

QUINT-PS-100-240AC/24DC/ 5/EX - Power supply



2938853

<https://www.phoenixcontact.com/us/products/2938853>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



DIN rail power supply unit, primary-switched mode, 1-phase, output: 24 V DC / 5 A, for the potentially explosive area

Commercial data

Item number	2938853
Packing unit	1 pc
Sales key	CM11
Product key	CMPP13
GTIN	4017918927233
Weight per piece (including packing)	1,233 g
Weight per piece (excluding packing)	1,000 g
Customs tariff number	85044030
Country of origin	TH

Technical data

Input data

AC operation

Nominal input voltage range	100 V AC ... 240 V AC
Input voltage range	85 V AC ... 264 V AC
	90 V DC ... 250 V DC
Input voltage range AC	85 V AC ... 264 V AC
Input voltage range DC	90 V DC ... 250 V DC
Voltage type of supply voltage	AC/DC
Inrush current	< 20 A (typical)
Inrush current integral (I^2t)	2.5 A ² s
AC frequency range	45 Hz ... 65 Hz
Frequency range DC	0 Hz
Mains buffering time	> 20 ms (120 V AC)
	> 120 ms (230 V AC)
Current consumption	approx. 1.6 A (120 V AC)
	0.8 A (230 V AC)
Nominal power consumption	134 W
Typical response time	< 1 s
Input fuse	5 A (slow-blow, internal)
Permissible DC backup fuse	DC: Connect a suitable fuse upstream
Recommended breaker for input protection	6 A ... 16 A (Characteristics B, C, D, K)

Output data

Efficiency	> 87 %
Nominal output voltage	24 V DC \pm 1 %
Setting range of the output voltage (U_{Set})	22.5 V DC ... 28.5 V DC
Nominal output current (I_N)	5 A (up to 60 °C)
POWER BOOST (I_{Boost})	7.5 A
Derating	60 °C ... 70 °C (2.5 %/K)
Feedback voltage resistance	35 V DC
Protection against overvoltage at the output (OVP)	\leq 35 V DC
Residual ripple	< 100 mV _{PP}
Output power	120 W
Peak switching voltages nominal load	< 50 mV _{PP} (20 MHz)
Maximum no-load power dissipation	2.7 W
Power loss nominal load max.	18 W
Connection in parallel	yes, for redundancy and increased capacity
Connection in series	yes

Signal: DC OK active

Output description	$U_{OUT} > 0.9 \times U_N$: High signal
--------------------	--

QUINT-PS-100-240AC/24DC/ 5/EX - Power supply



2938853

<https://www.phoenixcontact.com/us/products/2938853>

Maximum switching voltage	≤ 24 V
Output voltage	+ 24 V DC (Signal)
Maximum inrush current	max. 44 mA
Continuous load current	≤ 40 mA

Signal: DC OK floating

Output description	Relay contact, $U_{OUT} > 0.9 \times U_N$: Contact closed
Maximum switching voltage	≤ 30 V AC/DC
Maximum inrush current	max. 1 A
Continuous load current	≤ 1 A

Connection data

Input

Connection method	Pluggable screw connection
Conductor cross-section, rigid min.	0.2 mm ²
Conductor cross-section, rigid max.	2.5 mm ²
Conductor cross-section flexible min.	0.2 mm ²
Conductor cross-section flexible max.	2.5 mm ²
Conductor cross-section AWG min.	24
Conductor cross-section AWG max.	12
Stripping length	7 mm
Screw thread	M3
Tightening torque, min	0.5 Nm
Tightening torque max	0.6 Nm

Output

Connection method	Pluggable screw connection
Conductor cross-section, rigid min.	0.2 mm ²
Conductor cross-section, rigid max.	2.5 mm ²
Conductor cross-section flexible min.	0.2 mm ²
Conductor cross-section flexible max.	2.5 mm ²
Conductor cross-section AWG min.	24
Conductor cross-section AWG max.	12
Stripping length	7 mm
Screw thread	M3

