

CATALOG

# ABB industrial drives

ACS6080 drives

5 to 36 MW



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**The accomplished expert for heavy industries offers you unlimited possibilities of configurations to drive both single- and multi-motor applications. Industry-specific functions and unique features ensure reliable control of your processes and systems that require precision and high safety standards.**

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# Your right choice for high performance applications

The ACS6080 medium voltage drives are specifically suitable for your high power, low speed or special performance applications such as test stands, marine propulsion and thrusters, rolling mills, mine hoists, conveyors, SAG and ball mills.



## All-compatible user experience

The ACS6080 is part of ABB's all-compatible drives portfolio ensuring easy operation throughout your entire installation.

**See pages 6 and 7**

## High reliability through proven design

Reliability is ensured thanks to the simple and fuseless design of the ACS6080. A low parts count and proven components result in high uptime and a long lifetime of the drive. Availability is further increased with the drive's power loss ride-through function.

**See page 14**

## Flexibility for smooth integration

Thanks to the compact and modular design, the ACS6000 can be easily integrated into your systems. You can use the drive with one or several supply transformers and for applications with or without regeneration capability. A wide range of standardized options can be integrated into the drive.

**See page 15**

### Customized solutions thanks to modular design

Drives are built to order and can be configured for single and multi-motor, 2Q or 4Q applications. The engineered drives come with a wide range of customer-specific options and in a compact design. **See page 8 and 9**

### Highest level of personnel safety

The arc resistant design with fast arc elimination together with a wide range of functional safety features provide safety both for your personnel and processes. **See page 10**

### Increased productivity due to new motor control: the MP<sup>3</sup>C

This superior control combines the highest level of dynamic performance provided by ABB's direct torque control (DTC) with the robustness and power quality of predictive control. **See page 11**



### ABB Ability™ Condition Monitoring

You can greatly benefit from ABB's Ability™ Remote Condition Monitoring (RCM) service that make sure that you are always one step ahead with accurate, real-time information on the condition of your drive, even when it is installed in remote locations. **See page 29**

### Drive robustness for high availability

The robust ACS6080 effortlessly drives your high power applications and controls operations even in harsh environments using the IP54 solution. Special features such as automatic restart ensure high availability of your processes.

### Energy efficiency

The drive provides features such as an energy optimizer and energy efficiency information that help you monitor and save the energy used in the processes. **See page 7**

# What does all-compatible mean for you?

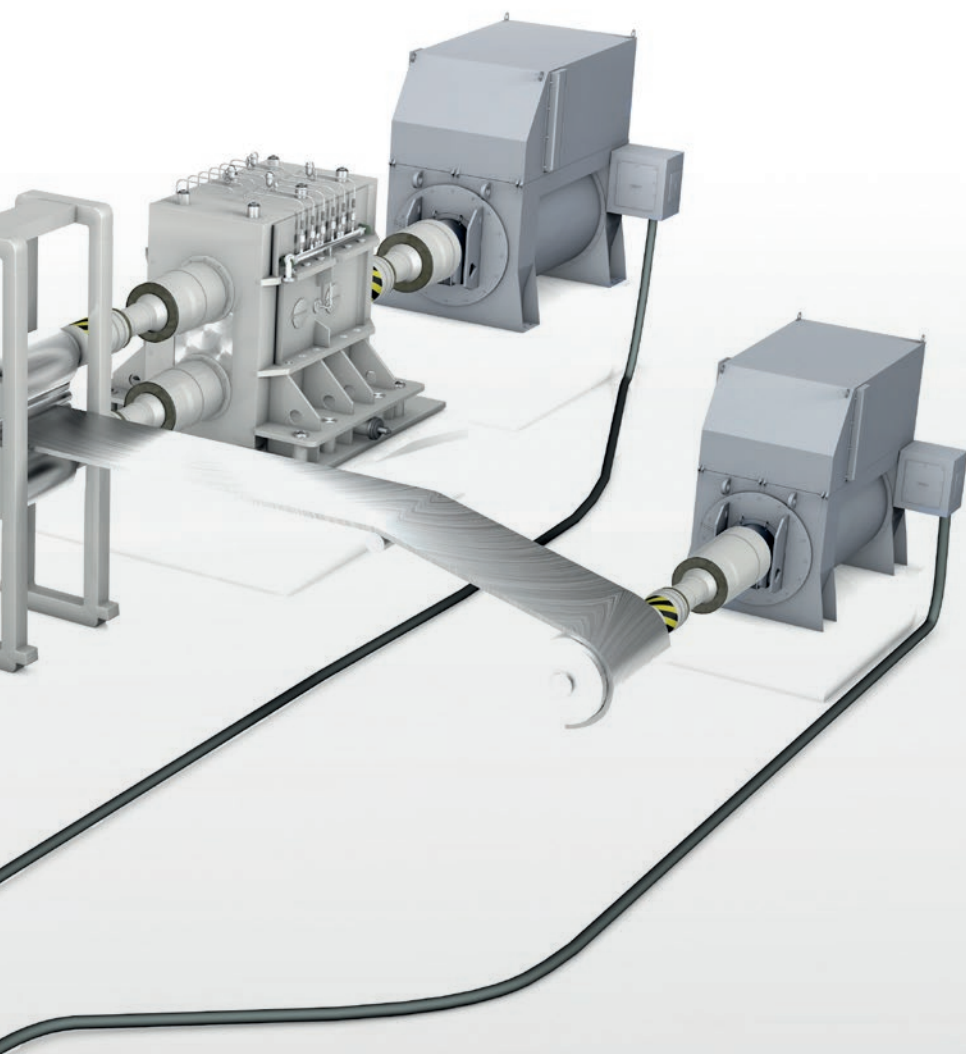


## Business all-compatible

The all-compatible drives are not just equipment – they are part of your business strategy. Providing better control over your processes, our drives mean lower energy consumption, improved productivity, flexibility and ease of use. In addition to drives, we offer a wide range of products and services to support your business. With offices in over 90 countries and a global technical partner network, we are in a good position to offer technical advice and local support, worldwide.

