



Marine & Offshore

Certificate number: 17479/D0 BV

File number: ACE 02/003/43

Product code: 2633H

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

SCHNEIDER ELECTRIC INDUSTRIES SAS

Grenoble - FRANCE

for the type of product

CIRCUIT BREAKERS (LOW VOLTAGE)

Compact NS630b - 1600, manually operated

ComPacT NS630b - 1600, manually operated

Requirements:

BV Rules for the Classification of Steel Ships.

IEC 60947-1 (2014), IEC 60947-2 (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 Feb 2028

For Bureau Veritas Marine & Offshore,

At BV LYON, on 06 Feb 2023,

Florian Aulen

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=rcmh27mvxs>

BV Mod. Ad.E 530 June 2017

This certificate consists of 4 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

Product Type	Number of poles	Rated Voltage AC(V)	Insulation voltage AC(V)	Rated current (A)	Breaking capacity (kA)	Remarks
Circuit breakers Type N/H/L/LB rating from 630A to 1600A IEC 60947-2		Ue	Ui	In (40°C)	Icu/Ics Ue	Rated Frq =50/60Hz ----- overcurrent release Micrologic control unit 2.0 / 5.0 / 6.0 2.0A / 5.0A / 6.0A 2.0E / 5.0E / 6.0E 5.0P / 6.0P
NS630b NS800 NS1000 NS1250 Type N	3-4 3-4 3.4 3.4	690 690 690 690	1000 1000 1000 1000	630 800 1000 1250	 85/50 220/240V 50/50 380/415V 50/50 440V 40/40 500/525V 30/30 660/690V	Icw 19.2/1s
Type H					85/50 220/240V 70/50 380/415V 65/50 440V 50/40 500/525V 42/30 660/690V	Icw 19.2/1s
NS630b NS800 NS1000 Type L	3-4 3-4 3-4	525 525 525	1000 1000 1000	630 800 1000	 150/150 220/240V 150/150 380/415V 130/130 440V 100/100 500/525V	
NS630b NS800 Type LB	3-4 3-4	690 690	1000 1000	630 800	 200/200 220/240V 200/200 380/415V 200/200 440V 100/100 500/525V 75/75 660/690V	
NS1600 (Manual Control) Type N	3-4	690	1000	1600	 85/37 220/240V 50/37 380/415V 50/37 440V 40/30 500/525V 30/22 660/690V	Icw 19.2/1s
Type H					85/37 220/240V 70/37 380/415V 65/37 440V 50/30 500/525V 42/22 660/690V	Icw 19.2/1s

The ComPacT NS630b-1600 and Compact NS630b-1600 are equipped with Micrologic control units:

X: Type of protection:

- 2: For basic Protection
- 5: For Selective Protection
- 6: For Selective Protection + Earth-Fault Protection

Y: Control-Unit Generation:

- Identification of Control-unit generation, 0 means the first generation

Z: Type of Measurement:

- Micrologic A : " Ammeter"
- Micrologic E : " Energy"
- Micrologic P : " Power"

Software version:

- Micrologic 2.0A / 5.0A / 6.0A: V01.029
- Micrologic 2.0E / 5.0E / 6.0E: V01.0.16
- Micrologic 5.0P / 6.0P: 08_284 (2014AQ)

2. DOCUMENTS AND DRAWINGS:

- 2.1 - Catalogue "2006" ref.: ABTED201147EN/ART06435 dated 11/2005.
- 2.2 - Marine Certification file N° NS630b-1600A_LB-08-2007 revised 08/2007.
- 2.3 - Software quality plan N° GHE3000703-01, ver.03, dated 28 Jan 2019.
- 2.4 - Software quality plan N° 0001700679, ver.03, dated 27 Feb 2019.
- 2.5 - Software quality plan N° 5100554300, ver.03, dated 23 Jun 2021.
- 2.6 - Software version dated 29 Jul 2021.
- 2.7 - Description file N° GHD1189100, ver.03, dated 09 Dec 2021.
- 2.8 - Catalog N° LVPED221008EN, dated Feb 2022
- 2.9 - Retail instruction sheet N° JYT6180003-00, dated Jan 2022.
- 2.10 - Retail instruction sheet N° JYT6180103-00, dated Jan 2022.
- 2.11 - User Guide N° DOCA0221EN-00, dated Jan 2022.
- 2.12 - Software registry dated 29 Jul 2021.
- 2.13 - AMDEC N° GHE3000728-02 dated 07 Apr 2022.

3. TEST REPORTS:

- 3.1 - Schneider Test reports N°:
 - F03.2005-0216-01 dated 08/06/2005
 - F03.2005-0216-02 dated 08/06/2005
 - F03.2005.0223-00 dated 30/11/2005
 - F03-2005-0224-00 dated 30/11/2005
- 3.2 - ASEFA Certificate of conformity N°:
 - 05b-05BT, 05-06BT, 06-06BT.
- 3.3 - SOPEMEA test reports N°:
 - EHL 06058 dated 09/06/2005
 - EHL08636 dated 05/10/2006.
- 3.4 - LCIE - CB Scheme certificates N°:
 - FR 652973A dated 06/11/2014
 - FR 652973B dated 06/11/2014
 - FR 652973C dated 06/11/2014
 - FR 652973D dated 08/01/2015.
 - FR_709298, dated 07 Sep 2020.
 - FR_709309, dated 07 Sep 2020.
 - FR_709404/M1, dated 04 Nov 2020.
 - FR_713047, dted 20 Jan 2022.
- 3.5 - Zhejiang Fangyuan Test Group Co., Ltd. N°:
 - 2011990012, dated 19 Aug 2020.
 - 2011990012-A1, dated 23 Sep 2020.
 - 2011990013A, dated 06 Aug 2020.
 - 2011990013B, dated 11 Aug 2020.
 - 2111930035, dated 14 Aug 2021.
 - 2111939004, dated 14 Apr 2021.
 - 2111939005, dated 14 Apr 2021.
 - 2111939019, dated 26 Nov 2021.
 - 2111990020, dated 03 Dec 2021.
 - 22119E90002, dated 04 Jul 2022.
 - 22119E90003, dated 06 Jul 2022.
- 3.6 - VOLTA N°:
 - 201803069_001, dated 26 Sep 2018.

4. APPLICATION / LIMITATION:

- 4.1 - Approval also valid for ships to be granted with the notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**
- 4.2 - According to BV Rules for the Classification of Steel Ships.
- 4.3 - Equipment covered by this Type Approval certificate has been tested according to requirements of IACS UR E10 rev 8.
- 4.4 - 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 products are to be supplied by **SCHNEIDER ELECTRIC INDUSTRIES SAS** 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 - **SCHNEIDER ELECTRIC INDUSTRIES SAS** 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, **SCHNEIDER ELECTRIC INDUSTRIES SAS** has declared to Bureau Veritas the following production sites:

**Schneider Electric Industrie Italia S.P.A Unita Casavatore
CORSO ITALIA 113
80020 CASAVATORE -NA
ITALY**

**SCHNEIDER SHANGHAI POWER DISTRIBUTION ELEC. APP. CO, LTD
833 Kang Qiao Lu Pu Dong
201315 SHANGHAI
CHINA**

**SCHNEIDER ELECTRIC ALPES
Voie Isaac Newton
ZI Alpespace
73800 FRANCIN
FRANCE**

6. MARKING OF PRODUCT:

According to IEC 60947 specifications.

7. OTHERS:

- 7.1 - It is **SCHNEIDER ELECTRIC INDUSTRIES SAS**'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° 17479/C0 BV issued on 02 Jan 2019 by the Society.

*** END OF CERTIFICATE ***