

Medium Voltage Paper Insulated Lead Alloy Covered Cables (PILAC)

Copper 3 Core
12700/22000V
Table 20
SANS 97

PILAC F1HC... Primary group code
FRPVC SWA FRPCV (red stripe) ...40 111 Table + Finish code
LHPVC SWA LHPVC (blue stripe) ...40 212

Size code	...naaa...	3050	3070	3095	3120	3150	3185	3240	3300
Conductor size	mm ² nom	50*	70*	95*	120	150	185	240	300
Conductor depth	mm app.	8,3	10,0	11,8	11,0	12,2	13,7	15,7	17,6
Insulated depth	mm app.	20,3	22,0	23,8	23,0	24,2	25,7	27,7	29,6
Diameter over lead sheath	mm app.	50,5	54,5	58,5	55,5	58,5	61,5	66,0	70,5
Bedding diameter	mm app.	54,0	58,0	62,0	59,0	62,0	66,0	70,0	74,5
Size of armour wires	mm	3,15	3,15	3,15	3,15	3,15	3,15	3,15	3,15
Overall diameter	mm app.	66,0	70,5	75,0	72,0	75,0	79,5	84,0	89,0
Normal drum length	m	300	300	300	300	300	300	300	300
Cable mass	kg/m app.	11,2	12,8	14,6	15,1	16,7	18,9	21,8	24,8
Gross mass (drum length)	kg app.	3360	3840	4380	4530	5010	5670	6540	7440
Bending radius	mm min.	792	846	900	864	900	954	1008	1068
Current rating									
In ground	Amps	160	195	232	270	302	340	392	441
In ducts	Amps	137	167	198	229	257	289	333	374
In air	Amps	172	213	257	302	341	388	454	517
Positive sequence									
Resistance dc @ 20°C	Ω/km max	0,387	0,268	0,193	0,153	0,124	0,0991	0,0754	0,0601
ac @ 70°C	Ω/km	0,463	0,321	0,232	0,184	0,149	0,120	0,092	0,074
Reactance	Ω/km	0,124	0,114	0,108	0,094	0,091	0,087	0,084	0,080
Impedance	Ω/km	0,479	0,341	0,255	0,206	0,175	0,148	0,124	0,109
Zero sequence									
Resistance	Ω/km	1,164	0,964	0,821	0,794	0,723	0,652	0,583	0,528
Reactance	Ω/km	0,124	0,118	0,114	0,118	0,115	0,112	0,108	0,104
Impedance	Ω/km	1,170	0,971	0,829	0,802	0,732	0,662	0,593	0,539
Short circuit ratings									
Symmetrical	kA (1sec)	6,9	9,9	13,8	17,4	21,5	26,9	35,3	44,3
Earth fault (Symmetrical limit)	kA (1sec)	29,3	31,9	34,6	33,4	35,4	38,0	41,2	44,3

* Circular Conductor

When ordering please quote: primary + size + table + finish code
e.g. F1HC 3120 40 111 0K0S

Soil thermal resistance = 1,2Km/W
Soil temperature = 25°C
Depth of burial = 800mm
Air temperature = 30°C
+5% tolerance on dimensions



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