

Application

For use in power circuits of 12.7/22kV systems. Installed in cable trays and ducts.

Construction

Single core, Circular Aluminium stranded conductor (water blocked), XLPE insulated, copper wire screened, flame retardant FRPVC bedded, Aluminium wire armoured, medium density Polyethylene sheathed.

Specification: SANS 1339

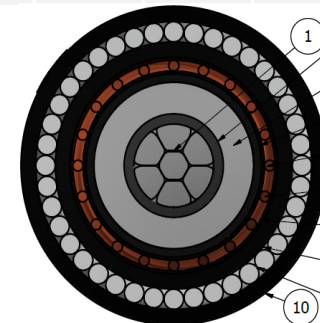
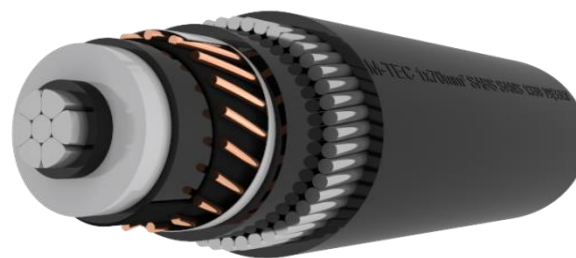
Voltage Rating: 12.7/22kV

Physical properties and dimensions

Electrical Properties

Conductor size	Conductor diameter	Insulation diameter	Insulation thickness	Bedding diameter	Armour			Cable diameter	Cable mass	Gross mass (300m)	Bending radius	Current rating			Resistance Ω /km max		Reactance Ω /km	Impedance Ω /km	Capacitance μ F/km	Short circuit ratings	
					diameter	wire diameter	total area					Amps			dc @ 20°C	ac @ 90°C				Symmetrical	Earth fault
												air	ground	ducts							
mm ² Nom.	mm Nom.	mm Nom.	mm Nom.	mm Nom.	mm Nom.	mm Nom.	mm ² Min.	mm Nom.	kg/m Nom.	kg Nom.	mm min.	air	ground	ducts	dc @ 20°C	ac @ 90°C	Ω /km	Ω /km	μ F/km	kA (1sec)	kA (1sec)
50	8.2	22.7	5.5	30.0	33.8	1.60	108.6	39.1	1.51	639	782	190	160	125	0.641	0.822	0.172	0.840	0.141	4.0	7.3
70	9.9	24.4	5.5	31.7	36.3	2.00	144.5	41.6	1.83	779	832	235	195	155	0.443	0.568	0.162	0.591	0.157	5.8	9.7
95	11.8	26.2	5.5	33.5	38.1	2.00	153.9	43.6	1.95	816	873	285	230	180	0.320	0.411	0.099	0.422	0.173	8.0	10.3
120	13.1	27.5	5.5	34.8	39.4	2.00	160.2	44.9	2.04	841	899	325	260	205	0.253	0.325	0.146	0.356	0.185	10.2	10.7
150	14.8	29.2	5.5	36.5	41.1	2.00	166.5	46.8	2.14	906	937	370	290	230	0.206	0.265	0.136	0.297	0.200	12.5	18.6
185	16.3	30.8	5.5	38.1	42.7	2.00	175.9	48.4	2.23	1,056	968	420	325	260	0.164	0.211	0.131	0.248	0.214	15.7	19.7
240	18.9	33.3	5.5	40.6	45.2	2.00	185.4	51.1	2.39	1,102	1023	485	370	290	0.125	0.162	0.136	0.211	0.200	20.6	20.7
300	21.2	35.6	5.5	43.1	48.7	2.50	250.3	54.9	2.99	1,282	1097	550	415	330	0.100	0.132	0.123	0.180	0.358	25.7	28.0
400	23.9	38.3	5.5	45.8	51.4	2.50	270.0	57.8	3.21	1,350	1155	630	460	360	0.078	0.107	0.118	0.159	0.503	33.1	30.2
500	27.2	41.6	5.5	49.9	49.9	2.50	284.7	62.0	3.52	1,460	1240	715	515	410	0.061	0.086	0.114	0.143	0.554	42.5	31.8
630	31.2	45.6	5.5	53.3	58.9	2.50	309.3	65.9	3.79	1,671	1318	810	570	450	0.047	0.069	0.109	0.129	0.616	55.0	34.6

Cable Identification:
 FRPVC (red stripe), LHFRPVC (blue stripe),
 HFFR (white stripe), PE (no stripe).



Item	Description
1	Aluminium conductor
2	Semi-conductive conductor screen
3	TR XLPE Insulation
4	Semi-conductive core screen
5	Semi-conductive bedding tape
6	Copper wire screen
7	Binding tape
8	Bedding
9	Aluminium wire armour
10	Sheathing

Revision: R00 19/09/2017

