

# BS 7835 3.8-6.6kV Cable



## APPLICATION

Armoured power distribution cables for external and direct burial applications in power networks.

## CHARACTERISTICS

### Voltage Rating $U_0/U$ (Um)

3.8/6.6 (7.2)kV

### Test Voltage (AC)

15 KV

### Temperature Rating

Maximum operating temperature: 90°C

Maximum short circuit temperature: 250°C

### Minimum Bending Radius

Single core: 15 x overall diameter

Multi core: 12 x overall diameter

## STANDARDS

IEC 60502-2, EN 60228

Low Smoke Zero Halogen to: IEC 60754-1/2, IEC 61034-2

Flame Retardant: IEC 60332-3-24 Cat C, IEC 60332-1-2

UV Resistant: ISO 4892-3

Abrasion and Tear Resistant: EN 60229-4.1

Impact rated to: AG2 EN 60364-5.51

## THE CABLE TEST

We have world-class testing facility, and made rigorous testing regime, every meter of cable before leaving the factory must go through strict testing, testing qualified products will be shipped to customers, effectively ensure product quality and meet customer requirements.

## SUSTAINABILITY COMMITMENT

Guowang Cable actively implements the "carbon reduction" goal, strives to promote the green's low-carbon transformation, strengthens energy-saving and emission reduction technology innovation, and promotes the company's healthy and sustainable development.

## CONSTRUCTION

### Conductor

Class 2 Stranded Compacted Copper conductor

### Conductor Screen

Semi-conductive XLPE

(Cross-Linked Polyethylene)

### Insulation

XLPE (Cross-Linked Polyethylene)

### Insulation Screen

Semi-conductive

XLPE (Cross-Linked Polyethylene)

### Metallic Screen

Concentric copper wires and copper tape

### Separatot

Binding Tape

### Inner Sheath

LSZH (Low Smoke Zero Halogen)

### Armour

Single core: AWA (Aluminium Wire Armoured)

Multi-core: SWA (Galvanised Steel Wire)

### Sheath

PVC (Polyvinyl Chloride)

### Sheath Colour

● Black

## DIMENSIONS

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA	NOMINAL OVERALL DIAMETER	NOMINAL WEIGHT
	mm <sup>2</sup>	mm	kg/km
1	35	24.30	1.023
1	50	25.50	1.171
1	70	27.30	1.418
1	95	29.20	1.719
1	120	31.10	2.013
1	150	32.30	2.386
1	185	35.00	2.866
1	240	37.70	3.486
1	300	41.70	4.256
1	400	47.10	5.406
1	500	51.90	6.693
1	630	55.80	8.212
3	50	48	4500
3	70	52	5500
3	95	56	6500
3	120	60	7500
3	150	63	8500
3	185	67	10000
3	240	74	13000
3	300	80	15500
3	400	89	19000
1	35	24.30	1.023

## ELECTRICAL CHARACTERISTICS

### Single Core Cable

NO.OF CORES	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	MAXIMUM RESISTANCE OF CONDUCTOR AT 20°C ohms/km	OPERATING INDUCTANCEmH/km		OPERATING CAPACITYuF/km	CONTINUOUS CURRENT RATING Amps			
			Flat	Trefoil		In Ground at 20°C		In Air at 30°C	
						Flat	Trefoil	Flat	Trefoil
1	35	0.524	0.748	0.401	0.266	201	191	238	199
1	50	0.387	0.719	0.381	0.297	241	227	285	241
1	70	0.268	0.684	0.357	0.339	301	277	356	301
1	95	0.193	0.659	0.342	0.381	364	331	435	365
1	120	0.153	0.636	0.327	0.416	424	379	496	419
1	150	0.124	0.620	0.319	0.454	479	422	554	479
1	185	0.0991	0.602	0.310	0.495	549	476	637	543
1	240	0.0754	0.579	0.300	0.556	595	550	746	640
1	300	0.0601	0.562	0.295	0.617	626	591	831	722
1	400	0.0470	0.543	0.290	0.681	675	662	920	827
1	500	0.0366	0.525	0.283	0.758	748	744	1043	949
1	630	0.0283	0.507	0.276	0.853	981	856	1180	1076

## ELECTRICAL CHARACTERISTICS

### Multi Core Cable

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA	MAXIMUM RESISTANCE OF CONDUCTOR AT 20°C	OPERATING INDUCTANCE	OPERATING CAPACITANCE	CONTINUOUS CURRENT RATING Amps	
	mm <sup>2</sup>				ohms/km	mH/KM
3	50	0.387	0.33	0.30	208	196
3	70	0.268	0.31	0.35	255	249
3	95	0.193	0.29	0.39	307	307
3	120	0.153	0.28	0.43	353	353
3	150	0.124	0.28	0.47	396	406
3	185	0.0991	0.27	0.51	447	464
3	240	0.0754	0.26	0.55	523	548
3	300	0.0601	0.26	0.57	581	632
3	400	0.0470	0.26	0.59	653	726
3	50	0.387	0.33	0.30	208	196

The information contained within this datasheet is for guidance only and is subject to change without notice or liability. All the information is provided in good faith and is believed to be correct at the time of publication. When selecting cable accessories, please note that actual cable dimensions may vary due to manufacturing tolerances.