

CONSTRUCTION - PVC CABLES 0.6/1 kV

3C+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. Suitable for glanding.



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, 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						

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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		
1.53CEOC	1.5	7/0.50	1.5	0.8	10.9	11.3	18	45
2.53CEOC	2.5	7/0.67	2.0	0.8	12.2	12.6	25	50
43CEOC	4	7/0.85	2.6	1.0	13.9	14.4	33	60
63CEOC	6	7/1.04	3.1	1.0	15.0	15.6	39	65
103CEOC	10	7/1.35	4.1	1.0	17.6	18.4	57	70
163CEOC	16	7/1.70	5.1	1.0	20.0	20.7	80	80
253CEOC	25	19/1.35	6.8	1.2	23.0	23.8	113	100
353CEOC	35	19/1.53	7.7	1.2	25.5	26.5	148	160
503CEOC	50	19/1.78	8.9	1.4	29.5	30.6	202	190
703CEOC	70	19/2.14	10.7	1.4	33.7	34.7	275	210
953CEOC	95	19/2.45	12.5	1.6	38.3	39.5	368	240
1203CEOC	120	37/2.03	14.2	1.6	42.2	43.2	452	260
1503CEOC	150	37/2.25	15.8	1.8	47.0	48.4	565	300
1853CEOC	185	37/2.52	17.6	2.0	52.3	53.7	706	320
2403CEOC	240	61/2.25	20.3	2.2	59.5	61.0	926	370
3003CEOC	300	61/2.52	22.7	2.4	65.9	67.6	1150	410

Conductor nominal area 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
1.5	16	24	19	13.6	0.111
2.5	23	34	26	7.41	0.102
4	31	44	34	4.61	0.102
6	40	55	43	3.08	0.0967
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.

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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



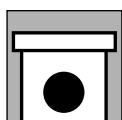
LOW SMOKE EMISSION

AS/NZS 4507

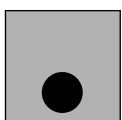
Laying Conditions



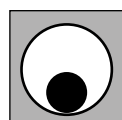
MINIMUM BENDING RADIUS DURING INSTALLATION



IN TRENCH



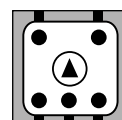
IN GROUND



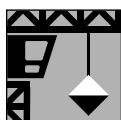
IN DUCT



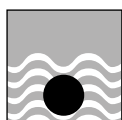
DOMESTIC APPLIANCES



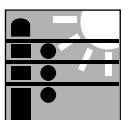
MACHINES



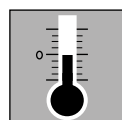
MOBILE EQUIPMENT



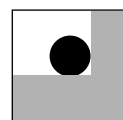
SUBMERGED



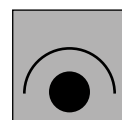
OVERHEAD AERIAL



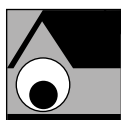
MIN. INSTALLATION TEMPERATURE



IN FREE AIR



IN GROUND WITH PROTECTION



IN CONDUIT



OUTDOOR APPLIANCES



FESTOON



INTERNAL WIRING



INDUSTRIAL EQUIPMENT



EXTERNAL BUILDING

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