



BMS CABLE

Document ID: TE/QMS/F/02

DESIGN CODE : ICBS04CYUAYL010C001S

| Particulars | 10C X 1Sqmm |
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| Name of Manufacturer | Polycab India Ltd |
| Type of Cable | Screened BMS Cable |
| No of Elements X Size in mm ² (No X Sq.mm) | 10C X 1 |
| Voltage Grade (Volts) | 300/500 |
| Applicable standard (S) | Generally as per BSEN 50288-7 |
| Conductor | |
| a) Material | Plain annealed high conductivity Flexible copper conductor as per Class 5 of IEC:60228 |
| b) Maximum d.c. resistance of conductor at 20° C (Ω/km) | 19.5 |
| c) Shape of conductor | Bunched Circular |
| Insulation | |
| a) Material | Extruded PVC Type 'A' |
| b) Minimum Thickness (mm) | 0.44 |
| c) Core Identification | All cores grey with number printing |
| Collective Screen | |
| a) Material | Aluminium mylar tape |
| b) Nominal Thickness (mm) | 0.018 |
| c) Material of Drain Wire | Flexible ATC |
| d) Size of Drain Wire (Sq.mm) | 0.5 mm ² (16/0.2 mm) |
| Outer sheath | |
| a) Material | Extruded FR-LSH PVC Type ST1 |
| b) Nominal thickness (mm) | 1.06 |
| c) Colour Of Outersheath | Blue |
| Approximate Overall diameter of cable (mm) | 12.0 ± 2.0 |
| Maximum conductor temperature under normal operating conditions (°C) | 70 |
| Maximum conductor temperature at the termination of short circuit (°C) | 160 |
| Minimum bending radius (mm) | 12 times Overall diameter |

Electrical Parameters

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| a) Max. a.c. resistance of conductor at operating temperature (Ω/km) | 23.3 |
| b) Mutual capacitance (nf/km) | <250 |
| c) Insulation resistance ($M\Omega/\text{km}$) | 10 |
| d) Inductance to resistance ratio (L/R) ($\mu\text{H}/\Omega$) | <25 |
| e) Dielectric strength for 1 minute (H.V Test) (kV) | 2.0 |
| Max. tensile strength for Cables pulled with stocking (Newtons) | $9 \times D^2$, D is the cable OD in mm |

FR-LSH PROPERTIES

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|-------------------------|---|
| a) Oxygen Index | Min. 29% as per ASTM D- 2863 |
| b) Temperature Index | Min. 250 Deg.C as per ASTM D- 2863 |
| c) Smoke Density Rating | Max. 60% as per ASTM D- 2843 |
| d) Acid Gas Generation | Max. 20% as per IEC- 754- 1 |
| e) Flammability Test | As per IEC:60332-1 |
| Printing | YEAR POLYCAB 300/500 VOLTS GRADE FR-LSH No of Core x Sqmm SCREENED WITH SEQUENTIAL MARKING AT EVERY ONE METER.. |