Structure dimensions and electrical performance indexes of 0.6/1kv cable

Nominal cross sectional area mm^2	Reference outer diameter of conductive core mm	Nominal thickness of PVC insulation mm	Nominal thickness of XLPE insulation mm	Conductor DC resistance (20°C) Ω/km	Minimum insulation resistance at rated operating temperature MΩ・km		Reference carrying capacity of PVC cable A		Reference carrying capacity of XLPE cable A	
					PVC insulation	XLPE insulation	In the air 40°C	In the soil 25°C	In the air 40°C	In the soil 25°C
4	2.25	1.0	0.7	⩽ 4.61	0.0102	0.771	26	38	34	45
6	2.76	1.0	0.7	⩽ 3.08	0.0088	0.654	32	47	43	57
10	4.0	1.0	0.7	⩽ 1.83	0.0065	0.475	46	65	60	77
16	5.1	1.0	0.7	⩽ 1.15	0.0053	0.387	60	84	83	105
25	6	1.2	0.9	⩽ 0.727	0.0054	0.418	77	110	105	125
35	7	1.2	0.9	⩽ 0.524	0.0047	0.365	95	130	125	155
50	8.3	1.4	1.0	⩽ 0.387	0.0047	0.344	115	155	160	185
70	9.9	1.4	1.1	⩽ 0.268	0.0040	0.320	145	195	200	225
95	11.5	1.6	1.1	⩽ 0.193	0.0039	0.279	185	230	245	270
120	12.9	1.6	1.2	⩽ 0.153	0.0036	0.272	210	260	285	310
150	14.5	1.8	1.4	⩽ 0.124	0.0036	0.281	245	300	325	345
185	16.1	2.0	1.6	⩽ 0.0991	0.0036	0.289	280	335	375	390
240	18.4	2.2	1.7	⩽ 0.0754	0.0034	0.270	335	390	440	450
300	20.6	2.4	1.8	⩽ 0.0601	0.0034	0.257	375	435	505	515

Structure dimensions and electrical performance indexes of 1.8/3kv cable

Nominal cross sectional area mm^2	Reference outer diameter of conductive core mm	Nominal thickness of XLPE insulation mm	Conductor DC resistance (20°C) Ω/km	Minimum insulation resistance at rated operating temperature MΩ・km	Reference carrying capacity of XLPE cable A	
					In the air 40°C	In the soil 25°C
10	4.0	2.0	⩽ 1.83	1.099	60	77
16	5.1	2.0	⩽ 1.15	0.923	83	105
25	6.0	2.0	⩽ 0.727	0.814	105	125
35	7.0	2.0	⩽ 0.524	0.720	125	155
50	8.3	2.0	⩽ 0.387	0.627	160	185
70	9.9	2.0	⩽ 0.268	0.541	200	225
95	11.5	2.0	⩽ 0.193	0.476	245	270
120	12.9	2.0	⩽ 0.153	0.430	285	310
150	14.5	2.0	⩽ 0.124	0.388	325	345
185	16.1	2.0	⩽ 0.0991	0.354	375	390
240	18.4	2.0	⩽ 0.0754	0.314	440	450
300	20.6	2.0	⩽ 0.0601	0.283	505	515

Structure dimensions and electrical performance indexes of 1.8/3kv cable

Nominal cross sectional area mm^2	Reference outer diameter of conductive core mm	Nominal thickness of XLPE insulation mm	Conductor DC resistance (20°C) Ω/km	Partial discharge test applied 2U0 discharge capacity pC	Reference carrying capacity of XLPE cable A	
					In the air 40°C	In the soil 25°C
25	6.0	3.4	⩽ 0.727	⩽ 5	120	125
35	7.0	3.4	⩽ 0.524	⩽ 5	140	155
50	8.3	3.4	⩽ 0.387	⩽ 5	165	180
70	9.9	3.4	⩽ 0.268	⩽ 5	210	220
95	11.5	3.4	⩽ 0.193	⩽ 5	255	265
120	12.9	3.4	⩽ 0.153	⩽ 5	290	300
150	14.5	3.4	⩽ 0.124	⩽ 5	330	340
185	16.1	3.4	⩽ 0.0991	⩽ 5	375	380
240	18.4	3.4	⩽ 0.0754	⩽ 5	435	435
300	20.6	3.4	⩽ 0.0601	⩽ 5	495	485

Correction coefficient of carrying capacity at different ambient temperatures (for reference)

Operating temperature of conductor (°C)	Air temperature(°C)									Soil temperature(°C)					
	10	15	20	25	30	35	40	45	50	10	15	20	25	30	35
70	1.41	1.35	1.29	1.22	1.15	1.08	1.00	0.91	0.81	1.15	1.11	1.05	1.00	0.94	0.88
90	1.26	1.22	1.18	1.14	1.09	1.04	1.00	0.94	0.89	1.11	1.07	1.04	1.00	0.96	0.92

Remarks: If you need technical parameters of silicone rubber insulated variable frequency motor cable, please ask details from the technical department of the Company.

1.4.1

ULTRA-LOW TEMPERATURE RESISTANT CABLE

Standard

Enterprise standard

Scope of application

This product is suitable for cable transmission in ultra-low temperature environment.

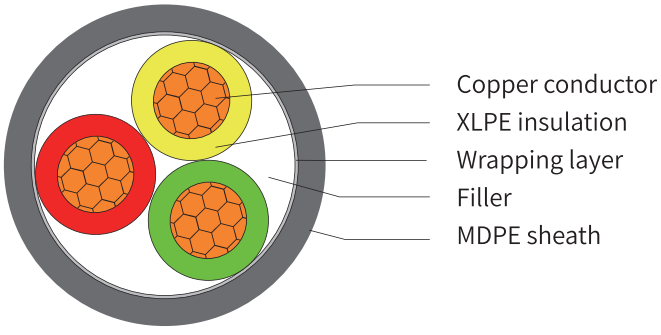
Operating characteristics

The cable has the lowest operating temperature of -70°C , and can maintain good flexibility at low temperature.

Model and name

Model	Name
YJE	Ultra-low temperature resistant cable

Illustration of cable structure



YJE 0.6/1kV low temperature resistant cable

1.4.2

COAXIAL POWER CABLE

Standard

GB/T 14864-2013

Scope of application

It is used for connecting the protective box of the protective layer insulation protection device of the 110KV ~ 220KV cross-linked cable line with the transposition box. It is used for grounding connection in the transmission and distribution line and for connection in the cross interconnection box. The connection mode of the inner and outer conductors of the coaxial cable is reasonable and convenient, and the use is reliable.

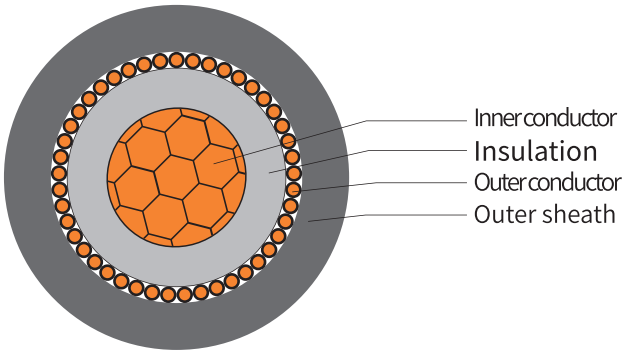
Operating characteristics

1.Rated voltage: 10kV/6kV
2.In case of laying, the minimum bending radius of the cable is 20 times of the cable diameter;
3.The long-time allowable operating temperature of the cable conductor is 90°C ;
4.In case of short circuit (the maximum duration of 5s), the maximum temperature of the cable conductor does not exceed 250°C .

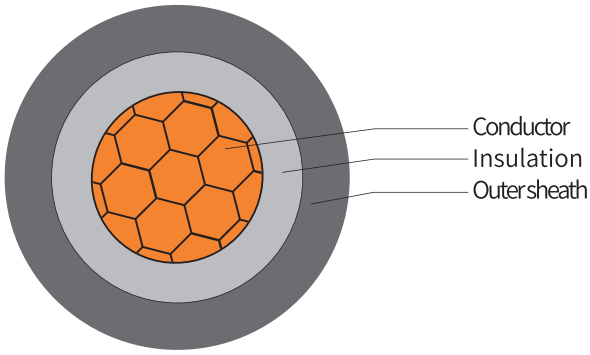
Model and name

Model	Name
YJOY	Copper core XLPE insulated PE sheathed coaxial cable
JD-YJV	Copper core XLPE insulated PVC sheathed ground cable
YJ0V	Copper core XLPE insulated PVC sheathed coaxial cable
JD-YJY	Copper core XLPE insulated PE sheathed ground cable

Illustration of cable structure



YJOV coaxial cable with rated voltage of 8.7/15kV and below



JD-YJV ground cable with rated voltage of 8.7/15kV and below

1.4.3

BRANCH CABLE

Standard

JB/T 10636-2006
GB/T 19666-2019

Scope of application

1.It is used for branch connection of power supply lines in buildings;
2.The product is widely used in hospitals, hotels, residential buildings, office buildings and other power distribution systems, but also can be used in lighting systems of roads, bridges, tunnels, etc.

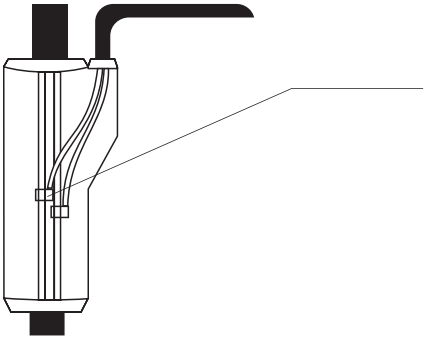
Operating characteristics

1.It has excellent corrosion resistance and can resist the corrosion of inorganic salts, oils, alkalis, acids and organic solvents;
2.Fire-resistant cables can not only supply power under normal working conditions, but also maintain the normal operation for 90min under combustion conditions, which meets the requirements of GB/T19216.21-2003;
3.The minimum bending radius for cable laying (D is the outer diameter of cables): 20D for single-core cables, and 15D for multi-core cables.

