

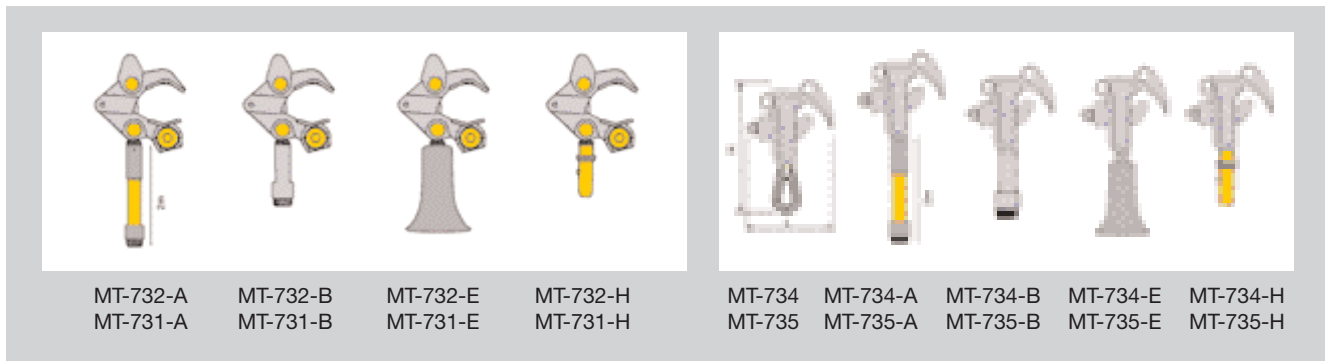


Above 52 kV

Clamps Insulating sticks and earth clamps Fixed points and cables Accessories

HV and EHV clamps manoeuvrable by insulating stick

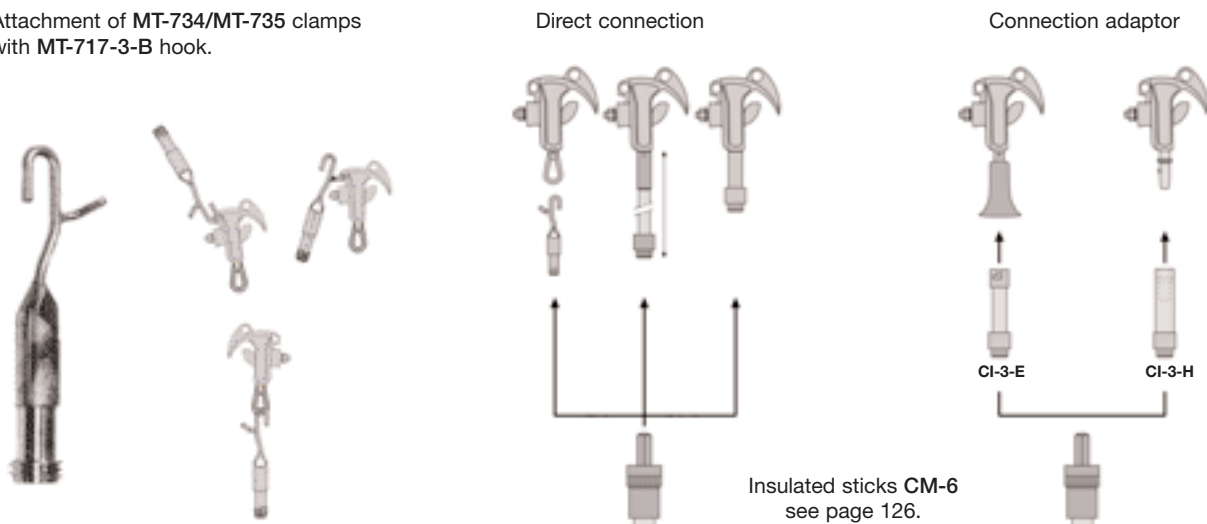
Body in aluminium alloy with trapezoidal threaded screw. Interposed elastic washers in the clamping system improve efficiency and insure a higher withstand in case of electrodynamic shock. Manoeuvring by CM-6 insulated stick of appropriate length and characteristics.



