

TYPE APPROVAL CERTIFICATE

This is to certify:

That the DC Power Supply

with type designation(s)
COMPACT DIN RAIL SERIES SDN 15-12, SDN 16-12

Issued to

Emerson
Rosemont IL, USA

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 **2017-12-05**

This Certificate is valid until **2022-12-04**.

for **DNV GL**

DNV GL local station: **Houston Certification & Inspection Services**

Approval Engineer: **Jens Dietrich**

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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.



Product description

DIN Rail Power Supply Models SDN 15-12-100C, SDN 15-12-100CX may be followed by dash and/or 1-3 alphanumeric characters

INPUT:

100-240Vac, 50/60Hz, 2.5A

100-340Vdc, 2.3A

OUTPUT:

12Vdc, 15A, 180W

Operating Ambient Temperature Range: -40°C to 70°C

DIN Rail Power Supply Models SDN 16-12-100C, SDN 16-12-100CX may be followed by dash and/or 1-3 alphanumeric characters

INPUT:

100-240Vac, 50/60Hz, 2.5A

100-340Vdc, 2.3A

OUTPUT:

12Vdc, 16A, 192W

Operating Ambient Temperature Range: -40°C to 70°C

Degree of protection: IP20.

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

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

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, 2016.

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



Job Id: **262.1-027199-1**
Certificate No: **TAA00001HZ**

- 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 and at renewal of this certificate.

END OF CERTIFICATE