ELECTRA CABLES (Aust.) Pty. Limited

Copper/XLPE/PVC Circular Cable - singlecore

0.6/1 kV XLPE insulation, PVC Sheath

Application: For mains, sub mains and sub circuits unenclosed, enclosed in conduit, buried direct or in underground ducts for buildings and industrial plants where not subject to mechanical stress. Suitable where space is at a premium and/or where conditions of overload may occur.

Conductor: Plain annealed copper (AS/NZS 1125)
Insulation: X-90 XLPE natural
Sheath: 5V-90 PVC Black (AS/NZS 3808)
Normal Operating Temperature: 90°C
Standard: AS/NZS 5000.1
Cable Specifications:

Electra Cables Code	Conductor		Insulation Thickness mm	Sheath Thickness mm	OD± 10%	Min. Bending Radius mm	Standard Packing	
	mm²	No./mm					100m	500m
XLPE1060	6	7/1.04	0.7	1.4	6.8	100	√	√
XLPE1100	10	7/1.35	0.7	1.4	7.3	110	√	√
XLPE1160	16	7/1.70	0.7	1.4	9.3	150	√	√
XLPE1250	25	19/1.35	0.9	1.4	11.4	170	√	√
XLPE1350	35	19/1.53	0.9	1.4	12.3	185	√	√
XLPE1500	50	19/1.78	1.0	1.4	13.7	210	√	√
XLPE1700	70	19/2.14	1.1	1.4	15.7	240	√	√
XLPE1950	95	37/1.78	1.1	1.5	17.7	270	√	√
XLPE11200	120	37/2.03	1.2	1.5	19.6	300		√
XLPE11500	150	37/2.25	1.4	1.6	21.8	330		√
XLPE11850	185	Compacted	1.6	1.6	22.5	360		√
XLPE12400	240	Compacted	1.7	1.8	25.3	405		
XLPE13000	300	Compacted	1.8	1.9	27.6	450		
XLPE14000	400	Compacted	2.0	1.9	31.2	510		
XLPE15000	500	Compacted	2.2	2.0	34.9	555		
XLPE16300	630	Compacted	2.4	2.2	38.9	630		

Note: Other types or other lengths of the above cables can be manufactured according to customers' specifications.

ELECTRA CABLES (Aust.) Pty. Limited

Copper/XLPE/PVC Circular Cable - Multicore
0.6/1kV X-90 insulation, PVC sheath

Application: Power distribution in residential and commercial buildings and installations up to 1kV, where no mechanical stresses are expected.
Conductor: Plain annealed copper (AS/NZS 1125)
Insulation: X-90 XLPE
Core Color:
2 Cores + Earth: Red, Black, Green/Yellow
4 Cores + Earth: Red, White, Blue, Black and Green/Yellow
2 Cores: Red, Black
3 Cores: Red, White and Black
4 Cores: Red, White, Blue and Black
Sheath: 5V-90 PVC Orange (AS/NZS 3808)
Normal Operating Temperature: 90°C
Standard: AS/NZS 5000.1 and AS/NZS 4026

Electra Cables Code	Conductor			Insulation Thickness mm	Sheath Thickness mm	OD± 10%	Min. Bending Radius mm	Approx. Mass kg/km
	Active		Earth					
	mm^2	No./mm	mm^2					
XLPE2100E	10	7/1.35	4	0.7,0.7E	1.8	15.0	225	360
XLPE2160E	16	7/1.70	6	0.7,0.7E	1.8	17.1	260	495
XLPE2250E	25	19/1.35	6	0.9,0.7E	1.8	21.3	320	705
XLPE4160E	16	7/1.70	6	0.7,0.7E	1.8	21.0	315	850
XLPE4250E	25	19/1.35	6	0.9,0.7E	1.8	25.0	375	1330
XLPE4350E	35	19/1.53	10	0.9,0.7E	1.8	28.0	420	1690
XLPE4500E	50	19/1.78	16	1.0,0.7E	1.9	32.0	480	2290
XLPE4700E*	70	19/2.14	25	1.1,0.9E	2.1	37.0	555	3260
XLPE4950E*	95	37/1.78	25	1.1,0.9E	2.2	41.0	620	4230
XLPE41200E*	120	37/2.03	35	1.2,0.9E	2.4	46.0	690	5440
XLPE41500E*	150	37/2.25	50	1.4,1.0E	2.6	52.0	780	6700

Note: Other types or other lengths of the above cables can be manufactured according to customers' specifications.