## Process all-compatible

The drives are compatible with all kinds of processes. They control virtually any type of AC motor, provide extensive input/output connectivity and support all major fieldbus protocols. The drives cover a wide voltage and power range. Control performance is scalable from basic to demanding applications, delivered by direct torque control (DTC) technology. The flexibility and scalability of the drives enable one drive platform to control virtually any application or process, making your drive selection easy.



### Environment all-compatible

There is increased demand for industries to reduce their impact on the environment. Our drives can help you reduce energy consumption in a wide range of applications. Thanks to multidrive operation, you will demand less power supply, thus lowering your energy bill. Our drives have an energy optimizer feature that ensures maximum torque per ampere, reducing energy drawn from the supply. We can also help you to investigate the energy-saving potential of your specific application.

### Human all-compatible

All our drives share easy-to-use interfaces, saving you time during drive commissioning and maintenance. When you have learned it once, you can use it with all the drives in our all-compatible drives portfolio.

The control panel supports over 20 languages. With the PC tool, you get extensive drive monitoring capabilities and quick access to the drive settings. Integrated and certified safety features provide safety for machine operators.

# Modularity and flexibility

Get a drive solution that meets the requirements of your application and ensures optimum performance of your operations. Benefit from the versatility of the ACS6080, taking your business forward with everything working like clockwork.

The ACS6080 medium voltage drive is all about modularity: it is built from a set of standardized modules that work seamlessly together depending on your exact requirements. It is an engineered drive, designed to meet the specific needs of your application and for easy integration into your processes and systems. The drive ensures a high, constant power factor with optional reactive power compensation and low network harmonics. The ACS6080 comes with a wide range of industry-specific options and is compliant with various industry-specific certifications (marine, off-shore, etc.).

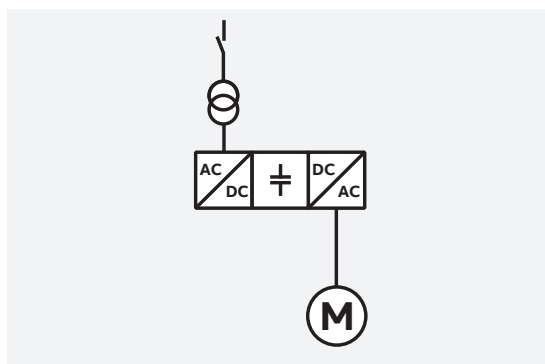
## Modular drive design

The modular product platform of the ACS6080 allows the optimum configuration of any drive system. The ACS6080 modules will be arranged according to the required output power, motor configuration and process needs. The use of well-proven modules minimizes the risk of design errors even when complex systems are engineered.

Depending on the application, three basic types of configurations are used.

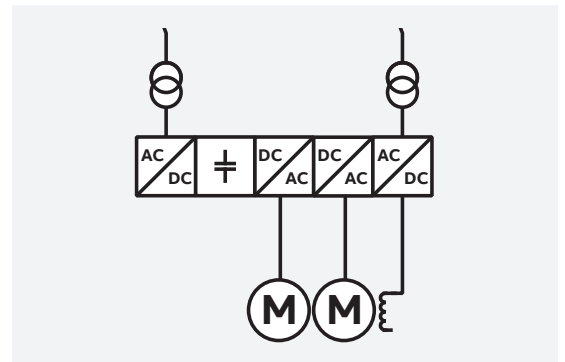
## Single-motor drive configurations

Single-motor configurations are commonly used in applications that require large, independent and decentralized drives. They are suitable for synchronous, induction and permanent magnet motors with passive or active front end.



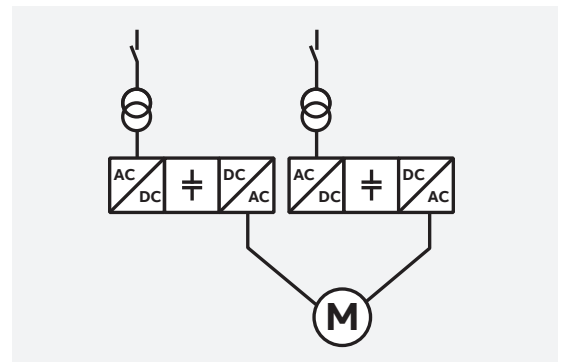
## Multi-motor drive configurations

Up to eight motors can be linked to a common DC bus, enabling multiple motor operation. Synchronous and/or induction motors, high or low power, any combination is possible in order to provide the optimum configuration with passive or active front end.



## Redundant drive configurations

Single drives can be configured to allow various schemes for redundancy for motors with two winding systems. This will increase the availability of your drive system.





# Perfect combination of standardized drive modules

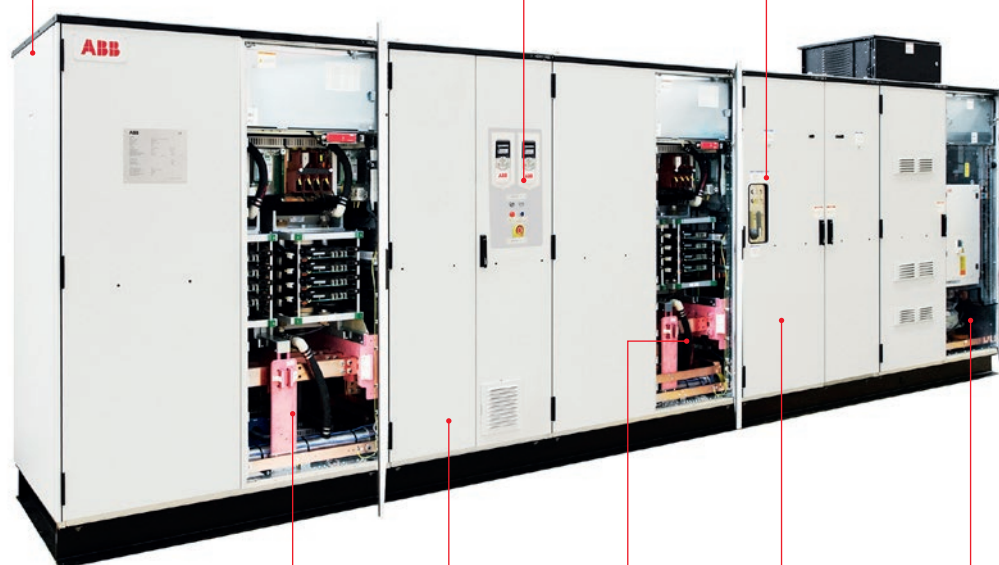
Cost and energy savings are possible with a water-cooled drive system that is configured to fully meet your needs.

