

BS 6622 XLPE PVC 12.7/22kV Cable



APPLICATION

Medium voltage PVC power cables for power networks, underground and in cable ducting.

CHARACTERISTICS

Voltage Rating U_0/U (Um)

12.7/22 (24)kV

Temperature Rating

Fixed: 0°C to +90°C

Initial temperature at S.C.C for metallic screen: 80°C

Maximum conductor temperature during S.C: 250°C

Minimum Bending Radius

Fixed: 15 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 Copper

Conductor Screen

Semi-conductive XLPE(Cross-Linked Polyethylene)

Insulation

XLPE (Cross-Linked Polyethylene)

Insulation Screen

Semi-conductive XLPE(Cross-Linked Polyethylene)

Metallic Screen

Individual or collective overall copper tape screen

Filler

PET (Polyethylene Terephthalate) fibres

Separator

Binding tape

Armour

Single core: AWA (Aluminium Wire Armoured)

Multi-core: SWA (Steel Wire Armoured)

Sheath

PVC (Polyvinyl Chloride)

Sheath Colour

● Black

DIMENSIONS

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL INSULATION THICKNESS mm	NOMINAL OUTER SHEATH THICKNESS mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
1	70	5.5	2.1	33.6	1717
1	95	5.5	2.1	34.9	2013
1	120	5.5	2.2	36.5	2318
1	150	5.5	2.2	38.1	2646
1	185	5.5	2.3	39.8	3048
1	240	5.5	2.3	42.2	3688
1	300	5.5	2.5	46.2	4515
1	400	5.5	2.6	49	5430
1	500	5.5	2.7	52.8	6593
1	630	5.5	2.8	57.7	8162
1	800	5.5	2.9	62	10092
3	70	5.5	3.1	64	6986
3	95	5.5	3.2	67.2	8072
3	120	5.5	3.4	72.4	10002
3	150	5.5	3.5	76.1	11266
3	185	5.5	3.6	79.7	12665
3	240	5.5	3.8	85.5	15126
3	300	5.5	3.9	90.9	17436
3	400	5.5	4.2	97.1	20706

ELECTRICAL CHARACTERISTICS

Single Core Cable

NOMINAL CROSS SECTIONAL AREA	MAXIMUM CONDUCTOR DC RESISTANCE AT 20°C	MAXIMUM CONDUCTOR AC RESISTANCE AT OPERATING TEMP. AND 50 HZ	CAPACITANCE	CHARGING CURRENT	DIELECTRIC LOSSES	REACTANCE AT 50HZ	CONDUCTOR S.C.C FOR 1SEC	CURRENT RATING A	
								Laid in ground	Laid in free air
mm ²	Ω/km	Ω/km	μF/km	A/Km	W/Km	ohms/km	KA		
70	0.268	0.3421	0.209	0.833	42.32	0.137	10.02	276	306
95	0.193	0.2466	0.227	0.905	45.96	0.132	13.59	328	366
120	0.153	0.1957	0.246	0.982	49.86	0.126	17.17	369	418
150	0.124	0.159	0.268	1.069	54.30	0.122	21.46	411	468
185	0.0991	0.1275	0.288	1.151	58.45	0.118	26.47	449	530
240	0.0754	0.0977	0.321	1.281	65.06	0.113	34.34	508	611
300	0.0601	0.0786	0.353	1.41	71.65	0.111	42.93	547	675
400	0.047	0.0625	0.388	1.551	78.77	0.107	57.23	597	753
500	0.0366	0.0501	0.434	1.733	88.07	0.103	71.54	647	834
630	0.0283	0.0404	0.498	1.986	100.89	0.100	90.14	697	921
800	0.0221	0.0336	0.553	2.205	112.06	0.097	114.47	741	1002

Multi Core Cable

NOMINAL CROSS SECTIONAL AREA	MAXIMUM CONDUCTOR DC RESISTANCE AT 20°C	MAXIMUM CONDUCTOR AC RESISTANCE AT OPERATING TEMP. AND 50 HZ	CAPACITANCE	CHARGING CURRENT	DIELECTRIC LOSSES	REACTANCE AT 50HZ	CONDUCTOR S.C.C FOR 1SEC	CURRENT RATING A	
								Laid in ground	Laid in free air
mm ²	ohms/km	ohms/km	μF/km	A/Km	W/Km	ohms/km	kA		
70	0.268	0.3422	0.25	0.833	42.32	0.116	10.02	264	277
95	0.193	0.2467	0.272	0.905	45.96	0.112	13.59	312	331
120	0.153	0.196	0.295	0.982	49.86	0.107	17.17	355	380
150	0.124	0.1593	0.321	1.069	54.30	0.103	21.46	396	429
185	0.0991	0.1279	0.346	1.151	58.45	0.100	26.47	445	486
240	0.0754	0.0982	0.385	1.281	65.06	0.096	34.34	510	565
300	0.0601	0.0794	0.424	1.41	71.65	0.093	42.93	569	639
400	0.047	0.0636	0.466	1.551	78.77	0.090	57.23	634	721

DE-RATING FACTORS

AIR TEMPERATURE °C	25	30	35	40	45	50	55
DE-RATING FACTOR	1.00	0.96	0.92	0.88	0.83	0.78	0.73
GROUND TEMPERATURE °C	10	15	20	25	30	35	40
DE-RATING FACTOR	1.03	1.00	0.97	0.93	0.89	0.86	0.82
GROUND THERMAL RESISTIVITY km/W	0.9	1.0	1.2	1.5	2.0	2.5	3.0
DE-RATING FACTOR	1.06	1.04	1.00	0.92	0.82	0.74	0.68
DEPTH OF LAYING m	0.80	1.00	1.25	1.50	1.75	2.00	2.50
DE-RATING FACTOR	1.00	0.97	0.95	0.94	0.93	0.91	0.90

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.