EUROPEAN UNION RECOGNISED ORGANISATION (EU RO) MUTUAL RECOGNITION TYPE APPROVAL CERTIFICATE

Certificate No:
MRE0000014

In accordance with Article 10.1 of EU Regulation 391/2009

This Certificate is issued to

Schneider Electric Industries S.A.S.

Rueil Malmaison, Hauts de Seine, France

for
Contactors

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

The product is found to comply with
EU RO Mutual Recognition Technical Requirements for Contactors

Intended service
3 or 4 poles AC contactors controllers for installation in enclosures onboard ship and mobile offshore units.

Type	Rated Voltage (V)	Rated Current (A)	Frequency (Hz)
TeSys Giga - 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

This is to certify:

that the Product referred to herein has been inspected for the Manufacturer, pursuant to the relevant requirements of the European Union Recognised Organisation Mutual Recognition procedure, required by Article 10.1 of EU Regulation 391/2009, and has been found in accordance with those requirements.

This Certificate is valid until **2027-02-17**.

Issued at **Høvik** on **2022-02-18**
DNV local station: **France CMC** for **DNV**

Approval Engineer: **Nicolay Horn**

Trond Sjåvåg
Head of Section

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

Manufactured by

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

Application/Limitation

For installation inside switchboards/ enclosures onboard ships and offshore units.

Type Approval documentation

Marking of product

Schneider Electric – Type designation – Manufacturing place

Oher Conditions

Electrical tests after EU RO MR Technical Requirements – Contactors with electronic devices. 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)

Environmental test parameters:

Temperature:	-25 °C and 55 °C
Humidity:	Relative humidity up to 100% at all relevant temperatures
Vibration:	± 1mm / 0.7g
EMC:	General power zone
Enclosure:	IP20

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 annually.

END OF CERTIFICATE

Generic Statement for EU RO MR Type Approval Certificate

When a product is presented with this EU RO MR Type Approval Certificate for given application, its acceptability with regards to the limitations stated in the certificate conditions defined in 1b, 1c and 1d of the applied Technical Requirement will be evaluated by the EU RO in charge of classing the ship or being in charge of the unit/system certification.

In accordance with Article 10 of Regulation (EC) No 391/2009 of the European Parliament and of the Council of 23 April 2009 "on common rules and standards for ship inspection and survey organizations", the following organizations, recognized by the EU on this date, have agreed on the technical and procedural conditions under which they will mutually recognize this certificate:

- American Bureau of Shipping (ABS);
- Bureau Veritas (BV);
- China Classification Society (CCS);
- Croatian Register of Shipping (CRS);
- DNV;
- Indian Register of Shipping (IRS);
- Korean Register (KR);
- Lloyd's Register Group Ltd. (LR);
- Nippon Kaiji Kyokai General Incorporated Foundation (ClassNK);
- Polish Register of Shipping (PRS);
- RINA Services S.p.A. (RINA);

- Russian Maritime Register of Shipping (RS).

The scheme for the mutual recognition of class certificates for materials, equipment and components laid down by Article 10(1) of Regulation (EC) No 391/2009 is only enforceable within the Union in respect of ships flying the flag of a Member State. As far as foreign vessels are concerned, the acceptance of relevant certificates remains at the discretion of relevant non-EU flag States in the exercise of their exclusive jurisdiction, notably under the United Nations Convention on the Law of the Sea (UNCLOS). (In accordance with COMMISSION IMPLEMENTING REGULATION (EU) No 1355/2014 amending Regulation (EC) No 391/2009 - recital (25)).