EMC compliant cabinet for problem-free operation in electromagnetic environment

**User-friendly drive control panel for local operation**

- Keypad with multi-language display
- Main supply on/off pushbuttons
- Emergency off pushbutton

DC bus grounding switch and electromechanically interlocked doors of power sections for personal safety



**Active Rectifier Unit (ARU)**

Self-commutated, 6-pulse, 3-level voltage source inverter with IGCT technology

**Terminal Unit (TEU) and Control Unit (COU)**

Contains the power terminals and the control swing frame

**Capacitor Bank Unit (CBU)**

DC capacitors for smoothing the intermediate DC voltage

**Inverter unit (INU)**

Self-commutated, 6-pulse, 3-level voltage source inverter with IGCT technology

**Water Cooling Unit (WCU)**

Supplies deionized water for cooling the main power components

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# Highest safety for your people and equipment

Your people and goods are protected from electric arcs as the ACS6080 features an advanced arc resistant design. Certified functional safety features, an integrated DC grounding switch and door interlocking make your systems even safer and more reliable.

Electric arcs represent a hazard source for people and goods. For systems where large and dangerous arc fault currents can occur, special attention is required. Therefore, the ACS6080 comes with an arc proof design as a standard and is certified according to IAC (internal arc classification). The drives are equipped with optical sensors to detect the arc at its occurrence and ensure very fast elimination (less than 6ms) to protect people

and equipment, and avoid unnecessary production stops. An integrated grounding switch and door interlocking ensure the highest safety standards for your personnel. The ACS6080 is equipped with safety integrity level 3 (SIL3) and performance level e (PLe) certified functional safety features making your systems even safer and more reliable.



# New MP<sup>3</sup>C motor control

## No more compromise between dynamic and power quality

Achieving high dynamic performance and at the same time ensuring excellent power quality often requires scalable hardware. The increased component count can result in decreased reliability. The new ACS6080 overcomes this challenge by maintaining the same highly reliable hardware topology as its predecessor, while offering advanced control capability known as Model Predictive Pulse Pattern Control or MP<sup>3</sup>C.

ABB's breakthrough MP<sup>3</sup>C technology combines model predictive control with optimized pulse pattern to modulate the semiconductors. This means that at every point in time this control can

anticipate the best motor operation point by finding the perfect compromise between dynamics, efficiency and harmonic distortion.

## Reduced CAPEX and OPEX

At the bottom line, the ACS6080 with its new MP<sup>3</sup>C technology will provide you with lower initial investment costs and will allow you to optimize the costs for all elements including drive, motor and gearbox in your system. Over the long run, your operation will require lower running and maintenance costs due to the highly reliable control method and reduced harmonic distortions. This all will add up to reduced total cost of ownership.

## Added value thanks to MP<sup>3</sup>C control

Up to

**50%**  
reduction

of current distortion

Up to

**10%**  
increase

in output power  
with same hardware  
configuration

Up to

**50%**  
reduction

of switching frequency

Up to

**50%**  
increased

output speed (frequency range)

The new control allows you to achieve higher drive output powers, make use of smaller drive and motor frame sizes and increase the lifetime of the complete system by lowering stress on driven equipment. Thanks to lower losses in the drive and the motor, you will also greatly benefit from higher efficiencies of both the drive and the total system.

# Driving your high performance applications

With the ACS6080 you can control your high performance applications especially in the metals, marine and mining industries.



## Applications

### Cement, mining and minerals

Mine hoists, conveyors, crushers and mills

### Marine

Propulsion, thrusters, shaft generators, pumps and compressors

### Chemical, oil and gas

Pumps, compressors, extruders, mixers and blowers

### Other applications

Test stands, wind tunnels, grid simulators and shore-to-ship supplies

### Metals

Rolling mills, coilers, pumps and fans

### Power generation

Fans and pumps

### Water

Pumps



# Reliability at the core of your applications

Priority is given to envision the optimum variable speed drive (VSD) for any given application and to understand how the drive will perform over a period of time under certain conditions.

## Reliable, well-proven drive design

### Low parts count

The ACS6080 uses a power semiconductor known as IGCT (Integrated Gate Commutated Thyristor), which is an ideal switch for high-powered medium voltage applications. The use of IGCTs results in low parts count, providing an efficient and reliable drive.

### Fuseless design

The ACS6080 medium voltage drive is designed to operate safely without fuses, resulting in less spare parts and better overall reliability. This allows fast startup after safety interruptions.

## Encoderless

Encoders are known to cause failures due to their exposed position on the motor. ABB's ACS6080 medium voltage drive can operate without encoder, thereby reducing maintenance costs and ensuring high levels of availability.

## Advanced services for future diagnosis

New services such as remote condition monitoring delivers you accurate, real-time information about drive events to ensure your equipment is available, reliable and maintainable. Further, new smartphone applications will give you access to valuable data that help you optimize and maintain your variable speed drives.



# Flexible drive integration into your processes and systems

## Easier than you think

With its modular design, you can easily integrate the ACS6080 into any industrial environment. The drive can be optimally configured for single-motor and multi-motor applications without additional control equipment. The high power density, the compact footprint and the drive's communication abilities minimize the overall installation costs. You can select from our broad range of options to configure your system.

