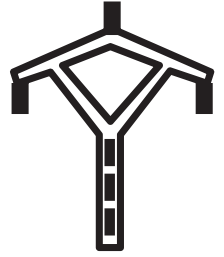


MEDIUM VOLTAGE EQUIPMENT



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IEC VOLTAGE DETECTORS

IEC ELECTRONIC VOLTAGE DETECTORS, “COMPACT SERIE” FOR INDOOR AND OUTDOOR USE

Ultimate technology of voltage detector “Head Capacitive Technology»

Compact and light, it offers a wide band (10/36 kV).

Operating check

By pressing the TEST button:

- A RED LED flashes on.
- Powerful rated audible signal > 67 dB(A)/2 m (aligned with IEC 61243-1 and to protect employee from too strong signal).
- When loosening the button, the timed GREEN LED lights up. While remaining on, it indicates the good working order of the detector.

Characteristics

- Precise and stable operating threshold.
- High environmental resistance (impacts, vibrations, moisture).
- Temperature conditions: class N (IEC 61243-1 standard).
- Use from 50 to 60 Hz.

Composition

- Robust housing.
- Weight: 350 g.
- Dimensions: Ø 59 x 270 mm.

Supplied in a rigid packaging to protect the device.

BENEFITS

- Results visible over 360° with a powerful light. Voltage range pre-selected to your application.

Reference		Operating voltage		
	Frequency		Type 6 LR-61	
CC-765-2/72-(*)	50/60 Hz	2 - 72 kV	9 V	0.35
CC-765-3/10-(*)	50/60 Hz	3 - 10 kV	9 V	0.35
CC-765-5/18-(*)	50/60 Hz	5 - 18 kV	9 V	0.35
CC-765-5,5/20-(*)	50/60 Hz	5.5 - 20 kV	9 V	0.35
CC-765-10/30-(*)	50/60 Hz	10-30 kV	9 V	0.35
CC-765-10/36-(*)	50/60 Hz	10 - 36 kV	9 V	0.35
CC-765-11/33-(*)	50/60 Hz	11 - 33 kV	9 V	0.35
CC-765-15/45-(*)	50/60 Hz	15-45 kV	9 V	0.35
CC-765-20/66-(*)	50/60 Hz	20 - 66 kV	9 V	0.35
CC-765-30/66-(*)	50/60 Hz	30 - 66 kV	9 V	0.35
CC-765-44/132-(*) ⁽¹⁾	50/60 Hz	44 - 132 kV	9 V	0.35
CC-765-63/90-(*) ⁽¹⁾	50/60 Hz	63 - 90 kV	9 V	0.35

(*) Specify type of mounting when ordering: C or K.

(1) supplied with 1 hook-shaped contact electrode CC-ANT 120 (Ø120 mm).

Packaging: unit supplied complete in a case with batteries

and contact electrodes (straight and V-shaped).

For other voltages, please consult us.



IEC 61243-1 :2003+ AC1: 2005 +A1: 2009



CC-775 : 2 voltage ranges detector, in compliance with IEC 61343-1

Reference	1st voltage range		2nd voltage range	
	Un min (uu)	Un Max (vv)	Un min (xx)	Un Max (yy)
CC-775-2/7-12/25-(*)	2 kV	7 kV	12 kV	25 kV
CC-775-2/72-12/36-(*)	2 kV	7.2kV	12 kV	36 kV
CC-775-2/72-34/115-(*)	2 kV	7.2 kV	34 kV	115 kV
CC-775-33/11-22/66-K	3.3 kV	11 kV	22 kV	66 kV
CC-775-4/14-24/69-K	4 kV	14 kV	24 kV	69 kV
CC-775-4/144-25/69-K	4 kV	14.4 kV	25 kV	69 kV
CC-775-47/15-25/69-K	4.7 kV	15 kV	25 kV	69 kV
CC-775-6/12-22/66-C	6 kV	12 kV	22 kV	66 kV
CC-775-11/22-33/66-K	11 kV	22 kV	33 kV	66 kV
CC-775-12/24-52/132-(*)	12 kV	24 kV	52 kV	132 kV

(*) End fitting : C or K



C

K

End fittings:

C: hexagonal 12 mm, for hexagonal end-fitting sticks,

K: universal, for universal end-fitting sticks.

