

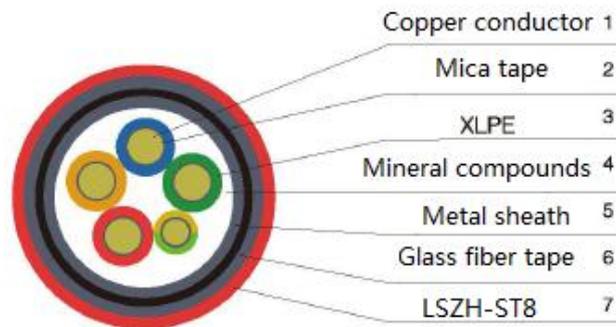
Mineral-insulated Metal sheath Flexible Fire-proof Cable

1. Product composition

SQBTRG is made up of copper stranded conductor、mica tape fireproofing、mineral compounds、aluminum sheath and LSZH sheath.

Rated Voltage 0.6/1KV(Um=1.2KV) Mineral-insulated Metal sheath Flexible Fire-proof Cable.

Type	Name	Size(mm ²)	Cores
SQBTRG	Mineral-insulated Metal sheath Flexible Fire-proof Cable.	2.5-6	3-61
		2.5-240	2-5
		10-300	1



2. Product code

SQ-----Sanqi
 B-----Mineral-insulated
 T-----Copper conductor
 R-----Flexible
 G-----Stainless steel

Example for product representation

Mineral-insulated Metal sheath Flexible Fire-proof Cable 、 rated voltage0.6/1kv 、 4cores 、 cross section95mm²,expressed as:SQBTRG0.6/1KV,4*95

Mineral-insulated Metal sheath Flexible Fire-proof Cable 、 rated voltage0.6/1kv 、 1core 、 cross section240mm²,expressed as:SQBTRG0.6/1KV,1*240

3. Product features

SQBTRG can still keep the fire circuit in normal operation for a certain time after the fire. It's great helpful for rescue efforts. SQBTRG passed C、 W、 Z test by BS6387、 BS8491--950°C,180mins fire test,650°C spray test,950°C mechanical impact test.

4. Product construction

Environmental material--Low smoke zero halogen during burning

High mechanical strength--Mineral-insulated Metal sheath Flexible Fire-proof Cable is sturdy and durable, better than steel tape armor under fire conditions.

High overload capacity-The overload capacity is better than regular YJV cable because of the insulation is used heat resisting(800°C)mica tape and mineral compounds.

Corrosion resistance—Sheath of SQBTRG is of high corrosion resistance. It's still safe even our cable installed in place that are vulnerable to chemical corrosion or serious industrial pollution, usually don't have to take other additional protection.

Easy installation—The cable can be delivered in coils as per customer's demand on length. SQBTRG can install by regular laying method without midterm splice and specified terminal.

5. Product standard and specification

Items	GB/T	IEC	DIN VDE	BS
Levels of insulation and Withstand voltage	12706	60502		
Test of burning and mechanical				6027
Test of flame spread	18380.3	60332-3	0472	
Test of Smoke emission	17651.2	61034-2	0472	

Test of Circuit integrity	19666.6	60331	0472	
Test of halogen content	17650.2	60754-2	0472	6387
Burning test of electrical cable system			4102	

6. Test standard

Test standard of BS6387、BS8491 : Design specification of SQBTRG is strictly followed by BS6387、BS8491 and IEC. These specifications had been passed by specialized test of National Fire Administration and SECRI.

Test Item	BS6387、BS8491	GB/T 12666.6	IEC60331
Burning	A : 650 \pm 40 $^{\circ}$ C、180min B : 750 \pm 40 $^{\circ}$ C、180min C : 950 \pm 40 $^{\circ}$ C、180min S : 950 \pm 40 $^{\circ}$ C、180min	A : 950 $^{\circ}$ C-1000 $^{\circ}$ C、90min B : 750 $^{\circ}$ C-850 $^{\circ}$ C、90min	750 $^{\circ}$ C、3h
Spray	W:650 \pm 40 $^{\circ}$ C Burning 15mins first Then burning and spray 15min	None	None
Mechanical impact	X: 650 \pm 40 $^{\circ}$ C、15min Y: 750 \pm 40 $^{\circ}$ C、15min Z: 950 \pm 40、5min/30times	None	None

7. Parameter table of outer diameter and weight

规格	理论外径 mm	理论重量 kg/km	规格	理论外径 mm	理论重量 kg/km
芯数 × 截面 mm	SQBTRG	SQBTRG	芯数 × 截面 mm	SQBTRG	SQBTRG
1 × 10	22.3	623.8	3 × 6	30.3	942.5
1 × 16	23.3	719.0	3 × 10	32.7	1183.0
1 × 25	24.4	824.5	3 × 16	34.9	1449.8
1 × 35	25.4	970.8	3 × 25	39.6	2202.5
1 × 50	26.6	1127.1	3 × 35	41.8	2608.7
1 × 70	28.4	1390.6	3 × 50	44.4	3133.1
1 × 95	30.1	1682.5	3 × 70	48.5	4043.9
1 × 120	31.7	1956.4	3 × 95	51.9	5069.1
1 × 150	34.3	2334.3	3 × 120	55.6	6018.3
1 × 185	36.0	2745.5	3 × 150	61.2	7301.1
1 × 240	38.9	3422.6	3 × 185	65.0	8703.2
1 × 300	41.4	4106.8	3 × 240	71.3	10982.1
1 × 2.5	23.7	663.7	3 × 300	73.6	13221.1

