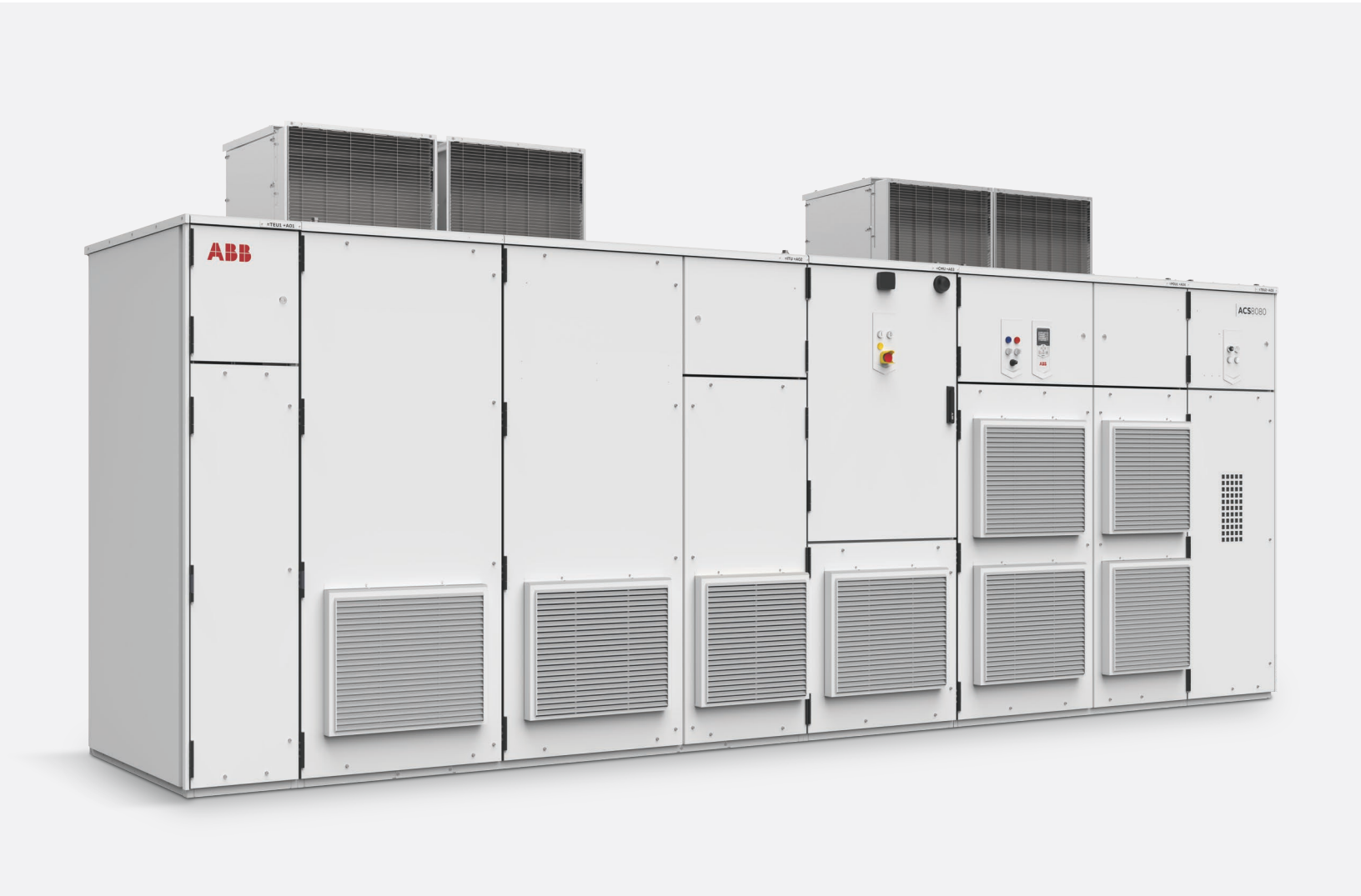
MEDIUM VOLTAGE AC | INDUSTRIAL

ACS8080 medium voltage drives

300 to 6700 kW / 400 to 9000 hp



The ACS8080 takes reliability and performance to the next level, providing your industrial application with long-term operational efficiency to maximize productivity and decrease environmental impact.

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ACS8080
Medium voltage. Maximum reliability.

Discover the next generation of medium voltage drives.

ABB recognizes that every application comes with distinct requirements, which is why we designed the all-new ACS8080 medium voltage drives. These advanced drives are engineered to ensure superior reliability, enhanced performance, unmatched flexibility, and uncompromised safety – all in a single solution.

Supported by cutting-edge digital features and revolutionary motor control technology, the ACS8080 sets a new standard in drive innovation and reliability across an array of industrial applications. Enjoy the ultimate peace of mind that comes from knowing you're backed by a product that's best in its class.







Reliability
- Based on well-established and proven ABB drives technology
- Minimized potential points of failure
- Optimized maintenance and minimized downtime

Performance
- Enhanced efficiency and output while minimizing losses
- Reduced total cost of ownership (TCO)
- Fast and efficient data processing

Flexibility
- Adapts to almost all applications and industries
- Easily integrates with diverse types of supplies and motors
- Creation, validation, and realization of customized solutions

Safety
- Enhanced personnel and machine safety
- Protection against unauthorized access, malware, data breaches, and insecure connections
- Safeguards from unpredicted and unsafe situations

Features and benefits

Designed to meet demanding industrial application needs

Discover how the ACS8080 can play an integral role in meeting your operational goals.



Low parts count & high quality
Fewer parts and quality components reduce failure points and maintenance.



Diagnostics & troubleshooting
Efficient diagnostics and troubleshooting minimize shutdowns and interventions.



Sensing solutions
State-of-the-art sensing solutions with real-time information about the condition of critical drive components.



Maximum flexibility & compatibility
Modular design and diverse configuration options to meet specific requirements.



Programming capabilities
ABB's Crealizer™ software supports advanced programming for custom functionality.



Motor control
Revolutionary motor control technology delivers maximum power output while minimizing losses.



Total cost of ownership
External transformer configuration and flexible cooling options reduce overall cost of ownership.



