ELECTRICAL DISTRIBUTION

Medium Voltage Energy Catalogue

EDITION
2026 - 2027

Our energy at your service

MICHAUD

65 YEARS OF EXPERTISE

MICHAUD is a French industrial group specialised in energy distribution networks for over 60 years.

MICHAUD Export, subsidiary dedicated to international markets, develops and sells solutions according to applicable standards thanks to its know-how as well as its relationships with local actors.

100 Million €

+70 countries

100 protected innovations yearly

+400 employees

PRESCRIPTION & DIAGNOSIS

A strong market understanding and a recognised technical knowledge to serve your projects in order to propose suitable solutions.

INNOVATION & QUALITY

6% of the work force is dedicated to R&D. MICHAUD develops tomorrow's solutions and guarantee quality and reliability of products thanks to a COFRAC accredited and independent type test laboratory (accreditation n°1-0579).

FITTERS TRAINING

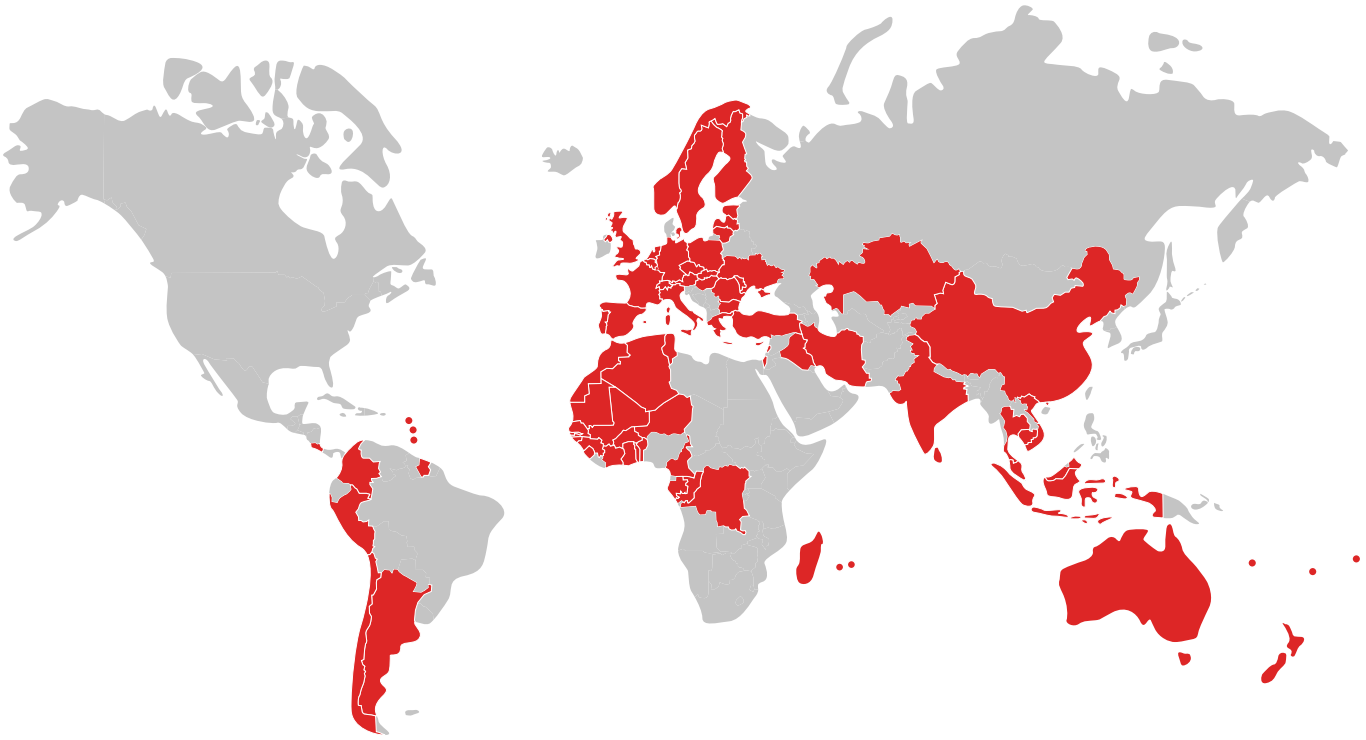
As preferred technical partner, MICHAUD encourages learning and knowledge transmission together with product commercialisation.

According to the international standards, MICHAUD designs and develops energy distribution solutions. The products range is focused on several fields of expertise:

Low and medium voltage networks : to connect and protect the overhead and underground electrical lines ;

Energy controlling : to manage and offer easy access to electricity.

