

GRIDWATCH

MONITORING OF ELECTRICAL TRANSFORMER STATIONS



Build your network of MV/LV transformer stations for the long term

- Complete and upgradable
- Quick roll-out
- Compatible with any system



Measure up



GridWatch: Solution for supervising LV installations

A tailored solution
based on integration of the
Ulys MCM multichannel meter



**ANTICIPATE
AGING OF THE
TRANSFORMER
AND INSTALLATIONS**

Optimization of scheduling and
reduction of maintenance costs



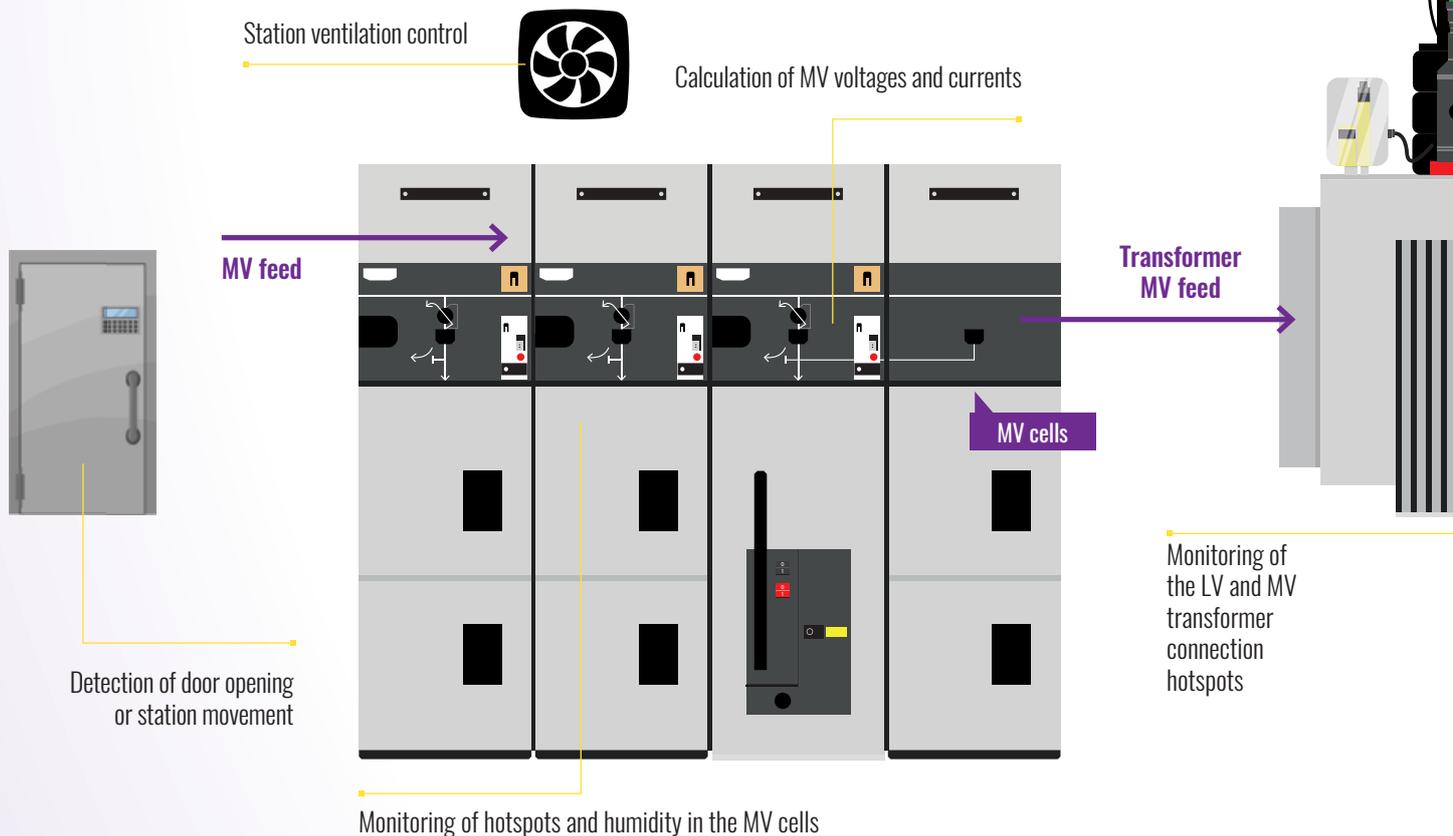
**TRACE AND
SECURE
THE ENERGY
FLOWS**

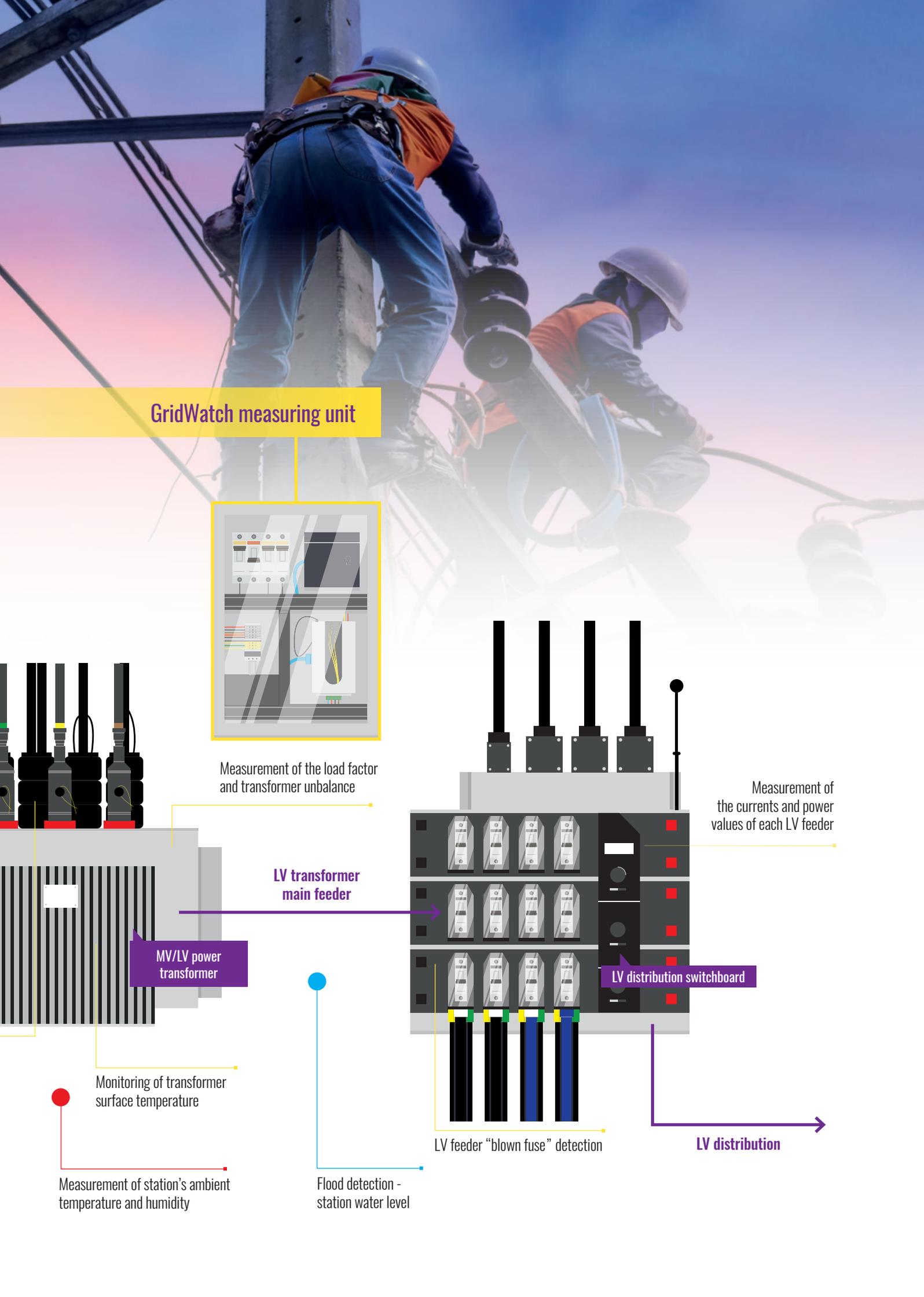
Reduction of
technical and
non-technical losses



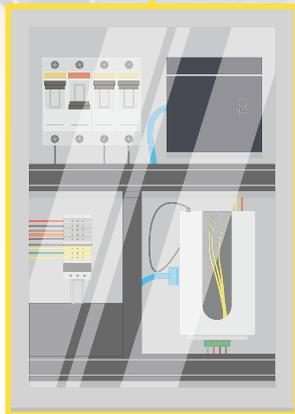
**OPTIMIZE THE
INSTALLATIONS
AND NEW
CONNECTIONS**

Evaluation of the available
reserve or the effective
overload on the feeders or
transformers

