# LV EARTHING SYSTEMS

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#### **OVERHEAD BARE**

#### **SHORT-CIRCUITING SYSTEMS**

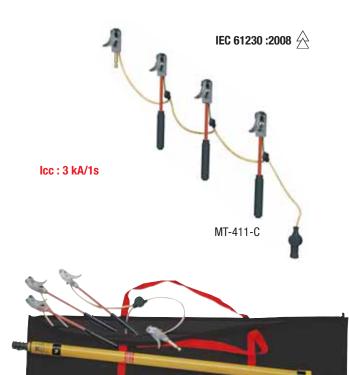
Set of 4, 5, 6 or 7 clamps MT-411. An extra-flexible 16 mm<sup>2</sup> copper cable assembly.

An insulated socket with a bayonet, for connecting a grounded system.

Telescopic stick 2 m CE-2-21/1-C.

Waterproof bag MT-400-01.

Reference	Description	kg
		Weight
MT-404	3 MT-411 + 1 MT-411-C	3.4
MT-405	4 MT-411 + 1 MT-411-C	3.8
MT-406	5 MT-411 + 1 MT-411-C	4.2
MT-407	6 MT-411 + 1 MT-411-C	4.6



#### EARTHING EQUIPMENT FOR OVERHEAD LINES SYSTEMS

Grounding device connecting with the earth rod MT-650. Insulated pin connecting to a short circuit socket.

Reference	@	Earth Clamp	kg
	Cable (m x mm²)	Latar olamp	Weight
MT-242	2 x 16	MT-840/1	1
MT-244	10 x 10	MT-840	2.5
MT-245	10 x 16	MT-840/1	3
MT-249	15 x 16	MT-840/1	3.8
Packaging: polypropylene case 310 x 280 x 105 mm.			

Frick 292 s.com



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# **SHORT-CIRCUITING AND EARTHING SYSTEMS NEVERS ENEDIS TYPE**

Short-circuit ENEDIS networks for pruning trees. Implementation from the ground up to 10.5 m (sticks + operator) without climbing. Insulating stick made of resin polyester/ glass fiber tube diameter 36.

Reference	Description	kg
	·	Weight
MT-509/3	3 Telescopic metallic sticks, 3 elements, L = 2.37/6.15 m + 1 Telescopic metallic stick, 3 elements (the last one insulating yellow), L = 2.37/6.15 m + 1 insulating stick, 2 elements, L = 1.65/3.3 m + 1 multi-strand of 4 cables, L = 6 x 16 mm² with 2 female sockets + 1 stick raise-up + 1 stick support	19 (3 bags)
MT-509/3EP	1 Telescopic metallic stick, 3 elements $L=2.37/6.15 \text{ m} + 1 \text{ cable}, \ L=6 \text{ x} 16 \text{ mm}^2$ with male socket	2.3
MT-509/3VAT	1 Telescopic metallic stick, 3 elements (the last one insulating yellow), L = $2.37/6.15$ m	2.5
Equipment packed in carrying bags.		

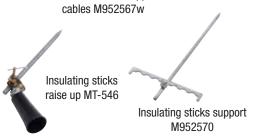
Reference Description		kg
11010101100		Weight
CC-127-ENEDIS-C	Specific voltage detector Range : 127-400 V	0.45

#### **Accessories**

Reference	Description
M-952567	Multi strand of 5 copper cables
M-952270	Insulating sticks support
MT-546	Insulating sticks raise up
M-611386	Raise up sticks
M-952568	Earth cable

Insulating sticks.

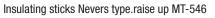
















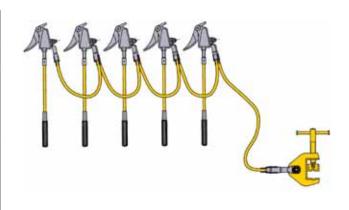
#### **OVERHEAD INSULATING**



LOWLOCK SYSTEM IEC 61230 :2008 A

For  $\emptyset$  3 to 21 mm conductors. With clamps type "snap-on/screw-on". Connecting cables: 35 mm² copper. Short-circuiting and earthing systems.