Reference	Clamping capacity (Ø mm)	Test current (kA/1s)	Copper connection			Weight (Kg)	Dimensions (mm) h x L x thickness
			Copper cables (mm² max.)	Contact range width (mm)	Stud or hole		
MT-731*	5-60	40	150	45	M 12	1.45	200 x 200 x 50
MT-732*	40-120	40	150	45	M 12	1.45	200 x 200 x 50
MT-734*	5-40	40	150	40	M 12	0.8	145 x 125 x 52
MT-735*	15-60	40	150	40	M 12	0.8	195 x 135 x 45
MT-737*	20-120	40	150	40	M 12	1.35	340 x 200 x 55

* Add type of connection A - B - E - H.

Attachment of MT-734/MT-735 clamps with MT-717-3-B hook.



HIGH VOLTAGE

Insulating sticks for short circuiting and earthing systems

- 46 mm dia. single type elements, yellow colour, with superior characteristics, they are connected between them without any prior order of assembly.
- These elements allow "long length" assemblies which can support short-circuit systems with large cross-section cables.
- Shockproof guard and pole end cap.

Reference	Length (mm)	Weight (Kg)
CM-6-15	1.5	2.40
CM-6-20	2.0	3.20
CM-6-25	2.5	4.00
CM-6-30	3.0	4.80



For cables $\geq 95 \text{ mm}^2$ CM-6 series is recommended.

Earth clamps

Copper aluminium bronze earth clamps.



Reference	Test current	Dimension (mm) Weight (kg)	Connection	Clamping capacity (mm)
MT-843	40 kA/1 s	45 x 106 x 165 0.95	hole: Ø 13 mm	● Ø 6-35 ■ 0-35
MT-847	30 kA/0.5 s	45 x 106 x 170 1.00	hole: Ø 13 mm	■ 0-25
MT-852	40 kA/1 s	70 x 125 x 155 1.40	hole: Ø 13 mm	Fixed points
MT-853	40 kA/1 s	65 x 130 x 135 1.00	hole: Ø 13 mm	Fixed points

Short-circuiting and earthing systems

Above 52 kV



Clamps

Insulating sticks and earth clamps

Fixed points and cables

Accessories

Adjustable fixed points

For large vertical or oblique heavy duty conductors.

Reference	Rating insulation (kA/1s)	Weight (kg)	Dimensions L x W x T (mm)	Conductors		Description
				Type	Ø (mm)	
MT-790	30	1.400	255 x 105 x 50	copper	12-60	arm Ø 18 mm
MT-792	30	0.855	270 x 105 x 60	aluminium	12-60	arm Ø 20 mm
MT-797	20	1.200	240 x 170 x 60	aluminium	60-120	arm Ø 20 mm



Copper and aluminium cables

Copper cables

Extra flexible braided multi-strand cables.

- A** Transparent PVC sheath, with cable section identification.
- B** Transparent silicon sheath according to IEC-61481 resistant to temperature variations (-40 °C to +70 °C) with double IEC triangle marked on cable section.



Aluminium cables

Extra flexible braided multi-strand cables. Transparent PVC sheath, with cable section identification.

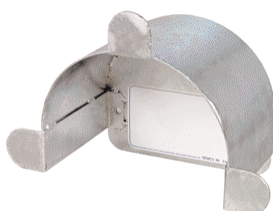


A	B IEC-61481	Rating (kA/1s)	Cable		Section (mm ²)
			Weight (kg/m)	Ø (mm)	
M-24-70	M-24-70-S	16	0.768	12	70
M-24-75		20	0.800	12	75
M-24-95	M-24-95-S	20	1.000	14	95
M-24-120	M-24-120-S	30	1.280	17	120
M-24-150	M-24-150-S	36	1.630	19	150

Reference	Rating (kA/1s)	Cable		Section (mm ²)
		Weight (kg/m)	Ø (mm)	
M-28-70	10.0	0.240	13.4	70
M-28-120	17.5	0.430	19.00	120
M-28-150	20.0	0.510	21.00	150

Earthing kit support

Welded steel assembly with galvanization surface treatment. Writing zone available.



MT-895 230 x 230 x 150 mm - Weight: 0.9 kg

Jumper cables realisation specially manufactured items



Quotations in accordance with faisability.
For all details:
Tel.: 33 1 42 31 46 24 / www.catuelec.com

HIGH VOLTAGE



Clamps

Insulating sticks and earth clamps

Fixed points and cables

Accessories

Rope operated clamp

Description

V-shaped aluminium body.
Spring operated swinging jaw with pre-set.

Operation

Attachment and removal is carried out from the ground or from the cross-arm, using a rope passed previously over the conductor to be earthed.

