

CERTIFICATE NUMBER 07-SQ271913-2-PDA DATE 04 Aug 2015

CERTIFICATE OF

ABS TECHNICAL OFFICE CN DL Bureau China DL Eng

# DESIGN ASSESSMENT

This is to certify that a representative of this Bureau did, at the request of

# YANGZHOU HONGQI CABLE MANUFACTURING CO., LTD.

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product:

Cable, Power

Model:

CEF Series, CEH Series, CJV Series, CEPJ Series, CEPF Series, CJPJ

Series, CJPF Series, CJ Series, CJP Series.

This Product Design Assessment (PDA) Certificate 07-SQ271913-2-PDA, dated 04/Aug/2015 remains valid until 27/Aug/2017 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product.

Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

AMERICAN BUREAU OF SHIPPING

Bin-Hong Wang

Manager

# YANGZHOU HONGQI CABLE MANUFACTURING CO.

NO. 17 TUANJIE ROAD, LINGTANG TOWN

YANGZHOU JIANGSU

China 225652

Telephone: (86-514) 84232078

Fax: (86-514) 84232111

Email: hongqigroup@126.com
Web: http://www.hongqigroup.com/

Tier: 3 - Type Approved, unit certification not required

**Product:** 

Cable, Power

Model:

CEF Series, CEH Series, CJV Series, CEPJ Series, CEPF Series, CJPJ Series, CJPF Series,

CJ Series, CJP Series.

#### **Intended Service:**

Power, lighting and control system for Shipboard and Offshore Building.

#### **Description:**

See attachment.

Rating:

0.6/1kV; Maximum Conductor Temperature: 90 Degree/C.

#### **Service Restriction:**

- 1. Unit Certification is not required for this product. However, unit certification is required for electric propulsion cables.
- 2. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

3. Electrical cables are to be tested by the manufacturers in accordance with the standards of compliance. Records of

test are to be maintained and are to be submitted upon request by ABS.

4. Propulsion controls, propulsion semiconductors and propulsion cables. All propulsion cables, other than internal wiring in control gears and switchboards are to be subjected to Dielectric and Insulation Tests at the Plant of Manufacture and On Board in the presence of the Surveyor. 4-1-1/Table 3 (item 21) and 4-8-5/5.17.11 (e) of the ABS Rules for Building and Classing Steel Vessels 2015, 4-6-5/3.17.11(e).

#### **Comments:**

1. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

2. The following cable markings are to be provided in accordance with IEC 60092-353: Indication of origin(manufacturer's name or trade mark) and rated voltage (Uo/U) and construction(number of cores and cross-sectional area of the conductors).

3. All propulsion cables, other than internal wiring in control gears and switchboards, are to be subjected to dielectric

and insulation tests in the presence of the Surveyor.

4. For electric cables in hazardous areas, the electric cable construction and the cable glands are to achieve the appropriate seal, such that gas cannot migrate through the cable. See 4-8-3/9.1 of SVR 2015.

Notes/Drawing/Documentation:

Drawing No. Correspondence, Fee Confirmation, Revision: 0, Pages: 1;

Drawing No. Correspondence, cover letter, Revision: 0, Pages: 1;

Drawing No. NA-1, Cable and Non-asbestos declaration, Revision: 0, Pages: 1.

Terms of Validity:

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Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

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#### **STANDARDS**

## **ABS Rules:**

1-1-4/7.7, 1-1/A3 and 4, 4-8-3/9, 4-8-5/5.17.11, 4-8-5/3.13.3 of Steel Vessel Rules (2015);

1-1-4/9.7, 1-1/A2 and 3, 4-3-4/7.1, 6-1-7/17.3.6 of Mobile Offshore Drilling Units Rules (2015);

1-1-4/7.7, 1-1-A3 and 4, 4-6-4/13, 4-6-5/3.17.11 of Steel Vessels Under 90 Meters (295 Feet) in Length (2015);

1-1-4/9.7, 1-1-A2 and 3, 3-6/13 of Facilities on Offshore Installations (2015); 1-1-4/7.7, 1-1-A3 and 4, 4-8-3/9, 4-8-5/5.17.11 of Offshore Support Vessels (2015); 1-1-4/11.9, 1-1-A2 and 3, 4-6-4/13, 4-6-5/3.17.11 of High-Speed Craft (2015);

1-1-4/7.7, 1-1-A3 and 4, 4-1-3/9 of Steel Barge Rules (2015).

