

TYPE APPROVAL CERTIFICATE

This is to certify:

That the DC Power Supply

with type designation(s)
SITOP-PSU3400

Issued to

Siemens AG
Nürnberg, Bayern, Germany

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.

Location classes:

Temperature B

Humidity B

Vibration A

EMC A

Enclosure Required protection according to the Rules shall be provided upon installation on board.

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Issued at **Hamburg** on **2019-04-05**

This Certificate is valid until **2024-04-04**.

DNV GL local station: **Augsburg**

for **DNV GL**

Approval Engineer: **Heinz Scheffler**

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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

SITOP-PSU3400

Primary switched-mode power supply for connection to a DC supply; output voltage 12 V DC or 24 V DC, isolated, short-circuit and no-load proof.

Model	Input Voltage	Nominal current input	Output Voltage	Output current
PSU3400 24V/12V 15A (6EP3124-0TA00-0AY0)	24 VDC	8,4 A	12 VDC	15 A
PSU3400 24V/24V 10A (6EP3134-0TA00-0AY0)	24 VDC	10,8 A	24 VDC	10 A
PSU3400 48V/24V 10A (6EP3234-0TA00-0AY0)	48 VDC	5,4 A	24 VDC	10 A
PSU3400 24V/24V 5A (6EP3133-0TA00-0AY0)	24 VDC	5,5 A	24 VDC	5 A
PSU3400 48V/24V 5A (6EP3233-0TA00-0AY0)	48 VDC	2,7 A	24 VDC	5 A
PSU3400 24V/12V 8A (6EP3123-0TA00-0AY0)	24 VDC	4,5 A	12 VDC	8 A
PSU3400 48V/24V 3,5A NEC class 2 (6EP3233-0TA10-0AY0)	48 VDC	3,9 A	24 VDC	3,5 A
PSU3400 12V/24V 4A (6EP3133-0TA10-0AY0)	12 VDC	10 A	24 VDC	4 A

Application/Limitation

Derating at > 60 °C: 2 % I_{out} rated/K. Derating of the output current depends on mounting position. Observe the Operating Instructions (compact) P10082-0001, 02.2019; Operating Instructions (compact) P10064-0001, 10.2018

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.

Type Approval documentation

Test Report: Testreport 20180325, dated 15.02.2019; TGM – VA EE 37843A, dated 20.02.2019; TGM-VA EE 37689A SFT, dated 17.08.2018; TGM-VA EE 37689A SFT, dated 04.04.2019; TGM-VA EE 37689A EMC-2, dated 10.08.2018; Prüfprotokoll_PSU3400_25.03.19

Document: Document List Dokumentenliste SITOP PSU3400 Rev. 2, dated 02.04.2019; Operating Instructions (compact) P10082-0001, 02.2019; Operating Instructions (compact) P10064-0001, 10.2018

Job Id: **262.1-030370-1**
Certificate No: **TAA000027C**

Tests carried out

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

Marking of product

The products to be marked with:

- Model name
- Manufacturer 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