



Marine & Offshore

Certificate number: 27008/C0 BV

File number: AP4264

Product code: 3922H

*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*

**NORIS Automation GmbH**

Nürnberg - GERMANY

*for the type of product*

**AUTOMATIC SHUT DOWN DEVICES (OVERSPEED PROTECTION, ETC.)**

N3000-SAP, SA677

**Requirements:**

Bureau Veritas Rules for the Classification of Steel Ships

EC Code: 33

*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: 14 Feb 2027**

**For Bureau Veritas Marine & Offshore,**

At BV HAMBURG, on 14 Feb 2022,

Dirk Hoepfner



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](http://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.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION:

The **N3000-SAP** is a protection unit for diesel engines with status indication and function buttons at the front.  
The **SA677-xyG** is an amplifier relay for solenoid valves with integrated wire break monitor.

#### **Main Characteristics:**

##### **N3000-SAP:**

Power Supply: 24V DC  
 Protection Class: IP65 (front), IP00(rear)  
 Inputs: (with wire break monitoring)  
   - 4x NO for emergency stop  
   - 5x NO for automatic stop contacts  
   - 2x NO override, 2x for speed pickups  
 Outputs:  
   - 10x relay for system information or failure  
   - 2x frequency for speed signal  
   - 2x 4-20mA/0-10V for speed signal  
   - 2x relay for shut down valves, wire break monitored  
 Software:  
   - N3\_SAP 1.1ym  
   - N3\_SAPf 1.2ym

##### **SA677-xyG:**

Power Supply: 24V DC  
 Protection Class: IP00  
 Output current:  
 (y: 1, 2, 3, 4)  
   - 1yG: < 15A  
   - 2yG: < 6A  
   - 3yG: < 10A

### 2. DOCUMENTS AND DRAWINGS:

For C0 version:

- Description: 609E V1.56 dated Apr. 20, 2020; 619E V1.06 dated 27.07.2018
- Software release 610E V1.50 dated 20.04.20; QSP13.101 V1.1 dated 07.05.2014
- HG-N3000-SAP-5 Rev. g dated 03.07.13
- SA673-1G Rev. J dated 07.02.17; SA674-1G Rev. A dated 26.01.17; SA675-1G Rev. H dated 08.02.17;
- SA677-2G Rev. b dated 09.12.10
- FMEA - Rev. E dated 03.03.2020

### 3. TEST REPORTS:

- NORIS: Performance test dated 30.11.2006 and 4.6.2008; Product test report dated 11/2006;
  - PB 00.101:2012-01 dated 2012-02-08; Climatic tests dated 11.12.06; PB 00.101:2011-03 dated 2011-12-14
  - LGA: 26 1928 RP1 dated 15. Januar 2007; 26 1928 RP2 dated 15. Januar 2007; E4.042 dated 09. Februar 2007
- For C0 version:  
 TÜV: 60367336-001 dated 28.04.2020

### 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: 33**
- 4.4 - The equipment fulfils the EMC requirements for installation in General Power Distribution Zones.
- 4.5 - Suppression capacitors and/or low pass filters are to be the same as the ones used during EMC tests.
- 4.6 - Equipment covered by this Type Approval certificate has been tested according to requirements of IACS UR E10 rev7.
- 4.7 - In accordance with IACS UR E22 and as applicable to programmable devices for computer based systems of Category II or III, for each ship application:
  - Ship specific documentation is to be submitted including software documentation and categorization of the computer based system.
  - Inspection and testing before installation onboard is to be performed under the surveillance of the Society.

**5. PRODUCTION SURVEY REQUIREMENTS:**

5.1 - The above mentioned product are to be supplied by **NORIS Automation GmbH** 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 - **NORIS Automation GmbH** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

**NORIS Automation GmbH**  
**Muggenhofer Straße 95**  
**90429 Nürnberg**  
**GERMANY**

**6. MARKING OF PRODUCT:**

- Maker's name or trademark
- Date of manufacture and/or serial number
- Equipment type or model identification under which it was type-tested
- Title or version of software shall be marked on the equipment.

**7. OTHERS:**

7.1 - It is **NORIS Automation GmbH - GERMANY** 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° 27008/B0 BV issued on 27 Mar 2017 by the Society.

\*\*\* END OF CERTIFICATE \*\*\*