



Certificate no.:
TAE000055V

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Electric Power Cable

with type designation(s)
CJ85/SC, CJ86/SC

issued to

Guangzhou Xinxing Cables Industry Co., Ltd.
Guangzhou, Guangdong Province, China

is found to comply with

DNV rules for classification – Ships, offshore units, and high speed and light craft

Application:

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Rated voltage (kV) 0,6/1
Temp. class (°C) 90

Issued at **Hamburg** on **2025-11-21**

This Certificate is valid until **2030-11-20**.

for **DNV**

DNV local unit: **China South NB**

Approval Engineer: **Carsten Hunsalz**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to USD 300 000.

Product description

Type: CJ85/SC, CJ86/SC

Conductor: Tinned, stranded copper class 2
Insulation: XLPE
Armour / braid: 8 - Tinned copper wire braid
Outer sheath: 5 - (SHF2) or 6 - (SHF1)

Number of cores x conductor cross-section	Overall diameter nom.
mm ²	mm
1x1	5,7
1x1,5	6,0
1x2,5	6,4
1x4	7,0
1x6	7,5
1x10	8,7
1x16	9,7
1x25	11,6
1x35	12,9
1x50	15,0
1x70	17,2
1x95	19,3
1x120	21,1
1x150	23,3
1x185	25,7
1x240	28,8
1x300	31,6
2x1	8,8
2x1,5	9,4
2x2,5	10,3
2x4	11,6
2x6	12,7
2x10	15,3
2x16	17,6
2x25	21,2
2x35	23,9
2x50	27,0
2x70	31,4
2x95	35,6
2x120	39,9

Number of cores x conductor cross-section	Overall diameter nom.
mm ²	mm
3x1	9,3
3x1,5	9,8
3x2,5	10,9
3x4	12,2
3x6	14,1
3x10	16,1
3x16	18,6
3x25	22,7
3x35	25,6
3x50	28,9
3x70	33,6
3x95	38,6
3x120	42,7
3x150	47,3
3x185	52,7
4x1	10,0
4x1,5	10,6
4x2,5	12,0
4x4	13,2
4x6	15,3
4x10	17,7
4x16	20,5
4x25	25,0
4x35	28,2
4x50	31,9
4x70	37,7
4x95	42,7
4x120	47,4
4x150	52,5

Number of cores x conductor cross-section	Overall diameter nom.
mm ²	mm
5X1	10,7
7X1	11,7
10X1	15,1
12X1	15,5
14X1	16,2
16X1	17,2
19X1	18,0
24X1	20,9
27X1	21,3
30X1	22,2
33X1	23,0
37X1	23,8
5X1,5	11,6
7X1,5	12,5
10X1,5	16,2
12X1,5	16,9
14X1,5	17,6
16X1,5	18,5
19X1,5	19,6
24X1,5	22,7
27X1,5	23,2
30X1,5	23,9
33X1,5	25,0
37X1,5	25,9

Number of cores x conductor cross-section	Overall diameter nom.
mm ²	mm
5X2,5	12,9
7X2,5	14,7
10X2,5	18,3
12X2,5	18,9
14X2,5	19,9
16X2,5	20,9
19X2,5	22,2
24X2,5	25,8
27X2,5	26,3
30X2,5	27,4
33X2,5	28,4
37X2,5	29,4

Application/Limitation

General power and lighting. Control.

The requirements of SOLAS Amendments Chapter II-1, Part D, Reg. 45, 5.2 (provision to be taken to limit Fire Propagation along Bundles of Cables or Wires) are fulfilled without any additional measures.

Flame retardant Cat. A. Halogen free. Low smoke.

Type Approval documentation

Tests carried out

Standard	Release	General description	Limitation
DNV-CP-0399	2021-08	Class Programme Electric cables	
IEC 60092-350	2020-01	General construction and test methods of power, control and instrumentation cables for shipboard and offshore applications	
IEC 60092-353	2024-06	Electrical installations in ships - Part 353: Power cables for rated voltages 1 kV and 3 kV	
IEC 60092-360	2021-01	Electrical installations in ships - Part 360: Insulating and sheathing materials for shipboard and offshore units, power, control, instrumentation and telecommunication cables.	
IEC 60332-1-2	2025-06	Tests on electric cables under fire conditions. Test for vertical flame propagation for a single insulated wire or cable.	
IEC 60332-3-22	2018-07	Tests on electric and optical fibre cables under fire conditions – Part 3-22: Test for vertical flame spread of vertically-mounted bunched wires or cables – Category A	Charred portion of sample does not exceed 2,5m above bottom edge of burner.
IEC 60754-1	2019-11	Test on gases evolved during combustion of materials from cables - Part 1: Determination of the halogen acid gas content	Low Halogen: <0,5% Halogen
IEC 60754-2	2019-11	Test on gases evolved during combustion of materials from cables - Part 2: Determination of acidity (by pH measurement) and conductivity	Halogen free: pH > 4,3 Conductivity < 10µS/mm
IEC 60684-2	2025-05	Clause 47.2 Methods of determination of low levels of fluorine	Fluorine content < 0,1%
IEC 61034-1/2	2019-11	Measurement of smoke density of cables burning under defined conditions – Test apparatus, procedure and requirements	Low smoke Light transmittance >60%

Marking of product

Example:

Guangzhou Xinxing Cables Industry Co., Ltd. - CJ85/SC - 0,6/1kV - size - IEC 60332-3-22 - Lot no.

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routine Tests (RT) checked (if not available tests according to RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE