

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

Order No.: 2938853



Power Supply, primary switch mode, 1-phase, output: 24 V DC / 5 A, for use in potentially explosive areas



Commercial data	
EAN	4017918927233
Pack	1 Pcs.
Customs tariff	85044081
Weight/Piece	1.27 KG
Catalog page information	Page 488 (IF-2007)

Product notes

WEEE/RoHS-compliant since:
07/01/2006



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 ... 350 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)
Recommended backup fuse	6 A
	10 A
	16 A (characteristic B)

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	< 30 mVPP
Peak switching voltages nominal load	< 50 mVPP (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
Weight	1 kg
Operating voltage display	LED green
Efficiency	> 87 %
Insulation voltage input/output	2 kV (routine test)
	4 kV (type test)
Degree of protection	IP20
Class of protection	I, with PE connection

MTBF	> 500 000 h in acc. with IEC 61709 (SN 29500)
Ambient temperature (operation)	-25 °C ... 70 °C (> 60°C derating)
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: Horizontal 0 cm, vertical 5 cm
Electromagnetic compatibility	Conformance with EMC directive 89/336/EEC
Emitted interference	EN 50081-2
Immunity to interference	EN 61000-6-2
Conformity with EN 50 021	EX II 3G EEx nAC IIC T4, TÜV 03 ATEX 2047X
Standard – Safety transformers for switched-mode power supply units	EN 61558-2-17
Standard - Electrical safety	EN 60950/VDE 0805 (SELV) EN 61558-2-17
Standard – Shipbuilding	German Lloyd, ABS
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

Type of connection	Pluggable screw connection
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded max.	2.5 mm ²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	12
Stripping length	7 mm
Screw thread	M3

Connection data, output

Type of connection	Pluggable screw connection
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded max.	2.5 mm ²
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	≤ 24 V
Output voltage	+ 24 V DC (signal)
Maximum inrush current	Max. 44 mA
Continuous load current	≤ 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 ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded max.	2.5 mm ²
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 / Approvals



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

Certification Ex: CUL-EX LIS, PxC-EX, TUEV-N-EX, UL-EX LIS

Accessories

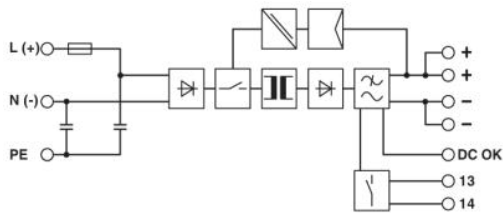
Item Designation Description

General

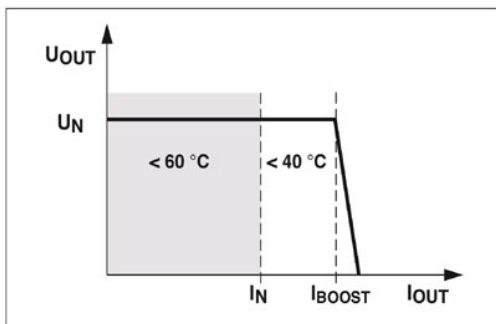
2938196	QUINT-PS-ADAPTERS7/1	Assembly adapter for QUINT POWER 2.5 A and 5 A on S7-300 rail
---------	----------------------	---

Drawings

Block diagram



Diagram



POWER BOOST