



Marine & Offshore

Certificate number: 49769/B0 BV

File number: ACE1/847/1

Product code: 2501H

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

ELETTROTEK KABEL S.p.A.

Bagnolo in Piano (RE) - ITALY

for the type of product

CABLES (LOW VOLTAGE)

HF 1000 series

0.6/1kV

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships, Offshore Units, Naval Ships and Yachts.

IEC 60092-350 (2020), IEC 60092-353 (2016), IEC 60092-360 (2021)

IEC 60228 (2004)

IEC 60331-1/2 (2018), IEC 60331-21 (1999)

IEC 60332-1-2 (2015), IEC 60332-3-22 (2018)

IEC 60684-2 (2011)

IEC 60754-1/2 (2019)

IEC 61034-1/2 (2019)

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: 06 Nov 2028

For Bureau Veritas Marine & Offshore,

At BV NAPOLI, on 06 Nov 2023

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.

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

GAALSHIP HF 1000 serie is a Low voltage Power and control cables flame retardant/Fire resistant, low smoke and halogen free for fixed electrical installations aboard ships, not subject to mechanical risk.

1.1 - Specifications :

Rated voltage	0.6/1 kV
Temperature range	-40°C to +90°C
Fire resistant	IEC 60331-1/2/21 + BS 8491
Flame retardant	IEC 60332-1-2 & IEC 60332-3-22
Halogen Free	IEC 60684-2 & IEC 60754-1/2
Smoke emission	IEC 61034-1/2

1.2 - Construction :

Conductor	Red copper or Tinned copper conductor - Class 2 or Class 5
Fire resistant layer	MICA glass tape (FR type)
Insulation	XLPE HF90 (WSR type)
Inner sheath	Halogen free compound or synthetic tape
1st wrapping	Glass fiber tape (WSR type)
2nd wrapping	Two plain annealed copper / polyester tape (WSR type)
3rd wrapping	Glass fiber tape (WSR type)
Armour	Plain or tinned annealed copper wires braid (A type) Plain or tinned annealed copper wires braid + 100% coverage plain annealed copper / polyester tape (A EMC type)
Outer Sheath	SHF1

1.3 - Product range :

Type	Number of cores	Cross Sectional Area (mm ²)
GAALSHIP HF 1000 GAALSHIP HF 1000 FR GAALSHIP HF 1000 FR WSR GAALSHIP HF 1000 A GAALSHIP HF 1000 A FR GAALSHIP HF 1000 A FR WSR	1 to 5 7 to 37	1 to 300 1 to 2.5
GAALSHIP HF 1000 A EMC GAALSHIP HF 1000 A FR EMC	1 to 5, 3+3 7 to 37	1 to 300 1 to 2.5

4. APPLICATION / LIMITATION :

BUREAU VERITAS Rules for the Classification of Steel Ships, Offshore Units, Naval Ships and Yachts.

*** END OF CERTIFICATE ***

For information only