

CONSTRUCTION - XLPE CABLES 0.6/1 kV

1C XLPE/PVC (SDI) X-90

X-90 XLPE INSULATED AND PVC SHEATHED CABLE TO AS/NZS 5000.1.

For mains, submains and subcircuits unenclosed, enclosed in conduit, buried or in underground ducts for building and industrial plants where not subject to mechanical damage. Suitable where space is at a premium and/or where conditions of overload may occur.



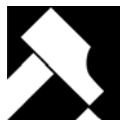
Cable Characteristics



Semi-rigid



OD ≤ 25 4D
OD > 25 6D



1



Water
Drops



Good



+90 °C
-15 °C



C3



Good

Cable Design

CONDUCTOR:

Plain annealed copper conductor to AS/NZS 1125
Maximum continuous operating temperature: 90 °C

INSULATION:

X-90 XLPE
Colours: Natural

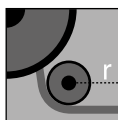
SHEATH:

5V-90 PVC
Colours: Black

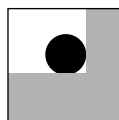
Installation Conditions



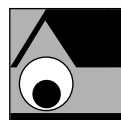
INDUSTRIAL
EQUIPMENT



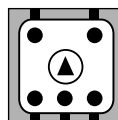
OD ≤ 25 6D
OD > 25 9D



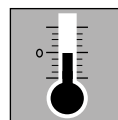
IN FREE AIR



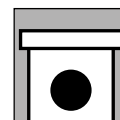
IN
CONDUIT



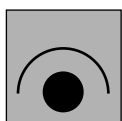
MACHINES



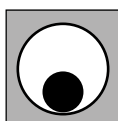
0 °C



IN TRENCH



IN GROUND WITH
PROTECTION



IN DUCT

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CONSTRUCTION - XLPE CABLES 0.6/1 kV - 1C XLPE/PVC (SDI) X-90**Physical & electrical characteristics**

Product code	Conductor			Cable				Min. installed bending radius mm
	Nominal C.S.A. mm ²	Number and diameter of wires No/mm	Nominal diameter mm	Nominal insulation thickness mm	Overall diameter		Approx. mass kg/100 m	
					Minimum mm	Maximum mm		
25CUXLP	25	19/1.35	6.8	0.9	10.9	11.4	32	45
35CUXLP	35	19/1.53	7.7	0.9	12.0	12.6	42	50
50CUXLP	50	19/1.78	8.9	1.0	13.5	14.1	55	55
70CUXLP	70	19/2.14	10.7	1.1	15.4	16.0	74	65
95CUXLP	95	19/2.45	12.5	1.1	17.5	18.2	102	75
120CUXLP	120	37/2.03	14.2	1.2	19.3	20.0	126	80
150CUXLP	150	37/2.25	15.8	1.4	21.4	22.2	154	90
185CUXLP	185	37/2.52	17.6	1.6	23.6	24.4	192	100
240CUXLP	240	61/2.25	20.3	1.7	26.6	27.4	248	165
300CUXLP	300	61/2.52	22.7	1.8	29.3	30.3	309	180
400CUXLP	400	61/2.85	25.7	2.0	32.8	33.8	391	200
500CCUXLP	500*	61/3.20	28.8	2.2	34.6	35.5	492	215
630CCUXLP	630*	59/3.80	30.3	2.4	39.0	40.0	628	240

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Conductor nominal C.S.A. mm ²	Current rating (a)			Electrical characteristics	
	Three phase			Maximum D.C. resistance at 20°C Ω/km	Reactance per core (Trefoil, Touching) Ω/km
	Unenclosed Spaced Trefoil A	Buried Direct A	Underground in duct A		
25	125	150	115	0.727	0.102
35	155	180	140	0.524	0.0982
50	190	215	170	0.387	0.0924
70	240	260	210	0.268	0.0893
95	300	315	250	0.193	0.0868
120	350	355	290	0.153	0.0844
150	405	400	330	0.124	0.0844
185	470	450	375	0.0991	0.0835
240	560	520	440	0.0754	0.0818
300	650	590	510	0.0601	0.0809
400	760	670	580	0.0470	0.0802
500*	870	750	670	0.0366	0.0796
630*	1010	840	760	0.0283	0.0787

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(a) Based on 90 °C conductor temperature, 40 °C ambient air temperature and where applicable, burial depth of 0.5 m, soil temperature of 25 °C and soil thermal resistivity of 1.2 °C.m/W. Refer to AS/NZS 3008.1 for other installation conditions.

* Compacted conductors

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CABLE HANDLING

Cable Usage Characteristics

**AMBIENT TEMPERATURE**

Maximum operating temperature
Minimum operating temperature

**MECHANICAL IMPACT RESISTANCE**

1	Light Impact
2	Moderate Impact
3	Heavy Impact
4	Very Heavy Impact

**RESISTANCE TO SOLAR RADIATION AND WEATHER**

Excellent	Permanent
Very Good	Frequent
Good	Occasional
Acceptable	Accidental
Poor	None

**BEHAVIOUR IN FLAME AND FIRE**

Reaction To Fire	Resistant To Fire
C 1 Fire retardant	Level 1 Ultimate fire survival
C 2 Flame retardant	Level 2 Two hours fire survival
C 3 No fire performance	Level 3 Restrained spread & self extinguishing

**HALOGEN FREE**

AS/NZS 4507

**MINIMUM BENDING RADIUS**

Minimum bending radius of installed cables

**CHEMICAL RESISTANCE**

Excellent	Permanent
Very Good	Frequent
Good	Occasional
Acceptable	Accidental
Poor	None

**RESISTANCE TO WATER**

Negligible	No humidity
Water Drops	Occasional condensation
Spray	Water run off
Splashes	Exposed to water splashes
Heavy Sea	Exposed to waves
Immersion	Temporarily covered by water
Submersion	Permanently covered by water

**FLEXIBILITY**

Rigid	Flexible
Semi-rigid	Very flexible

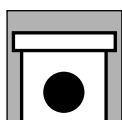
**LOW SMOKE EMISSION**

AS/NZS 4507

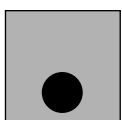
Laying Conditions



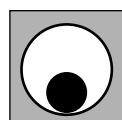
MINIMUM BENDING RADIUS
DURING INSTALLATION



IN TRENCH



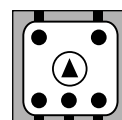
IN GROUND



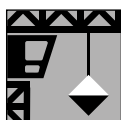
IN DUCT



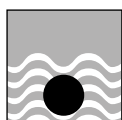
DOMESTIC
APPLIANCES



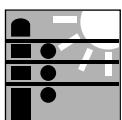
MACHINES



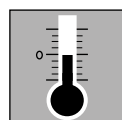
MOBILE
EQUIPMENT



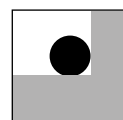
SUBMERGED



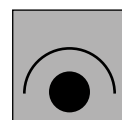
OVERHEAD AERIAL



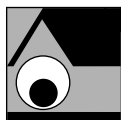
MIN. INSTALLATION
TEMPERATURE



IN FREE AIR



IN GROUND WITH
PROTECTION



IN CONDUIT



OUTDOOR
APPLIANCES



FESTOON



INTERNAL
WIRING



INDUSTRIAL
EQUIPMENT



EXTERNAL
BUILDING

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