+ 70 PARTNERS WORLD-WIDE



MICHAUD benefits from a privileged collaboration with many partners around the world. Thanks to an Engineering Department dedicated to international business, MICHAUD provides support to Power Utilities in their grid expansion projects.

Besides, MICHAUD supports and works in partnership with power sector organisations.

Non-contractual photos and drawings. MICHAUD Export reserves the right to modify characteristics without any prior notice.

MEDIUM VOLTAGE NETWORK

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Ring connector for MV conductor

Bare conductor

U400

APPLICATION

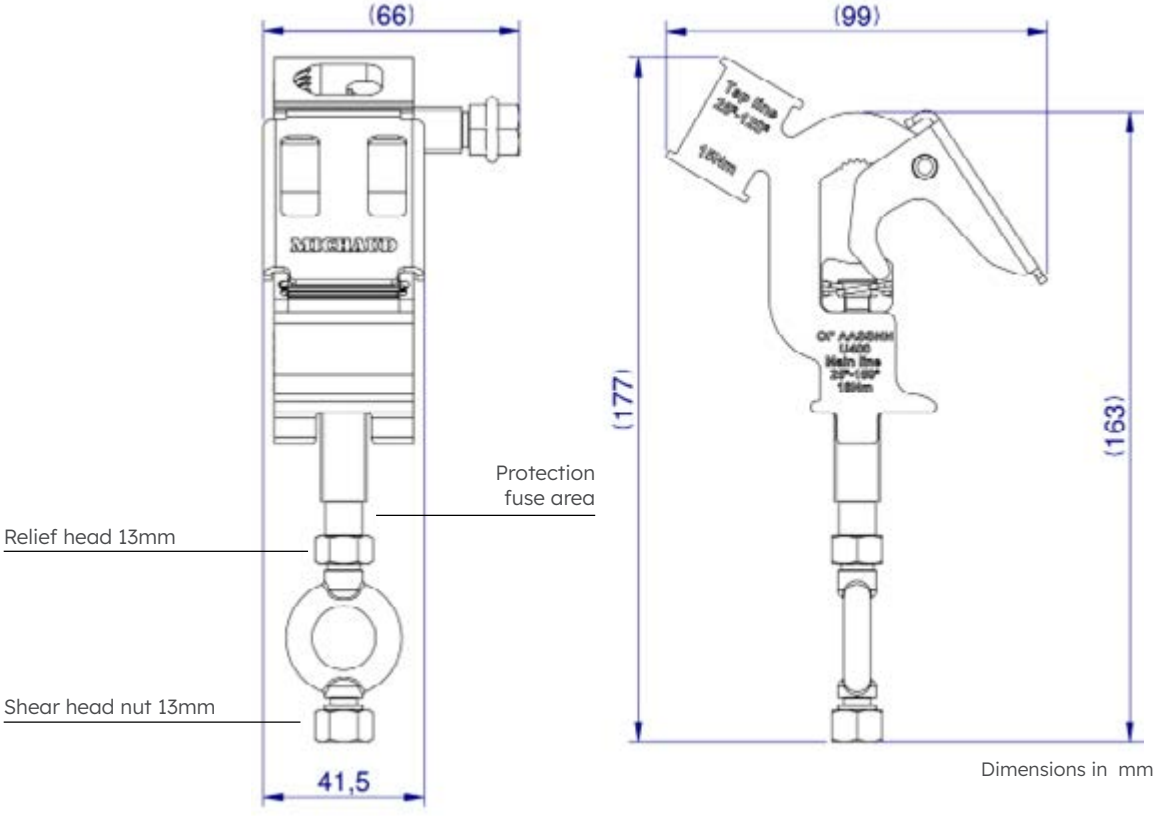
This connector is designed to connect a bare medium voltage aluminum line with another conductor of the same type.

For live implementation, use an insulated stick.

DESCRIPTION

- This aluminum connector is highly resistant to corrosion.
- The metal flap ensures the connector's mechanical strength during installation. The flap is held opened thanks to a stainless steel spring during implementation. Once the connector has been correctly positioned on the main cable, the flap moves to closed position.
- Implementation of the connector on the main line is performed :
  - Under voltage from ground level thanks to the ring (insulated stick tightening). The ring is equipped with a fuse safety element in order to protect the main conductor (breaking in case of excessive tightening).
  - Without voltage for top pole installation thanks to a 13mm hexagonal shear head (hand spanner tightening).
- The connector can be removed :
  - Under voltage from ground level, unscrewing the ring, thanks to the insulated stick.
  - Without voltage, in the absence of the ring, unscrewing the 13mm hexagonal spare head, thanks to a hand spanner.
- The tap conductor can be installed from above or below the terminal block.
- Capacities are :
  - Main line : 25-150mm² Al
  - Tap line : 25-120mm² Al
- MV application range: 1kV up to 50kV.

