



POLYCAB 6241B/6242B/6243B BS EN 7211 MC

Lighting & Appliance wire, 300/500 V AC

Application

POLYCAB 6241B/6242B/6243B BS 7211 MC stranded copper conductor thermosetting material insulated and halogen free material sheathed with CPC (Circuit protective conductor) fulfils the requirement as per BS 7211. These cables produce lower level of smoke and corrosive gases under exposure to fire compared PVC insulated cable and can be used for lighting and domestic appliances.

Voltage Rating

300/500 V

Operation Temperature

Max.: 90° C

Construction

- Annealed solid or stranded copper conductor as per IEC 60228, class 1 or class 2
- Insulated with Cross linked compound type GP8 or EI 5 confirming to BS 7655-1.3/BS EN 50363-5
- Bare circuit protective conductor
- Sheathed with Halogen free material Type LTS4 confirming to BS 7655-6.1.

Core Identification

- | | |
|-------------|---|
| Single core | Brown or Blue |
| 2 core | Brown and Blue or 2 x 1 & 2 x 1.5 cables, Brown and Brown |
| 3 core | Brown Black (Centre core), Grey |

Position of CPC

- 2 core Circuit protective conductor (CPC) placed in between cores in same plane
- 3 core Circuit protective conductor (CPC) Centrally placed with black and grey cores in same plane

Bending Radius

Fixed installation – 3 x Overall Diameter

Approval

The cable is compliant with European Regulation EN 50575, the construction Products Regulation(CPR).

Standard and References

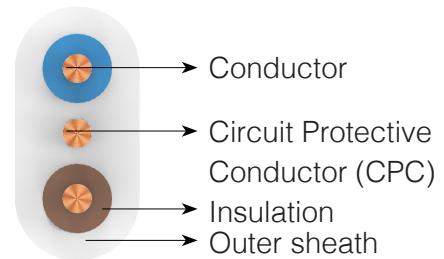
- IEC 60228
- BS 7655-1.3/BS EN 50363-5
- BS 7655-6.1
- BS 7211:1998

Test Voltage

2000V AC at (20±5) °C

Compliance

- | | |
|----------------------------|-----------------|
| Conductor Resistance test | - IEC 60228 |
| Insulation Resistance test | - BS 7211 |
| Corrosive and acid gas | - EN 50267-2-2 |
| Single vertical flame | - EN 50265-2-1 |
| Smoke emission | - BS EN 50268-2 |



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Nominal cross sectional area mm ²	Number of Core	Class of conductor	Nominal insulation thickness mm	Overall Diameter (Approx.) mm	Max. DC conductor Resistance at 20°C Ω/km	Weight (Approx.) kg/km
1	1	1	0.7	4.3 x 5.5	18.1	51
1.5	1	1	0.7	4.6 x 5.8	12.1	60
1	2	1	0.7	4.3 x 8	18.1	77
1.5	2	1	0.7	4.6 x 8.6	12.1	95
2.5	2	1	0.7	5.2 x 9.8	7.41	132
1	2	2	0.7	4.46 x 8.32	18.1	81
1.5	2	2	0.7	4.79 x 8.98	12.1	99
2.5	2	2	0.7	5.41 x 10.22	7.41	136
4	2	2	0.7	5.98 x 11.36	4.61	181
6	2	2	0.7	6.72 x 13.04	3.08	249
10	2	2	0.7	7.85 x 15.85	1.83	381
16	2	2	0.7	9.1 x 18.75	1.15	562
1	3	1	0.7	4.3 x 10.5	18.1	108
1.5	3	1	0.7	4.6 x 11.4	12.1	135
2.5	3	1	0.7	5.2 x 13	7.41	188
4	3	2	0.7	5.98 x 15.34	4.61	265
6	3	2	0.7	6.72 x 17.56	3.08	363
10	3	2	0.7	7.85 x 21.3	1.83	556
16	3	2	0.7	9.1 x 25.25	1.15	820

Electrical characteristics

Current carrying capacity

Nominal cross sectional area mm ²	Reference method A* (in conduit in wall) Amp.	Reference method C* (clipped direct) Amp.
1	11.5	16
1.5	14.5	20
2.5	20	27
4	26	37
6	32	47
10	44	64
16	57	85

Ambient temperature: 30°C

Conductor operating temperature: 70°C

The above table is in accordance with Table 4D5 of BS 7671:2018

Note- A* For full installation method refer to Table 4A2 Installation Method 2 but for flat twin and earth cable of the 17th Edition of IEE Wiring Regulations. C* For full installation method refer to Table 4A2 Installation Method 20 but for flat twin and earth cable of the 17th Edition of IEE Wiring Regulations.

De-Rating Factor

De-rating factor for 70°C thermosetting insulated cable

Air Temperature	35°C	40°C	45°C	50°C	55°C
De-rating factor	0.91	0.82	0.71	0.58	0.41

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