

# 交流额定电压3kV及以下轨道交通车辆用电缆

## AC rated voltage 3kV and below for rail traffic vehicles

本产品适用于交流额定电压3kV及以下轨道交通车辆电器连接。

This cable is suitable for electrical connection of rail traffic vehicles of AC rated voltages up to and including 3kV.

### 一、生产执行标准

GB/T12528-2008.

### Production Standards

GB/T12528-2008.

### 二、使用特性

#### 1、电缆额定电压

电缆的交流额定电压U<sub>0</sub>为750V、1.5kV和3kV。直流额定电压为交流额定电压的1.5倍；

2、长期允许最高工作温度：100℃；

3、电缆最低使用环境温度：-25℃；

4、电缆敷设的允许弯曲半径

电缆半径（D）为20mm及以下时应不小于6D；

电缆半径（D）为20mm以上时应不小于8D。

### Operational performance

#### 1. Cable rated voltage

AC rated voltage U<sub>0</sub> of cable is 750V, 1.5kV and 3kV, with DC is 1.5 times of the AC.

2. Maximum working temperature: 100°C.

3. Minimum environment temperature: -25°C.

4. Bending radius for installation

It is that should not be less than 6D. When the cable radius (D) is less than or equal to 20mm.

It is that should not be less than 8D, when the cable radius (D) is longer than 20mm.

### 三、产品代号及含义

1、系列代号..... DC

2、导体材料代号..... 省略

3、绝缘材料代号

氯磺化聚乙烯橡胶混合物或其他相当的合成弹性体... H

乙丙橡胶混合物..... E

4、耐热特性代号

100℃..... 100

5、耐油特性代号

安装在无矿物油和燃料油污染处..... 1（可省略）

安装在受矿物油污染，但无燃料油污染处

（耐矿物油）..... 2

安装在受矿物油污染和燃料油污染处

（耐矿物油和燃料油）..... 3

6、型号含义

产品用型号、规格及本标准编号表示，组成如图示。

### Product code and meaning

1. Series code..... DC

2. Conductor material code..... Omit

3. Insulating material code

Chlorinated polyethylene rubber compound or equivalent synthetic elastomer..... H

EPR compound..... E

4. Heat characteristic code

100°C..... 100

5. Oil resistant code

Installed in the non-mineral oil and fuel oil pollution area

..... 1 (can be omitted)

Installation in mineral oil pollution area, but no fuel oil

pollution. (Mineral oil resistant)..... 2

It is installed in the pollution areas of mineral oil and fuel oil.

(Resistance to mineral oil and fuel oil)..... 3

6. Types of meaning

ITEM NO. forming Method



#### 四、产品名称、型号和规格

#### Product name, model and specification

##### 1、产品型号、名称

##### Product model and name

型号 Type	产品名称 Name
DCEYH/3-100	耐矿物油和燃料油铜芯耐热100℃乙丙橡胶混合物绝缘氯化聚乙烯橡胶混合物或其他相当的合成弹性体护套轨道交通车辆用电线 Copper core rail transit vehicle use cable, with resistance to mineral oil and fuel oil, heat resistant 100℃ EPR compound insulation and CSM rubber compound or equivalent synthetic elastomer sheath.

##### 2、规格

##### Specifications

型号 Type	额定电压 V Rated voltage V	芯数 Core wire No.	标称截面 mm <sup>2</sup> Nominal cross-section area mm <sup>2</sup>
DCEH/3-100	750	1	0.5~300
	1500	1	1~300
	3000	1	2.5~300

#### 五、主要技术参数

#### Main technical parameters

##### 1、电缆导体在20℃时的直流电阻

##### DC resistance of cable conductor at 20℃

标称截面 mm <sup>2</sup> Nominal cross-section area mm <sup>2</sup>	20℃时导体电阻最大值 (Ω/km)			
	不镀锡 Untinned		镀锡 Tinned	
	第5类导体 Class 5 conductor	第6类导体 Class 6 conductor	第5类导体 Class 5 conductor	第6类导体 Class 6 conductor
0.5	39.0	39.0	40.1	40.1
0.75	26.0	26.0	26.7	26.7
1	19.5	19.5	20.0	20.0
1.5	13.3	13.3	13.7	13.7
2	-	-	10.0	10.0
2.5	7.98	7.98	8.21	8.21
4	4.95	4.95	5.09	5.09
6	3.30	3.30	3.39	3.39
10	1.91	1.91	1.95	1.95
16	1.21	1.21	1.24	1.24
25	0.780	0.780	0.795	0.795
35	0.554	0.554	0.565	0.565
50	0.386	0.386	0.393	0.393
70	0.272	0.272	0.277	0.277
95	0.206	0.206	0.210	0.210
120	0.161	0.161	0.164	0.164
150	0.129	0.129	0.132	0.132
185	0.106	0.106	0.108	0.108
240	0.0801	0.0801	0.0817	0.0817
300	0.0641	0.0641	0.0654	0.0654

