	106	85	355	44	1083	1174	327	28	35	1690	1875	KK 1000 A	615	474	385	200	M72 x 2	60
IE1-K22R 355 LY4, L4	106	85	355	44	1083	1174	327	28	35	1690	1875	KK 1000 A	615	474	385	200	M72 x 2	60
IE1-K22R 355 LY6, 8	106	85	355	44	1083	1174	327	28	35	1690	1875	KK 1000 A	615	474	385	200	M72 x 2	60

*) Centre holes to DIN 332-DS
**) Terminal box inclined left/right

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