

TQ FLEXIBLE MAINS AND CONTROL CABLE EPR, CSP



APPLICATION

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)

CONSTRUCTION

Conductor: Flexible tinned annealed or plain copper conductor

Insulation: EPR (Ethylene Propylene Rubber)

Sheath: CSP (chlorosulphonated polyethylene)

Harmonised Code: H07BN4-F

CABLE STANDARDS

BS EN 50525-2.21

BS EN 60332-1-2

BS EN 50265-2-1

CHARACTERISTICS

Voltage Rating:

300/500V .75mm² – 2.5mm²

450/750V 4mm² – 630mm²

Temperature Limits:

Fixed: -25°C to +90°C

Minimum Bending Radius:

As per cable manufacturer datasheet

CORE IDENTIFICATION

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 5

plus Green/Yellow

Should not be installed at temperatures below -25°C

TQ FLEXIBLE MAINS AND CONTROL CABLE EPR, CSP - DIMENSIONS

CCC CODE	CONDUCTOR SIZE (MM ²)	STRANDING (MM)	NO. OF CORES	WEIGHT (KG/KM)	OUTSIDE DIAMETER (MM)	GLAND SIZE (MM)
3182TQ/75	0.75	24/0.20	2	58	5.7	7.4
3183TQ/75	0.75	24/0.20	3	72	6.2	8.1
3184TQ/75	0.75	24/0.20	4	86	6.8	8.8
3182TQ1	1	32/0.20	2	80	6.1	8
3183TQ	1	32/0.20	3	90	6.5	8.5
3184TQ1	1	32/0.20	4	110	7.1	9.3
3181TQ1/5	1.5	30/0.25	1	38	5.7	7.1
3182TQ1/5	1.5	30/0.25	2	115	7.6	9.8
3183TQ1/5	1.5	30/0.25	3	135	8	10.4
3184TQ1/5	1.5	30/0.25	4	170	9	11.6
3185TQ1/5	1.5	30/0.25	5	200	11.2	14.4
3186TQ1/5	1.5	30/0.25	6	335	13.4	17.2
3187TQ1/5	1.5	30/0.25	7	366	14.6	18.2
3180/12TQ1/5	1.5	30/0.25	12	410	17.6	22.4
3180/16TQ1/5	1.5	30/0.25	16	570	19.8	24.3
3180/20TQ1/5	1.5	30/0.25	20	710	21.4	26.7
3180/27TQ1/5	1.5	30/0.25	27	920	25.3	30
3180/37TQ1/5	1.5	30/0.25	37	1260	29	34.2
3181TQ2/5	2.5	50/0.25	1	41	6.3	7.9
3182TQ2/5	2.5	50/0.25	2	160	9	11.6
3183TQ2/5	2.5	50/0.25	3	195	9.6	12.4
3184TQ2/5	2.5	50/0.25	4	245	10.7	13.8
3185TQ2/5	2.5	50/0.25	5	300	13.3	17
3187TQ2/5	2.5	50/0.25	7	424	17.2	21
3180/12TQ2/5	2.5	50/0.25	12	600	20.6	26.2
3180/16TQ2/5	2.5	50/0.25	16	780	23.8	28.4
3180/20TQ2/5	2.5	50/0.25	20	1050	26.4	31.2
3180/27TQ2/5	2.5	50/0.25	27	1390	30.1	35.4
3180/37TQ2/5	2.5	50/0.25	37	1720	35	40.9
6381TQ4	4	56/0.30	1	105	7.2	9
6382TQ4	4	56/0.30	2	275	11.8	15.1
6383TQ4	4	56/0.30	3	335	12.7	16.2
6384TQ4	4	56/0.30	4	420	14	17.9
6385TQ4	4	56/0.30	5	515	15.6	19.9
6387TQ4	4	56/0.30	7	773	19.8	24.4
6380/12TQ4	4	56/0.30	12	1183	24.4	30.9
6381TQ6	6	84/0.30	1	130	7.9	9.8
6382TQ6	6	84/0.30	2	370	13.1	16.8
6383TQ6	6	84/0.30	3	450	14.1	18
6384TQ6	6	84/0.30	4	565	15.7	20
6385TQ6	6	84/0.30	5	690	17.5	22.9
6387TQ6	6	84/0.30	7	904	21.6	26.9
6388TQ6	6	84/0.30	8	1040	25.2	29.6
6381TQ10	10	80/0.40	1	200	9.5	11.9
6382TQ10	10	80/0.40	2	690	17.7	22.6
6383TQ10	10	80/0.40	3	835	19.1	24.2
6384TQ10	10	80/0.40	4	1020	20.9	26.5
6385TQ10	10	80/0.40	5	1240	22.9	29.1

