



Marine & Offshore

Certificate number: 12422/D1 BV File number: ACE 01/735/02 Product code: 2505H

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

INSTRUMENTATION AND COMMUNICATION CABLES

TEOF - RFOU(c), RFOU(i), BFOU(c), BFOU(i) series.

150/250 V

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships. IEC 60092-350 (2020), 376 (2017), 360 (2021) IEC 60228 (2004) IEC 60331-1 (2018), IEC 60331-21 (1999) IEC 60332-1-2 (2015), IEC 60332-3-22 Cat.A (2018) IEC 60754-1/2 (2011) IEC 61034-2 (2013)

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: 09 May 2027

For Bureau Veritas Marine & Offshore, At BV BARCELONA, on 28 Aug 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 or 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.

The electronic version is available at: http://www.veristarpm.com/veristarnb/jsp/viewPublicPdfTypec.jsp?id=qszhj0jliz BV Mod. Ad.E 530 June 2017 This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

1.1 - Construction:

| Conductor: | Tinned or bare stranded copper conductor, Class 2 & 5 | |
|-----------------------|--|--|
| Fire resisting layer: | Mica tape (only for BFOU) | |
| Insulation: | EPR, HEPR | |
| Screen: | Al-polyester or Cu-polyester tape w/tinned copper drain wire | |
| Inner sheath: | Halogen free compound | |
| Metal covering: | Copper wire braid or tinned copper | |
| Over sheath: | SHF2 | |

1.2 - <u>Approval range:</u>

| Туре | Number of cores | Cross Sectional Areas (mm ²) |
|------------------------------|-----------------|---|
| | 1P to 24P | 0.75, 1, 2.5 |
| | 1P to 12P | 1.5 |
| TEOF RFOU (c), TEOF RFOU (i) | 8T | 0.75 |
| | 1T to 8T | 1 |
| | 2T to 8T | 1.5 |
| | 1P to 24P | 0.75, 1 |
| | 1P to 12P | 1.5 |
| | 1P to 16P | 2.5 |
| TEOF BFOU (c), TEOF BFOU (i) | 1T to 12T | 0.75 |
| | 1T to 8T | 1 |
| | 1T to 4T | 1.5 |
| | 16T | 2.5 |
| TEOF BFOU | 3P to 8P | 0.75 |

2. DOCUMENTS AND DRAWINGS:

Data sheet ref. 16.0247, dated Nov.2016. Data sheet ref. 16.0248, dated Nov.2016. Data sheet ref. 16.0249, dated Nov.2016. Data sheet ref. 16.0246, dated Nov.2016. Data sheet dated 13 Oct 2022.

3. TEST REPORTS:

 $\label{eq:expectation} \begin{array}{l} \mbox{Fercable test report dated August 1992 \& December 1992.} \\ \mbox{Test report ref. 38110/116, dated 20.Jul.2016.} \\ \mbox{Test reports N° 54857, 54991, 54992, 54998 and 55000, dated 23 Mar 2023.} \end{array}$

4. APPLICATION / LIMITATION:

4.1 - BV Rules for the Classification of Steel Ships.

4.2 - Approval valid for units having to comply with IMO Resolution A.1023(26) (The "MODU Code").

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The above products are to be supplied by **PRYSMIAN CABLES SPAIN SA** in compliance with the type described in this certificate.

5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.

5.3 - **PRYSMIAN CABLES SPAIN SA** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

5.4 - For information, **PRYSMIAN CABLES SPAIN SA** has declared to Bureau Veritas the following production site:

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

Carrer Can Vinyalets, 2

08130 Santa Perpetua de Mogoda 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)

7. OTHERS:

7.1 - It is **PRYSMIAN CABLES SPAIN SA** 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 No. 12422/D0 BV issued on 09 May 2022 by the Society.

*** END OF CERTIFICATE ***