## Flexible network connections

The ACS6080 can be connected to the network through one or several transformers depending on process, power and harmonics requirements. Optionally, the integration of a harmonic filter is possible for weak networks.

## Power factor correction

The drive can also provide reactive power (VAR) compensation, controlling the voltage level to

stay within tight limits. A smooth network voltage profile can be maintained and reactive power penalties can be avoided.

## Control system

We offer an open communication concept, enabling connection to a Programmable Logic Controller (PLC) or a Distributed Control System (DCS). Fieldbus connectivity with a wide variety of protocols is available. The ACS6080 platform offers the possibility to monitor the transformers, as well as the motors with the drive's control system.

## Commissioning

You can benefit from the ACS6080s multidrive configuration as commissioning is much faster compared to using the equivalent number of single drives. Standardized parameter sets and trained, certified professionals are there to support you.



# More efficiency with motor-drive packages

## All in one package

Committed to supporting you in your business, we offer packaged drive solutions for applications in various industries. Customer-specific drive packages including medium voltage converters, motors and transformers can be developed as turnkey solutions meeting your individual requirements.

## Matched performance

To ensure design integrity and an optimum match of equipment, ABB products have undergone combined tests ensuring performance predictability for your application.

## Single point of contact

The combined power of the ABB offering is geared to deliver on customer expectations. We deliver motor-drive solutions that support your technical and commercial needs, from quotation, through delivery and service, over the entire product life-cycle.

## Converter motors

With ABB's motors for your applications you will benefit from high versatility, reliability and simplicity.

## Converter transformers

ABB offers converter transformers for all ratings, as well as for indoor or outdoor mounting. Particularly designed for operation with variable speed drives, the transformer adapts the converter to the supply network and provides a galvanic isolation between drive and supply network.





# Designed to control virtually any type of AC motor

Our ACS6080 drives control virtually any type of AC motor including induction, permanent magnet, and synchronous motors. Motor control is optimized with advanced direct torque control (DTC), ABB's premium motor control, built-in as a standard feature in our ACS6080 drives. Our robust drives ensure an energy efficient and reliable motor controller with significant cost savings for the user.

## ACS6080 and induction motors form a reliable combination

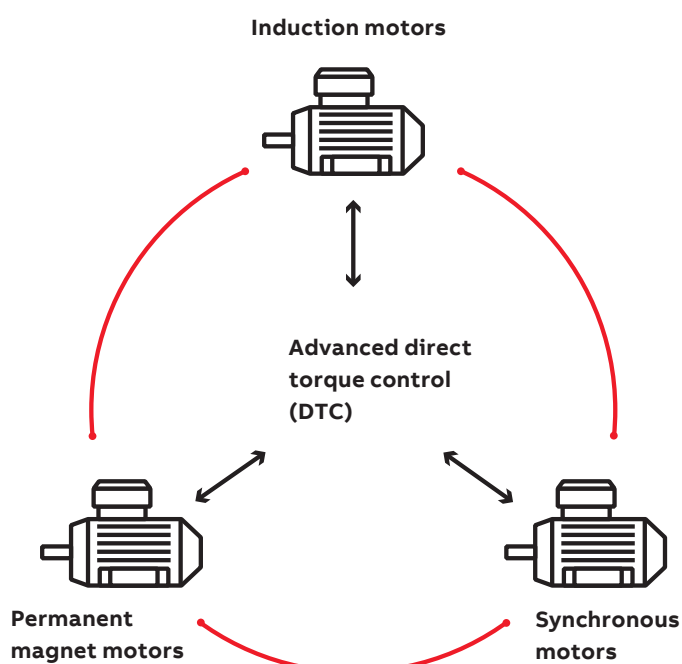
Induction motors are used throughout the industry in several types of industry applications which demand robust and high enclosure motor and drive solutions. The ACS6080 drives fit perfectly together with this type of motor, used in a wide range of industrial environments.

## ACS6080 and permanent magnet motors for smooth operation

Permanent magnet technology is often used for improved motor characteristics such as energy efficiency, compactness and control performance. This technology is suitable for low speed industry applications without gear boxes.

## ACS6080 and synchronous motors for higher efficiencies in industrial applications

Each synchronous motor has its own excitation unit. The excitation unit (EXU) supplies a synchronous motor with excitation power and is delivered as part of the ACS6080.



# Intuitive and user-friendly interface

The ACS6080 drive comes with the all-compatible user experience that is already familiar to you from ABB low voltage drives, ensuring easy operation throughout your entire installation.

The assistant control panel features intuitive use and easy navigation. High resolution display enables visual guidance. The panel saves on commissioning and learning time by means of different assistants, making the drive simple to set up and use.



It is possible to organize parameters in different ways and store essential parameters for different configurations for any specialized application needed. The menus and messages can be customized for specific terminology so that each application can be set up and configured to its optimum performance. This makes the drive easier to use with information that is familiar to users. With the panel's text editor, users can also add information, customize text and label the drive. Powerful backup and restore functions are supported as well as different language versions. The help key provides context sensitive guidance. Faults or warnings can be resolved quickly since the help key provides troubleshooting instructions.

One control panel can be connected to several drives simultaneously using the panel network feature. The user can also select the drive to operate in the panel network. The PC tool can be easily connected to the drive through the USB connector on the control panel.



