

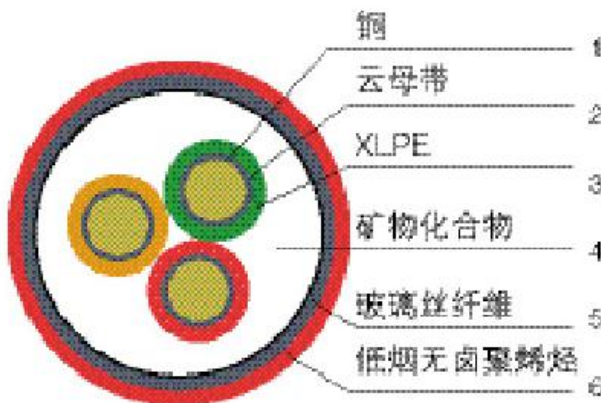
Flexible mineral insulated fireproof cable

1. Product Structure

Flexible mineral insulated fireproof cable is made of copper stranded wire, mica tape fire protection layer, mineral mixture, low smoke halogen-free sheath, etc.

Voltage rating 0.6/1KV (Um=1.2KV) Flexible mineral insulated fireproof cable

Type	Product Name	Voltage rating
BBTRZ	Flexible mineral insulated fireproof cable	0.6/1KV



1. Copper
2. Mica tape
3. XLPE
4. Mineral compound
5. glass fiber
6. low smoke zero halogen polyolefin



2. Product features

Flexible mineral insulated fireproof cable can maintain normal operation for a while after the fire broke out. It ensures line security and is beneficial for

rescue operation. The cable has passed C、W、Z grade tests required in BS6387 and BS8491 Standard. The tests are 950°C, 180min combustion test, 650°C water spray test and 950°C mechanical impact test.

3. Product structure design

Excellent fire performance--It conforms to BS6387 and BS8491 Standard.

Environmental friendly materials--It's halogen free, low smoke during combustion.

Flexible structure--There's no any other similar metal sheath except for stranded copper wire. Environmental friendly isolation material is much softer than others. The complete cable is more flexible and of good fireproof performance.

Easy installation-- The cable can be delivered in coils according to the customer's demand on length. There is no need to use connectors and appropriate terminals. It can be installed in accordance with installation methods for ordinary cables.

Prefabricated branch cable system—We can prefabricate branch joints to meet the user's need. The system makes installation more convenient.

4. Product standard and specification

Test item	GB/T	IEC	DIN VDE	BS
Uneven cable insulation and voltage level test	12706	60502		
Combustion test and mechanical test				6027
Flame spread test	18380.3	60332-3	0472	
Smoke emission test	17651.2	61034-2	0472	
Circuit integrity test	19666.6	60331	0472	
Halogen content test	17650.2	60754-2	0472	6387
Combustion test for electrical			4102	

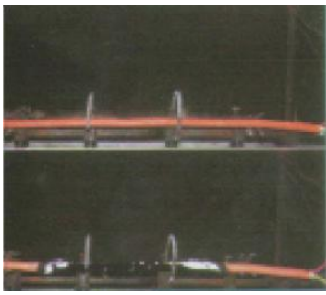
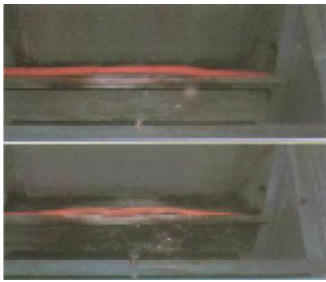
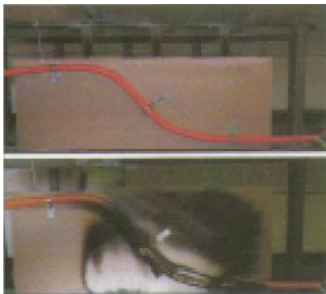
cable system				
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Remarks: Rated current-carrying capacity is in accordance with section 523 *Cabling system current-carrying capacity*, part five *Selection and installation of electrical equipment* in *Building electrical equipment* specified in GB/T 16895.15-2002.