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CCC CODE	CONDUCTOR SIZE (MM ²)	STRANDING (MM)	NO. OF CORES	WEIGHT (KG/KM)	OUTSIDE DIAMETER (MM)	GLAND SIZE (MM)
6381TQ16	16	126/0.40	1	275	10.8	13.4
6382TQ16	16	126/0.40	2	910	20.2	25.7
6383TQ16	16	126/0.40	3	1120	21.8	27.6
6384TQ16	16	126/0.40	4	1380	23.8	30.1
6381TQ25	25	196/0.40	1	400	12.7	15.8
6382TQ25	25	196/0.40	2	1290	24.3	30.7
6383TQ25	25	196/0.40	3	1600	26.1	33
6384TQ25	25	196/0.40	4	2140	28.9	36.6
6385TQ25	25	196/0.40	5	2470	32	40.4
6381TQ35	35	276/0.40	1	520	14.3	17.9
6382TQ35	35	276/0.40	2	1308	26.4	31.5
6383TQ35	35	276/0.40	3	2080	29.3	37.1
6384TQ35	35	276/0.40	4	2610	32.5	41.1
6385TQ35	35	276/0.40	5	3187	34	43
6381TQ50	50	396/0.40	1	730	16.5	20.6
6383TQ50	50	396/0.40	3	2890	34.1	42.9
6384TQ50	50	396/0.40	4	3650	37.7	47.5
6385TQ50	50	396/0.40	5	4450	39.03	49.18
6381TQ70	70	360/0.50	1	980	18.6	23.3
6383TQ70	70	360/0.50	3	3850	38.4	48.3
6384TQ70	70	360/0.50	4	4880	42.7	54
6385TQ70	70	360/0.50	5	5938	48.5	55
6381TQ95	95	475/0.50	1	1270	20.8	26
6383TQ95	95	475/0.50	3	4970	43.3	54
6384TQ95	95	475/0.50	4	6390	48.4	61
6385TQ95	95	475/0.50	5	7924	54	64.5
6381TQ120	120	608/0.50	1	1570	22.8	28.6
6383TQ120	120	608/0.50	3	6350	47.4	60
6384TQ120	120	608/0.50	4	7750	53	66
6385TQ120	120	608/0.50	5	7542	57.9	68.5
6381TQ150	150	756/0.50	1	1960	25.2	31.4
6383TQ150	150	756/0.50	3	7700	52	66
6384TQ150	150	756/0.50	4	9780	58	73
6381TQ185	185	925/0.50	1	2380	27.6	34.4
6383TQ185	185	925/0.50	3	9350	57	72
6384TQ185	185	925/0.50	4	11900	64	80
6381TQ240	240	1221/0.50	1	3100	30.6	38.3
6383TQ240	240	1221/0.50	3	12000	65	82
6384TQ240	240	1221/0.50	4	15330	72	91
6381TQ300	300	1525/0.50	1	3790	33.5	41.9
6383TQ300	300	1525/0.50	3	14910	72	90
6384TQ300	300	1525/0.50	4	19030	80	101
6381TQ400	400	2013/0.50	1	4880	37.4	46.8
6381TQ500	500	1769/0.60	1	6070	41.3	52
6381TQ630	630	2257/0.60	1	7460	45.5	56.5

TQ FLEXIBLE CABLE - CURRENT CARRYING CAPACITY (AMPERES)