Model and name

Model	Name
FZ-YJV	Copper wire XLPE insulated PVC sheathed branch cable
FZ-WDZ-YJY	Copper wire XLPE insulated PO sheathed halogen-free low-smoke flame-retardant branch cable

Illustration of cable structure



Branch cable

CONTENTS

SPECIAL PV CABLE

TRUST · SHARING · GRATITUDE · PERSISTENCE

2.1.1

2PFG 1169 PV CABLE

Standard

2Pfg 1169/08.2007

Scope of application

It is suitable for the maximum allowable 1.8kV (core-to-core, ungrounded system) DC voltage, single-core flexible cable (wire) used on the DC side of the PV system. The product is suitable for use under safety class of Class I, the ambient temperature for cable operation is up to 90 °C , and multiple cables can be used in parallel.

Operating characteristics

1.Voltage class: AC: U0/U 0.6/1kV
DC: 1.8kV
2.Test voltage: AC: 6.5kV, 5min
DC: 15kV, 5min
3.Standard ambient temperature: -40 ° C to +90 °C , conductor operating temperature: 120 °C , carrying capacity at different ambient temperatures of 60°C -110°C converted in accordance with the correction coefficient;
4.In case of short circuit (within 5s), the maximum temperature does not exceed 200°C ;
5.Bending radius of cable: not less than 4 times of the outer diameter of cable;
6.Thermal life of cable ≧ 25 years;
7.Flame-retardant, low-smoke and halogen-free cable, with low-smoke, halogen-free, flame-retardant and irradiation-resistant cross-linked polyolefin insulation and sheath;
8.There is a proportion between cross sectional area of main core and shield to play a neutral conductor protection role.

Weather and UV resistance HD605/A1

Flame-retardant EN60332-1-2

Halogen-free EN60267-2-1 EN60684-2

Toxicity index test EN50305

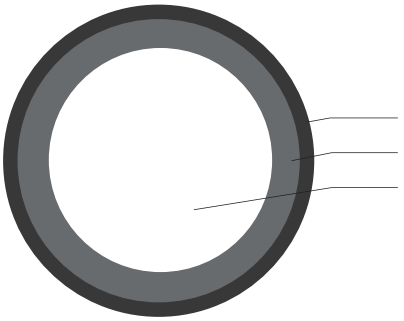
PH EN50267-2-2

Ambient temperature: -40°C -+90°C Conductor: 120°C

TUV scope of certification

Model	Specification
PV1-F	1×1.5 ～ 1×35

Illustration of cable structure



Sheath: low-smoke halogen-free flame-retardant radiation-resistance XLPO
Insulation: low-smoke halogen-free flame-retardant radiation-resistance XLPO
Conductor: tinned copper conductor (Class 5)

Note: The color of the sheath is red, black or as required by the customers.

Cable structure dimensions and electrical performance indexes

Number of cores × nominal cross sectional area mm^2	Reference outer diameter of cable		Calculated weight kg/km	Conductor DC resistance (20°C) (Tinned copper conductor) (☒ Ω/ km)	Carrying capacity (ambient temperature: 60°C , conductor operating temperature: 120°C)		
	mm	±mm			Single-core cable in the air (A)	Single-core cable placed on the object surface (A)	Adjacent cables placed on the object surface (A)
1×1.5	4.0	0.2	28	≦ 13.7	30	29	24
1×2.5	4.4	0.2	39	≦ 8.21	41	39	33
1×4	4.9	0.2	53	≦ 5.09	55	52	44
1×6	5.5	0.2	74	≦ 3.39	70	67	57
1×10	6.5	0.2	116	≦ 1.95	98	93	79
1×16	8.0	0.2	171	≦ 1.24	132	125	107
1×25	9.5	0.3	255	≦ 0.795	176	167	142
1×35	10.7	0.3	345	≦ 0.565	218	207	176

Note: The dimensions in the above table are the outer diameters produced as per the thickness of 2Pfg 1169/08.2007, and can also be produced as per the technical agreement dimensions signed by both parties and the thickness of EN50618-2014 insulation sheath.
(The outer diameters produced as per the thickness of EN50618-2014 insulation sheath will exceed those in the above table).

Correction coefficient of carrying capacity at different ambient temperatures (for reference)

Ambient temperature °C	Correction coefficient
⩽ 60	1.00
70	0.91
80	0.82
90	0.71
100	0.58
110	0.41

Note: in accordance with IEC 60364-5-52.

CONTENTS

FIREPROOF CABLE

TRUST · SHARING · GRATITUDE · PERSISTENCE

3.1.1

0.6/1KV MINERAL INSULATED FIREPROOF CABLE

Standard

GB/T 34926-2017
JG/T 313-2014
Q/OCXM010-2021
Q/OCXM015-2021
Q/OCXM017-2021

Scope of application

1.The product is suitable for the passageway lighting, emergency broadcast, fire alarm device, automatic fire fighting facilities and other emergency equipment in important buildings and facilities which are relatively closed or concentrated.
2.The product is suitable for public buildings: high-rise buildings, ancient buildings, schools, hospitals, shopping malls, theaters, power stations, etc.
3.The product is suitable for underground places: subway, underground square, tunnel, underground warehouse.
4.The product is suitable for transportation hub: airport, station, railway station.
5.The product is suitable for metallurgy, steel and other high temperature places.
6.The product is suitable for dangerous, chemical production, storage place.

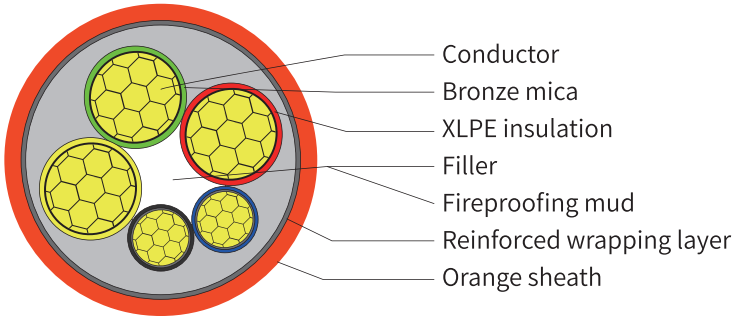
Operating characteristics

1.Nominal voltage of the systemU0/U：0.6/1 kV;
2.The highest operating voltage of the syste Um 1.2kV;
3.The system frequency 50 Hz;
4.System grounding method neutral-point solid ground;
5.The rated voltage of the cable shall be greater than or equal to the rated operating voltage of the system. In the DC system, the standard voltage of the system shall not be greater than 1.5 times of the rated voltage of the cable. The maximum operating voltage of the system shall not be more than 1.1 times the rated voltage;
6.This series of products have excellent fire performance and halogen free low smoke performance, can be in the flame temperature of (950~1000)°C barbecue, continuous work for 180min. Lines subjected to both shock and vibration (shock and vibration in accordance with BS 6387:2013 or BS 8491:2008 and Appendix C for simple fire resistance, fire plus water, fire plus mechanical vibration on the same sample in the order of C, W, Z) shall remain intact;
7.The product is easier to bend than traditional mineral insulation products, and has no length limit, which is convenient for construction and laying;
8.The product has good electrical conductivity and is a good carrier for power transmission;
9.The product is flexible and easy to bend: compared with ordinary mineral insulated cable, the bending ability of the cable is greatly improved, which can meet the needs of turning and laying, without intermediate joints.

Model, name and scope of production

Model	Market model	Name	Scope of production	Standard
BBTRZ	TBRZ	Flexible mineral insulated cable	1-core: 10~400 2~5-core: 2.5~400	Q/OCXM017-2021 Flexible mineral insulated cable with rated voltage of 0.6/1 kV
	TBTRZY			
	TBTRZ			
	WDZ-BBTRZ			
	WDZN-BBTRZ			
	WDZAN-BBTRZ			
	WDZBN-BBTRZ			
	GAN-BBTRZ			
	FA-BBTRZ			
	FA-BTGYRZ			
	BTWYRZ			
	FAN-BTWYRZ			
	BTMMRZ			
	BTMMRE			
	BTMMRY			
	WTGE			
	BBTR			
	BTWGTR			
	BTWGTRY			

Illustration of cable structure



BBTRZ flexible mineral insulated fireproof cable with rated voltage of 0.6/1kV and below

Main parameters

Mineral insulated flexible fireproof cable

BBTRZ - 0.6/1kV

Cores number ×cross sectional area (mm^2)	Conductor diameter (mm)	Insulation thickness (mm)	Sheath thickness (mm)	Calculate approximate outer diameter (mm)	Calculate approximate weight kg/km	Conductor DC resistance (20°C) Ω/km	Carrying capacity of A (Working temperature 90°C in the air 40°C)	Carrying capacity of A (Working temperature 90°C in soil 25°C)
1×10	4.0	0.7	1.4	14.3	271	1.83	71	92
1×16	5.0	0.7	1.4	15.3	344	1.15	92	115
1×25	6.0	0.9	1.4	16.7	458	0.727	120	150
1×35	7.0	0.9	1.4	17.7	564	0.524	150	180
1×50	8.2	1.0	1.4	19.0	704	0.387	180	215
1×70	9.2	1.1	1.4	21.0	937	0.268	230	265
1×95	10.83	1.1	1.5	22.7	1213	0.193	285	320
1×120	12.2	1.2	1.5	24.5	1472	0.153	335	360
1×150	13.5	1.4	1.6	26.6	1769	0.124	385	410
1×185	15.2	1.6	1.6	28.7	2160	0.0991	450	460
1×240	17.35	1.7	1.7	31.2	2718	0.0754	535	535
1×300	19.5	1.8	1.8	33.9	3339	0.0601	620	605
1×400	21.97	2.0	2.1	37.1	4197	0.0470	720	685
1×500	26.6	2.2	2.1	41.1	5263	0.0366	835	775

