

MEDIUM VOLTAGE

ABB Ability™ Asset Manager for Utilities

Understanding assets



- 90 Very good
- 6 Good
- 4 Fair
- 30 Poor
- 10 very poor
- 30 Offline



ABB Ability™ ABB SACE Building
ABB S.p.A. Via Pescarolo 5 24123 Bergamo (BG) IT

Dashboard Overview Energy Assets

Site locator

Health overview

150 Total assets

- 90 Very good
- 6 Good
- 4 Fair
- 30 Poor
- 10 Very poor
- 30 Offline

Service activities overview

Planned service: 23, Completed this year: 45

- 16 Confirmed
- 3 At risk
- 2 Overdue
- 1 Canceled

Events overview

18 Active events

- 11 Assets events
- 3 Custom alerts
- 2 Health warnings
- 1 Connectivity events

Asset list

NAME	STATUS	CONNECTION	HEALTH INDEX (%)
Switchgear 1 MV	4 equipments	Connected	90
Switchgear 2 MV	7 equipments	Connected	85
Switchgear 3 MV	7 equipments	Connected	85
Switchgear 4 MV	7 equipments	Connected	90
Switchgear 1 MV	7 equipments	Connected	85
Switchgear 1 MV	7 equipments	Connected	85
Switchgear 3 MV	7 equipments	Connected	90

Latest events

- 4 seconds ago: Device BA_MCCB_REVDDI_Controller is missing or is damaged in Plant Monover Messe
- 4 seconds ago: SA_MOTIGRIL_ARBDOL_Controller is Spring charging mechanism - Alarm in Plant Katlagen
- 12 minutes ago: Device BA_MCCB_REVDDI_Controller is missing or is damaged in Plant Monover Messe
- 16 minutes ago: SA_MOTIGRIL_ARBDOL_Controller is Spring charging mechanism - Alarm in Plant Katlagen
- 1 day ago: Device BA_MCCB_REVDDI_Controller is missing or is damaged in Plant Monover Messe
- 5 days ago: Device BA_MCCB_REVDDI_Controller is missing or is damaged in Plant Monover Messe

Connectivity overview

20 Assets

- 12 Connected
- 3 Partly connected
- 3 Disconnected
- 2 Disconnected, due to offline gateway

Asset risk analysis

Category	Very good	Good	Fair	Poor	Very poor	Offline
Substation	30	05	02	01	01	01
Medium	02	01	01	01	01	01
High-voltage	01	01	01	01	01	01
Other	01	01	01	01	01	01

ABB Ability™ Asset Manager is the state-of-the-art on-premise and cloud solution for monitoring and analyzing site equipment. This intuitive solution has the ability to optimize your site's electrical distribution system and other utilities, resulting in improved performance, efficiency and safety.

Through its scalable and flexible design, ABB Ability™ Asset Manager ensures comprehensive accessibility and is ready-to-use with low- and medium voltage electrical distribution as well as water, gas or heating equipment.

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Overview

A new approach to energy and asset management

ABB Ability™ Asset Manager is a state-of-the-art on-premise and cloud solution that integrates your energy and asset management in a single intuitive dashboard.

Providing full remote visibility of asset and electrical-system behavior, this solution provides you with the insight to minimize cost and risk and maximize performance and safety across your operations.

This is achieved by supervising your electrical system and monitoring its conditions and energy flows. The solution also verifies asset health and visualizes your system structure to provide actionable insights that enable maintenance and replacement at the optimum time.

By constantly analyzing asset conditions and energy demands, ABB Ability™ Manager helps you make the right decisions at the right time.



ABB Ability™ Asset Manager also provides access on a multi-site level, allowing you to monitor and compare the performance of different facilities at the same time.

It allows profiling of users according to the level of access they require.