This connector meets the criteria of the technical specification **HN 66-S-43**.



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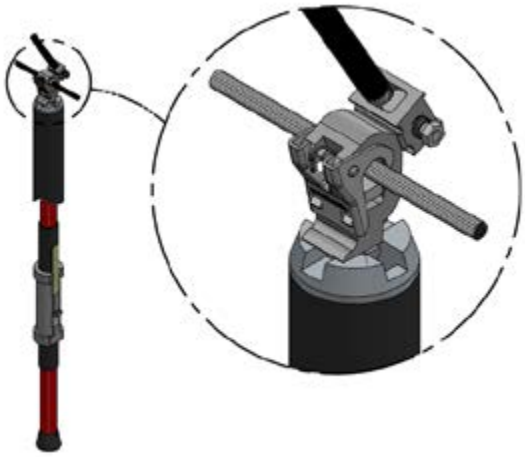
REFERENCE

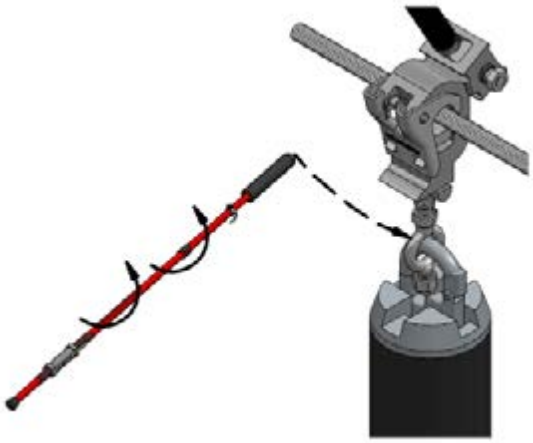
Code	Designation	Main line Al (mm²)	Tap line Al (mm²)	Weight (kg)	Sales unit
U400	LIVE LINE CONNECTOR RING TYPE 25-150 / 25-120	25-150	25-120	0.290	36

Note : For other cable capacities, please contact us.

INSTALLATION

Implementing the U400 connector: an insulated stick is required for a distance installation under voltage.





The U400 connector can be installed using an insulated stick. The stick's hook grabs the connector's ring. Then, the connector is positioned on the main line and tightened thanks to the ring.

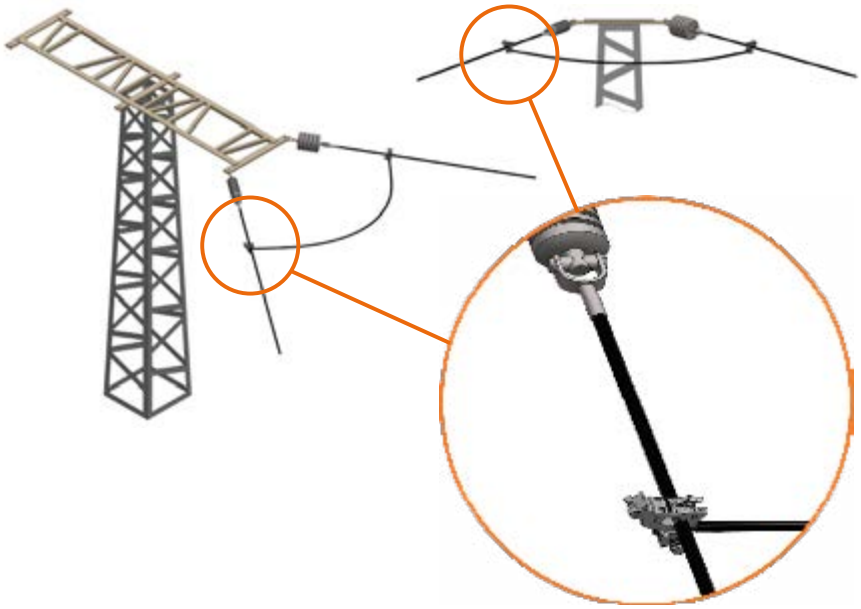
The flap is then closed and the connector is locked onto the cable.