Cutting-edge digital technology
Next-generation control platform (UCU) for fast and efficient data processing.



Robust cybersecurity
Protection from unauthenticated access, malicious firmware, data breach, or insecure connectivity.



Arc protection
Superior personnel and equipment safety based on arc prevention and fast arc elimination.



Functional safety
Features to protect personnel and equipment in case of unpredicted and unsafe situations.







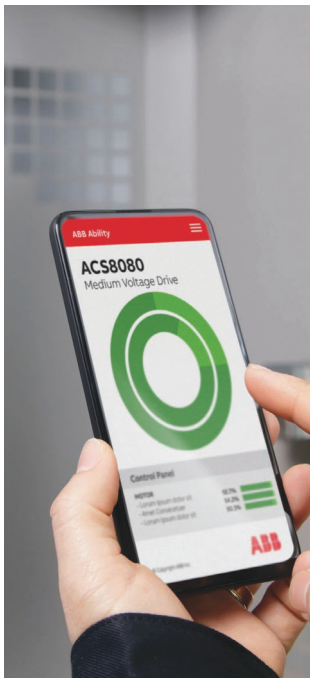


ABB Ability
ACS8080
Medium Voltage Drive
Control Panel
ABB







ACS8080
user interface

Unlimited adaptability
Seamless integration

Designed for versatility and ease of integration, the ACS8080 seamlessly adapts to various applications and industries.

Input	
Input configuration	Diode rectifier (DFE) 12- or 24-pulse diode rectifier Active front end (AFE)
Input voltage	Integrated transformer: up to 13.8 kV External transformer: project specific
Input voltage variation	± 10% (+15/-30% optional)
Input frequency	50/60 Hz
Input frequency variation	< 5%
Input power factor	Diode rectifier: > 0.95 Active rectifier: 1.0
Input harmonics	Complies with IEC61000-2-4, IEC 61000-4-13 and IEEE519
Auxiliary voltage	110 V DC, 220 V DC 110 to 240 V AC 50/60 Hz, 1-phase 380 to 690 V AC 50/60 Hz, 3-phase Internal supply
Output	
Output power	300 to 6700 kW (400 to 9000 hp)
Output voltage	3.3 to 4.16 kV
Output frequency	0 to 250 Hz
Motor type	Induction, synchronous and permanent magnet
Efficiency of converter	> 98%, external transformer or > 96%, integrated transformer
Motor harmonics	THDi <2% for drive with sine filter. Compatible with standard DOL motors THDi <5% for drive with active filter
Motor cable length	Up to 5 km (3.1 mi) for drive with sine filter Up to 300 m (984 ft) for drive with active filter
Mechanical	
Enclosure	Standard: IP21 Optional: IP42
Cable entry	Top/bottom
Environmental	
Altitude above sea level	Up to 1000 m (3281 ft) without derating 1000 to 5000 m (1093 to 16404ft) with derating (for 6 kV drives the max altitude is 4000 m / 13123 ft)
Ambient air temperature	5 to +40 °C (41 to 104 °F) without derating Higher with derating (temporarily up to 55 °C / 131 °F)
Noise level	< 85 dB(A)
Cooling method	Air
Standards and markings	EN, IEC, UL, CSA (standards) CE, cULus (markings)

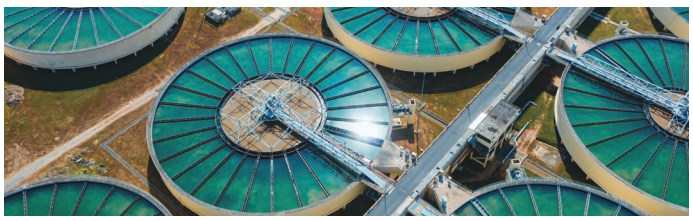
Typical industries

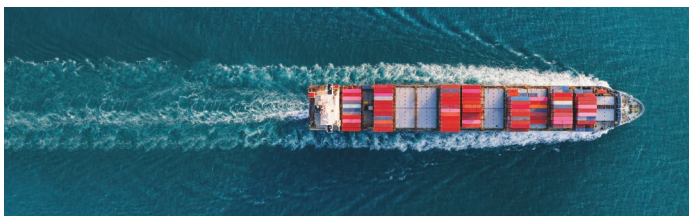












Superior reliability
Designed for peace of mind

Developed based on well-established and proven ABB drives technology, the ACS8080 takes reliability and trouble-free operations to the next level.



Reliability sits at the core of the ACS8080, ensuring you can focus on what truly matters – your business. By entrusting your operations to ABB's newest medium voltage drive technology, you're not just investing in a machine, but a reliable partner that operates seamlessly day in, day out.

Trouble-free operations with maximum uptime
You can be assured that processes and equipment operate continuously without any unexpected interruptions, maximizing both production capacity and productivity. Robust design, reliable components, low parts count and built-in condition monitoring all ensure that the drive runs smoother for longer.

Easy service and maintenance
The ACS8080 provides easy front access to the drive's components for simplified service and parts replacement. Additionally, the drive's best in class built-in advanced sensing solution allows for early malfunction prediction and adaption of the maintenance plans to the actual aging of the equipment.

Rigorously tested
The ACS8080 undergoes extensive lifetime testing to ensure product quality and durability, delivering unmatched reliability for peace of mind. Every drive endures a load test before shipping to ensure the highest performance under 'real-life' operating conditions.



Key components

It's what's inside that counts



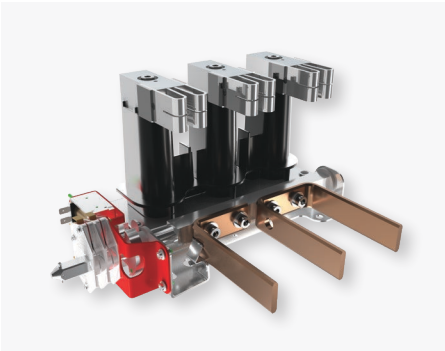
CONTROL PLATFORM (UCU)

The next-generation control platform, UCU, provides fast and efficient data processing, extending the digital capabilities of the drive. It features a multicore processor with state-of-the-art memory architecture and an extensive onboard I/O interface. The UCU also includes three slots for optional I/O extensions, encoder interfaces, or fieldbus adapters, and a fourth slot for a fibre optic DDCS communication option module. Additionally, the Crealizer™ feature allows sophisticated programs to be designed and executed without the need for an external controller.



