

Application

For use in power circuits of 19/33kV systems. Installed in cable trays and ducts.

Construction

Single core, circular Aluminium stranded conductor (water blocked), XLPE insulated, copper wire screened, medium density polyethylene sheathed.

Specification: SANS 1339

Voltage Rating: 19/33kV

Physical properties and dimensions											Electrical Properties									
Conductor size	Conductor diameter	Insulation diameter	Insulation thickness	CWS				Cable diameter	Cable mass	Bending radius	Current rating			Resistance Ω/km max		Inductive reactance	Impedance	Capacitance	Short Circuit	
				diameter	wire diameter	Number of Wires	total area												Symmetrical	Earth Fault Cu Wire Screen
				mm ² Nom.	mm Nom.	mm Nom.	mm Nom.				mm Nom.	mm Nom.	#	mm ² Min.	mm Nom.	kg/m Nom.	mm min.	air	ground	ducts
95	11.8	31.4	8.0	34.7	1.10	22	20.9	40.2	1.40	1004	285	230	180	0.320	0.411	0.148	0.436	0.173	8.0	2.6
120	13.1	32.7	8.0	36.0	1.10	23	21.9	41.5	1.52	1036	325	260	205	0.253	0.325	0.143	0.355	0.185	10.2	2.7
150	14.8	34.4	8.0	37.7	1.10	24	22.8	43.4	1.68	1084	370	290	230	0.206	0.265	0.142	0.300	0.200	12.5	2.9
185	16.35	35.9	8.0	39.2	1.10	25	23.8	44.9	2.13	1123	420	325	260	0.164	0.211	0.137	0.251	0.214	15.7	3.0
240	18.9	38.5	8.0	41.8	1.10	26	24.7	47.7	2.13	1192	485	370	290	0.125	0.162	0.142	0.215	0.200	20.6	3.1
300	21.2	40.8	8.0	44.1	1.10	28	26.6	50.2	2.44	1254	550	415	330	0.100	0.131	0.128	0.183	0.358	25.7	3.3
400	23.9	43.5	8.0	46.8	1.10	30	28.5	53.1	2.79	1327	630	460	360	0.078	0.106	0.123	0.162	0.503	33.1	3.6
500	27.2	46.8	8.0	50.1	1.10	32	30.4	56.6	3.25	1415	715	515	410	0.061	0.085	0.119	0.146	0.554	42.5	3.8
630	31.2	50.8	8.0	54.1	1.10	34	32.3	60.8	3.84	1520	810	570	450	0.047	0.068	0.113	0.132	0.616	55.0	4.1

Standard installation conditions

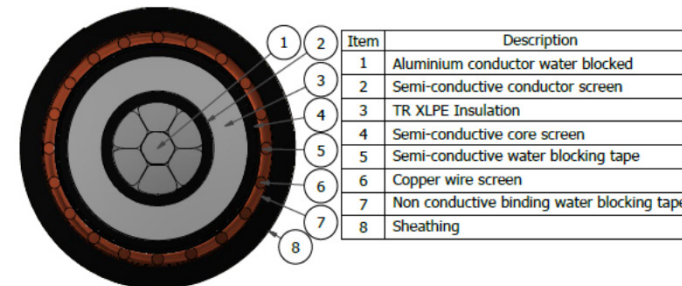
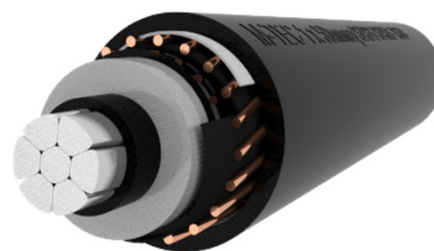
Soil thermal resistivity: 1.2K.m/W

Ambient air temperature: 30°C

Soil temperature: 25°C

Burial depth: 800mm

Solid bonded earth system



Revision: R02 27/07/2022