Simply disconnect the stick by opening the hook to release the connector.

Re-use:
Please refer to detailed instructions in the installation sheet.

SITUATION

Two U400 connectors in situation:



Live line connector pin type

U410

APPLICATION

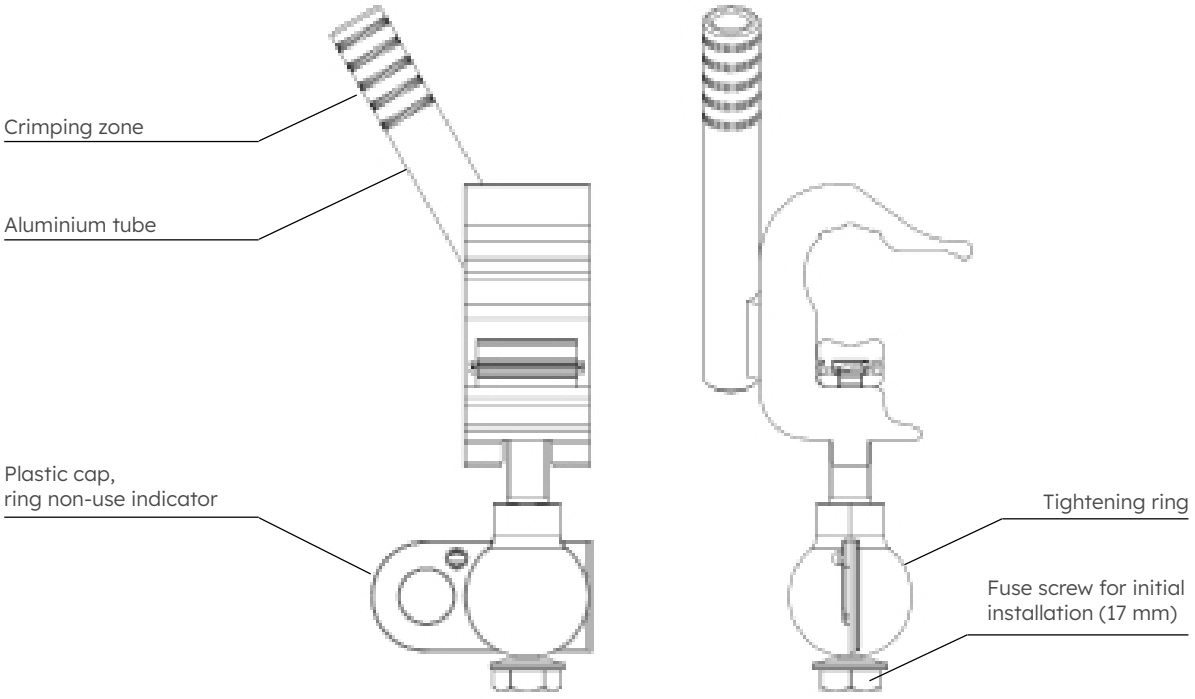
This connector is designed to make the branching of a bare conductor onto a 25mm pin.

Its design allows work without voltage when in contact, or with voltage using a stick.

DESCRIPTION

- This open-shaped connector allows for easy installation and removal, regardless of its position on the pin. Its fully aluminum structure provides excellent resistance to corrosion.
- The connector can be installed on the pin:
  - Under voltage, using the ring for installation from the ground (tightening with an insulated pole).
  - Without voltage, using the 17mm hexagonal fuse head for direct contact installation (tightening with a wrench).
- The connector can be disassembled:
  - Under voltage from the ground using an insulated stick by removing the non-used indicator from the ring and then unscrewing the ring.
  - Without voltage in contact, by loosening the 13mm hexagonal head with a spanner, after removing the non-used indicator.
- The branch conductor can be crimped into the tube for an outlet, either upwards or downwards.
- Capacity: The choice of connector depends on the section of the branch conductor, and connectors are designed to fit pins that comply with the **HN 66-S-46** standard with a 25mm diameter.
- Medium voltage range: from 1kV to 50kV.

This connector meets the criteria of the **HN 66-S-45** specification.



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REFERENCES

Code	Designation	Main line (mm²)	Tap line Al alloy (mm²)	Weight (kg)	Sales unit
U410-54	LIVE LINE CONNECTOR PIN TYPE - 54 mm²	Ø25 pin	54.6	0.260	1
U410-75	LIVE LINE CONNECTOR PIN TYPE - 75 mm²	Ø25 pin	75.5	0.270	1
U410-148	LIVE LINE CONNECTOR PIN TYPE - 148 mm²	Ø25 pin	148	0.280	1

INSTALLATION

1) Brush the tap cable under neutral grease (L023) and insert it into the aluminum tube. Protrude the conductor from the tube by 20 mm. The tap conductor can exit indifferently in both 2 directions.