POWER MODULES

Newly designed power module features 3L-ANPC topology with HV-IGBTs, modular construction for scalability, integrated supervision, and easy maintenance. It features individual di/dt clamps for higher control flexibility. Only two frame sizes of the power module for the whole ACS8080 drives family simplifies the spare parts management.



DC LINK GROUNDING SWITCH

Ensures operator safety by grounding the DC link without requiring any power electronic sections to be opened. The electromechanically interlocked grounding switch adds an additional layer of protection by preventing closure when the DC-link capacitors are still charged. Furthermore, the main power supply remains interlocked until the switch is securely in the open position, ensuring optimal safety and operational integrity, which is visually recognizable.

Unmatched flexibility
Discover your perfect fit

Designed with flexibility in mind, the ACS8080 is built to provide the highest level of adaptability, meeting a wide variety of process, application, system, and environmental requirements.

The ACS8080 is designed to meet the unique demands of a wide variety of applications. Its modular design ensures effortless adaptation across industries, with technologies that enhance control, boost productivity, and simplify maintenance.

Supply-side and motor-side configuration possibilities
The ACS8080 integrates seamlessly with new and existing set-ups, offering diverse supply-side configurations. Motor-side compatibility for both single- or multi-motor configurations and AM, SM, or PMM motor types enables versatile use across applications, simplifying operation and maintenance.

Active front end drive technologies
The active front end (AFE) supply option enhances both process control and productivity thanks to energy regeneration capabilities. It also provides compliance with specific grid codes ensuring that the drive can be seamlessly connected to the power supply.



—
Drive with integrated transformer and two power units



—
Drive with external transformer and one power unit



—
Crealizer™ enables application-specific programming

Crealizer™
New open software platform integrated into ABB drives operating system to empower our customers to create, validate and realize customized solutions specific to the needs of their business.
ABB Crealizer™ allows to adopt more easily with a new creative and flexible solution. It provides shorter time to market, lower system cost, risk reduction, co-creation with ecosystem and guarantees equipment and data security by authentication of the signed app.

Enhanced performance
Redefine your industry potential

ACS8080 medium voltage drives adapt to diverse performance demands, supporting business growth and productivity.



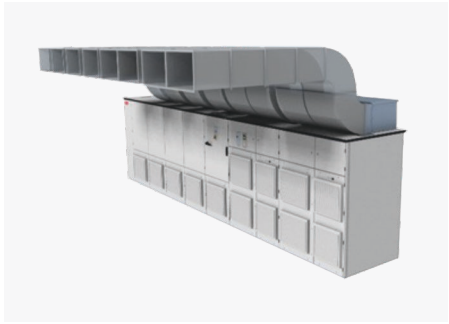
Achieving peak performance requires cutting-edge innovation, and ACS8080 delivers exactly that. By fully leveraging power electronics capabilities, system efficiency is enhanced, providing maximum output while minimizing energy losses. Combined with a next generation control platform (UCU), the drives set the standard for performance across applications.

Advanced motor control technology
The ACS8080 is equipped with the latest and most advanced motor control technology – Model Predictive Pulse Pattern Control (MP^{3}C), ensuring efficient, precise and reliable process control in all industrial applications.

External transformer configuration
By using an external transformer, the heat generated by the transformer is kept outside the e-room. This reduces the load on the air conditioning system, leading to smaller cooling requirements and resulting in significant energy savings.

Smart cooling solutions
The ACS8080 can be integrated with most common cooling solutions, allowing energy savings on e-room air conditioning. Various air inlet and outlet setups are possible, with the option to connect the air outlet to a duct to remove hot air from the e-room. For installation in harsh environments, drives can be equipped with an optional heat exchanger.

Smart cooling solutions for easy integration with different cooling setups



—
Front air duct



—
Rear air duct



—
Heat exchanger

Uncompromised safety
Highest level of protection

The ACS8080 is designed with advanced safety features to ensure reliable performance and protect both your personnel and equipment during operation.

Engineered with a strong emphasis on safety, the ACS8080 is designed with features to ensure reliable and secure operation across diverse environments. Built with advanced technology and adherence to global safety standards, the drive offers comprehensive protection for your users and equipment alike.

Arc resistant design
Protection based on arc prevention and fast arc elimination ensures that the ACS8080 offers exceptionally high levels of safety for personnel. In the unlikely event of an arc, the system eliminates it rapidly, keeping equipment undamaged and allowing for immediate restart after inspection and elimination of the arc ignition cause. For even faster system reaction, an optical arc fault sensing technology is available.

DC link grounding switch
The integrated DC link grounding switch safely shortens and grounds the drive's DC bus without the need to open any power electronic section, minimizing operator risk.

Robust cybersecurity
The ACS8080 prioritizes cybersecurity with robust protection against unauthorized access, data breaches, and cyberattacks, offering users a reliable and secure operational environment.

Functional safety features
The ACS8080 offers a range of functional safety features designed to protect both personnel and equipment. These features include emergency off (EOFF), emergency stop (ESTOP) and safe torque off (STO).



Services
ABB Motion Services

ABB Motion Services helps customers around the globe by maximizing uptime, extending product life cycle, and enhancing the performance and energy efficiency of electrical motion solutions. We enable innovation and success through digitalization by securely connecting and monitoring our customers' motors and drives, increasing operational uptime, and improving efficiency. We make the difference for our customers and partners every day by keeping their operations running profitably, safely and reliably.

