MEDIUM VOLTAGE AC DRIVES

ABB drives
ACS5000
2 to 36 MW
The power you require.
The reliability you expect.
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The ACS5000 medium voltage drive
High power drive for safe operations

The ACS5000 ensures reliable control of applications that require high powers and makes your operations efficient and safe.

ACS5000 medium voltage drives are engineered drives suitable for high power, high speed or special performance applications such as test stands, marine propulsion and thrusters, rolling mills, SAG and ball mills, large pumps, fans and compressors.

The ACS5000 conforms to operations in many fields, but is particularly suited for the chemical, oil, gas and power generation industries due to its robust design. The drive comes with various industry-specific features, which integrate seamlessly with your system and increase the productivity of your processes.

The compact air-cooled ACS5000 is designed to control standard motors, typically used for applications such as pumps, fans, compressors, mixers, mills and conveyors.

The liquid-cooled ACS5000 drives your high power, high speed or special performance applications such as large pumps, fans, extruders and compressors.

**Get more using less**
Our medium voltage drives help you to increase your productivity and profitability. Your processes will use only the energy required to carry out the job and no more. Precise control ensures efficient operation with high uptime and optimized use of raw materials. This will all add up to cost and time savings for you.

**Reliable, safe performance you can count on**
Through the use of quality components and the integration of special features, our drives ensure high process availability and safety for your business. With well-proven drive technology at the heart, your operations will run smoothly and reliably every day.

Due to the ACS5000’s advanced arc resistant design, you can be sure of the highest safety levels in your day to day operations for your personnel and equipment.
Benefits that add value

Get a drive solution that meets the requirements of your application and ensures high productivity and optimum performance of your operations. Benefit from the built-in expertise of our medium voltage drives and take your business forward with everything working like clockwork.

Energy efficiency
Our medium voltage drives run your motors based on the demands of your process rather than running them at full speed and ensure optimized power consumption and process efficiency. In this way you can save energy and reduce CO₂ emissions.

High power motor control
The ACS5000 is a reliable solution for controlling induction, synchronous and permanent magnet motors and driving your high power applications such as compressors, pumps and fans.

Highest level of personnel safety
Your people and goods are protected from electric arcs thanks to the advanced safety design of the ACS5000. Arcs are detected and eliminated very fast, avoiding production stoppages. Certified functional safety features and a DC grounding switch make your systems safe and reliable.

Robust design

Drive robustness ensures high availability
The robust ACS5000 effortlessly drives your high power applications and controls operations even in harsh environments. Special features such as automatic restart ensure the high availability of your processes.
BENEFITS THAT ADD VALUE

**Powerful and reliable**

*High reliability through well-proven design*
Availability of your operations is ensured thanks to the simple, fuseless design. A low parts count and proven components contribute to high uptime and the long lifetime of your drive. Reliability is further increased with the drive’s power loss ride-through function so that you are less dependent on network conditions.

*Increased productivity due to precise process control*
Reduce your energy consumption and increase process efficiency with ABB’s direct torque control (DTC). Drive control is immediate and smooth in any conditions, ensuring optimum output and productivity.

*Industry-specific solutions for individual needs*
Features designed specifically for the oil and gas and power generation industries allow the ACS5000 to adapt perfectly to your application. Choose from a broad range of configurations to drive your standard and high-speed motors, and optimize your system costs.

*Serviceability*
Easy access to all components ensures that maintenance of the ACS5000 is simple and smooth. In addition to powerful diagnostic tools, you will profit by convenient remote monitoring.
Driving your high performance applications

Industry-specific solutions make the ACS5000 perfectly suitable to control your applications in the high power range.

Applications

- Chemical, oil and gas
  Compressors, extruders and pumps

- Cement, mining and minerals
  Grinding mills, conveyors, crushers, fans and pumps

- Metals
  Blast furnace blowers, fans and pumps

- Power generation
  Fans, pumps, gas turbine starters

- Water
  Pumps

- Other applications
  Test stands and wind tunnels
Flexible drive system integration

Customized solutions enable a smooth integration of the drive into any industrial environment.

Industry-specific options
The ACS5000 can be easily integrated into your processes and systems, thanks to a broad range of special features particularly tailored to your high power applications.

