LV PVC HD Copper Aerial Cables Single & 2 Core

NAN Powering the Future

Hard drawn copper, 0.6/1kV PVC insulated aerial cables to AS/NZS 5000.1

Physical Data

Product Code	Nominal Conductor Area mm^2	Nominal Conductor Diameter mm	Average Insulation Thickness mm	Nominal Diameter over Insulation	Approx. mass kg/100m
Single Core					
1AP006HLVAB	6	3.1	1.0	5.3	81
1AP010HLVAB	10	4.1	1.0	6.3	125
1AP016HLVAB	16	5.1	1.0	7.3	185
1AP025HLVAB	25	6.8	1.2	8.8	280
1AP035HLVAB	35	7.7	1.2	10.3	385
1AP050HLVAB	50	8.9	1.4	11.9	520
1AP070HLVAB	70	10.7	1.4	13.7	720
2 Core					
2F8006HLVAB	6	3.1	1.0	5.0 x 10.6	150
2F8010HLVAB	10	4.1	1.0	6.0 x 12.5	240
2F8016HLVAB	16	5.1	1.0	7.0 x 14.5	350
2F8025HLVAB	25	6.8	1.2	9.4 x 19.3	610

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Electrical properties

Nominal Conductor Area	DC resist. at 20°C	AC resist. at 50Hz 85°C	Inductive reactance at 50Hz	Voltage drop at 50Hz 80°C	Continuous current carrying capacity (A)			Fault current rating	Min. breaking load of cable	Rec. tension	
										Highest everyday tension	Max. working tension
mm^2	Ω/km	Ω/km	Ω/km	mV/A.m	still air	1m/s wind	2m/s wind	kA for 1S	kN	kN	kN
Single Core											
6	3.17	3.82	0.37	6.65	36	72	80	0.6	2.30	0.45	0.68
10	1.88	2.27	0.36	3.98	50	100	114	1.0	3.90	0.73	1.14
16	1.18	1.42	0.34	2.54	70	128	150	1.6	5.90	1.09	1.67
25	0.749	0.905	0.32	1.68	90	168	195	2.7	10.4	1.88	2.93
35	0.540	0.652	0.31	1.25	110	210	235	3.4	12.8	2.30	3.55
50	0.399	0.482	0.30	0.997	135	245	280	4.8	17.3	3.13	4.85
70	0.276	0.033	0.30	0.783	168	310	350	7.0	25.0	4.50	7.01
2 Core											
6	3.17	3.82	0.100	7.75	35	52	60	0.6	4.63	0.82	1.30
10	1.88	2.27	0.095	4.53	45	70	83	1.0	7.80	1.40	2.20
16	1.18	1.42	0.094	2.84	57	95	110	1.6	11.8	2.15	3.30
25	0.749	0.905	0.082	1.80	70	125	145	2.7	20.8	3.75	5.80

Note:

Reactance and voltage drop are based on three cables laid in flat formation spaced 0.46m apart. The values can also be applied to single-phase circuits or 3-phase circuits with cables in trefoil formation. For single-phase circuits the voltage drop values should be multiplied by 1.155.

Continuous current ratings are based on an ambient temperature of 40°C. Maximum conductor temperature of 75°C and solar radiation intensity of 1000W/m^2. Fault current ratings are based on initial and final conductor temperatures of 75°C and 150°C respectively.