

ABB MOTION SERVICES

# ABB Ability™ Digital Powertrain reports

## Turning data into actionable insights



The digital powertrain uses ABB Ability™ Smart Sensors to collect data from motors, mounted bearings, gearing and pumps to generate reports that provide detailed information which helps to enhance the performance of motor-driven applications.

### Advice from experts

For over 130 years ABB has been collating a wealth of know-how about powertrains, from the motors, mounted bearings and gearing to the actual application itself, whether that be pumps, fans and compressors or mixers, conveyors and centrifuges.

Critical to the operation of these applications is ensuring the uptime of the components. The ABB Ability™ Smart Sensor measures key operating and health parameters of the connected devices at regular intervals and alerts the user if any element requires attention, helping to predict maintenance needs. Users can check the device's status remotely at any time via the ABB Ability™ Smart Sensor web portal or mobile app data.

To help users to get a better understanding of the powertrain data collected by the ABB Ability™ Smart Sensor, ABB offers several reports.

### Key benefits



Easy to understand reports providing an overview of the assets' health and performance



Guides users in identifying equipment requiring attention and taking appropriate actions to increase productivity and avoid unplanned downtime



Facilitates prioritization of maintenance activities

## Instant reports

Instant reports are automatically generated from the data collected by the digital powertrain. The data is analyzed by ABB's advanced algorithms and visualized in easy to understand reports. The reports help users to interpret the data and turn it into meaningful information, upon which they can act.

Instant reports are available for each asset (instant asset reports) or for the user's entire fleet of motors, mounted bearings, gearing or pumps (instant fleet reports). The instant asset reports can be downloaded from the ABB Ability™ Smart Sensor web portal by eligible users with an active condition monitoring subscription. Instant fleet reports can be ordered from ABB Ability Marketplace™ or from a local ABB representative.

## Expert reports

In addition to the instant reports, ABB offers expert reports to users seeking a deeper understanding of their equipment's health and performance.

The reports are based on data collected by the ABB Ability™ Smart Sensor. ABB experts analyze the data and summarize the findings in easy to read reports. The reports highlight critical issues requiring attention, include recommended actions to rectify potential

issues and give advice on future maintenance to keep the assets operating at top performance.

Expert reports for the ABB Ability™ Digital Powertrain help users to focus their effort and resources on the assets that need attention and take action before an unplanned outage occurs.

Two types of expert reports are available: expert fleet reports and expert asset reports.

An **expert fleet report** analyzes the user's entire fleet of assets. It compares the assets in one fleet, points out the best and worst performers, energy saving potentials and which assets require maintenance.

An **expert asset report** provides more details about one specific asset. It highlights critical issues requiring attention and includes recommendations on maintenance priorities. Expert asset reports are usually issued after an underperformer is identified in the expert fleet report.

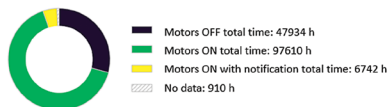
Expert reports can be ordered from the local ABB representative or included in a service agreement with ABB.

## Instant fleet report — Plant view

ABB ABILITY™ SMART SENSOR

### Plant View

#### Motors Usage Index



Motors Usage		
ON time total hours	104352 h	68.5 %
ON time normal	97610 h	64.1 %
ON time with notifications	6742 h	4.4 %
OFF time-standby	47943 h	31.5 %

#### Operational Stress Index



Asset Name	Vibration		Temperature		External forces	
	tolerable zone	dangerous zone	tolerable zone	dangerous zone	tolerable zone	dangerous zone
2	62h 68.7%	-	18h 2.0%	-	24h 2.9%	-
16	31h 21.3%	49h 39.0%	24h 1.0%	-	62h 26.8%	-
28	107h 9%	97h 31%	-	-	-	-
23	1322h 84.4%	47h 3.1%	3h 0.2%	-	-	-

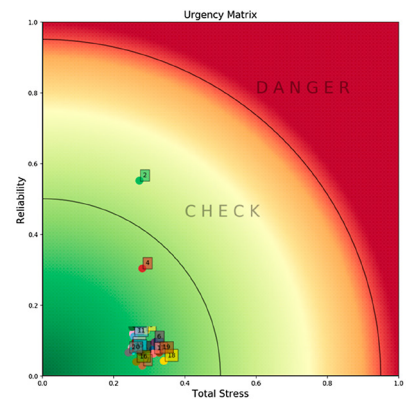
For more information, please contact your local ABB representative or visit:

[www.abb.com/smartsensor](http://www.abb.com/smartsensor)  
[eu.marketplace.ability.abb](http://eu.marketplace.ability.abb)

## Expert asset report — Urgency matrix

ABB ABILITY™ SMART SENSOR

### Urgency matrix



### Service plan

Motor tag#	Urgency level	Service plan (<3 months)	Service plan (4-6months)
2	2	-	Risk of bearing damage is observed as motor bearing condition falls in the tolerable and dangerous zone. Plan for a bearing change out.

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