Recommended stick: CE-4-21, CE-75, CE-9.



VOLTAGE DETECTORS

Checking

By pressing the test button :

- extremely bright RED flashing LED's (visible at more than 50 meters even in unfavourable light),
- powerful rated audible signal > 60 dB/2 m

The test button is released :

- a timed GREEN LED lights.

Indicating both the detector is operational and the self testing of the unit continues.

Characteristics :

- Precise and stable operating threshold.
- High environmental resistance (impacts, vibrations, moisture).

Reference		Operating voltage		
	Frequency		Type 6 LR-61	Weight
CC-365-3/10-(*)	50 Hz	3-10 kV	1.5 V	0.50
CC-365-10/30-(*)	50 Hz	10-30 kV	1.5 V	0.50

(*) Specify type of mounting when ordering: C or K.
 Packaging : unit supplied complete in a case with batteries and contact electrodes (straight and V-shaped).
 Total weight : 1100 g. Total size : 340 x 275 x 83 mm.
 For other voltages, please consult us.

Accessories

Reference	Characteristics
CC-365-101	Flag/Vee contact electrode
C-92-492	Contact electrode for installations L = 310 mm, insulating on 300 mm



C



K

End fittings:

C : hexagonal 12 mm, for hexagonal end-fitting sticks,
 K: universal, for universal end-fitting sticks.
 Recommended stick:
 CE-4-21, CE-75.



CC-365-K



CC-365-C



Double signaling:

Voltage presence is indicated by both:
 - extremely bright RED flashing LED's (visible at more than 50 meters even in unfavourable light),
 - powerful rated audible signal > 60 dB/2 m.



End fittings:

C : hexagonal 12 mm, for hexagonal end-fitting sticks, K: universal, for universal end-fitting sticks.
 Recommended stick:
 CE-4-21, CE-75.

C 18-311





SINGLE POLE PHASE COMPARATOR FOR INDOOR AND OUTDOOR USE

IEC/EN 61481



Unipolar device used to check phase concordance in 2 steps.

- Step 1: storage of the reference phase.
- Step 2: search for the phase in concordance with the one memorised in step 1.

The operator has 15 seconds to complete step 2.

After this time, step 1 must be started again.

To be used on 50 and 60 Hz networks.

Reference			 aerial	
	Frequency	Type 6 LR-61	Length	Weight
CL-7-06/18-(*)	6-18 kV	9 V	0.55 m	0.85
CL-7-10/30-(*)	10-30 kV	9 V	0.90 m	0.90
CL-7-10/30-1-(*)	10-30 kV	9 V	1.15 m	0.95
CL-7-12/36-(*)	12-36 kV	9 V	0.90 m	0.90
(*) Please specify type C or K when ordering. Delivered in carrying case.				

Fixation C or K.

ORANGE LED =
memorized phase
status voltage
are in memory.

GREEN LED =
phasing indication.

RED LED =
non-phasing indication.

Press the button to test the
device and to reset its
memory.



IEC SHORT-CIRCUITING AND EARTHING SYSTEMS (THREE-PHASE CROSSARM NETWORKS)

MT-613 are an automatic contact clamps. They must be fitted from above the conductor using a MT-635/1-C dispenser.

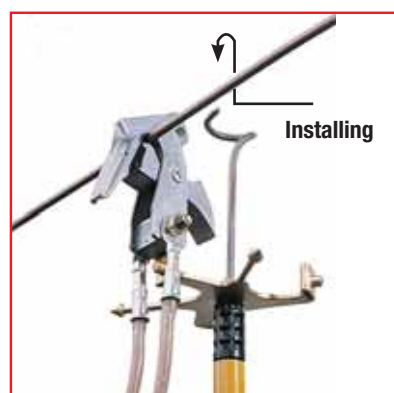
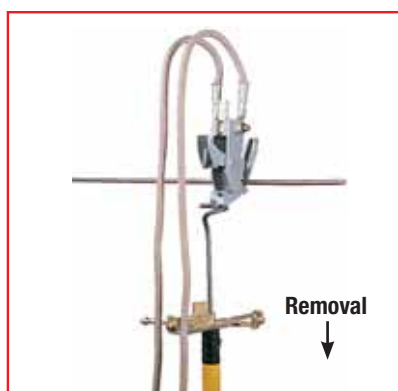
Reference	Equipment composition
MT-6613	3 automatic contact clamps MT-613 Connection cables 35 mm ² , max. gap between clamps: 2.75 m 1 clamp dispenser head MT-635/1-C 1 spool with earthing cable connection MT-640-S 1 carrying bag M-87295
MT-6613/1	3 automatic contact clamps MT-613 Connection cables 95 mm ² , max. gap between clamps: 3 m 1 clamp dispenser head MT-635/1-C 1 earthing cable connection 15 m x 35 mm ² 1 earthing clamp MT-840/1 1 carrying bag M-87295