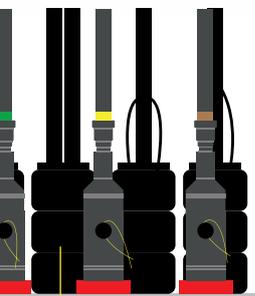




GridWatch measuring unit



Measurement of the load factor and transformer unbalance

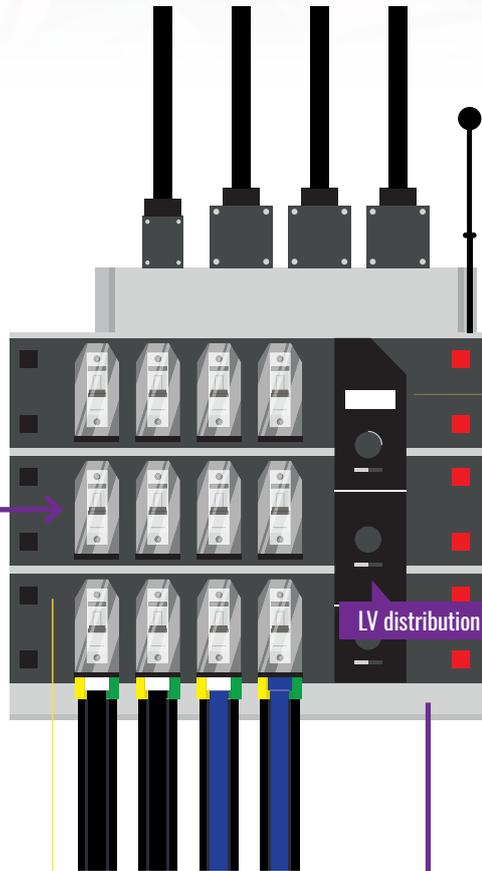


MV/LV power transformer

Monitoring of transformer surface temperature

Measurement of station's ambient temperature and humidity

LV transformer main feeder



Measurement of the currents and power values of each LV feeder

LV distribution switchboard

LV feeder "blown fuse" detection

LV distribution

Flood detection - station water level

Strengths



Complete and upgradable

GridWatch includes all the sensors for supervising the critical points in the MV/LV transformer station.

Proposed in various versions, it adapts to the available space and budget for **optimum implementation**.

It will be possible to add sensors to GridWatch as required in order to instrument the transformer and then extend the analysis to the electrical feeders of the transformer station.



Quick roll-out

To reduce unavailability of the transformer station when the system is commissioned, **GridWatch has been designed for quick installation and roll-out**: openable current sensors with click-on connection, prewired environmental measuring sensors, preconfigured wireless hotspot sensors, etc.



Compatible with any system

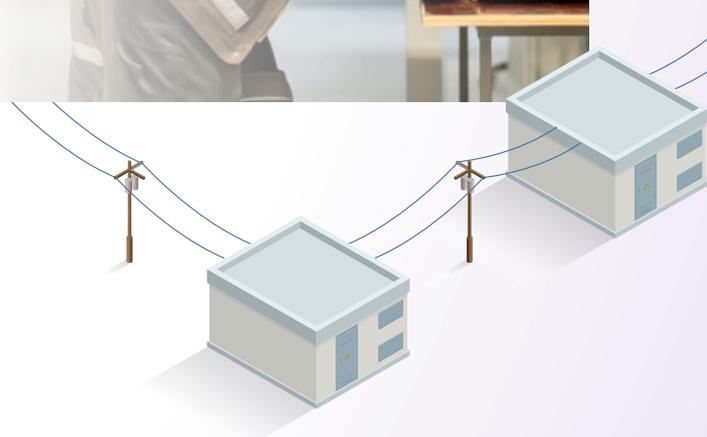
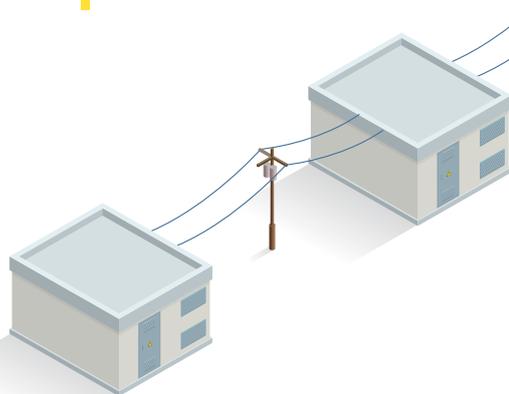
With its 3G/4G or Ethernet communication, **GridWatch can be viewed remotely** via its integrated web pages.

