



Marine & Offshore
Division

Certificate number: 42873/A0 BV

File number: AP4660

Product code: 2659I

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

Regulateurs Europa BV
Roden - NETHERLANDS

for the type of product

MOTOR CONTROL AND PROTECTIVE DEVICES
M602901F.

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships.

EC Code: 31.

This certificate is issued to attest that BUREAU VERITAS 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: 16 Feb 2021

For BUREAU VERITAS,

At BV GRONINGEN, on 16 Feb 2016,

John Mondt



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. 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 Division 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 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 :

The stepper motor drive unit **M602901F** has been designed to adjust the speed setting of a hydraulic mechanical governor , by means of a 4 - 20 mA signal. The driver controls a stepper motor, fitted in the governor, which adjusts the speed setting mechanism.

1.1 - Specifications:

Rated supply voltage: 24VDC +/- 20%
Rated supply current: 1.75A
Rated temperature: 70°C
Command input: 4-20mA
Software version: V2.3

2. DOCUMENTS AND DRAWINGS :

Functionality overview, dated 15.Sep.2015.
Data sheet ref. M602901/3, dated 09.Oct.2014.

3. TEST REPORTS :

Telefication:

- Tests report ref. 20123302200-V2.00, dated 05.Apr.2012.

4. APPLICATION / LIMITATION :

- 4.1 - BUREAU VERITAS Rules and Regulations for the Classification of Steel Ships.
- 4.2 - Approval valid for ships intended to be granted with the following additional class notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**
- 4.3 - BUREAU VERITAS Environmental Category, **EC Code: 31.**
- 4.4 - The equipment fulfils the EMC requirements for installation in General Power Distribution Zones.

5. PRODUCTION SURVEY REQUIREMENTS :

- 5.1 - The **M602901F** are to be supplied by **Regulateurs Europa BV** 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 - **Regulateurs Europa BV** has declared to Bureau Veritas that the type of product described in this certificate are manufactured at the following production sites:

Regulateurs Europa BV
Ekkelkamp 3
9301 ZZ Roden
NETHERLANDS

6. MARKING OF PRODUCT :

- 6.1 - Trade name.
- 6.2 - Date of manufacture and serial number.
- 6.3 - Equipment type or model identification under which it was type-tested.
- 6.5 - \ or @conformity marking, as relevant.

7. OTHERS :

This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the units at any time and that **Regulateurs Europa BV**, will accept full responsibility for informing shipbuilders, shipowners or their sub-contractors of the proper methods of use and general maintenance of the units and the conditions of this approval.

*** END OF CERTIFICATE ***