Reference	Rating (kA/1 s)	Connection copper cable between clamps (mm ²)	Earth connection copper cable (mm ²)	Ø (mm)
				Conductor
MT-6613 *	8	35	16	5 to 30
MT-6613/1 **	17.5	95	35	5 to 30

* Recommended sticks: CE-4-21-C.
** Recommended sticks: CM-4, CF-5, CM-7 et CM-4000.

BENEFITS

- Rapidity and ease of handling.
- Quick removal: Simply grab the clamp with the «pigtail» of the dispensing head and pull it out.



IEC 61230 : 2008





INSULATING STICKS

INSULATING STICKS FOR SUBSTATION

Short circuiting and earthing systems for substation. Telescopic sticks for voltage detectors and earthing systems for use in dry and wet conditions.

Reference	lcc max (kV)	Ø (mm)	↔ (m)	↔ (m)	 Weight
			Folded	Unfolded length	
CE-75-(**)	75	41/32	1.15	2	1.3
CE-4-21-(*)	90	41/32	1.15	2	1.5
CE-4-30-(*)	150	41/32	1.75	3	2
CM-7-10-A	Extension	36	—	1	1

(*) Specify type of mounting when ordering : C, K or E.
(**) Specify type of mounting when ordering : C or K.

Reference	lcc max (kV)	Ø (mm)	↔ (m)	↔ (m)	 Weight
			Folded	Unfolded length	
CE-5-105-X	220	63.5/27.5	1.66 m	10.75 m	5.4
CE-5-90-X	220	57.5/27.5	1.61 m	9.25 m	4.2
CE-5-70-X	220	52.5/27.5	1.56 m	7.8 m	3.3
CE-5-60-X	220	47.5/27.5	1.51 m	6.4 m	2.5
CE-5-50-X	220	42.5/27.5	1.46 m	5 m	1.9

X : Specify type of mounting when ordering.
(K : universal ; C: hexagonal, 12 mm on flat surfaces).

BENEFITS

- CE-4-21-(*) and CE-4-30-C: Certified telescopic rod IEC 62193 (2003) and IEC 61235. Hand shield. CE-75-(*) : Certified telescopic rod IEC 62193 (2003) and tube IEC 60855-1. CE-75-C: Enedis authorisation: 18-130 B
- CE-5-(**): Certified telescopic rod IEC 61235.
- CE-75 and CE-4 series: 1. Ensure user about the right way to set and use the stick. 2. Avoid any twist when deploying or folding the stick.

FIXED LENGTH STICKS

Suitable for wet conditions.

Reference	lcc max (kV)	Ø (mm)	↔	Skirt nbr	 Weight
			Length (m)		
CF-5-90-(*)	90	36	2	1	1.55
CF-5-110-(*)	110	36	2.50	2	2
CF-5-170-(*)	170	36	3	3	2.4

(*) Please specify type C, K or E when ordering.

BENEFITS

- CF-5 : Insulating skirts (Ø 100 mm, H90 mm) for use in rain.

PRO

An upper orange element made of glass fiber/resin epoxy foam filled of 32 mm diameter (**).



WALL MOUNTED SUPPORTS

For sticks and voltage detectors. Plastic.

Reference	Recommended sticks	Ø (mm)	Ø (mm)
		Top	Bottom
CI-08	CE-2	16-20	36 max
CI-06-D	CS-45, CS-90, CS-225	28-30	36 max
CI-12-D	MT-830P	28-30	58 max
CI-10-D	CE-421, CE-430, CF-372, ZPLET	32-36	58 max
CI-15-D	CM 4600 serie	39	58 max
CI-18-D	CM-6, CE-5	42-48	58 max



INTERMEDIATE ELEMENTS WITH RAIN SKIRTS

Intermediary element with skirt, which can be located on all the references mentioned above.

