



Single-phase / three-phase short-circuiting device for conductors of various shapes, with universal clamps in lightweight construction

SR EN 61230



Code: Msp - CCRU/E - S_p/I_p - S/O/P/p Msp - CCRU/E - $3xS_f/I_f$ - S_p/I_p - S/O/P/p
 Msp - CCNU/E - S_p/I_p - S/O/P/p Msp - CCNU/E - $3xS_f/I_f$ - S_p/I_p - S/O/P/p
 Msp - CCTU/E - S_p/I_p - S/O/P/p Msp - CCTU/E - $3xS_f/I_f$ - S_p/I_p - S/O/P/p

Intended use: earthing of conductors / bars of various forms of power cells, cabinets, etc.

Application: from the ground, by the application of the clamp on the conductor, followed by the tightening of the clamp actuator screw.

Classic universal phase clamps must be handled using an insulating stick according to the installation, provided with "RO bayonet" coupling system, but other types of endings for actuator screw are available (hex. 12 mm).

Constructive shapes : single-phase or three-phase.

Constructive types of phase clamps:

- ✓ Classic Universal Reduced Clamp (CCRU/E)
- ✓ Classic Universal Normal Clamp (CCNU/E)
- ✓ Classic Universal Transversal Clamp (CCTU/E)

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:

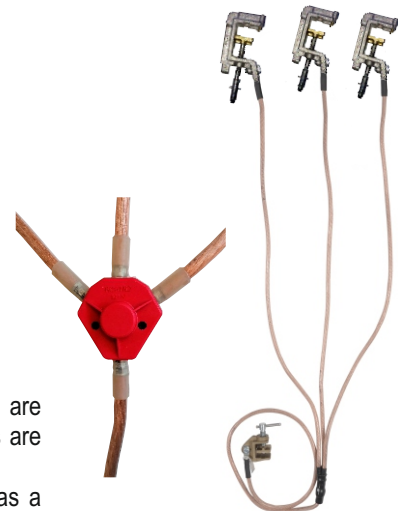
- Phase clamp - 3 pieces
- Phase cable - 3 pieces
- Earthing cable - 1 piece
- Manual earthing clamp - 1 piece

Packing: waterproof bag.

Other equipment to be used in conjunction: - connecting insulating stick type PMU 20-1 B/ba.

Tips: given their dimensions and light weight, CCRU/E, CCNU/E and CCTU/E clamps are recommended for use in power installations where the spaces between the conductor bars are extremely small, and the clamp is applied on the conductor from a small distance.

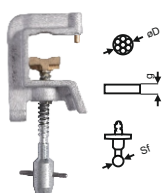
The central connection of cables for three-phase short-circuiting device can be provided as a connecting block, closely covered by an insulated shell.



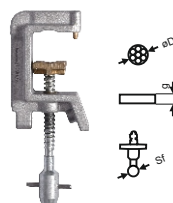
General technical characteristics of short-circuiting devices with universal clamp types CCRU/E, CCNU/E and CCTU/E

Clamp type	CCRU/E / CCNU/E / CCTU/E					CCNU/E / CCTU/E	CCTU/E
Earthing S_p cable cross-section (mm ²)	16	25	35	50	70	95	120
Nominal short-circuit current for $t = 1$ s I_{sc} (kA)	4	6,25	8,75	12,5	17,5	23,75	30
Shock (peak) nominal current for $t = 0,02$ s I_{sd} (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 (peak) 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						

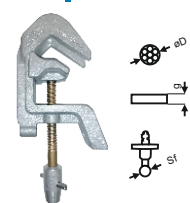
Phase clamp type	Classic universal reduced clamp (CCRU/E)	Classic universal normal clamp (CCNU/E)	Classic universal transversal clamp (CCTU/E)
Phase cables length - three-phase short-circuiting device l_f (m)	max. 2,5	max. 2,5	max. 2,5
Earthing cable length - single-phase / three-phase variant l_p (m)	max. 10 / max. 7,5	max. 10 / max. 7,5	max. 10 / max. 7,5
Thickness of the flat bar where the phase clamp g can be mounted (mm)	max. 30	max. 45	max. 45
Diameter of the sphere-type S_f coupling part (mm)	25	20 / 25	25
Diameter of the conductor where the phase clamp can be applied $\varnothing D$ (mm)	4 ÷ 30	4 ÷ 36	3 ÷ 45



CLASSIC UNIVERSAL
REDUCED CLAMP (CCRU/E)



CLASSIC UNIVERSAL
NORMAL CLAMP (CCNU/E)



CLASSIC UNIVERSAL
TRANSVERSAL CLAMP (CCTU/E)