6491X Cable to BS6004

Application

6491X Cable H07V-R/H07V-U to BS6004 is suitable for power and lighting circuits and building wiring. The cable is intended for use in semi-flush exposed conduits and embedded conduits as well as in closed installation ducts, and is ideal for the internal wiring of appliances and apparatus.

Standards

BS6004, BASEC approved*

Technical Data

Conductor: H07V-R: Class 2 stranded plain copper conductors to BS EN 60228:2005 (previously BS6360)

H07V-U: Class 1 solid plain copper conductor to BS EN 60228:2005 (previously BS6360)

Insulation: PVC (Polyvinyl Chloride) Type TI 1 to BS7655

Insulation Colour: Green/Yellow

Voltage Rating: 450-750V

Temperature Rating: 0°C to +70°C

Short Circuit Temperature: +160°C

Minimum Bending Radius: Up to 10mm²: 3 x overall diameter
10mm² to 25mm²: 4 x overall diameter
Above 25mm²: 5 x overall diameter

Note: *sizes up to and including 150mm² are BASEC approved. For sizes 185mm² and above please call for more information.

Dimensions

Part No	No. of Cores x Nominal Cross sectional Area # x mm²	Nominal Thickness of Installation mm	Maximum Overall Diameter mm	Nominal Weight kg/Km
GYEARTH1.5	1 x 1.5	0.7	3.3	22
GYEARTH2.5	1 x 2.5	0.8	3.9	32
GYEARTH4	1 x 4.0	0.8	4.6	50
GYEARTH6	1 x 6.0	0.8	5.2	71
GYEARTH10	1 x 10.0	1.0	6.7	120
GYEARTH16	1 x 16.0	1.0	7.8	180
GYEARTH25	1 x 25.0	1.2	9.7	280
GYEARTH35	1 x 35.0	1.2	10.9	380
GYEARTH50	1 x 50.0	1.4	12.8	510
GYEARTH70	1 x 70.0	1.4	14.6	710

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Conductors

Class 2 stranded conductors for Single Core and Multi-Core cables

Nominal Cross Sectional Area mm²	Minimum Number of Wires in the Conductor						Maximum Resistance of Conductor at 20°C
	Circular		Circular Compacted		Shaped		Annealed Copper Conductor
	Cu	Al	Cu	Al	Cu	Al	Plain Wires ohms/Km
1.00	7	-	-	-	-	-	18.1000
1.50	7	-	6	-	-	-	12.1000
2.50	7	-	6	-	-	-	7.4100
4.00	7	-	6	-	-	-	4.6100
6.00	7	-	6	-	-	-	3.0800
10.00	7	7	6	6	-	-	1.8300
16.00	7	7	6	6	-	-	1.1500
25.00	7	7	6	6	6	6	0.7270
35.00	7	7	6	6	6	6	0.5240
50.00	19	19	6	6	6	6	0.3870
70.00	19	19	12	12	12	12	0.2680

Table in accordance with BS EN 60228:2005 (previously BS6360)

Current Carrying Capacity (amperes)

Reference Method A (enclosed in conduit in thermally insulatinig wall etc) Amps		Reference Method B (enclosed in conduit on a wall or in a trunking etc) Amps		Reference Method C (clipped direct) Amps		Reference Method F (in free air or on a perforated cable tray etc horizontal or vertical) Amps				
						Touching			Speed by one diameter	
2 Cables Single Phase AC or DC	3 or 4 Cable Three Phases AC	2 Cables Single Phase AC or DC	3 or 4 Cables Three Phase AC	2 Cables Single Phase AC or DC flat	3 or 4 Cables Three Phase AC flat and touching or trefoil	2 Cables Single Phase AC or DC flat	2 Cables Three Phase AC flat	3 Cables Three Phase AC trefoil	2 Cables Single Phase AC or DC Or 3 Cables Three Phase AC flat	
									Horizontal	Vertical
1.0	11.0	10.5	13.5	12.0	15.5	14.0	-	-	-	-
1.5	14.5	13.5	17.5	15.5	20.0	18.0	-	-	-	-
2.5	20.0	18.0	24.0	21.0	27.0	25.0	-	-	-	-
4.0	26.0	24.0	32.0	28.0	37.0	33.0	-	-	-	-
6.0	34.0	31.0	41.0	36.0	47.0	43.0	-	-	-	-
10.0	46.0	42.0	57.0	50.0	65.0	59.0	-	-	-	-
16.0	61.0	56.0	76.0	68.0	87.0	79.0	-	-	-	-
25.0	80.0	73.0	101.0	89.0	114.0	104.0	131	114	110	146
35.0	99.0	89.0	125.0	110.0	141.0	129.0	162	143	137	181
50.0	119.0	108.0	151.0	134.0	182.0	167.0	196	174	167	219
70.0	151.0	136.0	192.0	171.0	234.0	214.0	251	225	216	281

Ambient temperature: 30°C

Conductor operating temperature: 70°C

**The above table is in accordance with Table 4D1B of the 17th Edition of IEE Wiring Regulations*

Electrical Characteristics

Current carrying capacity (amperes)

Nominal Cross Sectional Area mm²	Reference Method 4 (enclosed in conduit in thermally insulating wall etc)		Reference Method 3 (enclosed in conduit on a wall or in trunking etc)		Reference Method 1 (clipped direct)		Reference Method 11 (on a perforated cable tray horizontal or vertical)		Reference Method 12 (free air)		
									Horizontal Flat Spaced	Vertical Flat Spaced	Trefoil
	2 Cables Single Phase AC or DC Amps	3 or 4 Cables Three Phase AC Amps	2 Cables Single Phase AC or DC Amps	3 or 4 Cables Three Phase AC Amps	2 Cables Single Phase AC or DC Flat & Touching Amps	3 or 4 Cables Three Phase AC Flat & Touching or Trefoil Amps	2 Cables Single Phase AC or DC Flat & Touching Amps	3 or 4 Cables Three Phase AC Flat & Touching or Trefoil Amps	2 Cables Single Phase AC or DC Or 3 Cables Three Phase AC Amps	2 Cables Single Phase AC or DC or 3 Cables Three Phase AC Amps	3 Cables Trefoil Three Phase AC Amps
1.0	11.0	10.5	13.5	12.0	15.5	14	-	-	-	-	-
1.5	14.5	13.5	17.5	15.5	20.0	18	-	-	-	-	-
2.5	19.5	18.0	24.0	21.0	27.0	25	-	-	-	-	-
4.0	26.0	24.0	32.0	28.0	37.0	33	-	-	-	-	-
6.0	34.0	31.0	41.0	36.0	47.0	43	-	-	-	-	-
10.0	46.0	42.0	57.0	50.0	65.0	59	-	-	-	-	-
16.0	61.0	56.0	76.0	68.0	87.0	79	-	-	-	-	-
25.0	80.0	73.0	101.0	89.0	114.0	104	126	112	146	130	110
35.0	99.0	89.0	125.0	110.0	141.0	129	156	141	181	162	137
50.0	119.0	108.0	151.0	134.0	182.0	167	191	172	219	197	167
70.0	151.0	136.0	192.0	171.0	234.0	214	246	223	281	254	216

Ambient temperature: 30°C

Conductor operating temperature: 70°C

**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.*

This is a reprint of the manufacturer's datasheet; please refer to the cable manufacturer for further details. GCA ltd makes no claims as to the warranty of the information contained in this datasheet.