CONSTRUCTION – PVC CABLES 0.6/1 kV

4C+E PVC CIRCULAR

PVC 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 and where out of balance currents may require a neutral equal in size to the active.

Cable Characteristics


Semi-rigid

OD≤25 4D
OD>25 6D


1


Water Drops


Good


+75 °C
-15 °C


C3


Good

Cable Design

CONDUCTOR:

Plain annealed copper conductor to AS/NZS 1125
Maximum continuous operating temperature: 75 °C

Can also be operated at temperatures up to 90 °C when not exposed to mechanical deformation (see AS/NZS 3008.1)

INSULATION:

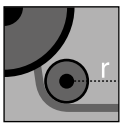
V-90 PVC
Colours: Red, White, Blue, Black, Green/Yellow

SHEATH:

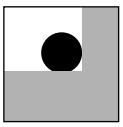
5V-90 PVC
Colours: Orange

Installation Conditions


INDUSTRIAL EQUIPMENT



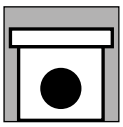
OD≤25 6D
OD>25 9D


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		
1.54CEOC	1.5	7/0.50	1.5	0.8	11.8	12.2	22	50
2.54CEOC	2.5	7/0.67	2.0	0.8	13.3	13.7	30	55
44CEOC	4	7/0.85	2.6	1.0	15.3	15.8	40	65
64CEOC	6	7/1.04	3.1	1.0	16.5	17.1	48	70
104CEOC	10	7/1.35	4.1	1.0	19.5	20.3	71	80
164CEOC	16	7/1.70	5.1	1.0	22.1	22.9	100	90
254CEOC	25	19/1.35	6.8	1.2	25.6	26.4	144	160
354CEOC	35	19/1.53	7.7	1.2	28.5	29.5	189	180
504CEOC	50	19/1.78	8.9	1.4	33.1	34.3	258	210
704CEOC	70	19/2.14	10.7	1.4	38.0	39.0	353	240
954CEOC	95	19/2.45	12.5	1.6	43.3	44.6	474	270
1204CEOC	120	37/2.03	14.2	1.6	47.6	48.8	585	300
1504CEOC	150	37/2.25	15.8	1.8	53.1	54.6	729	330
1854CEOC	185	37/2.52	17.6	2.0	59.1	60.7	910	360
2404CEOC	240	61/2.25	20.3	2.2	67.3	69.1	1195	410
3004CEOC	300	61/2.52	22.7	2.4	74.6	76.6	1487	460

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
10	54	74	57	1.83	0.0906
16	72	96	74	1.15	0.0861
25	97	125	96	0.727	0.0853
35	120	150	115	0.524	0.0826
50	145	180	140	0.387	0.0797
70	185	220	175	0.268	0.0770
95	230	265	210	0.193	0.0766
120	265	300	240	0.153	0.0743
150	305	335	270	0.124	0.0745
185	350	380	310	0.0991	0.0744
240	410	440	370	0.0754	0.0735
300	470	495	415	0.0601	0.0732

(a) Based on 75 °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

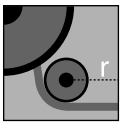
CHEMICAL RESISTANCE	
Excellent	Permanent
Very Good	Frequent
Good	Occasional
Acceptable	Accidental
Poor	None

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

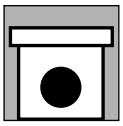
FLEXIBILITY	
Rigid	Flexible
Semi-rigid	Very flexible

LOW SMOKE EMISSION
AS/NZS 4507

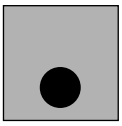
Laying Conditions



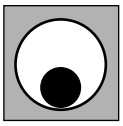
MINIMUM BENDING RADIUS DURING INSTALLATION



IN TRENCH

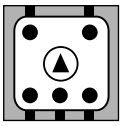


IN GROUND



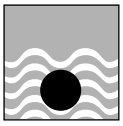
IN DUCT

DOMESTIC APPLIANCES



MACHINES

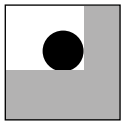
MOBILE EQUIPMENT



SUBMERGED

OVERHEAD AERIAL

MIN. INSTALLATION TEMPERATURE



IN FREE AIR

IN GROUND WITH PROTECTION

IN CONDUIT

OUTDOOR APPLIANCES

FESTOON

INTERNAL WIRING

INDUSTRIAL EQUIPMENT

EXTERNAL BUILDING