

## Oxygen Barrier Flame Retardant Power Cables

### ◆ Standard

Oxygen Barrier Flame Retardant Power Cables is manufactured according to Q/320412HLC004.

### ◆ Application

This cable is suitable for rated voltage 35kV and under voltage of the power transmission and distribution lines, especially for subways, tunnels, power stations, petrochemical, high-rise building and so on important places which were acquired flame retardant performance.

### ◆ Product Property

(1) The main technology of Oxygen Barrier Flame Retardant Cable is filled with a layer of non-toxic, non-smoking, non-melting, flammable, non-halogen fire-resistant plastic material between the cable Insulated core and outer sheath, when the cable burning, the fire-resistant compound thermal decomposition, releasing water of crystallization and endothermic, and forming cover in the insulating surface. Cover isolated oxygen for combustion, so that the inner Insulated organic matter is protected: crystallization of water precipitation, evaporation of water vapor absorbed a lot of heat, reducing the ambient temperature, thus ignition cable will gradually extinguish.

(2) Halogen flame retardant cable is processed by Oxygen barrier technology, its burning smoke intensity have markedly improved, if using low smoke halogen-free Insulated and sheathed, it meets halogen-free, low toxicity, low smoke requirements.

(3) The short length of cable Insulated ablation, and oxygen barrier flame retardant cable spray 40min when temperature is 815 °C, its cross-linked polyethylene insulated cable intact.

(4) The cable has good flame retardant and low prices.

### ◆ Technical Data (Table 1)

(1) Oxygen Barrier Flame Retardant grades meet IEC60332-3, GB/T12666.5 Class A standard test requirements.

(2) Conductor of cable allowing long-term max. temperature: XLPE Insulated is 90 °C, PVC Insulated is 70 °C.

(3) The installation minimum ambient temperature is 0 °C.

(4) Cable bending radius, allowing short-circuit temperature and carrying capacity values, the laying conditions, use of occasions, the installation method may be of the same specifications as non-oxygen barrier cable.

(5) Rated voltage  $U_0$  is 1.8kV and more than of XLPE insulated power cables need partial discharge test. In the finished cable is applied  $2.5U_0$  voltage, rated voltage 18kV and less than of XLPE insulated power cable discharge no more than 10pc,  $U_0$  for the 18kV cable discharge should be not more than 5pc.

Table 1

| Type   | No of cores | Rated voltage kV                |       |              |        |                |
|--------|-------------|---------------------------------|-------|--------------|--------|----------------|
|        |             | 0.6/1                           | 1.8/3 | 3.6/6<br>6/6 | 8.7/10 | 21/35<br>26/35 |
|        |             | Nominal section mm <sup>2</sup> |       |              |        |                |
| HCVMAV | 1           | 2.5~300                         | —     | —            | —      | —              |

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|--|-----------------|---------------------------------|-------|--------------|--------|----------------|
|  |                 | 0.6/1                           | 1.8/3 | 3.6/6<br>6/6 | 8.7/10 | 21/35<br>26/35 |
|  |                 | Nominal section mm <sup>2</sup> |       |              |        |                |
| HCVMAV   |                 | 2.5~300                         |       |              |        |                |
| HCVMAV<br>HCYJMAV  | 2               | 2.5~185                         | —     | —            | —      | —              |
| HCVMAV   | 3               | 2.5~300                         | —     | —            | —      | —              |
| HCYJMAV  |                 | 2.5~300                         |       |              |        |                |
| HCVMAV <sub>22</sub><br>HCYJMAV <sub>22</sub>                      |                 | 4~300                           | —     | —            | —      | —              |
| HCVMAV<br>HCYJMAV<br>HCVMAV <sub>22</sub><br>HCYJMAV <sub>22</sub> | 4               | 4~185                           | —     | —            | —      | —              |
| HCVMAV<br>HCYJMAV  | 3+1             | 4~300                           | —     | —            | —      | —              |
| HCVMAV <sub>22</sub><br>HCYJMAV <sub>22</sub>                      |                 | 4~185                           | —     | —            | —      | —              |
| HCVMAV<br>HCYJMAV<br>HCVMAV <sub>22</sub><br>HCYJMAV <sub>22</sub> | 5<br>3+2<br>4+1 | 4~185                           | —     | —            | —      | —              |

◆ **Type and Name**

| Type                  | Name   |
|-----------------------|--|
| HCVMAV                | PVC insulated PVC sheathed Oxygen Barrier flame-retardant power cables                     |
| HCYJMAV               | XLPE insulated PVC sheathed Oxygen Barrier flame-retardant power cables                    |
| HCVMAV <sub>22</sub>  | PVC insulated PVC sheathed steel tape armored Oxygen Barrier flame retardant power cables  |
| HCYJMAV <sub>22</sub> | XLPE insulated PVC sheathed steel tape armored Oxygen Barrier flame retardant power cables |