



MARINE DIVISION

Certificate number: 10738/C0 BV

File number: ACE 02/003/40

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)

Types: MASTERPACT NW 08-63 N1, H1, H2, H3, L1.

Requirements:

BV Rules for the Classification of Steel Ships.

IEC 60947-1 - IEC 60947-2.

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: 19 Apr 2017

For BUREAU VERITAS,

At BV LYON, on 19 Apr 2012,

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. 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 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:

Circuit Breaker Type Masterpact NW with trip units MICROLOGIC 5.0, 6.0, 7.0.

Characteristics as per IEC 60947-2. C.B.'s have been equipped with control units to realize instantaneous selective and universal protection.

Product Type	Number of Poles	Rated Voltage (V) Ui	Maximum Operating Current (A) Ith at 45°C	Breaking Capacity (kA)		
				Icu	Ics	Ui
NW 08 N1 NW 10 N1 NW 12 N1 NW 16 N1	3-4	1000	800	42	42	220 V to 690V
1000						
1250						
1600						
NW 08 H1 NW 10 H1 NW 12 H1 NW 16 H1 NW 20 H1	3-4	1000	800	65	65	220V to 690V
1000						
1250						
1600						
2000						
NW 08 H2 NW 10 H2 NW 12 H2 NW 16 H2 NW 20 H2	3-4	1000	800	100	100	220/440V
1000						
1250			85	85	525/690V	
1600						
2000						
NW 08 L1 NW 10 L1 NW 12 L1 NW 16 L1 NW 20 L1	3-4	1000	800	150	150	220/240V
1000						
1250			130	130	525/690V	
1600						
2000						
NW 25 H1 NW 32 H1 NW 40 H1	3-4	1000	2500	65	65	220/690V
3200						
4000						
NW 25 H2 NW 32 H2 NW 40 H2	3-4	1000	2500	100	100	220/440V
3200						
4000			85	85	525/690V	
2500						
3200						
NW 20 H3 NW 25 H3 NW 32 H3 NW 40 H3	3-4	1000	2500	150	150	220/440V
3200						
4000			130	130	525V	
4000						100
NW 40bH1(1) NW 50H1(1) NW 63H1(1)	3-4	1000	2500	100	100	
3200						
4000						
NW 40bH2 (1) NW 50H2 (1) NW 63H2 (1)	3-4	1000	2500	150	150	220/240V
3200						
4000			130			
4000	100	100		690V		

(1) Icw 1s or 3s = 100 kA.

1.2 - Control Units Micrologic

Control Unit types	2.0	5.0	6.0	7.0
Protection Type	Distribution L, I	Selective L, S, I	Selective and earth-fault protection L, S, I, G	Selective protection with earth-leakage protection L, S, I, V
Type of current protection				
Without	2.0	5.0		
A Ampermeter	2.0A	5.0A	6.0A	7.0A
E Energy	2.0E	5.0E	6.0E	
P Power		5.0P	6.0P	7.0P
H Harmonics		5.0H	6.0H	7.0H

2 - DOCUMENTS AND DRAWINGS:

- MASTERPACT NW certification file ref. IEC/NW 01 dated 2 October 2000, revised September 2003.
- MASTERPACT NT and NW catalogue reference ART 56504 dated 01/2000.
- Declarations of conformity DIAQ-MP/-CH/-CV/-SP dated 25/09/2003
- Declarations of conformity DIAQ_MP-CH-02.B dated 28/08/2000.
- Declarations of conformity DIAQ_MP-CV-01.B dated 28/08/2000.
- Declarations of conformity DIAQ_MP-SP-02.B dated 28/08/2000.
- Declaration of equivalence: ABT-BEDG-02-03-NW40b-50H1.
- Certificate of conformity N°152-10BT to 158-10BT dated 21 December 2010.
- Certificate of conformity N°04-10BT and 05-10BT dated 21 December 2010.
- Certificate of conformity N°150-10BT and 151-10BT dated 21 December 2010.
- Certificate of conformity N°069-11BT, 070-11BT, 071-11BT, 074-11BT dated 14 June 2011 and 03-10BT dated 21 December 2010.
- Certificate of conformity N°069-11BT, 072-11BT and 073-11BT dated 14th June 2011.
- Certificate of conformity N°079-11BT to 082-11BT dated 21th June 2011.
- Certificate of conformity N°047-11BT, 048-11BT, 050-11BT, 051-11BT, 054-11BT, 0-55-11, 056-11BT, 058-11BT, 059-11BT dated 26th May 2011.

