



Marine & Offshore

Certificate number: 15503/C0 BV

File number: ACE2/003/46

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 Cedex 09 - FRANCE

for the type of product

CIRCUIT BREAKERS (LOW VOLTAGE)

Circuit Breaker Masterpact NAVY NW and NT, 3 poles, drawout,
type NAVY NW H1/H2/N1 rated 800A/1000A/1250A/2000A/2500A/3200A/4000A.
type NAVY NT H1/H2/L1 rated 630A/800A/1000A/1250A/1600A.

Requirements:

BV Rules for the Classification of Steel Ships.
IEC 60947-2(2016).

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: 13 Jun 2022

For Bureau Veritas Marine & Offshore,

At BV LYON, on 13 Jun 2017,

Jean-Marc Cabuzel



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.veristarpm.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=aas7dgnhpf>

BV Mod. Ad.E 530 June 2017

This certificate consists of 4 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

The NT series are circuit breakers for Marine applications.

1.1 - Approval range:

PRODUCT TYPE	N° of poles	Rated voltage AC(V)	Insulation voltage AC(V)	Maximum operating current (A)	Breaking capacity (kA)/(V)			Remarks
					Icu	Ics	Ue	
CIRCUIT BREAKER Type MASTERPACT NAVY NW - 800 to 4000A		Ue	Ui	Ith at 45°C	Icu	Ics	Ue	Characteristics as per IEC 60947-2. C.B.'s have been equipped with control units to realize instantaneous selective and universal protection ----- Overcurrent release : Micrologic Control Units 2.0x, 5.0x, 6.0x or 7.0x (x=A or Por H) ----- The test function is secured by universal box ----- (1) I _{cw} 1s =50kA 3s=36kA. (2) I _{cw} 1s =55kA 3s=35kA.
NW 08 N1 NW 10 N1 NW 12 N1 NW 16 N1	3-4	690	1000	800 1000 1250 1600	42	42	220/690V	
NW 08 H1 NW 10 H1 NW 12 H1 NW 16 H1 NW 20 H1	3-4	690	1000	800 1000 1250 1600 2000	65	65	220/690V	
NW 08 H2 NW 10 H2 NW 12 H2 NW 16 H2 NW 20 H2	3-4	690	1000	800 1000 1250 1600 2000	100 85	100 85	220/440V or 525/690V	
NW 25 H1 NW 32 H1 NW 40 H1	3-4	690	1000	2500 3200 4000	65	65	220/690V	
NW 25 H2 NW 32 H2 NW 40 H2	3-4	690	1000	2500 3200 4000	100 85	100 85	220/440V or 525/690V	
NW 08 HA(1) NW 10 HA(1) NW 12 HA(1) NW 16 HA(1) NW 20 HA(1)	3-4	690	1000	800 1000 1250 1600 2000	50	50	220/690V	
NW 25HA(2) NW 32HA (2) NW 40HA (2)	3-4	690	1000	2500 3200 4000	55	55	220/690V	

PRODUCT TYPE	N° of poles	Rated voltage AC(V)	Insulation voltage AC(V)	Maximum operating current (A)	Breaking capacity (kA)/(V)	Remarks
Circuit Breakers "MASTERPACT NAVY NT 630 to 1600A"		Ue	Ui	Ith at 40°C	Icu/Ics Ue	- Characteristics as per IEC 60947-2 ----- - Rated Frequency = 50/60 Hz -----
NT 06 H1 NT 08 H1 NT 10 H1	3 - 4	690	1000	630 800 1000	42/42 220/415 or 42/42 440 or 42/42 525 or 42/42 690	----- Overcurrent release Micrologic Control Units
NT 06 H2 NT 08 H2 NT 10 H2	3 - 4	690	1000	630 800 1000	50/50 220/415 or 50/50 440 or 42/42 525 or 42/42 690	2.0x, 5.0x, 6.0xor 7.0x (x=Aor Por H)
NT 06 L1 NT 08 L1 NT 10 L1	3-4	690	1000	630 800 1000	150/150 220/415 or 130/130 440 or 100/100 525 or 25/25 690	
NT 12H1 NT 16 H1	3 - 4	690	1000	1250 1600	42/42 220/415 or 42/42 440 or 42/42 525 or 42/42 690	
NT 12 H2 NT 16 H2	3 - 4	690	1000	1250 1600	50/50 220/415 or 50/50 440 or 42/42 525 or 42/42 690	

2. DOCUMENTS AND DRAWINGS:

- 2.1 - Merlin Gerin catalogue ref: ART807300 dated 06-2005.
 2.2 - Specifications dated 05/Jul./2005.
 2.3 - ASEFA letter 2010-177 jBu dated November 17th, 2010.
 2.4 - Functional Test Specification for SIRI project S1A1571604 Revision 00 dated September 2009.
 2.5 - Mechanical Testing Report N°201005349_001 dated 2010.

For C0 version:

Gap analysis ref. LKE Masterpact NT/NW BV, dated 09 Apr 2017.

3. TEST REPORTS:

- 3.1 - LR certificates N° LYO0403023/1A3, N° LYO0403023/2A2, N° LYO0403023/3, N° LYO0403023/4.
 3.2 - L2E test reports N° 2004-0999-01-F(16/03/05), N° 2004-0999-02-F(16/03/05), N° 2005-0026-00-P(20/01/05), N° 2005-0026-01-P(20/01/05).
 3.3 - Schneider electric test reports N° 5140734400A(18/01/05), CEMG040042-02A(29/12/04), CEMG040042-03A(29/12/04), CEMG040043-03A(29/12/04), VIB040093A-1,(14/02/05), VIB040094A-1,(14/02/05), VIB040095A-1,(14/02/05), VIB040096A-1(14/02/05), VIB040097A-1(14/02/05), VIB040098A-1(14/02/05), VIB040099A-1(14/02/05), VIB040100A-1(14/02/05), CLIM040097-1ba(18/02/05).
 3.4 - ASEFA certificates N°: 109-05BT(16/06/05), 143-04BT(29/10/04), 144-04BT(29/10/04), 04-05BT(05/08/04).
 3.5 - ASEFA test declarations N°: 32041(22/06/05).
 3.6 - ASEFA record of proving test N° F01.04.06(10/09/04), F01.04.09(23/07/04), N° F01.04.10(16/07/05), N° K11-313-00(14/03/2001), K11-314a-00(14/03/01), K11-314b-00(14/03/01), K11-527-00(14/03/01), F03-CEMG040042-01A(24/01/05), F03-CEMG040042-04A(24/01/05), F03-CEMG040043-01A(03/01/05),
 3.7 - SOPEMEA test reports N°: EHL05304/1(21/04/05), EHL05304/2(21/04/05).
 3.8 - BV reports N° 217LYN04R.

4. APPLICATION / LIMITATION:

4.1 - According to 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 **NT series** 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 site(s):

**SCHNEIDER SHANGHAI POWER
DISTRIBUTION ELEC. APP. CO,
LTD**

833 Kang Qiao Lu Pu Dong
201315 SHANGHAI
CHINA

SCHNEIDER ELECTRIC MOIRANS

ZONE INDUSTRIELLE CENTRE ALP
38430 MOIRANS
FRANCE

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** 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° 15503/B0 BV issued on 29 Mar 2012 by the Society.

*** END OF CERTIFICATE ***