Mineral insulated flexible fireproof cable

BBTRZ - 0.6/1kV

Cores number ×cross sectional area (mm^2)	Conductor diameter (mm)	Insulation thickness (mm)	Sheath thickness (mm)	Calculate approximate outer diameter (mm)	Calculate approximate weight kg/km	Conductor DC resistance (20°C) Ω/km	Carrying capacity of A (Working temperature 90°C in the air 40°C)	Carrying capacity of A (Working temperature 90°C in soil 25°C)
3×1.5	1.37	0.7	1.8	18.1	368	12.1	16	23
3×2.5	1.76	0.7	1.8	19.0	426	7.41	28	39
3×4	2.23	0.7	1.8	20.1	505	4.61	37	51
3×6	2.74	0.7	1.8	21.1	600	3.08	47	64
3×10	4.0	0.7	1.8	24.7	801	1.83	65	86
3×16	5.0	0.7	1.8	26.9	1046	1.15	84	110
3×25	6.0	0.9	1.8	29.9	1429	0.727	110	140
3×35	7.0	0.9	1.8	32.1	1785	0.524	135	170
3×50	8.2	1.0	1.8	34.9	2254	0.387	170	205
3×70	9.2	1.1	1.9	39.4	3064	0.268	215	250
3×95	10.83	1.1	2.0	42.8	3963	0.193	265	300
3×120	12.2	1.2	2.1	46.9	4873	0.153	310	345
3×150	13.5	1.4	2.3	51.4	5908	0.124	350	385
3×185	15.2	1.6	2.4	56.2	7273	0.0991	405	435
3×240	17.35	1.7	2.6	61.5	9169	0.0754	480	500
3×300	19.5	1.8	2.8	67.3	11298	0.0601	555	565
3×400	21.97	2.0	3.1	74.4	14266	0.0470	640	640

Main parameters

Mineral insulated flexible fireproof cable

BBTRZ - 0.6/1kV

Cores number ×cross sectional area (mm^2)	Conductor diameter (mm)	Insulation thickness (mm)	Sheath thickness (mm)	Calculate approximate outer diameter (mm)	Calculate approximate weight kg/km	Conductor DC resistance (20°C) Ω/km	Carrying capacity of A (Working temperature 90°C in the air 40°C)	Carrying capacity of A (Working temperature 90°C in soil 25°C)
4×1.5	1.37	0.7	1.8	19.6	443	12.1	16	23
4×2.5	1.76	0.7	1.8	20.6	516	7.41	28	39
4×4	2.23	0.7	1.8	21.8	617	4.61	37	51
4×6	2.74	0.7	1.8	23.0	737	3.08	47	64
4×10	4.0	0.7	1.8	26.9	993	1.83	65	86
4×16	5.0	0.7	1.8	29.3	1307	1.15	84	110
4×25	6.0	0.9	1.8	32.7	1799	0.727	110	140
4×35	7.0	0.9	1.8	35.1	2259	0.524	135	170
4×50	8.2	1.0	1.9	38.5	2881	0.387	170	205
4×70	9.2	1.1	2.0	43.5	3926	0.268	215	250
4×95	10.83	1.1	2.1	47.3	5094	0.193	265	300
4×120	12.2	1.2	2.3	52.1	6292	0.153	310	345
4×150	13.5	1.4	2.4	56.9	7597	0.124	350	385
4×185	15.2	1.6	2.6	62.4	9391	0.0991	405	435
4×240	17.35	1.7	2.8	68.3	11850	0.0754	480	500
4×300	19.5	1.8	3.0	74.8	14608	0.0601	555	565
4×400	21.97	2.0	3.3	82.6	18452	0.0470	640	640

Mineral insulated flexible fireproof cable

BBTRZ - 0.6/1kV

Cores number ×cross sectional area (mm^2)	Conductor diameter (mm)	Insulation thickness (mm)	Sheath thickness (mm)	Calculate approximate outer diameter (mm)	Calculate approximate weight kg/km	Conductor DC resistance (20°C) Ω/km	Carrying capacity of A (Working temperature 90°C in the air 40°C)	Carrying capacity of A (Working temperature 90°C in soil 25°C)
5×1.5	1.37	0.7	1.8	21.2	529	12.1	16	23
5×2.5	1.76	0.7	1.8	22.3	618	7.41	28	39
5×4	2.23	0.7	1.8	23.6	743	4.61	37	51
5×6	2.74	0.7	1.8	25.0	892	3.08	47	64
5×10	4.0	0.7	1.8	29.2	1206	1.83	65	86
5×16	5.0	0.7	1.8	31.9	1595	1.15	84	110
5×25	6.0	0.9	1.8	35.7	2206	0.727	110	140
5×35	7.0	0.9	1.8	38.4	2777	0.524	135	170
5×50	8.2	1.0	2.0	42.3	3566	0.387	170	205
5×70	9.2	1.1	2.1	47.9	4863	0.268	215	250
5×95	10.83	1.1	2.3	52.4	6339	0.193	265	300
5×120	12.2	1.2	2.4	57.4	7799	0.153	310	345
5×150	13.5	1.4	2.6	62.9	9448	0.124	350	385
5×185	15.2	1.6	2.8	69.0	11676	0.0991	405	435
5×240	17.35	1.7	3.0	75.6	14733	0.0754	480	500
5×300	19.5	1.8	3.2	82.8	18161	0.0601	555	565
5×400	21.97	2.0	3.6	91.7	22980	0.0470	640	640

Main parameters

Mineral insulated flexible fireproof cable

BBTRZ - 0.6/1kV

Cores number ×cross sectional area (mm^2)	Conductor diameter (mm)		Insulation thickness (mm)		Sheath thickness (mm)	Calculate approximate outer diameter (mm)	Calculate approximate weight kg/km	Conductor DC resistance (20°C) Ω/km	Carrying capacity of A (Working temperature 90°C in the air 40°C)	Carrying capacity of A (Working temperature 90°C in soil 25°C)
	Phase line	Midcourt line	Phase line	Midcourt line						
3×4+1×2.5	2.23	1.76	0.7	0.7	1.8	21.5	591	4.61	37	51
3×6+1×4	2.74	2.23	0.7	0.7	1.8	22.7	707	3.08	47	64
3×10+1×6	4.0	2.74	0.7	0.7	1.8	25.2	927	1.83	65	86
3×16+1×10	5.0	4.0	0.7	0.7	1.8	27.7	1227	1.15	84	110
3×25+1×16	6.0	5.0	0.9	0.7	1.8	31.8	1674	0.727	110	140
3×35+1×16	7.0	5.0	0.9	0.7	1.8	33.7	2014	0.524	135	170
3×50+1×25	8.2	6.0	1.0	0.9	1.8	36.9	2590	0.387	170	205
3×70+1×35	9.2	7.0	1.1	0.9	1.9	41.3	3483	0.268	215	250
3×95+1×50	10.83	8.2	1.1	1.0	2.1	45.2	4533	0.193	265	300
3×120+1×70	12.2	9.2	1.2	1.1	2.2	49.9	5678	0.153	310	345
3×150+1×70	13.5	9.2	1.4	1.1	2.3	53.5	6638	0.124	350	385
3×185+1×95	15.2	10.83	1.6	1.1	2.5	58.7	8271	0.0991	405	435
3×240+1×120	17.35	12.2	1.7	1.2	2.7	64.3	10407	0.0754	480	500
3×300+1×150	19.5	13.5	1.8	1.4	2.9	70.4	12798	0.0601	555	565
3×400+1×185	21.97	15.2	2.0	1.6	3.1	77.5	16083	0.0470	640	640

Mineral insulated flexible fireproof cable

BBTRZ - 0.6/1kV

Cores number ×cross sectional area (mm^2)	Conductor diameter (mm)		Insulation thickness (mm)		Sheath thickness (mm)	Calculate approximate outer diameter (mm)	Calculate approximate weight kg/km	Conductor DC resistance (20°C) Ω/km	Carrying capacity of A (Working temperature 90°C in the air 40°C)	Carrying capacity of A (Working temperature 90°C in soil 25°C)
	Phase line	Midcourt line	Phase line	Midcourt line						
3×4+2×2.5	2.23	1.76	0.7	0.7	1.8	23.1	693	4.61	37	51
3×6+2×4	2.74	2.23	0.7	0.7	1.8	24.4	832	3.08	47	64
3×10+2×6	4.0	2.74	0.7	0.7	1.8	26.9	1078	1.83	65	86
3×16+2×10	5.0	4.0	0.7	0.7	1.8	29.8	1438	1.15	84	110
3×25+2×16	6.0	5.0	0.9	0.7	1.8	34.2	1958	0.727	110	140
3×35+2×16	7.0	5.0	0.9	0.7	1.8	35.8	2293	0.524	135	170
3×50+2×25	8.2	6.0	1.0	0.9	1.9	39.6	3004	0.387	170	205
3×70+2×35	9.2	7.0	1.1	0.9	2.0	44.1	4004	0.268	215	250
3×95+2×50	10.83	8.2	1.1	1.0	2.2	48.4	5204	0.193	265	300
3×120+2×70	12.2	9.2	1.2	1.1	2.3	53.6	6602	0.153	310	345
3×150+2×70	13.5	9.2	1.4	1.1	2.4	56.9	7547	0.124	350	385
3×185+2×95	15.2	10.83	1.6	1.1	2.6	62.3	9459	0.0991	405	435
3×240+2×120	17.35	12.2	1.7	1.2	2.8	68.4	11874	0.0754	480	500
3×300+2×150	19.5	13.5	1.8	1.4	3.0	74.9	14573	0.0601	555	565
3×400+2×185	21.97	15.2	2.0	1.6	3.2	82.4	18276	0.0470	640	640

3.1.2

COPPER CORE ALUMINUM SHEATHED FIRE-RESISTANT CLASS A ISOLATED FLEXIBLE MINERAL INSULATED CABLE

Standard

Q/OCXM015-2021

Scope of application

The product is mainly used in crowded places, fire channels, emergency power supply systems and other occasions, such as high-rise buildings, petrochemical industry, airports, tunnels, ships, offshore oil platforms, aerospace, iron and steel metallurgy, shopping centers, parking lots, etc. It is suitable for fire power supply main lines or branch lines where the fire automatic alarm protection objects are of special grade. The product is suitable for power transmission and distribution systems with power frequency rated voltage of 0.6/1kV and below.