Reference	↔ (m)	kg
	Length smallest end fitting	Weight
CM-4400-J	0.362	0.95



INSULATING STICK COVERS

For storage and transport. Waterproof canvas and zipper closure. Adjustable straps. Transparent pocket for identification.
CM-1-....: for 1 to 3 poles.
CM-3-....: for CM-6 series or 5 simple elements or 4 double elements.

Reference	□ (mm)
	Dimension
CM-1-10	1.30 m length
CM-1-15	1.80 m length
CM-1-20	2.40 m length
CM-3-03	0.575 x 1.950 m (elmt 1.75 m length)
CM-3-04	0.575 x 2.450 m (elmt 2 m length)
CM-3-05	0.575 x 2.850 m (elmt 2.50 m length)
CM-3-06	0.575 x 3.400 m (elmt 3 m length)





CONNECTION ADAPTORS FOR INSULATING STICKS

C	K	E	S	A ou B	*	H
						
Hexagonal femal 6 sides	Universal	Bayonet	Clamp stick	For stick CM-4 / CM-6 / CM-7.	-	-

Accessories					
	C	K	E	*	H

Connection adaptors															
	CI-7-C	CI-3-C	CI-6-C2	CI-5-C	CI-3-K	CI-4-K	CI-6-K	CI-7-K	CI-5-K	CI-3-E	CI-7-E	CI-4-E	CI-D-K	CI-6-H	CI-3-H

Sticks															
	E	AB	K	S	AB	C	K	E	S	AB	K	C	K	K	AB

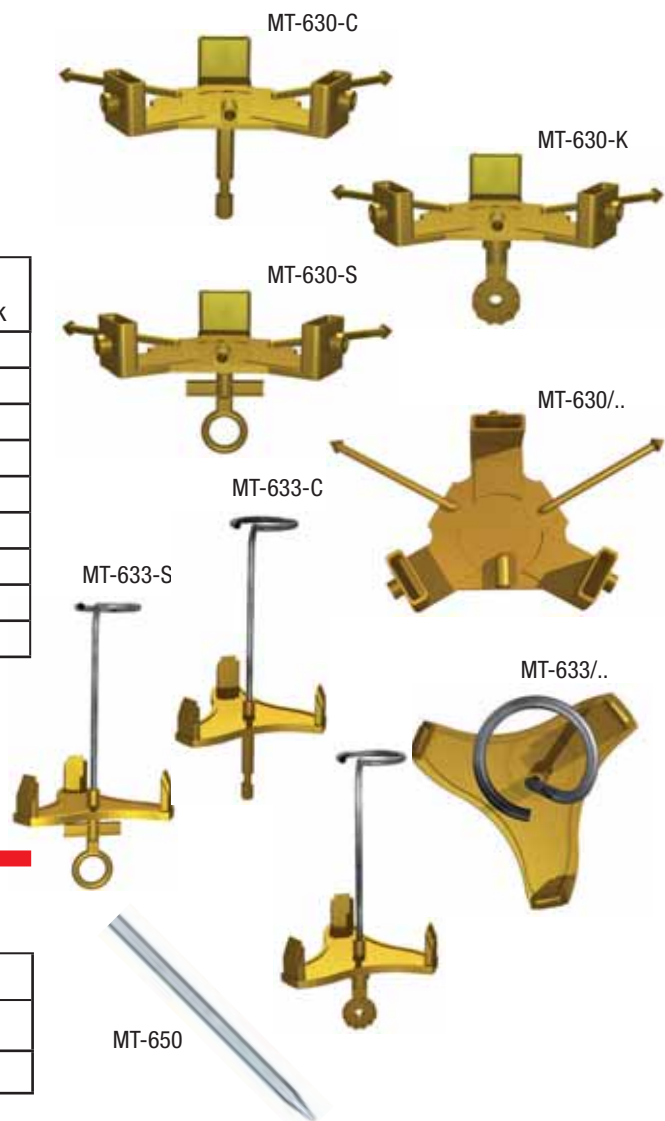
With this range any accessory can be attached to any stick by using connection adaptors. Other models, please consult us.

