

Cross-Section of Metallic Tape for Earthing of 110/30 kV Substation

Parameters

Material (used to suggest values of K and β)		Copper	
Constant depending on the material of the current-carrying capacity	K	226	$A s^{1/2} mm^{-2}$
Reciprocal of temperature coefficient of resistance of the current-carrying component at $0^{\circ}C$	β	235.5	$^{\circ}C$
Fault current	I_f	25	kA
Fault time	t_f	0.6	s
Soil resistivity	ρ_e	60	Ωm
Initial temperature	Θ_i	30	$^{\circ}C$
Final temperature	Θ_f	400	$^{\circ}C$

Results

Minimum cross-section of A mm^2

Refresh

earthing conductor

91.72

EN 50522:2010 Earthing of Power Installations Exceeding 1 kV A.C.