Power supply unit - QUINT-PS-100-240AC/24DC/ 5/EX - 2938853

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DIN rail power supply unit, primary-switched mode, 1-phase, output: 24 V DC / 5 A, for the potentially explosive area

Key Commercial Data

Packing unit	1 pc
GTIN	4 017918 927233
Weight per Piece (excluding packing)	1000.0 g
Custom tariff number	85044030
Country of origin	Thailand

Technical data

Dimensions

Width	55 mm
Height	130 mm
Depth	125 mm
Width with alternative assembly	122 mm
Height with alternative assembly	130 mm
Depth with alternative assembly	58 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	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)
Choice of suitable fuses	6 A ... 16 A (Characteristics B, C, D, K)

Output data

Nominal output voltage	24 V DC ±1 %
Setting range of the output voltage	22.5 V DC ... 28.5 V DC
Nominal output current	5 A (up to 60°C)
POWER BOOST	7.5 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	5 A (up to +60°C)
Output power	120 W
Typical response time	< 1 s
Peak switching voltages nominal load	< 50 mV_{PP} (20 MHz)
Maximum power dissipation NO-Load	2.7 W
Power loss nominal load max.	18 W

General

Net weight	1 kg
Operating voltage display	Green LED
Efficiency	> 87 %
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

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General

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)
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/C-UL Listed UL 1604 Class I, Division 2, Groups A, B, C, D

Connection data, input

Connection method	Pluggable screw connection
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	2.5 mm²
Conductor cross section flexible min.	0.2 mm²
Conductor cross section flexible max.	2.5 mm²
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.	0.2 mm²
Conductor cross section solid max.	2.5 mm²
Conductor cross section flexible min.	0.2 mm²
Conductor cross section flexible max.	2.5 mm²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	12
Stripping length	7 mm
Screw thread	M3

Signaling

Output name	DC OK active
Output description	U_{OUT} > 0.9 x 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 x U_N: LED flashing
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	2.5 mm²
Conductor cross section flexible min.	0.2 mm²
Conductor cross section flexible max.	2.5 mm²
Conductor cross section AWG min.	24
Conductor cross section AWG 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 x 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

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

Approvals

Approvals

UL Recognized / UL Listed / cUL Recognized / cUL Listed / GL / IECEE CB 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

IECEE CB Scheme

EAC

EAC

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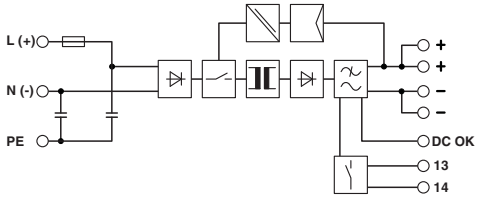
Approvals

cULus Recognized

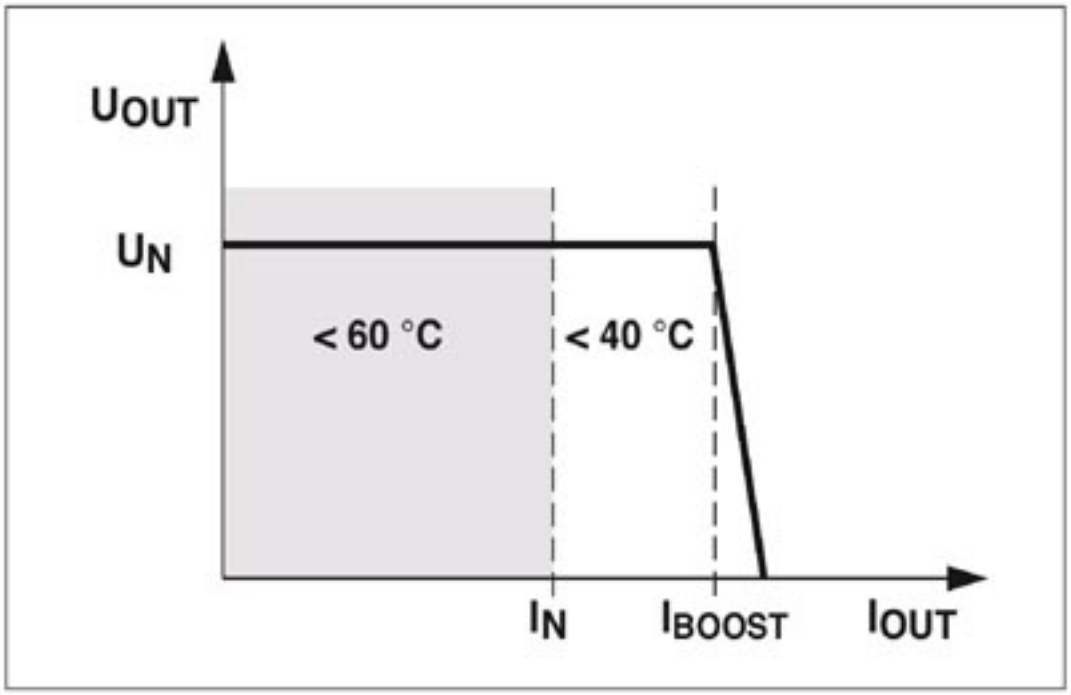
cULus Listed

Drawings

Block diagram



Diagram



POWER BOOST