DNV·GL

Certificate No:
TAA0000148

TYPE APPROVAL CERTIFICATE

This is to certify:

That the DC Power Supply

with type designation(s)
SDN-C COMPACT DIN RAIL SERIES

Issued to
Emerson
Rosemont IL, United States

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	**D**
Humidity	**B**
Vibration	**A**
EMC	**A**
Enclosure	**Required protection acc. to DNV GL Rules shall be provided upon installation**

Issued at **Hamburg** on
This Certificate is valid until .
DNV GL local station: **Houston, Approval CMC**

Approval Engineer: **Jens Dietrich**

for **DNV GL**

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

Redundancy Modules SDN 2X10RED, SDN 2X10REDX may be followed by dash and/or 1-3 alphanumeric characters
INPUT:
12-28Vdc, 2x12A or 1x24A
OUTPUT:
12-28Vdc, 24A
Operating Ambient Temperature Range: -40°C to 70°C

Redundancy Modules SDN 2X20RED, SDN 2X20REDX may be followed by dash and/or 1-3 alphanumeric characters
INPUT:
12-28Vdc, 2x20A or 1x40A
OUTPUT:
12-28Vdc, 40A
Operating Ambient Temperature Range: -40°C to 70°C

DIN Rail Power Supply Models SDN 5-24-100C, SDN 5-24-100CX may be followed by dash and/or 1-3 alphanumeric characters
INPUT:
100-240Vac, 50/60Hz, 2A
100-340Vdc, 1.4A
OUTPUT:
24Vdc, 5A, 120W
Operating Ambient Temperature Range: -40°C to 70°C

DIN Rail Power Supply Models SDN 10-24-100C and SDN 10-24-100CX may be followed by dash and/or 1-3 alphanumeric characters
INPUT:
100-240Vac, 50/60Hz, 3.5A
100-340Vdc, 2.8A
OUTPUT:
24Vdc, 10A, 240W
Operating Ambient Temperature Range: -40°C to 70°C

Degree of protection: IP20.

Application/Limitation

Derating may apply depending upon ambient temperature. See data sheet.

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 Ships Pt.4 Ch.9 Control and Monitoring Systems.

Product certificate
If specified in the Rules, ref. Pt.4 Ch.9 Sec.1, the control and monitoring system in which the above listed hardware is used shall be delivered with a product certificate. For each such delivery the certification test is to be performed at the manufacturer of the application system before the system is shipped to the yard. The test shall be done according to an approved test program.

Tests carried out

Applicable tests according to DNV GL CG-0339.

Marking of product

Type designation, serial number and power supply specification.

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 at least every second year and at renewal of this certificate.

END OF CERTIFICATE