CLAMP DISPENSER HEADS

Copper aluminium alloy.

For MT-613/1 and 613/2 clamps

Reference	Head for 3 clamps	Head for 4 clamps	With pigtail hook
MT-630-C	■		
MT-630-K	■		
MT-630-S	■		
MT-635/1-C/K/S	■		■
MT-634-C/K		■	
MT-633-C	■		■
MT-633-K	■		■
MT-633-S	■		■
MT-634/1-C/K		■	■



EARTH ROD

Reference	Characteristics	↔ (m)
		Length
MT-650	Hexagonal section rod	1

EARTH CLAMPS

Copper aluminium bronze earth clamps.

Reference	Rating (kA/1 s)	Conductors (mm)		Weight
		Ø	—	
MT-840/1	20	6-25	0-25	480
MT-843	40	6-35	0-35	950



SPOOL WITH EARTHING CONNECTION

Spool with cable and earth clamp.

Reference	Silicone cable (mm²)	↔ (m)
		Length
MT-640-S	16	16
MT-641-S	16	25



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SHORT-CIRCUITING AND EARTHING SYSTEMS

Installed from the ground on conductors up to 10.50 m.

Easier installation features.

Re-inforced insulating stick (36 mm dia.).

Self locking contact clamp: powerful conductor clamping with high end performance at short-circuiting, does not slide.

More rigid metallic stick. Lower tube 30.6 mm dia.

Upper tube 16 mm dia.

Re-inforced insulating stick (36 mm dia.).

On all models: Reinforced insulating pole: Epoxy/fibreglass resin over Ø 36 mm PV foam with a non-skid area.

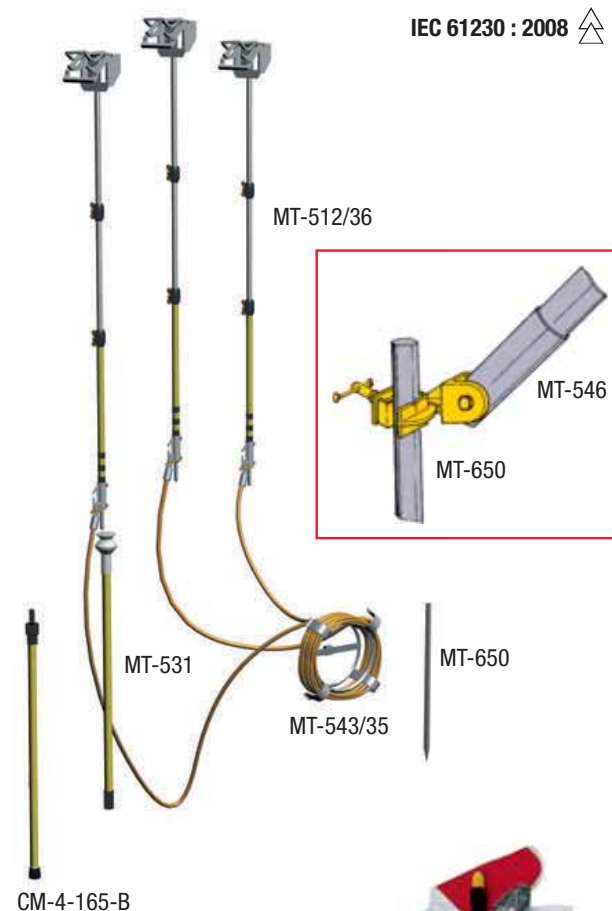
This equipment can be used for rigid deployed poles for easy installation.

