

TYPE EXAMINATION CERTIFICATE



Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

- [3] Type Examination Certificate Number: **UL 21 ATEX 2597X Rev. 0**
- [4] Product: **Switch Mode Power Supply Modules, QUINT4-SYS-PS/1AC/24DC/2.5/SC/...**
- [5] Manufacturer: **PHOENIX CONTACT GmbH & Co. KG**
- [6] Address: **Flachsmarktstraße 8, 32825 Blomberg, Germany**
- [7] This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- [8] UL International Demko A/S certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.
- The examination and test results are recorded in confidential report no. **DK/ULD/ExTR21.0022/00**.
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
- EN IEC 60079-0:2018 EN IEC 60079-7: 2015 +A1:2018 EN IEC 60079-15: 2019**
- except in respect of those requirements listed at item 18 of the Schedule.
- [10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.
- [11] This Type examination certificate relates only to the design of the specified product, and not to specific items of product subsequently manufactured.
- [12] The marking of the product shall include the following:

 **II 3 G Ex ec nC IIC T4 Gc**

Certification Manager
Jan-Erik Storgaard

This is to certify that the sample(s) of the Product described herein ("Certified Product") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Product Certification Program Requirements. This certificate and test results obtained apply only to the product sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established Follow-Up Service or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Date of issue: 2021-10-06

Certification Body

UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark
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[13]

[14]

Schedule TYPE EXAMINATION CERTIFICATE No. UL 21 ATEX 2597X Rev. 0

[15]

Description of Product:

These devices are open type switch mode power supplies, intended to be used in combination with Equipment for Measurement, Control and Laboratory Use. These devices are suitable for DIN-Rail mounting (building in), prepared for field wiring, TN, TT and IT (star networks) power systems.

Performance testing

The optical radiation output of the product with respect to explosion protection, according to Annex II clause 1.3.1 of the Directive 2014/34/EU is covered in this certificate based on Exception No. 1.): Divergent LED's are for indication only.

Temperature range:

The ambient temperature range is -25 °C to +70 °C.

Electrical data

Input:

Cat. No.	Input		
	Volt	Amp	Hz
QUINT4-SYS- PS/1AC/24DC/2.5/SC/...	100 - 240 Vac (-15% ... +10%)	0.85 - 0.37	50 – 60 (+/- 10%)
	110 - 250 Vdc (-20% ... +40%)	0.75 - 0.33	DC

Output:

Cat. No.	Volt	Amp	Watt	Note
QUINT4-SYS- PS/1AC/24DC/2.5/SC/...	24 VDC (24-28 VDC) (*)	2.5 (***)	60	continuous
		3.125	75	Stat. Boost mode (≤40°C)
		4	96	Dyn. Boost mode (**)

(*) Nominal: 24VDC, adjustable range: 24VDC – 28VDC.

(**) Dynamic Boost Mode:

- max Tambient ≤60°C
- max Ton ≤ 5sec
- min Toff ≥ 5sec
- max I_{out_eb}=4A @ U_{out}=24V, max I_{out_eb}=3.42A @ U_{out}=28V (eb=extra boost)
- (***) >60°C Derating 2.5%/K

Signals:

Cat. No.	Name
QUINT4-SYS- PS/1AC/24DC/2.5/SC/...	DC OK LED
	Active signal output (floating switch contact), 1.0 A, 24 V dc, Resistive and 0.5A@30VAC

Routine tests:

Between the power supply terminals and Relay terminals are all suitable for 230 V ac/ 250 V dc working voltage and the terminals suitable for less than 90 V ac, with a test voltage derived from the applicable industrial standard or with 1500 V ac +5% or 2100 V dc +5 % for 1 minute or with 1.2 times of the test voltage for ≥ 100 millisecond.

Because the creepage and clearance dimensions are rigidly controlled by tooling in the manufacturing process, the routine tests will be performed on a statistical basis in accordance with ISO 2859-1 with an acceptance quality limit (AQL) of 0.04.

[16]

Descriptive Documents

The scheduled drawings are listed in the report no. provided under item no. [8] on page 1 of this Type Examination Certificate.

[13]

[14]

Schedule
TYPE EXAMINATION CERTIFICATE No.
UL 21 ATEX 2597X Rev. 0

[17]

Special Conditions of Use:

- The equipment is intended for installation in an area providing at least pollution degree 2 as defined by EN 60664-1.
- The device shall be installed in an enclosure (control or distributor box) that fulfills a type of protection of EN 60079-0 and at least IP54 (EN 60529) degree of protection.
- The installation altitude for Ex area shall be maximum 2000m above sea level.
- The device must be installed in accordance with the instructions in the manual document no. 831933326-00 regarding the rating and distances between devices.

[18]

Essential Health and Safety Requirements

The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.

Additional information

The manufacturer shall inform the certification body concerning all modifications to the technical documentation.

