

Arctic Grade Cable H05VV-F

Eland Product Group **A5A**



Application

Designed to withstand severe external temperatures remaining flexible at temperatures as low as -40°C. Arctic Grade PVC mains cords manufactured to BS7919 will remain flexible at temperatures down to minus 40°C making them particularly suitable for outdoor applications and for use where flexibility is required at sub zero temperatures. At normal temperatures the cable is very limp and flexible, offering some of the characteristics usually found in elastomeric cables.

Standards

BS7919 Table 44, VDE281

Technical Data

Conductor

Class 5 flexible plain copper conductors to BS EN 60228:2005 (previously BS6360)

Insulation

Arctic grade PVC (Polyvinyl Chloride)

Sheath

Arctic grade PVC (Polyvinyl Chloride)

Sheath Colour

Blue or Yellow

Voltage Rating

300/500V

Temperature Rating

-40°C to +70°C

Minimum Bending Radius

6 x overall diameter

Core Identification

2 Cores: Blue, Brown

3 Cores: Green/Yellow, Blue, Brown

Dimensions

Eland Part Number	No. of Cores x Nominal Cross Sectional Area # x mm ²	Nominal Thickness of Insulation mm	Nominal Thickness of Sheath mm	Nominal Overall Diameter mm	Nominal Weight kg/Km
A5A2075*1R	2 x 0.75	0.6	0.8	6.2	54.2
A5A2010*1R	2 x 1.00	0.6	0.8	6.4	60.5
A5A201*1R	2 x 1.50	0.7	0.8	7.4	82.3
A5A202*1R	2 x 2.50	0.8	1.0	9.2	129.1
A5A204*1R	2 x 4.00	0.8	1.1	10.4	175.8
A5A3010*1R	3 x 1.00	0.6	0.8	6.8	73.1
A5A301*1R	3 x 1.50	0.7	0.9	8.1	104.4
A5A302*1R	3 x 2.50	0.8	1.1	10.0	163.0
A5A304*1R	3 x 4.00	0.8	1.2	11.3	224.0

* Eland Part numbers shown above designate the sheath colour (*). For each colour substitute * for a colour code as; Blue: B and Yellow: Y

Conductors

Class 5 flexible Copper Conductors for Single Core and Multi-Core cables

1	2	3
Nominal Cross Sectional Area mm ²	Maximum Diameter of Wires in Conductor mm	Maximum Resistance of Conductor at 20°C
		Plain Wires ohms/Km
0.75	0.19	26.00
1.00	0.19	19.50
1.50	0.24	13.30
2.50	0.24	7.98
4.00	0.29	4.95

Electrical Characteristics

Current Carrying Capacity (amperes)

Conductor Cross Sectional Area mm ²	Current Carrying Capacity at 30°C A
1	2
0.75	6
1.00	10
1.50	16
2.50	25
4.00	32

Rating factor for ambient temperature

60°C thermoplastic or thermosetting insulated cords:

Ambient Temperature	35°C	40°C	45°C	50°C	55°C
Rating Factor	0.91	0.82	0.71	0.58	0.41

The above table is in accordance with Table 4F3A of the 17th Edition of IEE Wiring Regulations.

Voltage Drop (per ampere per metre)

Conductor Cross Sectional Area mm ²	DC or Single Phase AC mV/A/m	Three Phase AC mV/A/m
1	2	3
0.75	62	54
1.00	46	40
1.50	32	27
2.50	19	16
4.00	12	10

Conductor operating temperature: 60°C*

The above table is in accordance with Table 4F3B of the 17th Edition of IEE Wiring Regulations.

The information contained within this datasheet is for guidance only. When selecting accessories such as cleats, glands, etc please note that actual cable dimensions may vary due to manufacturing tolerances.