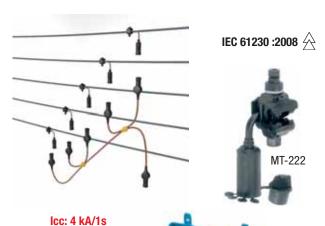
Reference	Rating	Composition	kg
	J J	p	Weight
MT-615/1-7.5	7.5	5 MT-616/1-03 contact clamps on handles (I = 0.35 m each) 4 braids of M-24-35 copper cable (1.00 m) 1 M-87-153 carrying bag 250 x 85 x 750 mm	3
MT-615/2-7.5	7.5	5 MT-616/1-03 contact clamps on handles 4 braids of M-24-35 copper cable (1.00 m) 1 braid of M-24-35 copper cable (7.00 m) 1 MT-840/1 earth clamp	6.5



#### **SHORT-CIRCUITING SYSTEMS**

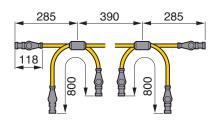
Equipment includes either 5 or 6 copper-aluminium alloy stubs. Connector for conductor MT-222 or MT-223, see below, to be ordered separately. Set of 4, 5, 6 ou 7 clamps. Extra-flexible 16 mm<sup>2</sup> copper cable assembly.

Reference	Socket	kg
		Weight
MT-205	5	1.1
MT-206	6	1.5
MT-207	7	1.9
Packaging : polypropylene case 234 x 215 x 75 mm.		



#### **Connectors for conductors**

Reference	@
	Cable (m x mm²)
MT-222	16 x 25
MT-223	35 x 70





# **EARTHING EQUIPMENT**

Earth rod. Earthing equipment with bayonet splicing for overhead lines systems. Galvanized steel. Hexagonal 18 mm per side.

Reference	<b>←→</b>	kg
11010101100	Lenght (m)	Weight
MT-650	1	2.2
To be ordered in addition to short circuit and grounding equipment.		





#### **EARTHING EQUIPMENT FOR ELECTRIC MOTORS**





# **EARTHING AND SHORT-CIRCUITING EQUIPMENT FOR** ENGINES AND LOW VOLTAGE INSTALLATIONS IN THE

IEC 61230 :2008 🕎





















# INDUSTRY AND THE TERTIARY SECTOR

#### **Application:**

Earthing and short-circuiting equipment for industrial motors.

Unique and innovative: Finally, a solution adapted to the problems of all industrial engines.

Security: Ensures the earthing of installations during maintenance. Easy and safe to use.

Universal: Suitable for most installations.

Allows working on cables of all sections with or without lugs.

#### **Features:**

Maximum short circuit intensity 14 000 kA / 1s.

1 body made of copper alloy.

Connection points for earthing and short-circuiting cables equipped with lug terminals and fixing hole greater than 8 mm.

Connection points for earthing and short-circuiting cables with bare ends and maximum diameter 8 mm.

1 earthing cable made of copper with extra flexible PVC insulation, cross-section 50 mm<sup>2</sup>, length 2 m.

1 earthing clamp MT-8401.

1 protection cover.cable PVC insulated, cross-section 50 mm<sup>2</sup>, length 2 m. Waterproof protection cover with « Earth » marking.

Reference	Description	kg
	μ	Weight
MC-281	Equipment lcc 14 kA/1s	1.5

## BENEFITS

- Innovative.
- New on the market.
- Simple and quick to assemble.
- · Supplied with a waterproof protection cover.



Icc 14 kA/1s

**EXCLUSIVE EARTHNG SOLUTION** 

FOR INDUSTRIAL MOTORS.



Waterproof protection cover



#### EARTHING EQUIPMENT FOR ELECTRIC MOTORS

# EARTHING AND SHORT-CIRCUITING EQUIPMENT. QUICK TO ASSEMBLE, FOR ENGINES AND LOW **VOLTAGE INSTALLATIONS IN THE INDUSTRY AND** THE TERTIARY SECTOR

Icc 10 kA/1s **EXCLUSIVE EARTHNG SOLUTION** FOR INDUSTRIAL MOTORS. **QUICK STEP.** 

IEC 61230 :2008 📯





Earthing and short-circuiting equipment for industrial motors.

