ABB Ability™ Condition Monitoring for drives
Keeping you one step ahead of process upsets

Condition Monitoring gives you fact-based insight into your drives, via KPIs and signal data, to keep your processes moving smoothly.

Remote monitoring of your drives lets you identify irregularities before they become problems. This helps you make proactive decisions, built on real-time information – and saves you money!

Step into the digital era with us
Would you like to have peace of mind, knowing that everything is working as it should? Would you like to be able to monitor the performance of all your drives whenever and wherever, even remotely?

Collecting and obtaining information from drives, and then analyzing it with digital algorithms, gives you valuable insight into your industrial equipment. This can raise your operating efficiency to higher levels than ever before.

ABB Ability™ Condition Monitoring for drives consists of a suite of services designed to provide key information about drive events and changes in behavior – ensuring your equipment is always available, reliable and well maintained.

Our standard package gives you industry leading monitoring capabilities to fit your needs – whether you want to view the drive status through ABB’s internet portal or integrate this data with your existing monitoring systems.

Optional services include digitally enabled remote assistance by ABB technical support, advanced analytics and reporting, and a range of other features to make your maintenance operations more effective.

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.
Tailor your drive monitoring to perfectly fit your needs

Get these benefits from the standard package of ABB Ability™ Condition Monitoring for drives

- **Condition Monitoring** – Continuously monitor your drive performance remotely through ABB portal, without need for on-site presence, or through your own monitoring system using data transfer via Cloud Interface
- **Alarm Management** – Create flexible alerts and warning notifications, and have them sent to the right people for rapid action
- **Asset Health** – Generate professional maintenance reports, tailored to your needs, about the state of your drives
- **Team Support** – Wherever you are, you can access and analyze drive signal data and information, and then provide valuable support to your team
- **Backup Management** – Back up and safely protect your drive parameters

And select from these options, based on your situation

- **Powertrain Monitoring** – Combine Condition Monitoring for drives with our Smart Sensors for motors and bearings, to monitor your complete powertrain
- **Condition-Based Maintenance** – Assess the risk profiles of your drives to do efficient, proactive maintenance, based on condition rather than routines
- **Offline Data Collection** – Upload and analyze data from your drives without using on-line connectivity to the internet
- **Expert Reports** – Get our drive professionals to review your data and advise on maintenance planning, with our ABB Expert Report service option
- **Remote Assistance** – Connect to ABB’s helpdesk, to get expert support and problem solving, with full visibility of your drives online
01 Make decisions based on accurate, real-time information
02 Access KPIs and signal data history to spot changes and anomalies in drives behavior over time
03 Monitor your drives condition from anywhere at anytime and identify potential problems before they occur
## Options, features and benefits to keep your operations running smoothly

### ABB Ability™ Condition Monitoring for drives

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<tr>
<th>Standard package includes</th>
<th>Main features</th>
<th>Benefits</th>
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<tr>
<td><strong>Condition Monitoring</strong></td>
<td>• ABB portal</td>
<td>• Monitor drive performance, without the need to send someone to the site</td>
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<td></td>
<td>• Track drive condition KPIs: availability, ambient environment, reliability and stress</td>
<td>• Access signal data history to spot changes and anomalies in drive behavior over time</td>
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<td></td>
<td>• View signal graphs for: speed, torque, current, power, temperature and energy consumption</td>
<td>• Overlay data to spot cause-and-effect correlations between different parameters and measurements</td>
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<td></td>
<td>• Cloud Interface</td>
<td>• Enable connectivity from ABB cloud to your cloud or internet enabled local applications, facilitating the integration in your monitoring systems</td>
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### Alarm Management

- Configurable alert settings by signal threshold
- Configurable alert delivery to defined addresses
- Choose which alarms you want email alerts sent for

### Asset Health

- Configurable drive condition Word format reports and fleet comparisons

### Team Support

- Remotely view drive signal data loggers, history loggers, error incidents
- Add comments, notes and support logs
- Support your team from a distance, to raise their skill levels

### Backup Management

- Alerts in case of parameter changes
- Parameter back-up features that facilitate drive recovery
- Parameter recovery features

## ABB Ability™ Condition Monitoring for drives

### Additional options

<table>
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<tr>
<th>Powertrain Monitoring</th>
<th>Main features</th>
<th>Benefits</th>
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<tr>
<td>• This free option lets you combine key information from Condition Monitoring for drives with Smart Sensors for motors and mounted bearings, to get the complete ABB Ability™ Powertrain Monitoring</td>
<td>• Get aggregated information from a variety of sensors and drives, and gain visibility over the condition of your whole powertrain</td>
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<tr>
<td>• View aggregated KPI graphs and analytics for the complete powertrain</td>
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### Condition-Based Maintenance

- Measures operational and environmental stress, to estimate the condition and lifetime of key electric components
- Ageing status view indicator and clear maintenance timing suggestions
- Measures condition of DC link capacitors, IGBT and fans

### Offline Data Collection

- Manual bulk data upload to ABB Ability™ cloud services

### Expert Reports

- ABB generated reports, with comments and recommendations from a Drive Expert, including notes based on the drive signal data

### Remote Assistance

- Local ABB technical support, connected to drive signal data and condition information

**Self-service**, relying entirely on computer analyzed information and automated processes

**Assisted service**, involving ABB experts to analyze information and provide assistance

* Available also without cloud connection with ABB Ability™ Condition Monitoring for drives – On-Premises service. The service includes Team Support and access to parameter backup through the user interface. For more information, please contact your local ABB representative.

**Available in your own monitoring system via Cloud Interface.**

***Please check Cloud Interface availability with your local ABB representative.**
The connectivity devices that enable remote viewing and monitoring

**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

**RMDE reliability monitoring device**

The RMDE reliability monitoring device facilitates the installation of the connectivity device (NETA-21) on drives that are already installed.

- The RMDE device can contain two or four NETA modules and can connect up to 18 or even 36 drives
- The cabinet consists of the NETA-21 connectivity devices, a modem and environmental sensors that enable the collection of measured ambient temperature and humidity values
- The cabinet includes a compact IP54 enclosure, making it suitable even for harsh environments
Service delivery process

On-site drive mapping and service scope planning
You and your local ABB experts will review the installed base on-site and decide what drives to include in the Condition Monitoring service. Your service scope will be customized to meet your precise needs.

Connection installation and activation
An ABB service engineer installs and activates the connection. You will be contacted to confirm the installation and activation date.

Start monitoring
Monitoring is ready for use. Data collection starts remotely at the portal or at your premises.

Cloud
Using the Cloud Interface
You get access to all the Condition Monitoring data to be used in your own monitoring system.

Using ABB Ability™ Condition Monitoring portal
You get access to the portal where all the service data is collected.

- Accessing live data
  Now you can monitor drive performance data including availability, condition, operating parameters and fault events.

- Accessing visual data
  Create customized performance reports with visually clear performance charts and graphs.

Receiving email alerts and expert reports

- Email alerts
  You will receive immediate email notification of any drive fault, or limited availability status.

- Expert reports
  Based on your chosen service scope, you can get an expert annual analysis report on the drive's condition based on monitoring data. This report also includes an ABB specialist's maintenance recommendations.

Making the best decisions
Make proactive decisions – built on real-time information on drive events.

Optional service activities

For more information please contact your local ABB representative or visit:
new.abb.com/drives/services/advanced-services(condition-monitoring
www.abb.com/searchchannels

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