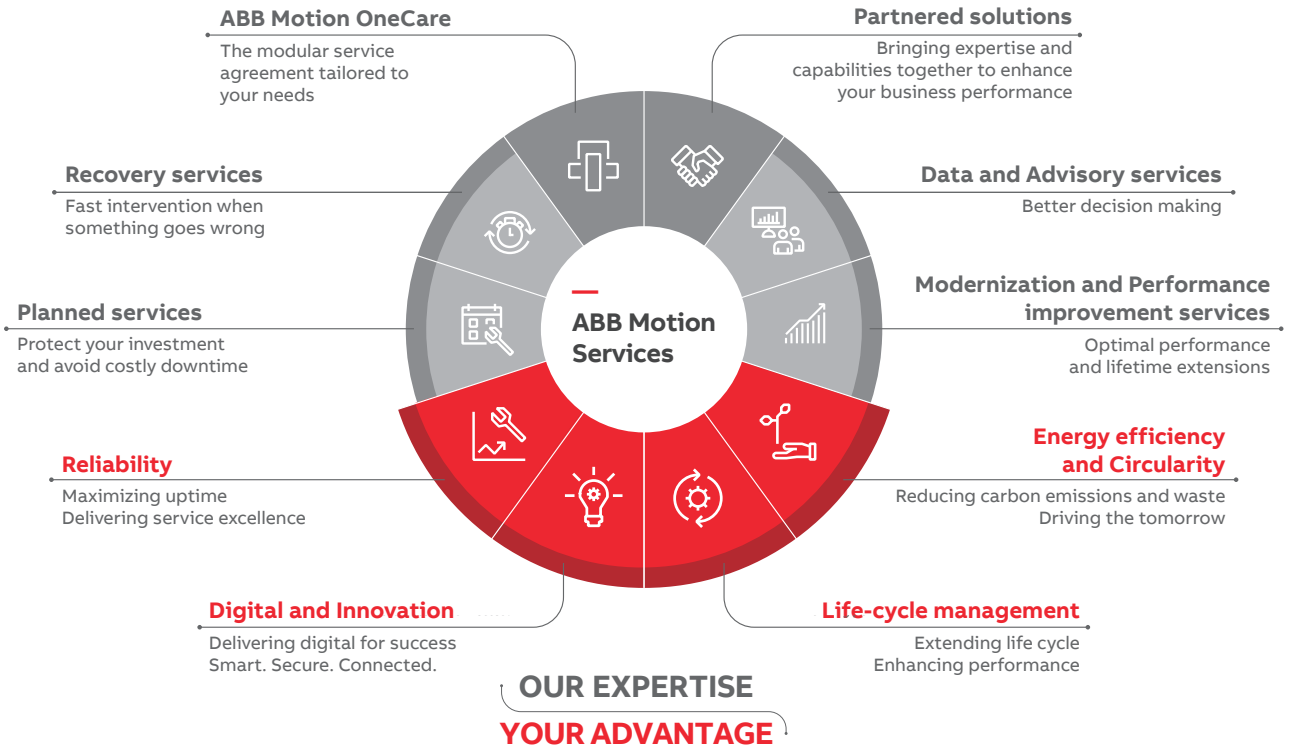


ABB Ability™ Condition Monitoring for powertrains

Stay one step ahead with accurate, real-time information

ABB Ability™ Condition Monitoring for powertrains gives you self-service access to the ABB Ability™ Digital Powertrain portal. It provides real-time, fact-based insight into your powertrain assets, such as drives and motors to identify irregularities before they become problems. This helps you make proactive decisions, built on real-time information.

Tailor it to fit your needs
Our standard package gives you industry leading monitoring capabilities – whether you want to view the drive status through ABB's Internet portal or integrate this data into your own systems.

Solid fact-based decision making
Get the facts, and the history, to help run your operations better and more safely.

Stay one step ahead of problems
Recognize early signs of possible failures and assess the risks, before they turn into serious operational issues.

Find the root cause of process issues
Remotely access data from ABB drives built-in sensors to track the cause of problems. Get back to smooth operation quickly with data back-ups.

Remotely analyze and optimize drives
Get critical drive information anywhere any-time – even in difficult to access sites, or when a site visit is impossible.

The standard package for the ACS8080 includes the following features:

- **Self-service condition monitoring**
- **Alarm Management**
- **Asset Health**
- **Team Support**
- **Backup Management**
- **Offline Data Collection**
- **Expert Reports**

The standard package can be supplemented with optional services, such as:

- **Monitoring Service (ABB expert monitors your drivetrains for you)**
- **Plug & Play Connectivity**



Ratings, types, and voltages

DFEe with external transformer

Drive input voltage 4 x 2.3 kV (3-phase)

Motor data				Converter data				
Light overload use								
Motor nominal voltage: 4160 V, Converter rated system voltage: 4160 V								
P_{Ld} (hp)	P_{Ld} (kW)	I_{Ld} (A)	Type code	Width (mm / in)	Depth (mm / in)	Height (mm / in)	Weight (kg / lb)	Frame layout
400	300	51	ACS8080-041-A01A-E4-111A	1830 / 72	1200 / 47	2450 / 96	1935 / 4265	D01 + F11
500	375	64	ACS8080-041-A01B-E4-111B	1830 / 72	1200 / 47	2450 / 96	1935 / 4265	D01 + F11
600	445	76	ACS8080-041-A01C-E4-111C	1830 / 72	1200 / 47	2450 / 96	1935 / 4265	D01 + F11
700	520	89	ACS8080-041-A01D-E4-111D	1830 / 72	1200 / 47	2450 / 96	1935 / 4265	D01 + F11
800	595	102	ACS8080-041-A01E-E4-111E	1830 / 72	1200 / 47	2450 / 96	1935 / 4265	D01 + F11
900	670	115	ACS8080-041-A01F-E4-111F	1830 / 72	1200 / 47	2450 / 96	1935 / 4265	D01 + F11
1000	745	127	ACS8080-041-A01G-E4-111G	1830 / 72	1200 / 47	2450 / 96	1935 / 4265	D01 + F11
1250	935	159	ACS8080-041-A01H-E4-111H	1830 / 72	1200 / 47	2450 / 96	1935 / 4265	D01 + F11
1500	1120	191	ACS8080-041-A01J-E4-111J	1830 / 72	1200 / 47	2450 / 96	1935 / 4265	D01 + F11
1750	1305	223	ACS8080-041-A03B-E4-112A	2630 / 103	1200 / 47	2450 / 96	2660 / 5864	D02 + F12
2000	1490	255	ACS8080-041-A03C-E4-112B	2630 / 103	1200 / 47	2450 / 96	2660 / 5864	D02 + F12
2250	1680	287	ACS8080-041-A03D-E4-112C	2630 / 103	1200 / 47	2450 / 96	2660 / 5864	D02 + F12
2500	1865	319	ACS8080-041-A03E-E4-112D	2630 / 103	1200 / 47	2450 / 96	2660 / 5864	D02 + F12
2750	2050	350	ACS8080-041-A03F-E4-112E	2630 / 103	1200 / 47	2450 / 96	2660 / 5864	D02 + F12
3000	2240	382	ACS8080-041-A03G-E4-112F	2630 / 103	1200 / 47	2450 / 96	2660 / 5864	D02 + F12
3500	2610	446	ACS8080-041-A03H-E4-122A	4030 / 158	1200 / 47	2450 / 96	4440 / 9789	D02 + F22
4000	2985	510	ACS8080-041-A03J-E4-122B	4030 / 158	1200 / 47	2450 / 96	4440 / 9789	D02 + F22
4500	3360	573	ACS8080-041-A03K-E4-122C	4030 / 158	1200 / 47	2450 / 96	4440 / 9789	D02 + F22
5000	3730	637	ACS8080-041-A03L-E4-122D	4030 / 158	1200 / 47	2450 / 96	4440 / 9789	D02 + F22
5500	4105	701	ACS8080-041-A03M-E4-122E	4030 / 158	1200 / 47	2450 / 96	4440 / 9789	D02 + F22
6000*	4480	764	ACS8080-041-A03N-E4-122F	4030 / 158	1200 / 47	2450 / 96	4440 / 9789	D02 + F22

