

# Type Approval Certificate



[ Electric Cable ]

**Initial Approval** 25th June, 2021

**Manufacturer** Zhejiang Yuanlong Wire & Cable Manufacturing Co.Ltd

Building 8, Building 9, No. 528, Xingguo Road, Yuhang District, Hangzhou City,  
Zhejiang Province. P.C.:311108

**Product Description** 0.6/1kV, EPR/XLPE insulated shipboard power cables

Type: CEF, CEF80, CEF90, CEF82, CEF92, CEF8, CEV, CEV80, CEV90, CEV82,  
CEV92, CJ85, CJ86, CJPJ, CJPF, CJPJ85, CJPJ95, CJPF86, CJPF96

" See Appendix 1 "

**Approval Condition** " See Appendix 1 "

**THIS IS TO CERTIFY** that the above-mentioned product has been approved in accordance with the relevant requirement of this Society's Rules and / or of the recognized standards as follows.

Pt. 6, Ch. 1, Sec. 5 of the Rules for Classification, Steel Ships, IEC 60092-350, IEC 60092-353, IEC 60092-360, IEC 60332-1-2, IEC 60332-3-22, IEC 60754-1/2, IEC 61034-1/2, & IEC 60331-1/21

This Certificate is valid until 24th June, 2026

Issued at Shanghai, China on 25th June, 2021



This certificate is signed electronically in accordance with IMO FAL.5/Circ.39/Rev.2. Validation and authentication of the certificate can be confirmed from "<http://e-cert.krs.co.kr>" by using the tracking No(ME21016222477) and certificate No.(NIB44492-EL001).



**KOREAN REGISTER**

**General Manager of  
Technical Support Team  
CHINA KR Co., Ltd.**

**Note :** 1. This certificate will be valid subject to complying with the approval conditions described on the certificate and/or on the Rules of this Society.  
2. This certificate will be invalid from the expiry date aforementioned unless the extension or renewal has been granted to the applicant or the manufacturer.  
3. Any significant modifications or changes in design or construction to the above product without approval from this Society will render this certificate invalid.  
4. Should the specified rules, regulations or standards be amended during the validity of this certificate, the product is to be re-approved by this Society in accordance with the requirements as amended.

## Product Description and/or Approval Condition

Date of Issue : 25th June, 2021

### A. Product Description

#### 1. Product Specification

##### 1) Design Code

- CEF, CEF80, CEF90, CEF82, CEF92, CEF8, CEV, CEV80, CEV90, CEV82, CEV92  
/DA, /SA, /NA types
- CJ85, CJ86, CJPJ, CJPJ85, CJPJ95, CJPJ86, CJPJ96  
/DC, /SC, /NSC types

A. Voltage rating : 0.6/1 kV

B. Max. operating conductor temperature : 90°C

##### C. Code for cable series

- C : Shipboard power cable

##### D. Code for insulation

- E : EPR (Ethylene Propylene Rubber)
- J : XLPE (Cross-linked polyethylene)

##### E. Code for sheath

- PF : Polyolefin (SHF1)
- PJ : Cross-linked polyolefin (SHF2)
- V : PVC

##### F. Code for armour and outer sheath

- 8 : Copper or Tinned copper wire braid
- 9 : Galvanized steel wire braid
- 0 : Without outer sheath
- 2 : PVC
- 5 : Cross-linked polyolefin outer sheath (SHF2)
- 6 : Polyolefin outer sheath (SHF1)

##### G. Code for flammability

- DA type : Flame retardant according to IEC 60332-1
- SA type : Flame retardant according to IEC 60332-3-22
- NA type : Fire resistant according to IEC 60331-1/2, IEC60332-3-22
- DC type : Low smoke, halogen free, flame retardant according to IEC 60332-1, IEC 60754-1/2, IEC 61034-1-2
- SC type : Low smoke, halogen free, flame retardant according to IEC 60332-1, IEC 60332-3-22, IEC 60754-1/2, IEC 61034-1-2
- NSC type : Low smoke, halogen free, flame retardant according to IEC 60331-1/2 IEC 60332-1, IEC 60332-3-22, IEC 60754-1/2, IEC 61034-1/2

Rated Voltage(kV)	No. of Cores	Conductor Size(mm <sup>2</sup> )	Max. Temp. (°C)
0.6/1	1	1mm <sup>2</sup> up to 300mm <sup>2</sup>	90
	2	1mm <sup>2</sup> up to 120mm <sup>2</sup>	90
	3	1mm <sup>2</sup> up to 185mm <sup>2</sup>	90
	4, 5, 7, 10, 12, 14, 16 19, 24, 27, 30, 33, 35	1, 1.5, 2.5 mm <sup>2</sup>	90

### 2. Approved Drawings and Documents

- 1) Type & description of shipboard power cabled approved on 1st Apr, 2021

### 3. Test Reports, etc.

- 1) TN21-1655E, TN21-1656E dated on 10th May, 2021  
issued by Shanghai Intelligent Service and Technology Co., Ltd.

## Product Description and/or Approval Condition

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Date of Issue : 25th June, 2021

### B. Approval Condition

#### 1. Application & Limitation

- 1) This approval is granted on the basis of the test reports and the approved documentation.

#### 2. Individual Product Cert. and Drawing Approval Requirement

- 1) Individual product certification is required / Individual product certification is not required.

#### 3. Marking

- 1) The product or packing is to be marked with the manufacturer's name and type designation on a suitable position.

#### 4. Others

N/A