CONDUCTOR CROSS - SECTIONAL AREA	60°C CONDUCTOR OPERATING TEMPERATURE			85°C CONDUCTOR OPERATING TEMPERATURE		
	SINGLE-PHASE AC OR DC *1MM - 2.5MM AC ONLY		THREE-PHASE AC	SINGLE-PHASE AC OR DC		THREE-PHASE AC
	1 TWO CORE CABLE WITH OR WITHOUT PROTECTIVE CONDUCTOR	2 SINGLE CORE CABLES	1 THREE CORE 1 FOUR CORE OR FIVE CORE CABLE	1 TWO CORE CABLE WITH OR WITHOUT PROTECTIVE CONDUCTOR	2 SINGLE CORE CABLES TOUCHING	1 THREE CORE 1 FOUR CORE OR FIVE CORE CABLE
1	2	3	4	5	6	7
(MM ²)	(A)	(A)	(A)	(A)	(A)	(A)
1*	10	-	10	-	-	-
1.5*	16	-	16	-	-	-
2.5*	25	-	20	-	-	-
4	30	-	26	41	-	36
6	39	-	34	53	-	47
10	51	-	47	73	-	64
16	73	-	63	99	-	86
25	97	-	83	131	-	114
35	-	140	102	-	192	140
50	-	175	124	-	240	170
70	-	216	158	-	297	216
95	-	258	192	-	354	262
120	-	302	222	-	414	303
150	-	347	255	-	476	348
185	-	394	291	-	540	397
240	-	471	343	-	645	467
300	-	541	394	-	741	537
400	-	644	-	-	885	-
500	-	738	-	-	1017	-
630	-	861	-	-	1190	-

THE ABOVE IS IN ACCORDANCE WITH 18TH EDITION OF IET WIRING REGULATIONS

TQ FLEXIBLE CABLE - VOLTAGE DROP

NOMINAL CROSS SECTIONAL AREA MM ²	2 CORE CABLE DC mV/A/m	TWO CORE CABLE SINGLE-PHASE AC mV/A/m			1 X THREE CORE, FOUR CORE OR FIVE CORE CABLE, THREE PHASE AC			2 X SINGLE CORE CABLES TOUCHING				
								DC mV/A/m	SINGLE PHASE AC * mV/A/m			
(MM ²)					(mV/A /m)			(mV/A /m)				
1	46			46				40	-			-
1.5	32			32				27	-			-
2.5	19			19				16	-			-
4	12			12				10	-			-
6	7.8			7.8				6.7	-			-
10	4.6			4.6				4	-			-
16	2.9			2.9				2.5				
		R	X	Z	R	X	Z		R	X	Z	
25	1.8	1.8	0.175	1.85	1.55	0.15	1.55	-	-	-	-	-
35	-	-	-	-	1.10	0.15	1.15	1.31	1.31	0.21	1.32	
50	-	-	-	-	0.83	0.145	0.84	0.91	0.91	0.21	0.93	
70	-	-	-	-	0.57	0.14	0.58	0.64	0.64	0.2	0.67	
95	-	-	-	-	0.42	0.135	0.44	0.49	0.49	0.195	0.53	
120	-	-	-	-	0.33	0.135	0.36	0.38	0.38	0.19	0.43	
150	-	-	-	-	0.27	0.13	0.3	0.31	0.31	0.19	0.36	
185	-	-	-	-	0.22	0.13	0.26	0.25	0.25	0.19	0.32	
240	-	-	-	-	0.17	0.13	0.21	0.19	0.195	0.185	0.27	
300	-	-	-	-	0.135	0.125	0.185	0.15	0.155	0.18	0.24	
400	-	-	-	-	-	-	-	0.115	0.12	0.175	0.21	
500	-	-	-	-	-	-	-	0.09	0.099	0.17	0.2	
630	-	-	-	-	-	-	-	0.068	0.079	0.17	0.185	

THE ABOVE IS IN ACCORDANCE WITH 18TH EDITION OF IET WIRING REGULATIONS

CONDUCTOR OPERATING TEMPERATURE: 90°C

R = RESISTIVE COMPONENT
X = REACTIVE COMPONENT
Z = IMPEDANCE VALUE

* A LARGER VOLTAGE DROP WILL RESULT IF THE CABLES ARE SPACED APART

THE INFORMATION CONTAINED WITHIN THIS DATASHEET IS FOR GUIDANCE ONLY AND IS SUBJECT TO CHANGE WITHOUT NOTICE OR LIABILITY. WE BELIEVE THE INFORMATION IS CORRECT AT THE TIME OF PUBLICATION. PLEASE NOTE WHEN SELECTING CABLE ACCESSORIES THAT ACTUAL CABLE DIMENSIONS MAY VARY DUE TO MANUFACTURING TOLERANCES.