2、电缆计算外径（供参考）

DCEH/3-100型750V耐矿物油和燃料油铜芯耐热100℃

乙丙橡胶混合物绝缘氯化聚乙烯橡胶混合物或其他相

当合成弹性体护套轨道交通车辆用电缆。

The calculation outer diameter of cable (for reference)

DCEH/3-100 type 750V mineral oil resistant and fuel oil resistant copper core heat-resistant at 100°C.

Copper core rail transit vehicle use cable, with EPR compound insulation and CSM rubber compound or equivalent synthetic elastomer sheath.

导体标称截面 mm <sup>2</sup> Nominal sectional area of conductor	导体规格 Conductor specification	绝缘标称厚度 mm Insulation nominal thickness	护套标称厚度 mm Sheath nominal thickness	平均外径 mm Average outside diameter	
				下限 Lower limit	上限 Upper limit
0.5	5	0.6	0.6	3.2	4.4
	6	0.6	0.6	3.2	4.4
0.75	5	0.6	0.6	3.4	4.7
	6	0.6	0.6	3.4	4.7
1.0	5	0.6	0.6	3.5	4.9
	6	0.6	0.6	3.5	4.9
1.5	5	0.6	0.6	3.7	5.4
	6	0.6	0.6	3.8	5.4
2.5	5	0.7	0.7	4.4	6.2
	6	0.7	0.7	4.4	6.2
4.0	5	0.7	0.7	5.0	6.8
	6	0.7	0.7	5.0	6.8
6.0	5	0.7	0.7	5.4	7.8
	6	0.7	0.7	5.4	7.8
10	5	0.8	0.8	7.0	9.0
	6	0.8	0.8	7.0	9.0
16	5	0.8	0.8	8.0	10.5
	6	0.8	0.8	8.0	10.5
25	5	1.0	1.0	10.0	13.0
	6	1.0	1.0	10.0	13.0
35	5	1.0	1.0	11.0	14.5
	6	1.0	1.0	11.0	14.5
50	5	1.2	1.2	13.5	17.0
	6	1.2	1.2	13.5	17.0
70	5	1.2	1.2	15.0	19.5
	6	1.2	1.2	15.0	19.5
95	5	1.4	1.4	17.5	21.5
	6	1.4	1.4	17.5	21.5
120	5	1.4	1.4	19.0	23.5
	6	1.4	1.4	19.0	23.5
150	5	1.8	1.8	22.0	28.0
	6	1.8	1.8	22.0	28.0
185	5	1.8	1.8	23.5	29.5
	6	1.8	1.8	23.5	29.5
240	5	2.2	2.2	28.0	34.0
	6	2.2	2.2	28.0	34.0
300	5	2.2	2.2	30.0	37.0
	6	2.2	2.2	30.0	37.0

DCEH/3-100型1500V耐矿物油和燃料油铜芯耐热100℃  
乙丙橡胶混合物绝缘氯磺化聚乙烯橡胶混合物或其他相  
当合成弹性体护套轨道交通车辆用电缆。

DCEH/3-100 type 1500V mineral oil resistant and fuel oil res-  
istant copper core heat-resistant at 100°C.  
Copper core rail transit vehicle use cable, with EPR compou-  
nd insulation and CSM rubber compound or equivalent synt-  
hetic elastomer sheath.

