

BS 7870-4.10 MDPE 12.7/22 (24)kV Cable



APPLICATION

Medium Voltage cable for power distribution and power supply stations used in Utility and Industrial applications, for the rated voltage of 12.7/22 (24)kV.

CHARACTERISTICS

Voltage Rating U_0/U (Um)

12.7/22 (24)kV

Temperature Rating

Maximum conductor operating temperature: +90°C
 Initial temperature at S.C.C for metallic screen: +80°C
 Maximum conductor temperature during S.C: +250°C

Minimum Bending Radius

20 x overall diameter

STANDARDS

BS 7870-4.10, BS EN 60228, HD620 S2 Part 100 / 110

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 Copper

Conductor Screen

Semi-conductive extruded XLPE (Cross-linked Polyethylene) (Bonded)

Insulation

XLPE (Cross-Linked Polyethylene)

Insulation Screen

Semi-conductive extruded XLPE (Cross-linked Polyethylene) (Strippable)

Longitudinal Waterblocking

Semi-conductive swellable tape

Metallic Screen

Copper Wires And Open Helix Copper Tape

Longitudinal Waterblock

Non-conductive waterblocking tape

Outer Sheath

MDPE (Medium Density Polyethylene)

Sheath Colour

● Black

DIMENSIONS

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA	NOMINAL INSULATION THICKNESS	NOMINAL SCREEN SECTIONAL AREA	NOMINAL INSULATION THICKNESS	NOMINAL OVERALL DIAMTER	NOMINAL WEIGHT
	mm2	mm	mm2	mm	mm	kg/km
1	70	5.5	35	1.51	32.4	1502
1	95	5.5	35	1.51	33.7	1768
1	120	5.5	35	1.6	35.3	2037
1	150	5.5	35	1.6	36.9	2334
1	185	5.5	35	1.68	38.6	2698
1	240	5.5	35	1.77	41.2	3282
1	300	5.5	35	1.77	43.6	3887
1	400	5.5	35	1.85	46.4	4740
1	500	5.5	35	1.94	50	5764
1	630	5.5	35	2.02	54.5	7186
1	800	5.5	35	2.19	59	9020

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm²	MAXIMUM CONDUCTOR DC RESISTANCE AT 20 °C W/Km	MAXIMUM CONDUCTOR AC RESISTANCE AT OPERATING TEMP. AND 50HZ W/Km	CAPACITANCE mF/Km	CHARGING CURRENT A/Km	DIELECTRIC LOSSES W/Km	REACTANCE AT 50 HZ ohm/km	S.C.C FOR 1 SEC KA		CURRENT RATING A	
							Conductor	Screen	Laid in ground	Laid in free air
70	0.268	0.342	0.158	0.946	71.88	0.144	10.01	4.1	284	310
95	0.193	0.247	0.17	1.017	77.31	0.139	13.585	4.1	338	378
120	0.153	0.196	0.183	1.094	83.12	0.134	17.16	4.1	385	437
150	0.124	0.159	0.198	1.18	89.70	0.128	21.45	4.1	429	491
185	0.0991	0.128	0.211	1.261	95.85	0.124	26.455	4.1	483	567
240	0.0754	0.098	0.233	1.39	105.61	0.119	34.32	4.1	554	670
300	0.0601	0.078	0.254	1.517	115.33	0.115	42.9	4.1	622	773
400	0.047	0.062	0.277	1.655	125.81	0.110	57.2	4.1	698	883
500	0.0366	0.049	0.307	1.835	139.46	0.106	71.5	4.1	784	1020
630	0.0283	0.039	0.345	2.061	156.65	0.103	90.09	4.1	867	1154

Laying conditions at trefoil formation are as below:

- Soil thermal resistivity 120 °C.Cm/Watt
- Burial depth 0.5 m
- Ground temperature 15°C | Air temperature 25°C | Frequency 50 Hz

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.