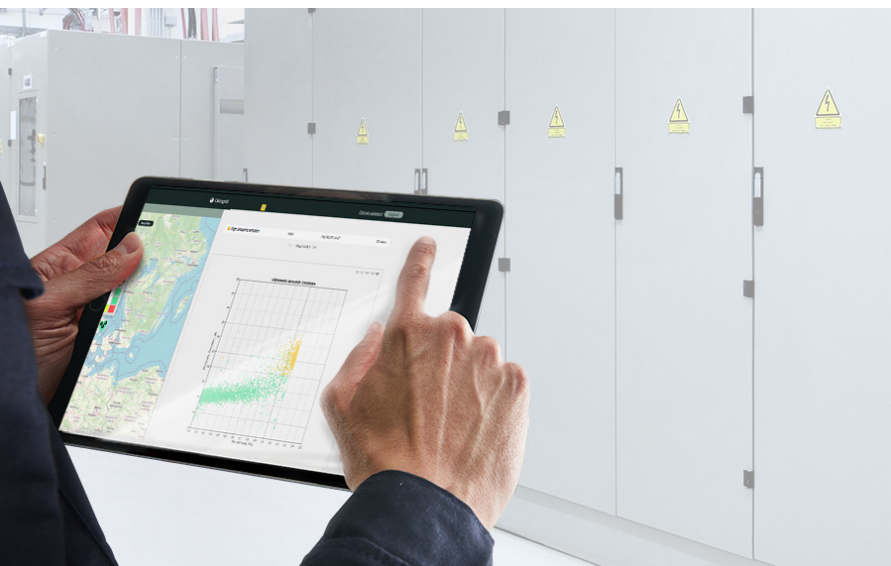


ABB Ability™ Asset Manager for Transformers

Breakthrough monitoring solution
for power and distribution transformers



Safety and reliability

- Real-time asset health status awareness
- Prolong the life of your transformers

Optimize your maintenance plan

- Minimize planned maintenance shutdowns
- Reduce total costs of ownership by reducing operational costs

Maximize uptime and productivity

- Avoid unexpected failures
- Optimize product life cycle

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ABB is partnering
with Oktogrid to
boost digitalization
of electrical assets



The spotlight is on asset management to ensure availability, reliability, sustainability and predictability of electrical infrastructure, now and into the future. The increasing demand for a decarbonized world has prompted industries to embark on the journey toward cleaner operations.

Effective asset management not only ensures the seamless operation and optimized life cycle of existing infrastructure but also lays the foundation for a sustainable and resilient energy landscape for the future.

Transforming electrical stability & resilience

ABB Ability™ Asset Manager for Transformers is a cloud-based monitoring solution for transformers and is fully integrated with ABB's digital offering. This innovative digital solution:

- facilitates real-time, remote condition and performance monitoring
- is easy to set up
- prolongs the life of electrical components
- enables condition-based maintenance of electrical assets.

Working independently of transformer type, make and age, the solution measures:

- Ambient temperature & humidity
- Surface temperature
- Magnetic field
- Vibration
- Partial discharges using acoustics sensor.

Greater reliability, availability and uptime with data

Condition-based maintenance via cloud data analysis makes it possible for users to understand equipment's condition, to detect anomalies early, avoid failures and optimize maintenance intervals without affecting safety.

Gaining deeper knowledge of the status of assets is fundamental to guaranteeing plant availability and reliability, and scheduling transformer replacements in advance to avoid critical situations or loss of productivity due to long delivery times.

The solution's online dashboards show users a wide range of information for each transformer to support better decision-making:

- Multiple landing pages with easy-to-understand transformer status KPIs
- Asset main data (technical characteristics)
- Asset aging events connected to temperature and load
- Capacity status to ensure users understand the impact of the transformer overloading
- Winding mechanical status by using vibration measurements.

Non-invasive, fast installation & commissioning

Installation and commissioning of the hardware, ABB Ability™ Transformers Condition Monitoring – TRAFCON, requires less than 15 minutes, significantly minimizing transformer's downtime.

All components, including cables, are installed using embedded magnetic holders which makes it possible to set up without any need for mechanical work on the transformer, such as drilling.

Installation process

Transformer energized

Transformer de-energized



Share in advance transformer details like: power, nominal current, load loss, etc



Connect the battery and sensor. Make sure that connections are tight



Install the sensor as close to the center of the core as possible



Place the battery away from the transformer with the arrow pointing upwards



Place the antenna as high as possible within safety regulations



Secure the wires with the wire-clip and zip ties



Power up the device by holding down the button until the LED flashes rapidly



Fill the data in the app

The TRAFCON sensor comprises: an antenna, sensor & gateway and battery package



Antenna

- Degree of protection: IP68
- 4G LTE communication
- Frequency: 680-4900MHz
- Operating temperature: -40 + 85°C



Sensor & Gateway

- Degree of protection: IP67
- 3 axis electromagnetic field sensing: +50 gauss
- 3 axis vibration sensor: +2/+4/+8/+16g
- Frequency ultrasound analysis: 130db SPL
- Ambient temperature: -40/120°C
- Surface temperature: -40/380°C
- Operating temperature: -40 + 85°C



Battery Package

- Degree of protection: IP68
- Rated Voltage 3.6 V
- Max continuous output current 7.2A
- Operating temperature: -40 + 85°C

ABB Electrification Service

For more information please visit:
new.abb.com/service/electrification/advanced-services

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