



Marine & Offshore

Certificate number: 22615/C0 BV

File number: ACE 02/162/1

Product code: 2634H

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 - ELECTROPOLE 38EQI
EYBENS - FRANCE

for the type of product

CONTACTORS (LOW VOLTAGE)

TeSys Model D: LC1/LC2-D115/D150.

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships.

EC Code: 41C.

IEC 60947-1 (2014), IEC 60947-4-1 (2018), IEC 60947-5-1 (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: 20 May 2026

For Bureau Veritas Marine & Offshore,

At BV LYON, on 20 May 2021,

Florian Aulen



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.

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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:

Contactors LC1-D115 / LC1-D150, ac and dc coils

Reversing contactors LC2-D115 / LC2-150, ac and dc coils

Suffix 6: Lug connections

Suffix 3: Spring terminals

Coil a.c. supply: from 24 to 500V, 50/60Hz

Coil d.c. supply: from 24 to 440V

Rating type:	D115 to D150
AC3 Current at 440Vac:	115A for D115, 150A for D150
Operational voltage (Ue):	1000Vac
Insulation voltage (Ui):	1000V
Impulse withstand voltage (Uimp):	8kVac
Frequency range:	25 to 400Hz
Utilization category:	AC1, AC3, AC4

Accessories (Auxiliary contacts, Time delay auxiliary contacts, Mechanical blocks, suppressor modules, covers) according to catalogue 24511-EN_Ver12.1

2. DOCUMENTS AND DRAWINGS:

According to Manufacturer's catalogue ref. MKTED210011EN.

3. TEST REPORTS:

Performance Test Reports:

- ASEFA Test report F01.98.003, F01.98.004, F01.98.005 dated 12/01/1999
- ASEFA Test report F01.98.006, F01.98.007, F01.98.008 dated 12/03/1999
- ASEFA Test report F01.98.009, F01.98.010, F01.98.011 dated 12/01/1999
- ASEFA Test report K11.98.13, K11.98.15 dated 07/01/1999
- ASEFA Test report K11.98.16, K11.98.17, K11.98.18 dated 11/01/1999
- ASEFA Test report K11.99.45A, K11.99.45B, K11.99.45C dated 13/08/2001
- ASEFA Test report K11.99.46A, K11.99.46B, K11.99.46C dated 13/08/2001
- ASEFA Test report K11.99.64, K11.99.65 dated 13/08/2001
- ASEFA Test report K11.99.77, K11.99.78 dated 13/08/2001
- ASEFA Test report K11.99.103, K11.99.104 dated 13/08/2001
- L2E Test report 2005-0001-00-F dated 05/02/2005
- TÜV Rheinland tests report No. 28222796 001, dated 24.Jun.2014.
- TÜV Rheinland tests report No. 28249869 001, dated 29 Mar 2019.
- TÜV Rheinland tests report No. 28249868 001, dated 29 Mar 2019.
- IECCE CB Scheme No. HU-002614, dated 18 Jun 2019.

Environmental Test Reports:

- Schneider Electric EMC test report 319-03 dated 07/08/2003, 153-09 dated 04/08/03/2003
- Schneider Electric EMC test report 406-99 dated 07/09/1999, 408-99 dated 27/08/1999
- Schneider Electric EMC test report 299-01 dated 12/09/2001, 405-99 dated 10/09/1999, 582-03 dated 28/11/2003
- Schneider Electric EMC test report 189-03 dated 12/09/2001, 320-03 dated 06/08/2003
- Schneider Electric Inclination test report GV10075A dated 31/05/2001
- Schneider Electric Vibration test report G0011081AA dated 23/05/2001
- Schneider Electric Temperature test report CLIM030102-1, CLIM030102-2, CLIM030102-3 dated 30/08/2010
- Schneider Electric Temperature test report CLIM030103-1, CLIM030103-2, CLIM030103-3 dated 30/08/2010

4. APPLICATION / LIMITATION:

4.1 - According to BV Rules for the Classification of Steel Ships and IEC 60947 specifications.

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 - The equipment fulfils the EMC requirements for installation on the General power distribution zone.

4.4 - BUREAU VERITAS Environmental Category, **EC Code: 41C.**

4.5 - Equipment covered by this Type Approval certificate has been tested according to requirements of IACS UR E10 rev 7.

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The above products are to be supplied by **SCHNEIDER ELECTRIC INDUSTRIES SAS - ELECTROPOLE 38EQI** 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 - ELECTROPOLE 38EQI** 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 - ELECTROPOLE 38EQI** has declared to Bureau Veritas the following production site:

**Schneider Electric, a.s.
Cizovska 447
397 01 Pisek
CZECH REPUBLIC**

6. MARKING OF PRODUCT:

According to IEC 60947 specifications.

7. OTHERS:

7.1 - It is **SCHNEIDER ELECTRIC INDUSTRIES SAS - ELECTROPOLE 38EQI**'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 No. 22615/B0 BV issued on 09 Feb 2016 by the Society.

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