2) Select the crimping matrix according to the reference indicated on the marking zone.

3) Crimp the tap cable in the aluminium tube, following the crimping markings from the welding direction towards the outside.

Accessories

APPLICATION

This sleeve is designed to suit ALMELEC cables.

U411

DESCRIPTION

- This sleeve is designed for ALMELEC cables.
- The sleeve is fixed to an anchor chain.
- The cable is implemented using hexagonal crimping.

REFERENCES

Code	Designation	Ø pin (mm)	ALMELEC cable capacity (mm²)	Weight (kg)	Sales unit
U411-54	ALMELEC ANCHORING SLEEVE PIN TYPE - 54MM²	25	54.6	0.700	3
U411-75	ALMELEC ANCHORING SLEEVE PIN TYPE - 75MM²	25	75.5	0.730	3
U411-148	ALMELEC ANCHORING SLEEVE PIN TYPE - 148MM²	25	148	1.200	1

Lug

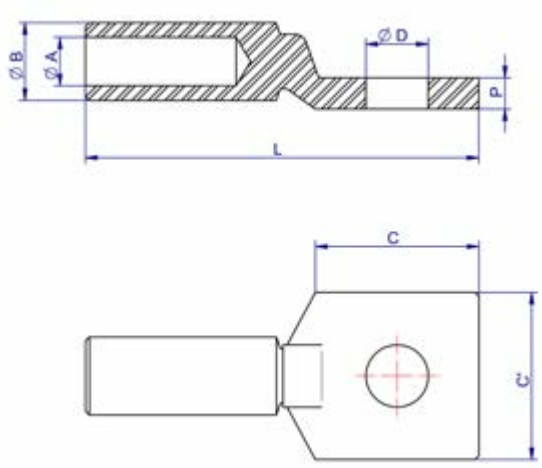
APPLICATION

This Al lug is used to connect aluminium bare conductors to aluminium equipment terminals.

It implemented with a deep crimping die.

This lug meets the criteria of the **NFC 55-090-1** standard.

U568



REFERENCES

Code	Designation	ØA (mm)	ØB (mm)	ØD (mm)	C' x C (mm)	P (mm)	L (mm)	Weight (kg)	Sales unit
U568_25-13	ALU LUG C0A25 25mm² - DIAM 13	6.5	16	13	32x33	6	90	0.070	3
U568_35-13	ALU LUG C0A35 35mm² - DIAM 13	8	16	13	32x33	6	90	0.066	3
U568_50-16	ALU LUG C1A50 50mm² - DIAM 16	9	20	16	42x43	8	101	0.080	3
U568_70-16	ALU LUG C1A70 70mm² - DIAM 16	11	20	16	42x43	8	101	0.077	3
U568_95-16	ALU LUG C1A95 95mm² - DIAM 16	12.5	20	16	42x43	8	101	0.075	3
U568_120-16	ALU LUG C2A120 120mm² - DIAM 16	13.7	25	16	42x43	11	121	0.111	3
U568_150-16	ALU LUG C2A150 150mm² - DIAM 16	15.5	25	16	42x43	11	121	0.107	3
U568_185-16	ALU LUG C4A185 185mm² - DIAM 16	17	32	16	42x43	11	121	0.473	3
U568_240-16	ALU LUG C4A240 240mm² - DIAM 16	19.5	32	16	42x43	14	121	0.141	3
U568_300-16.5	ALU LUG C5A300 300mm² - DIAM 16.5	23.3	40	16.5	40x40	14	165	0.324	3

Note : stamping presses and dies are available upon request..

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MV JOINTS

Joint sleeve

APPLICATION

This sleeve is designed to connect bare overhead ALMELEC conductors.

This product meets the criteria of the **NF EN 61284** standard.

