



Marine & Offshore

Certificate number: 52351/B0 BV

File number: ACE1/848/1

Product code: 25051

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

Anhui Tiankang (Group) Shares Co., Ltd.

Tianchang - CHINA

for the type of product

INSTRUMENTATION AND COMMUNICATION CABLES

CK and CH series

150/250V

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships

IEC 60092-350 (2020), IEC 60092-360 (2021), IEC 60092-376 (2017)

IEC 60228 (2004)

IEC 60331-21 (1999)

IEC 60332-1-2 (2015), IEC 60332-3-22 (2018)

IEC 60684-2 (2011)

IEC 60754-1/2 (2011)

IEC 61034-1/2 (2013)

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 08 Apr 2028

For Bureau Veritas Marine & Offshore,

At BV SHANGHAI, on 08 Apr 2023,

Jennifer Zhang

This certificate was created electronically and is valid without signature



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

Communication and control cables for Marine application.

1.1 - Specifications:

Rated voltage	150/250V
Temperature class	90°C
Flame retardant	IEC 60332-1-2, IEC 60332-3-22
Fire resistant	IEC 60331-21 (NA and NC types)
Halogen Free	IEC 60754-1/2 (SC and NC types)
Low Smoke	IEC 61034-2 (SC and NC types)
Fluorine content	IEC 60684-2 (SC and NC types)

1.2 - Construction:

Conductor	Tinned copper wire or copper wire
Insulation	EPR (E type) XLPE (J type)
Individual screen	Wire or twisted pair with individual shield
Inner sheath	SE (F type) ST2 (V type) SHF1 (PF type) SHF2 (PJ type)
Armour	Tinned copper (or plain copper) wires braid (8 Type) Galvanized steel wires braid (9 Type)
Outer sheath	No outer sheath (0 type) ST2 (2 type) SHF1 (6 type) SHF2 (5 type)

1.3 - Product Range:

Type	Number of core	Cross-sect. (mm ²)	Cable series
CKEPF 86 96 80 90 CKEPJ 85 95 80 90 CKJ 85 86 95 96 CKJPF 86 96 80 90 CKJPJ 85 95 80 90 /SC or /NC CKEF/SA, CKEF/NA	2C to 48C	0.5 to 2.5	Shipboard control cable
CHJ 85 86 95 96 CHJPF 86 96 80 90 CHJFPF 86 96 80 90 CHJPJ 85 95 80 90 CHJPJP 85 95 80 90 /SC or /NC CHJV 82 92 80 90 CHJVP 82 92 80 90 /SA or /NA	1P, 1T, 1Q 2P to 37P	0.5 to 2.5	Shipboard communication cable

2. DOCUMENTS AND DRAWINGS :

Approved list of product, dated 03 May 2016

CH and CK specification, dated Oct 2015

3. TEST REPORTS :

TICW :

Test report N° CT16-3473-1/2/3/4/5/7, dated 18 Sep 2016

Anhui Tiankang (Group) Shares Co., Ltd.:

Test report N° 22XL11804, dated 06 Feb 2023.

4. APPLICATION / LIMITATION :

According to BV Rules for the Classification of Steel Ships.

5. PRODUCTION SURVEY REQUIREMENTS :

- 5.1 - The above products are to be supplied by **Anhui Tiankang (Group) Shares Co., Ltd.** in compliance with the type and the requirements described in this certificate.
- 5.2 - This type of product is within the category IBV of Bureau Veritas Rule Note NR320.
- 5.3 - BV product certificate is required.
- 5.4 - For information, **Anhui Tiankang (Group) Shares Co., Ltd.** has declared to Bureau Veritas the following production site:
Anhui Tiankang (Group) Shares Co., Ltd.
No. 20, Renhe Road (S),
Tianchang City,
Anhui Province
239300 Tianchang
CHINA

6. MARKING OF PRODUCT :

The cable shall be marked on the surface outer sheath, in a durable legible and visible manner, with the following information through the length of cable:

- Rated voltage
- Number of cores and cross-sectional area of the conductors
- Manufacturer's name or trademark
- Code designation (optional)
- Bureau Veritas' Marks

7. OTHERS :

It is **Anhui Tiankang (Group) Shares Co., Ltd.**'s responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

7.2 - This certificate supersedes the Type Approval Certificate N° 52351/A0 BV issued on 04 May 2018 by the Society.

*** END OF CERTIFICATE ***