



TYPE APPROVAL CERTIFICATE

Certificate No:
TAE000033S
Revision No:
1

This is to certify:

That the Contactor

with type designation(s)
Tesys LC1-D __ / LC2-D __

Issued to

Schneider Electric Industries S.A.S.
Eybens, France

is found to comply with

DNV rules for classification – Ships, offshore units, and high speed and light craft
IEC 60947

Application :

Contactors and reversing / pole-changing contactors with ac control circuit 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) 600 / 690
Rated current (A) 9 to 38
Frequency (Hz) 50 - 60

Issued at **Høvik** on **2023-06-12**

for **DNV**

This Certificate is valid until **2027-12-31**.

DNV local unit: **France CMC**

Approval Engineer: **Nicolay Horn**

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Frederik Tore Elter
Head of Section

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.

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.



Name and place of manufacturer

Contactors and auxiliary contactors:
 Schneider Electric Industries SAS
 27109 Le Vaudreuil, France

PT. Schneider Electric Manufacturing Batam
 Batamindo Industrial Park, Lot 4, Muka Kuning
 Batam, 29433, Indonesia

Auxiliary contact blocks and accessories:
 Schneider Electric Industries SA
 Chasseneuil du Poitou, France

Schneider Shanghai Industrial Control Co., Ltd
 629 Sui De Road, Pu Tuo District, Shanghai, P.R.C

Product description

Electric contactors with ac or dc control circuit with electromechanical or electronic coils of type LC1-D __ and LC2-D __ reversing / pole-changing contactors with 3 poles and 4 poles and auxiliary contact blocks. Contactor equipped with 1 NO and one NC contact.

3 poles contactors (LC1) and reversing contactors (LC2):

Reference	Ith	Ue Ie Utilization category	230V	400V	440V	500V	690V
LC1/LC2-D09 (a)	25A	Ie (AC-3)	8.5A	8.5A	9A	9.2A	6.7A
		Ie (AC-3e)	8.5A	8.5A	9A	9.2A	6.7A
		Ie (AC-4)	7.1A	7.1A	7.5A	7.7A	5.6A
LC1/LC2-D12(a)	25A	Ie (AC-3)	11.3A	11.5A	12A	12.4A	8.9A
		Ie (AC-3e)	11.3A	11.5A	12A	12.4A	8.9A
		Ie (AC-4)	9.42A	9.6A	10A	10.34A	7.42A
LC1/LC2-D18	32A	Ie (AC-3)	15A	15.5A	18A	16A	11.7A
		Ie (AC-3e)	15A	15.5A	18A	16A	11.7A
		Ie (AC-4)	12.5A	12.92A	15A	13.42A	9.75A
LC1/LC2-D183	25A	Ie (AC-3)	15A	15.5A	18A	16 A	11.7A
		Ie (AC-3e)	15A	15.5A	18A	16 A	11.7A
		Ie (AC-4)	12.5A	12.92A	15A	13.42A	9.75A
LC1/LC2-D25(b)	40A	Ie (AC-3)	20A	22A	25A	23A	17A
		Ie (AC-3e)	20A	22A	25A	23A	17A
		Ie (AC-4)	16.7A	18.34A	20.84A	19.2A	14.2A
LC1/LC2-D32	50A	Ie (AC-3)	27A	29A	32A	28A	21A
		Ie (AC-3)	27A	29A	32A	28A	21A
		Ie (AC-4)	22.5A	24.2A	20.84A	19.2A	14.2A
LC1/LC2-D323	40A	Ie (AC-3)	20A	22A	25A	23A	17A
		Ie (AC-3e)	20A	22A	25A	23A	17A
		Ie (AC-4)	16.7A	18.34A	20.84A	19.2A	14.2A
LC1/LC2-D38	50A	Ie (AC-3)	31.7A	35A	38A	28A	21A
		Ie (AC-3)	31.7A	35A	38A	28A	21A
		Ie (AC-4)	26.42A	29.2A	20.84A	19.2A	14.2A
LC1/LC2-D09(a)	25A	Ie (AC-3)	11.3A	11.5A	12A	12.4A	8.9A
		Ie (AC-3e)	11.3A	11.5A	12A	12.4A	8.9A
		Ie (AC-4)	7.1A	7.1A	7.5A	7.7A	5.6A

