

318-A / BS 6004 Arctic Grade Cable



Eland Product Group: **A5A**

APPLICATION

Arctic grade PVC cords manufactured to BS 6004 are designed to withstand severe external temperatures and will remain flexible at temperatures down to -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 flexible, offering some of the characteristics usually found in elastomeric cables.

CONSTRUCTION

Conductor

Class 5 flexible copper conductor according to BS EN 60228 (previously BS 6360)

Insulation

Arctic grade PVC (Polyvinyl Chloride) Type TI4 according to BS EN 50363

Sheath

Arctic grade PVC (Polyvinyl Chloride) Type 10 according to BS 7655

CABLE STANDARDS

BS 6004 (previously BS 7919 Table 44), BS EN/IEC 60332-1-2



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

CHARACTERISTICS

Voltage Rating (U_o/U)
300/500V

Temperature Rating
Fixed: -40°C to +60°C

Minimum Bending Radius
Fixed: 6 x overall diameter

Core Identification
2 core: ● Blue ● Brown
3 core: ● Blue ● Brown ● Green/Yellow

Sheath Colour
● Blue ● Yellow

DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL THICKNESS OF INSULATION mm	NOMINAL THICKNESS OF SHEATH mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
A5A2075*1R	2	0.75	0.6	0.8	6.2	55
A5A2010*1R	2	1	0.6	0.8	6.4	61
A5A201*1R	2	1.5	0.7	0.8	7.4	83
A5A202*1R	2	2.5	0.8	1	9.2	130
A5A204*1R	2	4	0.8	1.1	10.4	176
A5A206*1R	2	6	0.8	1.2	11.3	299
A5A3010*1R	3	1	0.6	0.8	6.8	73
A5A301*1R	3	1.5	0.7	0.9	8.1	105
A5A302*1R	3	2.5	0.8	1.1	10	163
A5A304*1R	3	4	0.8	1.2	11.3	224
A5A306*1R	3	6.0	0.8	1.2	12.7	299

Eland Part No. shown above designate the sheath colour (). For each colour substitute * for a colour code as listed below. e.g. A5A2075B1R = 0.75mm² Blue

Colour Codes

COLOUR	Blue	Yellow
CODE	B	Y

CONDUCTORS

Class 5 Flexible Copper Conductors for Single Core and Multi-Core Cables

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	0.21	26
1	0.21	19.5
1.5	0.26	13.3
2.5	0.26	7.98
4	0.31	4.95
6	0.31	3.30

ELECTRICAL CHARACTERISTICS

Current Carrying Capacity

NOMINAL CROSS SECTIONAL AREA mm ²	CURRENT CARRYING CAPACITY AT 30°C	
	Single-Phase AC Amps	Three-Phase AC Amps
0.75	6	6
1	10	10
1.5	16	16
2.5	25	20
4	32	25
6	48	40

Voltage Drop

NOMINAL CROSS SECTIONAL AREA mm ²	DC OR SINGLE-PHASE AC mV/A/m	THREE-PHASE AC mV/A/m
0.75	62	54
1	46	40
1.5	32	27
2.5	19	16
4	12	10
6	8	7

Conductor operating temperature: 60°C

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

DE-RATING FACTORS

60°C Thermoplastic or Thermosetting Insulated Cords

AMBIENT TEMPERATURE	35°C	40°C	45°C	50°C	55°C
DE-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.