QUINT-PS-100-240AC/48DC/ 5 - Power supply

2866255

https://www.phoenixcontact.com/us/products/2866255

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DIN rail power supply unit, primary-switched mode, 1-phase, output: 48 V DC / 5 A

Commercial data

Item number	2866255
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	CM11
Product key	CMPP14
GTIN	4017918951191
Weight per piece (including packing)	1,466.6 g
Weight per piece (excluding packing)	1,300 g
Customs tariff number	85044030
Country of origin	TH

Technical data

Input data

AC operation

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
Input voltage range AC	85 V AC ... 264 V AC
Input voltage range DC	90 V DC ... 350 V DC
Voltage type of supply voltage	AC/DC
Inrush current	< 15 A (typical)
Inrush current integral (I^2t)	1.5 A^2s
AC frequency range	45 Hz ... 65 Hz
Frequency range DC	0 Hz
Mains buffering time	> 50 ms (120 V AC)
	> 50 ms (230 V AC)
Current consumption	approx. 2.2 A (120 V AC)
	1.2 A (230 V AC)
Nominal power consumption	263 W
Protective circuit	Transient surge protection; Varistor
Typical response time	< 1 s
Input fuse	6.3 A (slow-blow, internal)
Permissible backup fuse	B10 B16
Recommended breaker for input protection	10 A ... 16 A (Characteristics B, C, D, K)

Output data

Efficiency	> 91 %
Nominal output voltage	48 V DC ±1 %
Setting range of the output voltage (U_{Set})	40 V DC ... 56 V DC
Nominal output current (I_N)	5 A (up to 60 °C)
POWER BOOST (I_{Boost})	7.5 A
Max. capacitive load	unlimited
Residual ripple	< 30 mV_{PP}
Output power	240 W
Peak switching voltages nominal load	< 50 mV_{PP} (20 MHz)
Maximum no-load power dissipation	2 W
Power loss nominal load max.	24 W
Connection in parallel	yes, for redundancy and increased capacity
Connection in series	yes

Signal: DC OK active

Output description	U_{OUT} > 0.9 x U_N: High signal
Maximum switching voltage	≤ 24 V

Output voltage	+ 24 V DC
Maximum inrush current	≤ 20 mA
Continuous load current	≤ 40 mA

Signal: 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	≤ 1 A
Continuous load current	≤ 1 A

Connection data

Input

Connection method	Pluggable screw connection
Conductor cross-section, rigid min.	0.2 mm²
Conductor cross-section, rigid 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

Output

Connection method	Pluggable screw connection
Conductor cross-section, rigid min.	0.2 mm²
Conductor cross-section, rigid 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
Tightening torque, min	0.5 Nm
Tightening torque max	0.6 Nm

Signal

Conductor cross-section, rigid min.	0.2 mm²
Conductor cross-section, rigid 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
Screw thread	M3
Tightening torque, min	0.5 Nm
Tightening torque max	0.6 Nm

Signaling

Types of signaling	LED
	Active switching output
	Relay contact
Operating voltage display	Green LED

Signal output: DC OK active

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

Signal output: DC OK floating

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

Electrical properties

Number of phases	1
Insulation voltage input/output	4 kV (type test)
	2 kV (routine test)

Product properties

Product type	Power supply
Product family	QUINT POWER
MTBF (IEC 61709, SN 29500)	> 500000 h

Insulation characteristics

Protection class	I (with PE connection)

Dimensions

Width	85 mm
Height	130 mm
Depth	125 mm

Alternative assembly

Width	122 mm
Height	130 mm
Depth	88 mm

Mounting

Mounting type	DIN rail mounting
Assembly note	alignable: horizontally 0 mm, vertically 50 mm
Mounting position	horizontal DIN rail NS 35, EN 60715

Material specifications

Housing material	Metal
Type of housing	AluNox (AlMg1)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 70 °C (> 60 °C Derating: 2,5 %/K)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Max. permissible relative humidity (operation)	95 % (at 25 °C, non-condensing)

Standards and regulations

Standard – Electronic equipment for use in electrical power installations and their assembly into electrical power installations	EN 50178/VDE 0160 (PELV)
Standard – Limitation of mains harmonic currents	EN 61000-3-2
Standard - Electrical safety	EN 60950-1/VDE 0805 (SELV)
	EN 61558-2-17
Standard - Equipment safety	GS (tested safety)
Standard - Safe isolation	DIN VDE 0100-410
Standard - Safety of transformers	EN 61558-2-17

