

**Technical Particulars of BMS Cables**

		<b>CB CODE:</b>	<b>ICBS04CYUAYL019C2.5S</b>
<b>S.No</b>	<b>Particulars</b>		
		<b>19Core X 2.5</b>	
1	Name of Manufacturer	Polycab Wires Pvt. Ltd	
2	Type of Cable	Screened <b>BMS</b> Cable	
3	No of Elements X Size in mm <sup>2</sup>	19Core X 2.5	
4	Voltage Grade V	300/500	
5	<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)	7.98	
c)	Shape of conductor	Bunched Circular	
6	<b>Insulation</b>		
a)	Material	PVC Type A	
b)	Minimum Thickness mm	0.53	
c)	Core Identification	All Grey With Number	
7	<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	0.5 mm <sup>2</sup> <b>(16/0.2mm)</b>	
8	<b>Outersheath</b>		
a)	Material	Extruded <b>FRLS</b> PVC Type ST1	
b)	Nominal Thickness mm	1.3	
c)	Colour of Outer Sheath	Blue	
9 a)	Maximum conductor temperature under normal operating conditions °C	70	
b)	Maximum conductor temperature at the termination of short circuit °C	160	
c)	Short Circuit rating of conductor for the duration of 1 sec (kA)	0.29	
10	Minimum bending radius	12 times Overall diameter	
11	<b>Electrical Parameters</b>		
a)	Max. a.c. resistance of conductor at operating temperature (Ω/km)	9.55	
b)	Mutual capacitance nf/km	<250	
c)	Insulation resistance MΩ/km	10.0	
d)	Inductance to resistance ratio (L/R) μH/Ω	<40	
e)	Dielectric strength for 1 minute (H.V Test) kV	2	
12	Max. tensile strength for Cables pulled with stocking (Newtons)	5 x D <sup>2</sup> , D is the cable OD in mm	
13	Applicable Standard	Generally as per EN 50288-7	
14	Approximate Overall diameter of cable mm	<b>19.5 ± 1.0</b>	
15	<b>FRLS Properties</b>		
i)	Oxygen Index (ASTM 2863-77)	Min 29%	
ii)	Temperature Index (ASTM 2863-77)	Min 250 °C	
iii)	Smoke Density Rating	Max. 60% as per ASTM D- 2843	
iv)	Acid Gas Generation	Max. 20% as per IEC- 754- 1	
v)	Flammability Test	As per IEC-332-1	
16	Printing	<b>YEAR POLYCAB 300/500 VOLTS GRADE FRLS, CABLE SIZE SCREENED WITH SEQUENTIAL MARKING at every one meter interval.</b>	