



Task – T2131380
Product Design Assessment (PDA)
Cable
PDA No.: 21-2131380-PDA

Attn.: Mr. Cui, Huang Zhejiang Yuantong Wire & Cable Manufacturing Co., Ltd (WCN: 467109)

The documents shown in the attached list are reviewed in accordance with the applicable requirements indicated in the PDA along with the service restrictions and comments.

We recommend that you monitor the ABS Rules, Guides and other standards used in the Assessment. These Rules, Guides and standards often change on an annual basis, and you must comply with the new Rules, Guides and standards in order for the product to be used on an ABS classed vessel or facility contracted under the new Rules, Guides or specifications.

Additionally, we acknowledge the PDA request from warranting that the materials used in the product(s) are free from asbestos.

For any clarifications, contact Mr. Yun-Qiang Sun at +86-411-39989768-30105 or (yqsun@eagle.org).

Very truly yours,

Bin-Hong Wang
Director of Engineering

Electronically Signed by: Hua-Lin Li

Documents List

Drawing No.	Rev. No.	Title	Status
N-A-8	-	CCS Approved Documents	Filed by ABS for Reference Only
N-A-7	-	CCS Approval Letter	Filed by ABS for Reference Only
N-A-6	-	Test Report	Reviewed
N-A-5	-	Type and Description of Power Cable	Approved
N-A-4	-	Type and Description of Power Cable	Approved
N-A-3	-	Type and Description of Communication and Control Cable	Approved
N-A-2	-	Cable Data Sheet	Approved
N-A-1	-	Cable Construction and Code Designation	Approved

Electronic copies of the documents, appropriately stamped, are available in the ABS Client Portal.

Include: PDA Certificate



CERTIFICATE NUMBER 21-2131380-PDA

EFFECTIVE DATE 09 Jun 2021

EXPIRATION DATE 08 Jun 2026

ABS TECHNICAL OFFICE CN DL Bureau China DL Eng

CERTIFICATE OF

Product Design Assessment

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

ZHEJIANG YUANTONG WIRE & CABLE MANUFACTURING CO., LTD

located at

**BUILDING 8, BUILDING 9, NO. 528, XINGGUO ROAD, YUHANG DISTRICT, HANGZHOU,
CHINA**

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

Model CKJ Series, CKE Series, CHJ Series, CHE Series, CJ Series, CE Series

This Product Design Assessment (PDA) Certificate remains valid until 08 June 2026 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau of Shipping

Bin-Hong Wang, Director of Engineering

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

ZHEJIANG YUANTONG WIRE & CABLE MANUFACTURING CO.

BUILDING 8, BUILDING 9, NO. 528, XINGGUO ROAD, YUHANG DISTRICT

HANGZHOU ZHEJIANG

China 311108

Telephone: 0571-89270780

Fax: 0571-89270780

Email: 3196520083@qq.com

Web: <http://www.zjytxl.com>

Tier: 2 - PDA Issued

Product: Cable
Model: CKJ Series, CKE Series, CHJ Series, CHE Series, CJ Series, CE Series
Endorsements:

Intended Service:
Power, lighting, control and communication system for shipboard and offshore units.

Description:
CKJV /DC/SC/NSC; CKJV80/90/80/92 /DC/SC/NSC; CKJP82/85/86 /DC/SC/NSC; CKJVP /DC/SC/NSC;
CKJVP80/90/82/92 /DC/SC/NSC
CKJPF80/90/86/96 /DC/SC/NSC; CKJFPF /DC/SC/NSC; CKJFPF80/90/86/96 /DC/SC/NSC
CKJ85/86 /DC/SC/NSC; CKJPJ/F /DC/SC/NSC; CKJPJ80/90/85/95 /DC/SC/NSC
CKEPJ /DA/SA/NA; CKEPJ80/90/85/95 /DA/SA/NA; CKEPF /DA/SA/NA; CKEPF80/90/86/96 /DA/SA/NA
CHJ85/86/DC/SC/NSC; CHJP85/86/95/96/DC/SC/NSC; CHJPJ85/DC/SC/NSC; CHJPF86/DC/SC/NSC;
CHJPJP85/86/DC/SC/NSC
CHEF82/92/DA/SA/NA; CHEFP82/92/DA/SA/NA; CJPJ85/95/SC; CJPF86/96/SC; CJ85/86/DC/SC/NSC;
CJPJ85/86/SC-VFD
CJPJ/DC/SC/NSC; CJPF/DC/SC/NSC; CJPJ85/95/DC/SC/NSC; CJPF86/96/DC/SC/NSC
CEF/DA/SA/NA; CEF80/90/82/92/DA/SA/NA; CEV/DA/SA/NA; CEF80/90/82/92/DA/SA/NA