Operating characteristics

1.The product has excellent fire resistance and halogen-free low-smoke performance, and can work continuously for 180min at 950°C~1000°C flame temperature. It meets the requirements of BS6387:2013 or BS8491:2008;
2.The product has good flexibility and good moisture resistance;
3.The product has high performance-to-price ratio.

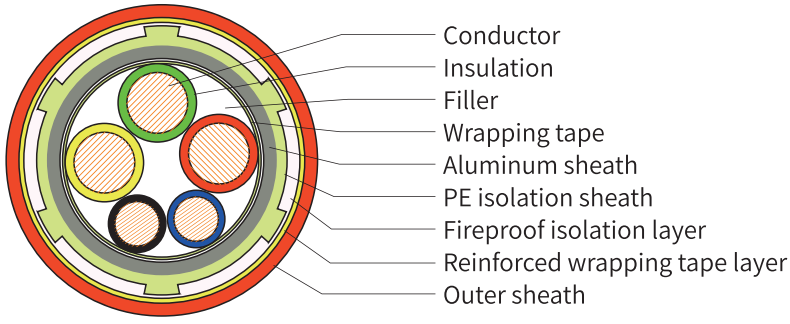
Model, name and scope of production

Model	Market model	Name	Scope of production	Standard
NG-A(BTLY)	NG-A	Copper core aluminum metal sleeve refractory class A isolation type flexible mineral insulated cable	1 core:16~400 2~5 core:2.5~240	Q/OCXM015-2021《Aluminum sheathed flexible mineral insulated cable for rated voltage up to and including 0.6/1 kV》
	WDZ-BTLY			
	BTLY-C			
	WDZN-BTLY			
	WDZAN-BTLY			
	WDZBN-BTLY			
	WDZB-BTLY			
	WDZA-BTLY			
	BTLHY			
	GAN-BTLY			
	BTRY/L			

Model, name and scope of production

Model	Market model	Name	Scope of production	Standard
NG-A(BTLY)	WDZA-BTLY(BTLY)	Copper core aluminum metal sleeve refractory class A isolation type flexible mineral insulated cable	1 core:16~400 2~5 core:2.5~240	Q/OCXM015-2021《Aluminum sheathed flexible mineral insulated cable for rated voltage up to and including 0.6/1 kV》
	GN-AL(BTLY)			
	FH-(BTLY)			
	WD-BTLY			
	WTGHE			
	FHTLY			
	TBTRZBY23			
	BTWLY			

Illustration of cable structure



NG-A(BTLY) aluminum sheathed flexible mineral insulated cable with rated voltage of 0.6/1kV and below

Main parameters

Mineral insulated flexible fireproof cable

NG-A(BTLY)(G-NG-A(BTLY)) - 0.6/1kV

Cores number ×cross sectional area (mm^2)	Conductor diameter (mm)	Insulation thickness (mm)	Nominal thickness of aluminum metal sleeve (mm)	Sheath thickness (mm)	Calculate approximate outer diameter (mm)	Calculate approximate weight kg/km	Conductor DC resistance (20°C) Ω/km	Carrying capacity of A (Working temperature 90°C in the air 40°C)	Carrying capacity of A (Working temperature 90°C in soil 25°C)
1×16	5.0	5.0	0.8	1.5	17.6	479	1.15	92	115
1×25	6.0	6.0	0.8	1.5	19.2	612	0.727	120	150
1×35	7.0	7.0	0.8	1.6	20.4	745	0.524	150	180
1×50	8.2	8.2	0.8	1.6	21.2	880	0.387	180	215
1×70	9.2	9.2	0.8	1.7	22.4	1105	0.268	230	265
1×95	10.83	10.83	0.8	1.7	23.9	1386	0.193	285	320
1×120	12.2	12.2	0.8	1.8	26.3	1702	0.153	335	360
1×150	13.5	13.5	0.8	1.8	27.4	1979	0.124	385	410
1×185	15.2	15.2	0.8	1.9	29.5	2365	0.0991	450	460
1×240	17.35	17.35	1.0	2.0	32.3	3035	0.0754	535	535
1×300	19.5	19.5	1.0	2.0	34.5	3633	0.0601	620	605
1×400	21.97	21.97	1.0	2.1	37.3	4498	0.0470	720	685

Main parameters

Mineral insulated flexible fireproof cable

NG-A(BTLY)(G-NG-A(BTLY)) - 0.6/1kV

Cores number ×cross sectional area (mm^2)	Conductor diameter (mm)	Insulation thickness (mm)	Nominal thickness of aluminum metal sleeve (mm)	Sheath thickness (mm)	Calculate approximate outer diameter (mm)	Calculate approximate weight kg/km	Conductor DC resistance (20°C) Ω/km	Carrying capacity of A (Working temperature 90°C in the air 40°C)	Carrying capacity of A (Working temperature 90°C in soil 25°C)
2×2.5	1.76	0.45	1.0	1.8	20.7	572	7.41	28	39
2×4	2.23	0.45	1.0	1.8	21.8	639	4.61	37	51
2×6	2.74	0.45	1.0	1.8	22.8	725	3.08	47	64
2×10	4.0	0.55	1.0	1.8	26.7	979	1.83	65	86
2×16	5.0	0.55	1.0	1.8	28.7	1160	1.15	84	110
2×25	6.0	0.55	1.0	1.9	32.3	1508	0.727	110	140
2×35	7.0	0.6	1.0	1.9	33.4	1783	0.524	135	170
2×50	8.2	0.65	0.8	2.3	38.0	2512	0.387	170	205
2×70	9.2	0.65	0.8	2.4	40.2	3054	0.268	215	250
2×95	10.83	0.65	0.8	2.5	43.4	3786	0.193	265	300
2×120	12.2	0.65	0.8	2.6	47.6	4593	0.153	310	345
2×150	13.5	0.75	0.8	2.7	50.0	5300	0.124	350	385
2×185	15.2	0.75	0.8	2.9	54.2	6343	0.0991	405	435
2×240	17.35	0.75	1.0	3.0	59.2	7962	0.0754	480	500

Mineral insulated flexible fireproof cable

NG-A(BTLY)(G-NG-A(BTLY)) - 0.6/1kV

Cores number ×cross sectional area (mm^2)	Conductor diameter (mm)	Insulation thickness (mm)	Nominal thickness of aluminum metal sleeve (mm)	Sheath thickness (mm)	Calculate approximate outer diameter (mm)	Calculate approximate weight kg/km	Conductor DC resistance (20°C) Ω/km	Carrying capacity of A (Working temperature 90°C in the air 40°C)	Carrying capacity of A (Working temperature 90°C in soil 25°C)
3×2.5	1.76	0.45	1.0	1.8	21.1	609	7.41	28	39
3×4	2.23	0.45	1.0	1.8	22.1	688	4.61	37	51
3×6	2.74	0.45	1.0	1.8	23.4	801	3.08	47	64
3×10	4.0	0.55	1.0	1.8	27.8	1096	1.83	65	86
3×16	5.0	0.55	1.0	1.8	30.2	1344	1.15	84	110
3×25	6.0	0.55	1.0	1.9	33.0	1716	0.727	110	140
3×35	7.0	0.6	1.0	1.9	35.1	2100	0.524	135	170
3×50	8.2	0.65	0.8	2.3	40.4	3103	0.387	170	205
3×70	9.2	0.65	0.8	2.4	42.8	3844	0.268	215	250
3×95	10.83	0.65	0.8	2.5	46.2	4833	0.193	265	300
3×120	12.2	0.65	0.8	2.6	50.7	5894	0.153	310	345
3×150	13.5	0.75	0.8	2.7	53.3	6859	0.124	350	385
3×185	15.2	0.75	0.8	2.9	57.8	8242	0.0991	405	435
3×240	17.35	0.75	1.0	3.0	63.2	10453	0.0754	480	500

Main parameters

Mineral insulated flexible fireproof cable

NG-A(BTLY)(G-NG-A(BTLY)) - 0.6/1kV

Cores number ×cross sectional area (mm^2)	Conductor diameter (mm)	Insulation thickness (mm)	Nominal thickness of aluminum metal sleeve (mm)	Sheath thickness (mm)	Calculate approximate outer diameter (mm)	Calculate approximate weight kg/km	Conductor DC resistance (20°C) Ω/km	Carrying capacity of A (Working temperature 90°C in the air 40°C)	Carrying capacity of A (Working temperature 90°C in soil 25°C)
4×2.5	1.76	0.45	1.0	1.8	22.1	680	7.41	28	39
4×4	2.23	0.45	1.0	1.8	23.4	787	4.61	37	51
4×6	2.74	0.45	1.0	1.8	24.3	893	3.08	47	64
4×10	4.0	0.55	1.0	1.8	29.3	1253	1.83	65	86
4×16	5.0	0.55	1.0	1.9	32.3	1612	1.15	84	110
4×25	6.0	0.55	1.0	2.0	35.6	2077	0.727	110	140
4×35	7.0	0.6	1.0	2.1	37.4	2532	0.524	135	170
4×50	8.2	0.65	0.8	2.2	44.1	3817	0.387	170	205
4×70	9.2	0.65	0.8	2.3	46.7	4764	0.268	215	250
4×95	10.83	0.65	0.8	2.5	50.8	6054	0.193	265	300
4×120	12.2	0.65	0.8	2.6	55.8	7395	0.153	310	345
4×150	13.5	0.75	0.8	2.7	58.7	8646	0.124	350	385
4×185	15.2	0.75	0.8	2.9	63.7	10364	0.0991	405	435
4×240	17.35	0.75	1.0	3.1	69.9	13272	0.0754	480	500

