CERTIFICATE NUMBER 22-2297806-PDA
EFFECTIVE DATE 22-Sep-2022
EXPIRATION DATE 21-Sep-2027
ABS TECHNICAL OFFICE Singapore Engineering Services

CERTIFICATE OF

Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

SCHNEIDER ELECTRIC INDUSTRIES SAS

located at

31 RUE PIERRE MENDES FRANCE, EYBENS,
GRENOBLE CEDEX 9, FRANCE 38050

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product Contactor, Electrical

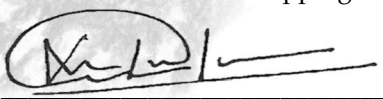
Model TeSys Model d : LC1/LC2-D40 to 95 LP1-D40/LP1-D65/LP1-D80

This Product Design Assessment (PDA) Certificate remains valid until 21 September 2027 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau of Shipping



Vibin Chandrabose, Senior Engineer

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement

SCHNEIDER ELECTRIC INDUSTRIES SAS
31 RUE PIERRE MENDES FRANCE, EYBENS
GRENOBLE CEDEX 9
France 38050
Telephone: +33 (0)6 47 44 63 60
Fax: +33 (0) 476394072
Email: christophe.chabert@se.com
Web: www.se.com

Tier: 2 - PDA Issued

Product: **Contactor, Electrical**
Model: **TeSys Model d : LC1 / LC2-D40 to 95**
LP1-D40 / LP1-D65 / LP1-D80
Endorsements:

Intended Service:
Control and protection of low voltage electrical equipment

Description:
TeSys model d contactors 3 or 4 poles, comprising of:
Contactors LC1-D40 to 95 and LP1-D40 to D80
Reversing contactors LC2-D40 to D95
Accessories: Instantaneous auxiliary contact blocks LAD-N, LAD-C, LAD-8, LA1-D series
Time delay auxiliary contact blocks LAD-T, LAD-S or LAD-R series
(Extension 6 may be added for lug-clamps connection (example: LC1-D40 becomes LC1-D46)

Rating:
Rated Operational Current: 40 to 95A (AC-3 at 440Vac) / 60 to 125A (AC-1)
Rated Operational Voltage: 690 Vac
Rated Insulation Voltage: 1000 Vac
Rated Impulse Withstand Voltage: 8 kV
Frequency range: 25 - 400Hz

Service Restriction:
Unit Certification is not required for this product.
If the manufacturer or purchaser requests an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

Comments:
The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

Notes/Drawing/Documentation:
Drawing No. 0091-CB2021CQC-098148, STIEE Test Report No.0091-CB2021CQC-098148 dated 30-11-21 in CHINA, Revision: 0, Pages: 1
Drawing No. CN217TSW 001, ZTME Test Report No.CN217TSW 001 dated 13-10-21 in CHINA, Revision: 0, Pages: 1
Drawing No. CN21B302 001, ZTME Summary Test Report No.CN21B302 001 dated 13-10-21 in CHINA, Revision: 0, Pages: 1
Drawing No. CN21WJ4S 001, ZTME Test Report No.CN21WJ4S 001 dated 13-10-21 in CHINA, Revision: 0, Pages: 1
Drawing No. Correspondence, Declaration of Conformity INCOMING 15 Apr 2022, Revision: 0, Pages: 1
Drawing No. Correspondence, Due date extension & PDA Draft concurred, Revision: -, Pages: 6
Drawing No. Correspondence, ONLINE REQUEST for RENEWAL 17-GE1627229-PDA, Revision: 0, Pages: 1
Drawing No. Correspondence, INCOMING 26 Jan 2022, Revision: 0, Pages: 1
Drawing No. Correspondence, Declaration of Conformity Letterhead, Revision: 0, Pages: 1
Drawing No. HU-003653, TUV IECEE CB Test Certificate No.HU-003653 dated 21-10-21 in Budapest, Revision: 0, Pages: 1
Drawing No. TeSys D Catalogue Chapter B8 Ed.2020, TeSys D Catalogue Chapter B8 Ed.2020, Revision: 0, Pages: 1
Drawing No. ps-051104, Product Catalogue - TeSys contactors Model d, Revision: -, Pages: 18
Drawing No. ps-060114, Product Catalogue - TeSys contactors, Revision: -, Pages: 30

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France 38050
Telephone: +33 (0)6 47 44 63 60
Fax: +33 (0) 476394072
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Tier: 2 - PDA Issued

Terms of Validity:
This Product Design Assessment (PDA) Certificate remains valid until 21/Sep/2027 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

STANDARDS

ABS Rules:
2022 Rules for Conditions of Classification: 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:
2022 Rules for Building and Classing Marine Vessels: 4-8-2/9.5, 4-8-3/1.7, 4-8-3/1.11.1, 4-8-3/1.17.1;

2022 Rules for Conditions of Classification – Light and High Speed Craft: 1-1-4/11.9, 1-1-A2, 1-1-A3, which covers the following:
2022 Rules for Building and Classing High Speed Craft: 4-6-1/11, 4-6-1/15, 4-6-1/17.1, 4-6-2/9.1.3;

2022 Rules for Conditions of Classification – Offshore Units and Structures: 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:
2022 Rules for Building and Classing Mobile Offshore Units: 4-3-1/11, 4-3-1/15, 4-3-1/17.1, 4-3-2/9.1.3

National:
NA

International:
IEC 60947-4-1 Ed. 4.0 b:2018
IEC 60947-5-1 Ed. 4.0 b:2016

Government:
NA

EUMED:
NA

OTHERS:
NA