DATA SHEET

Medium Voltage PILC Cables

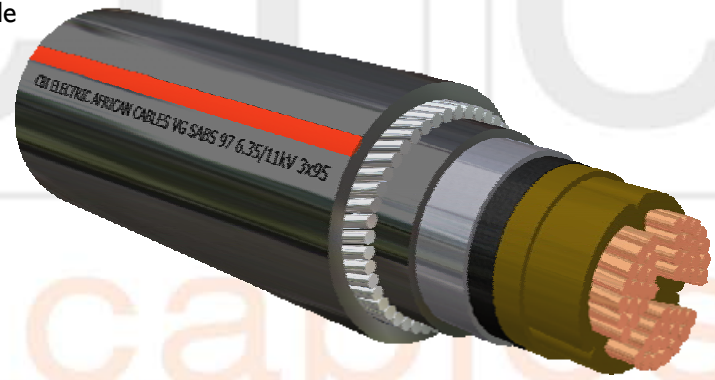
CBi electric african cables

PILC/PILAC	F1EC…	Primary group code	Copper 3 Core 6600/6600V
FRPVC SWA FRPVC (red stripe)	…16111	Table + Finish code	Table 16
LHPVC SWA LHPVC (blue stripe)	…16212		SANS 97

Size code	...naaa…	3016	3025	3035	3050	3070	3095	3120	3150	3185	3240	3300
Conductor size	mm² nom	16*	25*	35*	50	70	95	120	150	185	240	300
Conductor depth	mm nom	5.2	6.1	7.2	6.9	8.3	9.8	11.0	12.2	13.7	15.7	17.6
Insulated depth	mm nom	9.7	10.6	11.7	11.4	12.8	14.3	15.5	16.7	18.2	20.2	22.1
Diameter over lead sheath	mm nom	28.5	31.0	33.0	32.0	35.5	38.5	41.5	44.0	47.5	52.0	56.5
Bedding diameter	mm nom	31.0	33.5	36.0	34.5	38.5	42.0	44.5	48.0	51.0	55.5	60.0
Size of armour wires	mm	2.00	2.00	2.50	2.50	2.50	2.50	2.50	3.15	3.15	3.15	3.15
Overall diameter	mm nom	39.5	42.0	45.5	44.5	48.5	52.0	55.0	60.0	63.5	68.5	73.5
Normal drum length	m	300	300	300	300	300	300	300	300	300	300	300
Cable mass	kg/m app.	4.1	4.8	5.8	6.2	7.5	8.9	10.2	12.3	14.2	16.8	19.8
Gross mass (drum length)	kg app.	1730	1940	2240	2360	2750	3170	3560	4190	4760	5540	6440
Bending radius	mm min.	474	504	546	534	582	624	660	720	762	822	882
Current rating												
In ground	Amps	90	115	140	165	200	245	280	315	355	415	465
In ducts	Amps	76	97	120	140	170	205	235	265	300	350	395
In air	Amps	89	115	140	170	210	260	300	340	390	465	530
Positive sequence												
Resistance dc @ 20°C	Ω/km max	1.150	0.727	0.524	0.387	0.268	0.193	0.153	0.124	0.099	0.075	0.060
ac @ 80°C	Ω/km max	1.421	0.899	0.648	0.479	0.332	0.239	0.190	0.155	0.124	0.095	0.077
Reactance	Ω/km	0.105	0.101	0.096	0.079	0.075	0.071	0.069	0.067	0.065	0.063	0.061
Impedance at 80°C	Ω/km	1.425	0.904	0.655	0.485	0.340	0.249	0.202	0.168	0.140	0.114	0.098
Zero sequence												
Resistance	Ω/km	3.332	2.634	2.030	1.876	1.574	1.360	1.220	0.959	0.863	0.764	0.675
Reactance	Ω/km	0.145	0.138	0.131	0.135	0.127	0.121	0.116	0.112	0.108	0.104	0.100
Impedance	Ω/km	3.335	2.638	2.034	1.881	1.579	1.366	1.226	0.966	0.870	0.771	0.682
Short circuit ratings												
Symmetrical	kA (1sec)	2.2	3.5	4.9	6.6	9.6	13.3	16.7	20.7	25.9	34.0	42.8
Earth fault(Symmetrical limit)	kA (1sec)	10.7	11.7	14.9	14.7	16.5	18.2	19.8	25.5	27.7	30.6	34.0

Last updated May 2006

* Circular Conductor
When ordering please quote: primary + size + table + finish code
e.g. F1EC 3120 16 111



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