TYPE APPROVAL CERTIFICATE

Certificate No:
TAE00004F1
Revision No:
1

This is to certify:

That the Contactor

with type designation(s)
TeSys G - LC1G and associated LA8GN Auxiliary Blocks and LA9GRD Remote Wear Diagnostic Module,

Issued to
Schneider Electric Industries S.A.S.
Rueil Malmaison, Hauts de Seine, France

is found to comply with
DNV rules for classification – Ships, offshore units, and high speed and light craft

Application :

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

Type	Rated voltage (V)	Rated current (A)	Frequency (Hz)
TeSys G - LC1G and associated LA8GN Auxiliary Blocks and LA9GRD Remote Wear Diagnostic Module	**24 to 500 AC (depending of the coil)**	**115 to 800 (AC-3, at 440VAC)**	**50 - 60**
	24 to 500 AC (depending of the coil)	**250 -1050 (AC1 at 1000VAC)**	**50 - 60**

Issued at **Høvik** on **2022-03-01**

This Certificate is valid until **2027-02-17**.
DNV local station: **France CMC**

Approval Engineer: **Nicolay Horn**

for **DNV**
Digitally Signed By: Sjåvåg, Trond
Location: DNV Høvik, Norway

Trond Sjåvåg
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.

Name and place of manufacture

Schneider Shanghai Apparatus Parts Manufacturing Co,
Ltd Putuo branch, Putuo district,
Shanghai, China

Product description

3 or 4 poles AC contactors controllers, ac/dc electronic coils, with two integrated auxiliary contact blocks (1NO+1NC, 2NO), existing in three main sizes and in 3 Poles and 4 Poles versions.

References :

LC1	G	630	4	EHE	A
I	II	III	IV	V	VI

I	Basic product type LC1 : single contactor
II	G = TeSys Giga series
III	Contactor size : Frame.5 : 115,150,185, 225 (when VI is A or N), 205, 245 (when VI is C) Frame.6 : 265, 330 (when VI is A or N), 300 (when VI is C) Frame.6b : 400, 500 (when VI is A or N), 410, 475 (when VI is C) Frame.7: 630, 800 (when VI is A or N), 620 (when VI is C)
IV	Number of Poles: Blank : 3 poles 4 : 4 poles - not available when VI is **C**
V	Coil voltage code : BEE, EHE KUE, LSE (available ones depends on the reference type)
VI	A : “Advanced” version for International Market, available for BEE, EHE, LSE coil N : “Standard” version for International Market, available for EHE, KUE and LSE coils C : “Chinese” version for Chinese Market : available for EHE, KUE and LSE coils

Auxiliary Contactor Blocks : LAG8N11, LAG8N20, LAG8N113, LAG8N203
Remote Wear Diagnostic Module: LA9GRD10, LA9GRD01

Electrical ratings (For Fr 5 - 3 pole when VI is A or N, for other sizes or other ratings see Schneider catalogue):

Contactor type				LC1G115*)	LC1G150**)	LC1G185**)	LC1G225**)
Rated operational current (Ie)	In AC-3 / AC-3e ≤ 40 °C at 440V AC		A	115 / 120	150 / 145	185 / 177	225 / 209
	In AC-1, θ ≤ 40 °C at 1000V AC		A	250	275	305	330
Rated conditional short-circuit current	230 V		kA	-	5	-	-
	500 V		kA	-	10	10	-
	690 V		kA	5	5	5	10
	1000 V		kA	-	3	3	5
Schneider Electric overload relay + Fuse	230 V	*) associated to LR9G115	**) associated to LR9G225	-	125A aM Fuse	-	-
	500 V			-	160A aM Fuse	225A aM Fuse	-
	690 V			125A aM Fuse	125A aM Fuse	125A aM Fuse	250A aM Fuse
	1000 V			-	63A aM Fuse	63A aM Fuse	125A aM Fuse

Main circuit:
Rated impulse withstand voltage U_{imp}: 8 kV
Rated insulation voltage U_i: 1000 V AC
Rated frequency: 50/60 Hz

Auxiliary circuit:
Rated impulse withstand voltage U_{imp}: 6 kV
Rated insulation voltage of auxiliary circuits U_i: 600 V

Application/Limitation

Temperature class : D
Humidity class : B
Vibration class: A
EMC Class: A

Referred to DNV-CG-0339 (2021-08) Table 1 Location classes.

Type Approval documentation

Documentation and test reports:

TeSys Control - Giga Contactors	Catalogue 2022
Contactor TeSys G Sizes 5-7	Product Identification File Contactors CTR Fr 5-6-7 - Marine
2011990047	Test report IEC 60947-4-1 dated 2021-03-17
2011990050	Test report IEC 60947-4-1 dated 2021-05-11
2011990051	Test report IEC 60947-4-1 dated 2021-05-17
2011996005	Test report IEC 60947-4-1 dated 2021-11-16
2011990050 Amendment no. 1	Test report IEC 60947-4-1 dated 2021-10-28
2011990051 Amendment no. 1	Test report IEC 60947-4-1 dated 2021-11-06
2111930124	CNAS Environmental Test report dated 2021-10-05
2111930125	CNAS Environmental Test report dated 2021-10-05
2111930126	CNAS Environmental Test report dated 2021-10-05

Tests carried out

Type tests in accordance with IEC 60947-4-1 (2018) and IEC 60947-5-1 (2016), Environmental tests in accordance with DNV-CG-0339, August 2021 (Power supply variation, Power supply failure, Vibration, Dry heat, Damp heat, Cold Inclination)

Marking of product

Schneider Electric – Type designation – Manufacturing place

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are 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 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.

Assessment to be performed at 2 and 3.5 year and at renewal.

END OF CERTIFICATE