U430

REFERENCES

Code	Designation	Weight (kg)	Sales unit
U430-34	ALMELEC JOINT SLEEVE - 34mm²	0.480	12
U430-54	ALMELEC JOINT SLEEVE - 54mm²	0.630	12
U430-75	ALMELEC JOINT SLEEVE - 75mm²	0.850	6
U430-93	ALMELEC JOINT SLEEVE - 93mm²	0.771	6
U430-117	ALMELEC JOINT SLEEVE - 117mm²	0.630	3
U430-148	ALMELEC JOINT SLEEVE - 148mm²	0.970	3
U430-228	ALMELEC JOINT SLEEVE - 228mm²	1.200	3

MV CONNECTIONS

Ending

U447

APPLICATION

This cold-shrinkable lost end is designed to connect on synthetic-insulated cables with round or sector shape core.

It is adopted to underground networks, installations on cable trays or overhead insulated network.

This cold-shrinkable termination is designed to connect on synthetic-insulated cables with round or sectoral cores allowing a 3 single pole connection.

DESCRIPTION

Lost end :
- Conductor sizes: 50 to 240 mm².
- Insulation voltage class up to 12,7/22 (24) kV.
- Copper or aluminum conductor, solid or stranded.
- Single core cables with polymer extruded insulation (XLPE, EPR, HEPR, HPTE ...).
- Peelable or bonded extruded outer semiconducting screen.
- Metallic screen: copper tape, copper wires, longitudinal Al laminate tape, or hybrid type (Cu wires + longitudinal Al laminate tape).
- With or without shielding cable.

This lost end meets the criteria of the **NF C 33-226** / **UTE C 33-223**, **NF C 33-223** (HN 33-S-23) et **NF C 33-220** (HN 33-S-22) standards.

MV terminations :
- Conductor sizes: 50 to 240 mm².
- Insulation voltage class up to 24 kV.
- Copper or aluminum conductor, solid or stranded.
- Single core cables with polymer extruded insulation (XLPE, EPR, HEPR, HPTE ...). Standards **NF C 33-226** / **UTE C 33-223**, **NF C 33-223** (HN 33-S-23) et **CEI - 502**.
- Peelable or bonded extruded outer semiconducting screen.
- Metallic screen: copper tape, copper wires, longitudinal Al laminate tape, or hybrid type (Cu wires + longitudinal Al laminate tape).
- With or without shielding cable.

This termination meets the criteria of the **NF C 33-226** / **UTE C 33-223**, **NF C 33-223** (HN 33-S-23) et **CEI - 502** standards.

No special tools, heat sources, taping, or filling materials are required for installation. A wrench with a socket is the only tool required to install the mechanical clamp connection. Power can be applied immediately after the connection has been made.

REFERENCES

Code	Designation	Sections (mm²)	Mechanical clamping sleeve	Weight (kg)	Sales unit
LOST END					
U445_001	MV LOST END E3UBPS SC CS - MTS - 24kV - 50/240 AL/CU	50-240	-	9.030	1
U445_002	MV LOST END E3UBPS - CC CS - MTS - 24KV - 50/240 AL/CU	50-240	-	3.200	1
INSIDE TERMINATION					
U447_001	KIT 3 MV TERMINATIONS E3UIC - 24kV - 50/240	50-240	No	2.400	1
U447_002	KIT 3 MV TERMINATIONS E3UIC CS - MTS - 24KV - 50/240	50-240	Yes	2.780	1
OUTSIDE TERMINATION					
U447_003	KIT 3 MV TERMINATIONS E3UEP - 24kV - 50/240	50-240	No	3.700	5
U447_004	KIT 3 MV TERMINATIONS E3UEP CS - MTS - 24KV - 50/240 AL/CU	50-240	Yes	4.100	5
U447_005	KIT 3 MV TERMINATIONS E3UEN CS - MTS - 24KV - 50/240 AL/CU	50-240	Yes	4.000	5

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Underground joint

APPLICATION

This cold-shrinkable joint is designed to connecting synthetic insulated cables of equal or unequal cross-sections, with round or sector shape with copper or aluminium cores. High-end EPDM formulation provides outstanding moisture resistance, elastic properties and long-term performances in operation.

This cold-shrinkable branch is designed to connecting synthetic insulated cables of equal or unequal cross-sections, round or sectoral in shape.

U441

DESCRIPTION

Joint :
- Conductor sizes: 50 mm² to 240 mm².
- Insulation voltage class up to 12/20 (24) kV.
- Copper or aluminum conductor, solid or stranded.
- Single core cables with polymer extruded insulation (XLPE, EPR, HEPR, HPTE ...).
- Peelable or bonded extruded outer semiconducting screen.
- Metallic screen: copper tape, copper wires, longitudinal Al laminate tape, or hybrid type (Cu wires + longitudinal Al laminate tape).
- With or without shielding cable.

