DNV·GL

TYPE APPROVAL CERTIFICATE

Certificate No:
TAA00002DH
Revision No:
1

This is to certify:

That the Control Relays

with type designation(s)
Zelio Control, RM22... and RM35... Schneider Electric brand

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 :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Temperature	**B**
Humidity	**B**
Vibration	**A**
EMC	**A**
Enclosure	***)**

***) Required protection according to DNVGL Rules shall be provided upon installation on board**

Issued at **Hamburg** on **2019-06-26**

This Certificate is valid until **2024-06-25**.
DNV GL local station: **Certification of Materials - Singapore**

Approval Engineer: **Marco Rinkel**

for **DNV GL**
Digitally Signed By:
Papanuskas, Joannis

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.

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Product description

Control relays with electromechanical relay output
- Cage clamps for all series
- Relay output 8A, 250V AC/DC
- RM22 – 22.5mm wide terminal connectors
- RM35 – 35.0mm wide terminal connectors

Phase Control
RM22TG20, RM22TA31, RM22TA33, RM22TU21, RM22TU23, RM22TR31, RM22TR33
Voltage Control
RM22UA21MR, RM22UA22MR, RM22UA23MR, RM22UA31MR, RM22UA32MR, RM22UA33MR, RM22UA33MT, RM22UB34
Current Control
RM22JA21MR, RM22JA31MR, RM35JA32MR, RM35JA32MT
Level Control
RM22LG11MR, RM22LG11MT, RM22LA32MR, RM22LA32MT

Nomenclature:

RM22	JA	1	2	MU
I	II	III	IV	V

I: Basic model:
RM22

II. Control & Monitoring Functions:
TG : Three Phase (Sequence, Lost)
TA : Three Phase (Sequence, Lost, Asymmetrical)
TU : Three Phase (Sequence, Lost, Under-voltage)
TR : Three Phase (Sequence, Lost, Under-voltage, Over-voltage)
UA : Single Phase (Under-voltage, Over-voltage, Individual setting)
UB : Single Phase (Under-voltage, Over-voltage, Windows setting)
JA : Single Phase (Under-current, Over-current, Individual setting)
LA : Liquid Level (Through Resistive Probe, Adjustable Sensitivity Range)
LG : Liquid Level (Through Resistive Probe, Fix Sensitivity Range)

III. Output:
1 : 1 contact
2 : 2 contacts without adjustable time delay
3 : 2 contacts with adjustable time delay

IV. Input:

	3 Phase Voltage	Single Phase Voltage	Single Phase Current	Liquid Level Level
0:	208V...480V	-	-	-
1:	200V...240V	50mV…5V	4mA…1A	5kΩ…100kΩ
2:	220V...240V	1V…100V	-	0.25kΩ…1MΩ
3:	380V...480V	15V…500V	-	-
4:	-	80V…300V	-	-

V. Power Supply:
MR: 24-240 Vdc/Vac
MT: 380Y-415Y/220-240 Vac
Blank: same as Input

RM35	JA	3	2	MU
I	II	III	IV	V

I: Basic model:
RM35

II. Control & Monitoring Functions:
JA : Single Phase (Under-current, Over-current, individual setting)

III. Output:
3 : 2 contacts with adjustable time delay

IV. Input:
Single Phase Current
1: -
2: 0.15A…15A

V. Power Supply:

MR: 24-240 Vdc/Vac
MT: 380Y-415Y/220-240 Vac
Blank: non

Factory: P T Schneider Electric Manufacturing Batam
Batamindo Industrial Park, Jalan Beringin Lot 4 & 208, Muka Kuning, Batam Island, Indonesia

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
NHA4930802, NHA4930806, NHA4930807, NHA4930808, NHA4930809, NHA4930810, NHA4930803, EAV5196200, NHA4930805, NHA4930804, NHA4930811, NHA4930816, NHA4930814, NHA4930815, NHA4930813, NHA4930812, NHA4930816, NHA4930816

Tests carried out

Applicable tests according to class guideline DNVGL-CG-0339, November 2016.

Marking of product
The products to be marked with:
- manufacturer name
- model name
- serial number

Brands: Schneider Electric

Place of Production:
PT Schneider Electric Manufacturing Batam
Batamindo Industrial Park, Jalan Beringin Lot 1, Lot4, Lot 15, Lot 16, Lot 16A and Lot 208
Muka Kuning, Batam Island, Indonesia

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 CERTIFCATE