Reference	Rating (kA/1 s)	Ø (mm)
		Conductors
MT-508/36	8	3-22
MT-508/46	8	3-22

Reference	Equipment composition
MT-508/36	3 telescopic metallic sticks 3 elements L = 6.00/2.37 m - 2.4 kg - MT-512/36 1 insulating stick 2 elements 1.65 m - MT-531 Reel for 3 cables 10 m x 35 mm ² with earth connect. for attachment to stick - MT-543/35 1 earth rod 1 m - MT-650 1 bag 2.50 x 0.30 x 0.15 - M-87-127
MT-508/46	3 telescopic metallic sticks 4 elements L = 5.10/1.62 m - 2.1 kg - MT-512/46 1 insulating stick 2 elements 1.65 m - MT-531 1 insulating intermediate stick element 1.65 m - CM-4-165-B 1 stick lifter - MT-546 Reel for 3 cables 10 m x 35 mm ² with earth connect. for attachment to stick - MT-543/35 1 earth rod 1 m - MT-650 1 bag M-87-208

BENEFITS

- Installation from the ground.
- Self-locking contact clamp.



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Self-locking clamp
No spring for easier maintenance, removal, and
greater reliability.



COPPER CABLES

Extra flexible braided multi-strand copper cables. Delivered to the meter with a minimum of 5 meters. Available in PVC sheath (A) or silicone sheath (B).

PVC sheath

Reference	Section (mm²)	kA/1s	kA/0.8s	kA/0.5s	kA/0.4s	kA/0.3s	kA/0.2s	kA/0.1s	kA/0.07s	kA/0.04s	Insulated cable	
											Weight (g/m)	Ø (mm)
M-24-16	16	4.5	5	6.3	7	8.2	10	14.2	17	22.5	180	8.6
M-24-25	25	7	7.8	10	11	12.7	15.6	22	26.5	35	280	10.2
M-24-35	35	10	11.2	14	15.8	18.2	22.3	31.6	37.8	50	380	11.7
M-24-50	50	14	15.6	20	22	25.5	31.3	44.3	53	70	530	14.2
M-24-70	70	20	22.3	28.3	31.6	36.5	44.7	63.2	75.5	100	780	16.2
M-24-95	95	27	30.2	38.2	42.7	49.3	60.4	85.4	102	135	1000	18.7
M-24-120	120	34	38	48	53.7	62	76	107.5	128.5	170	1300	20.6
M-24-150	150	42.5	47.5	60	67.2	77.6	95	134.4	160.6	212.5	1540	22.5

Theoretical calculations.

BENEFITS

- PVC sheath extra flexible.
- Reinforced short circuit resistance.

Silicone sheath

Reference	Section (mm²)	Rating (kA/1 s)	Without sheath cable	
				
			Weight (g/m)	(mm)
M-24-16-S	16	4	156	5.6
M-24-25-S	25	6	275	7.5
M-24-35-S	35	8	386	9
M-24-40-S	40	10	440	9.5
M-24-50-S	50	12	545	10
M-24-70-S	70	16	768	12
M-24-95-S	95	20	1000	14
M-24-120-S	120	30	1280	17
M-24-150-S	150	40	1630	19





ALUMINIUM CABLES

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

Reference	Rating (kA/1 s)	Without sheath cable		Section (mm ²)
				
		Weight (g/m)	(mm)	
M-28-50	7	170	11.5	50
M-28-70	10	240	13.4	70
M-28-120	17.5	430	19	120
M-28-150	20	510	21	150

PRO

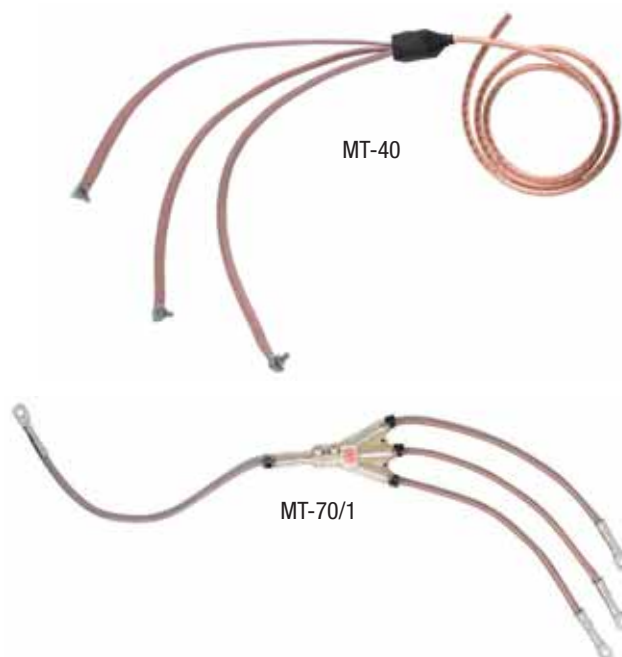
IEC 61230 : 2008 



JUMPER CABLES SPECIALLY MANUFACTURED ITEMS

Three copper cables or braids for short circuiting, connected to a copper ground wire through a trifurcating box. Transparent PVC sheath.