导体标称截面 mm <sup>2</sup> Nominal sectional area of conductor	导体规格 Conductor specification	绝缘标称厚度 mm Insulation nominal thickness	护套标称厚度 mm Sheath nominal thickness	平均外径 mm Average outside diameter	
				下限 Lower limit	上限 Upper limit
1.0	5	0.8	0.8	4.3	6.0
	6	0.8	0.8	4.3	6.0
1.5	5	0.8	0.8	4.5	6.6
	6	0.8	0.8	4.6	6.6
2.5	5	0.9	0.9	5.0	7.6
	6	0.9	0.9	5.2	7.6
4.0	5	0.9	0.9	5.8	8.2
	6	0.9	0.9	5.8	8.2
6.0	5	0.9	0.9	6.4	9.0
	6	0.9	0.9	6.4	8.8
10	5	1.0	1.0	8.0	9.8
	6	1.0	1.0	7.8	9.8
16	5	1.0	1.0	8.8	11.5
	6	1.0	1.0	8.8	11.0
25	5	1.2	1.2	10.5	13.5
	6	1.2	1.2	10.5	13.5
35	5	1.2	1.2	12.0	15.0
	6	1.2	1.2	12.0	15.0
50	5	1.4	1.4	14.0	18.0
	6	1.4	1.4	14.0	18.0
70	5	1.4	1.4	16.0	20.5
	6	1.4	1.4	16.0	19.5
95	5	1.6	1.6	18.0	22.5
	6	1.6	1.6	18.5	22.5
120	5	1.6	1.6	19.5	24.5
	6	1.6	1.6	20.0	24.5
150	5	2.0	2.0	22.5	29.0
	6	2.0	2.0	22.5	28.0
185	5	2.0	2.0	24.0	30.0
	6	2.0	2.0	24.0	30.0
240	5	2.4	2.4	28.5	35.0
	6	2.4	2.4	28.5	35.0
300	5	2.4	2.4	31.0	38.0
	6	2.4	2.4	31.0	38.0

DCEH/3-100型3000V耐矿物油和燃料油铜芯耐热100℃  
乙丙橡胶混合物绝缘氯化聚乙烯橡胶混合物或其他相  
当合成弹性体护套轨道交通车辆用电缆

DCEH/3-100 type 3000V mineral oil resistant and fuel oil resistant copper core heat-resistant at 100℃.  
Copper core rail transit vehicle use cable, with EPR compound insulation and CSM rubber compound or equivalent synthetic elastomer sheath.

导体标称截面 mm <sup>2</sup> Nominal sectional area of conductor	导体规格 Conductor specification	绝缘标称厚度 mm Insulation nominal thickness	护套标称厚度 mm Sheath nominal thickness	平均外径 mm Average outside diameter	
				下限 Lower limit	上限 Upper limit
2.5	5	1.4	1.2	7.0	8.6
	6	1.4	1.2	7.0	8.6
4.0	5	1.4	1.2	7.4	9.2
	6	1.4	1.2	7.4	9.2
6.0	5	1.4	1.2	8.0	10.5
	6	1.4	1.2	8.0	10.5
10	5	1.6	1.2	9.4	11.5
	6	1.6	1.2	9.4	11.5
16	5	1.6	1.2	10.0	13.0
	6	1.6	1.4	10.0	12.5
25	5	1.8	1.4	12.0	15.5
	6	1.8	1.4	12.0	15.5
35	5	1.8	1.4	13.5	17.0
	6	1.8	1.8	13.5	17.0
50	5	2.0	1.8	16.0	20.0
	6	2.0	1.8	16.0	20.0
70	5	2.0	1.8	17.5	22.5
	6	2.0	1.6	18.0	22.0
95	5	2.2	1.6	20.0	24.5
	6	2.2	1.6	20.0	24.5
120	5	2.2	1.6	21.5	26.5
	6	2.2	1.6	22.0	26.5
150	5	2.6	2.2	24.5	30.5
	6	2.6	2.2	24.5	30.0
185	5	2.6	2.2	26.0	32.0
	6	2.6	2.2	26.0	32.0
240	5	3.0	2.8	30.5	37.0
	6	3.0	2.8	30.5	37.0
300	5	3.0	2.8	33.0	40.0
	6	3.0	2.8	32.5	40.0

## 六、包装

电缆应成盘或成圈交货，并卷绕整齐，妥善包装。电缆盘应符合JB/T 8137规定。

每个包装件上应附有标签，标明：

- a) 制造厂名；
- b) 产品型号；
- c) 规格，mm<sup>2</sup>；
- d) 额定电压，V或kV；
- e) 长度，m。

## Packing

The cable should be delivered in drum or in coil, and it should be wrapped well and properly wrapped. The cable drum shall be in accordance with the JB/T 8137.

Each package should be attached with a label. It is indicated that:

- A) manufacturer's name;
- B) product model;
- C) specification, mm<sup>2</sup>;
- D) rated voltage, V or kV;
- E) length, M.