

Type Approval Certificate

This is to certify that the undernoted products have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

This certificate is issued to:

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

PLACE OF No. 20, South Renhe Road, Tianchang City, Anhui Province, China

PRODUCTION 239300

DESCRIPTION Shipboard control and communication cables

TYPE XLPE and EPR insulated control and communication cables

RATINGS:	Rated Voltage(V)	Conductor size(mm²)	No. of Cores
CKEPF/SC; CKEPF86/SC; CKEPF96/SC; CKEPF80/SC; CKEPF90/SC CKEPJ/SC; CKEPJ85/SC; CKEPJ95/SC; CKEPJ80/SC; CKEPJ90/SC CKEPF/NC; CKEPF86/NC; CKEPF96/NC; CKEPF80/NC; CKEPF90/NC CKEPJ/NC; CKEPJ85/NC; CKEPJ95/NC; CKEPJ80/NC; CKEPJ95/NC; CKEPJ80/NC; CKEPJ90/NC CKEFJS0/NC	150/250(300)	0.5, 0.75, 1, 1.5, 2,5	2, 3, 4, 7, 10, 14, 19, 24, 27, 30, 37, 44, 48

Certificate No. 16/80097

Issue Date 03 November 2016

Expiry Date 02 November 2021

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KL Zhang
03 November 2016
Lloyd's
Register

Marine, Shanghai Technical Support Office Office
Lloyd's Register Classification Society China Co Ltd

KL Zhang Shanghai Technical Support Office

Lloyd's Register Classification Society (China)Co., Ltd 19th Floor, Ocean Towers, 550 Yan An Dong Road, Shanghai 200001

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RATINGS(CONT'D):			
CKJ86/SC; CKJ96/SC CKJ85/SC; CKJ95/SC CKJPF/SC; CKJPF86/SC; CKJPF96/SC; CKJPF80/SC; CKJPF90/SC CKJPJ/SC; CKJPJ85/SC; CKJPJ95/SC; CKJPJ80/SC; CKJPJ90/SC CKJ86/NC; CKJP6/NC CKJ85/NC; CKJ95/NC CKJPF/NC; CKJPF86/NC; CKJPF90/NC; CKJPF90/NC CKJPJ/NC; CKJPJ85/NC; CKJPJ95/NC; CKJPJ80/NC; CKJPJ90/NC	150/250(300)	0.5, 0.75, 1, 1.5, 2,5	2, 3, 4, 5, 7, 10, 12, 14, 16, 19, 24, 27, 30, 33, 37, 40, 44, 48
CHJ86/SC; CHJ96/SC CHJ85/SC; CHJ95/SC CHJPF/SC; CHJPF86/SC; CHJPF96/SC; CHJPF80/SC; CHJPF90/SC CHJPFP96/SC; CHJPFP86/SC; CHJPFP96/SC; CHJPFP80/SC; CHJPJ/SC; CHJPJ85/SC; CHJPJ95/SC; CHJPJ85/SC; CHJPJ90/SC CHJPJP/SC; CHJPJP85/SC; CHJPJP/SC; CHJPJP85/SC; CHJPJP/SC; CHJPJP85/SC; CHJPJP/SC; CHJPJP85/SC; CHJPJP95/SC; CHJPJP80/SC; CHJPJP95/SC; CHJPJP80/SC;	150/250(300)	0.5, 0.75, 1, 1.5, 2.5	1P, 1T, 1Q, 2P, 3P, 4P, 5P, 7P, 10P, 12P, 14P, 16P, 19P, 24P, 30P, 37P

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TYPES CONT'D:			
CHJ86/NC; CHJ96/NC CHJ85/NC; CHJ95/NC CHJPF/NC; CHJPF86/NC; CHJPF96/NC; CHJPF80/NC; CHJPF90/NC CHJPFP/NC; CHJPFP86/NC; CHJPFP90/NC CHJPFP90/NC CHJPJ/NC; CHJPJ85/NC; CHJPJ95/NC; CHJPJ80/NC; CHJPJ95/NC; CHJPJ80/NC; CHJPJPNC; CHJPJP80/NC; CHJPJP90/NC CHJPJPNC; CHJPJP85/NC; CHJPJP90/NC CHJV/SA, CHJV82/SA, CHJV92/SA, CHJVP80/SA, CHJVP82/SA, CHJVP80/SA, CHJVP92/SA, CHJVP90/SA CHJVP90/SA CHJVP90/SA CHJVP90/NA, CHJV82/NA, CHJV90/NA, CHJV90/NA	150/250(300)	0.5, 0.75, 1, 1.5, 2.5	1P, 1T, 1Q, 2P, 3P, 4P, 5P, 7P, 10P, 12P, 14P, 16P, 19P, 24P, 30P, 37P

The maximum rated conductor temperature: 90°C.

Code for cable series

CK: Shipboard control cable

CH: Shipboard communication cable

Code for insulation

J: XLPE; E: EPR

Code for sheath

F: Polychloroprene rubber; PJ: Cross-linked Polyolefin

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Code for shield

P: wire or twisted pair with individual screen

Code for armour and outer sheath

8: Copper wire braid

9: Galvanized steel wire braid

5: Cross-linked Polyolefin outer sheath



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PF: Thermoplastic Polyolefin; V: Polyvinyl chloride Code for flammability

S: Flame retardant for single and bunched cables

N: Flame retardant and fire resistant cables

C: Halogen-free, low-smoke

DA: Flame retardant type tested to IEC60332-1-2:2004 SA: Flame retardant type tested to IEC60332-1-2:2004,

IEC60332-3-22:2009

6: Thermal plastic Polyolefin outer sheath

0: No outer sheath

2: Polyvinyl chloride sheath

APPLICATION Marine applications for fixed wiring on ship installations

STANDARD Manufacture's specification

IEC60092-350: 2014; IEC60092-376: 2003; IEC60092-360: 2014; IEC60331-1: 2009; IEC60332-1-2: 2004; IEC60332-3-22: 2009;

IEC60754-1~2:2011; IEC61034-1~2:2005+A1;

OTHER CONDITIONS

- 1. Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.
- 2. If the specified standards are amended during the validity of this certificate, the product is to be re-approved prior to it being supplied to vessels to which the amended standards apply.
- 3. (In case of applications other than Marine) The application of this Type Approval Certificate will be limited to the relevant scope of the Specified Standards and acceptance thereof by the local authorities.

"This Certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register Classification Society (China) Co., Ltd. of any modification or changes to the equipment in order to obtain a valid certificate."

The attached Design Appraisal Document No. STS/TA/304223A, Issue No. 0, dated 03 November 2016 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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