Mineral insulated flexible fireproof cable

NG-A(BTLY)(G-NG-A(BTLY)) - 0.6/1kV

Cores number ×cross sectional area (mm^2)	Conductor diameter (mm)	Insulation thickness (mm)	Nominal thickness of aluminum metal sleeve (mm)	Sheath thickness (mm)	Calculate approximate outer diameter (mm)	Calculate approximate weight kg/km	Conductor DC resistance (20°C) Ω/km	Carrying capacity of A (Working temperature 90°C in the air 40°C)	Carrying capacity of A (Working temperature 90°C in soil 25°C)
5×2.5	1.76	0.45	1.0	1.8	23.4	751	7.41	28	39
5×4	2.23	0.45	1.0	1.8	24.3	855	4.61	37	51
5×6	2.74	0.45	1.0	1.8	25.8	1003	3.08	47	64
5×10	4.0	0.55	1.0	1.9	31.3	1457	1.83	65	86
5×16	5.0	0.55	1.0	1.9	34.3	1867	1.15	84	110
5×25	6.0	0.55	1.0	2.1	38.5	2485	0.727	110	140
5×35	7.0	0.6	0.8	2.2	46.2	3795	0.524	135	170
5×50	8.2	0.65	0.8	2.4	48.7	4568	0.387	170	205
5×70	9.2	0.65	0.8	2.5	51.6	5768	0.268	215	250
5×95	10.83	0.65	0.8	2.6	55.9	7356	0.193	265	300
5×120	12.2	0.65	0.8	2.8	61.7	8996	0.153	310	345
5×150	13.5	0.75	0.8	2.9	64.8	10497	0.124	350	385
5×185	15.2	0.75	0.8	3.1	70.4	12573	0.0991	405	435
5×240	17.35	0.75	1.0	3.3	77.3	16127	0.0754	480	500

Main parameters

Mineral insulated flexible fireproof cable

NG-A(BTLY) - 0.6/1kV

Cores number ×cross sectional area (mm^2)	Conductor diameter (mm)		Insulation thickness (mm)		Nominal thickness of aluminum metal sleeve (mm)	Sheath thickness (mm)	Calculate approximate outer diameter (mm)	Calculate approximate weight kg/km	Conductor DC resistance (20°C) Ω/km	Carrying capacity of A (Working temperature 90°C in the air 40°C)	Carrying capacity of A (Working temperature 90°C in soil 25°C)
	Phase line	Midcourt line	Phase line	Midcourt line							
3×4+1×2.5	2.23	1.76	0.45	0.45	1.0	1.8	23.1	767	4.61	37	51
3×6+1×4	2.74	2.23	0.45	0.45	1.0	1.8	24.3	879	3.08	47	64
3×10+1×6	4.0	2.74	0.55	0.45	1.0	1.8	28.7	1196	1.83	65	86
3×16+1×10	5.0	4.0	0.55	0.55	1.0	1.8	32.1	1546	1.15	84	110
3×25+1×16	6.0	5.0	0.55	0.55	1.0	1.9	35.9	2002	0.727	110	140
3×35+1×16	7.0	5.0	0.6	0.55	1.0	2.0	38.4	2370	0.524	135	170
3×50+1×25	8.2	6.0	0.65	0.55	0.8	2.3	43.4	3476	0.387	170	205
3×70+1×35	9.2	7.0	0.65	0.6	0.8	2.4	45.9	4314	0.268	215	250
3×95+1×50	10.83	8.2	0.65	0.65	0.8	2.5	49.3	5421	0.193	265	300
3×120+1×70	12.2	9.2	0.65	0.65	0.8	2.7	53.9	6689	0.153	310	345
3×150+1×70	13.5	9.2	0.75	0.65	0.8	2.8	56.1	7628	0.124	350	385
3×185+1×95	15.2	10.83	0.75	0.65	0.8	3.0	60.8	9242	0.0991	405	435
3×240+1×120	17.35	12.2	0.75	0.65	1.0/0.8	3.2	66.8	11728	0.0754	480	500

Mineral insulated flexible fireproof cable

NG-A(BTLY) - 0.6/1kV

Cores number ×cross sectional area (mm^2)	Conductor diameter (mm)		Insulation thickness (mm)		Nominal thickness of aluminum metal sleeve (mm)	Sheath thickness (mm)	Calculate approximate outer diameter (mm)	Calculate approximate weight kg/km	Conductor DC resistance (20°C) Ω/km	Carrying capacity of A (Working temperature 90°C in the air 40°C)	Carrying capacity of A (Working temperature 90°C in soil 25°C)
	Phase line	Midcourt line	Phase line	Midcourt line							
3×4+2×2.5	2.23	1.76	0.45	0.45	1.0	1.8	24.0	837	4.61	37	51
3×6+2×4	2.74	2.23	0.45	0.45	1.0	1.8	25.8	984	3.08	47	64
3×10+2×6	4.0	2.74	0.55	0.45	1.0	1.8	29.7	1303	1.83	65	86
3×16+2×10	5.0	4.0	0.55	0.55	1.0	1.8	34.1	1720	1.15	84	110
3×25+2×16	6.0	5.0	0.55	0.55	1.0	2.0	38.3	2301	0.727	110	140
3×35+2×16	7.0	5.0	0.6	0.55	1.0	2.0	40.0	2632	0.524	135	170
3×50+2×25	8.2	6.0	0.65	0.55	0.8	2.4	47.0	3970	0.387	170	205
3×70+2×35	9.2	7.0	0.65	0.6	0.8	2.5	49.7	4921	0.268	215	250
3×95+2×50	10.83	8.2	0.65	0.65	0.8	2.7	53.4	6146	0.193	265	300
3×120+2×70	12.2	9.2	0.65	0.65	0.8	2.8	57.9	7584	0.153	310	345
3×150+2×70	13.5	9.2	0.75	0.65	0.8	2.9	59.9	8461	0.124	350	385
3×185+2×95	15.2	10.83	0.75	0.65	0.8	3.1	65.0	10385	0.0991	405	435
3×240+2×120	17.35	12.2	0.75	0.65	1.0/0.8	3.3	71.4	13167	0.0754	480	500

Main parameters

Mineral insulated flexible fireproof cable

NG-A(BTLY) - 0.6/1kV

Cores number ×cross sectional area (mm^2)	Conductor diameter (mm)		Insulation thickness (mm)		Nominal thickness of aluminum metal sleeve (mm)	Sheath thickness (mm)	Calculate approximate outer diameter (mm)	Calculate approximate weight kg/km	Conductor DC resistance (20°C) Ω/km	Carrying capacity of A (Working temperature 90°C in the air 40°C)	Carrying capacity of A (Working temperature 90°C in soil 25°C)
	Phase line	Midcourt line	Phase line	Midcourt line							
4×4+1×2.5	2.23	1.76	0.45	0.45	1.0	1.8	24.3	862	4.61	37	51
4×6+1×4	2.74	2.23	0.45	0.45	1.0	1.8	25.8	1004	3.08	47	64
4×10+1×6	4.0	2.74	0.55	0.45	1.0	1.8	31.2	1396	1.83	65	86
4×16+1×10	5.0	4.0	0.55	0.55	1.0	1.8	35.0	1809	1.15	84	110
4×25+1×16	6.0	5.0	0.55	0.55	1.0	2.0	39.3	2424	0.727	110	140
4×35+1×16	7.0	5.0	0.6	0.55	1.0	2.1	40.1	2815	0.524	135	170
4×50+1×25	8.2	6.0	0.65	0.55	0.8	2.4	47.9	4205	0.387	170	205
4×70+1×35	9.2	7.0	0.65	0.6	0.8	2.6	50.8	5287	0.268	215	250
4×95+1×50	10.83	8.2	0.65	0.65	0.8	2.7	54.7	6661	0.193	265	300
4×120+1×70	12.2	9.2	0.65	0.65	0.8	2.9	60.0	8200	0.153	310	345
4×150+1×70	13.5	9.2	0.75	0.65	0.8	3.0	62.6	9384	0.124	350	385
4×185+1×95	15.2	10.83	0.75	0.65	0.8	3.2	67.9	11412	0.0991	405	435
4×240+1×120	17.35	12.2	0.75	0.65	1.0/0.8	3.4	74.5	14556	0.0754	480	500

3.1.3

COPPER CORE MICA TAPE MINERAL INSULATED CORRUGATED COPPER SHEATHED POWER CABLE

Standard

GB/T34926-2017

Scope of application

1.The product is mainly used in crowded places, fire channels, emergency power supply systems and other occasions, such as high-rise buildings, petrochemical industry, airports, tunnels, ships, offshore oil platforms, aerospace, iron and steel metallurgy, shopping centers, parking lots, etc. ;
2.It is suitable for fire power supply main lines or branch lines where the fire automatic alarm protection objects are of special grade;
3.The product is suitable for power transmission and distribution systems with power frequency rated voltage of 0.6/1kV and below.