规格	理论外径 mm	理论重量 kg/km	规格	理论外径 mm	理论重量 kg/km
芯数 × 截面 mm	SOBTRG	SOBTRG	芯数 × 截面 mm	SOBTRG	SOBTRG
5 × 4	32.3	1082.2	3 × 4+2 × 2.5	31.8	942.7
5 × 6	34.5	1245.9	3 × 6+2 × 4	32.8	1128.7
5 × 10	36.7	1609.3	3 × 10+2 × 6	35.2	1360.1
5 × 16	38.2	2021.8	3 × 16+2 × 10	37.4	1730.4
5 × 25	42.0	3305.4	3 × 25+2 × 16	44.1	3202.4
5 × 35	47.0	3959.0	3 × 35+2 × 16	45.9	3612.9
5 × 50	52.9	4808.5	3 × 50+2 × 25	48.8	4401.4
5 × 70	58.0	6197.4	3 × 70+2 × 35	52.8	5531.7
5 × 95	62.4	7852.8	3 × 95+2 × 50	56.7	6888.2
5 × 120	66.9	9332.8	3 × 120+2 × 70	60.9	8424.0
5 × 150	71.4	11389.5	3 × 150+2 × 70	65.4	9586.1
5 × 185	78.8	13652.0	3 × 185+2 × 95	70.0	11692.5
5 × 240	86.5	17307.2	3 × 240+2 × 120	76.1	14607.1
5 × 300	93.1	20876.0	3 × 300+2 × 150	82.5	17710.7
3 × 4+1 × 2.5	30.0	887.8	4 × 4+1 × 2.5	31.1	1011.9
3 × 6+1 × 4	31.0	1033.4	4 × 6+1 × 4	32.3	1184.2
3 × 10+1 × 6	33.4	1264.8	4 × 10+1 × 6	34.9	1483.1
3 × 16+1 × 10	35.6	1583.1	4 × 16+1 × 10	37.4	1877.3
3 × 25+1 × 16	42.3	2596.9	4 × 25+1 × 16	43.9	2643.0
3 × 35+1 × 16	44.1	2987.8	4 × 35+1 × 16	46.3	3695.2
3 × 50+1 × 25	47.0	3624.4	4 × 50+1 × 25	49.4	4479.2
3 × 70+1 × 35	51.0	4617.8	4 × 70+1 × 35	54.0	5759.2
3 × 95+1 × 50	54.9	5771.5	4 × 95+1 × 50	57.8	7210.1
3 × 120+1 × 70	59.1	6948.9	4 × 120+1 × 70	62.1	8704.4
3 × 150+1 × 70	63.6	8155.8	4 × 150+1 × 70	68.1	10289.0
3 × 185+1 × 95	68.2	9868.1	4 × 185+1 × 95	72.6	12435.3
3 × 240+1 × 120	74.3	12376.0	4 × 240+1 × 120	79.5	15677.0
3 × 300+1 × 150	80.7	14960.6	4 × 300+1 × 150	86.5	18946.3

8. Ampacity table

(Environment temperature 40°C, operating temperature 90°C)

芯数	单芯				二芯	三、四、五芯
	1	2	3	4	5	6
排列						
截面 (mm ²)	铜芯	铜芯	铜芯	铜芯	铜芯	铜芯
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

电缆用于三相 380V 系统的电压降 (%/A.KM)

截面 (mm ²)	COSΦ						
	0.5	0.6	0.7	0.8	0.9	1.00	
铜	4	1.253	1.494	1.733	1.971	2.207	2.430
	6	0.846	1.006	1.164	1.321	1.467	1.620
	10	0.529	0.626	0.722	0.816	0.909	0.991
	16	0.342	0.402	0.460	0.518	0.574	0.619
	25	0.231	0.268	0.304	0.340	0.373	0.397
	35	0.173	0.199	0.224	0.249	0.271	0.284
	50	0.130	0.148	0.165	0.180	0.194	0.198
	70	0.101	0.113	0.124	0.134	0.143	0.141
	95	0.083	0.091	0.098	0.105	0.109	0.104
	120	0.072	0.078	0.083	0.087	0.090	0.083
	150	0.063	0.068	0.071	0.074	0.075	0.060
	185	0.058	0.061	0.063	0.064	0.064	0.054
	240	0.051	0.053	0.054	0.054	0.053	0.041

9. Applications

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