Open control system
We offer an open communication concept, enabling connection to higher level process controllers. The ACS5000 can be fitted with all major fieldbus adapters for smooth integration, monitoring and controlling of different processes, according to your requirements.

Adapts to your specific needs

Flexible liquid cooling
Depending on the availability of cooling liquid, the liquid-cooled ACS5000 can be configured with a combined liquid cooling system of the input transformer and the converter. Even if no cooling liquid is available you can benefit from the high power of the ACS5000 liquid-cooled drive by using closed loop cooling with dedicated air blast coolers or chillers.

Long motor cables
The ACS5000 can also be adapted for applications with very long motor cables.

Commissioning
The commissioning wizard DriveStartup is an advanced tool that simplifies and speeds up commissioning. Standardized parameter sets and trained, certified professionals ensure smooth and fast commissioning.

Grid compatibility
The ACS5000 can be configured with an external transformer. In addition, the air-cooled type is available with an integrated transformer and the liquid-cooled with a combined transformer.
More efficiency with drive packages

Packaged drive solutions provide you with ultimate efficiency and reliability to optimize your cost of ownership.

**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.
Robust solution with special features

Robust drive design
Special control features of the ACS5000 drive allow reliable operation in both weak and unbalanced networks. The drive is available with IPS4 enclosure, making it suitable for operations even in harsh environments.

Highest level of personal and equipment safety
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 high power liquid-cooled ACS5000 is equipped with a superior protection function and ABB’s Arc Guard System™. This IAC classified solution assures very fast arc detection and elimination (less than 6 ms) to protect people and equipment.

Certified functional safety features
The ACS5000 is equipped with SIL (safety integrity level) 3 and PL (performance level) e certified functional safety features to allow the design of safe and reliable systems. An integrated grounding switch and electro-mechanical door locks make your operations even safer.

Reliable and efficient components
The combination of well-proven parts and an innovative topology results in a reliable drive solution to control your processes.

IGCT semiconductors
The ACS5000 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 a low parts count, providing an efficient and reliable drive.

Long-life DC link capacitors
Advanced, self-healing, environmentally friendly foil capacitors, designed for a long lifetime, are used in the DC link. This technology gives you a clear advantage over unreliable and maintenance intensive designs that are based on electrolytic DC link capacitors.

Fuseless design
The converter design does not require any medium voltage power fuses, which are known to be unreliable, costly and subject to aging. The ACS5000 uses dedicated IGCTs which provide faster and more reliable protection of the drive. This protection scheme responds in less than 25 μsec, about two hundred times faster than fuses.

Power loss ride-through
A special feature of DTC is its ability to ride through short main supply voltage interruptions so that in most cases the process is not affected.
**Motor-friendly output waveform for use with new or existing motors**

The ACS5000 topology has an optimum number of switching levels, which provides a multilevel output waveform. This allows the use of standard motors without compromising reliability.

**Powerful performance with DTC**

Fast, reliable and accurate process control in combination with low energy consumption results in top performance. The ACS5000 drive control platform is ABB’s award-winning direct torque control (DTC), resulting in the highest torque and speed performance, as well as the lowest losses ever achieved in medium voltage drives. Control of the drive is immediate and smooth under all conditions, even during high supply voltage and frequency variations.

**Industry-specific solutions**

The ACS5000 provides you with high configuration flexibility and ensures powerful and application-friendly performance.

Select from the wide range of configurations available for the liquid-cooled ACS5000 in order to meet the specific requirements of your application. Industry-specific features make the drive particularly suitable for the oil and gas and power generation industries.

**Flexible supply network connection**

The drive is equipped with a 36-pulse rectifier meeting the most stringent requirements for current and voltage harmonic distortion as defined by IEEE, IEC and EN. This eliminates the need for costly harmonics analysis or the installation of network filters when applying a new drive.

The air-cooled ACS5000 can be connected to an external or integrated transformer. The use of an external input transformer will minimize the heat losses into the electrical room, eliminating the need for additional ventilation systems. When operating the drive with an integrated transformer, installation and commissioning is particularly simple and fast.

To optimize the installation effort, the liquid-cooled ACS5000 is available as 18-pulse or combined transformer configuration.
Liquid-cooled, 5 to 36 MW

Thanks to liquid cooling and a sealed cabinet, you can reduce energy and ventilation costs. High reliability is ensured thanks to a minimized part count.