- Attachment: the clamp is pulled up by the rope. Pulling on the rope triggers the spring and closes the jaw.
- Removal: pulling on the rope attached to the hinged saddles causes the clamp to pivot and free the jaw.

For conductors reached from the ground:

- up to 10 m: by using **MT-709-B** reel launcher placed on a **CM-6 SERIE** Stick (see page 96) that passes the rope over the conductor;
- up to 20 m: by using a **MF-60** wire projector. This projector fires an arrow carrying a braided nylon wire which sets the rope. The clamp is then fixed to the rope and attached onto the conductor.
- Earthing cable with ranger (mm²): 2 x 120.
- Cable connection crimped log hole: M 12.



Reference	Clamping capacity (Ø mm)	Rating insulation (kA/1s)	I asymmetrical (A)	Dimensions (mm) h x L x thickness	Weight (Kg)
MT-701/1	12-48	30	72	195 x 120 x 175	2.00

Cable-launcher projector

Used to fire the insulating rope for setting the **MT-701/1** clamp, this wire-projector may also be used for checking the absence of voltage from the ground by throwing a very light fuse wire over the conductor (in case of voltage, arcing will occur to warn the operator).



MF-60	Wire-projector
MF-61	Spare arrow
MF-62	Spool of 30 m of fuse wire
MF-63	Spool of 100 m of fuse wire
MF-66	Spool of 30 m of nylon lead

Reel launcher and insulated rope reel

This device contains a shaft on which the rope reel is engaged, and a spring system which triggers ejection of the reel when it comes in contact with the conductor. To be fixed on a **MAJOR SERIE** Stick, depending on the height of the conductor to be reached.



MT-709-B

MT-708-40

MT-709-B	Aluminium alloy launcher - Weight: 0.310 kg
MT-708/40	Special quality nylon on shock proof reels; equipped with 2 snaps. Rope Ø 6 mm - Length: 40 mm

Short-circuiting and earthing systems carrying bags

Strong water proof canvas. Reinforced bottom.

M-87-53	380 x 250 - Height: 400 mm - Weight: 2 kg
M-87-153	380 x 250 - Height: 600 mm - Weight: 2.5 kg
M-87-295	550 x 300 x 300 mm - Weight: 2 kg



M-87-295



M-87-53

Specification for short-circuiting and earthing systems



A Network, electrical installation characteristics

Network voltage: _____ kV
 Nature of the conductive materials: Basis Al Basis Cu Max. short-circuiting current (1s): _____ kA

Overhead lines

- Dia. or section of the conductors: min. _____
 max. _____

Switchboard or substation

- Round bars dia. (mm): mini. _____ maxi. _____

Length = _____
 - Flat bars $\left\{ \begin{array}{l} \text{H type} \\ \text{V type} \end{array} \right.$ Thickness = _____
 Length = _____
 Thickness = _____

- Fitting on edge face Fitting on side face

B Characteristics of the earthing system

- Selected sketch (out of the three standard types shown below)
- Distance between live conductors (m): _____, between live conductors and grounding point (m) _____
- To place the clamps in position, the operator will stand: above the conductors under the conductors
 at the conductors level
- For cable sections, please indicate max. ΔT or min. dia. of the conductor _____

C Earthing connection point

- Earth rods: dia. or thickness on side face (mm): _____ Flat bar, angle-bar, thickness (mm): _____
- Round conductor dia. (mm): _____

D Operating stick

- Insulating stick: total length _____ Fixed Connectable stick Telescopic

Characteristics

- Selected connection type: Sketch n° _____
- Contact clamps (type MT- _____)
- Short-circuiting cable
 - Length (m) _____
 - Dia. or section (mm, mm²) _____
- Grounding cable
 - Length (m) _____
 - Dia. or section (mm, mm²) _____
- Connection of cables on clamps, earth clamps, trifurcation
 - Direct connection by screw and nut
 - Connection by means of crimped lugs
- Earth clamp, type _____
- Presence of a reel _____
- Insulating stick, type _____

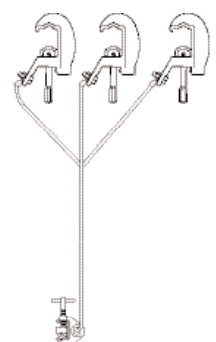
Sketch N°1



Sketch N°2



Sketch N°3



Accessories

- Carrying bag for sticks
- Canvas bag for equipment
- Carrying case for equipment
- Cable reel