Cable Construction:
Conductor: Tinned or bare copper conductor, class 2
Fire resistant layer: Mica tape (/NA, /NC & /NSC types)
Insulation: J: Cross-Linked Polyethylene - XLPE; E: EPR
Screen: Individual Screen (P type)
Inner sheath: Thermoplastic polyolefin - SHF1 (PF type), Cross-linked polyolefin - SHF2 (PJ type), PVC - ST2 (V type)
Armour: Copper wires braid (8 type), Steel wires braid (9 type)
Outer sheath: Thermoplastic polyolefin - SHF1 (6 type), Cross-linked polyolefin - SHF2 (5 type), PVC - ST2 (2 type), None (0 type)
Type/SA: Having smoke and halogen bunched flame retardant cable, comply with IEC 60332-3 Cat. A;
Type/NA: Having smoke and halogen fire resistant cable, comply with IEC 60332-3 Cat. A, IEC 60331;
Type/SC: Halogen-free Low-smoke bunched flame retardant cable, comply with IEC 60332-3 Cat. A, IEC 60754, IEC61034;
Type/NC or /NSC: Halogen-free Low-smoke fire resistant cable, comply with IEC 60332-3 Cat. A, IEC 60331, IEC 60754, IEC 61034;
Type/DA: Single flame retardant cable, comply with IEC 60332-1;
Type/DC: Halogen-free Low-smoke Single flame retardant cable, comply with IEC 60332-1, IEC 60754, IEC61034.

Rating:
CK Series
Rated Voltage: 150/250V
Core
2,3,4,5,7,10,12,14,19,24,27,30,33,37
Nominal cross-sectional area
1,1.5,2.5

CH Series
Rated Voltage: 150/250V
Core
1*2~48*2
Nominal cross-sectional area
0.5,0.75,1,1.5,2.5

CJ Series
Rated Voltage: 6/10KV
Core
Nominal cross-sectional area

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1	16,25,35,50,70,95,120,150,185,240,300,400
3	16,25,35,50,70,95,120,150,185,240,300

Rated Voltage: 8.7/15KV

Core	Nominal cross-sectional area
1	25,35,50,70,95,120,150,185,240,300,400
3	25,35,50,70,95,120,150,185,240,300

Rated Voltage: 12/20KV

Core	Nominal cross-sectional area
1	35,50,70,95,120,150,185,240,300,400
3	35,50,70,95,120,150,185,240,300

CJ-VFD Series

Rated Voltage: 6/10KV

Core	Nominal cross-sectional area
3+3E	25,35,50,70,95,120,150,185,240

CJ Series, CE Series

Rated Voltage: 0.6/1KV

Core	Nominal cross-sectional area
1	1,1.5,2.5,4,6,10,16,25,35,50,70,95,120,150,185,240
2	1,1.5,2.5,4,6,10,16,25,35,50,70,90,95,120
3	1,1.5,2.5,4,6,10,16,25,35,50,70,95,120,150,185
4,5,7,10,12,14,16,19,24,27,30,33,35	1,1.5,2.5

Service Restriction:

1. Unit Certification is not required for this product. 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.
2. Unit Certification is required where the cables are used for propulsion systems. 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 (See 4-8-5/5.17.11 of Marine Vessels Rules.)
3. Maximum Current Carrying Capacity and Maximum Conductor Temperature are to be in accordance with 4-8-3/ Table 6 of the Marine Vessels Rules.

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 for power cable in accordance with IEC 60092-353 (2016): 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 conductor).
2. The following cable markings are to be provided for communication and control cable in accordance with IEC 60092-376 (2017): 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 conductor).

Notes/Drawing/Documentation:

Drawing No. N-A-1, Cable Construction and Code Designation, Revision: -, Pages: -

Drawing No. N-A-2, Cable Data Sheet, Revision: -, Pages: -

Drawing No. N-A-3, Type and Description of Communication and Control Cable, Revision: -, Pages: -

Drawing No. N-A-4, Type and Description of Power Cable, Revision: -, Pages: -

Drawing No. N-A-5, Type and Description of Power Cable, Revision: -, Pages: -

Test Lab: Shanghai Intelligent Service and Technology Co., Ltd

Report No. and Date: TN21-1652E 2021-05-10; TN21-1653E 2021-05-10; TN21-1654E 2021-05-10; TN21-1655E 2021-05-10; TN21-1656E 2021-05-10; TN21-1657E 2021-05-10; TN21-1658E 2021-05-10; TN21-1659E 2021-05-10

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Terms of Validity:

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STANDARDS

ABS Rules:

2021 Rules for Conditions of Classification, Part 1: 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

2021 Marine Vessels Rules: 4-8-3/9

2021 Steel Barge Rules: 4-1-3/9.1

2021 Rules for Conditions of Classifications - High-Speed Craft: 1-1-4/11.9, 1-1-A2, 1-1-A3, which covers the following:

2021 High-Speed Craft Rules: 4-6-4/13.1

2021 Rules for Conditions of Classification - Offshore Units and Structures , Part 1: 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

2021 Mobile Offshore Units Rules: 4-3-4/7.1

2021 Facilities on Offshore Installations: 3-6/13

National:

NA

International:

IEC 60092-350 (2020)

IEC 60092-376 (2017)

IEC 60092-353 (2016)

IEC 60092-360 (2021)

IEC 60332-1-2 (2015)

IEC 60332-3-22 Category A (2018)

IEC 60331-1/2 (2018)

IEC 60684-2 (2011)

IEC 60754-1/2 (2019)

IEC 61034-1/2 (2019)

IEC 60092-354 (2020)

Government:

NA

EUMED:

NA

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OTHERS:
NA