Liquid-cooled ACS5000, 18 MVA, 6.9 kV

Transformer cable connection section for top and bottom entry

Phase converter unit

Air-to-liquid heat exchanger

Control unit and motor cable connection section for top and bottom entry

Rectifier phase module

Inverter phase module

DC link capacitors

Liquid cooling unit (WCU) with stainless steel piping and control hardware for WCU
Air-cooled, 2 to 7 MW

Cost optimization and simple system integration is possible with the air-cooled ACS5000.

Air-cooled ACS5000 for operation with integrated input transformer, 7 MVA, 6.9 kV

User-friendly drive control panel for local operation
- Keypad with multi-language display
- Main supply on/off push buttons
- Emergency off push button
# Technical data

<table>
<thead>
<tr>
<th>Input</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Input configuration</strong></td>
<td>36-pulse diode rectifier. Optionally 18-pulse for frames 1 and 2 for liquid-cooled ACS5000.</td>
</tr>
</tbody>
</table>
| **Input voltage** | Input to diode rectifier: 1920 to 1980 V, 3700 to 3960 V  
Input to integrated transformer: 4.16 to 13.8 kV |
| **Input voltage variation** | ±10% without derating  
+20%/-30% with derating |
| **Input frequency** | 50/60 Hz |
| **Input frequency variation** | <5% |
| **Input power factor** | >0.96 |
| **Input harmonics** | IEC 61000-2-4 and IEEE 519 compliant |
| **Auxiliary voltage** | Control (optional): 110 V DC, 220 V DC or 110 to 240 V AC 50/60 Hz  
Auxiliary: 380 to 480 V AC 50/60 Hz, 3-phase  
500 to 690 V AC 50/60 Hz, 3-phase (for liquid-cooled only) |

<table>
<thead>
<tr>
<th>Output</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Output power</strong></td>
<td>2000 to 36000 kW (higher on request)</td>
</tr>
<tr>
<td><strong>Output voltage</strong></td>
<td>6.0 to 6.9 kV (4.0 to 4.16 kV with derating)</td>
</tr>
<tr>
<td><strong>Output frequency</strong></td>
<td>0 to 250 Hz</td>
</tr>
<tr>
<td><strong>Motor type</strong></td>
<td>Induction, synchronous and permanent magnet</td>
</tr>
<tr>
<td><strong>Efficiency of converter</strong></td>
<td>&gt;98.5%</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Mechanical</th>
<th></th>
</tr>
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</table>
| **Enclosure** | Standard air-cooled: IP21  
Standard liquid-cooled: IP42  
Optional air-cooled: IP42  
Optional liquid-cooled: IP54 |
| **Cable entry** | Top/bottom |

<table>
<thead>
<tr>
<th>Environmental</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Altitude</strong></td>
<td>2000 m.a.s.l. (higher with derating)</td>
</tr>
<tr>
<td><strong>Ambient air temperature</strong></td>
<td>+1 to +40 °C (lower and higher with derating)</td>
</tr>
<tr>
<td><strong>External cooling liquid temperature</strong></td>
<td>+5 to +32 °C (lower and higher with derating)</td>
</tr>
</tbody>
</table>
| **Noise** | Liquid-cooled: ≤75 dB(A)  
Air-cooled: ≤85 dB(A) |
| **Cooling type** | Air, liquid |
| **Standards** | EN, IEC, CE, (optional CSA) |
## Ratings, types and voltages

### ACS5000 air-cooled

<table>
<thead>
<tr>
<th>Motor data</th>
<th>Converter data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal ratings ¹⁾</td>
<td>Type code ²⁾</td>
</tr>
<tr>
<td>(kW) ³⁾</td>
<td>(hp) ³⁾</td>
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</table>