Signal

Conductor cross-section, rigid min.	0.2 mm ²
Conductor cross-section, rigid max.	2.5 mm ²
Conductor cross-section flexible min.	0.2 mm ²
Conductor cross-section flexible max.	2.5 mm ²
Conductor cross-section AWG min.	24
Conductor cross-section AWG max.	12
Screw thread	M3
Tightening torque, min	0.5 Nm

QUINT-PS-100-240AC/24DC/ 5/EX - Power supply



2938853

<https://www.phoenixcontact.com/us/products/2938853>

Tightening torque max	0.6 Nm
-----------------------	--------

Signaling

Types of signaling	LED
	Active switching output
	Relay contact
Operating voltage display	Green LED

Signal output: DC OK active

Status display	"DC OK" LED green
Note on status display	$U_{OUT} < 0.9 \times U_N$: LED flashing

Signal output: DC OK floating

Status display	"DC OK" LED green
----------------	-------------------

Electrical properties

Number of phases	1
Insulation voltage input/output	4 kV AC (routine test)
	2 kV AC (type test)

Product properties

Product type	Power supply
Product family	QUINT POWER
MTBF (IEC 61709, SN 29500)	> 500000 h

Insulation characteristics

Protection class	I
------------------	---

Dimensions

Width	55 mm
Height	130 mm
Depth	125 mm

Alternative assembly

Width	122 mm
Height	130 mm
Depth	58 mm

Mounting

Assembly note	alignable: horizontally 0 mm, vertically 50 mm
Mounting position	horizontal DIN rail NS 35, EN 60715

Material specifications

Housing material	Metal
Type of housing	AluNox (AlMg1)

Environmental and real-life conditions

QUINT-PS-100-240AC/24DC/ 5/EX - Power supply



2938853

<https://www.phoenixcontact.com/us/products/2938853>

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Max. permissible relative humidity (operation)	100 % (condensation permitted)

Standards and regulations

Declaration of conformity in acc. with EN 60079-15	Ⓜ II 3 G Ex nAC IIC T4 X
Standard – Electronic equipment for use in electrical power installations and their assembly into electrical power installations	EN 50178/VDE 0160 (PELV)
Standard – Limitation of mains harmonic currents	EN 61000-3-2
Standard - Electrical safety	EN 60950-1/VDE 0805 (SELV) EN 61558-2-17
Standard - Equipment safety	GS (tested safety)
Standard - Safe isolation	DIN VDE 0100-410
Standard - Safety of transformers	EN 61558-2-17
Standards/specifications	EN 60079-0

Approvals

Shipbuilding approval	DNV GL (EMC A)
UL approvals	UL/C-UL listed UL 508
	UL/C-UL Recognized UL 60950-1
	UL/C-UL Listed UL 1604 Class I, Division 2, Groups A, B, C, D

