

309-Y Flexible Cable

Application: Supply leads for use as 318-Y but particularly for use in high temperature zones, for internal wiring or supply cores to electrical apparatus. Not suitable for outdoor use.

Technical Data:



1	Conductor	Class 5 flexible copper conductors BS EN 60228:2005 (previously BS6360)
2	Insulation	PVC (Polyvinyl Chloride) to BS6755
3	Sheath	PVC (Polyvinyl Chloride) to BS6755

Voltage Rating 300/500V

Conductor Operating Temperature 0°C to +90°C

Core Identification

2 Core: Blue, Brown

3 Core: Green/Yellow, Blue, Brown

4 Core: Green/Yellow, Brown, Black, Grey

5 Core: Green/Yellow, Brown, Black, Grey, Blue



Sizes and Dimensions - 2 Cores

Part No	No Cores	Conductor Cross Section Area (mm ²)	Cable Cross Section Area (mm ²)	Overall Diameter (mm)	Nominal Weight (kg/km)	Resistance of Copper Conductor (Ω /Km) at 20°C
3092Y 0.75	2	0.75	30.19	7.0	63	26

Sizes and Dimensions - 3 Cores

Part No	No Cores	Conductor Cross Section Area (mm ²)	Cable Cross Section Area (mm ²)	Overall Diameter (mm)	Nominal Weight (kg/km)	Resistance of Copper Conductor (Ω /Km) at 20°C
3093Y 0.75	3	0.75	34.212	7.6	65	26
3093Y 1.0	3	1.0	36.32	8.0	74	19.5
3093Y 1.5	3	1.5	51.53	9.1	86	13.3
3093Y 2.5	3	2.5	78.54	10.8	115	7.98

Sizes and Dimensions - 4 Cores

Part No	No Cores	Conductor Cross Section Area (mm ²)	Cable Cross Section Area (mm ²)	Overall Diameter (mm)	Nominal Weight (kg/km)	Resistance of Copper Conductor (Ω /Km) at 20°C
3094Y 0.75	4	0.75	39.59	8.1	78	26
3094Y 1.0	4	1.0	45.36	8.6	110	19.5
3094Y 1.5	4	1.5	63.62	9.8	140	13.3
3094Y 2.5	4	2.5	93.31	11.4	210	7.98

The information contained within this datasheet is for guidance only. Please note the actual cable dimensions may vary due to manufacturing tolerance.



Table 4F3A - Flexible Cable
Non Armoured
(Copper Conductores)

CURRENT CARRYING CAPACITY (amperes) and MASS SUPPORTABLE (kg)

Conductor Cross - Sectional Area (mm ²)	Current Carrying Capacity		Maximum mass supported by Twin flexible cable (see regulations 522.7.2 and 559.6.1.5) (kg)
	Single - Phase a.c. (A)	Three - Phase a.c. (A)	
0.5	3	3	2
0.75	6	6	3
1	10	10	5
1.25	13	-	5
1.5	16	16	5
2.5	25	20	5
4	32	25	5

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

Rating Factors for Ambient Temperature

60°C Thermoplastic or Thermosetting Insulated Cable					
Ambient Temperature	35°C	40°C	45°C	50°C	55°C
Rating Factor	0.91	0.82	0.71	0.58	0.41

90°C Thermoplastic or Thermosetting Insulated Cable					
Ambient Temperature	35 to 50°C	55°C	60°C	65°C	70°C
Rating Factor	1.0	0.96	0.83	0.67	0.47

150°C Flexible Cable						
Ambient Temperature	35 to 120°C	125°C	130°C	135°C	140°C	145°C
Rating Factor	1.0	0.96	0.85	0.74	0.60	0.42

Glass Fibre Flexible Cable						
Ambient Temperature	35 to 150°C	155°C	160°C	165°C	170°C	175°C
Rating Factor	1.0	0.92	0.82	0.71	0.57	0.40



Table 4F3B

VOLTAGE DROP (per ampere per meter)

Conductor Operating Temperature: 60°C

Conductor Cross - Sectional Area (mm ²)	d.c or Single - Phase a.c. (mV/A/m)	Three - Phase a.c. mV/A/m)
0.5	93	80
0.75	62	54
1	46	40
1.25	37	-
1.5	32	27
2.5	19	16
4	12	10

This table above is in accordance with Table 4F3B of the 17th Edition of IET Wiring Regulations

Note: *The tabulated values above are for the 60°C thermoplastic or thermosetting insulated flexible cables and for other types of flexible cable they are to be multiplied by the following factors:

For	90°C thermoplastic or thermosetting	1.09
	150°C	1.31
	185°C Glass Fibre	1.43