

IP55

U_e = 230...690 V

RAL 9001 White

Run component characteristics

Rating of trunking (A)	KS	100	160	250	400	500	630	800	1000
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General characteristics

Compliance with standards		IEC/EN 61439-6								
Degree of protection:	IP	55	55	55	55	55	55	55	55	55
Mechanical impacts	IK	08	08	08	08	08	08	08	08	08
Rated current at an ambient temperature of 35 °C	I _{nc}	A	100	160	250	400	500	630	800	1000
Rated insulation voltage	U _i	V	690	690	690	690	690	690	690	690
Rated operational voltage	U _e	V	690	690	690	690	690	690	690	690
Rated impulse voltage	U _{imp}	kV	8	8	8	8	8	8	8	8
Rated frequency	f	Hz	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60

Conductor characteristics

Phase conductors

Mean resistance at an ambient temperature of 20 °C	R ₂₀	mΩ/m	1.19	0.55	0.28	0.15	0.11	0.09	0.06	0.04
Mean resistance at I _{nc} and 35 °C	R ₁	mΩ/m	1.59	0.77	0.39	0.21	0.15	0.13	0.09	0.06
Mean reactance at I _{nc} , 35 °C and 50 Hz	X ₁	mΩ/m	0.15	0.15	0.16	0.14	0.07	0.07	0.06	0.06
Mean impedance at I _{nc} , 35 °C and 50 Hz	Z ₁	mΩ/m	1.6	0.79	0.42	0.25	0.16	0.15	0.11	0.09

Protective conductor (PE)

Mean resistance at an ambient temperature of 20 °C		mΩ/m	0.42	0.42	0.35	0.19	0.07	0.07	0.07	0.06
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Fault loop characteristics

Symmetrical components method	Ph/N at 20 °C	Mean resistance	R _{0 ph/N}	mΩ/m	4.85	1.1	1.28	0.74	0.5	0.45	0.32	0.23	
		Mean reactance	X _{0 ph/N}	mΩ/m	0.95	0.22	0.86	0.67	0.36	0.35	0.31	0.27	
		Mean impedance	Z _{0 ph/N}	mΩ/m	4.94	1.12	1.54	1	0.62	0.57	0.45	0.36	
	Ph/PE at 20 °C	Mean resistance	R _{0 ph/PE}	mΩ/m	2.75	2.01	1.34	0.88	0.4	0.51	0.35	0.32	
		Mean reactance	X _{0 ph/PE}	mΩ/m	1.11	0.93	0.7	0.67	0.48	0.55	0.43	0.4	
		Mean impedance	Z _{0 ph/PE}	mΩ/m	2.96	2.22	1.51	1.11	0.63	0.75	0.56	0.51	
Impedance method	At 20 °C	Mean resistance	Ph/Ph	R _{b0 ph/ph}	mΩ/m	2.4	1.15	0.65	0.41	0.25	0.23	0.18	0.15
			Ph/N	R _{b0 ph/N}	mΩ/m	2.44	1.21	0.74	0.51	0.3	0.28	0.23	0.2
			Ph/PE	R _{b0 ph/PE}	mΩ/m	1.87	1.3	0.78	0.55	0.31	0.3	0.28	0.26
	For I _{nc} at 35 °C	Mean resistance	Ph/Ph	R _{b1 ph/ph}	mΩ/m	3.19	1.55	0.78	0.57	0.35	0.32	0.25	0.21
			Ph/N	R _{b1 ph/N}	mΩ/m	3.21	1.57	0.82	0.7	0.41	0.39	0.32	0.28
			Ph/PE	R _{b1 ph/PE}	mΩ/m	2.38	1.46	0.91	0.76	0.43	0.41	0.39	0.37
	For I _{nc} at 35 °C and 50 Hz	Mean reactance	Ph/Ph	X _{b ph/ph}	mΩ/m	0.31	0.31	0.32	0.28	0.14	0.14	0.13	0.12
			Ph/N	X _{b ph/N}	mΩ/m	0.45	0.45	0.45	0.39	0.2	0.2	0.18	0.17
			Ph/PE	X _{b ph/PE}	mΩ/m	0.58	0.42	0.42	0.39	0.24	0.24	0.23	0.22

Other characteristics

Short-circuit withstand capacity

Rated peak withstand current	I _{pk}	kA	15.7	22	28	49.2	55	67.5	78.7	78.7
Maximum thermal limit I ² t (t = 1 s)		10 ⁶ A ² s	6.8	20.2	100	354	733	1225	1758	1758
Rated short-time withstand current (t = 1 s)	I _{cw}	kA	2.6	4.45	10	18.8	26.2	32.1	37.4	37.4

Voltage drop

Composite voltage drop (hot state) expressed in V/100 m/A (50 Hz) with the load uniformly distributed over the run. If the load is concentrated at one end of the run, the voltage drop is twice the value indicated in the table.

For a power factor of	1	V/100 m/A	0.138	0.067	0.034	0.018	0.013	0.011	0.008	0.005
	0.9	V/100 m/A	0.130	0.066	0.036	0.022	0.014	0.013	0.009	0.007
	0.8	V/100 m/A	0.118	0.061	0.035	0.022	0.014	0.013	0.009	0.007
	0.7	V/100 m/A	0.106	0.056	0.034	0.021	0.013	0.012	0.009	0.008

This table is given for three-phases network. The single phase voltage drop is obtained by dividing the three-phase voltage drop indicated above by 0.866.

Radiated magnetic field

Radiated magnetic field strength 1 metre from the trunking	B	μT	0.19	0.31	0.52	0.89	0.50	0.66	0.88	1.21
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Product selection when harmonics are present (for details, see the "Special Applications" section)

Operational current as a function of 3rd harmonic content	THD ≤ 15 %	100	160	250	400	500	630	800	1000
	15 % < THD ≤ 33 %	80	125	200	315	400	500	630	800
	THD > 33 %	63	100	160	250	315	400	500	630

Permissible current as a function of ambient temperature

Ambient temperature	°C	< 35	35	40	45	50	55
Coefficient K1	%	n/a	1	0.97	0.94	0.91	0.87