DNV·GL

Certificate No:
TAA00002DG

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Control Relays

with type designation(s)
Chronos 2 RQR1, RA2R1, RU2R4, RU2R3, RU2R1 and RX2R1 Crouzet 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**.

for **DNV GL**

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

Approval Engineer: **Marco Rinkel**

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

Electronic Timers Type No. R followed by U, A, Q, or X, followed by R, 2R, may be followed by blank, followed by 1, 3, or 4

Timing range:
20 / 40 / 60 / 80 / 100 / 120 / 140 ms or
1s / 10s / 1 min / 10 min / 1 h / 10 h / 100 h
Multi or Mono-functional
Screw clamps for all types
One or two relay output 8A, 250V AC/DC

Types:
22.5 mm housing, DIN rail
RQR1, RA2R1, RU2R4, RU2R3, RU2R1 and RX2R1

Nomenclature:

R	U	R	3
I	II	III	IV

I: Housing
-R: 22.5

II: Function

- A On Delay Function
- Q Star-delta timing
- U Multifunctions(A-At-B-C-H-Ht-Di-D-Ac-Bw)
- X Multifunctions(Ad-Ah-N-O-P-Pt-Tl-Tt-W)

III: Output
- R: 1 X Relay
- 2R: 2 X Relays

IV: Connections
- None (Screw terminals)

V: Input Voltage (50/60 Hz)
-1: 24V dc and 24V-240V ac
-3: 12V-240V ac/dc
-4: 12V ac/dc

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

AV5196200 Juret Timer_Flammability Test- PSB.pdf
EAV5196300 Juret Timer_Vibration Test_ PSB.pdf
EAV5197100 Juret Timer_ High Voltage Dielectric Test.pdf
EAV5198300 Juret Timer_ Insulation Resistance Test report.pdf
EAV5198500 Juret Timer_ Power Supply Failure Test report.pdf
EAV5200900 Juret Timer_ Power Supply Variations Test report.pdf
EAV5201000 Juret Timer_ Cold Test report.pdf
EAV5201100 Juret Timer_ Dry Heat Test report.pdf
EAV5201200 Juret Timer_ Damp Heat Test report.pdf
EAV5201300 Juret Timer_ Electrostatic Discharge Test.pdf
EAV5201400 Juret Timer_EMC Test (Electromagnetic Fields, CE, RE) Report.pdf
EAV5201500 Juret Timer_ Product Performance Test report.pdf
EAV5201700 Juret Timer_ Conducted low frequency interference (harmonics) Test report.pdf
EAV5201800 Juret Timer_Surge Test report.pdf
EAV5201900 Juret Timer_Conducted Fast TransientsTest Report.pdf
EAV5202000 Juret Timer_ Conducted High Frequency Interference Test report.pdf

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: Crouzet

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 CERTIFICATE