

TYPE APPROVAL CERTIFICATE

Certificate No:
TAA00001YD
Revision No:
6

This is to certify:

That the DC Power Supply

with type designation(s)

STEP-PS/1AC; QUINT4-PS AC/DC; QUINT4-PS DC/DC; QUINT4-UPS

Issued to

Phoenix Contact GmbH & Co. KG
Blomberg, Nordrhein-Westfalen, Germany

is found to comply with

DNV 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.

Location classes

Temperature **D#**

Humidity **B**

Vibration **A/B/C***

EMC **A/B***

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

see Application/Limitation

* see Product description

Issued at **Hamburg** on **2026-02-20**

This Certificate is valid until **2028-07-06**.

DNV local unit: **Essen**

Approval Engineer: **Heinz Scheffler**



for **DNV**

Digitally signed by: Dariusz Lesniewski
Location: DNV SE, Germany

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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.

Product description

The STEP POWER power and bus voltage supplies for use in distribution boards and flat control panels. STEP POWER offers flexible mounting options and can be mounted on a DIN rail.

STEP-PS Article			
Material-No.	Designation	Vibration Class	EMC Class
2868635	STEP-PS/ 1AC/24DC/0.75	C	B
2868622	STEP-PS/ 1AC/24DC/0.75/FL	A	B
2868648	STEP-PS/ 1AC/24DC/1.75	C	B
2868651	STEP-PS/ 1AC/24DC/2.5	C	B
2868677	STEP-PS/ 1AC/24DC/3.8/C2LPS	A	B
2868664	STEP-PS/ 1AC/24DC/4.2	A	B
2868541	STEP-PS/ 1AC/ 5DC/6.5	C	B
2868567	STEP-PS/ 1AC/12DC/1.5	C	B
2868554	STEP-PS/ 1AC/12DC/1.5/FL	A	B
2868570	STEP-PS/ 1AC/12DC/3	C	B
2868583	STEP-PS/ 1AC/12DC/5	C	B
2868619	STEP-PS/ 1AC/15DC/4	C	B
2868680	STEP-PS/ 1AC/48DC/2	C	B

FL = Extra flat type

C2LPS = Limited output power < 100 W

QUINT POWER power supply with SFB Technology, and preventive function monitoring ensures superior system availability

QUINT4-PS AC/DC Article			
Material-No.	Designation	Vibration Class	EMC Class
2904617	QUINT4-PS/1AC/24DC/20/+	A&C	A
2904608	QUINT4-PS/1AC/12DC/15	A&C	B
2904610	QUINT4-PS/1AC/48DC/5	A&C	B
2904600	QUINT4-PS/1AC/24DC/5	A&C	B
2904601	QUINT4-PS/1AC/24DC/10	A&C	A
2904602	QUINT4-PS/1AC/24DC/20	A&C	A
2904620	QUINT4-PS/3AC/24DC/5	A&C	A
2904621	QUINT4-PS/3AC/24DC/10	A&C	A
2904622	QUINT4-PS/3AC/24DC/20	A&C	A
2904611	QUINT4-PS/1AC/48DC/10	A&C	A
2904603	QUINT4-PS/1AC/24DC/40	A&C	A
2904618	QUINT4-PS/1AC/24DC/40/+	A&C	A
2904623	QUINT4-PS/3AC/24DC/40	A&C	A
2904613	QUINT4-PS/1AC/110DC/4	A&C	A
2904625	QUINT4-PS/1AC/24DC/10/CO	A&C	A
2904626	QUINT4-PS/1AC/48DC/10/CO	A&C	A
2904597	QUINT4-PS/1AC/24DC/1.3/SC	A&C	B
2909575	QUINT4-PS/1AC/24DC/1.3/PT	A&C	B
2904598	QUINT4-PS/1AC/24DC/2.5/SC	A&C	A
2909576	QUINT4-PS/1AC/24DC/2.5/PT	A&C	A
2904599	QUINT4-PS/1AC/24DC/3.8/SC	A&C	A
2909577	QUINT4-PS/1AC/24DC/3.8/PT	A&C	A
2904595	QUINT4-PS/1AC/5DC/5/PT	A&C	B
1092852	QUINT4-PS/1AC/5DC/5/SC	A&C	B
2904605	QUINT4-PS/1AC/12DC/2.5/PT	A&C	B
1092850	QUINT4-PS/1AC/12DC/2.5/SC	A&C	B
2904607	QUINT4-PS/1AC/12DC/7.5/PT	A&C	A

