



## Australian Standard

# Single core XLPE Insulated, PVC Sheathed Unarmoured Cables, 0.6/1kV

### Application

These cables are used for outdoor and indoor installations in damp and wet applications. They are normally used for power distribution in urban networks, industrial plants and energy distribution.

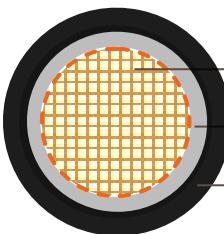
For mains, submains and subcircuits unenclosed, enclosed in conduit, buried direct or in underground ducts for buildings and industrial plants where not subject to mechanical damage. Suitable where space is at a premium.

### Standard

AS/NZS 5000.1

AS/NZS 3008

AS/NZS 1125



Aluminum/annealed copper conductor

XLPE X-90 insulation

PVC sheath

### Cable Construction

**Conductor:** Aluminum/plain annealed copper

Insulation: XLPE X-90

**Insulation colour:** black, other colors are available upon request

**Sheath:** Polyvinylchloride compound PVC 5V-90

**Sheath colour:** Black, other colors are available upon request

### Technical Characteristics

Conductor	Current Ratings					Electrical Characteristics			
	Nominal Area mm <sup>2</sup>	In conduit In Air A	Buried In Ducts A	In conduit In Air A	Buried In Ducts A	Maximum DC Resistance @20°C Ohm/km	Maximum AC Resistance @90°C Ohm/km	Reactance (trefoil) Ohm/km	3 phase Voltage Drop mV/A
Aluminum									
16	70	74	74	86	1.91	2.45	0.106	4.25	
25	99	96	100	112	1.20	1.54	0.102	2.67	
35	116	118	121	134	0.868	1.11	0.0982	1.94	

Conductor	Current Ratings				Electrical Characteristics			
	Nominal Area mm <sup>2</sup>	In conduit In Air A	Buried In Ducts A	In conduit In Air A	Buried In Ducts A	Maximum DC Resistance @20°C Ohm/km	Maximum AC Resistance @90°C Ohm/km	Reactance (trefoil) Ohm/km
50	138	139	149	161	0.641	0.822	0.0924	1.43
70	176	177	193	198	0.443	0.568	0.0893	0.997
95	215	209	237	241	0.320	0.411	0.0868	0.727
120	253	241	281	278	0.253	0.325	0.0844	0.582
150	286	273	319	310	0.206	0.265	0.0844	0.482
185	330	310	374	358	0.164	0.212	0.0835	0.394
240	396	369	440	428	0.125	0.162	0.0818	0.314
300	457	428	-	482	0.100	0.130	0.0809	0.266
400	534	487	-	567	0.0778	0.103	0.0802	0.226
500	616	578	-	653	0.0605	0.0813	0.0796	0.197
630	726	663	-	770	0.0469	0.0649	0.0787	0.177
Copper								
16	86	95	95	112	1.15	1.47	0.106	2.550
25	121	123	127	144	0.727	0.927	0.102	1.620
35	138	150	160	171	0.524	0.668	0.098	1.170
50	171	182	193	209	0.387	0.494	0.092	0.872
70	209	225	242	257	0.268	0.342	0.089	0.615
95	253	268	286	310	0.193	0.247	0.087	0.457
120	297	310	341	358	0.153	0.197	0.084	0.373
150	341	353	385	401	0.124	0.160	0.084	0.316
185	391	401	440	465	0.099	0.129	0.084	0.269
240	462	471	523	546	0.075	0.099	0.082	0.227
300	534	546	-	621	0.060	0.080	0.081	0.202
400	616	621	-	717	0.047	0.065	0.080	0.183
500	715	717	-	813	0.037	0.053	0.080	0.170
630	836	813	-	952	0.028	0.043	0.079	0.159



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### Cable Parameter

Nom. conductor area mm <sup>2</sup>	Main conductor type	Nom. insulation thickness mm	Nom. sheath thickness mm	Nom. overall diameter mm	Approx. mass kg/km
Aluminium Conductor					
16	7/1.70	circular	0.7	1.4	9.4
25	7strands	compacted	0.9	1.4	11.3
35	19strands	compacted	0.9	1.4	12.5
50	19strands	compacted	1.0	1.4	13.1
70	19strands	compacted	1.1	1.4	15.0
95	19strands	compacted	1.1	1.5	17.0
120	19strands	compacted	1.2	1.5	18.6
150	19strands	compacted	1.4	1.6	20.7
185	36strands	compacted	1.6	1.6	22.7
240	36strands	compacted	1.7	1.7	25.5
300	37strands	compacted	1.8	1.8	28.1
400	60strands	compacted	2.0	1.9	31.8
500	60strands	compacted	2.2	2	35.4
630	60strands	compacted	2.4	2.2	39.6
Copper Conductor					
16	7/1.70	circular	0.7	1.4	9.4
25	7/2.14	circular	0.9	1.4	11.3
35	19/1.53	circular	0.9	1.4	12.5
50	19strands	compacted	1.0	1.4	13.1
70	19strands	compacted	1.1	1.4	15.0
95	19strands	compacted	1.1	1.5	16.8
120	19strands	compacted	1.2	1.5	18.6
150	19strands	compacted	1.4	1.6	20.6
185	36strands	compacted	1.6	1.6	22.7
240	36strands	compacted	1.7	1.7	25.6
300	37strands	compacted	1.8	1.8	28.4
400	60strands	compacted	2.0	1.9	31.7
500	60strands	compacted	2.2	2.0	35.4
630	91strands	compacted	2.4	2.2	42.4