



Marine & Offshore

Certificate number: 09512/E0 BV File number: ACE 01/076/03

Product code: 25011

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

PRYSMIAN CABLES SPAIN SA

VILANOVA I LA GELTRÚ(BCN) - SPAIN

for the type of product

CABLES (LOW VOLTAGE)

0.6/1 kV AFUMEX Series NAU-XA, FIRS NAU XA, NAU XTCuA, FIRS NAU XTCuA.

Requirements:

BUREAU VERITAS Rules for the Classification of Steel Ships. IEC 60092-350 (2020), IEC 60092-353 (2016), IEC 60092-360 (2021) IEC 60228 (2004) IEC 60331-1 (2018), IEC 60331-21 (1999) IEC 60332-1-2 (2015), IEC 60332-3-22 (2018) IEC 60754-1 (2011) IEC 61034-1 (2005), IEC 61034-2 (2005)

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: 13 Dec 2028

For Bureau Veritas Marine & Offshore, At BV BARCELONA, on 13 Dec 2023,

Rhandy Rafael PIÑERO GAUTIER

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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THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

Fire resistant (FIRS Type), Flame retardant, Halogen Free and Low Smoke Power, lighting and Control Cables.

1.1 - Specifications:

| Rated Voltage: | 0.6/1 kV |
|---------------------------|--|
| Temperature Class: | 90°C |
| Flame retardant: | IEC 60332-1-2 and IEC 60332-3-22 Cat.A |
| Fire Resistant: | IEC 60331-1/21 (FIRS Type only) |
| Halogen Free: | IEC 60754-1 |
| Low Smoke: | IEC 61034-1/2 |

1.2 - Construction:

| Conductor: | Bare or tinned annealed stranded copper - Class 2 or class 5 | |
|-----------------------|--|--|
| Fire resisting layer: | Mica tape (FIRS type only) | |
| Insulation: | XLPE | |
| Filler: | Halogen free material. Extruded or lapped. | |
| Armour: | Bare or tinned copper wire braid (TCu type only) | |
| Outer sheath: | SHF1 | |

1.3 - Product Range:

| Type | No of Cores x Cond. Size N x S (mm2) | Remark |
|----------------|---|---|
| AFUMEX: | 1 x 1.5 to 300 | |
| NAU XA | 2 x 1.5 to 120 | |
| FIRS NAU XA | 3 x 1.5 to 185 | Halogen Free cables based on strict compliance of Sheathing and |
| NAU XTCuA | 4 x 1.5 to 120 | Filling materials with IEC 60754-1. |
| FIRS NAU XTCuA | 5 to 27 x 1.5 to 2.5 | |
| AFUMEX NAU XA | 37P x 1.5 | |

2. DOCUMENTS AND DRAWINGS:

Specifications N° SP00101 rev.5, dated 16 May 2018.

Specifications N° SP00103 rev.3, dated 02 Jan 2017.

Specifications N° SP00105 rev.5, dated 16 May 2018.

Specifications N° SP00107 rev.4, dated 01 Jun 2017.

3. TEST REPORTS:

- 3.1 FERCABLE S.A. test reports referring to certification issued by D.N.V. and annexed to FERCABLE S.A. B.V. letter certification request dated on 10.03.1999. (See B.V. Madrid letter MPO/99/591/ESP/SAG).
- 3.2 B.V. Madrid letter MPO/99/01551/ESP/MAR dated on 17.09.1999 with annexed report of complementary tests carried out by FERCABLE S.A. on date of 17.06.1999 and stamped by B.V.
- 3.3 Pirelli test report dated Jan. 2003. The tests were witnessed by a BV Surveyor.
- 3.4 Prysmian Cables & Systems test report N° di10019 dated 08-10-2012, stamped by B.V
- 3.5 Prysmian Test report dated 30 Apr 2019.

4. APPLICATION / LIMITATION:

According to BV Rules for the Classification of Steel Ships.

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5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 The above products are to be supplied by **PRYSMIAN CABLES SPAIN SA** 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, PRYSMIAN CABLES SPAIN SA has declared to Bureau Veritas the following production sites:

PRYSMIAN CABLES SPAIN, S.A. -Planta SANTA PERPETUA DE MOGODA-

Carrer Can Vinyalets, 2 08130 Santa Perpetua de Mogoda SPAIN

PRYSMIAN CABLES SPAIN SA-PLANTA ABRERA

Poligon Can Sucarrats Carrer del Metall,4 08630 Abrera (Barcelona) SPAIN

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 (hard stamp and marking number) are done with a plate attached to cable drum.

7. OTHERS:

7.1 - It is **PRYSMIAN CABLES SPAIN SA**'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° 09512/D4 BV issued on 02 Sep 2023 by the Society.

*** END OF CERTIFICATE ***