Unique and innovative: Finally, a solution adapted to the problems of all industrial engines.

Security: Ensures the earthing of installations during maintenance. Easy and safe to use.

Universal: Suitable for most installations.

Allows working on cables of all sections with or without lugs.

#### **Features:**

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1 body made of copper alloy.

Connection points for earthing and short-circuiting cables equipped with lug terminals and fixing hole greater than 8 mm.

Connection points for earthing and short-circuiting cables with bare ends and maximum diameter 8 mm.

1 earthing cable made of copper with extra flexible PVC insulation, cross-section 50 mm<sup>2</sup>, length 2 m.

1 earthing clamp MT-8401.

1 protection cover.

Reference	Description	kg
		Weight
MC-281/1	Equipment lcc 10 kA/1s	1.4

#### BENEFITS

- Innovative.
- New on the market.
- · Quick assembly by one clamping point.
- Supplied with a waterproof protection cover.





Waterproof protection cover







## **EARTHING EQUIPMENT FOR ELECTRIC MOTORS**





# EARTHING AND SHORT-CIRCUITING EQUIPMENT, QUICK TO ASSEMBLE, FOR ENGINES AND LOW VOLTAGE INSTALLATIONS IN THE INDUSTRY AND THE TERTIARY SECTOR

# Application:

Equipped with a locking earthing clamp. This clamp is suitable to prevent switching on the power on the circuit breaker before having dismounted the earthing system.

Equipment particularly adapted for earthing and short-circuiting of motors or installations in which the power cables have thin cross-sections with the ends equipped, or not, with lugs.

The system is provided with a waterproof protective bag which will cover the body of the earthing system after assembling.

D (	lcc	Connections		0
Reference	(kV)	For cables with lugs	Connections	Cable (m x mm²)
MC-281/870	14	x 3 Fixing hole ≥ 8 mm	x 3 diam. bare extremity ≤ 8 mm	2 x 50
MC-2811/870	10	x 3 Fixing hole ≥ 4 mm	For thin cross-sections	2 x 35

#### **Features:**

Earthing connection by locking clamp MT870 and extra flexible copper cable PVC insulated, cross-section 50  $\rm mm^2$  and 35  $\rm mm^2$ , length 2 m.

Waterproof protection cover with « Earth » marking.

Reference	Description	kg
		Weight
MC-281/870	Equipment lcc 14 kA/1s	1.6
MC-2811/870	1/870 Equipment lcc 10 kA/1s	

#### BENEFITS

- $\bullet$  The locking earthing clamp secures the consignation process.
- Innovative.
- New on the market.
- · Simple and quick to assemble.
- Supplied with a waterproof protection cover.

WITH SECURED CLAMP.
EXCLUSIVE EARTHNG SOLUTION
FOR INDUSTRIAL MOTORS
AVOIDING FORGETTING EARTHING
EQUIPMENT.











MC-281/870



MC-2811/870



**SECURED EARTHING CLAMP** 

- Earthing clamp paired with a lockout padlock, using the same «prisoner» key.
- Exclusive CATU system imposing an installation and dismantling order for operator safety.























#### **LV CABINETS**



#### SHORT CIRCUITING DEVICE FOR LV CABINET

The earthing works is a mandatory operation in the NFC 18510 (chp 7.1 - Processes log) standard.

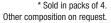
Tinned copper insulated cable silicone core 16 mm<sup>2</sup>.

Authorized employment ENEDIS equipment.

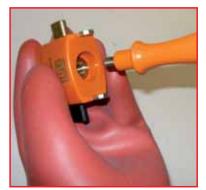
**Composition A:** for connection. **Composition B:** for network.

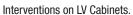
Composition C: for connection and network. Maximum Icc: 4kA/1s

### Reference Description  ### A multi-strand copper cables 16mm²   MC-296-440 + 1 micro clamps MC-296-P* + 1 connecting blade M-95627/4* + 1 round cartrice M-95626/4* + 1 cartridge size 00 MC-296-00/0 + 1 open end spanners 13/14/16/17 MO-687-D 1 handle MC-296-M + 1 Case with foam and note M-91209  #### A multi-strand copper cables 16mm² MC-296-4 + 5 multi-strand copper cables 16mm² MC-296-4 + 1 micro clamps MC-296-P* + 1 cartridge size 160 MC-296-115/08* + 1 cartridge size 160 MC-296-160/08* + 1 threated adapters MC-181* + 1 pipe wrench 10x17mm M-882462
MC-296-440 + 1 micro clamps MC-296-P* + 1 connecting blade M-95627/4* + 1 round cartri M-95626/4* + 1 cartridge size 00 MC-296-00/0 + 1 open end spanners 13/14/16/17 MO-687-D 1 handle MC-296-M + 1 Case with foam and no M-91209  4 multi-strand copper cables 16mm² MC-296-4 + 5 multi-strand copper cables 16mm² M-9526 + 1 micro clamps MC-296-P* + 1 cartridge size 115 MC-296-115/08* + 1 cartridge size 160 MC-296-B MC-296-160/08* + 1 threated adapters MC-181* + 1 pipe wrench 10x17mm M-882462 1 open end spanners 13/14/16/17 MO-687-D
+ 5 multi-strand copper cables 16mm <sup>2</sup> M-9526 + 1 micro clamps MC-296-P* + 1 cartridge siz 115 MC-296-115/08* + 1 cartridge size 160 MC-296-160/08* + 1 threated adapters MC-181* + 1 pipe wrench 10x17mm M-882462 1 open end spanners 13/14/16/17 M0-687-D
M-91209
## MC-296-560 + 5 multi-strand copper cables  ## MC-296-560 + 5 multi-strand copper cables  ## 16mm² M-952656 + 5 micro clamps + 1 connecting blade M-95627/4* + 1 round cartridge  ## MC-296-C  ## 1 cartridge size 115 MC-296-115/08* + 1 cartridge size 160 MC-296-160/08* + 1 threat adapters MC-181* + 1 pipe wrench 10x17mn  ## M-882462 + 1 open end spanners 13/14/16/1  ## M0-687-D + 1 handle MC-296-M + 1 case with foam and notice M-91209

















# Thorne & Derrick +44 (0) 191 410 4292



# SHORT CIRCUITING DEVICES FOR LV INDUSTRIAL **CABINETS**

The earthing works is a mandatory operation in the NFC 18510 (- Processes log chp 7.1) standard.

#### **Composition:**

- 5 multi-strand copper cables.
- 5 micro clamps + 1 Case and notice M-76768.

Reference	Section (mm²)	Icc (kA/1s)	
MC-296-NFC-16	16	4	
MC-296-NFC-25	25	7	
MC-296-NFC-35	35	10	















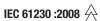


## THREADED ADAPTERS

Smooth threaded terminals for positioning shunts ((LV Live working tools) or LV earthing equipment and LV short circuit cabinets terminals.

Reference	Description	Composition (by reference, delivered in a vinyl bag)	Weight
MC-184-6F	Smooth threaded terminal M6 female	Set of 4 adapters	120
MC-182	Smooth threaded terminal M8 female	Set of 4 adapters	150
MC-185-10F	Smooth threaded terminal M10 female	Set of 4 adapters	200
MC-183	Smooth threaded terminal M12 female	Set of 4 adapters	250

Reference	Description	Composition (by reference, delivered in a vinyl bag)	ĝ
	·		Weight
MC-184-6M	Smooth threaded terminal M6 male	Set of 4 adapters	120
MC-182-8M	Smooth threaded terminal M8 male	Set of 4 adapters	150
MC-185-10M	Smooth threaded terminal M10 male	Set of 4 adapters	200
MC-181	Smooth threaded terminal M12 male	Set of 4 adapters	250

















MC-182



MC-181



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# SERVICES

Testing laboratory Flexible workshop Training Maintenance Technical support



