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

Certificate No:
MRE000001E

In accordance with Article 10.1 of EU Regulation 391/2009

This Certificate is issued to

Schneider Electric Industries SAS

Eybens, **France**

for
Contactors

with type designation(s)
TeSys Deca - LC1D115A, LC1D150A, LC1DT200A, LC1D115…C, LC1D150…C, LC1D170…C

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

Intended service
Electric Contactors controlled by ac/dc electronic coils and integrated auxiliary contacts for installation in enclosures onboard ship and mobile offshore units.

Rated Voltage (V)	**220-690**
Rated Current (A)	**115-160 (at 440VAC)**
Frequency (Hz)	**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 **2029-12-05**.

Issued at **Høvik** on **2024-12-06**

DNV local unit: **France CMC**

for **DNV**

Approval Engineer: **Qiang William Guo**

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.

Product description

Electric Contactors controlled by ac/dc electronic coils with 3 poles or 4 poles and integrated auxiliary contacts.

Ratings: these LC1D Contactors have AC-1, AC-3, AC-3e and AC-4 ratings up to 690Vac.
Two Auxiliary Contacts are embedded, 1x NO, 1x NC, they have AC-15 ratings up to 600Vac and DC-13 ratings up to 600Vdc.

Ratings for International versions (3P: D115A, D150A, 4P: DT200A)

Reference	Ith (A)=AC-1	Ue Pe - Ie Utilization category	230V	400V	415V	440V	500V	690V	1000V
LC1D115A, LC1DT200A	250	Pe AC-3 (Kw)	30	55	59	75	75	80	-
		Pe AC-3e (Kw)	30	55	59	75	75	80	-
		Pe AC-4 (Kw)	30	55	55	55	63	65	-
		Ie AC-3 (A)	96	97	100	115	106	82	-
		Ie AC-3e (A)	96	97	100	115	106	82	-
		Ie AC-4 (A)	96	97	93	88	89	66	-
		Ie AC-1 (A)	250						
LC1D150A,	250	Pe AC-3 (Kw)	40	75	80	90	90	100	-
		Pe AC-3e (Kw)	40	75	80	90	90	100	-
		Pe AC-4 (Kw)	37	75	75	75	75	80	-
		Ie AC-3 (A)	124	132	136	150	128	103	-
		Ie AC-3e (A)	124	132	136	150	128	103	-
		Ie AC-4 (A)	115	132	127	120	106	82	-
		Ie AC-1 (A)	250						

Ratings for Chinese versions (3P: D115…C, D150…C, D170..C)

Reference	Ith (A)	Ue Pe – Ie	220V	230 V	240V	380V	400V	415V	440V	500V	660V	690V	1000V
LC1D115…C	250	Pe AC-3 (Kw)	30	30	30	55	55	59	75	75	80	80	-
		Pe AC-3e (Kw)	30	30	30	55	55	59	75	75	80	80	-
		Pe AC-4 (Kw)	30	30	30	55	55	55	55	63	65	65	-
		Ie AC-3 (A)	100	96	96	102	97	100	115	106	86	82	-
		Ie AC-3e (A)	100	96	96	102	97	100	115	106	86	82	-
		Ie AC-4 (A)	100	96	96	102	97	93	88	89	69	66	-
		Ie AC-1 (A)	250										
LC1D150…C	250	Pe AC-3 (Kw)	40	40	40	75	75	80	90	90	100	100	-
		Pe AC-3e (Kw)	40	40	40	75	75	80	90	90	100	100	-
		Pe AC-4 (Kw)	37	37	37	75	75	75	75	75	80	80	-
		Ie AC-3 (A)	130	124	124	139	132	136	150	128	108	103	-
		Ie AC-3e (A)	130	124	124	139	132	136	150	128	108	103	-
		Ie AC-4 (A)	120	115	115	139	132	127	120	106	86	82	-
		Ie AC-1 (A)	250										
LC1D170…C	250	Pe AC-3 (Kw)	55	55	55	90	90	90	100	110	110	110	-
		Pe AC-3e (Kw)	55	55	55	90	90	90	100	110	110	110	-

		Pe AC-4 (Kw)	45	45	45	90	90	75	75	90	90	90	-
		Ie AC-3 (A)	176	169	169	168	160	154	160	156	118	113	-
		Ie AC-3e (A)	176	169	169	168	160	154	160	156	118	113	-
		Ie AC-4 (A)	145	140	140	168	160	127	120	128	97	93	-
		Ie AC-1 (A)	250										

Manufactured by
SCHNEIDER SHANGHAI APPARATUS PARTS MANUFACTURE CO., LTD. PUTUO BRANCH
BLOCK 2, ZONE A,629 SUIDE ROAD, PUTUO DISTRICT, SHANGHAI, CHINA

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.

Type Approval documentation

Marking of product
Schneider Electric – Type designation

Other Conditions
Electrical test according to IEC 60947-4-1:2023 (Ed5), Environmental test according to IACS E10 Rev.9 Aug. 2023 (External power supply failure, Power supply variations, dry heat, damp heat, cold, vibration, Inclination, insulation resistance, high voltage test)

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 RT to be carried out).
- Review of type approval documentation.
- Review of possible change in design, materials and performance.
- Ensure traceability between manufacturer's product marking and the DNV EU MR Type Approval Certificate.

Assessment to be performed annually and at renewal.

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)).