* - no overload possible

Light overload use	
P_{Ld}	Typical motor power and it is based on motor with 0.85 power factor and 0.956 efficiency at full load
I_{Ld}	Continuous current allowing 110% I_{Ld} overload for 1 minute every 10 minutes

- The ratings apply at 40 °C (104 °F) ambient temperature and up to 1000 m (3281 ft) above sea level of installation
- For higher temperature (max. 55 °C/131 °F) and/or altitude (max. 4000 m/ 13123 ft) deratings applies
- Arc mitigation by protection firing and ultra fast earthing switch (UFES)
- UL certified
- Sine filter on output included (option: +MFL0001). Max. output frequency: 66 Hz
- For negative voltage tolerance possible de-rating of the shaft power is acceptable

Ratings, types, and voltages

DFEe with external transformer

Drive input voltage 2 x 2.3 kV (3-phase)

Table for 12-pulse systems.

Motor data				Converter data				
Light overload use								
Motor nominal voltage: 4160 V, Converter rated system voltage: 4160 V								
P_{Ld} (hp)	P_{Ld} (kW)	I_{Ld} (A)	Type code	Width (mm / in)	Depth (mm / in)	Height (mm / in)	Weight (kg / lb)	Frame layout
400	300	51	ACS8080-041-A03B-E2-111A	2230 / 88	1200 / 47	2450 / 96	2080 / 4586	D02 + F11
500	375	64	ACS8080-041-A03B-E2-111B	2230 / 88	1200 / 47	2450 / 96	2080 / 4586	D02 + F11
600	445	76	ACS8080-041-A03B-E2-111C	2230 / 88	1200 / 47	2450 / 96	2080 / 4586	D02 + F11
700	520	89	ACS8080-041-A03B-E2-111D	2230 / 88	1200 / 47	2450 / 96	2080 / 4586	D02 + F11
800	595	102	ACS8080-041-A03B-E2-111E	2230 / 88	1200 / 47	2450 / 96	2080 / 4586	D02 + F11
900	670	115	ACS8080-041-A03B-E2-111F	2230 / 88	1200 / 47	2450 / 96	2080 / 4586	D02 + F11
1000	745	127	ACS8080-041-A03B-E2-111G	2230 / 88	1200 / 47	2450 / 96	2080 / 4586	D02 + F11
1250	935	159	ACS8080-041-A03B-E2-111H	2230 / 88	1200 / 47	2450 / 96	2080 / 4586	D02 + F11
1500	1120	191	ACS8080-041-A03B-E2-111J	2230 / 88	1200 / 47	2450 / 96	2080 / 4586	D02 + F11
1750	1305	223	ACS8080-041-A03B-E2-112A	2630 / 103	1200 / 47	2450 / 96	2660 / 5864	D02 + F12
2000	1490	255	ACS8080-041-A03C-E2-112B	2630 / 103	1200 / 47	2450 / 96	2660 / 5864	D02 + F12
2250	1680	287	ACS8080-041-A03D-E2-112C	2630 / 103	1200 / 47	2450 / 96	2660 / 5864	D02 + F12
2500	1865	319	ACS8080-041-A03E-E2-112D	2630 / 103	1200 / 47	2450 / 96	2660 / 5864	D02 + F12
2750	2050	350	ACS8080-041-A03F-E2-112E	2630 / 103	1200 / 47	2450 / 96	2660 / 5864	D02 + F12
3000	2240	382	ACS8080-041-A03G-E2-112F	2630 / 103	1200 / 47	2450 / 96	2660 / 5864	D02 + F12
3500	2610	446	ACS8080-041-A03H-E2-122A	4030 / 158	1200 / 47	2450 / 96	4440 / 9789	D02 + F22
4000	2985	510	ACS8080-041-A03J-E2-122B	4030 / 158	1200 / 47	2450 / 96	4440 / 9789	D02 + F22
4500	3360	573	ACS8080-041-A03K-E2-122C	4030 / 158	1200 / 47	2450 / 96	4440 / 9789	D02 + F22
5000	3730	637	ACS8080-041-A03L-E2-122D	4030 / 158	1200 / 47	2450 / 96	4440 / 9789	D02 + F22
5500	4105	701	ACS8080-041-A03M-E2-122E	4030 / 158	1200 / 47	2450 / 96	4440 / 9789	D02 + F22
6000*	4480	764	ACS8080-041-A03N-E2-122F	4030 / 158	1200 / 47	2450 / 96	4440 / 9789	D02 + F22

