

QUINT-PS-100-240AC/48DC/20

Order No.: 2938976



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DIN rail power supply unit, primary-switched mode, 1-phase, output:
48 V DC / 20 A

Commercial data	
EAN	4017918987107
Pack	1 pcs.
Customs tariff	85044081
Weight/Piece	3.806 KG
Catalog page information	Page 567 (IF-2009)

Product notes

WEEE/RoHS-compliant since:
11/22/2006



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Technical data	
Input data	
Nominal input voltage	110 V AC ... 240 V AC (Derating < 100 V AC; 2.5 %/V)
AC input voltage range	85 V AC ... 264 V AC
DC input voltage range	120 V DC ... 350 V DC (Not checked by UL!)
AC frequency range	45 Hz ... 65 Hz

DC frequency range	0 Hz
Current consumption	Approx. 11 A (120 V AC)
	4.5 A (230 V AC)
Nominal power consumption	960 W
Inrush surge current	< 15 A (typical)
Power failure bypass	> 20 ms (120 V AC)
	> 20 ms (230 V AC)
Input fuse	20 A (fast blow, internal)
Permissible backup fuse	16 A (characteristic B)
	25 A (characteristic B)
Name of protection	Transient surge protection
Protective circuit/component	Varistor

Output data

Nominal output voltage	48 V DC $\pm 1\%$
Setting range of the output voltage	30 V DC ... 56 V DC (> 48 V constant capacity)
Output current	20 A (-25 °C ... 60 °C)
	22.5 A (with POWER BOOST, < 40°C permanent)
Derating	From +60°C to 70°C: 2.5% per Kelvin
Connection in parallel	Yes, for redundancy and increased capacity
Connection in series	Yes
Max. capacitive load	Unlimited
Current limitation	Approx. $I_{BOOST} = 22.5$ A (for short circuit)
Control deviation	< 1 % (change in load, static 10% ... 90%)
	< 2 % (change in load, dynamic 10% ... 90%)
	< 0.1 % (change in input voltage $\pm 10\%$)
Residual ripple	< 25 mV _{PP} (with nominal values)
Peak switching voltages nominal load	< 30 mV _{PP} (20 MHz)
Maximum power dissipation idling	28 W
Power loss nominal load max.	80 W

General data

Width	240 mm
Height	130 mm
Depth	125 mm
Weight	3.5 kg

Operating voltage display	LED green
Efficiency	> 92 % (At 230 V AC and nominal values)
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 guideline 2004/108/EC and for low-voltage guideline 2006/95/EC
Emitted interference	EN 50081-2
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
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	8 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	10 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	≤ 20 mA
Continuous load current	≤ 20 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.	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

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	≤ 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

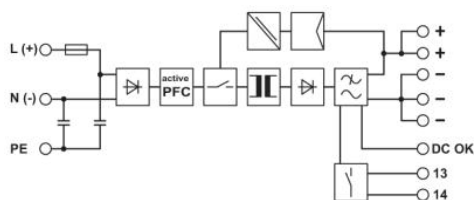
CUL, CUL Listed, GOST, UL, UL Listed

Accessories

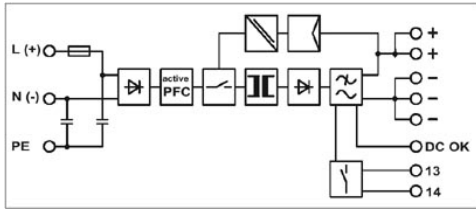
Item	Designation	Description
General		
2938235	UWA 182/52	Universal wall adapter

Diagrams/Drawings

Block diagram



Circuit diagram



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