Cable installation bending radius: BBTRZ-15D, BBTRZ-2320D

5. Test standard

Standard for tests in BS6387 and BS8491: Design parameter of flexible mineral insulated fireproof cable is strictly according to BS6387, BS8491, and International Electrotechnical Commission (IEC) Standard. The cable has past specialized tests of the National Fire Administration and Shanghai Electric Cable Research Institute.

Test item		BS6387, BS8491	GB/T 12666.6	IEC 60331
combustion		A : 650±40℃,180min B : 750±40℃,180min C : 950±40℃,180min S : 950±40℃,180min	A : 950℃-1000℃ , 90min B : 750℃-850℃ , 90min	750℃, 3h
Water spray		W : 650℃±40℃ First burn for 15min, then burn again and spray for 15min.		
Mechanical impact		X : 650±40℃,180min Y : 750±40℃,180min Z : 950±40℃,180min		

Remarks: Flexible mineral insulated fireproof cable has passed C、W、Z grade tests, which are the highest levels of the above three test items required in BS6387 and BS8491 Standard.

Parameters of outer diameter and weight

Specification	Theoretical outer diameter mm		Theoretical weight Kg/km		Specification	Theoretical outer diameter mm		Theoretical weight Kg/km	
	BBTRZ	BBTRZ	BBTRZ	BBTRZ		Core number × cross section area mm ²	BBTRZ	BBTRZ	BBTRZ
1 × 1.5	9.2	/	72	/	4 × 16	23.9	27.1	1087	1395
1 × 2.5	9.6	/	87	/	4 × 25	28.2	32.8	1588	1988
1 × 4	10.1	/	109	/	4 × 35	30.6	35.4	2046	2501
1 × 6	10.6	/	135	/	4 × 50	34.9	39.5	2839	3673
1 × 10	11.9	/	196	/	4 × 70	39.4	44.2	3837	4810
1 × 16	12.7	/	266	/	4 × 95	43.6	48.4	4923	5982
1 × 25	14.3	/	386	/	4 × 120	47.7	52.7	6069	7260
1 × 35	15.3	/	501	/	4 × 150	52.9	57.9	7615	8939
1 × 50	16.9	/	680	/	4 × 185	57.9	63.3	9275	10800
1 × 70	18.9	/	923	/	4 × 240	64.4	69.8	11756	13451
1 × 95	20.7	/	1188	/	5 × 1.5	13.6	16.8	351	557
1 × 120	22.3	/	1467	/	5 × 2.5	17.7	20.9	451	671
1 × 150	24.5	/	1826	/	5 × 4	19	22.2	552	791
1 × 185	26.7	/	2240	/	5 × 6	20.4	23.6	682	939
1 × 240	29.2	/	2840	/	5 × 10	23.9	27.1	939	1246
1 × 300	33.8	/	3555	/	5 × 16	25.9	29.1	1280	1616
1 × 400	37.5	/	4679	/	5 × 25	30.6	34.2	1892	2629
1 × 500	41.7	/	5813	/	5 × 35	33.5	38.3	3474	3298
1 × 630	46	/	7274	/	5 × 50	38.3	42.9	3478	4396
2 × 1.5	14.2	/	207	/	5 × 70	43.5	48.1	4683	5729
2 × 2.5	15	/	242	/	5 × 95	48	53	5863	7062
2 × 4	16	19.2	288	484	5 × 120	52.8	57.8	7450	8767
2 × 6	17	20.2	347	557	5 × 150	58.4	63.8	9319	10854
2 × 10	19.6	22.8	537	784	5 × 185	64.2	69.8	11460	13188
2 × 16	21.1	24.3	687	952	5 × 240	71.5	77.3	14550	16521
2 × 25	24.7	27.9	1020	1339	3 × 2.5+2 × 1.5	16.6	19.8	440	653
2 × 35	26.7	29.9	1260	1606	3 × 4+2 × 2.5	17.8	21	530	761
2 × 50	29.9	34.7	1634	2367	3 × 6+2 × 4	19.1	22.3	649	899
2 × 70	33.7	38.5	2138	2968	3 × 10+2 × 6	21.8	25	849	1136
2 × 95	37.3	41.9	2848	3726	3 × 16+2 × 10	24.4	27.6	1169	1493
2 × 120	40.7	45.3	3447	4407	3 × 25+2 × 16	28.2	42.8	1697	2107
2 × 150	44.9	49.7	4190	5280	3 × 35+2 × 16	29.8	34.6	2026	2775
2 × 185	49.3	53.9	5071	6237	3 × 50+2 × 25	34.5	39.1	3937	3781

