



Marine & Offshore

Certificate number: 02153/H0 BV

File number: ACE 12/160/01

Product code: 2883H

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

ENAG S.A.
QUIMPER - FRANCE

for the type of product

ELECTRIC SPACE HEATING EQUIPMENT

ELECTRICAL HEATERS, type: RAEL & ELECTRICAL FAN HEATERS model AERO.

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships.

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: 29 Jun 2022

For Bureau Veritas Marine & Offshore,
At BV SAINT-NAZAIRE, on 29 Jun 2017,
Francois Lopinot



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:

1.1 - ELECTRICAL HEATERS

24VDC	500W	type	RAEL	24	500W - Class A
24VDC	500W	"	RAEL	24	500W - Thermostat 24 VDC Class A
230VAC	500W	"	RAEL	230	500W - Class A
230VAC	750W	"	RAEL	230	750W - Class A
230VAC	750W	"	RAEL	230	750W - Thermostat 220 VAC 750 W Class A
230VAC	1000W	"	RAEL	230	1000W - Class A
230VAC	1500W	"	RAEL	230	500W - Class A
230VAC	2000W	"	RAEL	230	2000W - Class A
400VAC	500W	"	RAEL	400	500W - Class A
400VAC	500W	"	RAEL	400	500W - Thermostat 380 VAC 500 W Class A
400VAC	750W	"	RAEL	400	750W - Class A
400VAC	750W	"	RAEL	400	750W - Thermostat 380 VAC 750 W Class A
400VAC	1000W	"	RAEL	400	1000W - Class A
400VAC	1500W	"	RAEL	400	1500W - Class A
400VAC	2000W	"	RAEL	400	2000W - Class A
400VAC	2000W	"	RAEL	400	2000W - Thermostat 380 VAC 2000 W Class A

1.2 - ELECTRICAL FAN HEATERS

Model	AERO - 220 - 2000 A	230 VAC	2000 W
Model	AERO - 220 - 1500 A	230 VAC	1500 W
Model	AERO - 220 - 1000 A	230 VAC	1000 W
Model	AERO - 24 - 1250 C	24 VDC	1250 W
Model	AERO - 24 - 750 C	24 VDC	750 W

2. DOCUMENTS AND DRAWINGS:

Drawings under ref. 009005 10A, dated 14 Sep 2005.

3. TEST REPORTS:

Test report ref. SEEM 009005, dated 07 Sep 2005.

4. APPLICATION / LIMITATION:

4.1 - Bureau Veritas Rules for the Classification of Steel Ships.

4.2 - Approval also valid for ships to be granted with the notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The above products are to be supplied by **ENAG S.A.** 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 - **ENAG S.A.** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

6. MARKING OF PRODUCT:

6.1 - Maker's name or trade mark.

6.2 - Serial number of the units.

6.3 - Equipment type or model identification under which it was type-tested.

7. OTHERS:

7.1 - It is **ENAG S.A.** 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° 02153/G0 BV issued on 29 May 2012 by the Society.

*** END OF CERTIFICATE ***