

### Smart, underground and overhead grids

A reliable and high-performance power line



#### **Smart grids**

At the heart of energy transition, in the electricity distribution efficiency, smart grids belong with power as the Internet with communication: a major revolution!

PRODUCT RANGE: WE ARE **WORKING ON NEW GENERATIONS OF "SMART** METER READY" SYSTEMS.

Prepare for meter change-out



Quick replacement & implementation of smart meters

Meter board

Smart meter ready

Contained cost



Quick implementation of new equipment Universal board

for smart meters

The metering board helps to deal with any thermal transfer insulation and wiring problems stemming from the installation of the new meter.

FOREWORD: SMART, UNDERGROUND AND **OVERHEAD GRIDS.** THE CHOICE OF A RELIABLE AND HIGH-PERFORMANCE POWER LINE.

In the scope of higher performance of electricity lines, Michaud Export promotes power networking by offering a solution at any connection of electricity distribution networks:

- Prepare for meter change-out;
- Read data through PLC;
- Connect underground electricity lines;
- Gather connection functions:
- Connect overhead electricity lines;
- Protect installations against defects...



### Engineering & creativeness

### Michaud Export's experience

Electricity grids have become smart as to cope with the increase in energy demand.

Today, **Michaud Export** stands by network Operators

in the implementation of smart metering both by offering its expertise in the meter support board with connection and designing even more innovative solutions. **EDF** France and **SIBELGA**Belgium are among
the major **Michaud**customers.

Such suitable solutions allow an easy installation of the new smart meters on electricity grids.



AMM ncentrator

Rapid & simplified setting

Insulated connectors to protect fitters

Fast plug-

in terminal for

Read data through PI.C



Collect and transmit data from electricity line

Connection kit for AMM concentrator

Such kits facilitate the implementation of AMM (Automatic Meter Management) concentrators in HV/LV substations or on the poles according to network specifications (overhead or underground grids).

2-in-1 connector with 1 fuse to protect the concentrator Controlled
tightening
torque for a longterm reliability of the
connection thanks to
MICHAUD's shear
head screw

Insulation
piercing
connector for
utmost efficiency

MICHAUD

## Underground grids

Widely used in urban areas, this technology is greatly expanding in rural places. Notwithstanding higher costs, underground grids generate low impact on the visual environment and offer improved reliability against adverse weather conditions.

TRENDS: IN GERMANY, 88 % OF NETWORKS ARE BURIED AND IN CANADA, 50 % OF NEW GRIDS ARE UNDERGROUND.

Connect underground electricity lines



Short
set-up time
and reliability
guaranteed by
the exclusive
design!



Underground connection



IP2X
safety:
insulation of the
RING at implementation

100% insulation piercing

> Easy & secured setting for live wiring

Exclusive concept

Efficiency:
Only 3 elements
to make a
RING

Fast: only two shear head screws for all connections

> made of glass fibre reinforced synthetic materials

#### Reliable and insulated connectors

RING-type multi-tapping underground system

The connector is used in service line tap connection to make underground low voltage networks. It is implemented in cast boxes and allows up to two connections.

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#### Technical Intelligence

### Michaud Export's experience

Today's electricity distribution networks are facing two different requirements: reliability and discretion. As a technical expert of low voltage networks,

Michaud focuses its R&D on developing innovative underground wiring connection solutions and satisfying all application specifications.

Above ground connection offers utmost modularity and flexibility. Underground connections

are secured, insulated and trustworthy.
These technical solutions have already been favoured by a large number of electricity distribution companies throughout the world (Europe, Africa, Caribbean, Pacific...).



Above-ground cabinet



No more electricity poles

Easy intervention & operation

Reduced road works

Gather connection functions



#### Better handle aboveground connection

**REMIC**<sup>©</sup> Modular Above-Ground system

A multi-functional and modern solution to handle underground low voltage network aboveground connections.

The **REMIC**® cabinet protects and connects above-ground electricity networks and service lines.

3-in-1
cost-convenient
solution in 1 single
cabinet (cutoff,
protection and
connection)

From
10 mm<sup>2</sup>
to 240 mm<sup>2</sup>
connection

200 A protection 400 A cuttoff



Wide front opening for a quick

assembly and

disassembly





#### **Overhead** grids

Electricity grids based on ABC lines (Aerial Bundled Conductor) are on average 3 times cheaper than underground technology. Easy to implement, such grids provide good resistance to climatic variations (floods, ...).

FACTS: 10-TIMES SHORTER INTERVENTION ON OVERHEAD **ENERGY NETWORKS.** 

(Gimelec source)



Connect overhead electricity lines



Quality reliability medium-run savings

Michaud's 30-years experience

Shear-

head assured

tightening

efficiency

Insulated

fastener

for fitter's

maximum

safety

Connection &

Connector



Design time resistant and reliable electricity grids Insulation piercing

connector

The connector is used to make insulated connections from insulated or bare energy networks.

Insulation Extremely easy to connection implement Captive components Utmost 6 kV

to adverse climates

watertiaht connector

Suitable for aluminium conductors

# Economic strategy

### Michaud Export's experience

80% of technical incidents on electricity grids are tied up to corrupted connectors. These elements merely represent 2% of total cost, while substantial gains

in terms of maintenance are to be considered. Through its utmost know-how level,

Michaud assures high performance and long-term stability for an optimum energy distribution network quality.

Since 1980, overhead low voltage connectors have been **Michaud's** core business. Renowned electricity companies, among which **AUSGRID** in Australia, **EDM** in Mali, **CEZ & E-ON** in Bulgaria, **VIKEN ENERGYNETT** in Norway, have opted for our **cost-efficient quality.** 



Three-phased fuse switch disconnector



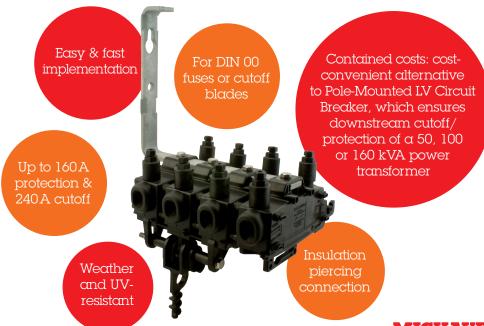
Cost-convenient alternative for connection or network protection Protect installations against defects



Protection at the focus of efficient electricity grids

Fuse switch disconnector & cutout sleeve

This cutout equipment can be fixed on top of the pole or façade and helps to protect low voltage grids or service lines.





## www.michaud-export.com contact@michaud-export.com



Operating worldwide in the energy domain, **Michaud Export** designs, develops and implements a complete range of reliable systems for electrical installations with contained maintenance on distribution lines.

As the architect of your solution, the company focuses on on-going innovation and leverages on the worldwide renowned expertise of the 250 employees at **Michaud Group**, leader in the industry for systems and connection fittings for electrical installations.

#### Michaud Export

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