* - no overload possible

Light overload use	
P_{Ld}	Typical motor power and it is based on motor with 0.85 power factor and 0.956 efficiency at full load
I_{Ld}	Continuous current allowing 110% I_{Ld} overload for 1 minute every 10 minutes

- The ratings apply at 40 °C (104 °F) ambient temperature and up to 1000 m (3281 ft) above sea level of installation
- For higher temperature (max. 55 °C/131 °F) and/or altitude (max. 4000 m/ 13123 ft) deratings applies
- Arc mitigation by protection firing and ultra fast earthing switch (UFES)
- UL certified
- Sine filter on output included (option: +MFL0001). Max. output frequency: 66 Hz
- For negative voltage tolerance possible de-rating of the shaft power is acceptable

Ratings, types, and voltages

DFEi with integrated transformer
Drive input voltage 4.16 kV (3-phase)

Motor data			Converter data				
Light overload use							
Motor nominal voltage: 4160 V, Converter rated system voltage: 4160 V							
P_{Ld} (hp)	P_{Ld} (kW)	I_{Ld} (A)	Type code	Width (mm / in)	Depth (mm / in)	Height (mm / in)	Weight (kg / lb)	Frame layout
400	300	51	ACS8080-041-A01A-J4-111A	3230 / 127	1300 / 51	2459 / 96	6280 / 13845	B01 + F11
500	375	64	ACS8080-041-A01B-J4-111B	3230 / 127	1300 / 51	2459 / 96	6280 / 13845	B01 + F11
600	445	76	ACS8080-041-A01C-J4-111C	3230 / 127	1300 / 51	2459 / 96	6280 / 13845	B01 + F11
700	520	89	ACS8080-041-A01D-J4-111D	3230 / 127	1300 / 51	2459 / 96	6280 / 13845	B01 + F11
800	595	102	ACS8080-041-A01E-J4-111E	3230 / 127	1300 / 51	2459 / 96	6280 / 13845	B01 + F11
900	670	115	ACS8080-041-A01F-J4-111F	3230 / 127	1300 / 51	2459 / 96	6280 / 13845	B01 + F11
1000	745	127	ACS8080-041-A01G-J4-111G	3230 / 127	1300 / 51	2459 / 96	6280 / 13845	B01 + F11
1250	935	159	ACS8080-041-A01H-J4-111H	3230 / 127	1300 / 51	2459 / 96	6280 / 13845	B01 + F11
1500	1120	191	ACS8080-041-A01J-J4-111J	3230 / 127	1300 / 51	2459 / 96	6280 / 13845	B01 + F11
1750	1305	223	ACS8080-041-A01K-J4-112A	3630 / 142	1300 / 51	2459 / 96	6860 / 15124	B01 + F12
2000	1490	255	ACS8080-041-A01L-J4-112B	3630 / 142	1300 / 51	2459 / 96	6860 / 15124	B01 + F12
2250	1680	287	ACS8080-041-A01M-J4-112C	3630 / 142	1300 / 51	2459 / 96	6860 / 15124	B01 + F12
2500	1865	319	ACS8080-041-A01N-J4-112D	3630 / 142	1300 / 51	2459 / 96	6860 / 15124	B01 + F12
2750	2050	350	ACS8080-041-A01P-J4-112E	3630 / 142	1300 / 51	2459 / 96	6860 / 15124	B01 + F12
3000	2240	382	ACS8080-041-A01Q-J4-112F	3630 / 142	1300 / 51	2459 / 96	6860 / 15124	B01 + F12
3500	2610	446	ACS8080-041-A03H-J4-122A	6830 / 268	1300 / 51	2459 / 96	9283 / 20466	B03 + F22
4000	2985	510	ACS8080-041-A03J-J4-122B	6830 / 268	1300 / 51	2459 / 96	11000 / 24251	B03 + F22
4500	3360	573	ACS8080-041-A03K-J4-122C	6830 / 268	1300 / 51	2459 / 96	11000 / 24251	B03 + F22
5000	3730	637	ACS8080-041-A03L-J4-122D	6830 / 268	1300 / 51	2459 / 96	11000 / 24251	B03 + F22
5500	4105	701	ACS8080-041-A03M-J4-122E	6830 / 268	1300 / 51	2459 / 96	11000 / 24251	B03 + F22
6000*	4480	764	ACS8080-041-A03N-J4-122F	6830 / 268	1300 / 51	2459 / 96	11000 / 24251	B03 + F22

* - no overload possible

Light overload use	
P_{Ld}	Typical motor power and it is based on motor with 0.85 power factor and 0.956 efficiency at full load
I_{Ld}	Continuous current allowing 110% I_{Ld} overload for 1 minute every 10 minutes

- The ratings apply at 40 °C (104 °F) ambient temperature and up to 1000 m (3281 ft) above sea level of installation
- For higher temperature (max. 55 °C/131 °F) and/or altitude (max. 4000 m/ 13123 ft) deratings applies
- Arc mitigation by protection firing and ultra fast earthing switch (UFES)
- UL certified
- Sine filter on output included (option: +MFL0001). Max. output frequency: 66 Hz
- For negative voltage tolerance possible de-rating of the shaft power is acceptable

Ratings, types, and voltages

DFEi with integrated transformer
Drive input voltage 13.8 kV (3-phase)

