

FLAT POWER CABLES 450/750 V

FLAT PVC TWIN



Cable description

PVC insulated laid flat and sheathed cable to AS/NZS 5000.2.

Application

For installation wiring of circuits for fire detection and alarm systems.

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

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)

Insulation:

V-90 PVC
Colours: Red, Black

Sheath:

3V-90 PVC
Colour: White

Installation conditions

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

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Physical & electrical characteristics

TWIN FLAT PVC

Product code	Insulation Colours	Conductor				Cable					Min. installed bending radius (a) mm
		Nominal C.S.A. mm ²	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								
1.0STWH	Red, Black	1.0*	1/1.13	1.13	0.6	6.4	4.2	6.6	4.3	5.2	15
1.5TWH	Red, Black	1.5	7/0.50	1.5	0.6	7.1	4.5	7.3	4.6	6.4	20
2.5TWH	Red, Black	2.5	7/0.67	2.0	0.7	8.7	5.4	8.9	5.5	10	20
4TWH	Red, Black	4	7/0.85	2.6	0.8	10.4	6.3	10.7	6.5	15	25
6TWH	Red, Black	6	7/1.04	3.1	0.8	11.5	6.9	11.9	7.1	20	30
10TWH	Red, Black	10	7/1.35	4.1	1	14.2	8.4	15.0	8.8	31	35
16TWH	Red, Black	16	7/1.70	5.1	1	16.7	9.7	17.3	10.0	45	40

(a) Bent in the direction of the minor axis.

Conductor nominal C.S.A. mm ²	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*	16	17	17	18.1	0.119
1.5	20	21	21	13.6	0.111
2.5	26	30	30	7.41	0.102
4	35	39	39	4.61	0.102
6	45	50	50	3.08	0.0967
10	63	66	66	1.83	0.0906
16	83	114	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

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