Application

Medium voltage XLPE insulated power cables up to 35kV are suitable for distribution networks, industrial devices, or other fields requiring large-capacity electricity. These MV power cables are intended for fixed installations on power transmission and distribution lines with an AC frequency of 50Hz and rated voltages ranging from 6kV to 35kV. Their primary function is to transmit electrical energy efficiently and reliably.

Performance

Voltage Rating: U_0/U(Um): 3.6/6(7.2)kV
Chemical Performance: Resistant to chemicals, UV radiation, and oils
Mechanical Performance (Minimum Bending Radius):
Single core unarmoured cable: 20 x overall diameter
Single core AWA or aluminum tape armoured cable: 15 x overall diameter
Three core unarmoured cable: 15 x overall diameter
Three core SWA or STA armoured cable: 12 x overall diameter
Thermal Performance:
Maximum operating temperature: 90℃
Maximum short-circuit temperature: 250℃ (Max. 5s)
Minimum service temperature: -10℃
Fire Performance:
Flame retardant according to IEC/EN 60332-1-2 standard
Reduced emission of halogens: chlorine <15%

Construction

Conductor: Stranded compacted copper or aluminum conductor, class 2
Conductor Screen: Semi-conductive compound
Insulation: XLPE (cross-linked polyethylene)
Alternative: EPR (Ethylene Propylene Rubber)
Insulation Screen: Semi-conductive compound
Metallic Screen: Individual concentric copper wires and/or copper tape
Filler: PET (polyethylene terephthalate) fibers
Binding Tape: Polyester tape or non-woven fabric
Optional Inner Sheath: PVC (Polyvinyl chloride)
Alternative: LSZH (Low Smoke Zero Halogen)
Optional Armour:
Single-core conductor: AWA (Aluminum Wire Armoring) or aluminum tape
Three-core conductor: SWA (Steel Wire Armoring) or galvanized steel tape (single or double layer, flat or corrugated)
Outer Sheath: PVC (Polyvinyl chloride)
Alternatives: LDPE, MDPE (Low/Medium Density Polyethylene), LSZH (Low Smoke Zero Halogen)
Conductor Shape:
Single Core: Circular, circular compacted
Three Core: Circular, circular compacted, sectorial

Specification

-IEC 60502-2, IEC/EN 60228

Eastful Cable Lab

We have CNAS Accredited Facility to assure conformity assessment services with a focus on quality, expertise, and customer satisfaction.
CNAS has international mutual recognition among IAF, ILAC, APLAC and PAC.

Accreditation

We meet the requirements of ISO9001, ISO14001, ISO45001 and ISO50001 and our cables have certificate of CCC, RoHS, CASC, UL, cUL, TÜV Rhineland and CCS.

National Green Factory

Our facility has been awarded of National Green Factory by Ministry of Industry and Information Technology of China.
We are committed to the development of high-end, intelligent and green manufacturing industry.

*The overall energy consumption level of green factories is better than the energy efficiency benchmark level.

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Technical Parameters

No. of Cores	Nominal Cross Section Area	Nominal Dia. of Conductor	Nominal Thickness of Insulation	Max. Resistance of Conductor				Approx. Short Circuit Current			
				D.C. at 20℃		A.C. at 90℃		Conductor(1s)		Copper Wire Screen(1s)	
				Copper	Aluminum	Copper	Aluminum	Copper	Aluminum	Copper	Aluminum
-	mm^2	mm	mm	Ω/km	Ω/km	Ω/km	Ω/km	kA	kA	kA	kA
1	35	7.1	2.5	0.524	-	0.668	-	5.0	-	1.96	-
1	50	8.3	2.5	0.387	0.641	0.494	0.822	7.2	4.7	1.96	1.96
1	70	9.7	2.5	0.268	0.443	0.342	0.568	10.0	6.6	1.96	1.96
1	95	11.5	2.5	0.193	0.320	0.247	0.411	13.6	9.0	1.96	1.96
1	120	12.9	2.5	0.153	0.253	0.196	0.325	17.2	11.3	1.96	1.96
1	150	14.3	2.5	0.124	0.206	0.159	0.265	21.5	14.2	3.1	3.1
1	185	15.9	2.5	0.0991	0.164	0.128	0.211	26.5	17.5	3.1	3.1
1	240	18.3	2.6	0.0754	0.125	0.0984	0.162	34.3	22.7	3.1	3.1
1	300	20.6	2.8	0.0601	0.100	0.0796	0.130	42.9	28.3	3.1	3.1
1	400	23.5	3.0	0.0470	0.0778	0.0631	0.102	57.2	37.8	4.33	4.33
1	500	26.6	3.2	0.0366	0.0605	0.0508	0.0802	71.5	47.2	4.33	4.33
1	630	30.4	3.2	0.0283	0.0469	0.0434	0.0651	90.1	59.0	4.33	4.33
3	35	7.1	2.5	0.524	-	0.668	-	5.0	-	1.96	-
3	50	8.3	2.5	0.387	0.641	0.494	0.822	7.2	4.7	1.96	1.96
3	70	9.7	2.5	0.268	0.443	0.342	0.568	10.0	6.6	1.96	1.96
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