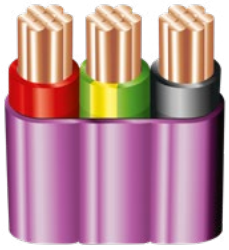
A brand of the Prysmian Group

FLAT POWER CABLES 450/750 V

NON MIGRATORY PVC CABLES



Cable description

Flat TPS Cables 450/750V V-90 insulated, Non-Migratory 3V-90 PVC sheathed.

Application

Suitable for light to medium industrial use and all building internal wiring applications. Insulation & sheathing material is non-migratory and best to be used in cable that are in contact with polystyrene, acrylic, ABS and polycarbonate.

This cable is suitable for installation of wall or roofing material, caravans, cold rooms, and transportable buildings.

Approvals

AS/NZS 5000.2

Behaviour in flame and fire

Flame retardant

Temperature range

Normal operating temperature: +90 °C
Minimum operating temperature: 0 °C

Flexibility

Semi-rigid

Minimum bending radius

6×OD during install
4×OD once installed

Resistance to

Chemical exposure: Occasional

Mechanical impact: Light

Water exposure: Occasional condensation

Solar radiation and weather exposure: Occasional

Cable design

Conductor:

Plain annealed copper conductor to AS/NZS 1125

Can also be operated at temperatures up to 90 °C when not exposed to mechanical deformation (see AS/NZS 3008.1.1).

Insulation:

V-90 PVC
Colour: Red, Black, Green/Yellow

Sheath:

3V-90 PVC
Colour: Purple

Installation conditions

In free air
In conduit
In trench
In duct
External building with protection

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Physical & electrical characteristics

NON MIGRATORY PVC CABLES

Product code	Conductor			Cable						Min. installed bending radius (a) mm
	Nominal C.S.A. mm²	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		
1.0 STE NM	1.0*	1/1.13	1.13	0.6	9.1	4.5	9.3	4.6	8	20
1.5 TE NM	1.5	7/0.50	1.5	0.6	9.8	4.5	10.1	4.6	10	20
2.5 STE NM	2.5*	1/1.78	1.78	0.7	11.7	5.4	11.9	5.5	14	20
2.5 TE NM	2.5	7/0.67	2.0	0.7	12.1	5.4	12.4	5.5	15	20
4 TE NM	4	7/0.85	2.6	0.8	13.8	6.3	14.1	6.5	19	30
6 TE NM	6	7/1.04	3.1	0.8	14.9	6.9	15.3	7.1	24	30
10 TE NM	10	7/1.35	4.1	1.0	18.9	8.4	19.6	8.8	38	35
16 TE NM	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 mm²	Current rating (b)			Electrical characteristics	
	Unenclosed spaced A	Wiring Enclosure in Air A	Underground in duct A	Maximum D.C. resistance at 20 °C Ω/km	Reactance per core Ω/km
1.0*	15	13	17	18.1	0.119
1.5	19	16	21	13.6	0.111
2.5	27	23	30	7.41	0.102
4	37	30	39	4.61	0.102
6	46	39	50	3.08	0.0967
10	64	52	66	1.83	0.0906
16	85	68	86	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