



Marine & Offshore

Certificate number: 03690/F0 BV

File number: ACE 02/003/35

Product code: 2634I

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
CONTACTORS (LOW VOLTAGE)
 Type: LC1 - F... & LC2 - F ... series.

Requirements:

According to BV Rules for the Classification of Steel Ships
 IEC 60947-1 + A1 + A2 (2014)
 IEC 60947-4-1 + A1 (2012)

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 Dec 2023

For Bureau Veritas Marine & Offshore,
 At BV LYON, on 20 Dec 2018,
 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.

The electronic version is available at: <http://www.veristarm.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=dsv6qqn4g>

BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

Reference	Ith (A)	Ue	230V	400V	415V	440V	500V	690V	1000V
		Ie							
		Utilization	category						
LC1/LC2 -F115	200	Pe AC-3 (Kw)	30	55	59	59	75	80	65
		Ie AC-3 (A)	95.7	97	100.3	115	105.6	81.9	45.8
		Ie AC-4 (A)	79.8	80.9	83.6	95.9	88.0	68.3	38.2
		Ie AC-1 (A)	200						
LC1/LC2 -F150	250	Pe AC-3 (Kw)	40	75	80	80	90	100	65
		Ie AC-3 (A)	123.9	132	136.2	150	128	102.9	45.8
		Ie AC-4 (A)	103.3	110.0	113.5	125	106.7	85.8	38.2
		Ie AC-1 (A)	250						
LC1/LC2 – F1154*	200	Ie AC-1 (A)	200						
LC1/LC2 – F1504*	250	Ie AC-1 (A)	250						
LC1/LC2 – F185	275	Pe (Kw)	55	90	100	100	110	110	100
		Ie AC-3 (A)	168.7	160	171.1	185	156	113	71
		Ie AC-4 (A)	140.6	133.4	142.6	154.2	130.0	94.2	59.2
		Ie AC-1 (A)	275						
LC1/LC2 – F225	315	Pe (Kw)	63	110	110	110	129	129	100
		Ie AC-3 (A)	193.1	195	188	225	180.2	130.6	71
		Ie AC-4 (A)	161.0	162.5	156.7	187.5	150.2	108.9	59.2
		Ie AC-1 (A)	315						
LC1/LC2 – F1854*	275	Ie AC-1 (A)	275						
LC1/LC2 – F2254*	315	Ie AC-1 (A)	315						
LC1/LC2- F265	350	Pe (Kw)	75	132	140	140	160	160	/
		Ie AC-3 (A)	229.6	230	235.5	265	224	162.4	/
		Ie AC-4 (A)	191.4	191.7	196.3	220.9	186.7	135.4	/
		Ie AC-1 (A)	350						
LC1- F330	400	Pe (Kw)	100	160	180	200	200	220	160
		Ie AC-3 (A)	308.7	280	303.6	330	280	221.6	112
		Ie AC-1 (A)	400						
LC1- F400	500	Pe (Kw)	110	200	220	250	257	280	185
		Ie AC-3 (A)	339.1	350	368.6	400	353.5	278.8	129.5
		Ie AC-1 (A)	500						
LC1/LC2-F2654*	350	Ie AC-1 (A)	350						
LC1- F3304*	400	Ie AC-1 (A)	400						
LC1- F4004*	500	Ie AC-1 (A)	500						
LC1- F500	700	Pe (Kw)	147	250	280	295	355	335	/
		Ie AC-3 (A)	446.5	430	463.5	500	488	333.3	/
		Ie AC-1 (A)	700						
LC1- F5004*	700	Ie AC-1 (A)	700						
LC1- F630	1000	Pe (Kw)	200	335	375	400	400	450	450
		Ie AC-3 (A)	608.7	575	622.2	630	552	446.7	308.2
		Ie AC-1 (A)	1000						
LC1- F780	1600	Pe (Kw)	220	400	425	425	450	475	450
		Ie AC-3 (A)	664.9	690	704	780	616.5	469.8	308.2
		Ie AC-1 (A)	1600						
LC1- F6304*	1000	Ie AC-1 (A)	1000						
LC1- F7804*	1600	Ie AC-1 (A)	1000						

*Note: When 4 appears at the end of the contactors references (LC1-F 1154 for instance), then it is a 4 poled contactors.

PRODUCT TYPE	Number of poles	Rated voltage (V)	Max. operating current (A)	Breaking capacity (A)	Remarks
Auxiliary contacts Contacts auxiliaires D Series Type LAD..	2-3-4	690 A.C	10		Thermic nominal current 10A

2. DOCUMENTS AND DRAWINGS :

According to documents filed in ACE 02/003/35.
Specification Ref. A2013CCC0304-1497679, dated 01 Feb 2013.
Specification Ref. A2013, dated 2013.
Specification Ref. A2014CCC0304-1727153, dated 14 Jan 2014.
Specification Ref. A2012CCC, dated 2012.
Specification Ref. A2014CCC0304-1727155, dated 14 Jan 2014.

3. TEST REPORTS :

- Declaration of Conformity issued by ASEFA file N° 17-225 & 17-217.
- Certificate of conformity N°s 001-99, 031-00, 033-00, 002-99, 032-00, 034-00 issued by ASEFA.

IECEE CB Scheme Certificate:

- Ref.Certif. N° CN24992-M1, dated 2014.07.30
- Ref.Certif. N° CN24993, dated 2012.11.23
- Ref.Certif. N° CN24994-M1, dated 2013.07.17
- Ref.Certif. N° CN24995-M1, dated 2014.07.30
- Ref.Certif. N° CN24996-A1, dated 2013.05.14
- Report N° C009-CB2012CQC-042922-M1, dated 2014.06.03
- Report N° C009-CB2012CQC-042923, dated 2012.09.18
- Report N° C009-CB2012CQC-042924-M1, dated 2014.06.03
- Report N° C009-CB2012CQC-042925-M1, dated 2013.06.04
- Report N° C009-CB2012CQC-042926-M1, dated 2013.04.11

4. APPLICATION / LIMITATION :

- According to BV Rules for the Classification of Steel Ships.
- IEC 60947 series.

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The circuit breakers are to be supplied by **SCHNEIDER ELECTRIC S.A.S.** in compliance with the type and the requirements described in this certificate.
5.2 - This type of product is within the category IBV of Bureau Veritas Rule Note NR320.
5.3 - BV product certificate is required.
5.4 - For information, **SCHNEIDER ELECTRIC S.A.S.** has declared to Bureau Veritas the following production site(s):

Schneider Electric S.A.
Cizovska 447
397 01 Pisek
CZECH REPUBLIC

6. MARKING OF PRODUCT :

6.1 - Trade name.
6.2 - Date of manufacture and serial number.
6.3 - Equipment type or model identification under which it was type-tested
6.4 - @ or \ conformity marking, as relevant (I product only).

7. OTHERS :

7.1 - It is **SCHNEIDER ELECTRIC S.A.S.**'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° 03690/E0 BV issued on 20 Aug 2013 by the Society.

*** END OF CERTIFICATE ***