This joint meets the criteria of the **NF C 33-226 / UTE C 33-223, NF C 33-223** (HN 33-S-23) et **NF C 33-220** (HN 33-S-22) standards.

Branch joint :
- Conductor sizes: 95 to 240 mm² on main, 50 to 240 mm² on tap.
- Insulation voltage class up to 12/20 (24) kV.
- Copper or aluminum conductor, solid or stranded.
- Single core cables with polymer extruded insulation (XLPE, EPR, HEPR, HPTE ...).
- Peelable or bonded extruded outer semiconducting screen.
- Metallic screen: copper tape, copper wires, longitudinal Al laminate tape, or hybrid type (Cu wires + longitudinal Al laminate tape).
- With or without shielding cable.

This branch joint meets the criteria of the **NF C 33-226 / UTE C 33-223, NF C 33-223** (HN 33-S-23) et **NF C 33-220** (HN 33-S-22) standards.

No special tools, heat sources, taping, or filling materials are required for installation. A wrench with a socket is the only tool required to install the mechanical clamp connection. Power can be applied immediately after the connection has been made.

REFERENCES

Code	Designation	Sections (mm²)	Weight (kg)	Sales unit
JOINT				
U441_001	MV JOINT J3UP COMPACT CS - MTS - 24KV - 50/240 AL/CU	50-240	6.700	1
BRANCH JOINT				
U443_001	MV BRANCH JOINT D3UP CS - MTS - 24KV - 50/240 AL/CU	Main 95 - 240 Tap 50 - 240	19.500	1

Fuse

APPLICATION

This MV fuse is designed to protect MV/LV transformers. It is adapted to indoor and outdoor use.

U450_DIN-x

DESCRIPTION

- Several models are available depending on the standard and the nominal current.
- Low power loss limits heating of the device holding the fuse and extend equipment service life.
- DIN fuse includes a melting indicator allowing the fuse blown and to open the device in which it is installed.

The NF fuses meets the criteria of the **NF EN 60282-1** and **UTE C64-210** standards.
The DIN fuses meets the criteria of the **IEC 60282-1** standard.

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REFERENCES

Code	Designation	Max Voltage (kV)	Rating (A)	Breaking capacity (kA)	Weight (kg)	Sales unit
FRENCH STANDARD						
U450_NF-24-6.3A	MV FUSE NF 24kV - 6.3A	24	6.3	12.5	2.730	3
U450_NF-24-16A	MV FUSE NF 24kV - 16A	24	16	12.5	2.730	3
U450_NF-24-43A	MV FUSE NF 24kV - 43A	24	43	12.5	2.730	3
U450_NF-24-63A	MV FUSE NF 24kV - 63A	24	63	12.5	2.730	3
DIN STANDARD						
U450_DIN-24-4A	MV FUSE DIN 24kV - 4A	24	4	50	2.30	15
U450_DIN-24-6.3A	MV FUSE DIN 24kV - 6.3A	24	6.3	50	2.430	15
U450_DIN-24-10A	MV FUSE DIN 24kV - 10A	24	10	50	2.430	15
U450_DIN-24-16A	MV FUSE DIN 24kV - 16A	24	16	50	2.430	15
U450_DIN-24-20A	MV FUSE DIN 24kV - 20A	24	20	50	2.430	15
U450_DIN-24-25A	MV FUSE DIN 24kV - 25A	24	25	50	2.430	15
U450_DIN-24-31.5A	MV FUSE DIN 24kV - 31.5A	24	31.5	50	2.430	15
U450_DIN-36-2A	MV FUSE DIN 36kV - 2A	36	2	16	2.870	15
U450_DIN-36-4A	MV FUSE DIN 36kV - 4A	36	4	16	2.870	15
U450_DIN-36-6.3A	MV FUSE DIN 36kV - 6A	36	6	16	2.870	15
U450_DIN-36-10A	MV FUSE DIN 36kV - 10A	36	10	16	2.870	15
U450_DIN-36-16A	MV FUSE DIN 36kV - 16A	36	16	16	2.870	15

Fault detector

APPLICATION

This medium voltage (MV) fault detector is designed to continuous monitoring of power lines. It indicates the presence of a fault as soon as it occurs.

It ensures automatic identification of faults detection through the crossing of voltage thresholds exceedance in voltage, current, and time.

It facilitates quick fault location identification and provides decision support for maintenance teams.

All parameters are fully configurable, with thresholds per-phase and adjustable imbalance thresholds adapted to the network, including the detection timing.