ABB Ability™ Asset Manager

Empowering your asset management with data

Added value from installation to operation and maintenance

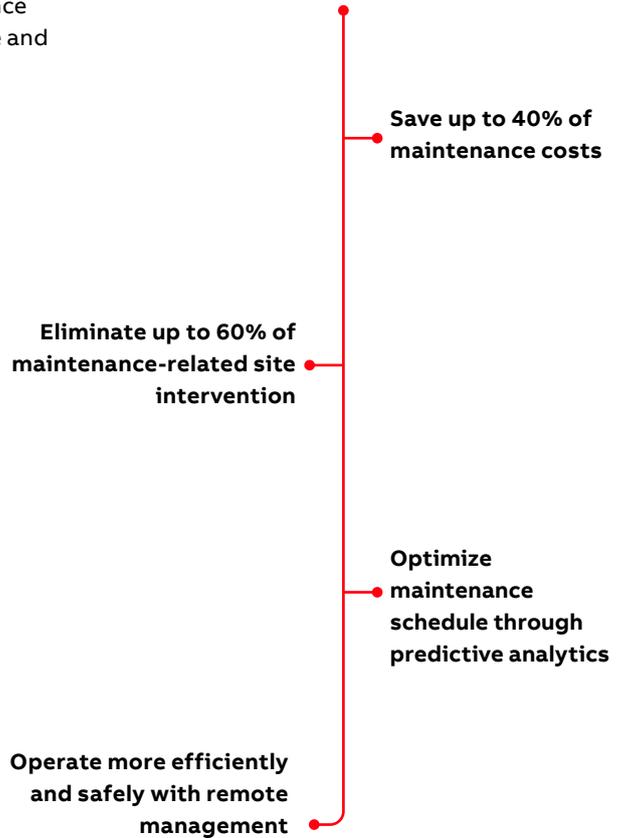
As well as coming in a combined bundle, ABB Ability™ Asset Manager is also available separately.

ABB Ability™ Asset Manager adds value by providing analysis of field device data that delivers granular visibility of your asset behavior in real time. This solution detects potential faults through condition assessment, performance trends and pre-alarm notifications and enables predictive maintenance that significantly reduces unplanned downtime and operational costs.