- (a) except for D093, D123: Ith = 20A
- (b) except for LC1/LC2-D253: Ith = 25A

4 poles contactors (LC1) and reversing contactors (LC2):

Reference	Ith	Ue Ie Utilization category	230V	400V	440V	500V	690V
LC1-D098, LC1/LC2-DT20	20A	Ie (AC-3)	8.5A	8.5A	9A	9.2A	6.7A
		Ie (AC-3e)	11.3A	11.5A	12A	12.4A	8.9A
		Ie (AC-4)	7.1A	7.1A	7.5A	7.7A	5.6A
LC1-D128, LC1/LC2-DT25	25A (c)	Ie (AC-3)	11.3A	11.5A	12A	12.4A	8.9A
		Ie (AC-3e)	11.3A	11.5A	12A	12.4A	8.9A
		Ie (AC-4)	9.42A	9.6A	10A	10.34A	7.42A
LC1-D188, LC1/LC2-DT32	32A	Ie (AC-3)	15A	15.5A	18A	16.1A	11.7A
		Ie (AC-3e)	15A	15.5A	18A	16.1A	11.7A
		Ie (AC-4)	12.5A	12.92A	15A	13.42A	9.75A
LC1-D258, LC1/LC2-DT40	40A	Ie (AC-3)	20A	22A	25A	23A	17A
		Ie (AC-3e)	20A	22A	25A	23A	17A
		Ie (AC-4)	16.7A	18.34A	20.84A	19.2A	14.2A

(c) except for D1283, DT253 : Ith = 20A

Accessories:

Auxiliary contactor	CAD32... and CAD50...
Aux contacts blocks and Accessories	LADN, LADC, LAD8N, LADN..R, LADN..CR LADT, LADS, LADR LAD6K10, LAD4, LAD9

May be followed by: Suffix 3 = Spring terminals
 Suffix 6 = Lug connections
 Suffix 9 = Faston connections

Application/limitation

With Uimp = 6 kV the max. rated voltage is 600 V when used in a IT (ship) net. It can be used in applications with directly earthed systems with rated voltage of 400/690 V.

Environmental classes: Temperature D, Humidity B, Vibration A, EMC A

Type Approval documentation

Technical documentation:

«TeSys D, D Green, SK, K, SKGC, GC, GY, GF – Technical Data for Designers» part of catalogue.

Product description : Size 1 contactors 3 poles, 4 poles & Product description Size 2 contactors 3 poles, , 4 poles.

Catalogue "Tesy offer Motor starters 0.1 to 75 kW /400 A, Power applications 0.1 à 250 A", January 2000.

Test reports:

STIE test report nos 21AAS01P04D31-00254 & 21AAS01P04D31-00255 dated 2021-11-22

Electrical type tests test after IEC 60947-4-1 & IEC60947-5-1: VDE test reports TFR 242646-1 and 2 dated 2017-12-20, VDE test reports no. 234353 issued 2017-10-10, VDE test report no. 246224 issued 2018-03-20.

Environmental tests: F- Lab test report no. TFR_201703851_002, TFR_201703851_003 and RI_201703851_004 dated 2017-09-01, Volta test report no. TFR_201604 dated 2017-02-23, Schneider test reports nos. 545-00 dated April 2001, 546-00 and 548-00 dated June 2001, 547-00 dated October 2001, G0010077A, G0010078A and G0010080A dated October 2000, and GV 10058B dated 2001-05-31.

Tests carried out

Electrical tests after IEC 60947, Environmental tests after DNVGL-CG-0339 August 2021 (Power supply variation, power supply failor, EMC, dielectric, insulation, inclination, vibration, cold, dry heat and damp heat).

Marking of product

Telemecanique / Schneider Electric – Type designation



Job Id: 262.1-007395-11
Certificate No: TAE000033S
Revision No: 1

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 Routines (RT) checked (if not available tests according 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.

Assessment to be performed at 1.5 and 3 year and at renewal.

END OF CERTIFICATE