CONSTRUCTION – XLPE CABLES 0.6/1 kV

3C+E XLPE CIRCULAR

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

For mains, submains and subcircuits unenclosed, 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 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:

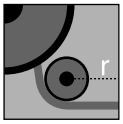
V-90 XLPE
Colours: Red, White, Blue, Green

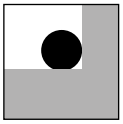
SHEATH:

5V-90 PVC
Colours: Orange

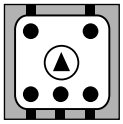
Installation Conditions


INDUSTRIAL EQUIPMENT

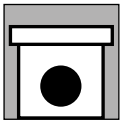

OD≤25 6D
OD>25 9D


IN FREE AIR

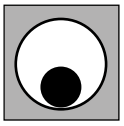

IN CONDUIT


MACHINES


0 °C


IN TRENCH


IN GROUND WITH PROTECTION


IN DUCT


EXTERNAL BUILDING

Prysmian Australia Pty Ltd | Ph: 1300 300 304 | Fx: 1300 300 307 | E-mail: sales.au@prysmiangroup.com | www.prysmiancable.com.au
Prysmian New Zealand Ltd | Ph: (09) 827 3109 | Toll Free: 0800 492 225 | E-mail: sales.nz@prysmiangroup.com | www.prysmiancable.co.nz

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 mm		Approx. mass kg/100 m	
					Minimum	Maximum		
253CEXLP	25	19/1.35	6.8	0.9	21.6	22.6	104	90
353CEXLP	35	19/1.53	7.7	0.9	24.2	25.3	137	150
503CEXLP	50	19/1.78	8.9	1.0	27.4	28.7	185	170
703CEXLP	70	19/2.14	10.7	1.1	32.1	33.3	256	200
953CEXLP	95	19/2.45	12.5	1.1	36.0	37.3	339	220
1203CEXLP	120	37/2.03	14.2	1.2	40.1	41.4	425	250
1503CEXLP	150	37/2.25	15.8	1.4	44.8	46.3	528	280
1853CEXLP	185	37/2.52	17.6	1.6	50.4	51.9	669	310
2403CEXLP	240	61/2.25	20.3	1.7	56.9	58.5	872	350
3003CEXLP	300	61/2.52	22.7	1.8	63.0	64.8	1089	390

Conductor nominal C.S.A. mm^2	Current rating (a)			Electrical characteristics	
	Unenclosed spaced A	Buried direct A	Underground in duct A	Maximum D.C. resistance at 20°C Ω/km	Reactance per core Ω/km
25	120	145	110	0.727	0.0808
35	145	170	135	0.524	0.0786
50	180	205	160	0.387	0.0751
70	230	250	200	0.268	0.0741
95	285	300	240	0.193	0.0725
120	330	345	275	0.153	0.0713
150	375	385	310	0.124	0.0718
185	435	435	355	0.0991	0.0720
240	520	500	420	0.0745	0.0709
300	590	570	475	0.0601	0.0704

(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.

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

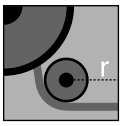
CHEMICAL RESISTANCE	
Excellent	Permanent
Very Good	Frequent
Good	Occasional
Acceptable	Accidental
Poor	None

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

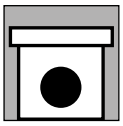
FLEXIBILITY	
Rigid	Flexible
Semi-rigid	Very flexible

LOW SMOKE EMISSION
AS/NZS 4507

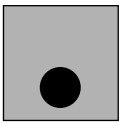
Laying Conditions



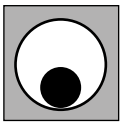
MINIMUM BENDING RADIUS DURING INSTALLATION



IN TRENCH

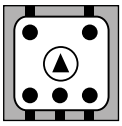


IN GROUND



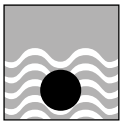
IN DUCT

DOMESTIC APPLIANCES



MACHINES

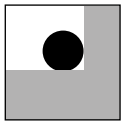
MOBILE EQUIPMENT



SUBMERGED

OVERHEAD AERIAL

MIN. INSTALLATION TEMPERATURE



IN FREE AIR

IN GROUND WITH PROTECTION

IN CONDUIT

OUTDOOR APPLIANCES

FESTOON

INTERNAL WIRING

INDUSTRIAL EQUIPMENT

EXTERNAL BUILDING