



Single-phase / three-phase short-circuiting device for rectangular cross-section bars

SR EN 61230



Code: Msp - C - S<sub>p</sub>/I<sub>p</sub> - P/p  
Msp - CA - S<sub>p</sub>/I<sub>p</sub> - P/p

Msp - C - 3xS<sub>p</sub>/I<sub>p</sub> - S<sub>p</sub>/I<sub>p</sub> - P/p  
Msp - CA - 3xS<sub>p</sub>/I<sub>p</sub> - S<sub>p</sub>/I<sub>p</sub> - P/p

**Intended use:** earthing of **rectangular cross-section bars** in transformer stations: flat bars, bar packets or busbars of various thicknesses.

**Application:** by the application of the phase clamps on the rectangular section bar, followed by the tightening of the clamp actuator screw.

Classic / automatic phase clamps must be handled using an insulating stick according to the installation, provided with "RO bayonet" coupling system.

**Constructive shapes:** *single-phase* or *three-phase*

**Constructive types of phase clamps:**

- ✓ Classic clamp
- ✓ Automatic clamp (CA)

**Components:**

**The single-phase short-circuiting device** includes the following components:

- Phase clamp - 1 piece
- Earthing cable - 1 piece
- Manual earthing clamp - 1 piece

**The three-phase short-circuiting device** includes the following components:

- Phase clamp - 3 pieces
- Phase cable - 3 pieces
- Earthing cable - 1 piece
- Manual earthing clamp - 1 piece

**Packing:** waterproof bag.

**Other equipment to be used in conjunction:**

- connecting insulating stick type PMU 20-1 B/ba / PMU 110-2 B/ba



General technical characteristics of short-circuiting devices applicable on rectangular cross-section bars

Earthing S <sub>p</sub> cable cross-section (mm <sup>2</sup> )	16	25	35	50	70	95	120
Nominal short-circuit current for t = 1 s I <sub>sc</sub> (kA)	4	6,25	8,75	12,5	17,5	23,75	30
Shock (peak) nominal current for t = 0,02 s I <sub>sd</sub> (kA)	10	15,63	21,9	31,25	43,75	59,38	75
Test short-circuit current for t = 1 s (kA)	4,6	7,2	10,06	14,38	20,13	27,31	34,5
Test (shock) current for t = 0,02 s (kA)	11,5	17,97	25,16	35,94	50,31	68,3	86,25
Power factor (according to SR EN 61230)				2,5			

Phase clamp type	Classic clamp (C)	Automatic clamp (CA)
Length of phase cables - three-phase short-circuiting device l <sub>f</sub> (m)	max. 1,5	max. 1,5
Length of the earthing cable - single-phase / three-phase short-circuiting device l <sub>e</sub> (m)	max. 8,5 / max. 7	max. 8,5 / max. 7
Thickness of the flat bar where the phase clamp g can be mounted (mm)	max. 40	max. 37



CLASIC CLAMP (C)



AUTOMATIC CLAMP (CA)