2.5	31	37	30	41	33	28
4	41	49	42	54	43	37
6	52	62	52	68	55	47
10	71	87	72	93	80	65
16	92	108	95	120	100	84
25	120	145	120	155	135	110
35	150	190	155	200	170	135
50	180	220	190	245	200	170
70	230	278	245	305	245	215
95	285	340	320	380	320	265
120	335	400	360	440	360	310
150	385	450	420	490	430	350
185	450	520	480	575	500	405
240	535	608	590	690		480
300	780	850	800	890		555

Voltage drop for three phase 380V system

cross section area (mm ²)	COS Φ						
	0.5	0.6	0.7	0.8	0.9	1.00	
Copper	510	0'024	0'023	0'024	0'024	0'023	0'024
	482	0'028	0'024	0'023	0'024	0'024	0'024
	420	0'023	0'028	0'024	0'024	0'022	0'020
	450	0'025	0'028	0'023	0'022	0'020	0'023
	22	0'023	0'024	0'028	0'022	0'022	0'024
	10	0'021	0'023	0'024	0'024	0'023	0'024
	20	0'020	0'028	0'022	0'020	0'024	0'028
	32	0'023	0'022	0'024	0'022	0'022	0'024
	52	0'024	0'028	0'024	0'020	0'023	0'022
	12	0'024	0'025	0'020	0'022	0'024	0'022
	40	0'022	0'022	0'025	0'022	0'020	0'024
	2	0'022	0'020	0'024	0'022	0'022	0'020
	4	0'023	0'024	0'023	0'024	0'022	0'020

7. Application fields

Site	Utility system
Necessary emergency public facilities	Fire alarm, smoke regulators, smoke evacuation, audible alarm, CCTV, emergency lighting, spray control, emergency power supply, control centers, life-saving escalators, fire alarm service telephones
Public buildings	General lighting and power systems, emergency power supply, fire alarm and security systems, main trunk circuits
Airports	General lighting and power systems, emergency power supply, fire protection, public places, CCTV
Railway tunnels, public tunnels	General lighting, fire alarm, emergency lighting, smoke evacuation, security duty rooms
Subways	General lighting, emergency lighting, fire protection,

	CCTV
General lighting systems	Emergency lighting circuits, emergency broadcast lines
Parking lots	General lighting, fire alarm, emergency lighting, smoke extraction, security duty rooms
Financial buildings	Emergency lighting, fire protection, computer information centers, security system control centers
Hospitals	Emergency lighting, emergency power supply, rescue center power supply, fire evacuation
Building exterior	looped network, safety lighting, escalators, emergency stop control systems, fire detection, smoke evacuation
Ancient buildings under repair	Lighting systems, fire alarm, fire fighting system
Hotels	General lighting and power, fire alarm, emergency lighting, bedroom lighting and power, trunk lines in main distribution rooms
Department stores	General lighting and power, emergency lighting, secure circuits in public places
Equipment manufacture	Assembly lines for machinery and equipment
Circuits with explosible gas	The solid structure and metal sheath of mineral insulated cable can avoid propagation among the equipment through liquid, gas and flame.
Sturdy buildings	Main and branch circuits distribution systems, underground main circuit systems
Transport hubs	Public lighting, fire emergency lighting, emergency lighting termination and display indication
Water treatment systems	General lighting, emergency lighting, fire protection
Transformer substation systems	General lighting and power circuits, emergency lighting, fire alarm and security systems