



TYPE APPROVAL CERTIFICATE
No. ELE005524WS/001

This is to certify that the product below is found to be in compliance with the applicable requirement of the RINA type approval system.

<i>Description</i>	Shipboard Electric Cables
<i>Type</i>	CE Series, CEF Series, CEPF Series CEPJ Series, CEPFR Series, CEPJR Series CJ Series, CJPJ Series, CJPF Series CJPJR Series, CJPFR Series
<i>Applicant</i>	Anhui Tiankang (Group) Shares Co., Ltd. No. 20 South Renhe Road Tianchang (Anhui) CHINA
<i>Manufacturer</i>	Anhui Tiankang (Group) Shares Co., Ltd.
<i>Place of manufacture</i>	No.333, Weiyi Road, Anhui Chuzhou High tech Industrial Development Zone, Tianchang City, Anhui province, PRC
<i>Reference standards</i>	IEC 60092-350; IEC 60092-360; IEC 60092-353; IEC 60228; IEC 60331-1; IEC 60331-21; IEC 60332-1; IEC 60332-3-22 Cat. A; IEC 60754-1/2; IEC 61034-2

Issued in **SHANGHAI** *on* **June 18, 2024.** *This Certificate is valid until* **June 17, 2029**

Qiang Sun

RINA Services S.p.A.

This certificate consists of this page and 1 enclosure

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CE Series, CEF Series, CEPF Series
CEPJ Series, CEPFR Series, CEPJR Series
CJ Series, CJPJ Series, CJPJF Series
CJPJR Series, CJPFR Series

1. Production Description:

1.1 Type and Range

0.6/1kV shipboard electric power cables with following rating:

Type	Rated Voltage (kV)	Number of Core	Conductor Cross-Section (mm ²)	Max. Temp. (°C)
CEF, CEF80, CEF90 /DA, SA, NA(NSA) CEPF, CEPF86, CEPF96, CEPF80, CEPF90, CEPJ, CEPJ80, CEPJ90, CEPJ85, CEPJ95 /SC, NC(NSC) CE86, CE96, CEPFR, CEPFR80, CEPFR90, CEPFR86, CEPFR96 /SC, NC(NSC) CE85, CE95, CEPJR, CEPJR80, CEPJR90, CEPJR85, CEPJR95 /SC, NC(NSC) CJ86, CJ96, CJ85, CJ95, CJPJ, CJPJ85, CJPJ95, CJPJ80, CJPJ90, CJPJF, CJPJF80, CJPJF90, CJPJF86, CJPJF96 /SC, NC(NSC) CJPJR, CJPJR80, CJPJR90, CJPJR85, CJPJR95 /SC, NC(NSC) CJPFR, CJPFR80, CJPFR90, CJPFR86, CJPFR96 /SC, NC(NSC)	0.6/1.0 kV	1	1~240	90
		2	1~120	
		3(2+E)	1~240	
		4(3+E) or 5	1~185	
		6~37	1~4	

Note:

+“Conductor Cross-section” is selected from the following series of conductor size:

1.0, 1.5, 2.5, 4, 6, 10, 16, 25, 35, 50, 70, 95, 120, 150, 185, 240, 300 mm²

+“Number of Core” is selected from the following series of core number:

4, 5, 6, 7, 10, 12, 14, 16, 19, 24, 27, 30, 33, 37

+“E” represent earthing conductor of cable

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1.2 Meaning of the letters of the type

+Abbreviation:

C: Shipboard power cable
J: Cross-linked Polyethylene Insulated
E: Ethylene-propylene Rubber Insulated
PJ: Cross-linked Polyolefin
PF: Thermoplastic Polyolefin
F: Polychloroprene rubber

+Outer Protection:

8: Copper wire or tin-plated copper wire woven armor
9: Galvanized steel wire braided
5: Cross-linked Polyolefin outer sheath
6: Thermal plastic Polyolefin outer sheath
0: No outer sheath

+Flammability Code:

DA: Single cable flame retardant
SA: Bunched cable flame retardant
NA(NSA): Bunched cable flame retardant, fire resistance
SC: Bunched cable flame retardant, low-smoke and halogen free
NC(NSC): Bunched cable flame retardant, fire resistance, low-smoke and halogen free

2. Reference Documents:

- + Manufacturer instruction filed by RINA with drawing No. SHEL-19448.
- + Specification of products filed by RINA with drawing No. SHEL-19452.
- + Test report "China national centre for quality supervision and test of electric wire and cable" Report No.: CT16-3471-3, CT12-2618-6, CT16-3471-4, CT12-2618-7, CT12-2618-2, CT16-3471-2, CT16-3471-1 and CT12-4877-3. Test report "Shanghai Intelligent Service and Technology Co.,Ltd. " Report No.: TN24-1613E, TN24-1614E and TN24-1612E. Filed by RINA with drawing No.SHEL-19455 and SHEL-19456.
- + Asbestos-free Declaration: Filed by RINA with drawing No. SHEL-19449.
- + Routine test report signed by attending Surveyor and filed by RINA with drawing No. SHEL-19546.

3. Notes/Remarks:

- + The product is subject to the compliance with RINA Rules and Standards mentioned on the certificates.
- + Type Approval certifies that a representative sample of the product has been found to meet the applicable design criteria.
- + Any modification or change shall not be valid until approval is granted by RINA as a result of due assessment.

SHANGHAI June 18, 2024