**ABB**  
MV DRIVES

Montage und Prüfung  
Mittelspannungs-Antriebe  
Assemblierung und Test der  
Mittelspannungs-Antriebe

- Einbauelemente - Module
- Bauelemente
- Montagearbeiten
- Testarbeiten
- Montage der Mittelspannungs-Antriebe

## Technical data

<b>Input</b>	
Input configuration	6-, 12- or 24-pulse diode rectifier 6-, 12- or 18-pulse active rectifier
Input voltage	6-pulse diode rectifier: 3300V 12- and 24-pulse diode rectifier: 1725V 6-, 12- and 18-pulse active rectifier: 3160V
Input voltage variation	±10% without derating +15/-30% with derating
Input frequency	50/60Hz
Input frequency variation	±5%
Input power factor	Diode rectifier: >0.95 Active rectifier: standard 1.0, optionally controllable
Input harmonics	Compliance with IEC61000-2-4 and IEEE 519
Auxiliary voltage	Control (optional): 110, 220VDC or 110-240VAC 50/60Hz Auxiliary: 380-690VAC 50/60Hz, 3-phase
<b>Output</b>	
Output power	5000-36000kW
Output voltage	2.3-3.3kV
Output frequency	0-100Hz (higher on request)
Motor type	Induction, synchronous and permanent magnet
Efficiency of converter	>99%
<b>Mechanical</b>	
Enclosure	Standard: IP32 Optional: IP42, IP54
Cable entry	Top/bottom
<b>Environmental</b>	
Altitude	2000m.a.s.l. (higher with derating)
Ambient air temperature	+0-+40°C (lower and higher with derating)
External cooling water temperature	+5-+32°C (lower and higher with derating)
Noise	<75 dB (A)
Cooling type	Water
<b>Standards</b>	
	EN, IEC, CE, (optional CSA and all common marine standards)

## Ratings, types and voltages

Motor data Nominal rating			Converter data			
kW <sup>1</sup>	hp <sup>1</sup>	A	Type code	Power kVA	Length mm	Weight kg
<b>3300V – induction motors, single drive with diode front end</b>						
4300	5800	915	ACS6080-033-W-11A-E2-011-111A	5000	4900	4100
6000	8000	1300	ACS6080-033-W-12A-E2-011-112A	7000	4900	4300
7700	10300	1650	ACS6080-033-W-13A-E2-011-113A	9000	4900	4400
10000	13400	2150	ACS6080-033-W-14A-E2-011-115A	12000	6300	5300
12000	16100	2600	ACS6080-033-W-14A-E2-011-122A	14000	8600	7300
15400	20700	3300	ACS6080-033-W-23A-E4-011-123A	18000	9400	8100
20200	27100	4300	ACS6080-033-W-24A-E4-011-125A	24000	11800	9500
23200	31100	4950	ACS6080-033-W-24A-E4-011-123A	27000	13700	12600
<b>3300V – induction motors, single drive with active front end</b>						
4300	5800	915	ACS6080-033-W-11A-R1-011-111A	5000	5600	4900
6000	8000	1300	ACS6080-033-W-12A-R1-011-112A	7000	5600	5100
7700	10300	1650	ACS6080-033-W-13A-R1-011-113A	9000	5600	5200
10000	13400	2150	ACS6080-033-W-16A-R1-011-115A	12000	6000	5400
12000	16100	2600	ACS6080-033-W-22A-R2-011-122A	14000	10000	9500
15400	20700	3300	ACS6080-033-W-23A-R2-011-123A	18000	10400	10300
20200	27100	4300	ACS6080-033-W-26A-R2-011-125A	24000	11200	10700
23200	31100	4950	ACS6080-033-W-33A-R3-011-123A	27000	16600	14500
<b>3300V – synchronous motors, single drive with diode front end</b>						
4800	6400	915	ACS6080-033-W-11A-E2-011-111A	5000	5700	4500
6800	9100	1300	ACS6080-033-W-12A-E2-011-112A	7000	5700	4700
8700	11700	1650	ACS6080-033-W-13A-E2-011-113A	9000	5700	4800
11200	15000	2150	ACS6080-033-W-14A-E2-011-115A	12000	7100	5700
13600	18200	2600	ACS6080-033-W-14A-E2-011-122A	14000	9400	7700
17400	23300	3300	ACS6080-033-W-23A-E4-011-123A	18000	10200	8600
22400	30000	4300	ACS6080-033-W-24A-E4-011-125A	24000	10600	9900
26100	35000	4950	ACS6080-033-W-24A-E4-011-123A	27000	14500	13000
<b>3300V – synchronous motors, single drive with active front end</b>						
4800	6400	915	ACS6080-033-W-11A-R1-011-111A	5000	6400	5300
6800	9100	1300	ACS6080-033-W-12A-R1-011-112A	7000	6400	5500
8700	11700	1650	ACS6080-033-W-13A-R1-011-113A	9000	6400	5600
11200	15000	2150	ACS6080-033-W-16A-R1-011-115A	12000	6800	6000
13600	18200	2600	ACS6080-033-W-22A-R2-011-122A	14000	10800	9900
17400	23300	3300	ACS6080-033-W-23A-R2-011-123A	18000	11200	10700
22400	30000	4300	ACS6080-033-W-26A-R2-011-125A	24000	12000	11100
26100	35000	4950	ACS6080-033-W-33A-R3-011-123A	27000	17400	14900
<b>3300V – multidrive examples with diode front end</b>						
2×6000	2×8000	2×1300	ACS6080-033-W-22A-E4-021-112A-212A	14000	8600	7450
5×6000	5×8000	5×1300	ACS6080-033-W-24A-E4-051-112A-212A-312A-412A-512A	28000	18900	16050
<b>3300V – multidrive examples with active front end</b>						
2×22400	2×30000	2×4750	ACS6080-033-W-35A-R3-021-126A-226A	36000	23600	15850
2×6000	2×8000	2×1300	ACS6080-033-W-15A-R1-021-112A-212A	13000	9500	7950

### Notes:

<sup>1</sup> Indicative information: induction motor efficiency 97.5%, power factor 0.88; synchronous motor efficiency 97.5%, power factor 1.0.

### Dimensions:

Height: 2200mm cabinet height  
2500mm incl. cooling fans on top  
Depth: 1040mm

# Flexible connection to automation networks

Our fieldbus adapter modules enable communication between drives, systems, devices and software. Our industrial drives are compatible with a wide range of fieldbus protocols.

