

# QUINT-PS-100-240AC/24DC/ 5/EX


Order No.: 2938853



<http://eshop.phoenixcontact.co.uk/phoenix/treeViewClick.do?UID=2938853>

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



Commercial data	
EAN	 4 017918 927233
Pack	1
Customs tariff	85044081
Country of Origin	TH
Catalog page information	Page 594 (IF-2009)

### Product notes

WEEE/RoHS-compliant since:  
10/04/2006



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### Technical data

#### Input data

Nominal input voltage	100 V AC ... 240 V AC
AC input voltage range	85 V AC ... 264 V AC
DC input voltage range	90 V DC ... 250 V DC

AC frequency range	45 Hz ... 65 Hz
DC frequency range	0 Hz
Current consumption	Approx. 1.6 A (120 V AC)
	0.8 A (230 V AC)
Nominal power consumption	120 W
Inrush surge current	< 20 A (typical)
Power failure bypass	> 20 ms (120 V AC)
	> 120 ms (230 V AC)
Input fuse	5 A (slow-blow, internal)
Permissible backup fuse	B6
	B10
	B16

#### Output data

Nominal output voltage	24 V DC $\pm$ 1%
Setting range of the output voltage	22.5 V DC ... 28.5 V DC
Output current	5 A (Up to +60°C)
	7.5 A (with POWER BOOST)
Connection in parallel	Yes, for redundancy and increased capacity
Connection in series	Yes
Residual ripple	< 100 mV <sub>PP</sub>
Peak switching voltages nominal load	< 50 mV <sub>PP</sub> (20 MHz)
Maximum power dissipation idling	2.7 W
Power loss nominal load max.	18 W

#### General data

Width	55 mm
Height	130 mm
Depth	125 mm
Width with alternative assembly	122 mm
Height with alternative assembly	130 mm
	58 mm
Net weight	1 kg
Operating voltage display	Green LED
Efficiency	> 87 %

Insulation voltage input/output	4 kV AC (routine test) 2 kV AC (type test)
Degree of protection	IP20
Protection class	I
MTBF (IEC 61709, SN 29500)	> 500000 h
Ambient temperature (operation)	-25 °C ... 60 °C (/ +40°C)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Max. permissible relative humidity (operation)	100 % (condensation permitted)
Mounting position	horizontal DIN rail NS 35, EN 60715
Assembly instructions	Can be aligned: Horizontally 0 mm, vertically 50 mm
Electromagnetic compatibility	Conformance with EMC directive 89/336/EC
Noise emission	EN 50081-2
Noise immunity	EN 61000-6-2:2005
Declaration of conformity in acc. with EN 60079-15	Ex II 3 G Ex nAC IIC T4 X
ATEX	Ex II 3 G Ex nAC IIC T4
Standard - Safety of transformers	EN 61558-2-17
Standard - Electrical safety	EN 60950-1/VDE 0805 (SELV) EN 61558-2-17
Shipbuilding approval	Germanischer Lloyd (EMC 2)
Standard – Electronic equipment for use in electrical power installations and their assembly into electrical power installations	EN 50178/VDE 0160 (PELV)
Standard - Safe isolation	DIN VDE 0100-410 DIN VDE 0106-1010
Standard – Limitation of mains harmonic currents	EN 61000-3-2
Standard – Equipment safety	GS (tested safety)
Certificate	CB Scheme
UL approvals	UL/C-UL listed UL 508 UL/C-UL Recognized UL 60950 UL/C-UL Listed UL 1604 Class I, Division 2, Groups A, B, C, D

**Connection data, input**

Connection method	Pluggable screw connection
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section stranded min.	0.2 mm <sup>2</sup>

Conductor cross section stranded max.	2.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	12
Stripping length	7 mm
Screw thread	M3

#### Connection data, output

Connection method	Pluggable screw connection
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section stranded min.	0.2 mm <sup>2</sup>
Conductor cross section stranded max.	2.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	12
Stripping length	7 mm

#### Signaling

Output name	DC OK active
Output description	$U_{OUT} > 0.9 \times U_N$ : High signal
Maximum switching voltage	$\leq 24$ V
Output voltage	+ 24 V DC (signal)
Maximum inrush current	max. 44 mA
Continuous load current	$\leq 40$ mA
Status display	"DC OK" LED green
Note on status display	$U_{OUT} < 0.9 \times U_N$ : LED flashing
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section stranded min.	0.2 mm <sup>2</sup>
Conductor cross section stranded max.	2.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	12
Tightening torque, min	0.5 Nm
Tightening torque max	0.6 Nm
Screw thread	M3
Output name	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
Status display	"DC OK" LED green

### Certificates



Certification CB, CUL, CUL Listed, GL, GOST, UL, UL Listed

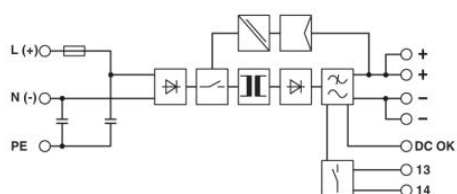
Certification Ex: CUL-EX LIS, UL-EX LIS

### Accessories

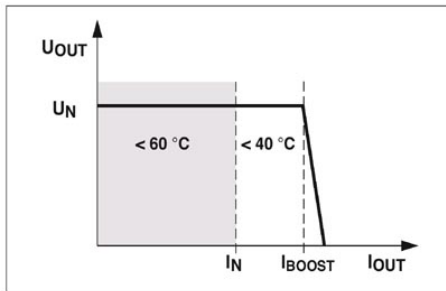
Item	Designation	Description
<b>General</b>		
2938196	QUINT-PS-ADAPTERS7/1	Assembly adapter for QUINT-PS... power supply on S7-300 rail
2938206	QUINT-PS-ADAPTERS7/2	Assembly adapter for QUINT POWER 10A on S7-300 rail
2853983	UTA 107	Universal DIN rail adapter, for screwing on switchgear
2938235	UWA 182/52	Universal wall adapter

### Drawings

Block diagram



Diagram



POWER BOOST

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