Fault detection solutions are available in communication-enabled versions, compatible with existing SCADA system via standard communication protocols.

U420-150

U421-1

U422-1

U422-2

Non-contractual photos and drawings. MICHAUD Export reserves the right to modify characteristics without any prior notice.

DESCRIPTION

This medium voltage (MV) fault detector is an electrical safety device designed to:

- Rapidly identify and characterise anomalies on a medium voltage network.
- Continuously monitor voltage (U) and current (I) to detect any threshold crossing, whether due to phase-to-earth or phase-to-phase faults.
- Locate and qualify faults, thereby reducing the risks of fire, electric shock, and equipment damage.
- Be compatible with the various earth system.
- Be integrated into an existing SCADA system.
- For underground lines, the fault detection kit is installed at the cable emergence point, most often in masonry substations. The non-intrusive current sensors are mounted on the cables using a simple cable tie.
- For overhead lines, fault detectors are installed directly on the conductors using a spring-loaded clamp, with the aid of an operating stick and its dedicated terminal end, from ground level or from an aerial platform.
- For both underground and overhead applications, the products are supplied with installation sheets.

Detected fault types:
Phase-to-earth faults: solid, arcing, or resistive faults causing an increase in current and phase imbalance.
Phase-to-phase faults: two-phase or three-phases short circuits resulting in a sudden increase in current and a voltage drop.

REFERENCES

Code	Designation	Weight (kg)	Sale unit
UNDERGROUND			
U420-150	FAULT INDICATOR KIT FOR MV UNDERGROUND LINE - 95^2-150^2	1.200	1
OVERHEAD			
U421-1	FAULT INDICATOR FOR MV OVERHEAD LINE - N°1	0.640	1
U421-2	FAULT INDICATOR FOR MV OVERHEAD LINE - N°2	0.640	1
U421-3	FAULT INDICATOR FOR MV OVERHEAD LINE - N°3	0.640	1
U421-4	FAULT INDICATOR FOR MV OVERHEAD LINE - N°4	0.640	1
U421-5	FAULT INDICATOR FOR MV OVERHEAD LINE - N°5	0.640	1
U421-6	FAULT INDICATOR FOR MV OVERHEAD LINE - N°6	0.640	1
U421-7	FAULT INDICATOR FOR MV OVERHEAD LINE - N°7	0.640	1
U421-8	FAULT INDICATOR FOR MV OVERHEAD LINE - N°8	0.640	1
U421-9	FAULT INDICATOR FOR MV OVERHEAD LINE - N°9	0.640	1
ACCESSORIES			
U422-1	CONCENTRATOR FOR FAULT INDICATOR FOR MV OVERHEAD LINE - FM	0.640	1
U422-2	CONCENTRATOR FOR FAULT INDICATOR FOR MV OVERHEAD LINE - FS	0.157	1
U425-1	3 LED LIGHT INDICATOR FOR UNDERGROUND LINE FAULT INDICATOR	0.165	1
U425-2	3 LED LIGHT INDICATOR FOR UNDERGROUND LINE FAULT INDICATOR	0.272	1
U426	REMOTE CONTROL FOR OVERHEAD LINE FAULT INDICATOR	0.145	1
U427-1	SPLINE POLE TERMINAL END FOR OVERHEAD LINE FAULT INDICATOR	0.525	1

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KNOW-HOW & EXPERTISE

MICHAUD is a company with strong human values which has been contributing for over 60 years to the evolution of low-voltage energy distribution with innovations and breakthroughs.

From product study and design to systems and services, MICHAUD masters its value chain, ensuring top-level quality and service on a global scale thanks to the support of a dedicated Engineering Department.

With partners in over 70 countries worldwide, MICHAUD develops and markets solutions in line with current standards, thanks to its recognized know-how and close relationships with local end users.

INDUSTRIAL AND LOGISTICS EXCELLENCE

MICHAUD designs the tomorrow's solutions, investing over 8% of sales in R&D. Quality and reliability of products are guaranteed thanks to indoor the accredited COFRAC independant laboratory. Flexible and agile teams adapt solution to local requirements and innovate to constantly guarantee a qualified offer that meets technical requirements.

To guarantee the availability of products anywhere in the world, MICHAUD draws on its experience, know-how and logistics centers to ensure a safe and efficient logistics circuit.

TRAINING & TRANSMISSION

As a privileged technical partner, learning and transmission of knowledge are encouraged. Therefore, the MICHAUD Experts offer technical training modules to customers, partners and Design Offices.

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