GridWatch provides the information on the transformer station **in real time or by sending files via multiple means of communication**.

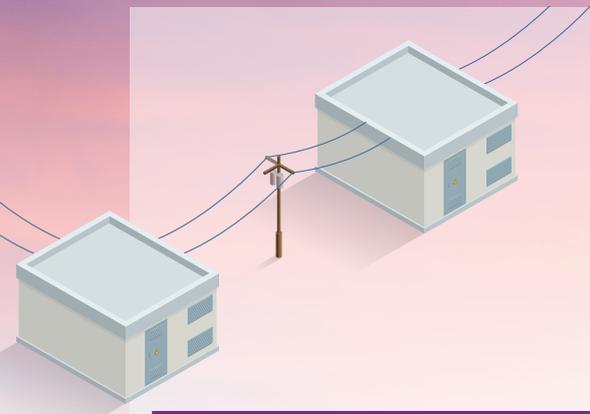
Alarms can be sent by email or sms (text).

The associated system **allows administration of a large number of units**: geolocation, status monitoring, updates, etc.

Everything can be done via a remote application.



Description of the offer



GridWatch C100	GridWatch C200
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ANALYZE the load factor of the transformer and the feeders to optimize the connection of new equipment.



ANALYZE the load factor of the transformer and the feeders to optimize the connection of new equipment.

- + **ANTICIPATE** failures and aging on electrical installations
- + **CONTROL** maintenance of the stations

Measurement and analysis of the behavior of the transformer cabin equipment

Transformer monitoring: measurement and electrical metering at the level of the secondary of the main MV/LV transformer

- 3P+N voltage measurement on feed terminal strip
- Current measurement by quick-install Rogowski coil (diameter 200mm)
- Quantities measured: V, U, I, F, P, Q, S, Phase, Ea, Eq, Es
 - MV calculated quantities: U, I

Monitoring of the low-voltage electrical feeders: measurement and electrical metering

- Current measurement by quick-install split-core CTs (up to 8 feeders)
- Quantities measured: V, U, I, F, P, Q, S, Phase, Ea, Eq, Es

Measurement of the general neutral currents and low-voltage feeders

-

Yes

Measurement of the temperatures of the LV and MV transformer connection hotspots

-

Yes

Measurement of transformer surface temperature

-

Yes

Measurement of the unit's ambient temperature and of the stations temperature and ambient humidity

-

Yes

Ability to interface with the other elements in the transformer station

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Analog inputs and on-off inputs and outputs available

Communication et and data management

Communication mode

3G/4G communication and associated remote antenna

Data display

Remote web pages

Management of alarms and recordings

- Alarms on overruns and time delay with transmission of an sms or email, memorization in the alarms log.
- Recording of all the quantities and variables

Protocols in simultaneous use

- Modbus TCP : Access to all the electrical and physical quantities in real time (Is)
 - MQTT :Alarm publisher mode / Subscriber mode
- HTTP: Access to all the electrical and physical quantities in real time, with the data being archived
 - Push FTP: File transmission on FTP server

Remote administration

Updating – Parameterization – Instrument fleet management

General specifications

Local data display screen

-

Yes

Dimensions

500x400x200

600x600x250

Use

Indoor

Operating temperature

-10°C - +55°C

Installation

Mounting on wall or stand

Compliance

IEC 61439-1 / IEC 61439-5

Battery operating in the event of a power cut

-

Yes

The sensor kits associated with your units enable you to perform measurements on low-voltage feeders

Kit for 4 x 400 A feeders with 9 m cables

Kit for 4 x 400 A feeders with 250 A neutrals and 9 m cables

Kit for 8 x 400 A feeders with 9 m cables

Kit for 8 x 400 A feeders with 250 A neutrals and 9 m cables

Ask us for a quotation for your transformer station monitoring projects!

Your contacts

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CHAUVIN ARNOUX ENERGY

ULYS MCM
MULTI-CHANNEL METER

The solution for centralizing measurement on multiple electrical feeders

- Compact - fit three phase meters in 1
- Quick implementation
- Compatible with a large number of sensors

Measures up

For more information about the Ulys MCM multichannel meter, our solution for centralizing the measurement of multiple electrical feeders

CHAUVIN ARNOUX ENERGY

ELECTRICITY TRANSMISSION AND DISTRIBUTION

Our solutions for measurement, testing and analysis

Measures up

Discover all our measurement, testing and analysis solutions for electricity transmission and distribution

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