Maintenance



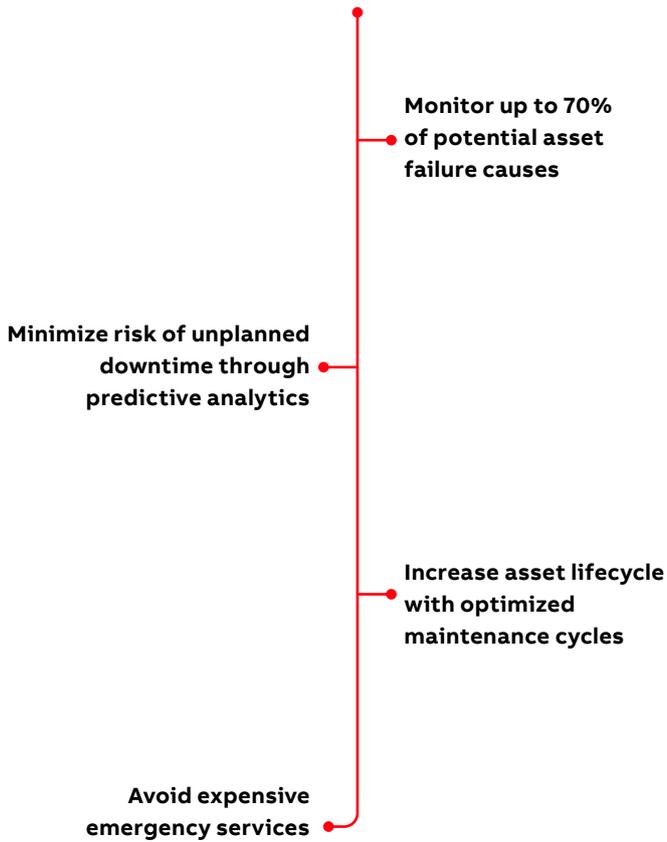
Reduce total cost of ownership



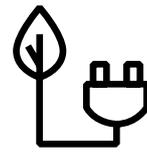
Operations



**Maximize
uptime**



Installation



**Easy to
install and use**

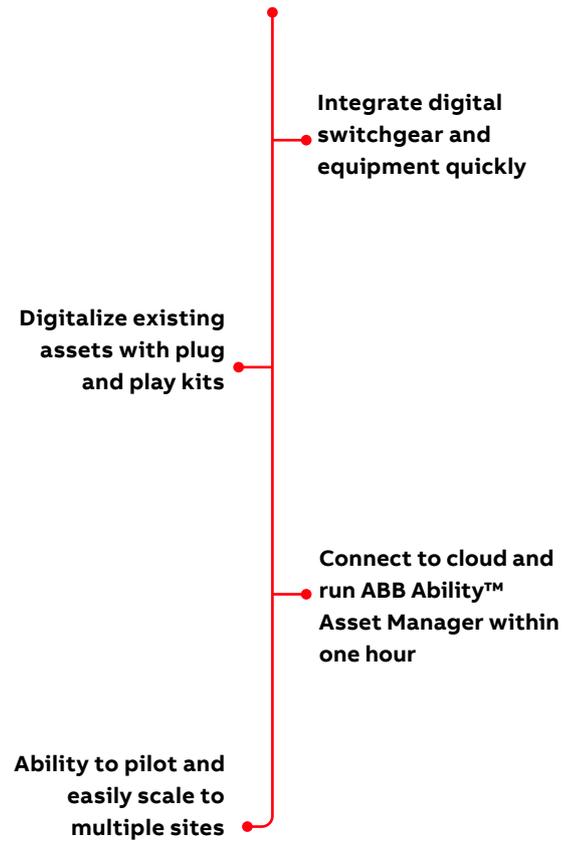


ABB Ability™ Asset Manager

A smart interface

Every facility sets different asset performance targets, and that's why the ABB Ability™ Asset Manager widgets can be customized for the specific needs of your business. And you can define, compare and access the most relevant results with maximized efficiency.



Condition monitoring

Granular visibility of your asset behavior in real-time for both LV and MV environments



Digital twin

Access asset data, documentation, historical data and more



Maintenance planning

Root-cause analysis of asset condition enables predictive maintenance



Events and notification

Set up alerts and notify key personnel remotely when an action needs to be taken



Health analysis

Get the full picture of your connected assets' health with clear categorizations for appropriate action, from "Very poor" (mostly failed, urgent action required) to "Very good" (as new, no action)



Reporting

Get scheduled reports with relevant site information. Fully customizable to your needs, receive reports by device group and time, with the ability to compare your data



Power factor

Monitor the power factor of every available asset within a defined period



Power quality

Access real-time data on parameters associated with each asset



Alerts

Automate your alerts and receive immediate feedback on the status of your site via email or SMS

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Manager 11:37

John Smith

Dashboard

Explore

Data analytics

Events

Automation

Maintenance

Settings

Add panel

Overview

Energy

Assets

Add panel

Site locator

Health overview

150
Total assets

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Active events

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Asset list

Health Index: All conditions

NAME	STATUS	CONNECTION	HEALTH INDEX (%)
Switchgear 1 MV 4 equipments	Connected	Connected	Good 80
Switchgear 2 MV 7 equipments	At risk	Connected	Very poor 15
Switchgear 3 MV 3 equipments	Connected	Connected	Very good 95
Switchgear 4 MV 4 equipments	Connected	Connected	Very good 90
Switchgear 1 MV 4 equipments	At risk	Connected	Fair 55
Switchgear 1 MV 4 equipments	At risk	Connected	Very poor 5
Switchgear 3 MV 3 equipments	Connected	Connected	Good 95

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Latest events

Type: Custom alerts

- 4 seconds ago: Device RA_MCCB_REVDOL_Controller is missing or is damaged in Plant Honnover Messe
- 4 seconds ago: SA_MOTOR11_NRDOL_Controller is Spring charging mechanism - Alarm in Plant Ratingen
- 12 minutes ago: Device RA_MCCB_REVDOL_Controller is missing or is damaged in Plant Honnover Messe
- 16 minutes ago: SA_MOTOR11_NRDOL_Controller is Spring charging mechanism - Alarm in Plant Ratingen
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Go to Events section

Connectivity overview

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Assets

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Asset risk analysis

Consequence of failure	Health Index				
	Very poor	Poor	Fair	Good	Very good
Extreme	58	16	92	83	83
Major	62	81	8	4	51
Moderate	40	58	95	41	48
Minor	70	6	65	59	24
Insignificant	40	84	36	85	30

Service activities

Health Index: At risk

USER	LOCATION	ASSET CLASSES	DOWNTIME	DUE DATE	STATUS
Grant Marshall	SWG1 INCI	LV Switchgear, LV Air Circuit Breaker, LV Moulded Circuit Breaker	8 hours	2020/02/15	At risk 30 days
Jessica Miles	SWG1 FEED1	MV Switchgear, MV Vacuum Circuit Breaker, MV Protection Relay	24 hours	2020/02/15	At risk 27 days
Kerri Barber	SWG1 FEED	LV Switchgear, LV Air Circuit Breaker, LV Moulded Circuit Breaker	6 hours	2020/02/15	At risk 16 days
Natasha Gamble	SWG1 INCI	MV Switchgear, MV Vacuum Circuit Breaker, MV Protection Relay	3 hours	2020/02/15	At risk 15 days
White Castaneda	SWG1 FEED1	LV Switchgear, LV Air Circuit Breaker, LV Moulded Circuit Breaker	8 hours	2020/02/15	At risk 2 days
Vanessa Ryan	SWG1 FEED	MV Switchgear, MV Vacuum Circuit Breaker, MV Protection Relay	20 hours	2020/02/15	At risk 1 day
Meredith Hendricks	SWG1 INCI	LV Switchgear, LV Air Circuit Breaker, LV Moulded Circuit Breaker	8 hours	2020/02/15	At risk 1 day

Go to Services Activities section

Events trend

Period: Current year Compare to previous period

Health by age

Manufacturer: Select manufacturer... Asset class: Select asset class...