### 6000 V

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Power</th>
<th>Length</th>
<th>Weight</th>
<th>Length</th>
<th>Weight</th>
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<tbody>
<tr>
<td>1500</td>
<td>2010</td>
<td>170</td>
<td>1800</td>
<td>3300</td>
<td>5700</td>
</tr>
<tr>
<td>1800</td>
<td>2410</td>
<td>210</td>
<td>2200</td>
<td>3300</td>
<td>5700</td>
</tr>
<tr>
<td>2000</td>
<td>2680</td>
<td>240</td>
<td>2500</td>
<td>3300</td>
<td>6000</td>
</tr>
<tr>
<td>2500</td>
<td>3350</td>
<td>290</td>
<td>3000</td>
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<td>2800</td>
<td>3750</td>
<td>315</td>
<td>3300</td>
<td>3700</td>
<td>6700</td>
</tr>
<tr>
<td>3150</td>
<td>4220</td>
<td>355</td>
<td>3700</td>
<td>4000</td>
<td>11200</td>
</tr>
<tr>
<td>3550</td>
<td>4760</td>
<td>400</td>
<td>4200</td>
<td>4000</td>
<td>11200</td>
</tr>
<tr>
<td>4000</td>
<td>5360</td>
<td>440</td>
<td>4600</td>
<td>4000</td>
<td>11200</td>
</tr>
<tr>
<td>4500</td>
<td>6030</td>
<td>510</td>
<td>5300</td>
<td>4000</td>
<td>15500</td>
</tr>
<tr>
<td>5000</td>
<td>6700</td>
<td>585</td>
<td>6000</td>
<td>4000</td>
<td>15500</td>
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### 6600 V

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Power</th>
<th>Length</th>
<th>Weight</th>
<th>Length</th>
<th>Weight</th>
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<td>1800</td>
<td>2410</td>
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<td>3300</td>
<td>6000</td>
</tr>
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<td>2680</td>
<td>240</td>
<td>2800</td>
<td>3300</td>
<td>6000</td>
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<tr>
<td>2500</td>
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<td>290</td>
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<td>6700</td>
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<tr>
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<td>4220</td>
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<td>11200</td>
</tr>
<tr>
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<td>4000</td>
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<td>6000</td>
<td>8040</td>
<td>585</td>
<td>7000</td>
<td>3700</td>
<td>15500</td>
</tr>
</tbody>
</table>

¹⁾ Indicative information referring to typical 4-pole induction motor under nominal supply voltage conditions.

²⁾ Nominal rating for no-overload operation

³⁾ ‘x’ indicates the different input transformer configurations:
   - E – for external transformer
   - J – for integrated transformer

---

**Dimensions:**

- **Height**
  - 2350 mm cabinet height
  - 2815 mm including cooling fans
  - 2935 mm including redundant cooling fans

- **Depth**
  - 1100 mm
  - 1300 mm for integrated transformer with power >3150 kVA
## Ratings, types and voltages

**ACS5000 liquid-cooled**

<table>
<thead>
<tr>
<th>Motor data</th>
<th>Converter data</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nominal ratings</strong></td>
<td><strong>Type code</strong></td>
</tr>
<tr>
<td>(kW)</td>
<td>(hp)</td>
</tr>
<tr>
<td>6000 V</td>
<td></td>
</tr>
<tr>
<td>6830</td>
<td>9150</td>
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<tr>
<td>8480</td>
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<td>10140</td>
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<td>11154</td>
<td>14949</td>
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<td>12680</td>
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<td>15210</td>
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<td>17750</td>
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<td>22330</td>
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<tr>
<td>23300</td>
<td>31220</td>
</tr>
<tr>
<td>25350</td>
<td>39700</td>
</tr>
</tbody>
</table>