Approvals

UL approvals	UL/C-UL Recognized UL 60950-1
	UL/C-UL listed UL 508

EMC data

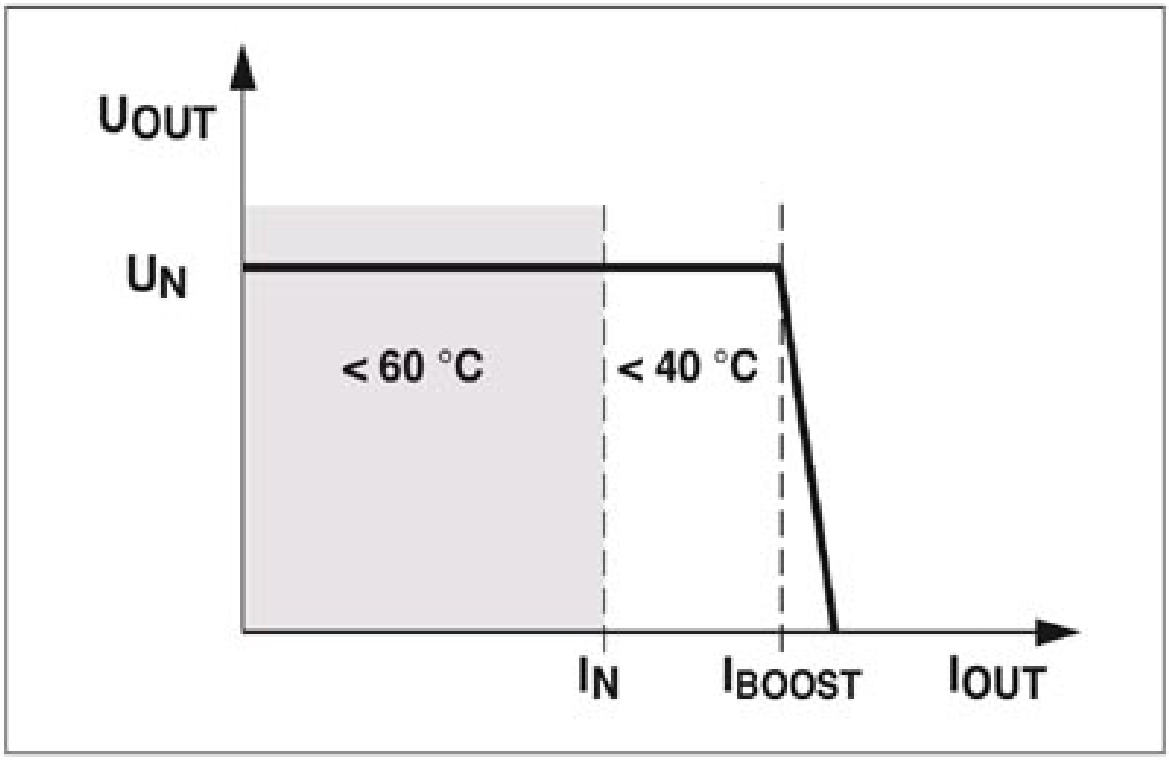
Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Low Voltage Directive	Conformance with Low Voltage Directive 2014/35/EC
EMC requirements for noise emission	EN 61000-6-3
	EN 61000-6-4
EMC requirements for noise immunity	EN 61000-6-1
	EN 61000-6-2

Noise emission

Standards/regulations	EN 55011 (EN 55022)

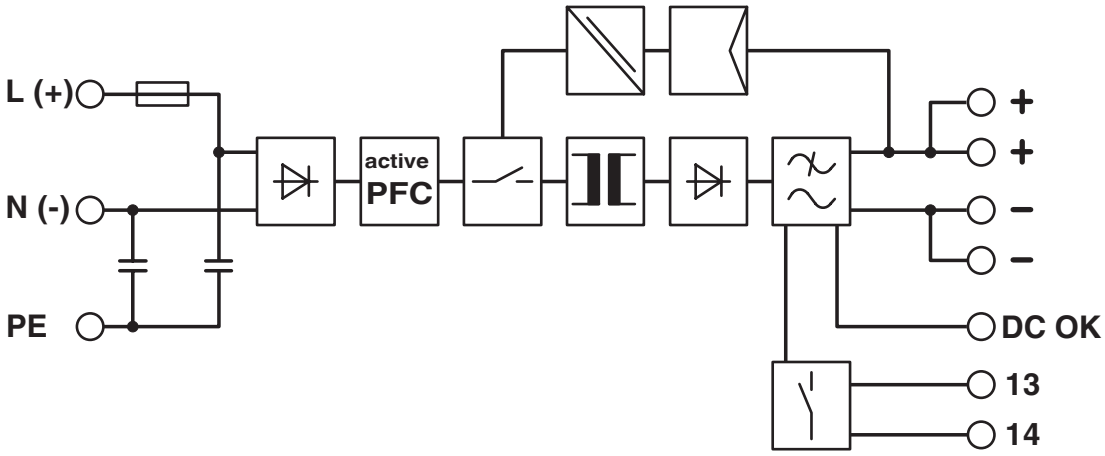
Drawings

Diagram



POWER BOOST

Block diagram



Classifications

UNSPSC

UNSPSC 21.0	39121004

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c), 7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-25
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)

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