

TYPE APPROVAL CERTIFICATE

This is to certify:

That the **Electromechanical Relays**

with type designation(s)
RXG (Relays), RGZE (Sockets)

Issued to

Schneider Electric Asia Pte Ltd
Singapore, Singapore

is found to comply with

DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

Type	Temperature	Humidity	Vibration	EMC	Enclosure
RXG (Relays)	B	B	A	A	IP20 *)
RGZE (Sockets)	B	B	A	A	IP20 *)

Issued at **Hamburg** on **2021-05-26**

for **DNV**

This Certificate is valid until **2026-05-25**.

DNV local station: **Certification of Materials - Singapore**

Approval Engineer: **Marco Rinkel**

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Joannis Papanuskas
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

Electromechanical relays with different sockets:

RGZE1S35M	1CO	screw connector	socket with clamp, separate contact
RGZE1S48M	2CO	screw connector	socket with clamp, separate contact
RGZE05P	1CO	push-in	socket with clamp, separate contact
RGZE08P	2CO	push-in	socket with clamp, separate contact

Description:

Cover: Clear cover, blank: Front cover

Lockable test button: +LTB: Yes, -LTB: No

LED: +LED: Yes, blank: No

Type	Poles	Current	Description	Voltage
RXG15B7	1CO	10A	Relay, Clear	24VAC
RXG15E7	1CO	10A	Relay, Clear	48VAC
RXG15F7	1CO	10A	Relay, Clear	120VAC
RXG15M7	1CO	10A	Relay, Clear	220VAC
RXG15P7	1CO	10A	Relay, Clear	230VAC
RXG15RD	1CO	10A	Relay, Clear	6VDC
RXG15JD	1CO	10A	Relay, Clear	12VDC
RXG15BD	1CO	10A	Relay, Clear	24VDC
RXG15ED	1CO	10A	Relay, Clear	48VDC
RXG15ND	1CO	10A	Relay, Clear	60VDC
RXG15FD	1CO	10A	Relay, Clear	110VDC
RXG13B7	1CO	10A	Relay-LTB+LED	24VAC
RXG13E7	1CO	10A	Relay-LTB+LED	48VAC
RXG13F7	1CO	10A	Relay-LTB+LED	120VAC
RXG13M7	1CO	10A	Relay-LTB+LED	220VAC
RXG13P7	1CO	10A	Relay-LTB+LED	230VAC
RXG13RD	1CO	10A	Relay-LTB+LED	6VDC
RXG13JD	1CO	10A	Relay-LTB+LED	12VDC
RXG13BD	1CO	10A	Relay-LTB+LED	24VDC
RXG13ED	1CO	10A	Relay-LTB+LED	48VDC
RXG13ND	1CO	10A	Relay-LTB+LED	60VDC
RXG13FD	1CO	10A	Relay-LTB+LED	110VDC
RXG11B7	1CO	10A	Relay+LTB-LED	24VAC
RXG11E7	1CO	10A	Relay+LTB-LED	48VAC
RXG11F7	1CO	10A	Relay+LTB-LED	120VAC
RXG11M7	1CO	10A	Relay+LTB-LED	220VAC
RXG11P7	1CO	10A	Relay+LTB-LED	230VAC
RXG11RD	1CO	10A	Relay+LTB-LED	6VDC
RXG11JD	1CO	10A	Relay+LTB-LED	12VDC
RXG11BD	1CO	10A	Relay+LTB-LED	24VDC
RXG11ED	1CO	10A	Relay+LTB-LED	48VDC
RXG11ND	1CO	10A	Relay+LTB-LED	60VDC
RXG11FD	1CO	10A	Relay+LTB-LED	110VDC
RXG12B7	1CO	10A	Relay+LTB+LED	24VAC
RXG12E7	1CO	10A	Relay+LTB+LED	48VAC
RXG12F7	1CO	10A	Relay+LTB+LED	120VAC
RXG12M7	1CO	10A	Relay+LTB+LED	220VAC
RXG12P7	1CO	10A	Relay+LTB+LED	230VAC
RXG12RD	1CO	10A	Relay+LTB+LED	6VDC
RXG12JD	1CO	10A	Relay+LTB+LED	12VDC
RXG12BD	1CO	10A	Relay+LTB+LED	24VDC
RXG12ED	1CO	10A	Relay+LTB+LED	48VDC
RXG12ND	1CO	10A	Relay+LTB+LED	60VDC
RXG12FD	1CO	10A	Relay+LTB+LED	110VDC