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Electra Cables Code	Conductor		Insulation Thickness mm	Sheath Thickness mm	OD± 10%	Min. Bending Radius mm	Approx. Mass kg/km
	mm^2	No./mm					
XLPE1160*	16	7/1.66	1.5	1.5	11.0	165	233
XLPE1250*	25	19/1.28	1.7	1.5	12.8	195	341
XLPE1350*	35	19/1.50	1.7	1.5	13.9	210	437
XLPE1500*	50	19/1.75	1.8	1.5	15.4	235	568
XLPE2160*	16	7/1.66	1.5	1.5	19.2	290	465
XLPE2250*	25	19/1.28	1.7	1.5	22.8	345	685
XLPE2350*	35	19/1.50	1.7	1.5	25.0	375	881
XLPE2500*	50	19/1.75	1.8	1.5	27.9	420	1145
XLPE3160*	16	7/1.66	1.5	1.5	20.4	310	644
XLPE3250*	25	19/1.28	1.7	1.5	24.3	365	963
XLPE3350*	35	19/1.50	1.7	1.5	26.7	405	1250
XLPE3500*	50	19/1.75	1.8	1.5	29.8	450	1638
XLPE4160*	16	7/1.66	1.5	1.5	22.5	340	829
XLPE4250*	25	19/1.28	1.7	1.5	26.9	405	1249
XLPE4350*	35	19/1.50	1.7	1.5	29.5	445	1627
XLPE4500*	50	19/1.75	1.8	1.5	33.0	495	2140

- * Those items are subject to minimum order Quantity. Please contact our sales team for details
- 185mm^2 and above conductors are circular compacted.

ELECTRA CABLES (Aust.) Pty. Limited

Current Rating and Electrical Characteristics (Single core XLPE/PVC)

Conductor	Current Rating (a)				Electrical Characteristics			
	Three Phase		Single Phase		Max. Cond. DC Resistance @20°C Ω/km	Max. Cond. AC Resistance @20°C Ω/km	Equivalent Star Resistance Ω/km	(b) 3 Phase Voltage Drop Touching @90°C mV/A.m
Nom. Area mm^2	In conduit in air	Buried in ducts	In conduit in air	Buried in ducts				
16	78	89	86	105	1.15	1.46	0.108	2.53
25	110	115	115	135	0.727	0.932	0.102	1.57
35	125	140	145	160	0.524	0.668	0.098	1.17
50	155	170	175	195	0.387	0.492	0.093	0.865
70	190	210	220	240	0.268	0.343	0.089	0.615
95	230	250	260	290	0.193	0.248	0.087	0.459
120	270	290	310	335	0.153	0.193	0.085	0.371
150	310	330	350	375	0.124	0.160	0.085	0.316
185	355	375	400	435	0.0991	0.127	0.084	0.267
240	420	440	475	510	0.0754	0.099	0.082	0.227
300	485	510	530	580	0.0601	0.080	0.081	0.203
400	560	580	635	670	0.0470	0.064	0.080	0.184
500	650	670	670	760	0.0366	0.052	0.080	0.171
630	760	760	870	890	0.0283	0.045	0.079	0.161

(a) Based on 40°C ambient air temperature and where applicable, burial depth of 0.5m, soil temperature of 25°C and soil resistivity of 1.2°C m/W.

(b) For single phase voltage drop, multiply by 1.155
The above information is from the following sources:
AS/NZ 3008.1.1
AS/NZS 1125
For current rating using other installation conditions refer to AS/NZS3008.1.1
Do not install in direst with polystyrene or polyurethane insulation materials

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