#### National:

NA

#### International:

IEC60092-350(2014), IEC60092-360(2014), IEC60092-353(2011), IEC60228(2004), IEC60332-3-22(2009), IEC60331(2009), IEC61034(2013), IÈC60754(2011), IEC60332-1(2004).

#### **Government:**

NA

## **EUMED:**

NA

#### **OTHERS:**

NA



# Design Assessment (DA) Certification Attachment for Listing

DA Cert. No.: 07-SQ271913-2-PDA

Model	<u>Description</u>
CEF /DA/SA/NA	EPR insulation PCP(SE) sheath shipboard power cable
CEF80 /DA/SA/NA	EPR insulation PCP(SE) inner sheath tinned copper wire braided
00 , 01 M 1 1 1 1	shipboard power cable
CEF90 /DA/SA/NA	EPR insulation PCP(SE) inner sheath galvanized steel wire braided
	shipboard power cable
CEF82 /DA/SA/NA	EPR insulation PCP(SE) inner sheath tinned copper wire braided
	PVC(ST2) outer sheathed shipboard power cable
CEF92 /DA/SA/NA	EPR insulation PCP(SE) inner sheath galvanized steel wire braided
	PVC(ST2) outer sheathed shipboard power cable
CEFR /DA/SA/NA	EPR insulation PCP(SE) sheath shipboard flexible power cable
CEH /DA/SA/NA	EPR insulation CSP(SH) sheath shipboard power cable
CEH80 /DA/SA/NA	EPR insulation CSP(SH) inner sheath tinned copper wire braided
CLITOUIDAISAINA	shipboard power cable
CEH90 /DA/SA/NA	EPR insulation CSP(SH) inner sheath galvanized steel wire braided
	shipboard power cable
CEH82 /DA/SA/NA	EPR insulation CSP(SH) inner sheath tinned copper wire braided
	PVC(ST2) outer sheathed shipboard power cable
CEH92 /DA/SA/NA	EPR insulation CSP(SH) inner sheath galvanized steel wire braided
	PVC(ST2) outer sheathed shipboard power cable
CEHR /DA/SA/NA	EPR insulation CSP(SH) sheath shipboard flexible power cable
CJV /DA/SA/NA	XLPE insulation PVC(ST2) sheath shipboard power cable
	XLPE insulation PVC(ST2) inner sheath tinned copper wire
CJV80 /DA/SA/NA	braided shipboard power cable
CJV90 /DA/SA/NA	XLPE insulation PVC(ST2) inner sheath galvanized steel wire
CJ V90 /DA/SA/NA	braided shipboard power cable
CJV82 /DA/SA/NA	XLPE insulation PVC(ST2) inner sheath tinned copper wire
	braided PVC(ST2) outer sheathed shipboard power cable
CJV92 /DA/SA/NA	XLPE insulation PVC(ST2) inner sheath galvanized steel wire
	braided PVC(ST2) outer sheathed shipboard power cable
CEPJ /SC/NSC	EPR insulated cross-linked PO(SHF2) sheathed shipboard power
CETTIOCITIOC	cable
CEPJ80 /SC/NSC	EPR insulated cross-linked PO(SHF2) inner sheathed tinned copper
	wire braided shipboard power cable
CEPJ90 /SC/NSC	EPR insulated cross-linked PO(SHF2) inner sheathed galvanized
	steel wire braided shipboard power cable
CEPJ85 /SC/NSC	EPR insulated cross-linked PO(SHF2) inner sheathed tinned copper
	wire braided cross-linked PO(SHF2) outer sheathed shipboard
	power cable
CEPJ95 /SC/NSC	EPR insulated cross-linked PO(SHF2) inner sheathed galvanized
	steel wire braided cross-linked PO(SHF2) outer sheathed shipboard
	power cable
CEPF /SC/NSC	EPR insulated PO(SHF1) sheathed shipboard power cable
CEPF80 /SC/NSC	EPR insulated PO(SHF1) inner sheathed tinned copper wire braided
	shipboard power cable
CEPF90 /SC/NSC	EPR insulated PO(SHF1) inner sheathed galvanized steel wire
	braided shipboard power cable
CEPF86 /SC/NSC	EPR insulated PO(SHF1) inner sheathed tinned copper wire braided
	PO(SHF1) outer sheathed shipboard power cable



