

CONSTRUCTION - PVC CABLES 450/750 V

1C PVC (SDI) V-90

PVC INSULATED AND SHEATHED CABLE TO AS/NZS 5000.2.

For mains, submains and subcircuits unenclosed, enclosed in conduit, buried or in underground ducts for buildings and industrial plants where not subject to mechanical damage.



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, 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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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 ²	Number and diameter of wires No/mm	Nominal diameter mm		Overall diameter			
					Minimum mm	Maximum mm		
1.0SSDI	1.0*	1/1.13	1.13	0.6	3.9	4.1	2.9	15
1.5SDI	1.5	7/0.50	1.5	0.6	4.3	4.5	3.5	20
2.5SSDI	2.5*	1/1.78	1.78	0.7	4.8	5.0	4.9	20
2.5SDI	2.5	7/0.67	2.0	0.7	5.0	5.2	5.1	20
4SDI	4	7/0.85	2.6	0.8	6.0	6.2	7.4	25
6SDI	6	7/1.04	3.1	0.8	6.5	6.7	10	25
10SDI	10	7/1.35	4.1	1.0	7.8	8.2	15	35
16SDI	16	7/1.70	5.1	1.0	9.1	9.4	22	40

For conductors 25 mm² and above please refer to XLPE/PVC product pages.

Conductor nominal C.S.A. mm ²	Current rating (a)						Electrical characteristics	
	Three phase			Single phase			Maximum D.C. resistance at 20°C Ω/km	Reactance per core (Trefoil, Touching) Ω/km
	Unenclosed Spaced Trefoil A	Buried Direct A	Under-ground in duct A	Unenclosed Spaced A	Buried Direct A	Under-ground in duct A		
1.0*	14	21	16	16	24	18	18.1	0.168
1.5	17	27	20	21	31	24	13.6	0.157
2.5*	25	37	28	29	43	33	7.41	0.143
2.5	25	37	28	29	43	33	7.41	0.143
4	33	49	37	39	56	42	4.61	0.137
6	42	61	46	49	71	53	3.08	0.128
10	58	81	61	67	94	71	1.83	0.118
16	77	105	80	89	120	91	1.15	0.111

(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.

* Single wire conductor

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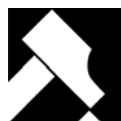
CABLE HANDLING

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



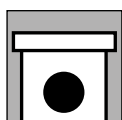
LOW SMOKE EMISSION

AS/NZS 4507

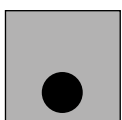
Laying Conditions



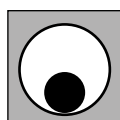
MINIMUM BENDING RADIUS DURING INSTALLATION



IN TRENCH



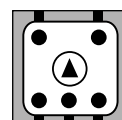
IN GROUND



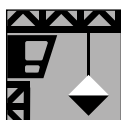
IN DUCT



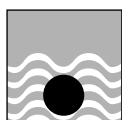
DOMESTIC APPLIANCES



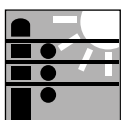
MACHINES



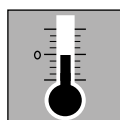
MOBILE EQUIPMENT



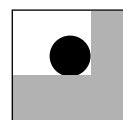
SUBMERGED



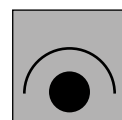
OVERHEAD AERIAL



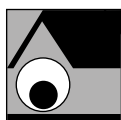
MIN. INSTALLATION TEMPERATURE



IN FREE AIR



IN GROUND WITH PROTECTION



IN CONDUIT



OUTDOOR APPLIANCES



FESTOON



INTERNAL WIRING



INDUSTRIAL EQUIPMENT



EXTERNAL BUILDING

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