

# IEC SHORT-CIRCUITING AND EARTHING SYSTEMS FOR MV SUBSTATIONS

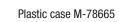
# EARTHING AND SHORT-CIRCUITING DEVICE FOR FIXED POINTS

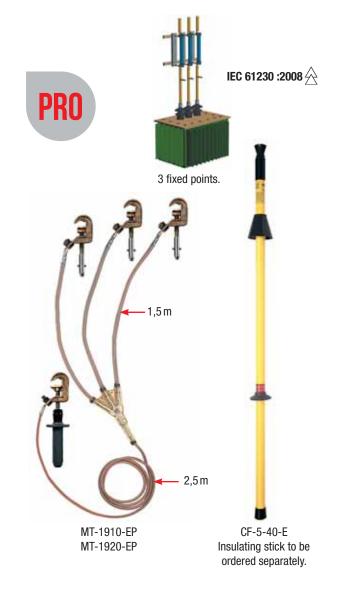
#### Composition:

- 3 x mini clamps
- 3 x Extra-flexible copper cables with PVC insulation
- 1 x Trifurcation connector
- 1 x Earth Cable in extra flexible copper cable with PVC insulation
- 1 x Earth clamp
- Case
- User guide

Reference	Rating (kA/1 s)	Installation on fixed points (mm)	Composition	Connection set
MT-1910-EP	20	Ø 20 MT-2951 range	3 clamps MT-1911-E 1 MT-1911	3 cables 95 mm <sup>2</sup> 1 earth cable 35 mm <sup>2</sup>
MT-1920-EP	30	Ø 25 MT-3951 range	3 clamps MT-1921-E 1 MT-1921	3 cables 150 mm <sup>2</sup> 1 earth cable 50 mm <sup>2</sup>
MT-1920/1EP	40	Ø 25/30	3 clamps MT-1921-E1 1 MT-1921/1	3 cables 150 mm <sup>2</sup> 1 earth cable 50 mm <sup>2</sup>







### **EARTH CLAMPS**

Ø 20 mm

Clamps for "T" or spherical fixed points.

Ø 25 mm

Reference	Characteristic	Rating (kA/1 s)	<b>g</b> Weight
MT-1911-E	Claw for "T" fixed points Ø 20 mm round conductors Ø 8 to 18 mm	20	580
MT-1921-E Claw for "T" fixed points Ø 25 mm round conductors Ø 10 to 25 mm		40	690
MT-1911	MT-1911 Same characteristics with hande MT-1911-E		-
MT-1921 Same characteristics with hande MT-1921-E		40	-
M-9573 Handle alone C end fitting		-	-













# Thorne & Derrick IEC SHORT-CIRCUITING AND EARTHING SYSTEMS +44 (0) 191 410 4292 FOR MY SUBSTATIONS **FOR MV SUBSTATIONS**





### INSTALLATION ON BARE CONDUCTORS

3 clamps. 3 copper extra flexible cables with silicone sheath. L = 1.5 m. 1 trifurcation connector earthed by an extra-flexible copper cable with silicone sheath, L = 2.5 m. Earth clamp.



IEC 61230 :2008 📯



Reference	Rating (kA/1 s)	Stick	Composition	Connection set	Installation on fixed points	kg Weight
MT-5805	20	MT-830-P	3xMT-815-C 1xMT-840/1	3 cables 95 mm² 1 earth cable 35 mm²	● Ø 5-35 <b>—</b> 16-40 <b>■</b> 5-40	8
MT-8408	12.5	MT-830-P	3 x MT-814/3 1 x MT-840/1	3 cables 70 mm <sup>2</sup> 1 earth cable 35 mm <sup>2</sup>	• Ø 18-33 — – I–	10
MT-9801	10	MT-830-P	3 x MT-817-C 3 x MT-814/2 1 x MT-840/1	3 cables 50 mm² 1 earth cable 25 mm²	• Ø 5-16 — 0-16 • Ø 5-28	11

Delivered in case. Clamp characteristics : see page 173.





















### **Installation on permanent fixed points:**

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Reference	Characteristics			
MT-890	Clamps 3 claws			
MT-891	Earth clamp fixation			
MT-893	Cable tensioner			
MT-895	Cable kit support			
CI-06-D	Wall mounted support			



Plastic case included. M-78665

CE-4-21-C Insulating stick to be ordered separately.