Reference	Characteristics	Rating (kA/1 s)	
			Weight
MT-40	3 cables 40 mm ² - L = 0.75 m 1 earth cable 40 mm ² - L = 2 m	10	2.3
MT-70/1	3 cables 70 mm ² with equipped lugs - L = 1.20 m 1 earth cable 35 mm ² - L = 2 m	14.5	4.4



ON REQUEST CONTACT OUR TECHNICAL ASSISTANCE

We realize specific earthing and short circuiting systems with crimped cables.

Phone : (33) 01 42 31 63 10 and (33) 01 42 31 46 24
www.catuelec.com





CABLE TESTING STICK

Enables piercing of cable insulation and shielding, earthing up to 50 kV. Capacity: 70 mm dia.
Cable-guide with protecting guide. 0.60 m insulating sleeve with 0.80 m extender.
Double cutting angle blade.
Multistrand copper earth wire 70 mm² x 2.50 m with earth clamp.
Ratchet type operating handle.

Reference	↔ (m)	Ø (mm)	 (mm)
	Length		
MP-211	1.60	60 maxi	8.75
Carrying Case available separately (MP-02).			



IEC 61230 : 2008 



INSULATING BLANKET

Must be placed over the piercing point. Hole for handle.

Reference	 (mm)	Ø (mm)	 Weight
	Dimension		
MP-212	900 x 900	50	0.96



IEC 61230 : 2008 



CABLE SPIKE EQUIPMENT

Device to test the voltage on underground cables (1st and 2nd categories) and their earthing, using a system with 9** mm bullet and throwing in the cable a steel treated blade.

Reference	Characteristics	 Weight
MP-213 *	Cable spike	20
MP-213/LAM	Spare blade for spade-cable MP-213	0.02
MP-213/EXT	Blade extractor for spade-cable MP-213	0.20
* Delivered complete in suitcase. ** 9 mm bullet not included and not supplied by CATU.		





STICKS ACCESSORIES

MANOEUVERING HOOK

Reference	Characteristics	
		Weight
CM-02-(*)	Bronze-copper nickel aluminium	0.12
CM-03-K	Bronze-copper nickel aluminium	0.12

(*) Add end-fitting: C, E or K.



CM-02-K



CM-02-C



CM-03-K

CLEANING BRUSHES

Reference	Characteristics	 (mm)	
		Dimension	Weight
MD-10-C	Concave brush with two rows of perpendicular bristle	100 x 125 x 170	0.5
MD-12-C	Round head brush	175 x 228	0.5
MD-14-C	Adjustable hinged round head brush	175 x 328	0.5



MD-12-C



MD-10-C



MD-14-C

TRIMMER AND PRUNNING SAW

Reference	Characteristics	 (mm)	
		Dimension	Weight
MD-40-B	Trimmer, maximum capacity Ø 45 mm (for branches up to 28 mm depending on tree species)	375 x 240 x 60	1.2
MD-42-B	Pruning saw on rigid frame, 34 cm blade	125 x 610 x 60	1.1
M-92-28	Replacement blade MD-42-B	—	—



MD-40-B



MD-42-B

FUSE PULLER

Reference	 (mm)	Ø (mm)
	Dimension	
CM-04-K	230 x 80	up to 70





ROD TESTER

The portable rod tester is designed to measure leakage currents originating from the absorption of humidity or pollution on the surface of insulating rods conform to IEC 60855 standard.

The rod tester does not require any particular gauging and works according to the "Good / No good" principle and there is no need for any particular interpretation of the results. The validation of the satisfactory state of the rod takes place by means of a clear information on the galvanometer screen.

Reference	Characteristics	 (mm)	 kg
		Dimension	Weight
MX-215	Rod tester	210 x 480 x 350	10.2

BENEFITS

- In accordance with ERDF BT MT 82 specification.
- Quick and simple use.



Easily transportable.