Material-No.	Designation	Vibration Class	EMC Class
1092848	QUINT4-PS/1AC/12DC/7.5/SC	A&C	A
1151047	QUINT4-PS/3AC/24DC/40/IOL	A&C	A
1151048	QUINT4-PS/3AC/24DC/20/IOL	A&C	A
2904612	QUINT4-PS/1AC/48DC/20	A&C	A
2904627	QUINT4-PS/3AC/48DC/20	A&C	A
2904616	QUINT4-PS/1AC/24DC/10/+	A&C	B
2904614	QUINT4-SYS-PS/1AC/24DC/2.5/SC	A&C	A
2904596	QUINT4-PS/1AC/2X15DC/2/PT	A&C	A
1092847	QUINT4-PS/1AC/2X15DC/2/SC	A&C	A

QUINT POWER DC/DC converters with SFB Technology and preventive function monitoring ensure superior system availability.

QUINT4-PS DC/DC Article			
Material-No.	Designation	Vibration Class	EMC Class
1066703	QUINT4-PS/12-24DC/24DC/1.3/SC	A&C	B
1066716	QUINT4-PS/12-24DC/24DC/1.3/PT	A&C	B
1066718	QUINT4-PS/12-24DC/24DC/2.5/SC	A&C	B
1066714	QUINT4-PS/12-24DC/24DC/2.5/PT	A&C	B
1066704	QUINT4-PS/12-24DC/5-15DC/2.5/PT	A&C	B
1206357	QUINT4-PS/12-24DC/5-15DC/2.5/SC	A&C	B
1066708	QUINT4-PS/48-110DC/24DC/2.5/PT	A&C	B
1206356	QUINT4-PS/48-110DC/24DC/2.5/SC	A&C	B
1098676	QUINT4-PS/24-48DC/48DC/2/PT	A&C	A
1231546	QUINT4-PS/24-48DC/48DC/2/SC	A&C	A
2910119	QUINT4-PS/24DC/24DC/5/PT	B fixed mounting	B
1046800	QUINT4-PS/24DC/24DC/5/SC	A&C	B
1046803	QUINT4-PS/24DC/24DC/10/SC	A&C	B
2910120	QUINT4-PS/24DC/24DC/10/PT	B fixed mounting	B
2910122	QUINT4-PS/24DC/12DC/8/PT	A&C	B
1046806	QUINT4-PS/24DC/12DC/8/SC	A&C	B
2910125	QUINT4-PS/48DC/24DC/5/PT	A&C	B
1046860	QUINT4-PS/48DC/24DC/5/SC	A&C	B
1046881	QUINT4-PS/24DC/24DC/20/SC/+	A&C	B
1046805	QUINT4-PS/24DC/24DC/20/SC	A&C	B
2910121	QUINT4-PS/24DC/24DC/20/PT	B fixed mounting	B
2910132	QUINT4-PS/24DC/24DC/5/PT/CO	A&C	B
1046872	QUINT4-PS/24DC/24DC/5/SC/CO	A&C	B
2910133	QUINT4-PS/24DC/24DC/10/PT/CO	A&C	B
1046880	QUINT4-PS/24DC/24DC/10/SC/CO	A&C	B
2910123	QUINT4-PS/24DC/48DC/5/PT	A&C	B
1046855	QUINT4-PS/24DC/48DC/5/SC	A&C	B
2910128	QUINT4-PS/48DC/48DC/5/PT	A&C	B
1046867	QUINT4-PS/48DC/48DC/5/SC	A&C	B
2910134	QUINT4-PS/24DC/24DC/20/PT/+	B fixed mounting	B
2910124	QUINT4-PS/12DC/24DC/5/PT	A&C	B
1046859	QUINT4-PS/12DC/24DC/5/SC	A&C	B