Age Group	Very good	Good	Fair	Poor	Very poor
Unknown	3	1	8	3	13
0 - 10 years	22	6	3	3	37
10 - 20 years	13	5	18	18	54
20 - 30 years	21	5	34	34	94
30 - 40 years	5	2	11	11	33
> 40 years	20	2	21	21	64

Asset risk trend

Manufacturer: Select manufacturer... Asset class: Select asset class... Asset age: Select asset age... Period: Year

ABB Ability™ Asset Manager

ABB Ability™ Asset Manager

A world of applications

ABB Ability™ Asset Manager sets a new benchmark for simplicity and flexibility in asset performance management. It gives you the power of seeing and optimizing your site equipment behavior anytime, anywhere. From facilities to process industries, through to data centers and utilities.



Utilities

Asset critical industries like electricity and water utilities

- Increase transparency, resiliency and operational continuity
- Improve safety with remote health analysis
- Optimize maintenance activities and asset lifecycle
- Reduce total cost of ownership



Process

Asset intensive industries like mining, oil, gas and chemical plants

- Identify and remediate equipment issues
- Avoid productivity loss and reduce maintenance costs
- Ensure the highest level of power reliability
- Maximize uptime, safety, speed and yield



Manufacturing

Industrial plants like food & beverage and automotive

- Improve equipment performance
- Ensure maximum product quality and consistency
- Lower costs and emissions
- Prevent costly downtime and product wastage



Data centers

Critical power systems, like in data centers and hospitals

- Ensure reliable power supply and continuous efficiency
- Detect any anomaly to optimize your assets
- Ensure maximum uptime



Buildings

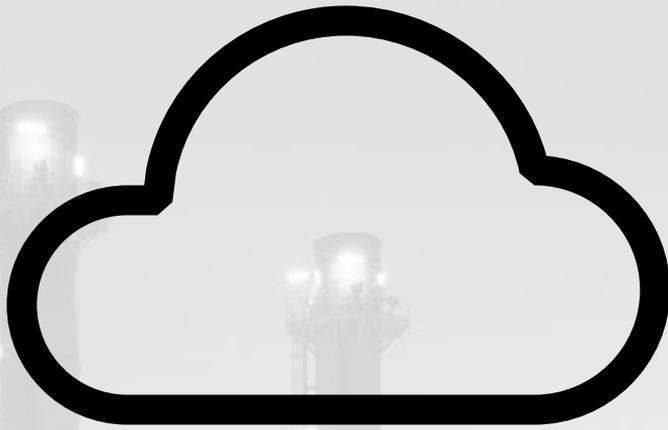
Mid-large commercial buildings like hotels, malls and offices

- Remotely view, manage, and optimize building systems
- Implement predictive (condition-based) maintenance
- Ensure reliability and availability of power and equipment

Architecture

ABB Ability™ Asset Manager enables the collection of relevant information from your medium voltage power distribution system and gives you the power of seeing and optimizing your site equipment behavior anytime, anywhere via an intuitive graphic interface, resulting in greater reliability, availability and minimized unplanned maintenance.



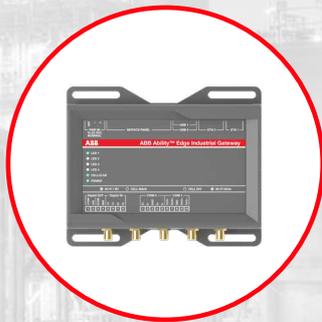


Cloud

- Predictive maintenance
- Load forecasting
- Analytics



Cloud view



Edge/ On-premise

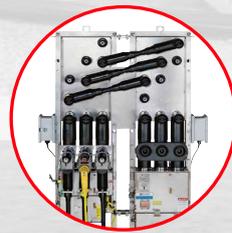
- Trends
- Status
- Alerts
- Alarms



Local view



Swicom HMI



Elastimold™ Solid Dielectric Switchgear

Connected Solutions

- Local Status
- Local Alerts
- Local Alarms



ReliaGear™ ND



Elastimold™ Recloser



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