3 - TEST REPORTS:

- ASEFA certificate N° 01-02, 008-02 issued on 25/02/2002
- ASEFA certificates N° 012-01, 013-01, 014-01, 015-01, 016-01, 017-01 issued on 02/04/2001
- ASEFA certificates N° 019-00, 020-00, 021-00, 022-00, 023-00, 024-00, 025-00 issued on 07/04/2000
- ASEFA certificates N° 019a-01, 020a-01, 021a-01, 022a-01, 023a-01 issued on 11/12/2001
- ASEFA certificates N° 073-01, 074-01, 076-01, 080-01, 081-01, 082-01, 083-01, 084-01, 085-01, 086-01, 087-01, 088-01, 089-01, 090-01 issued on 26/07/2001
- ASEFA certificates N° 075a-01 issued on 11/09/2001
- ASEFA certificates N° 077a-01, 078a-01, 079a.01 issued on 21/12/2001
- ASEFA certificates N° 0151a-01 issued on 10/01/2002
- ASEFA certificates N° 026.00
- ASTA certificates N° 14117 issued on 20/12/1999
- ASTA certificates N° 14153, 14154, 14155, 14156 issued on 11/02/2000
- ASEFA certificates N° 018.01/019.01
- ASEFA certificates N° 020.01/021.01/022.01/023.01
- ASEFA certificates N° 059-00 issued on 26/06/2000
- ASTA certificates N° 15196 issued on 16/09/2002
- ASEFA certificates N° 29042 issued on 10/12/2002
- L2E VOLTA Test report N° 20020211 dated 07/10/2003.
- Certificates of conformity N°s:
 - ASEFA_046-03BT (NW63) dated 26/11/2003
 - ASEFA_045-03BT (NW50) dated 26/11/2003
 - ASEFA_044-03BT (NW40b) dated 27/11/2003
 - ASEFA_049-03BT (NW63) dated 26/11/2003
 - ASEFA_048-03BT (NW50) dated 26/11/2003
 - ASEFA_047-03BT (NW40b) dated 26/11/2003.
 - ASEFA_37005 (NW08-NW40-NW63 Type H2 with electronic trip micrologic 5.0) dated 14th December 2010.
 - ASEFA_37005 (NW08-NW16 Type N1 with electronic trip micrologic 5.0) dated 14th December 2010.
 - ASEFA_38003 (NW40b-NW63 Type H1 with electronic trip micrologic 5.0) dated 10th May 2011.
 - ASEFA_38003 (NW08-NW10-NW12-NW16-NW20-NW25-NW32-NW40 Type H1 with electronic trip micrologic 5.0) dated 3th May 2011.
 - ASEFA_37005 (NW08-NW20 Type L1 with electronic trip micrologic 5.0) dated 3th May 2011.
 - ASEFA_38018 (NW08-NW20-NW25-NW40 Type with electronic trip micrologic 5.0) dated 3th May 2011.
 - Test Report N°2011250_007 to 13 dated February 2011.

4 - APPLICATION / LIMITATION:

BV Rules for the Classification of Steel Ships and IEC60947-2.

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The above circuit breakers are to be manufactured, examined and tested by **Schneider Electric Industries SAS - FRANCE**, in accordance with the type described in this certificate and Bureau Veritas Rules for the Classification of Steel Ships.

5.2 - Production sites are to be recognized by Bureau Veritas as per NR320 for HBV products. To this end **Schneider Electric Industries SAS - FRANCE** has to make the necessary arrangements for a Society's Surveyor to perform visits and product audits at the production sites.

5.3 - **Schneider Electric Industries SAS - FRANCE** has declared to Bureau Veritas that the type of products described in this certificate are manufactured at the following production sites:

Name of Production Sites	Address	Country
Schneider Electric Industries SAS	Electropole 38EQI - Eybens	FRANCE
Schneider Electric France	Mastertech, rue de la Grange Bâtie - 38430 MOIRANS	FRANCE
Schneider Shanghai Power Appl. Co., Ltd.	833 Kang Qiao Road Pudong Area 201315	CHIINA

6. MARKING OF PRODUCT:

According to IEC 60947 specifications.

7. OTHERS:

7.1 - 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 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.

7.2 - This certificate supersedes the Type Approval Certificate N° 10738/B1 BV issued on 29/08/2005 by the Society.

*** END OF CERTIFICATE ***