

638*TQ Flexible Mains Cable - EPR,CSP - 4mm to 16mm



Our range of flexible TQ cables is designed for fixed wiring installations. It is a range of unarmoured cable designed to prevent the risk of electric shock in the event of fault or surge. Our TQ cable is suitable as a flexible marine cable, both on and offshore. This range of 300/750V (refer to core size in characteristics) is heat and oil resistant, and flame retardant (HOFR).

Datasheet must be used in conjunction with 18th edition IET wiring regulations.

Key Features



Installation Guidelines

Should not be installed at temperatures below -25°C



Voltage Rating

0.75mm² To 2.5mm² 300/500V
4mm² To 630mm² 450/750V



Minimum Bending Radius

As Per Manufacturers Datasheet



Temperature Limits

Ambient Temperature, Fixed: -25°C to +90°C

Construction

- **Conductor:** Flexible tinned annealed or plain copper conductor
- **Insulation:** EPR (Ethylene Propylene Rubber)
- **Sheath:** CSP (chlorosulphonated polyethylene)

Standards

Core Colours

2 core -	Blue	Brown							
3 core -	Blue	Brown	Green	Yellow					
4 core -	Brown	Black	Grey	Green	Yellow				
5 core -	Blue	Brown	Black	Grey	Green	Yellow			
6 core and above -	Black	with	White	numbers plus	Green	Yellow			

638*TQ Flexible Mains Cable - EPR,CSP - 4mm to 16mm - Dimensions

Reference	Conductor Size (mm ²)	No Of Cores	Stranding(mm)	Mean Overall Diameter (mm) Lower Limit	Mean Overall Diameter (mm) Upper Limit	Overall Diameter(mm)	Weight(Kg/Km)	Brass A2
6381TQ4	4	1	56/0.30	7.2	9	7.2	105	7.9
6382TQ4	4	2	56/0.30	11.8	15.1	11.8	275	15.1
6383TQ4	4	3	56/0.30	12.7	16.2	12.7	335	16.2
6384TQ4	4	4	56/0.30	14	17.9	14	420	17.9
6385TQ4	4	5	56/0.30	15.6	19.9	15.6	515	19.9
6387TQ4	4	7	56/0.30	19.8	24.4	19.8	773	24.4
6381TQ6*	6	1	84/0.30	7.9	9.8	24.4	130	30.9
6382TQ6	6	2	84/0.30	13.1	16.8	13.1	370	16.8
6383TQ6	6	3	84/0.30	14.1	18	14.1	450	18
6384TQ6	6	4	84/0.30	15.7	20	15.7	565	20
6385TQ6	6	5	84/0.30	17.5	22.9	17.5	690	22.9
6387TQ6	6	7	84/0.30	21.6	26.9	21.6	904	26.9
6388TQ6	6	8	84/0.30	25.2	29.6	25.2	1040	29.6
6381TQ10*	10	1	80/0.40	9.5	11.9	9.5	200	11.9
6382TQ10	10	2	80/0.40	17.7	22.6	17.7	690	22.6
6383TQ10	10	3	80/0.40	19.1	24.2	19.1	835	24.2
6384TQ10	10	4	80/0.40	20.9	26.5	20.9	1020	26.5
6385TQ10	10	5	80/0.40	22.9	29.1	22.9	1240	29.1
6381TQ16*	16	1	126/0.40	10.8	13.4	10.8	275	13.4
6382TQ16	16	2	126/0.40	20.2	25.7	20.2	910	25.7
6383TQ16	16	3	126/0.40	21.8	27.6	21.8	1120	27.6
6384TQ16	16	4	126/0.40	23.8	30.1	23.8	1380	30.1

Multi core non-armoured 90 °C and 180°C thermosetting insulated flexible cables with sheath Reproduced from BS7671:2018 Wiring Regulations

TABLE 4F2B

VOLTAGE DROP (per ampere per metre):

Conductor operating temperature: 90 °C

Conductor cross-sectional area (mm ²)	Two-core cable or 2 x Single core cables DC (mV/Nm)	2 core cable, single-phase AC (mV/Nm)			1 x 3 core, 4 core or 5 core cable, three-phase AC (mV/Nm)			2 single-core cables, touching Single-phase AC* (mV/Nm)		
4	13.20	13.20			11.10			-		
6	8.50	8.50			7.40			-		
10	5.10	5.10			4.40			-		
16	3.20	3.20			2.70			-		
		r	x	z	r	x	z	r	x	z
25	2.03	2.03	0.175	2.04	1.73	0.150	1.73	-	-	-
35	1.420	-	-	-	1.22	0.150	1.23	1.44	0.21	1.46
50	1.000	-	-	-	0.91	0.145	0.93	1.00	0.21	1.02
70	0.710	-	-	-	0.62	0.140	0.64	0.71	0.20	0.73
95	0.540	-	-	-	0.47	0.135	0.49	0.54	0.195	0.57
120	0.420	-	-	-	0.37	0.135	0.39	0.42	0.190	0.46
150	0.340	-	-	-	0.29	0.130	0.32	0.34	0.190	0.39
185	0.270	-	-	-	0.24	0.130	0.27	0.27	0.190	0.33
240	0.210	-	-	-	0.188	0.130	0.23	0.210	0.185	0.28
300	0.167	-	-	-	0.147	0.125	0.195	0.173	0.180	0.25
400	0.127	-	-	-	-	-	-	0.132	0.175	0.22
500	0.100	-	-	-	-	-	-	0.107	0.170	0.20
630	0.074	-	-	-	-	-	-	0.085	0.170	0.190

NOTES:

1 The voltage drop figures given above are based on a conductor operating temperature of 90 °C and are therefore not accurate when the operating temperature is in excess of 90 °C. In the case of the 180 °C cables with a conductor temperature of 150 °C the above resistive values should be increased by a factor of 1.2.

2 *A larger voltage drop will result if the cables are spaced.

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