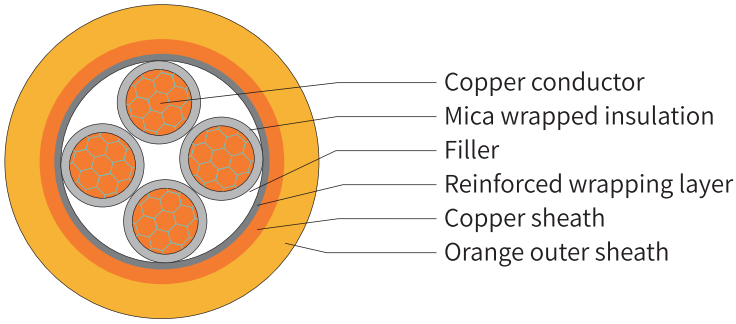
Operating characteristics

1.The product has excellent fire resistance and halogen-free low-smoke performance, and can work continuously for 180min at (950~1000)°C flame temperature. Lines subjected to both shock and vibration (after the shock and vibration meet BS6387:2013 or BS8491:2008 and the simple fire resistance, fire resistance and water resistance, fireresistance and mechanical vibration resistance specified in Appendix C are tested on the same specimen in the order of C, W, Z) shall remain intact;
2.The product is easier to bend than traditional mineral insulated cables, and has no length limit, which is convenient for construction and laying.

Model, name and scope of production

Model	Name	Scope of production	Standard
RTTZ	Copper core mica tape mineral insulated corrugated copper sheathed power cable	1-core: 25~500 2~5-core: 6~240	GB/T 14926-2047 Mica mineral insulated corrugated copper sheathed cables and terminations with rated voltage of 0.6/1kV and below
RTTYZ	Copper core mica tape mineral insulated corrugated copper sheathed PO sheathed power cable		
RTTVZ	Copper core mica tape mineral insulated corrugated copper sheathed PVC sheathed power cable		

Illustration of cable structure



RTTYZ/BTTRZ mica tape mineral insulated corrugated copper sheathed cable with rated voltage of 0.6/1kV and below

Main parameters

Mineral insulated flexible fireproof cable

RTTYZ(G-RTTYZ) - 0.6/1kV

Cores number ×cross sectional area (mm^2)	Conductor diameter (mm)	Insulation thickness (mm)	Nominal thickness of copper sheath (mm)	Sheath thickness (mm)	Calculate approximate outer diameter (mm)	Calculate approximate weight kg/km	Conductor DC resistance (20°C) Ω/km	Carrying capacity of A (Working temperature 90°C in the air 40°C)	Carrying capacity of A (Working temperature 90°C in soil 25°C)
1×25	6.0	1.1	0.4	1.8	17.8	688	0.727	120	150
1×35	7.0	1.2	0.4	1.8	18.6	785	0.524	150	180
1×50	8.2	1.3	0.5	1.8	20.3	985	0.387	180	215
1×70	9.2	1.3	0.5	1.8	21.5	1230	0.268	230	265
1×95	10.83	1.3	0.5	1.8	23.1	1487	0.193	285	320
1×120	12.2	1.3	0.5	1.8	24.5	1776	0.153	335	360
1×150	13.5	1.5	0.5	1.8	25.8	2034	0.124	385	410
1×185	15.2	1.5	0.5	1.8	27.6	2445	0.0991	450	460
1×240	17.35	1.5	0.6	1.8	30.9	3160	0.0754	535	535
1×300	19.5	1.8	0.7	1.8	33.4	3928	0.0601	620	605
1×400	21.97	1.8	0.7	1.9	36.1	4710	0.0470	720	685
1×500	26.6	2.0	0.7	2.1	41.2	5997	0.0366	835	775

Main parameters

Mineral insulated flexible fireproof cable

RTTYZ(G-RTTYZ) - 0.6/1kV

Cores number ×cross sectional area (mm^2)	Conductor diameter (mm)	Insulation thickness (mm)	Nominal thickness of copper sheath (mm)	Sheath thickness (mm)	Calculate approximate outer diameter (mm)	Calculate approximate weight kg/km	Conductor DC resistance (20°C) Ω/km	Carrying capacity of A (Working temperature 90°C in the air 40°C)	Carrying capacity of A (Working temperature 90°C in soil 25°C)
2×10	4.0	0.55	0.4	1.8	19.1	763	1.83	65	86
2×16	5.0	0.55	0.4	1.8	22.1	972	1.15	84	110
2×25	6.0	0.55	0.5	1.8	25.1	1325	0.727	110	140
2×35	7.0	0.6	0.5	1.8	26.1	1571	0.524	135	170
2×50	8.2	0.65	0.5	1.9	29.3	1932	0.387	170	205
2×70	9.2	0.65	0.5	1.9	31.3	2435	0.268	215	250
2×95	10.83	0.65	0.5	2.0	35.4	3093	0.193	265	300
2×120	12.2	0.65	0.5	2.0	37.4	3776	0.153	310	345
2×150	13.5	0.75	0.5	2.0	40.4	4568	0.124	350	385

Mineral insulated flexible fireproof cable

RTTYZ(G-RTTYZ) - 0.6/1kV

Cores number ×cross sectional area (mm^2)	Conductor diameter (mm)	Insulation thickness (mm)	Nominal thickness of copper sheath (mm)	Sheath thickness (mm)	Calculate approximate outer diameter (mm)	Calculate approximate weight kg/km	Conductor DC resistance (20°C) Ω/km	Carrying capacity of A (Working temperature 90°C in the air 40°C)	Carrying capacity of A (Working temperature 90°C in soil 25°C)
3×10	4.0	0.55	0.4	1.8	20.1	883	1.83	65	86
3×16	5.0	0.55	0.4	1.8	23.1	1111	1.15	84	110
3×25	6.0	0.55	0.5	1.8	26.1	1556	0.727	110	140
3×35	7.0	0.6	0.5	1.8	28.1	1897	0.524	135	170
3×50	8.2	0.65	0.5	1.9	30.3	2392	0.387	170	205
3×70	9.2	0.65	0.5	1.9	33.3	3202	0.268	215	250
3×95	10.83	0.65	0.5	2.0	37.5	4099	0.193	265	300
3×120	12.2	0.65	0.5	2.1	40.7	5090	0.153	310	345
3×150	13.5	0.75	0.6	2.3	43.9	6049	0.124	350	385

Main parameters

Mineral insulated flexible fireproof cable

RTTYZ(G-RTTYZ) - 0.6/1kV

Cores number ×cross sectional area (mm^2)	Conductor diameter (mm)	Insulation thickness (mm)	Nominal thickness of copper sheath (mm)	Sheath thickness (mm)	Calculate approximate outer diameter (mm)	Calculate approximate weight kg/km	Conductor DC resistance (20°C) Ω/km	Carrying capacity of A (Working temperature 90°C in the air 40°C)	Carrying capacity of A (Working temperature 90°C in soil 25°C)
4×6	2.74	0.45	0.4	1.8	18.1	706	3.08	47	64
4×10	4.0	0.55	0.5	1.8	22.1	1054	1.83	65	86
4×16	5.0	0.55	0.5	1.8	25.1	1393	1.15	84	110
4×25	6.0	0.55	0.5	1.8	28.1	1860	0.727	110	140
4×35	7.0	0.6	0.5	1.8	30.1	2244	0.524	135	170
4×50	8.2	0.65	0.5	1.9	33.3	2888	0.387	170	205
4×70	9.2	0.65	0.6	2.0	36.4	3883	0.268	215	250
4×95	10.83	0.65	0.6	2.1	41.6	5028	0.193	265	300
4×120	12.2	0.65	0.7	2.3	45.0	6291	0.153	310	345

Mineral insulated flexible fireproof cable

RTTYZ(G-RTTYZ) - 0.6/1kV

Cores number ×cross sectional area (mm^2)	Conductor diameter (mm)	Insulation thickness (mm)	Nominal thickness of copper sheath (mm)	Sheath thickness (mm)	Calculate approximate outer diameter (mm)	Calculate approximate weight kg/km	Conductor DC resistance (20°C) Ω/km	Carrying capacity of A (Working temperature 90°C in the air 40°C)	Carrying capacity of A (Working temperature 90°C in soil 25°C)
5×4	2.23	0.45	0.4	1.8	18.1	648	4.61	37	51
5×6	2.74	0.45	0.4	1.8	19.1	751	3.08	47	64
5×10	4.0	0.55	0.5	1.8	24.1	1136	1.83	65	86
5×16	5.0	0.55	0.5	1.8	28.1	1490	1.15	84	110
5×25	6.0	0.55	0.5	1.8	31.1	2059	0.727	110	140
5×35	7.0	0.6	0.5	1.8	32.4	2617	0.524	135	170
5×50	8.2	0.65	0.5	2.0	36.4	3350	0.387	170	205

Main parameters

Mineral insulated flexible fireproof cable

RTTYZ(G-RTTYZ) - 0.6/1kV

Cores number ×cross sectional area (mm^2)	Conductor diameter (mm)		Insulation thickness (mm)		Nominal thickness of copper sheath (mm)	Sheath thickness (mm)	Calculate approximate outer diameter (mm)	Calculate approximate weight kg/km	Conductor DC resistance (20°C) Ω/km	Carrying capacity of A (Working temperature 90°C in the air 40°C)	Carrying capacity of A (Working temperature 90°C in soil 25°C)
	Phase line	Midcourt line	Phase line	Midcourt line							
3×6+1×4	2.74	2.23	0.45	0.45	0.5	1.8	17.8	750	3.08	47	64
3×10+1×6	4.0	2.74	0.55	0.45	0.5	1.8	20.9	1014	1.83	65	86
3×16+1×10	5.0	4.0	0.55	0.55	0.5	1.8	23.8	1350	1.15	84	110
3×25+1×16	6.0	5.0	0.55	0.55	0.5	1.8	26.7	1787	0.727	110	140
3×35+1×16	7.0	5.0	0.6	0.55	0.5	1.8	28.4	2086	0.524	135	170
3×50+1×25	8.2	6.0	0.65	0.55	0.5	1.8	31.8	2677	0.387	170	205
3×70+1×35	9.9	7.0	0.65	0.6	0.6	1.9	35.0	3531	0.268	215	250
3×95+1×50	11.6	8.2	0.65	0.65	0.6	2.1	39.2	4648	0.193	265	300
3×120+1×70	13.0	9.9	0.65	0.65	0.7	2.2	42.8	5773	0.153	310	345
3×150+1×70	14.5	9.9	0.75	0.65	0.6	2.3	45.3	6799	0.124	350	385
3×185+1×95	16.2	11.6	0.75	0.65	0.6	2.4	49.8	8471	0.0991	405	435
3×240+1×120	18.4	13.0	0.75	0.65	0.6	2.6	55.1	10774	0.0754	480	500