Motor data				Converter data				
Light overload use								
Motor nominal voltage: 4160 V, Converter rated system voltage: 4160 V								
P_{Ld} (hp)	P_{Ld} (kW)	I_{Ld} (A)	Type code	Width (mm / in)	Depth (mm / in)	Height (mm / in)	Weight (kg / lb)	Frame layout
400	300	51	ACS8080-041-A01A-J4-111A	3630 / 142	1300 / 51	2459 / 96	6500 / 14330	B02 + F11
500	375	64	ACS8080-041-A01B-J4-111B	3630 / 142	1300 / 51	2459 / 96	6500 / 14330	B02 + F11
600	445	76	ACS8080-041-A01C-J4-111C	3630 / 142	1300 / 51	2459 / 96	6500 / 14330	B02 + F11
700	520	89	ACS8080-041-A01D-J4-111D	3630 / 142	1300 / 51	2459 / 96	6500 / 14330	B02 + F11
800	595	102	ACS8080-041-A01E-J4-111E	3630 / 142	1300 / 51	2459 / 96	6500 / 14330	B02 + F11
900	670	115	ACS8080-041-A01F-J4-111F	3630 / 142	1300 / 51	2459 / 96	6500 / 14330	B02 + F11
1000	745	127	ACS8080-041-A01G-J4-111G	3630 / 142	1300 / 51	2459 / 96	6500 / 14330	B02 + F11
1250	935	159	ACS8080-041-A01H-J4-111H	3630 / 142	1300 / 51	2459 / 96	6500 / 14330	B02 + F11
1500	1120	191	ACS8080-041-A01J-J4-111J	3630 / 142	1300 / 51	2459 / 96	6500 / 14330	B02 + F11
1750	1305	223	ACS8080-041-A01K-J4-112A	4030 / 158	1300 / 51	2759 / 96	7080 / 15609	B02 + F12
2000	1490	255	ACS8080-041-A03C-J4-112B	4830 / 190	1300 / 51	2759 / 96	9480 / 20900	B03 + F12
2250	1680	287	ACS8080-041-A03D-J4-112C	4830 / 190	1300 / 51	2759 / 96	9480 / 20900	B03 + F12
2500	1865	319	ACS8080-041-A03E-J4-112D	4830 / 190	1300 / 51	2759 / 96	9480 / 20900	B03 + F12
2750	2050	350	ACS8080-041-A03F-J4-112E	5430 / 213	1300 / 51	2759 / 96	11220 / 24736	B03 + F12
3000	2240	382	ACS8080-041-A03G-J4-112F	5430 / 213	1300 / 51	2759 / 96	11220 / 24736	B03 + F12
3500	2610	446	ACS8080-041-A03H-J4-122A	6830 / 268	1300 / 51	2759 / 96	13000 / 28660	B03 + F22
4000	2985	510	ACS8080-041-A03J-J4-122B	6830 / 268	1300 / 51	2759 / 96	13000 / 28660	B03 + F22
4500	3360	573	ACS8080-041-A03K-J4-122C	6830 / 268	1300 / 51	2759 / 96	13000 / 28660	B03 + F22
5000	3730	637	ACS8080-041-A03L-J4-122D	6830 / 268	1300 / 51	2759 / 96	13000 / 28660	B03 + F22
5500	4105	701	ACS8080-041-A03M-J4-122E	6830 / 268	1300 / 51	2759 / 96	13000 / 28660	B03 + F22
6000*	4480	764	ACS8080-041-A03N-J4-122F	6830 / 268	1300 / 51	2759 / 96	13000 / 28660	B03 + F22

* - no overload possible

Light overload use	
P_{Ld}	Typical motor power and it is based on motor with 0.85 power factor and 0.956 efficiency at full load
I_{Ld}	Continuous current allowing 110% I_{Ld} overload for 1 minute every 10 minutes

- The ratings apply at 40 °C (104 °F) ambient temperature and up to 1000 m (3281 ft) above sea level of installation
- For higher temperature (max. 55 °C/131 °F) and/or altitude (max. 4000 m/ 13123 ft) deratings applies
- Arc mitigation by protection firing and ultra fast earthing switch (UFES)
- UL certified
- Sine filter on output included (option: +MFL0001). Max. output frequency: 66 Hz
- For negative voltage tolerance possible de-rating of the shaft power is acceptable

Ratings, types, and voltages

DFEe with external transformer

Drive input voltage 4 x 0.95 / 1.93 kV (3-phase)

A01 rectifier requires 950 V, A03 rectifier requires 1930 V.

Motor data				Converter data				
Light overload use								
Motor nominal voltage: 3300 V, Converter rated system voltage: 3300 V								
P_{Ld} (hp)	P_{Ld} (kW)	I_{Ld} (A)	Type code	Width (mm / in)	Depth (mm / in)	Height (mm / in)	Weight (kg / lb)	Frame layout
320	240	52	ACS8080-033-A01A-E4-111A	1830 / 72	1200 / 47	2450 / 96	1935 / 4265	D01 + F11
400	300	65	ACS8080-033-A01B-E4-111B	1830 / 72	1200 / 47	2450 / 96	1935 / 4265	D01 + F11
470	350	75	ACS8080-033-A01C-E4-111C	1830 / 72	1200 / 47	2450 / 96	1935 / 4265	D01 + F11
555	415	89	ACS8080-033-A01D-E4-111D	1830 / 72	1200 / 47	2450 / 96	1935 / 4265	D01 + F11
635	475	102	ACS8080-033-A01E-E4-111E	1830 / 72	1200 / 47	2450 / 96	1935 / 4265	D01 + F11
715	535	115	ACS8080-033-A01F-E4-111F	1830 / 72	1200 / 47	2450 / 96	1935 / 4265	D01 + F11
790	590	127	ACS8080-033-A01G-E4-111G	1830 / 72	1200 / 47	2450 / 96	1935 / 4265	D01 + F11
990	740	159	ACS8080-033-A01H-E4-111H	1830 / 72	1200 / 47	2450 / 96	1935 / 4265	D01 + F11
1190	890	192	ACS8080-033-A01J-E4-111J	1830 / 72	1200 / 47	2450 / 96	1935 / 4265	D01 + F11
1295	965	208	ACS8080-033-A01J-E4-112A	2230 / 87	1200 / 47	2450 / 96	2515 / 5545	D01 + F12
1580	1180	254	ACS8080-033-A03B-E4-112B	2630 / 103	1200 / 47	2450 / 96	2660 / 5864	D02 + F12
1785	1330	286	ACS8080-033-A03C-E4-112C	2630 / 103	1200 / 47	2450 / 96	2660 / 5864	D02 + F12
1985	1480	319	ACS8080-033-A03D-E4-112D	2630 / 103	1200 / 47	2450 / 96	2660 / 5864	D02 + F12
2185	1630	351	ACS8080-033-A03E-E4-112E	2630 / 103	1200 / 47	2450 / 96	2660 / 5864	D02 + F12
2470	1840	396	ACS8080-033-A03F-E4-112F	2630 / 103	1200 / 47	2450 / 96	2660 / 5864	D02 + F12
2750	2050	441	ACS8080-033-A03H-E4-122A	4030 / 158	1200 / 47	2450 / 96	4440 / 9789	D02 + F22
3165	2360	508	ACS8080-033-A03H-E4-122B	4030 / 158	1200 / 47	2450 / 96	4440 / 9789	D02 + F22
3565	2660	573	ACS8080-033-A03J-E4-122C	4030 / 158	1200 / 47	2450 / 96	4440 / 9789	D02 + F22
3970	2960	637	ACS8080-033-A03K-E4-122D	4030 / 158	1200 / 47	2450 / 96	4440 / 9789	D02 + F22
4360	3250	700	ACS8080-033-A03L-E4-122E	4030 / 158	1200 / 47	2450 / 96	4440 / 9789	D02 + F22
4545	3390	730	ACS8080-033-A03L-E4-122F	4030 / 158	1200 / 47	2450 / 96	4440 / 9789	D02 + F22

