

CONSTRUCTION - PVC CABLES 0.6 /1 kV

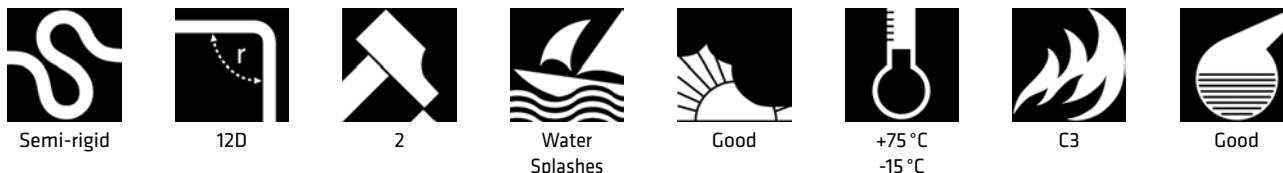
CONTROL 2.5MM² 2-50C+E SWA

PVC INSULATED LAID UP PVC BEDDED GSW ARMoured AND PVC SHEATHED CONTROL CABLE TO AS/NZS 5000.1.

For control circuits unenclosed, enclosed in conduit, buried direct or in underground ducts for commercial, industrial, mining and electricity authority systems where mechanical damage may occur. The 90°C cable is used where improved aging properties to those of 75°C PVC insulated cable are required because of higher ambient temperatures.



Cable Characteristics



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: White with Black numbering, Green/Yellow

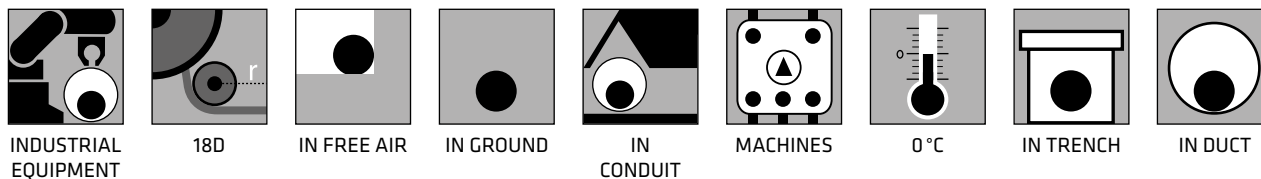
ARMOUR:

Steel wire armour

SHEATH:

5V-90 PVC
Colours: Orange, Black

Installation Conditions



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Physical & Electrical Characteristics

Product code	Cable									Min. installed bending radius mm
	Conductor nominal C.S.A. mm ²	Number of cores	Nominal insulation thickness mm	Diameter under armour		Armour wire diameter mm	Overall diameter		Approx. mass kg/100 m	
				Minimum mm	Maximum mm		Minimum mm	Maximum mm		
2.52CECONA	2.5	2	0.8	9.7	10.3	1.25	15.8	16.8	57	200
2.53CECONA	2.5	3	0.8	10.6	11.3	1.25	16.7	17.7	65	210
2.54CECONA	2.5	4	0.8	11.7	12.3	1.25	17.8	18.8	72	230
2.55CECONA	2.5	5	0.8	13.1	13.8	1.25	19.2	20.3	80	240
2.56CECONA	2.5	6	0.8	13.1	13.8	1.25	19.2	20.3	82	240
2.57CECONA	2.5	7	0.8	15.3	16.0	1.25	21.4	22.5	95	270
2.58CECONA	2.5	8	0.8	16.4	17.2	1.25	22.5	23.6	103	290
2.510CECONA	2.5	10	0.8	16.7	17.4	1.25	22.8	24.0	109	290
2.512CECONA	2.5	12	0.8	17.3	18.0	1.60	24.1	25.2	133	300
2.515CECONA	2.5	15	0.8	19.2	20.0	1.60	26.0	27.2	151	330
2.520CECONA	2.5	20	0.8	22.5	23.3	1.60	29.3	30.5	183	370
2.525CECONA	2.5	25	0.8	24.0	24.7	1.60	31.0	32.1	207	390
2.530CECONA	2.5	30	0.8	26.5	27.3	1.60	33.5	34.6	234	420
2.540CECONA	2.5	40	0.8	30.2	30.6	2.00	38.4	39.2	313	470
2.550CECONA	2.5	50	0.8	33.0	33.6	2.00	41.4	42.3	361	510

Number of cores	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
2	27	40	31	7.41	0.102
3	23	34	26	7.41	0.102
4	23	34	26	7.41	0.102
5	20	32	20	7.41	0.102
6	18	29	19	7.41	0.102
7	18	28	18	7.41	0.102
8	17	27	18	7.41	0.102
10	16	25	16	7.41	0.102
12	15	24	15	7.41	0.102
15	14	22	14	7.41	0.102
20	12	20	13	7.41	0.102
25	11	18	12	7.41	0.102
30	11	18	11	7.41	0.102
40	10	16	10	7.41	0.102
50	10	16	10	7.41	0.102

(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

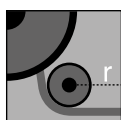
Rigid	Flexible
Semi-rigid	Very flexible



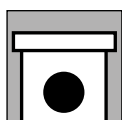
LOW SMOKE EMISSION

AS/NZS 4507

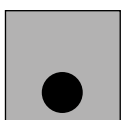
Laying Conditions



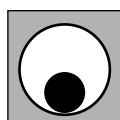
MINIMUM BENDING RADIUS DURING INSTALLATION



IN TRENCH



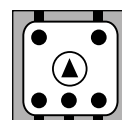
IN GROUND



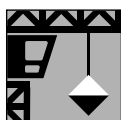
IN DUCT



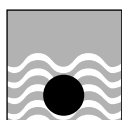
DOMESTIC APPLIANCES



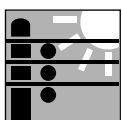
MACHINES



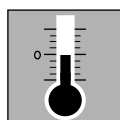
MOBILE EQUIPMENT



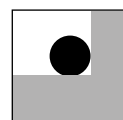
SUBMERGED



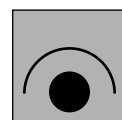
OVERHEAD AERIAL



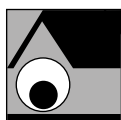
MIN. INSTALLATION TEMPERATURE



IN FREE AIR



IN GROUND WITH PROTECTION



IN CONDUIT



OUTDOOR APPLIANCES



FESTOON



INTERNAL WIRING



INDUSTRIAL EQUIPMENT



EXTERNAL BUILDING

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