PT = Push-In
 + = Coated PCB + integrated decoupling MOSFET + EX
 SC = Screw
 CO = Coated PCB
 IOL = IO-Link interface

The QUINT DC-UPS uninterruptible power supply enables continued supply of critical loads in the event of a power supply malfunction.

QUINT4-UPS Article			
Material-No.	Designation	Vibration Class	EMC Class
2906990	QUINT4-UPS/24DC/24DC/5	A&C	B
2906991	QUINT4-UPS/24DC/24DC/5/USB	A&C	B
2906993	QUINT4-UPS/24DC/24DC/5/PN	A&C	B
2906994	QUINT4-UPS/24DC/24DC/5/EIP	A&C	B
2906996	QUINT4-UPS/24DC/24DC/5/EC	A&C	B
2907066	QUINT4-UPS/24DC/24DC/10	A&C	B
2907067	QUINT4-UPS/24DC/24DC/10/USB	A&C	B
2907068	QUINT4-UPS/24DC/24DC/10/PN	A&C	B
2907069	QUINT4-UPS/24DC/24DC/10/EIP	A&C	B
2907070	QUINT4-UPS/24DC/24DC/10/EC	A&C	B
2907071	QUINT4-UPS/24DC/24DC/20	A&C	B
2907072	QUINT4-UPS/24DC/24DC/20/USB	A&C	B
2907073	QUINT4-UPS/24DC/24DC/20/PN	A&C	B
2907074	QUINT4-UPS/24DC/24DC/20/EIP	A&C	B
2907076	QUINT4-UPS/24DC/24DC/20/EC	A&C	B
2907077	QUINT4-UPS/24DC/24DC/40	A&C	B
2907078	QUINT4-UPS/24DC/24DC/40/USB	A&C	B
2907079	QUINT4-UPS/24DC/24DC/40/PN	A&C	B
2907080	QUINT4-UPS/24DC/24DC/40/EIP	A&C	B
2907081	QUINT4-UPS/24DC/24DC/40/EC	A&C	B

USB = USB (Modbus/RTU)

PN = Profinet

EIP = EtherNet/IP

EC = EtherCat

All Type names may be followed by a suffix of one or more alphanumeric or special characters including "- / , . _" or semicolon or blank, only for:

- Internal references
- Specific or additional markings on the unit or packaging
- Specific packaging
- Presetting / parameterizations such as e.g. output current limitation, voltage adjustment or signalling

Place of manufacture

See document TAA00001YD_Overview_Documents_Rev.05

Application/Limitation

Temperature class D:

- QUINT 4 = Temperature-dependent derating; at ambient temperatures above +60 °C, the output power must be decreased by 2.5 % per Kelvin increase in temperature.
- STEP-PS = Temperature-dependent derating; at ambient temperatures above +55 °C, the output power must be decreased by 2.5 % per Kelvin increase in temperature.

Approval conditions

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV, 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 Rules for Ships Pt.4 Ch.9 Control and Monitoring Systems.

Type Approval documentation

Test Report and Documents: TAA00001YD_Overview_Documents_Rev.05

Tests carried out

Applicable tests according to class guideline DNV-CG-0339, August 2021

Applicable tests for protected equipment according to IEC 60945, 4th edition 2002: only Article No. 2910119; 1046800; 2910120; 1046803; 2910122; 1046806; 2910125; 1046860; 1066704; 1206357; 1066716; 1066703; 1066714; 1066718; 1066708; 1206356; 2904600; 2910119; 1046803; 2904601

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 CERTIFICAT