



Marine & Offshore

Certificate number: 10528/F0 BV

File number: ACE 08/160/01

Product code: 2898H

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

QUIMPER - FRANCE

for the type of product

BATTERY CHARGER ASSEMBLIES

INVERTERS GMDSS - UNINTERRUPTIBLE POWER SYSTEM

Requirements:

BV 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: 07 Jul 2028

For Bureau Veritas Marine & Offshore,

At BV SAINT-NAZAIRE, on 07 Jul 2023,

Francois LOPINOT

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 electronic version is available at: <http://www.veristarm.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=ayagqknxgu>

BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

- Product model or type designation:

GMDSS POWER SUPPLIES

- Product description:

Intended for sea areas A1+A2+A3+A4

1.1 - Standard Range for 115/230V A.C. Network

1.1.1 - Supply

Type	Type
FCA-GMDSS-25/30	ICA-GMDSS-30RAE I
FCA-GMDSS-50/50	ICA-GMDSS-30RAE D
FCA-GMDSS-60/70	ICA-GMDSS-30
FCA-GMDSS-100/100	ICA-GMDSS-60RAE ICA-GMDSS-75RAE
ICA-GMDSS-30/30	ALMIV-ICA-GMDSS
ICA-GMDSS-60/60	UPS 500 VA up to 10k VA

1.1.2 - Control Panel

Type	Type
ICA-GMDSS-IND	ICA-GMDSS-IND-SH

1.2 - Standard Range for Direct Current Network

1.2.1 - Supply Panel

Type	Type
FCC-GMDSS-30RAE	FCC-GMDSS-30

1.2.2 - Control Panel

Type	Type
ICC-GMDSS-IND	ICC-GMDSS-IND-SH

1.3 - Dedicated Range for 115/230V A.C. Network

Type	Type
PS 9099 - 16/16	PS 9099 - 60/16
PS 9099 - 30/16	PS 9099 - 60/60
PS 9099 - 30/30	PS 9098 - 40

1.4 - Dedicated Range for Direct Current Network

Type	Type
CCC 12/24/XX	CCC 24/12/30

2. DOCUMENTS AND DRAWINGS:

According to:

- Specifications: 03436DFG, 03790DFA, 03358DFB, 0343604A, 03436H, 0343605A.

- Drawings: 0352205 A, 0342502B, 0342501B, 0352206A, 0335801B.

3. TEST REPORTS:

3.1 - LNE (Laboratoire National d'Essais) N° 9050782 dated 05/05/2000.

3.2 - ENAG test report referenced GMDSM01A dated 18/09/2000. The tests were witnessed by a Society's Surveyor.

3.3 - NCE (Laboratoire de Mesure et d'Essais en Compatibilité Electromagnétique, Radio et Sécurité Electrique) test report N° R98112002C.

3.4 - KENTA Test Report N° 203 893 EMC dated June 2007

3.5 - ENAG Test Report N° GMDSS POWER SUPPLIES, rev.C, dated 17/05/23

3.6 - EMITECH Test Report N° RCE-EMIESS22L306ENA-02Av0, dated 12/08/22

4. APPLICATION / LIMITATION:

- 4.1 - BV 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.**
4.3 - The Dry Heat test has been performed at 55°C. Product is a priori not suitable for mounting in consoles, housings, etc. together with other heat dissipating power equipment.
4.4 - Equipment covered by this Type Approval certificate has been tested according to requirements of IACS UR E10 rev 8.

5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 - The above products are to be supplied by **ENAG** 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** 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, **ENAG** has declared to Bureau Veritas the following production site:

ENAG
31 rue Marcel Paul
Z.I. Kerdroniou Est
29000 QUIMPER
FRANCE

6. MARKING OF PRODUCT:

- Maker's name or trade mark,
- Serial number of the units,
- Equipment type number or model identification under which it was type-tested.

7. OTHERS:

7.1 - It is **ENAG'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° 10528/E0 BV issued on 11 Sep 2017 by the Society.

*** END OF CERTIFICATE ***