Light overload use	
P_{Ld}	Typical motor power and it is based on motor with 0.85 power factor and 0.956 efficiency at full load
I_{Ld}	Continuous current allowing 110% I_{Ld} overload for 1 minute every 10 minutes

- The ratings apply at 40 °C (104 °F) ambient temperature and up to 1000 m (3281 ft) above sea level of installation
- For higher temperature (max. 55 °C/131 °F) and/or altitude (max. 4000 m/ 13123 ft) deratings applies
- Arc mitigation by protection firing and ultra fast earthing switch (UFES)
- UL certified
- Sine filter on output included (option: +MFL0001). Max. output frequency: 66 Hz
- For negative voltage tolerance possible de-rating of the shaft power is acceptable

Ratings, types, and voltages

DFEe with external transformer
Drive input voltage 2 x 1.9 kV (3-phase)

Table for 12-pulse systems (possible reuse of external ACS1000 transformer)

Motor data				Converter data				
Light overload use								
Motor nominal voltage: 3300 V, Converter rated system voltage: 3300 V								
P_{Ld} (hp)	P_{Ld} (kW)	I_{Ld} (A)	Type code	Width (mm / in)	Depth (mm / in)	Height (mm / in)	Weight (kg / lb)	Frame layout
320	240	52	ACS8080-033-A03B-E2-111A	2230 / 88	1200 / 47	2450 / 96	2080 / 4586	D02 + F11
400	300	65	ACS8080-033-A03B-E2-111B	2230 / 88	1200 / 47	2450 / 96	2080 / 4586	D02 + F11
470	350	75	ACS8080-033-A03B-E2-111C	2230 / 88	1200 / 47	2450 / 96	2080 / 4586	D02 + F11
555	415	89	ACS8080-033-A03B-E2-111D	2230 / 88	1200 / 47	2450 / 96	2080 / 4586	D02 + F11
635	475	102	ACS8080-033-A03B-E2-111E	2230 / 88	1200 / 47	2450 / 96	2080 / 4586	D02 + F11
715	535	115	ACS8080-033-A03B-E2-111F	2230 / 88	1200 / 47	2450 / 96	2080 / 4586	D02 + F11
790	590	127	ACS8080-033-A03B-E2-111G	2230 / 88	1200 / 47	2450 / 96	2080 / 4586	D02 + F11
990	740	159	ACS8080-033-A03B-E2-111H	2230 / 88	1200 / 47	2450 / 96	2080 / 4586	D02 + F11
1190	890	192	ACS8080-033-A03B-E2-111J	2230 / 88	1200 / 47	2450 / 96	2080 / 4586	D02+ F11
1295	965	208	ACS8080-033-A03B-E2-112A	2630 / 103	1200 / 47	2450 / 96	2660 / 5864	D02 + F12
1580	1180	254	ACS8080-033-A03B-E2-112B	2630 / 103	1200 / 47	2450 / 96	2660 / 5864	D02 + F12
1785	1330	286	ACS8080-033-A03C-E2-112C	2630 / 103	1200 / 47	2450 / 96	2660 / 5864	D02 + F12
1985	1480	319	ACS8080-033-A03D-E2-112D	2630 / 103	1200 / 47	2450 / 96	2660 / 5864	D02 + F12
2185	1630	351	ACS8080-033-A03E-E2-112E	2630 / 103	1200 / 47	2450 / 96	2660 / 5864	D02 + F12
2470	1840	396	ACS8080-033-A03F-E2-112F	2630 / 103	1200 / 47	2450 / 96	2660 / 5864	D02 + F12
2750	2050	441	ACS8080-033-A03H-E2-122A	4030 / 158	1200 / 47	2450 / 96	4440 / 9789	D02 + F22
3165	2360	508	ACS8080-033-A03H-E2-122B	4030 / 158	1200 / 47	2450 / 96	4440 / 9789	D02 + F22
3565	2660	573	ACS8080-033-A03J-E2-122C	4030 / 158	1200 / 47	2450 / 96	4440 / 9789	D02 + F22
3970	2960	637	ACS8080-033-A03K-E2-122D	4030 / 158	1200 / 47	2450 / 96	4440 / 9789	D02 + F22
4360	3250	700	ACS8080-033-A03L-E2-122E	4030 / 158	1200 / 47	2450 / 96	4440 / 9789	D02 + F22
4545	3390	730	ACS8080-033-A03L-E2-122F	4030 / 158	1200 / 47	2450 / 96	4440 / 9789	D02 + F22

Light overload use	
P_{Ld}	Typical motor power and it is based on motor with 0.85 power factor and 0.956 efficiency at full load
I_{Ld}	Continuous current allowing 110% I_{Ld} overload for 1 minute every 10 minutes

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- Arc mitigation by protection firing and ultra fast earthing switch (UFES)
- UL certified
- Sine filter on output included (option: +MFL0001). Max. output frequency: 66 Hz
- For negative voltage tolerance possible de-rating of the shaft power is acceptable

Notes

For more information, please contact your local ABB representative or visit

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ACS8080 website

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9AKK108470A6070 REV G 072026