

QUINT-PS-100-240AC/48DC/10

Order No.: 2938248



<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2938248>

DIN rail power supply unit, primary-switched mode, 1-phase, output:
48 V DC / 10 A

Commercial data	
EAN	4046356013178
Pack	1 pcs.
Customs tariff	85044081
Weight/Piece	3.033 KG
Catalog page information	Page 484 (IF-2007)

Product notes

WEEE/RoHS-compliant since:
12/09/2006



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Product description

QUINT POWER 48 DC is a universal power supply unit of 240 W ... 960 W. In case of a regulated and adjustable output voltage of 30 V DC ... 56 V DC, output currents of 5 A, 10 A and 20 A are available.

The devices are built as primary switched-mode controllers and have a high degree of efficiency, due to which the heat loss is limited to a minimum.

The high operational safety is guaranteed reliably in unstable global networks as well. QUINT POWER also functions in applications where static voltage dips, transient failures of the supply voltage unit or phase failure are to be expected.

Generously dimensioned capacitors guarantee a mains buffering of more than 20 ms under full load. All three-phase QUINT POWER provide full output power, even in the event of a long-term phase failure.

A reliable starting of complex loads is ensured by a power reserve of up to 50% – the POWER BOOST.

A preventive function monitoring diagnoses improper operating states and minimizes downtimes in your system. For remote monitoring of this state, an active transistor switching output and a floating relay contact are available.

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. 4.76 A (120 V AC) 2.3 A (230 V AC)
Nominal power consumption	480 W
Inrush surge current	< 15 A (3.2 A ² s)
Power failure bypass	> 30 ms (120 V AC) > 35 ms (230 V AC)
Input fuse	12 A (slow-blow, internal)
Permissible backup fuse	10 A 16 A (characteristic B)
Name of protection	Transient surge protection
Protective circuit/component	Varistor

Output data

Nominal output voltage	48 V DC ±1%
Setting range of the output voltage	30 V DC ... 56 V DC
Output current	10 A (nominal value, up to 60°C) 13 A (with POWER BOOST)
Derating	From +60°C 2.5% per Kelvin
Connection in parallel	Yes, for redundancy and increased capacity
Connection in series	Yes
Max. capacitive load	Unlimited

Control deviation	< 1 % (change in load, static 10% ... 90%)
	< 5 % (change in load, dynamic 10% ... 90%)
	< 0.1 % (change in input voltage $\pm 10\%$)
Residual ripple	< 20 mV _{PP} (with nominal values)
Peak switching voltages nominal load	< 50 mV _{PP}
Maximum power dissipation idling	< 5 W
Power loss nominal load max.	< 56 W

General data

Width	157 mm
Height	130 mm
Depth	125 mm
Weight	2.5 kg
Efficiency	> 90 %
Insulation voltage input/output	4 kV AC (type test)
	2 kV AC (routine 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)	95 % (at 25°C, no condensation)
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
Immunity to interference	EN 61000-6-2:2005
Standard – Electrical equipment of machines	EN 60204
Standard - Safety of transformers	EN 61558-2-17
Standard - Electrical safety	EN 60950/VDE 0805 (SELV)
	EN 61558-2-17
Shipbuilding approval	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 – Safety extra-low voltage	EN 60950 (SELV)
	EN 60204 (PELV)

Standard - Safe isolation	DIN VDE 0100-410
	DIN VDE 0106-1010
Standard – Protection against electric shock	DIN 57100-410
Standard – Protection against shock currents, basic requirements for protective separation in electrical equipment	DIN VDE 0106-101
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
Surge voltage category	III

Connection data, input

Type of connection	Screw connection
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	6 mm ²
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded max.	4 mm ²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	10
Stripping length	7 mm
Screw thread	M3

Connection data, output

Type of connection	Screw connection
Conductor cross section solid min.	0.5 mm ²
Conductor cross section solid max.	16 mm ²
Conductor cross section stranded min.	0.5 mm ²
Conductor cross section stranded max.	10 mm ²
Conductor cross section AWG/kcmil min.	20
Conductor cross section AWG/kcmil max	6
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
Maximum inrush current	≤ 40 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.	0.5 mm ²
Conductor cross section solid max.	16 mm ²
Conductor cross section stranded min.	0.5 mm ²
Conductor cross section stranded max.	10 mm ²
Conductor cross section AWG/kcmil min.	20
Conductor cross section AWG/kcmil max	6
Tightening torque, min	1.2 Nm
Tightening torque max	1.5 Nm
Screw thread	M4
Output name	DC OK floating
Output description	Relay contact, $U_{OUT} > 0.9 \times U_N$: Contact closed
Maximum switching voltage	≤ 60 V AC/DC
Output voltage	≤ 60 V AC/DC
Maximum inrush current	≤ 0.5 A
Continuous load current	≤ 0.5 A
Status display	"DC OK" LED green
Note on status display	$U_{OUT} < 0.9 \times U_N$: LED flashing

Certificates / Approvals



Certification

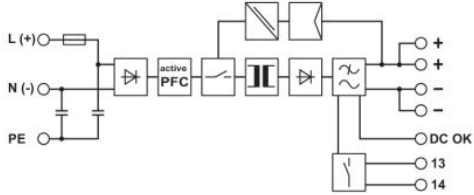
CB, CUL, CUL Listed, GOST, UL, UL Listed

Accessories

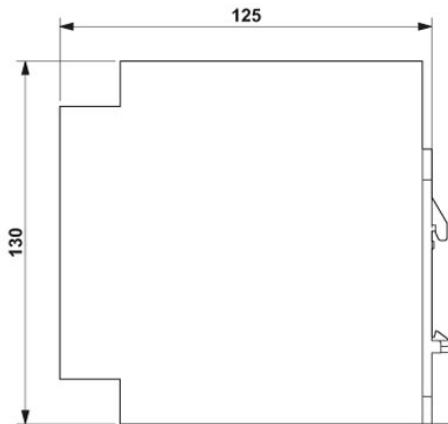
Item	Designation	Description
General		
2938235	UWA 182/52	Universal wall adapter

Diagrams/Drawings

Block diagram



Dimensioned drawing



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