

Description: 12700/22000V, Copper, 1 Core, Type A F2HC...
Bedding/ Sheathing: FRPVC/AWA/ FRPVC (red stripe) ...141
 LHPVC/AWA/ LHPVC (blue stripe) ...242
Specification: SANS 1339

Last updated: October 2016

Size code	...n/a...	1050	1070	1095	1120	1150	1185	1240	1300	1400	1500	1630	1800	1999
PHYSICAL DIMENSIONS														
Conductor size	mm ² nom	50	70	95	120	150	185	240	300	400	500	630	800	1000
Conductor diameter	mm app.	8.35	10.05	11.90	13.25	14.70	16.23	18.46	20.75	24.05	27.42	30.45	34.25	38.81
Insulation diameter	mm app.	21.33	23.03	20.57	26.23	27.68	29.21	31.44	33.73	37.83	41.98	45.01	48.81	53.37
Bedding diameter	mm app.	26.18	27.88	25.42	31.08	32.53	34.06	36.29	38.78	42.88	47.24	50.27	54.27	59.04
Armour diameter	mm app.	29.38	31.88	28.62	35.08	36.53	38.06	40.29	43.78	47.88	52.24	55.27	59.27	64.04
Cable diameter	mm app.	34.26	36.76	33.30	40.16	41.82	43.35	45.78	49.48	53.79	58.35	61.79	66.00	70.97
TECHNICAL DATA														
Normal drum length	m	500	500	500	500	500	500	500	500	500	500	500	500	500
Cable mass (approximate)	kg/m	1.650	2.013	2.367	2.656	2.998	3.410	4.055	4.930	6.047	7.268	9.002	10.67	12.85
Gross mass (500 m)	kg app.	1007	1189	1390	1552	1835	1962	2360	2797	3652	4262	4973	5915	7156
Bending radius	mm min.	685	735	666	803	836	867	916	990	1076	1167	1236	1320	1419
DC Resistance @ 20°C	Ω/km	0.387	0.268	0.193	0.153	0.124	0.099	0.075	0.060	0.047	0.037	0.028	0.022	0.018
AC Resistance @ 90°C	Ω/km	0.494	0.342	0.247	0.196	0.159	0.128	0.098	0.079	0.063	0.051	0.042	0.035	0.030
Reactance	Ω/km	0.152	0.145	0.128	0.131	0.126	0.122	0.117	0.115	0.110	0.107	0.104	0.101	0.098
Impedance	Ω/km	0.517	0.372	0.278	0.235	0.203	0.177	0.153	0.139	0.127	0.119	0.112	0.107	0.102
Capacitance	μF/km	0.185	0.206	0.336	0.247	0.265	0.285	0.313	0.341	0.361	0.444	0.481	0.529	0.585
Zero Sequence Resistance	Ω/km	0.746	0.535	0.506	0.369	0.325	0.286	0.247	0.191	0.165	0.143	0.127	0.113	0.102
Zero Sequence Reactance	Ω/km	0.096	0.089	0.072	0.075	0.070	0.067	0.062	0.060	0.056	0.054	0.051	0.048	0.045
Current rating:														
In ground	Amps	206	250	298	334	371	413	469	512	565	618	667	711	748
In air in shade	Amps	244	303	361	416	468	529	612	682	772	863	948	1030	1107
In air in direct sunlight	Amps	193	239	287	328	369	416	480	534	603	672	736	799	857
Short circuit ratings:														
Symmetrical (250°C)	kA (1sec)	6.4	9.2	12.8	16.2	20.0	25.0	32.8	41.2	52.7	67.6	87.5	112.0	140.6
Earth fault (200°C)	kA (1sec)	11.5	15.1	16.0	16.7	17.5	18.3	19.4	25.7	28.2	31.0	32.9	35.4	38.4

Ratings above are based on standard laying conditions for a single circuit in isolation as follows:

Soil thermal resistance = 1.2Km/W

Soil temperature = 25°C

Depth of burial = 800mm

Air temperature = 30°C

5% tolerance on dimensions

Ratings for solid bonded, Trefoil formation

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