

Synthetic mineral-insulated Metal sheath Copper Flexible Fire-proof power Cable

HFTGB-- Synthetic mineral-insulated Metal sheath Copper Flexible Fire-proof power Cable can lay in indoors、 duct、 cable trench、 cable tray and place that can bear the mechanical action of external forces.

1. Product standard

GB/T 12706.1-2008 《 Rated voltage 1kv($U_m=1.2kv$)to 35kv($U_m=40.5kv$) Extruded insulation power cable First part》

2. Fire resistance test Standard

BS6387:1994 《 Performance requirement of keeping cable completeness under the fire conditions》

3 Basic technical requirements

Place of installation: indoors、 outdoors(according to type of cable and range of applications)

Laying method and temperature: cable trench、 cable tunnel、 overhead bridge、 cable interlayer; the environment temperature of installation is not lower than 0°C.

Environment of laying: Cables can lay in surface, cable rack、 cable hanger and other easy and cheap methods of laying.

4. Operating conditions of cables

Operating temperature:-40°C-180°C, short circuit(the maximum duration is no more than 5 seconds), the highest temperature of copper conductor is not more than 950°C.

The maximum duration is no more than 5 seconds

Rated frequency:49-61Hz

Operating environment of cables: environment temperature:-40°C-180°C

Bending radius: Bending radius of cables is not less than 7times of outer diameter.

5. Product features

Performance of fireproof

Outer sheath of HFTGB cable is using non-magnetic metal material made of thread, both to maintain the original soft bend of the cable, but also increase the fire rating, it also ensures that the installation of anti-scratch and the damaged by rats of using at the same time, and also helps heat dissipation when using the cable. HFTGB cable is comparable to regular cable. The materials do not cause fires and cannot be burned or feeding the fire.

HFTGB is a real sense of fire proof cable, these materials with over 1300°C high melting

points, so HFTGB fire proof cable can also perform normal transmission functions even under 1000 °C of high temperature flame conditions.

Proprietary technology- Synthetic mineral-insulated flexible materials

Synthetic mineral-insulated flexible materials is used silicone rubber as the basis, adding MgO, AlO, vitrified powder etc..

HFTGB--Synthetic mineral-insulated Metal sheath Copper Flexible Fire-proof power Cable enhances the electrical、 mechanical and anti-corrosion properties ; it can reduce the electrical fault caused by the need of a large number of splices in the installation, solving the problems of easy absorption impact the insulating property for BTTZ cable.

Flexible

The construction of HFTGB cable is similar to regular cable, but it's flexible as same as the regulars, this is the real flexible. It can be continuously wound on the cable tray in production and smoothly lined in installation.

The conductor of the cable adopts the mature strand compression technique, improving the flexibility on the basis of ensuring the smooth and round of conductor.

The insulation adopt synthetic mineral flexible materials, the flexibility is the same as the regular cable.

The outer jacket adopt non-magnetic stainless steel material made of thread, and ensuring the bending of the cable.

Outer diameter D (mm)	Specified bending radius of power cable in GB/T12706		HFTGB cable
	15D	12D	
≤20	15D	12D	7D
≤30	15D	12D	7D
≤40	15D	12D	7D
≤50	15D	12D	7D
≤60	15D	12D	7D
≤70	15D	12D	7D

Cable without connector

HFTGB cable can be delivered by customer's requirements of length and cores, no matter single core or multi core, the length can meet the requirements of power supply.

Compared with BTTZ of production length

Size	HFTGB(m)	BTTZ(m)	Size	HFTGB(m)	BTTZ(m)
1*10	Over 2000	480	3*4	Over1000	235
1*95	Over1500	145	3*10	Over1500	130
1*240	Over1500	56	3*25	Over1500	85
2*4	Over1500	250	4*4	Over1500	190
2*10	Over1500	150	4*10	Over1500	115
2*25	Over1500	90	4*25	Over1500	98

Environment friendly

HFTGB cable passed the test of National fireproof construction material supervision inspection center, the testing data shows that the performance exceed the requirements of low smoke zero halogen flame retardant(A) cable.

Compared with standard of China's ministry of public security:

Item	Standard of GA306	VS	Data of burning test
PH	≥4.3		5.5
Electrical conductivity μ s/mm	≤10.0		0.7
Smoke density (minimum light transmittance)%	≥80		93

Greater capacity of currents carrying

The currents carrying of HFTGB cable exceed regular cable a lot, and the stainless steel thread sheath is good for heat dissipation, it can transmit higher current.

