

Power supply unit - QUINT-PS-100-240AC/24DC/10/EX - 2938866


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DIN rail power supply unit, primary-switched mode, 1-phase, output: 24 V DC / 10 A, for the potentially explosive area



Key Commercial Data

Packing unit	1 pc
GTIN	 4 017918 943486
Weight per Piece (excluding packing)	1300.0 g
Custom tariff number	85044030
Country of origin	Thailand

Technical data

Dimensions

Width	85 mm
Height	130 mm
Depth	125 mm
Width with alternative assembly	122 mm
Height with alternative assembly	130 mm
Depth with alternative assembly	88 mm

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Max. permissible relative humidity (operation)	100 % (condensation permitted)
Noise immunity	EN 61000-6-2:2005

Input data

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Input data

Nominal input voltage range	100 V AC ... 240 V AC
Input voltage range	85 V AC ... 264 V AC
	90 V DC ... 250 V DC
AC frequency range	45 Hz ... 65 Hz
Frequency range DC	0 Hz
Nominal power consumption	240 W
Inrush surge current	< 15 A (typical)
Power failure bypass	> 40 ms (120 V AC)
	> 40 ms (230 V AC)
Input fuse	6.3 A (slow-blow, internal)
Choice of suitable fuses	10 A ... 16 A (Characteristics B, C, D, K)

Output data

Nominal output voltage	24 V DC \pm 1 %
Setting range of the output voltage	22.5 V DC ... 28.5 V DC
Nominal output current	10 A (up to 60°C)
POWER BOOST	15 A
Derating	60 °C ... 70 °C (2.5%/K)
Connection in parallel	Yes, for redundancy and increased capacity
Connection in series	Yes
Residual ripple	< 100 mV _{PP}
Output current	10 A (up to +60°C)
Output power	240 W
Typical response time	< 1 s
Maximum power dissipation NO-Load	4 W
Power loss nominal load max.	33 W

General

Net weight	1.3 kg
Operating voltage display	Green LED
Efficiency	> 88 %
Insulation voltage input/output	4 kV AC (routine test)
	2 kV AC (type test)
Protection class	I
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
Noise emission	EN 55011 (EN 55022)
Declaration of conformity in acc. with EN 60079-15	# II 3 G Ex nAC IIC T4 X
ATEX	# II 3 G Ex nA nC IIC T4 Gc X
Standard - Safety of transformers	EN 61558-2-17

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General

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
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
	UL ANSI/ISA-12.12.01 Class I, Division 2, Groups A, B, C, D (Hazardous Location)

Connection data, input

Connection method	Pluggable screw connection
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	2.5 mm ²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	12
Stripping length	7 mm
Screw thread	M3

Connection data, output

Connection method	Pluggable screw connection
Conductor cross section solid min.	0.5 mm ²
Conductor cross section solid max.	16 mm ²
Conductor cross section flexible min.	0.5 mm ²
Conductor cross section flexible max.	10 mm ²
Conductor cross section AWG min.	20
Conductor cross section AWG max.	6
Stripping length	7 mm
Screw thread	M4

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

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Signaling

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 flexible min.	0.5 mm ²
Conductor cross section flexible max.	10 mm ²
Conductor cross section AWG min.	20
Conductor cross section AWG max.	6
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
Status display	"DC OK" LED green

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

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Approvals

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UL Recognized / UL Listed / cUL Recognized / cUL Listed / GL / IECCEB Scheme / EAC / EAC / cULus Recognized / cULus Listed

Ex Approvals

UL Listed / cUL Listed / ATEX / cULus Listed

Approvals submitted

Approval details

UL Recognized

UL Listed

cUL Recognized

cUL Listed

GL

IECCEB Scheme

EAC

EAC

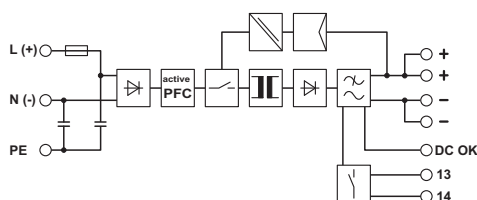
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Approvals

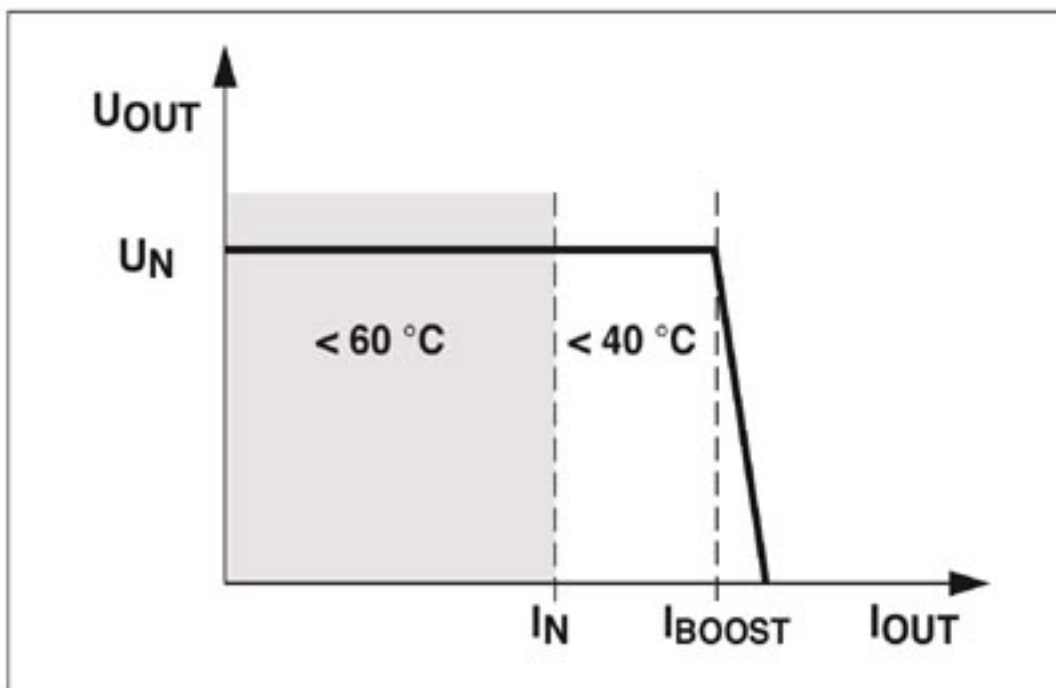


Drawings

Block diagram



Diagram



POWER BOOST