Certificate No: LR26536858TA
Issue Date: 23/08/2026
Expiry Date: 22/08/2031

Type Approval Certificate

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

Manufacturer	**Shandong Zhongchuan Cable Co., Ltd**
Address	108, Longyue North Road, Dongshan Street, Rongcheng City, 264309, China
Place of Production	Shandong Zhongchuan Cable Co., Ltd 108, Longyue North Road, Dongshan Street, Rongcheng City, 264309, China
Type	Electrical Power Cables
Description	/SC, /NSC types of CJPF, CJ, CJPJ and /SC-VFD types of CJ, CJPF Shipboard Power Cables
Trade Name	/SC, /NSC type of CJPF, CJ, CJPJ; /SC-VFD types of CJ, CJPF
Application	Fixed wiring on ship and offshore installations
Specified Standard	Manufacture's specification; IEC60092-350:2020; IEC60092-353:2024; IEC60092-360:2021; IEC60331-1/2:2018; IEC60332-1-2:2025; IEC60332-3-22:2018; IEC60754-1, -2:2011+A1: 2019; IEC61034-1~2:2005+A2:2019; BS 8491:2008; EN 50200:2015
Ratings	**Rated Voltage(kV): 0.6/1** **Type:** /SC, /NSC CJPF, CJPF80, CJPF90, CJPF86, CJPF96, CJ85,CJ86, CJPJ, CJPJ80, CJPJ90, CJPJ85, CJPJ95

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CHETAN WAGH
Senior Specialist Electrical & Control to Lloyd's Register Marine and Offshore India LLP
A member of the Lloyd's Register group

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No. of Cores: 1
Conductor Cross- Section(mm²): 1~300
No. of Cores: 2
Conductor Cross- Section(mm²): 1~120
No. of Cores: 3(2+E)
Conductor Cross- Section(mm²): 1~185
No. of Cores: 4(3+E)
Conductor Cross- Section(mm²): 1~150
No. of Cores: 5, 7, 10, 12, 14, 16, 19, 24, 27, 30, 33, 37
Conductor Cross- Section(mm²): 1.0, 1.5, 2.5
Types: CJPF86/SC-VFD, CJ86/SC-VFD
No. of Cores: 3
Conductor Cross- Section(mm²): 25, 35, 50, 70, 95,120, 150, 185, 240
No. of Cores: 3+3E
Conductor Cross- Section(mm²): 3*16+3*4, 3*25+3*6, 3*35+3*6, 3*50+3*10, 3*70+3*10, 3*70+3*16, 3*95+3*16, 3*120+3*25, 3*150+3*25, 3*185+3*35, 3*240+3*50

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, 300mm²
Max. Temp.(°C): 90
0.6/1kV Flame Retardant and/or Fire Resistant, Low Smoke and Halogen Free Shipboard Power Cables
Rated voltage 0.6/1kV, XLPE Insulated:
CJPF, CJPF80, CJPF90, CJPF86, CJPF96 /SC,/NSC: XLPE insulated, PO sheathed,shipboard power cable (See Note 1)
CJ86 /SC, /NSC: XLPE insulated, PO outer sheathed, shipboard power cable (See Note 1)
CJPJ, CJPJ80, CJPJ90, CJPJ85, CJPJ95 /SC,/NSC: XLPE insulated, cross-linked PO sheathed, shipboard power cable (See Note1)
CJ85 /SC, /NSC: XLPE insulated, cross-linked PO outer sheathed, shipboard power cable (See Note 1)
CJPF86/SC-VFD: XLPE insulated, PO sheathed,shipboard frequency conversion

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cable (See Note 1)
CJ86/SC-VFD: XLPE insulated, PO outer sheathed, shipboard frequency conversion cable (See Note 1)
Note 1) Outer protection and flammability of cable is shown by the following suffix and flammability code:-
First suffix:
C: Shipboard Power Cable
Insulation suffix:
J: XLPE insulation
Inner sheath suffix:
PF: PO-SHF1 sheathed
PJ: Cross-linked PO-SHF2 sheathed
Outer protection suffix:
80: Copper wire braided
85: Copper wire braided with cross-linked PO outer sheathed
86: Copper wire braided with PO outer sheathed
90: Galvanized steel wire braided
95: Galvanized steel wire braided with cross-linked PO outer sheathed
96: Galvanized steel wire braided with PO outer sheathed
Flammability code:
/SC: Bunched flame-retardant,halogen-free, low smoke and low toxicity type (IEC 60332-1-2, IEC 60332-3-22,IEC 60754-1~2, IEC 61034-1~2)
/NSC: Flame-retardant & fire resistant, low smoke & halogen-free type (IEC 60332-1-2, IEC 60331-1/2,IEC 60332-3-22, IEC 60754-1~2, IEC 61034-1~2)
Material abbreviation:
XLPE: Cross-linked Polyethylene
PO: Polyolefin

Additional Tests

BS 8491: -
1. Flame temperature at least 830°C.
2. Flame with impact phase time: 120 min.

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EN 50200: -
1. Flame temperature at least 830°C.
2. Flame application time: 120 min.

Other Conditions

Type Approval does not eliminate the need (as required by LR Rules) the requirements for further review or for the product to be further inspected and/or surveyed to be installed in ships classed or intended to be classed with LR.

If the specified standards are amended during the validity of this certificate, the product is to be reapproved prior to it being supplied to vessels to which the amended standards apply.

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 Marine and Offshore India LLP of any modification or changes to the equipment in order to obtain a valid Certificate.

Previous Version: 16-80088(E1)-02

The Design Appraisal Document TSO-26-059630-E-01 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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