



## BMS CABLE

**Document ID: TE/QMS/F/02**

**DESIGN CODE : ICBS04CYUAYL004C0.5S**

Particulars	4C X 0.5 Sqmm
Name of Manufacturer	Polycab India Ltd
Type of Cable	Screened BMS Cable
No of Elements X Size in mm <sup>2</sup> (No X Sq.mm)	4C X 0.5
Voltage Grade (Volts)	300/500
Applicable standard (S)	Generally as per BSEN 50288-7
<b>Conductor</b>	
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)	39.0
c) Shape of conductor	Bunched Circular
<b>Insulation</b>	
a) Material	Extruded PVC Type 'A'
b) Minimum Thickness (mm)	0.44
c) Core Identification	Red, Yellow, Blue & Yellow-Green
<b>Collective Screen</b>	
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 <sup>2</sup> (16/0.2 mm)
<b>Outer sheath</b>	
a) Material	Extruded FR-LSH PVC Type ST1
b) Nominal thickness (mm)	0.88
c) Colour Of Outersheath	Blue
Approximate Overall diameter of cable (mm)	7 ± 1.0
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**

a) Max. a.c. resistance of conductor at operating temperature ( $\Omega/\text{km}$ )	46.7
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**

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..