# IEC SHORT-CIRCUITING AND EARTHING SYSTEMS FOR MV SUBSTATIONS

### EARTH CLAMP WITH SECURITY PADLOCK

Increase Safety with an Exclusive CATU Solution to avoid forgetting the earthing equipment in place before switching on the voltage again. The earth clamp and the padlock use the same unique key. When the earth clamp is in place, the key can't be removed from the clamp. Switch off the electric generator and lock the installation using the locking padlock. The key, coming from the padlock, is then used to lock out the earth clamp which can then be fixed to the earth connection point. The key is then trapped on the earth clamp. The electric generator can't be switched on with the earth clamp in place. When the earthing and short-circuiting operation is over, the first step to take off the equipment is to unscrew the earth clamp in order to free the key. Finally, the key is used to unlock the padlock and switch on the electric generator again.

















IEC 61230 :2008

Poforonoo	Rating	ting (mm) - (mm)		(mm) - (mm)		J	kg
Reference (kA/1 s	kA/1 s) Dimensions	Clamping capacity		Weight			
MT-870	20	70 x 90 x 50	Ø 6-26 mm flat 0-30 mm	Aluminium, 6,5 mm shackle, unique key	1		

# EARTHING AND SHORT-CIRCUITING DEVICE FOR BARE CONDUCTORS WITH SECURITY PADLOCK

#### Composition:

- 3 X conductor clamps
- 3 X Extra-flexible copper cables with PVC insulation
- 1 X Trifurcation connector
- 1 X Earth extra-flexible copper cable with PVC insulation
- 1 X Lockable earth clamp with security padlock
- 1 X Unique key
- Carrying case
- User guide





Plastic case include

Reference	Reference Rating (kA/1 s) Fixed points		Capacity	Clamps and earthing clamp composition	Connexion cables	(mm)	kg
			(mm)	Composition	Cables	Dim. case	Weight
MT-5805/870	20	MT-830-P	• Ø 5-35 <b>—</b> 16-40 <b>I</b> 5-40	3 high capacity clamps MT-815-C 1 paired clamp/padlock MT-870	3 x 70 mm <sup>2</sup> 1 x 35 mm <sup>2</sup>	650 x 480 x 210	8
MT-1910/870	20	Ø 20 and 25	• 5 à 20 — 20	3 fixed-point clamps 1911-E1 1 paired clamp/padlock MT-870	3 x 70 mm <sup>2</sup> 1 x 35 mm <sup>2</sup>	650 x 480 x 210	8

CE-4-21-C Insulating stick to be ordered separately.

For any customized solution, please contact our Flexible Workshop Team: Phone: +33(0)1 42 31 63 10 +33(0)1 42 31 46 24





## **IEC SHORT-CIRCUITING AND EARTHING SYSTEMS FOR MV SUBSTATIONS**



### **CLAMPS FOR INSTALLATION ON BARE CONDUCTORS**

### IEC 61230 :2008 📯

Recommended stick:

CE-4-21-C / CF-3-72 ou E



Hexagonal end-fitting. The clamp from turning under the weight of the cable. Separate by simple pulling. Earth cable connection. With a crimped lug (12 mm Ø hole).

### Material

Aluminium alloy except MT-814/2 and MT-814/3: copper-aluminium bronze.

Reference	Rating	(mm)	Ø	ĝ
	(kA/1 s)	Dimensions	(mm)	Weight
MT-814/2	14.5	85 x 56 x 192	• Ø 5/328	660
MT-814/3	14.5	85 x 56 x 195	• Ø 18-33	620
ZEMCC-2851-H	14.5	56 x 85 x 192	• Ø 5-34	660
MT-812-C	21	35 x 79 x 143	• Ø 5-16 — 0-16	320
MT-815-C				
MT-815-S	30	44 × 100 × 100	• Ø 5-35	
MT-815-1/C		44 x 100 x 180	── 16-40 ┃ 5-40	600
MT-815-E				



С



Attachment C: 6-point female attachment with safety ball. Prohibits the clamp from turning on the pole.



**Bayonet** end-fitting.





MT-814/2 MT-814/3

ZEMCC-2851-H





MT-815-1/C





## **EARTH CLAMPS**

Copper aluminium bronze earth clamps. Earth cable connection by connector, lug, TO- system...

Reference	Rating	(mm)	Connection	(mm)	ĝ
	(kA/1 s)	Dimensions		Clamping capacity	Weight
MT-840/1	20	40 x 73 x 135	Thread: Ø 12.5 mm	• Ø 6-25 — 0-25	380
MT-841	30	40 x 73 x 135	Connect. Fontenay ≤ 50 mm <sup>2</sup>	• Ø 6-25 — 0-30	380













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