

**CONSTRUCTION - PVC CABLES 0.6/1 kV**

## 2C+E PVC CIRCULAR SWA

PVC INSULATED LAID UP PVC BEDDED GSW ARMoured 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 mechanical damage may occur.



### Cable Characteristics



Semi-rigid



12D



2



Water Splashes



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, Black, Green/Yellow

**ARMOUR:**

Steel wire armour

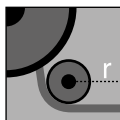
**SHEATH:**

5V-90 PVC  
 Colours: Orange

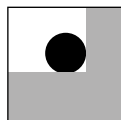
### Installation Conditions



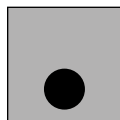
INDUSTRIAL EQUIPMENT



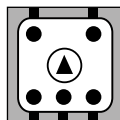
18D



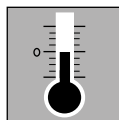
IN FREE AIR



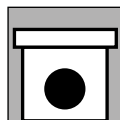
IN GROUND



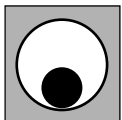
MACHINES



0 °C



IN TRENCH



IN DUCT



EXTERNAL BUILDING

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## Physical & Electrical Characteristics

Product code	Conductor			Nominal insulation thickness mm	Cable		Approx. mass kg/100 m	Min. installed bending radius mm
	Nominal C.S.A. mm <sup>2</sup>	Number and diameter of wires No/mm	Nominal diameter mm		Overall diameter			
					Minimum mm	Maximum mm		
1.52CEOCA	1.5	7/0.50	1.5	0.8	14.5	15.6	48	190
2.52CEOCA	2.5	7/0.67	2.0	0.8	15.8	16.8	57	200
42CEOCA	4	7/0.85	2.6	1.0	17.2	18.3	68	220
62CEOCA	6	7/1.04	3.1	1.0	18.2	19.4	78	235
102CEOCA	10	7/1.35	4.1	1.0	20.6	22.0	96	265
162CEOCA	16	7/1.70	5.1	1.0	22.7	24.0	119	290
252CEOCA	25	19/1.35	6.8	1.2	26.5	27.8	166	340

Conductor nominal C.S.A. mm <sup>2</sup>	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	19	28	22	13.6	0.111
2.5	27	40	31	7.41	0.102
4	37	52	40	4.61	0.102
6	46	65	51	3.08	0.0967
10	64	87	68	1.83	0.0906
16	85	115	88	1.15	0.0861
25	115	145	115	0.727	0.0853

(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.

Conductor nominal C.S.A. mm <sup>2</sup>	Diameter under armour		Diameter over armour		Armour wire diameter mm
	Minimum mm	Maximum mm	Minimum mm	Maximum mm	
1.5	8.4	9.1	10.9	11.6	1.25
2.5	9.7	10.3	12.2	12.8	1.25
4	11.1	11.8	13.6	14.3	1.25
6	12.1	13.0	14.6	15.5	1.25
10	14.5	15.5	17.0	18.0	1.25
16	16.6	17.6	19.1	20.1	1.25
25	19.7	20.7	22.9	23.9	1.60

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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

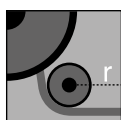
Rigid	Flexible
Semi-rigid	Very flexible



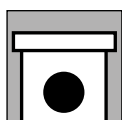
#### LOW SMOKE EMISSION

AS/NZS 4507

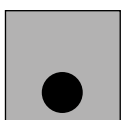
### Laying Conditions



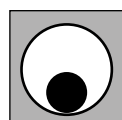
MINIMUM BENDING RADIUS DURING INSTALLATION



IN TRENCH



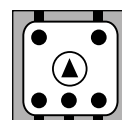
IN GROUND



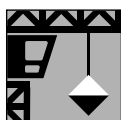
IN DUCT



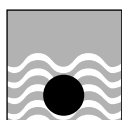
DOMESTIC APPLIANCES



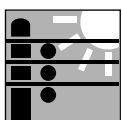
MACHINES



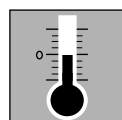
MOBILE EQUIPMENT



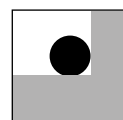
SUBMERGED



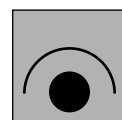
OVERHEAD AERIAL



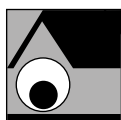
MIN. INSTALLATION TEMPERATURE



IN FREE AIR



IN GROUND WITH PROTECTION



IN CONDUIT



OUTDOOR APPLIANCES



FESTOON



INTERNAL WIRING



INDUSTRIAL EQUIPMENT



EXTERNAL BUILDING

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