DNV·GL

TYPE APPROVAL CERTIFICATE

Certificate No:
TAE00001M6
Revision No:
1

This is to certify:

That the Overcurrent- and Short-Circuit Relay

with type designation(s)
LRD, LR3, LR3D & LAD

Issued to
Schneider Electric Industries SAS
GRENOBLE, France

is found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft
IEC 60947

Application :

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

Issued at **Høvik** on **2019-12-10**

This Certificate is valid until **2023-12-31**.
DNV GL local station: **France CMC**

Approval Engineer: **Nicolay Horn**

for **DNV GL**
Digitally Signed By: Trond Sjåvåg
Location: DNV GL 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.

Job Id: **262.1-000288-6**
Certificate No: **TAE00001M6**
Revision No: **1**

Place of manufacturer

Schneider Electric France,
6-8 rue de Bailly – B.P. 97812
21078 Dijon Cedex, France

Schneider Thailand limited
Bangpoo Industrial Estate
Samutprakarn, Thailand

Product description

Thermal overload relays for protection of a.c. circuits and motors against overloads, phase failure, long starting time and prolonged stalling of the motor.

Type designation	Use
LRD01 to LRD35	Differential thermal overload relay, Class 10A w/screw clamp terminal
LR3D01 to LR3D35	Undifferential thermal overload relay, Class 10A w/screw clamp terminal
LRD013 to LRD223	Differential thermal overload relay, Class 10A w/spring terminal
LR3D013 to LR3D223	Undifferential thermal overload relay, Class 10A w/spring terminal
LRD016 to LRD356	Differential thermal overload relay, Class 10A w/lug-clamps
LR3D016 to LR3D356	Undifferential thermal overload relay, Class 10A w/lug-clamps
LRD3322 to LRD33696	Differential thermal overload relay, Class 10A w/screw clamp terminal
LRD4365 to LRD4369	Differential thermal overload relay, Class 10A, w/ screw clamp terminal
LR3D3322 to LR3D33696	Undifferential thermal overload relay, Class 10A w/screw clamp terminal
LR3D4365 to LR3D4369	Undifferential thermal overload relay, Class 10A w/screw clamp terminal
LAD7C and LAD7C1	Prewiring kit for direct connection with NC relay and contactors
LAD-7B10	Therminal block for LRD-01 to LRD-35 & LR3-D01 to LR3-D35
LAD-703	Remote tripping or electric reset device

LRD : Differential version (sensitive to phase failure)
LR3D : Undifferential version (not sensitive to phase failure)

Technical data:

Relay type	LRD01 to 16 LR3D01 to D16	LRD21 to 35 LR3D21 to D35	LRD3322 to LRD33656 LR3D3322 to LR3D33656
Rated insulation voltage (V)	400/690*	400/690*	400/690*
Rated impulse voltage (kV)	6	6	6
Frequency limits(Hz)	0 - 400	0 - 400	0 - 400
Setting range(A)	0.1 - 13	12 - 38	17 - 104
Iq (440V) (kA)	80	80	70

Relay type	LRD33676 to LRD33696 LR3D33676 to LR3D33696	LRD4365 to LRD4369 LR3D4365 to LR3D4369
Rated insulation voltage (V)	400/690*	400/690*
Rated impulse voltage (kV)	6	6
Frequency limits(Hz)	0 - 400	0 - 400
Setting range(A)	95 - 140	80 - 140
Iq (440V) (kA)	70	70

*See voltage restrictions under “Application limitation”.

Application/ Limitation

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

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

Technical info:

Schneider Cataloge ID-IEC-LRD /LR3D pages 3 to14.
Letter to DNV ref. CJ/052083 dated 2005-06-06 (item 2- Listing of products). Schneider catalogue "Motor starter solutions Control and protection components", dated October 2001 (parts).

Test certificates / reports:
ASEFA Certificate of conformity Nos. 116-10BT & 117-10BT issued 2010-08-31.
L2E Laboratiory test reports nos. 129163-659446A and 129163-659446B issued 2014-10-27.
Schneider test reports nos 545-00, 546-00, 547-00 & 548-00. Schneider test report nos. GV10058B issued 2001-05-31, G001008A issued October 2000 & G023044A issued March 2002.

Tests carried out

Type tests in accordance with IEC 60947-4-1 and IEC 60947-5-1. Environmental tests in accordance with DNV SfC No. 2.4.

Marking of product

Schneider Electric and / or Telemecanique and Type designation.

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 survey to be dealt with:

- Ensure that type approved documentation is available.
- Ensure that materials used comply with type approved documents and/or referenced material specifications.
- Review design, materials, performance and production process with respect to possible changes, in order to ensure compliance with the type approved documentation and/or referenced material specifications.
- Ensure traceability between manufacturer's product marking and the DNV Type Approval Certificate.

Assessment to be performed at 2 and 3,5 year and at renewal.

END OF CERTIFICATE