| 6600 V | | | | | | | |
| 7510 | 10060 | 670 | ACS5000-066-W01A-xy-010 | 7700 | 7130 | 6800 | 8530 | 8650 |
| 9360 | 12540 | 840 | ACS5000-066-W01B-xy-010 | 9600 | 7130 | 6800 | 8530 | 8650 |
| 11120 | 14390 | 1000 | ACS5000-066-W01C-xy-010 | 11400 | 7130 | 6800 | 8530 | 8650 |
| 12232 | 16390 | 1100 | ACS5000-066-W01D-xy-010 | 12540 | 7130 | 6800 | 8530 | 8650 |
| 13940 | 18680 | 1250 | ACS5000-066-W02A-xy-010 | 14300 | 9130 | 9700 | 9730 | 10450 |
| 16670 | 22340 | 1500 | ACS5000-066-W02B-xy-010 | 17100 | 9130 | 9700 | 9730 | 10450 |
| 19500 | 26130 | 1750 | ACS5000-066-W03A-E6-010 | 20000 | 13430 | 15830 | 16500 | n.a. |
| 22330 | 29920 | 2000 | ACS5000-066-W03B-E6-010 | 22900 | 13430 | 15830 | 16500 | n.a. |
| 24570 | 32950 | 2200 | ACS5000-066-W03C-E6-010 | 25200 | 13430 | 15830 | 16500 | n.a. |
| 25640 | 34360 | 2300 | ACS5000-066-W04A-E6-010 | 26300 | 13430 | 15830 | 16500 | n.a. |
| 27890 | 37370 | 2500 | ACS5000-066-W04B-E6-010 | 28600 | 15830 | 15830 | 16500 | n.a. |
| 33440 | 44810 | 3000 | ACS5000-066-W04C-E6-010 | 34300 | 15830 | 15830 | 16500 | n.a. |

| 6900 V | | | | | | | |
| 7800 | 10450 | 670 | ACS5000-069-W01A-xy-010 | 8000 | 7130 | 6800 | 8530 | 8650 |
| 9750 | 13070 | 840 | ACS5000-069-W01B-xy-010 | 10000 | 7130 | 6800 | 8530 | 8650 |
| 11700 | 15680 | 1000 | ACS5000-069-W01C-xy-010 | 12000 | 7130 | 6800 | 8530 | 8650 |
| 12870 | 17248 | 1100 | ACS5000-069-W01D-xy-010 | 13200 | 7130 | 6800 | 8530 | 8650 |
| 14530 | 19470 | 1250 | ACS5000-069-W02A-xy-010 | 14900 | 9130 | 9700 | 9730 | 10450 |
| 17450 | 23380 | 1500 | ACS5000-069-W02B-xy-010 | 17900 | 9130 | 9700 | 9730 | 10450 |
| 20380 | 27310 | 1750 | ACS5000-069-W03A-E6-010 | 20900 | 13430 | 15830 | 16500 | n.a. |
| 23300 | 31220 | 2000 | ACS5000-069-W03B-E6-010 | 23900 | 13430 | 15830 | 16500 | n.a. |
| 25640 | 34380 | 2200 | ACS5000-069-W03C-E6-010 | 26300 | 13430 | 15830 | 16500 | n.a. |
| 26810 | 35930 | 2300 | ACS5000-069-W04A-E6-010 | 27500 | 15830 | 15830 | 16500 | n.a. |
| 29150 | 39060 | 2500 | ACS5000-069-W04B-E6-010 | 29900 | 15830 | 15830 | 16500 | n.a. |
| 35000 | 46900 | 3000 | ACS5000-069-W04C-E6-010 | 35900 | 15830 | 15830 | 16500 | n.a. |

1) Indicative information referring to typical 4-pole induction motor under nominal supply voltage conditions.
2) Nominal rating for no-overload operation
3) 'x' indicates the different converter types
   E – for external transformer
   J – for integrated transformer
4) In combined transformer configuration the cooling system of the input transformer is connected to the cooling liquid system of the converter and the system has a common cooling liquid pump in the converter. The length and weight do not include the input transformer part. The combined transformer is available only for a 36-pulse rectifier.

**Dimensions:**
- **Height**
  - 2363 mm cabinet height
  - 2752 mm including cooling units
  - 2774 mm including cooling units and mechanical design for offshore applications
- **Depth**
  - 1600 mm

Note: C3 is not available.
ABB Ability™ Digital Powertrain
Condition monitoring for drives

Accurate, real-time information about powertrain events. When you have the facts, you can make the right decisions.

Condition Monitoring gives you fact-based insight into your powertrain assets, such as drives and motors, via KPIs and signal data, to identify irregularities before they become problems. This helps you make proactive decisions, built on real-time information – and saves you money!

The service can be tailored 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 with your existing monitoring systems.

The standard package includes the following services:
- Condition Monitoring
- Alarm Management
- Asset Health
- Team Support
- Backup Management

The standard package can be supplemented with optional services:
- Condition-Based Maintenance
- Offline Data Collection
- Expert Reports
- Remote Assistance
- Condition monitoring of your entire powertrain

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

Always 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 anytime – even in difficult to access sites, or when a site visit is impossible.
NETA-21

NETA-21 connects the drive to the cloud via the Internet or local Ethernet network.