Mineral insulated flexible fireproof cable

RTTYZ(G-RTTYZ) - 0.6/1kV

Cores number ×cross sectional area (mm^2)	Conductor diameter (mm)		Insulation thickness (mm)		Nominal thickness of copper sheath (mm)	Sheath thickness (mm)	Calculate approximate outer diameter (mm)	Calculate approximate weight kg/km	Conductor DC resistance (20°C) Ω/km	Carrying capacity of A (Working temperature 90°C in the air 40°C)	Carrying capacity of A (Working temperature 90°C in soil 25°C)
	Phase line	Midcourt line	Phase line	Midcourt line							
3×6+2×4	2.74	2.23	0.45	0.45	0.5	1.8	18.6	835	3.08	47	64
3×10+2×6	4.0	2.74	0.55	0.45	0.5	1.8	21.6	1076	1.83	65	86
3×16+2×10	5.0	4.0	0.55	0.55	0.5	1.8	25.1	1421	1.15	84	110
3×25+2×16	6.0	5.0	0.55	0.55	0.5	1.8	28.2	1921	0.727	110	140
3×35+2×16	7.0	5.0	0.6	0.55	0.5	1.8	29.8	2274	0.524	135	170
3×50+2×25	8.2	6.0	0.65	0.55	0.6	1.9	33.9	3039	0.387	170	205
3×70+2×35	9.2	7.0	0.65	0.6	0.6	2.0	37.1	3929	0.268	215	250
3×95+2×50	10.83	8.2	0.65	0.65	0.6	2.1	41.3	5049	0.193	265	300
3×120+2×70	12.2	9.2	0.65	0.65	0.6	2.3	45.5	6396	0.153	310	345
3×150+2×70	13.5	9.2	0.75	0.65	0.6	2.4	47.8	7343	0.124	350	385
3×185+2×95	15.2	10.83	0.75	0.65	0.6	2.5	52.7	9250	0.0991	405	435
3×240+2×120	17.35	12.2	0.75	0.65	0.6	2.7	58.2	11813	0.0754	480	500

Main parameters

Mineral insulated flexible fireproof cable

RTTYZ(G-RTTYZ) - 0.6/1kV

Cores number ×cross sectional area (mm^2)	Conductor diameter (mm)		Insulation thickness (mm)		Nominal thickness of copper sheath (mm)	Sheath thickness (mm)	Calculate approximate outer diameter (mm)	Calculate approximate weight kg/km	Conductor DC resistance (20°C) Ω/km	Carrying capacity of A (Working temperature 90°C in the air 40°C)	Carrying capacity of A (Working temperature 90°C in soil 25°C)
	Phase line	Midcourt line	Phase line	Midcourt line							
4×6+1×4	2.74	2.23	0.45	0.45	0.4	1.8	19.1	791	3.08	47	64
4×10+1×6	4.0	2.74	0.55	0.45	0.5	1.8	23.1	1126	1.83	65	86
4×16+1×10	5.0	4.0	0.55	0.55	0.5	1.8	26.1	1482	1.15	84	110
4×25+1×16	6.0	5.0	0.55	0.55	0.5	1.8	30.1	2011	0.727	110	140
4×35+1×16	7.0	5.0	0.6	0.55	0.6	1.8	32.1	2590	0.524	135	170
4×50+1×25	8.2	6.0	0.65	0.55	0.6	2.0	35.4	3280	0.387	170	205
4×70+1×35	9.2	7.0	0.65	0.6	0.6	2.1	38.6	4264	0.268	215	250
4×95+1×50	10.83	8.2	0.65	0.65	0.6	2.2	43.8	5533	0.193	265	300
4×120+1×70	12.2	9.2	0.65	0.65	0.6	2.4	47.1	7041	0.153	310	345
4×150+1×70	13.5	9.2	0.75	0.65	0.6	2.5	51.3	8104	0.124	350	385
4×185+1×95	15.2	10.83	0.75	0.65	0.6	2.6	55.5	10223	0.0991	405	435
4×240+1×120	17.35	12.2	0.75	0.65	0.6	2.8	61.8	12995	0.0754	480	500

3.1.4

COPPER CORE MICA TAPE MINERAL INSULATED CORRUGATED COPPER SHEATHED POWER CABLE

Standard

Q/OCXM010-2021

Scope of application

1.The product is mainly used in crowded places, fire channels, emergency power supply systems and other occasions, such as high-rise buildings, petrochemical industry, airports, tunnels, ships, offshore oil platforms, aerospace, iron and steel metallurgy, shopping centers, parking lots, etc.
2.It is suitable for fire power supply main lines or branch lines where the fire automatic alarm protection objects are of special grade.
3.The product is suitable for power transmission and distribution systems with power frequency rated voltage of 0.6/1kV and below.

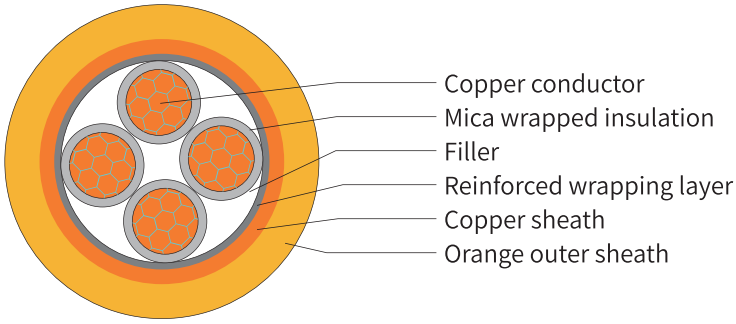
Operating characteristics

1.The product has excellent fire resistance and halogen-free low-smoke performance, and can work continuously for 180min at (950~1000)°C flame temperature. Lines subjected to both shock and vibration (after the shock and vibration meet BS6387:2013 or BS8491:2008 and the simple fire resistance, fire resistance and water resistance, fireresistance and mechanical vibration resistance specified in Appendix C are tested on the same specimen in the order of C, W, Z) shall remain intact.
2.The product is easier to bend than traditional mineral insulated cables, and has no length limit, which is convenient for construction and laying.

Model, name and scope of production

Model	Name	Scope of production	Standard
BTTRZ	Copper core mica tape mineral insulated corrugated copper sheathed PO sheathed power cable	1-core: 25~500 2~5-core: 6~240	Q/OCXM010-2021 Mica tape wrapped mineral insulated copper sheathed flexible fireproof cable with rated voltage of 0.6/1kV and below

Illustration of cable structure



RTTYZ/BTTRZ mica tape mineral insulated corrugated copper sheathed cable with rated voltage of 0.6/1kV and below

Main parameters

Mineral insulated flexible fireproof cable

BTTRZ - 0.6/1kV

Cores number ×cross sectional area (mm^2)	Conductor diameter (mm)	Insulation thickness (mm)	Nominal thickness of copper sheath (mm)	Sheath thickness (mm)	Calculate approximate outer diameter (mm)	Calculate approximate weight kg/km	Conductor DC resistance (20°C) Ω/km	Carrying capacity of A (Working temperature 90°C in the air 40°C)	Carrying capacity of A (Working temperature 90°C in soil 25°C)
1×25	6.0	1.1	0.4	1.8	17.8	688	0.727	120	150
1×35	7.0	1.2	0.4	1.8	18.6	785	0.524	150	180
1×50	8.2	1.3	0.5	1.8	20.3	985	0.387	180	215
1×70	9.2	1.3	0.5	1.8	21.5	1230	0.268	230	265
1×95	10.83	1.3	0.5	1.8	23.1	1487	0.193	285	320
1×120	12.2	1.3	0.5	1.8	24.5	1776	0.153	335	360
1×150	13.5	1.5	0.5	1.8	25.8	2034	0.124	385	410
1×185	15.2	1.5	0.5	1.8	27.6	2445	0.0991	450	460
1×240	17.35	1.5	0.6	1.8	30.9	3160	0.0754	535	535
1×300	19.5	1.8	0.7	1.8	33.4	3928	0.0601	620	605
1×400	21.97	1.8	0.7	1.9	36.1	4710	0.0470	720	685
1×500	26.6	2.0	0.7	2.1	41.2	5997	0.0366	835	775

Main parameters

Mineral insulated flexible fireproof cable

BTTRZ(G-BTTRZ) - 0.6/1kV

Cores number ×cross sectional area (mm^2)	Conductor diameter (mm)	Insulation thickness (mm)	Nominal thickness of copper sheath (mm)	Sheath thickness (mm)	Calculate approximate outer diameter (mm)	Calculate approximate weight kg/km	Conductor DC resistance (20°C) Ω/km	Carrying capacity of A (Working temperature 90°C in the air 40°C)	Carrying capacity of A (Working temperature 90°C in soil 25°C)
2×10	4.0	0.55	0.4	1.8	19.1	763	1.83	65	86
2×16	5.0	0.55	0.4	1.8	22.1	972	1.15	84	110
2×25	6.0	0.55	0.5	1.8	25.1	1325	0.727	110	140
2×35	7.0	0.6	0.5	1.8	26.1	1571	0.524	135	170
2×50	8.2	0.65	0.5	1.9	29.3	1932	0.387	170	205
2×70	9.2	0.65	0.5	1.9	31.3	2435	0.268	215	250
2×95	10.83	0.65	0.5	2.0	35.4	3093	0.193	265	300
2×120	12.2	0.65	0.5	2.0	37.4	3776	0.153	310	345
2×150	13.5	0.75	0.5	2.0	40.4	4568	0.124	350	385