The plug-in fieldbus adapter module can easily be mounted inside the drive. Other benefits include reduced wiring costs when compared with traditional input/output connections. Fieldbus systems are also less complex than conventional systems, resulting in less overall maintenance.

## Multiple fieldbus connections for flexible control

ACS6080 supports two fieldbus connections simultaneously. The user has flexibility of choice for control modes by being able to select one protocol for control and one for monitoring. Also redundant fieldbus connection is possible.

## Cabling

Substituting the large amount of conventional drive control cabling and wiring with a single cable reduces costs and increases system reliability and flexibility.

## Design

The use of fieldbus control reduces engineering time at installation due to the modular structure of the hardware and software and the simplicity of the connections to the drives.

## Fieldbus adapter modules

Option	Fieldbus protocol
FPBA-01	PROFIBUS DP, DPV0/DPV1
FCAN-01	CANopen®
FDNA-01	DeviceNet™
FENA-11	1 port EtherNet/IP™, Modbus TCP, PROFINET IO
FENA-21	2 port EtherNet/IP™, Modbus TCP, PROFINET IO, PROFIsafe <sup>1</sup>
FECA-01	EtherCAT®
FSCA-01	Modbus RTU
FEPL-02	PowerLink
FCNA-01	ControlNet™

<sup>1</sup> For the PROFIsafe to work the PROFINET fieldbus adapter module (FENA-21) and the safety functions module are required.

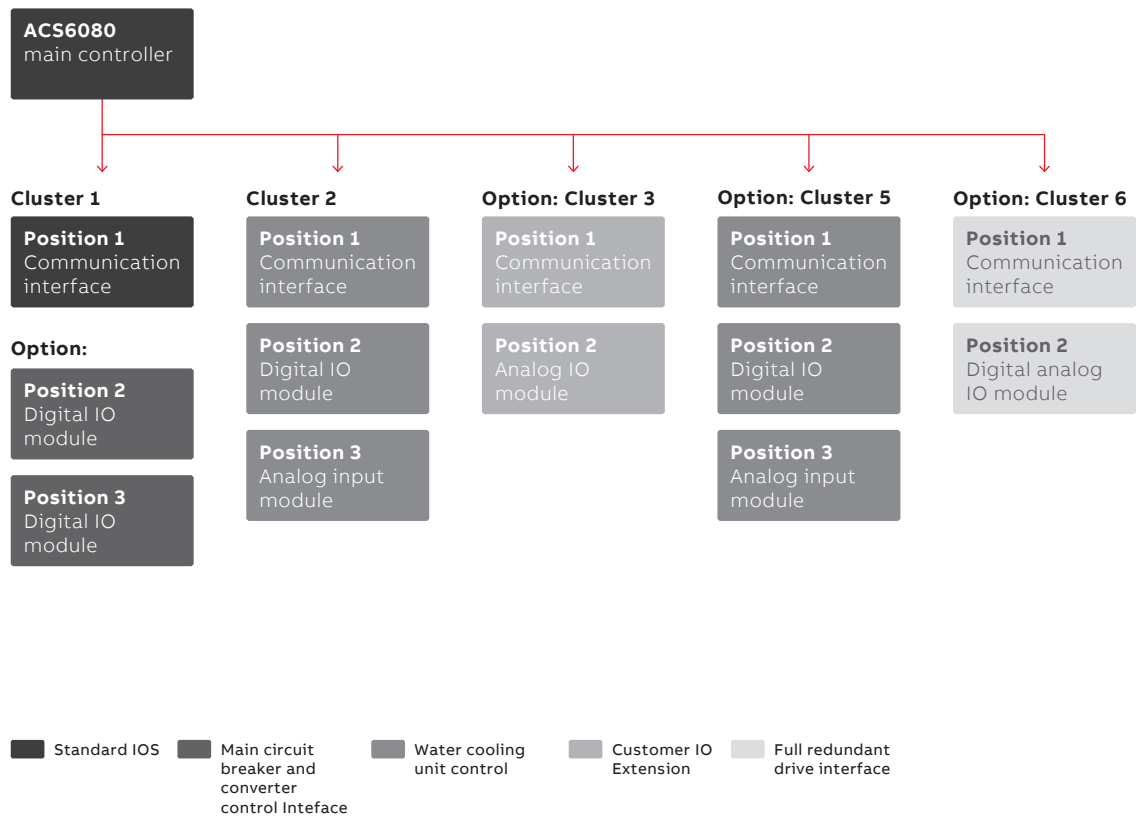
# Speed feedback interfaces for precise process control

ACS6080 drives can be connected to various feedback devices, such as HTL pulse encoder, TTL pulse encoder, absolute encoder and resolver. The optional feedback module is installed in the

option slot on the drive. It is possible to use two feedback modules at the same time, either of the same type or different type.

# Standard interface and extensions for comprehensive connectivity

The ACS6080 is equipped with a wide range of standard interfaces for internal as well as process signals. In addition an optional extension for process interfaces can be added.



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## PC tool for easy startup and maintenance

The Drive composer PC tool offers fast and harmonized setup, commissioning and monitoring for the whole drives portfolio. The free version of the tool provides startup and maintenance capabilities, while the professional version provides additional features such as custom parameter windows, control diagrams of the drive's configuration and safety settings.

The Drive composer tool is connected to the drive using an Ethernet connection or through the USB connection on the assistant control panel. All drive information such as parameter loggers, faults, backups and event lists are gathered into a support diagnostics file with a single mouse click. This provides faster fault tracking, shortens downtime and minimizes operational and maintenance costs.