Type/SC

# Design Assessment (DA) Certification Attachment for Listing

ABO	Attachment for Listing
TYPE APPROVAL PROGRAM	DA Cert. No.: 07-SQ271913-2-PDA
CEPF96 /SC/NSC	EPR insulated PO(SHF1) inner sheathed galvanized steel wire
	braided PO(SHF1) outer sheathed shipboard power cable
CJPJ /SC/NSC	XLPE insulated cross-linked PO(SHF2) sheathed shipboard power
	cable
CJPJ80/SC/NSC	XLPE insulated cross-linked PO(SHF2) inner sheathed tinned
	copper wire braided shipboard power cable
CJPJ90 /SC/NSC	XLPE insulated cross-linked PO(SHF2) inner sheathed galvanized
	steel wire braided shipboard power cable
CJPJ85 /SC/NSC	XLPE insulated cross-linked PO(SHF2) inner sheathed tinned
	copper wire braided cross-linked PO(SHF2) outer sheathed
	shipboard power cable
CJPJ95 /SC/NSC	XLPE insulated cross-linked PO(SHF2) inner sheathed galvanized
	steel wire braided cross-linked PO(SHF2) outer sheathed shipboard
	power cable
CJPF /SC/NSC	XLPE insulated PO(SHF1) sheathed shipboard power cable
CJPF80 /SC/NSC	XLPE insulated PO(SHF1) inner sheathed tinned copper wire
CIPERO IGGINA	braided shipboard power cable
CJPF90 /SC/NSC	XLPE insulated PO(SHF1) inner sheathed galvanized steel wire
CIDEO( ICCNICC	braided shipboard power cable
CJPF86 /SC/NSC	XLPE insulated PO(SHF1) inner sheathed tinned copper wire
CJPF96 /SC/NSC	braided PO(SHF1) outer sheathed shipboard power cable
CJPF90/SC/NSC	XLPE insulated PO(SHF1) inner sheathed galvanized steel wire
CJ86/SC/NSC	braided PO(SHF1) outer sheathed shipboard power cable XLPE insulated tinned copper wire braided PO(SHF1) sheathed
CJ80/SC/NSC	shipboard power cable
CJ96/SC/NSC	XLPE insulated galvanized steel wire braided PO(SHF1) sheathed
Ca you de l'Albe	shipboard power cable
CJ85/SC/NSC	XLPE insulated tinned copper wire braided cross-linked PO(SHF2)
	sheathed shipboard power cable
CJ95/SC/NSC	XLPE insulated galvanized steel wire braided cross-linked
	PO(SHF2) sheathed shipboard power cable
CJP86/SC/NSC	XLPE insulated tinned copper wire braided individually screened,
	tinned copper wire braided armor PO(SHF1) sheathed shipboard
	power cable
CJP96/SC/NSC	XLPE insulated tinned copper wire braided individually screened,
	galvanized steel wire braided armor PO(SHF1) sheathed shipboard
	power cable
CJP85/SC/NSC	XLPE insulated tinned copper wire braided individually screened,
	tinned copper wire braided armor cross-linked PO(SHF2) sheathed
	shipboard power cable
CJP95/SC/NSC	XLPE insulated tinned copper wire braided individually screened,
	galvanized steel wire braided armor cross-linked PO(SHF2)
	sheathed shipboard power cable
Type /DA	Single flame retardant cable, comply with IEC60332-1
Type /SA	Bunched flame retardant cable, comply with IEC60332-3, Cat. A
Type /NA	Fire resistant cable, comply with IEC60332-3, Cat. A, IEC60331
T /CC	**

Halogen-free Low-smoke bunched flame retardant cable, comply with IEC60332-3, Cat. A, IEC60754, IEC61034



# Design Assessment (DA) Certification Attachment for Listing

DA Cert. No.: 07-SQ271913-2-PDA

Type /NSC

Halogen-free Low-smoke fire resistant cable, comply with IEC60332-3, Cat. A, IEC60331, IEC60754, IEC61034

#### No. of Cores:

1

2

2

4,5,7,10,12,14,16,19,24,27,30,33,37

#### **Nominal Cross Section mm2:**

1,1.5,2.5,4,6,10,16,25,35,50,70,95,120,150,185,240,300

1,1.5,2.5,4,6,10,16,25,35,50,70,95,120

1,1.5,2.5,4,6,10,16,25,35,50,70,95,120,150,185

1,1.5,2.5