

Power supply unit - QUINT-PS-100-240AC/48DC/10 - 2938248

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

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.



Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	3293.0 GRM
Custom tariff number	85044030
Country of origin	Thailand

Technical data

Dimensions

Width	157 mm
Height	130 mm
Depth	125 mm
Width with alternative assembly	122 mm
Height with alternative assembly	130 mm
Depth with alternative assembly	160 mm

Ambient conditions

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Technical data

Ambient conditions

Degree of protection	IP20
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, non-condensing)
Noise immunity	EN 61000-6-2:2005

Input data

Nominal input voltage range	100 V AC ... 240 V AC
Input voltage range	85 V AC ... 264 V AC
	90 V DC ... 350 V DC
AC frequency range	45 Hz ... 65 Hz
Frequency range DC	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)
Choice of suitable fuses	10 A ... 16 A (Characteristics B, C, D, K)
Type 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	60 °C (2.5%/K)
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 ± 10 %)
Residual ripple	< 20 mV _{PP} (with nominal values)
Peak switching voltages nominal load	< 50 mV _{PP}
Maximum power dissipation NO-Load	< 5 W

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Output data

Power loss nominal load max.	< 56 W
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General

Net weight	2.5 kg
Efficiency	> 90 %
Insulation voltage input/output	4 kV AC (type test) 2 kV AC (routine test)
Protection class	I (with PE connection)
MTBF (IEC 61709, SN 29500)	> 500000 h
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
Standard – Electrical equipment of machines	EN 60204
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), 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 60950-1 (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)
Information technology equipment - safety (CB scheme)	CB Scheme
UL approvals	UL/C-UL listed UL 508 UL/C-UL Recognized UL 60950
Surge voltage category	III

Connection data, input

Connection method	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

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Technical data

Connection data, input

Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	10
Stripping length	7 mm
Screw thread	M3

Connection data, output

Connection method	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	≤ 30 V AC/DC
Maximum inrush current	≤ 1 A
Continuous load current	≤ 1 A

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Signaling

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

Classifications

eCl@ss

eCl@ss 4.0	27040702
eCl@ss 4.1	27040702
eCl@ss 5.0	27049002
eCl@ss 5.1	27049002
eCl@ss 6.0	27049002
eCl@ss 7.0	27049002
eCl@ss 8.0	27049002

ETIM

ETIM 2.0	EC001039
ETIM 3.0	EC001039
ETIM 4.0	EC000599
ETIM 5.0	EC002540

UNSPSC

UNSPSC 6.01	30211502
UNSPSC 7.0901	39121004
UNSPSC 11	39121004
UNSPSC 12.01	39121004
UNSPSC 13.2	39121004

Approvals

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UL Recognized / UL Listed / cUL Recognized / GOST / cUL Listed / IECCEB Scheme / cUL Listed / cULus Recognized / cULus Listed / cULus Listed / cULus Listed / null / null / null / null

Ex Approvals

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Approvals

Approvals submitted

Approval details

UL Recognized 

UL Listed 

cUL Recognized 

GOST 

cUL Listed 

IECEE CB Scheme 

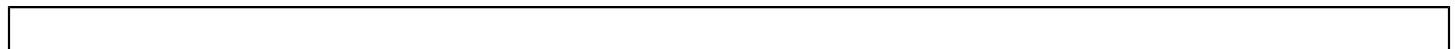
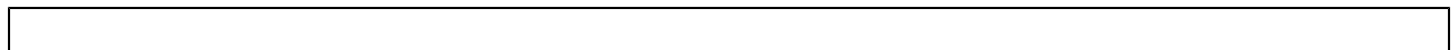
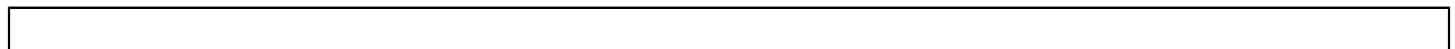
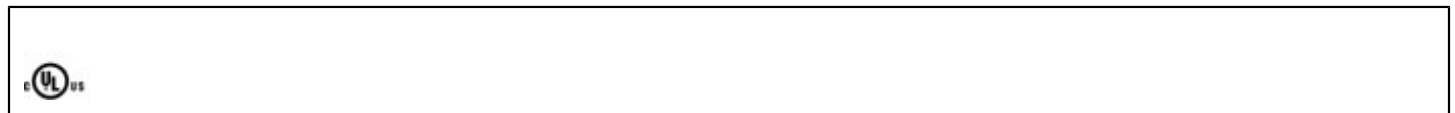
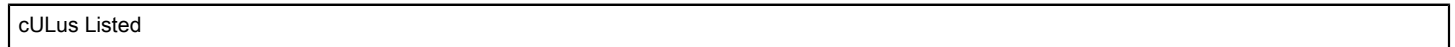
cUL Listed 

cULus Recognized 

cULus Listed 

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Approvals



Accessories

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Assembly adapter

Assembly adapters - UWA 182/52 - 2938235



Universal wall adapter

Mounting rail adapter

Assembly adapters - UTA 107 - 2853983

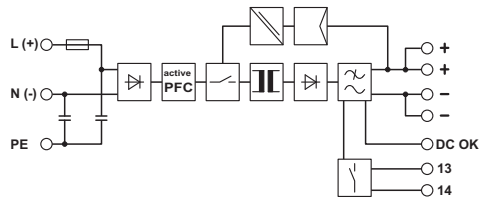
Universal DIN rail adapter



Drawings

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Block diagram



Dimensioned drawing