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## Adaptive programming for customized solutions

Adaptive programming can be used to customize the operation of your drive. The adaptive program is built with standard function blocks included in the drive firmware. The program consists of the following elements:

- A predefined list of inputs for getting information from the drive parameters to use in the Adaptive program.
- A predefined list of outputs that defines parameters where it is possible to write from the Adaptive program.
- A collection of states in which each state has its own block program, including inputs, outputs and state transition elements

Standard function blocks (for example ADD, AND) are used to create an executable adaptive program. The maximum size of an adaptive program can comprise a large amount of standard function blocks, depending on the block types used and the number of predefined inputs and outputs utilized in the program. The standard function blocks available are presented in program elements.

An adaptive program can be easily created by using the Drive composer pro software with which the program can be downloaded to the drive.





# Services to match your needs

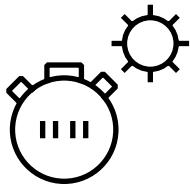
Your service needs depend on your operation, life cycle of your equipment and business priorities. We have identified our customers' four most common needs and defined service options to satisfy them. What is your choice to keep your drives at peak performance?

## Is uptime your priority?

Keep your drives running with precisely planned and executed maintenance.

**Example services include:**

- ABB Ability Life Cycle Assessment
- Installation and Commissioning
- Spare Parts
- Preventive Maintenance
- Reconditioning
- ABB Drive Care agreement
- Drive Exchange



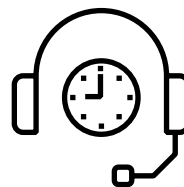
**Operational excellence**

## Is rapid response a key consideration?

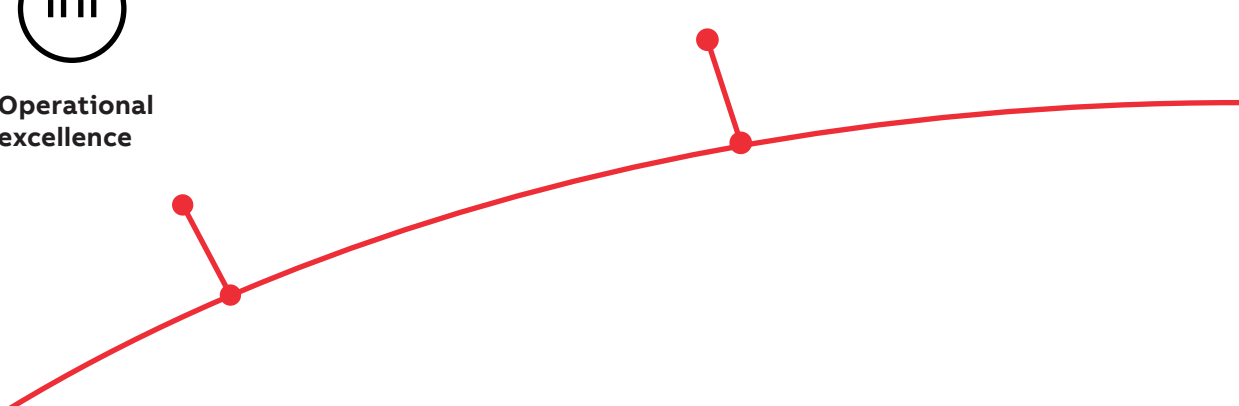
If your drives require immediate action, our global network is at your service.

**Example services include:**

- Technical Support
- On-site Repair
- ABB Ability Remote Assistance
- Response time agreements
- Training



**Rapid response**



# Drive Service – Your choice, your future

## The future of your drives depends on the service you choose.

Whatever you choose, it should be a well-informed decision. No guesswork. We have the expertise and experience to help you find and implement the right service for your drive equipment. You can start by asking yourself these two critical questions:

- Why should my drive be serviced?
- What would my optimal service options be?

From here, you have our guidance and full support along the course you take, throughout the entire lifetime of your drives.

## Your choice, your business efficiency

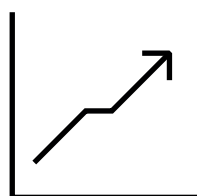
ABB Drive Care agreement lets you focus on your core business. A selection of predefined service options matching your needs provides optimal, more reliable performance, extended drive lifetime and improved cost control. So you can reduce the risk of unplanned downtime and find it easier to budget for maintenance.

## Need to extend your assets' lifetime?

Maximize your drive's lifetime with our services.

### Example services include:

- ABB Ability Life Cycle Assessment
- Upgrades, Retrofits and Modernization
- Replacement, Disposal and Recycling



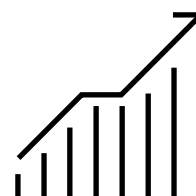
Life cycle management

## Is performance most critical to your operation?

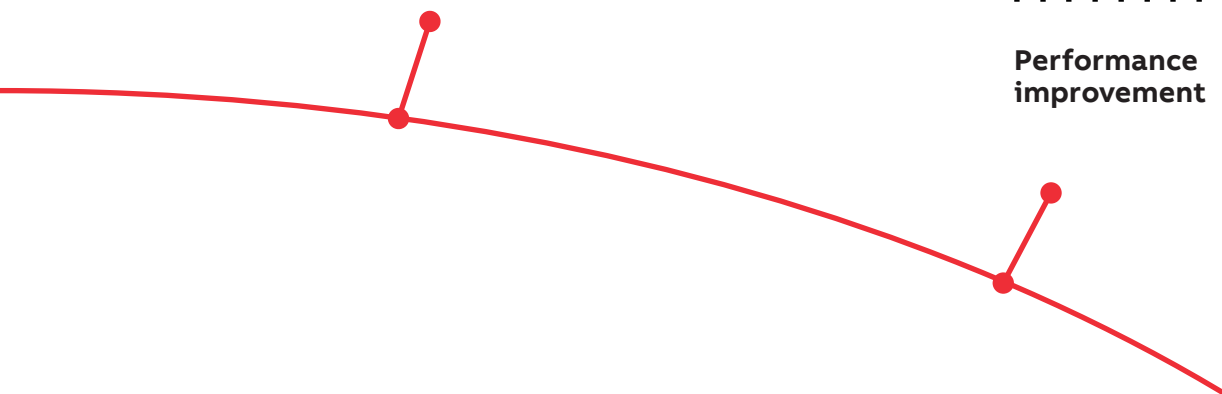
Get optimal performance out of your machinery and systems.