Conformity/Approvals

ATEX	Ⓜ II 3 G Ex nA nC IIC T4 Gc X
------	-------------------------------

EMC data

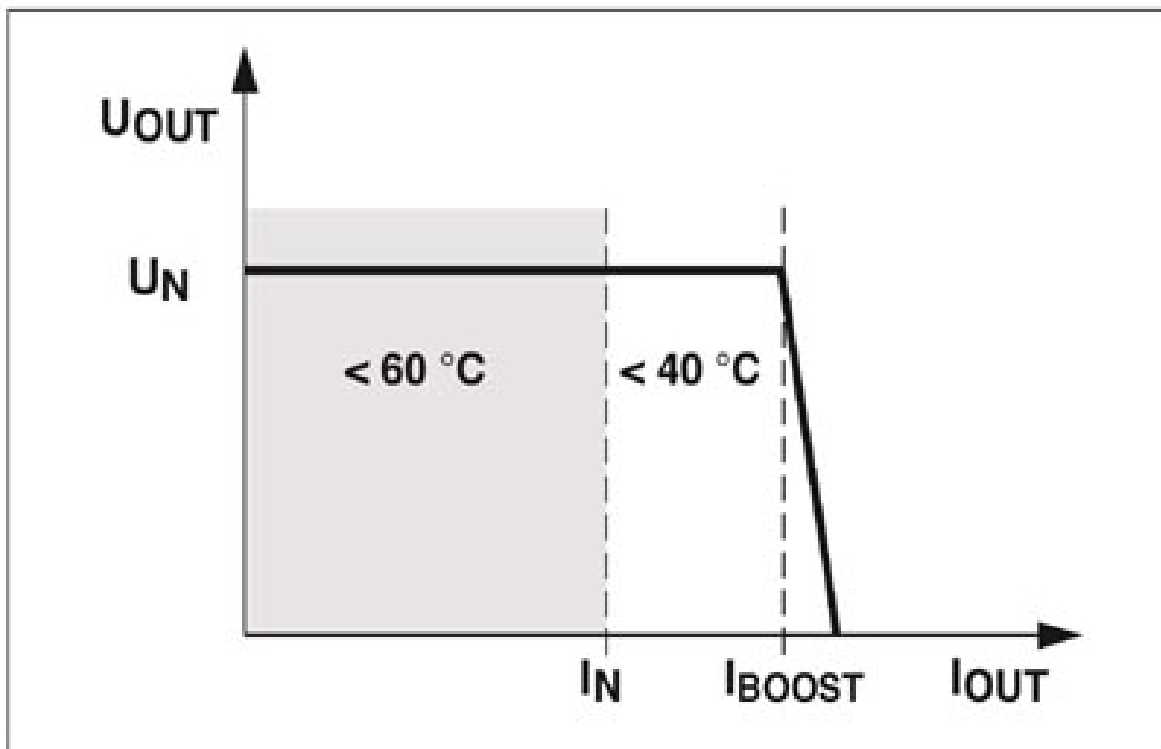
Electromagnetic compatibility	Conformance with EMC directive 89/336/EC
EMC requirements for noise immunity	EN 61000-6-2

Noise emission

Standards/regulations	EN 55011 (EN 55022)
-----------------------	---------------------

Drawings

Diagram



POWER BOOST

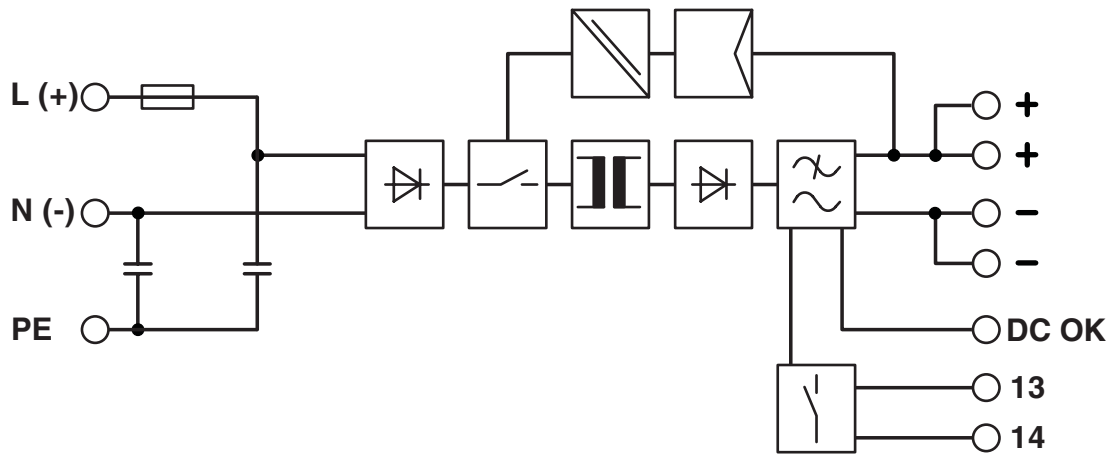
QUINT-PS-100-240AC/24DC/ 5/EX - Power supply



2938853

<https://www.phoenixcontact.com/us/products/2938853>

Block diagram



QUINT-PS-100-240AC/24DC/ 5/EX - Power supply



2938853

<https://www.phoenixcontact.com/us/products/2938853>

Classifications

UNSPSC

UNSPSC 21.0	39121004
-------------	----------

QUINT-PS-100-240AC/24DC/ 5/EX - Power supply



2938853

<https://www.phoenixcontact.com/us/products/2938853>

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c), 7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-25
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
-------------------------------------	----------------------

Phoenix Contact 2026 © - all rights reserved
<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com