# 6-35kV 交联电缆产品手册

## POWER CABLES WITH XLPE INSULATION FOR RATED VOLTAGE FORM 6kV TO 35kV

### 产品用途 Product usage

本产品适用于额定电压 6kV - 35 kV的输、配电线路中，供输配电能之用。

The cable is suitable to be installed in transmission and distribution lines of rated voltage from 6 kV to 35kV.

### 产品标准 Product standard

本产品按照等效采用IEC 60502-1997标准及1998年第1号修改件的 GB/T 12706 - 2002标准组织生产。

The cable is produced according to the standard GB/T12706—2002 which is equivalent to IEC60502:1997.

### 使用特性 Applications Feature

1. 电缆导体的最高额定温度为90℃。

   Maximum rated operating temperature of the cable conductor is 90℃

2. 短路时（最长持续时间不超过 5s）电缆导体的最高温度不超过 250℃。

   Maximum short circuit temperature of the cable conductor shall not exceed 250℃ (duration not exceeding 5s)

3. 电缆的额定电压应适合电缆所在系统的运行条件，系统划分为下列三类：

   The rated voltage of the cable for a given application shall be suitable for the operating conditions in the system in which the cable is used. To facilitate the selection of the cable, systems are divided into three categories(see Table 1)

. A 类Category：任一相导体与地或接地导体接触时，能在 1 min内与系统分离。

   This category comprises those systems in which any phase conductor that comes in contact with earth or an earth conductor is disconnected from the system within 1 min.

   B 类Category：可在单相接地故障时作短时运行，根据JB/T 8996规定，接地故障时间不宜超过 1 h，对于本标准包括的电缆允许更长的带故障运行时间，但在任何情况下不宜超过 8 h，每年接地故障总持续时间不宜超过 125 h。

   This category comprises those systems which, under fault conditions, are operated for a short time with one phase earthed. This period, according to JB/T8896, should not exceed 1h. For cables covered by this standard, a longer period, not exceeding

8h on any occasion, can be tolerated. The total duration of earth faults in any year should not exceed 125h.

C类Category：包括不属于A 类、B类的系统。

This category comprises all systems which do not fall into category A or B.

注1：应该认识到，在系统接地故障不能立即自动解除时，故障期间加在电缆绝缘上过高的电场强度，会在一定程度上缩短电缆寿命。如预期系统会经常地运行在持久的接地故障状态下，该系统应划为C类。

Note 1: It should be realized that in a system where an earth fault is not automatically and promptly isolated, the extra stresses on the insulation of cables during the earth fault reduce the life of the cables to a certain degree. If the system is expected to be operated fairly often with a permanent earth fault, it may be advisable to classify the system in category C.

注2：在电缆额定电压表示式$U_0/U$（$U$m）中，$U_0$是电缆设计用的导体对地或金属屏蔽之间的额定工频电压；U是电缆设计用的导体间的额定工频电压；$U$m是设备可承受的“最高系统电压”的最大值（见GB156）。

用于三相系统的电缆，$U_0$的推荐值列于表1：

Note 2: The rated voltage Uo/ U( U m) of the cables are as follows:

Uo is the rated power frequency voltage between conductor and earth or metallic screen for which the cable is designed;

U is the rated power frequency voltage between conductors for which the cable is designed;

U m is maximum value of the “highest systems voltage” for which the equipment may be used(see GB156) .

表 Table 1 额定电压 $U_0$ 推荐值

Recommended rated voltage $U_0$

| 系统最高电压<br>Highest system voltage<br>U m/kV | 额定电压<br>Rated voltage<br>$U_0$ /kV | |
|---|---|---|
| | A类、B类<br>Categories A and B | C 类<br>Category C |
| 7.2 | 3.6 | 6.0 |
| 12.0 | 6.0 | 8.7 |
| 17.5 | 8.7 | 12.0 |
| 24.0 | 12.0 | 18.0 |
| 36.0 | 18.0 | - |
| 40.5 | 21.0 | 26.0 |

4. 电缆在环境温度不低于0℃条件下敷设时，无须预先加热，电缆的敷设不受落差限制。

敷设时最小弯曲半径：

单芯电缆　无铠装　20D，　有铠装　15D

三芯电缆　无铠装　15D，　有铠装　12D

式中：D——电缆的实际外径，mm

The ambient temperature shall not be lower than 0℃ and not preheat, the cable shall not be restricted by the difference of the level at installation。

Minimum bending radius during installation:

Single core cable:　no armoring 20D, with armoring 15D;

Three core cable:　no armoring 15D, with armoring 12D.

Where: D—the actual cable diameter　mm

## 产品规格 Product specification

交联电缆的额定电压、芯数及截面范围见表2

Rated voltage、cores and section with XLPE cable see table 2

表 table 2

| 额定电压 Rated voltage kV<br>芯数 ×截面<br>Cores×Section | A 、B类<br>Category | 3.6/6 | 6/10 | 8.7/15 | 12/20 | 18/30 | 21/35 |
|---|---|---|---|---|---|---|---|
| | C 类<br>Category | 6/6 | 8.7/10 | 12/15 | 18/20 | - | 26/35 |