DATA SHEET

Medium Voltage PILC Cables

CBi electric
african cables

Aluminium 3 Core
11000/11000V
Table 18
SANS 97

PILC/PILAC	F1FA…	Primary group code
FRPVC DTA FRPVC (red stripe)	…18191	Table + Finish code
LHPVC DTA LHPVC (blue stripe)	…18292	

Size code	...naaa…	3025	3035	3050	3070	3095	3120	3150	3185	3240	3300
Conductor size	mm² nom	25*	35*	50*	70	95	120	150	185	240	300
Conductor depth	mm app.	5.9	7.0	8.3	8.3	9.8	11.0	12.2	13.7	15.7	17.6
Insulated depth	mm app.	12.2	13.2	14.6	14.6	16.0	17.2	18.4	19.9	21.9	23.9
Diameter over lead sheath	mm app.	35.7	38.2	41.5	41.0	44.5	47.0	49.5	53.0	57.5	62.0
Bedding diameter	mm app.	38.4	40.9	44.5	44.0	47.5	50.5	53.0	56.5	61.1	66.0
Size of armour wires	mm	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Overall diameter	mm app.	46.5	49.0	53.5	53.0	56.5	60.0	63.0	66.5	71.5	76.5
Normal drum length	m	500	500	300	300	300	300	300	300	300	300
Cable mass	kg/m app.	4.7	5.3	6.1	6.4	7.3	8.1	8.9	10.0	11.8	13.4
Gross mass (drum length)	kg app.	2590	2960	2013	2103	2590	2830	3015	3345	3965	4475
Bending radius	mm min.	558	588	642	636	678	720	756	798	858	918
Current rating											
In ground	Amps	81	97	115	140	170	195	220	250	290	330
In ducts	Amps	69	83	99	120	145	165	185	215	250	280
In air	Amps	80	98	115	145	175	205	235	270	320	365
Positive sequence											
Resistance dc @ 20°C	Ω/km max	1.200	0.868	0.641	0.443	0.320	0.253	0.206	0.164	0.125	0.100
ac @ 70°C	Ω/km max	1.442	1.043	0.770	0.533	0.385	0.305	0.248	0.198	0.152	0.122
Reactance	Ω/km	0.111	0.106	0.101	0.082	0.077	0.075	0.073	0.070	0.068	0.066
Impedance	Ω/km	1.446	1.049	0.777	0.539	0.393	0.314	0.259	0.210	0.166	0.138
Zero sequence											
Resistance	Ω/km	5.432	4.535	3.804	3.448	2.938	2.712	2.406	2.118	1.763	1.554
Reactance	Ω/km	0.151	0.144	0.136	0.139	0.132	0.127	0.123	0.118	0.113	0.109
Impedance	Ω/km	5.434	4.537	3.806	3.451	2.941	2.715	2.409	2.121	1.767	1.558
Short circuit ratings											
Symmetrical	kA (1sec)	2.3	3.2	4.4	6.4	8.8	11.1	13.7	17.2	22.5	28.2
Earth fault (Symmetrical limit)	kA (1sec)	4.4	5.0	5.7	6.0	6.8	7.2	8.1	9.0	10.8	12.1

Last updated May 2006

* Circular Conductor
When ordering please quote: primary + size + table + finish code
e.g. F1FA 3120 18 191

A member of the REUNERT Group
CBi Electric African Cables
PO Box 172, Vereeniging 1930 • Tel: +27 16 430 6000 • Fax: +27 16 423 6103
www.cbi-electric.com • afcab@cbi-electric.com