Supper strong overloading-resistibility

When the insulation layer of HFTGB fire proof cable meets high temperature, it will quickly form the shell protection. During the overload and short-circuit current causing conductor fusing without short circuit and fire. Even the copper liquid formed by a conductor's short circuit will not flow out, so the electrical accident and fire by overload will be eradicated.

Superior protection

Outer sheath of HFTGB cable is using non-magnetic stainless steel material made of thread, it ensures that the installation of anti-scratch and the damaged by rats and termites, and also bears the continuously impact by the burning off and other heavy.

the metal sheath of cable after finishing the grounding.

Figure 1: the yellow green line;(Tin-plated copper braided wire can be replaced)

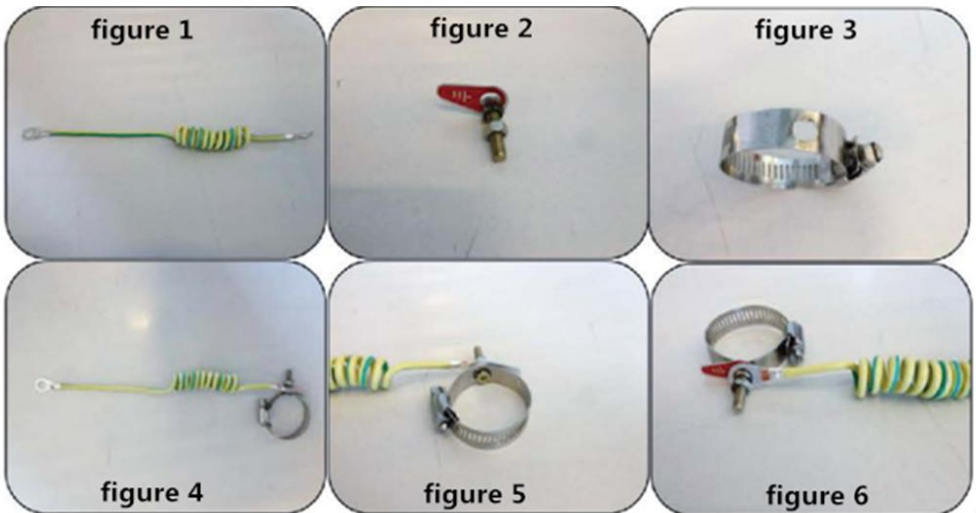
Figure 2: bolts and ground symbol

Figure 3: metal sheathed terminal

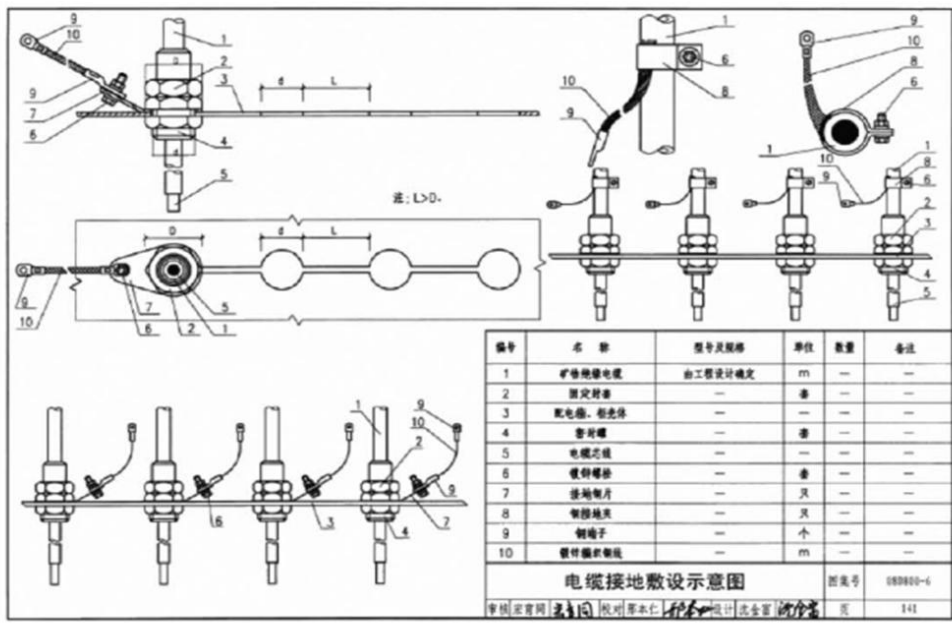
Figure 4: assembly structure

Figure 5: a larger version 1 of assembly structure

Figure 6: a larger version 2 of assembly structure



The above method of grounding meet the installation requirements of Housing and urban-rural development 《Civil building electrical design and construction of indoor wiring 08D800-6》





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