

# Medium Voltage PILC Cables

Copper 3 Core  
3800/6600V  
Table 15  
SANS 97

PILC/PILAC  
FRPVC DTA FRPVC(red stripe)  
LHPVC DTA LHPVC(blue stripe)

FIEC...  
...15191  
...15292

Primary group code  
Table + Finish code

Size code	...naaa...	3016	3025	3035	3050	3070	3095	3120	3150	3185	3240	3300
Conductor size	mm <sup>2</sup> nom	16*	25*	35*	50*	70	95	120	150	185	240	300
Conductor depth	mm nom	5.2	6.1	7.2	8.3	8.3	9.8	11.0	12.2	13.7	15.7	17.6
Insulated depth	mm nom	9.7	10.6	11.7	12.8	12.8	14.3	15.5	16.7	18.2	20.2	22.1
Diameter over lead sheath	mm nom	26.0	28.0	30.5	33.0	32.5	36.0	38.5	41.5	45.0	49.5	54.0
Bedding diameter	mm nom	28.0	31.0	33.5	36.0	35.5	39.0	42.0	44.5	48.5	53.0	57.5
Thickness of DSTA	mm	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Overall diameter	mm nom	35.5	38.0	41.0	44.0	43.5	47.5	50.5	53.5	57.5	63.0	67.5
Normal drum length	m	500	500	500	300	300	300	300	300	300	300	300
Cable mass	kg/m app.	3.4	3.9	4.6	5.3	5.9	7.2	8.4	9.7	11.4	14.1	16.7
Gross mass ( drum length)	kg app.	2080	2330	2680	1970	2150	2540	2900	3290	3800	4610	5390
Bending radius	mm min.	426	456	492	528	522	570	606	642	690	756	810
Current rating												
In ground	Amps	92	115	140	170	210	250	285	320	360	420	470
In ducts	Amps	76	98	115	140	170	210	240	265	300	350	395
In air	Amps	91	115	145	170	215	265	305	350	400	470	539
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	0.0991	0.0754	0.0601
ac @ 80°C	Ω/km max	1.421	0.899	0.648	0.479	0.332	0.239	0.190	0.155	0.124	0.0955	0.0773
Reactance	Ω/km	0.105	0.101	0.096	0.093	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	0.487	0.340	0.249	0.202	0.168	0.140	0.114	0.098
Zero sequence												
Resistance	Ω/km	7.851	6.821	5.687	5.120	4.747	3.993	3.466	3.037	2.643	2.159	1.882
Reactance	Ω/km	0.127	0.120	0.115	0.110	0.112	0.106	0.103	0.100	0.097	0.094	0.091
Impedance	Ω/km	7.852	6.822	5.689	5.121	4.749	3.995	3.468	3.039	2.645	2.161	1.884
Short circuit ratings												
Symmetrical	kA (1sec)	2.2	3.5	4.9	6.6	9.5	13.3	16.7	20.7	25.9	34.0	42.7
Earth fault(Symmetrical limit)	kA (1sec)	2.7	2.9	3.4	3.7	3.9	4.6	5.3	6.0	6.8	8.4	9.6

Last updated May 2006

\* Circular Conductor  
When ordering please quote: primary + size + table + finish code  
e.g. FIEC 3120 15 191



POWER BY INNOVATION... INNOVATION THROUGH PARTNERSHIPS

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