

**CONSTRUCTION - PVC CABLES 450/750 V**

## 2C+E FLAT PVC

PVC INSULATED LAID FLAT AND PVC SHEATHED CABLE TO AS/NZS 5000.2.

For general wiring, unenclosed, enclosed in conduit, buried direct or in underground ducts for domestic, commercial and industrial installations 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, Green/Yellow

**SHEATH:**

3V-90 PVC  
Colours: White

### 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	FESTOON	EXTERNAL BUILDING					

All sizes and values without tolerances are reference values. Specifications are for product as supplied by Prysmian Group; any modification or alteration afterwards of product may give different result. The information contained within this document must not be copied, reprinted or reproduced in any form, either wholly or in part, without the written consent of Prysmian Group. The information is believed to be correct at the time of issue. Prysmian Group reserves the right to amend this specification without prior notice. This specification is not contractually valid unless specifically authorised by Prysmian Group.



### Physical & Electrical Characteristics

Product code	Conductor			Cable						Min. installed bending radius (a) mm
	Nominal C.S.A. mm <sup>2</sup>	Number and diameter of wires No/mm	Nominal diameter mm	Nominal insulation thickness mm	Overall diameter mm				Approx. mass kg/100 m	
					Minimum		Maximum			
					Major axis	Minor axis	Major axis	Minor axis		
1.0STE	1.0*	1/1.13	1.13	0.6	9.1	4.5	9.3	4.6	8	20
1.5TE	1.5	7/0.50	1.5	0.6	9.8	4.5	10.1	4.6	10	20
2.5STE	2.5*	1/1.78	1.78	0.7	11.7	5.4	11.9	5.5	14	20
2.5TE	2.5	7/0.67	2.0	0.7	12.1	5.4	12.4	5.5	15	20
4TE	4	7/0.85	2.6	0.8	13.8	6.3	14.1	6.5	19	30
6TE	6	7/1.04	3.1	0.8	14.9	6.9	15.3	7.1	24	30
10TE	10	7/1.35	4.1	1.0	18.9	8.4	19.6	8.8	38	35
16TE	16	7/1.70	5.1	1.0	21.8	9.7	22.5	10.0	54	40

(a) Bent in the direction of the minor axis  
 \* Single wire conductor

Conductor nominal area mm <sup>2</sup>	Current rating (b)			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
1.0*	15	22	17	18.1	0.119
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

(b) 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

All sizes and values without tolerances are reference values. Specifications are for product as supplied by Prysmian Group; any modification or alteration afterwards of product may give different result. The information contained within this document must not be copied, reprinted or reproduced in any form, either wholly or in part, without the written consent of Prysmian Group. The information is believed to be correct at the time of issue. Prysmian Group reserves the right to amend this specification without prior notice. This specification is not contractually valid unless specifically authorised by Prysmian Group.



## 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



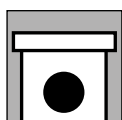
#### LOW SMOKE EMISSION

AS/NZS 4507

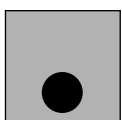
### Laying Conditions



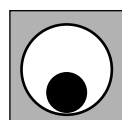
MINIMUM BENDING RADIUS DURING INSTALLATION



IN TRENCH



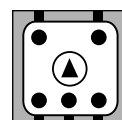
IN GROUND



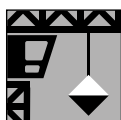
IN DUCT



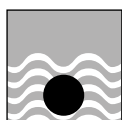
DOMESTIC APPLIANCES



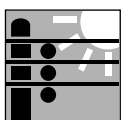
MACHINES



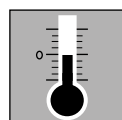
MOBILE EQUIPMENT



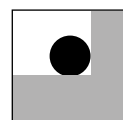
SUBMERGED



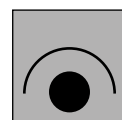
OVERHEAD AERIAL



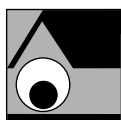
MIN. INSTALLATION TEMPERATURE



IN FREE AIR



IN GROUND WITH PROTECTION



IN CONDUIT



OUTDOOR APPLIANCES



FESTOON



INTERNAL WIRING



INDUSTRIAL EQUIPMENT



EXTERNAL BUILDING

All sizes and values without tolerances are reference values. Specifications are for product as supplied by Prysmian Group; any modification or alteration afterwards of product may give different result. The information contained within this document must not be copied, reprinted or reproduced in any form, either wholly or in part, without the written consent of Prysmian Group. The information is believed to be correct at the time of issue. Prysmian Group reserves the right to amend this specification without prior notice. This specification is not contractually valid unless specifically authorised by Prysmian Group.

