

FLAT POWER CABLES 450/750 V
FLAT PVC 3C+E

Cable description

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

Application

For general wiring, unenclosed, enclosed in conduit, for domestic, commercial and industrial installations where not subject to mechanical damage.

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, White, Blue, Green/Yellow

Sheath:

3V-90 PVC

Colour: White

Installation conditions

In free air

In conduit

In ground with protection

In duct

External building with protection

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Physical & electrical characteristics

3C+E FLAT PVC

Product code	Conductor			Nominal insulation thickness mm	Cable				Approx. mass kg/100 m	Min. installed bending radius (a) mm
	Nominal C.S.A. mm ²	Number and diameter of wires No/mm	Nominal diameter mm		Overall diameter mm					
					Minimum		Maximum			
Major axis	Minor axis	Major axis	Minor axis							
1.0S3CEF	1.0*	1/1.13	1.13	0.6	11.4	4.5	11.7	4.6	10	20
1.53CEF	1.5	7/0.50	1.5	0.6	12.4	4.5	12.8	4.6	12	20
2.53CEF	2.5	7/0.67	2.0	0.7	15.4	5.4	15.8	5.5	19	20
43CEF	4	7/0.85	2.6	0.8	17.9	6.3	18.3	6.5	26	25
63CEF	6	7/1.04	3.1	0.8	19.5	6.9	20.1	7.1	33	30
103CEF	10	7/1.35	4.1	1.0	24.9	8.4	25.8	8.8	52	35
163CEF	16	7/1.70	5.1	1.0	28.8	9.7	29.7	10.0	75	40

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

Conductor nominal area 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*	13	14	14	18.1	0.184
1.5	17	18	18	13.6	0.172
2.5	22	25	25	7.41	0.159
4	30	33	33	4.61	0.152
6	38	42	42	3.08	0.143
10	54	55	55	1.83	0.134
16	71	96	73	1.15	0.126

(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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