- The module comes with a built-in web server and requires no Flash/Java plugins
- In the absence of a customer local area network, it can be connected via a mobile network router (either Ethernet or USB network adapter)
- One module can be connected to several drives at the same time

Customers can configure powertrains and customize the digital service plan

<table>
<thead>
<tr>
<th>NETA-21</th>
<th>Ordering code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3AUA0000094517</td>
<td>2 x panel bus interface</td>
<td>max. 9 drives</td>
</tr>
<tr>
<td></td>
<td>2 x Ethernet Interface</td>
<td>SD memory card</td>
</tr>
</tbody>
</table>

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Choose one or more assets you want to protect  
Install the connectivity device  
Activate access to the Condition Monitoring basic feature  
Pick optional features and customize  
Start monitoring  
Enjoy the customized service
We keep your world turning

Whatever your needs are, we offer the most extensive service offering for drives, motors and generators from spare parts and technical support to cloud-based condition monitoring solutions to keep your equipment running.

The global ABB service units complemented by external Value Providers form a service network on your doorstep. Maximize performance, uptime and efficiency throughout the life cycle of your assets.

With you every step of the way

Even before you buy a generator, drive, motor, bearing or softstarter, ABB’s experts are on hand to offer technical advice from dimensioning through to potential energy saving.

When you’ve decided on the right product, ABB and its global network of Value Providers can help with installation and commissioning. They are also on hand to support you throughout the operation and maintenance phases of the products life cycle, providing maintenance programs tailored to your facility’s needs.

ABB will ensure you are aware of any service opportunities. If you’ve registered your drives and motors with ABB, then its engineers will proactively contact you advising on your most effective service options. All of which helps maximize performance, uptime and efficiency throughout the lifetime of your powertrain.

Replacements
Fast and efficient replacement services to minimize production downtime.

End-of-life services
Responsible dismantling, recycling and reusing of products, according to local laws and industrial standards.

Maintenance
Systematic and organized maintenance and support over the life cycle of your assets.
Advanced services
Gain the unique ABB Ability™ digital advantage through data collection and analytics with advanced services.

Extensions, upgrades & retrofits
Up-to-date systems and devices with the best possible performance level.

Engineering & consulting
Ways to identify and improve the reliability, usability, maintainability and safety of your production processes.

Spares & consumables
Authentic, high-quality ABB spares and consumables with quick delivery.

Global service network 24/7

“I need operational excellence, rapid response, improved performance and life cycle management.”

Technical support & repairs
Quick and accurate response during emergencies and efficient support during planned production breaks.

Installation & commissioning
Highly-trained and reliable installation and commissioning experts at your service.

Training
Comprehensive and professional training either at ABB premises or your own.

Agreements
Comprehensive bundling of relevant services into one contract to suit your needs.
# ABB Drives Life Cycle Management

**A life time of peak performance**

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

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

<table>
<thead>
<tr>
<th>Product</th>
<th>Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active</td>
<td>Full range of life cycle services is available. Product enhancements may be available through modernizations</td>
</tr>
<tr>
<td>Classic</td>
<td>Full range of life cycle services is available. Product is in active sales and manufacturing phase</td>
</tr>
<tr>
<td>Limited</td>
<td>Limited range of life cycle services is available. Spare parts availability is limited to available stock</td>
</tr>
<tr>
<td>Obsolete</td>
<td>Replacement and end-of-life services are available</td>
</tr>
</tbody>
</table>

Serial production has ceased. Product may be available for plant extensions, as a spare or for installed base renewal. Product is no longer available.
We notify you every step of the way using life cycle status statements and announcements.

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

—

Keeping you informed throughout the life cycle

Sales release
Details about product portfolio and release schedule.

Sales ramp down announcement
Last time buy and last deliveries dates, informed well in advance.

Life cycle phase change announcement
Early information about the upcoming life cycle phase change and affects on the service availability. Informed well in advance, minimum six months prior to the change.

Life cycle phase statement
Information about the current life cycle status, product and services availability and recommended actions. Plan for the next life cycle phase transition.
Additional Information

We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

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