Type	Poles	Current	Description	Voltage
RXG25B7	2CO	5A	Relay, Clear	24VAC
RXG25E7	2CO	5A	Relay, Clear	48VAC
RXG25F7	2CO	5A	Relay, Clear	120VAC
RXG25M7	2CO	5A	Relay, Clear	220VAC
RXG25P7	2CO	5A	Relay, Clear	230VAC
RXG25RD	2CO	5A	Relay, Clear	6VDC
RXG25JD	2CO	5A	Relay, Clear	12VDC
RXG25BD	2CO	5A	Relay, Clear	24VDC
RXG25ED	2CO	5A	Relay, Clear	48VDC
RXG25ND	2CO	5A	Relay, Clear	60VDC
RXG25FD	2CO	5A	Relay, Clear	110VDC
RXG23B7	2CO	5A	Relay-LTB+LED	24VAC
RXG23E7	2CO	5A	Relay-LTB+LED	48VAC
RXG23F7	2CO	5A	Relay-LTB+LED	120VAC
RXG23M7	2CO	5A	Relay-LTB+LED	220VAC
RXG23P7	2CO	5A	Relay-LTB+LED	230VAC
RXG23RD	2CO	5A	Relay-LTB+LED	6VDC
RXG23JD	2CO	5A	Relay-LTB+LED	12VDC
RXG23BD	2CO	5A	Relay-LTB+LED	24VDC
RXG23ED	2CO	5A	Relay-LTB+LED	48VDC
RXG23ND	2CO	5A	Relay-LTB+LED	60VDC
RXG23FD	2CO	5A	Relay-LTB+LED	110VDC
RXG21B7	2CO	5A	Relay+LTB-LED	24VAC
RXG21E7	2CO	5A	Relay+LTB-LED	48VAC
RXG21F7	2CO	5A	Relay+LTB-LED	120VAC
RXG21M7	2CO	5A	Relay+LTB-LED	220VAC
RXG21P7	2CO	5A	Relay+LTB-LED	230VAC
RXG21RD	2CO	5A	Relay+LTB-LED	6VDC
RXG21JD	2CO	5A	Relay+LTB-LED	12VDC
RXG21BD	2CO	5A	Relay+LTB-LED	24VDC
RXG21ED	2CO	5A	Relay+LTB-LED	48VDC
RXG21ND	2CO	5A	Relay+LTB-LED	60VDC
RXG21FD	2CO	5A	Relay+LTB-LED	110VDC
RXG22B7	2CO	5A	Relay+LTB+LED	24VAC
RXG22E7	2CO	5A	Relay+LTB+LED	48VAC
RXG22F7	2CO	5A	Relay+LTB+LED	120VAC
RXG22M7	2CO	5A	Relay+LTB+LED	220VAC
RXG22P7	2CO	5A	Relay+LTB+LED	230VAC
RXG22RD	2CO	5A	Relay+LTB+LED	6VDC
RXG22JD	2CO	5A	Relay+LTB+LED	12VDC
RXG22BD	2CO	5A	Relay+LTB+LED	24VDC
RXG22ED	2CO	5A	Relay+LTB+LED	48VDC
RXG22ND	2CO	5A	Relay+LTB+LED	60VDC
RXG22FD	2CO	5A	Relay+LTB+LED	110VDC

Application/Limitation

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV GL, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV GL rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

Type Approval documentation

See ANNEX

Tests carried out

Applicable tests according to class guideline DNVGL-CG-0339, November 2019

Marking of product

The products to be marked with

- manufacturer name
- model name
- serial number

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE



Type Approval documentation

(hidden)

Title	Drw No	Rev
Product Identification Relays		
Product References		
Product Identification Socket		
Product Test Plan Summary		
Product Test Plan		
Contact Resistance	EAV9457007	00
Electrical Endurance - D	EAV9457009-	02
Release Value	EAV9457017	01
Release_Bounce Time	EAV9457005	00
Operate Value	EAV9457016	01
Electrical Endurance	EAV9457008-	02
Operate_Bounce Time	EAV9457004	00
Mechanical Endurance	EAV9457001	02
Heating	EAV9457011	01
Dry Heat Test Report		
Enclosure (IP20) Test Report		
Inclination Test Report		
Insulation Resistance Test Report		
Electrical Power Supply Failure Test Report		
Cold Test Report		
High Voltage Test Report		
Damp Heat Test Report		
Power Supplies Variation Test Report		
Vibration Test Report (attachment)		
Vibration Test Report		
Flammability Material Declaration		