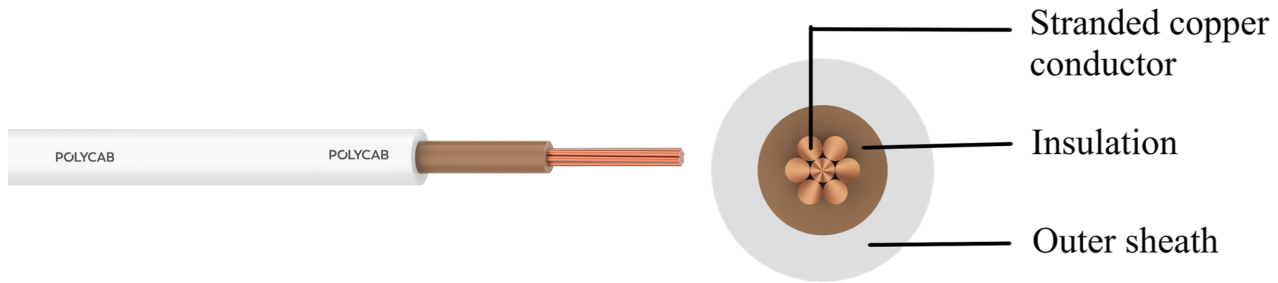


# POLYCAB 6181B BS 7211 SC

## Lighting and Appliances wire, 450/750 V AC



Images not to scale. Follow table for dimensions

### APPLICATION

POLYCAB 6181B BS 7211 SC stranded copper conductor thermosetting material insulated and halogen free material sheathed single core cable fulfils the requirement as per BS 7211. These cables are produced lower level of smoke and corrosive gases under exposure to fire compared PVC insulated cable and can be used for lighting and domestic appliances.

### CHARACTERISTICS

#### Voltage Rating

450/750 V

#### Operation Temperature

Max. Operating: 90° C

Short circuit temperature 250°C

#### Bending Radius

Fixed installation >8 x Overall Diameter

Occasional >6 x Overall Diameter

### CONSTRUCTION

- Annealed solid or stranded copper conductor as per IEC 60228, class 1 or class 2
- Insulated with Cross linked compound Type GP 8 confirming to BS 7655-1.3 or EI 5 to BS EN 50363-5
- Sheathed with Halogen free material type LTS4 confirming to BS 7655-6.1

#### Core Identification

Brown or Blue

#### Test Voltage

2500V AC at (20±5) °C

### OUTSTANDING FEATURES

- Low smoke emission
- Flame propagation

### STANDARD FOLLOWS

IEC 60228

BS 7655-1.3/BS EN 50363-5

BS 7655-6.1

BS 7211:1998

### COMPLIANCE

Conductor Resistance test - IEC 60228

Insulation Resistance test - BS 7211

Smoke emission - BS EN 61034

Flame propagation - BS EN 60332

### APPROVAL



# POLYCAB 6181B BS 7211 SC

## Lighting and Appliances wire, 450/750 V AC

### WEIGHT & DIMENSION DATA :

Product Code	Nominal cross sectional area mm <sup>2</sup>	Class of conductor	Nominal insulation thickness mm	Overall Diameter (Approx.) mm	Weight (Approx.) kg/km
LDBS06CXUALC001C001S	1	1	0.7	4.10	26
LDBS06CXUALC001C1.5S	1.5	1	0.7	4.4	33
LDBS06CXUALC001C2.5S	2.5	1	0.7	4.8	45
LDBS06CXUALC001C004S	4	1	0.7	5.3	63
LDBS06CXUALC001C006S	6	1	0.7	6	87
LDBS06CXUALC002C001S	1	2	0.7	4.26	27
LDBS06CXUALC002C1.5S	1.5	2	0.7	4.59	35
LDBS06CXUALC002C2.5S	2.5	2	0.7	5.01	46
LDBS06CXUALC002C004S	4	2	0.7	5.78	67
LDBS06CXUALC002C006S	6	2	0.7	6.32	87
LDBS06CXUALC002C010S	10	2	0.7	7.25	131
LDBS06CXUALC002C016S	16	2	0.7	8.3	191
LDBS06CXUALC002C025S	25	2	0.9	10.22	297
LDBS06CXUALC002C035S	35	2	0.9	11.56	400

## Electrical characteristics

### Current carrying capacity and maximum DC conductor resistance.

Nominal cross sectional area	Reference Method A (enclosed in conduit in thermally insulating wall etc.)		Reference Method B (enclosed in conduit on a wall or in trunking etc.)		Reference Method C (clipped direct)		Reference Method F (in free air or on a perforated cable tray etc horizontal or vertical etc.)			Reference Method G (in free air)		Maximum DC Conductor resistance
	2 cables, single-phase a.c. or d.c.	3 or 4 cables, three-phase a.c.	2 cables, single-phase a.c. or d.c.	3 or 4 cables, three-phase a.c.	Spaced by one cable diameter		Touching			Spaced by one cable diameter		
					2 cables, single-phase a.c. or d.c. flat and touching	3 or 4 cables, three-phase a.c. flat and touching or trefoil	2 cables, single-phase a.c. or d.c. flat	3 cables, three-phase a.c. flat	3 cables, three-phase a.c. trefoil	2 cables, single-phase a.c. or d.c. or 3 cables three-phase a.c. flat		
										Horizontal	Vertical	
	mm <sup>2</sup>	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	Ω/km
1	14	13	17	15	19	17.5	—	—	—	—	—	18.1
1.5	19	17	23	20	25	23	—	—	—	—	—	12.1
2.5	26	23	31	28	34	31	—	—	—	—	—	7.41
4	35	31	42	37	46	41	—	—	—	—	—	4.61
6	45	40	54	48	59	54	—	—	—	—	—	3.08
10	61	54	75	66	81	74	—	—	—	—	—	1.83
16	81	73	100	88	109	99	—	—	—	—	—	1.15
25	106	95	133	117	143	130	161	141	135	182	161	0.727
35	131	117	164	144	176	161	200	176	169	226	201	0.524

Ambient temperature: 30°C

Conductor operating temperature: 90°C

The above table is in accordance with Table 4E1A of BS 7671:2018

## De-Rating Factor

### De-rating factor for 90°C thermosetting insulated cable

Air Temperature	35°C	40°C	45°C	50°C	55°C	60°C	65°C	70°C	75°C	80°C	85°C
De-rating factor	0.95	0.91	0.86	0.82	0.76	0.7	0.64	0.57	0.50	0.4	0.28