

# TYPE APPROVAL CERTIFICATE

Certificate No: **TAE00001UE** Revision No:

This is to certify:

That the Contactor

with type designation(s) LC1-F../LC2-F.. , 2, 3 or 4 poles

Issued to

# Schneider Electric Industries S.A.S. Grenoble, France

is found to comply with

DNV rules for classification – Ships, offshore units, and high speed and light craft DNV class programme DNV-CP-0396 – Type approval – Low-voltage switchgear and controlgear - rated voltage does not exceed 1000V AC or 1500V DC

## Application:

Contactors and reversing / pole-changing contactors for installation in enclosures onboard ship and mobile offshore units

Products approved by this certificate are accepted for installation on all vessels classed by DNV.

Rated voltage (V) 1000

Rated current (A) 115 - 780 (at 440 VAC, AC3 Category)

Frequency (Hz) 50 - 60

Issued at Høvik on 2022-10-03

for **DNV** 

This Certificate is valid until 2027-05-28.

DNV local station: France CMC

Approval Engineer: Nicolay Horn

Frederik Tore Elter Head of Section

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



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This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Job Id: **262.1-009722-9** Certificate No: **TAE00001UE** 

Revision No: 2

# Name and place of manufacturer

Schneider Electric SA Cizovska 447 397 01 Pizek, Czech Republic

# **Product description**

Type LC1-F.. contactors for control in utilisation category AC-1 (200 to 1600 A) with 2, 3 or 4 poles or for motor control in utilisation category AC-3 (115 to 780 A) (3-pole).

Type LC2-F.. changeover contactor pairs for control in utilisation category AC-1 (200 to 350 A) (3 or 4-pole) or reversing contactors for motor control in utilisation category AC-3 (115 to 265 A) of type: LC2-F.. (3 pole).

	I <sub>th</sub> (AC-1) [A]	I <sub>e</sub> (AC-3) [A] (*)				
2-pole	3-pole	4-pole	Reversing, 3-pole	Changeover , 4-pole	440 V	440 V
-	LC1-F115	LC1-F1154	LC2-F115	LC2-F1154	200	115
-	LC1-F150	LC1-F1504	LC2-F150	LC2-F1504	250	150
-	LC1-F185	LC1-F1854	LC2-F185	LC2-F1854	275	185
-	LC1-F225	LC1-F2654	LC2-F225	LC2-F2254	315	225
-	LC1-F265	LC1-F2254	LC2-F265	LC2-F2654	350	265
-	LC1-F330	LC1-F3304	-	-	400	330
LC1-F4002	LC1-F400	LC1-F4004	-	-	500	400
LC1-F5002	LC1-F500	LC1-F5004	-	-	700	500
LC1-F6302	LC1-F630	LC1-F6304	-	-	1000	630
-	LC1-F780	LC1-F7804	-	-	1600	780

(\*) AC3 ratings apply to 3-pole models only

Auxiliary contact blocks of type:	LA-DN, LA1-D, LA2-D, LA3-D, LAD-T, LAD-S _ and LAD-R
Accessories for reversers and terminal covers of type:	LA9-F

#### Application/Limitation

Rated operational voltage, U<sub>e</sub>: 1000 V AC max Frequency: 50 - 60 Hz

Current, I<sub>e</sub> (AC-3): 115 – 780 A (at 440VAC)

#### Type Approval documentation

Technical Info:

Schneider Electric catalogue MKTED210011EN

Test reports:

CQC:

CN48364-M1 CB Certificate and assosiated Test Reports (F115-150)

CN48439-M1 CB Certificate and assosiated Test Reports (F265-400)

CN48454-M2 CB Certificate and assosiated Test Reports (F185-225)

CN49024-M2 CB Certificate and assosiated Test Reports (F500)

CN49825-M1 CB Certificate and assosiated Test Reports (F630-780)

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#### **Tests carried out**

Temperature-rise, overload current withstand, making and breaking capacity according to IEC/EN 60947-1 and 60947-4-1.

## Marking of product

Manufacturer: Schneider Electric and type designation

#### **Periodical assessment**

The scope of the periodical assessment is to verify that the conditions stipulated for the type approval is complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routine Tests (RT) checked (if not available tests according to RT to be carried out)
- · Review of type approval documentation
- · Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Periodical assessment is to be performed after 2 years and after 3,5 years. A renewal assessment will be performed at renewal of the certificate.

**END OF CERTIFICATE** 

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