638*TQ Flexible Mains Cable (EPR,CSP) - 4mm² to 630mm²

Description

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 450/750V (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

Voltage Rating
450/750 Volts

Minimum Bending Radius
Fixed: 8 x overall diameter

Flame Retardancy
BS EN 60332-1-2

Temperature Limits
fixed installation: -40°C to +90°C

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

Standards

- Conforms to H07BN4-F
- BS EN/IEC 60228
- BS EN 60332-1-2
- BS EN 50525-2-21

Construction

- **Conductor**: Class 5 tinned copper
- **Insulation**: Ethylene Propylene Rubber (EPR)
- **Outer Sheath**: Chlorosulphonated polyethylene (CSP)
- **Sheath Colour**: Black

QA Lab

Cleveland Cable Test & Training Lab
Our state-of-the-art cable testing facility ensures that every cable meets the highest standards of quality and compliance through continuous, rigorous testing. Where applicable, cables are independently tested and certified by BASEC to ensure full compliance.

CPR
Cleveland Cable Company is committed to compliance with the Construction Products Regulation (CPR). Where applicable, all cables manufactured after 1st July 2017 have been assessed in accordance with CPR requirements, with full supporting documentation available.

Our Sustainability Commitment

We are committed to the journey to Net Zero as a business partner, an employer and a community member.

By thinking and acting sustainably, we deliver excellent customer service while reducing carbon emissions in collaboration with our customers and suppliers.

ecovadis
Cleveland Cable Company has been independently assessed by EcoVadis, a globally recognised provider of business sustainability ratings. Our score places us among the top 35% of companies evaluated worldwide, reflecting our strong commitment to environmental, social, and ethical performance

638*TQ Flexible Mains Cable (EPR,CSP) - 4mm² to 630mm² - Dimensions

Reference	Conductor Size (mm2)	No Of Cores	Stranding(mm)	Overall Diameter(mm)	Weight(Kg/Km)	Gland Size
6381TQ4	4	1	56/0.30	7.2	105	9
6382TQ4	4	2	56/0.30	11.8	275	15.1
6383TQ4	4	3	56/0.30	12.7	335	16.2
6384TQ4	4	4	56/0.30	14	420	17.9
6385TQ4	4	5	56/0.30	15.6	515	19.9
6387TQ4	4	7	56/0.30	19.8	773	24.4
6381TQ6	6	1	84/0.30	24.4	130	9.8
6382TQ6	6	2	84/0.30	13.1	370	16.8
6383TQ6	6	3	84/0.30	14.1	450	18
6384TQ6	6	4	84/0.30	15.7	565	20
6385TQ6	6	5	84/0.30	17.5	690	22.9
6387TQ6	6	7	84/0.30	21.6	904	26.9
6388TQ6	6	8	84/0.30	25.2	1040	29.6
6381TQ10	10	1	80/0.40	9.5	200	11.9
6382TQ10	10	2	80/0.40	17.7	690	22.6
6383TQ10	10	3	80/0.40	19.1	835	24.2
6384TQ10	10	4	80/0.40	20.9	1020	26.5
6385TQ10	10	5	80/.40	22.9	1240	29.1
6381TQ16	16	1	126/0.40	10.8	275	13.4
6382TQ16	16	2	126/0.40	20.2	910	25.7
6383TQ16	16	3	126/0.40	21.8	1120	27.6
6384TQ16	16	4	126/0.40	23.8	1380	30.1
6381TQ25	25	1	196/0.40	12.7	400	15.8
6382TQ25	25	2	196/0.40	24.3	1290	30.7
6383TQ25	25	3	196/0.40	26.1	1600	33
6384TQ25	25	4	196/0.40	28.9	2140	36.6
6385TQ25	25	5	196/0.40	32	2470	40.4
6381TQ35	35	1	276/0.40	14.3	520	17.9
6382TQ35	35	2	276/0.40	26.4	1308	31.5
6383TQ35	35	3	276/0.40	29.3	2080	37.1
6384TQ35	35	4	276/0.40	32.5	2610	41.1
6385TQ35	35	5	276/0.40	34	3187	43
6381TQ50	50	1	396/0.40	16.5	730	20.6
6383TQ50	50	3	396/0.40	34.1	2890	42.9
6384TQ50	50	4	396/0.40	37.7	3650	47.5
6385TQ50	50	5	396/0.40	39.03	4450	49.18
6381TQ70	70	1	360/0.50	18.6	980	23.3
6383TQ70	70	3	360/0.50	38.4	3850	48.3

Reference	Conductor Size (mm2)	No Of Cores	Stranding(mm)	Overall Diameter(mm)	Weight(Kg/Km)	Gland Size
6384TQ70	70	4	360/0.50	42.7	4880	54
6385TQ70	70	5	360/0.50	48.5	5938	55
6381TQ95	95	1	475/0.50	20.8	1270	26
6383TQ95	95	3	475/0.50	43.3	4970	54
6384TQ95	95	4	475/0.50	48.4	6390	61
6385TQ95	95	5	475/0.50	54	7924	64.5
6381TQ120	120	1	608/0.50	22.8	1570	28.6
6383TQ120	120	3	608/0.50	47.4	6350	60
6384TQ120	120	4	608/0.50	53	7750	66
6385TQ120	120	5	608/0.50	57.9	7542	58.5
6381TQ150	150	1	756/0.50	25.2	1960	31.4
6383TQ150	150	3	756/0.50	52	7700	66
6384TQ150	150	4	756/0.50	58	9780	73
6381TQ185	185	1	925/0.50	27.6	2380	34.4
6383TQ185	185	3	925/0.50	57	9350	72
6384TQ185	185	4	925/0.50	64	11900	80
6381TQ240	240	1	1221/0.50	30.6	3100	38.3
6383TQ240	240	3	1221/0.50	65	12000	82
6384TQ240	240	4	1221/0.50	72	15330	91
6381TQ300	300	1	1525/0.50	33.5	3790	41.9
6383TQ300	300	3	1525/0.50	72	14910	90
6384TQ300	300	4	1525/0.50	80	19030	101
6381TQ400	400	1	2013/0.50	37.4	4880	46.8
6381TQ500	500	1	1769/0.60	41.3	6070	52
6381TQ630	630	1	2257/0.60	45.5	7460	56.5

TABLE 4F2B

VOLTAGE DROP (per ampere per metre):

Conductor operating temperature: 90 °C

Conductor cross-sectional area	Two-core cable or 2 x Single core cables DC	2 core cable, single-phase AC			1 x 3 core, 4 core or 5 core cable, three-phase AC			2 single-core cables, touching Single-phase AC*		
(mm^2)	(mV/Nm)	(mV/Nm)			(mV/Nm)			(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.