Mineral insulated flexible fireproof cable

BTTRZ - 0.6/1kV

Cores number ×cross sectional area (mm^2)	Conductor diameter (mm)	Insulation thickness (mm)	Nominal thickness of copper sheath (mm)	Sheath thickness (mm)	Calculate approximate outer diameter (mm)	Calculate approximate weight kg/km	Conductor DC resistance (20°C) Ω/km	Carrying capacity of A (Working temperature 90°C in the air 40°C)	Carrying capacity of A (Working temperature 90°C in soil 25°C)
3×10	4.0	0.55	0.4	1.8	20.1	883	1.83	65	86
3×16	5.0	0.55	0.4	1.8	23.1	1111	1.15	84	110
3×25	6.0	0.55	0.5	1.8	26.1	1556	0.727	110	140
3×35	7.0	0.6	0.5	1.8	28.1	1897	0.524	135	170
3×50	8.2	0.65	0.5	1.9	30.3	2392	0.387	170	205
3×70	9.2	0.65	0.5	1.9	33.3	3202	0.268	215	250
3×95	10.83	0.65	0.5	2.0	37.5	4099	0.193	265	300
3×120	12.2	0.65	0.5	2.1	40.7	5090	0.153	310	345
3×150	13.5	0.75	0.6	2.3	43.9	6049	0.124	350	385

Main parameters

Mineral insulated flexible fireproof cable

BTTRZ - 0.6/1kV

Cores number ×cross sectional area (mm^2)	Conductor diameter (mm)	Insulation thickness (mm)	Nominal thickness of copper sheath (mm)	Sheath thickness (mm)	Calculate approximate outer diameter (mm)	Calculate approximate weight kg/km	Conductor DC resistance (20°C) Ω/km	Carrying capacity of A (Working temperature 90°C in the air 40°C)	Carrying capacity of A (Working temperature 90°C in soil 25°C)
4×6	2.74	0.45	0.4	1.8	18.1	706	3.08	47	64
4×10	4.0	0.55	0.5	1.8	22.1	1054	1.83	65	86
4×16	5.0	0.55	0.5	1.8	25.1	1393	1.15	84	110
4×25	6.0	0.55	0.5	1.8	28.1	1860	0.727	110	140
4×35	7.0	0.6	0.5	1.8	30.1	2244	0.524	135	170
4×50	8.2	0.65	0.5	1.9	33.3	2888	0.387	170	205
4×70	9.2	0.65	0.6	2.0	36.4	3883	0.268	215	250
4×95	10.83	0.65	0.6	2.1	41.6	5028	0.193	265	300
4×120	12.2	0.65	0.7	2.3	45.0	6291	0.153	310	345

Mineral insulated flexible fireproof cable

BTTRZ - 0.6/1kV

Cores number ×cross sectional area (mm^2)	Conductor diameter (mm)	Insulation thickness (mm)	Nominal thickness of copper sheath (mm)	Sheath thickness (mm)	Calculate approximate outer diameter (mm)	Calculate approximate weight kg/km	Conductor DC resistance (20°C) Ω/km	Carrying capacity of A (Working temperature 90°C in the air 40°C)	Carrying capacity of A (Working temperature 90°C in soil 25°C)
5×4	2.23	0.45	0.4	1.8	18.1	648	4.61	37	51
5×6	2.74	0.45	0.4	1.8	19.1	751	3.08	47	64
5×10	4.0	0.55	0.5	1.8	24.1	1136	1.83	65	86
5×16	5.0	0.55	0.5	1.8	28.1	1490	1.15	84	110
5×25	6.0	0.55	0.5	1.8	31.1	2060	0.727	110	140
5×35	7.0	0.6	0.5	1.8	32.4	2617	0.524	135	170
5×50	8.2	0.65	0.5	2.0	36.4	3350	0.387	170	205

Main parameters

Mineral insulated flexible fireproof cable

BTTRZ - 0.6/1kV

Cores number ×cross sectional area (mm^2)	Conductor diameter (mm)		Insulation thickness (mm)		Nominal thickness of copper sheath (mm)	Sheath thickness (mm)	Calculate approximate outer diameter (mm)	Calculate approximate weight kg/km	Conductor DC resistance (20°C) Ω/km	Carrying capacity of A (Working temperature 90°C in the air 40°C)	Carrying capacity of A (Working temperature 90°C in soil 25°C)
	Phase line	Midcourt line	Phase line	Midcourt line							
3×6+1×4	2.74	2.23	0.45	0.45	0.5	1.8	17.8	750	3.08	47	64
3×10+1×6	4.0	2.74	0.55	0.45	0.5	1.8	20.9	1014	1.83	65	86
3×16+1×10	5.0	4.0	0.55	0.55	0.5	1.8	23.8	1350	1.15	84	110
3×25+1×16	6.0	5.0	0.55	0.55	0.5	1.8	26.7	1787	0.727	110	140
3×35+1×16	7.0	5.0	0.6	0.55	0.5	1.8	28.4	2086	0.524	135	170
3×50+1×25	8.2	6.0	0.65	0.55	0.5	1.8	31.8	2677	0.387	170	205
3×70+1×35	9.9	7.0	0.65	0.6	0.6	1.9	35.0	3531	0.268	215	250
3×95+1×50	11.6	8.2	0.65	0.65	0.6	2.1	39.2	4648	0.193	265	300
3×120+1×70	13.0	9.9	0.65	0.65	0.7	2.2	42.8	5773	0.153	310	345
3×150+1×70	14.5	9.9	0.75	0.65	0.6	2.3	45.3	6799	0.124	350	385
3×185+1×95	16.2	11.6	0.75	0.65	0.6	2.4	49.8	8471	0.0991	405	435
3×240+1×120	18.4	13.0	0.75	0.65	0.6	2.6	55.1	10774	0.0754	480	500

Mineral insulated flexible fireproof cable

BTTRZ - 0.6/1kV

Cores number ×cross sectional area (mm^2)	Conductor diameter (mm)		Insulation thickness (mm)		Nominal thickness of copper sheath (mm)	Sheath thickness (mm)	Calculate approximate outer diameter (mm)	Calculate approximate weight kg/km	Conductor DC resistance (20°C) Ω/km	Carrying capacity of A (Working temperature 90°C in the air 40°C)	Carrying capacity of A (Working temperature 90°C in soil 25°C)
	Phase line	Midcourt line	Phase line	Midcourt line							
3×6+2×4	2.74	2.23	0.45	0.45	0.5	1.8	18.6	835	3.08	47	64
3×10+2×6	4.0	2.74	0.55	0.45	0.5	1.8	21.6	1076	1.83	65	86
3×16+2×10	5.0	4.0	0.55	0.55	0.5	1.8	25.1	1421	1.15	84	110
3×25+2×16	6.0	5.0	0.55	0.55	0.5	1.8	28.2	1921	0.727	110	140
3×35+2×16	7.0	5.0	0.6	0.55	0.5	1.8	29.8	2274	0.524	135	170
3×50+2×25	8.2	6.0	0.65	0.55	0.6	1.9	33.9	3039	0.387	170	205
3×70+2×35	9.2	7.0	0.65	0.6	0.6	2.0	37.1	3929	0.268	215	250
3×95+2×50	10.83	8.2	0.65	0.65	0.6	2.1	41.3	5049	0.193	265	300
3×120+2×70	12.2	9.2	0.65	0.65	0.6	2.3	45.5	6396	0.153	310	345
3×150+2×70	13.5	9.2	0.75	0.65	0.6	2.4	47.8	7343	0.124	350	385
3×185+2×95	15.2	10.83	0.75	0.65	0.6	2.5	52.7	9250	0.0991	405	435
3×240+2×120	17.35	12.2	0.75	0.65	0.6	2.7	58.2	11813	0.0754	480	500

Main parameters

Mineral insulated flexible fireproof cable

BTTRZ - 0.6/1kV

Cores number ×cross sectional area (mm^2)	Conductor diameter (mm)		Insulation thickness (mm)		Nominal thickness of copper sheath (mm)	Sheath thickness (mm)	Calculate approximate outer diameter (mm)	Calculate approximate weight kg/km	Conductor DC resistance (20°C) Ω/km	Carrying capacity of A (Working temperature 90°C in the air 40°C)	Carrying capacity of A (Working temperature 90°C in soil 25°C)
	Phase line	Midcourt line	Phase line	Midcourt line							
4×6+1×4	2.74	2.23	0.45	0.45	0.4	1.8	19.1	791	3.08	47	64
4×10+1×6	4.0	2.74	0.55	0.45	0.5	1.8	23.1	1126	1.83	65	86
4×16+1×10	5.0	4.0	0.55	0.55	0.5	1.8	26.1	1482	1.15	84	110
4×25+1×16	6.0	5.0	0.55	0.55	0.5	1.8	30.1	2011	0.727	110	140
4×35+1×16	7.0	5.0	0.6	0.55	0.6	1.8	32.1	2590	0.524	135	170
4×50+1×25	8.2	6.0	0.65	0.55	0.6	2.0	35.4	3280	0.387	170	205
4×70+1×35	9.2	7.0	0.65	0.6	0.6	2.1	38.6	4264	0.268	215	250
4×95+1×50	10.83	8.2	0.65	0.65	0.6	2.2	43.8	5533	0.193	265	300
4×120+1×70	12.2	9.2	0.65	0.65	0.6	2.4	47.1	7041	0.153	310	345
4×150+1×70	13.5	9.2	0.75	0.65	0.6	2.5	51.3	8104	0.124	350	385
4×185+1×95	15.2	10.83	0.75	0.65	0.6	2.6	55.5	10223	0.0991	405	435
4×240+1×120	17.35	12.2	0.75	0.65	0.6	2.8	61.8	12995	0.0754	480	500