### Example services include:

- Advanced services
- Engineering and Consulting
- Inspection and Diagnostics
- Upgrades, Retrofits and Modernization
- Workshop Repair
- Tailored services



Performance improvement

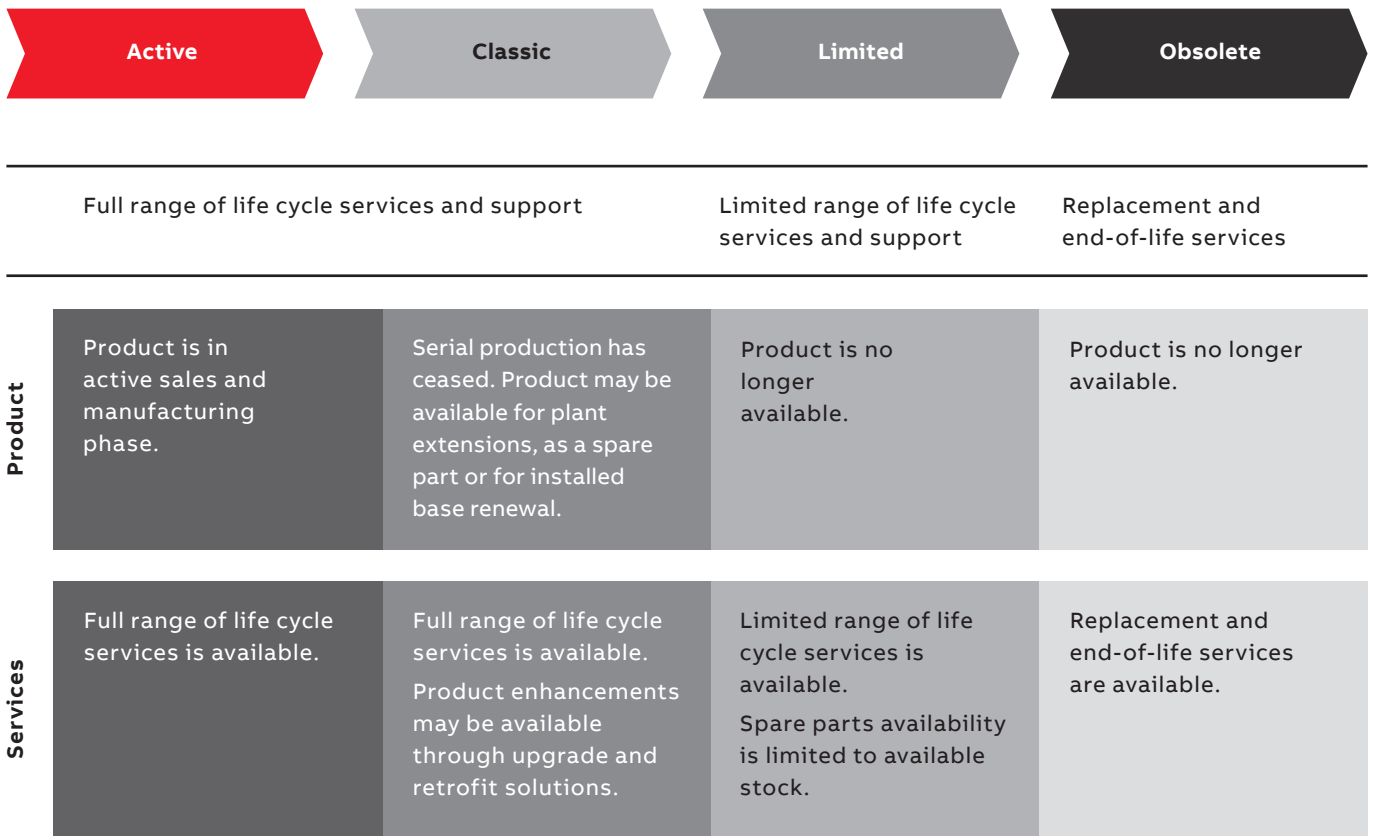


# A lifetime of peak performance

You're in control of every phase of the life of your drive. At the heart of drive services is a four-phase product life cycle management model. This model defines the services recommended and available throughout your drive's lifespan.

Now it's easy for you to see the exact service and maintenance available for your drives.

**ABB drives life cycle phases explained:**



**Keeping you informed**

We notify you every step of the way using life cycle status statements and announcements.

The benefit for you is clear information about the status of your drives and the exact services available. It helps you plan the preferred service actions ahead of time and make sure that continuous support is always available.

**Step 1**

**Life Cycle Status Announcement**

Provides early information about the upcoming life cycle phase change and how it affects the availability of services.

**Step 2**

**Life Cycle Status Statement**

Provides information about the drive's current life cycle status, the availability of product and services, the life cycle plan, and recommended actions.

# ABB Ability™ Condition Monitoring for drives



ABB Ability Condition Monitoring for Drives is a service that delivers you accurate, real-time information about drive events to ensure your equipment is available, reliable and maintainable. When you have the facts, you can make the right decisions.



## Make best decisions

You know your process, we know the drives. Our monitoring system provides you with data and information from the drives for your best decisions.



## Reduce the risks

You have the information when needed most. Our monitoring system is continuously collecting data for you to set warning limits and to trouble-shoot potential problems



## Available on your need

You can combine Remote Assistance Service with Condition Monitoring. Our experts will always be on hand to consult with you.



Check the service availability for your drive types with your local ABB representative.

## Need help?

Contact ABB or third party channel company.

[www.new.abb.com/drives/services](http://www.new.abb.com/drives/services)  
[www.abb.com/searchchannels](http://www.abb.com/searchchannels)







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

**[www.abb.com/drives](http://www.abb.com/drives)**  
**[www.abb.com/drivespartners](http://www.abb.com/drivespartners)**