

QUINT-PS-100-240AC/12DC/10 - Power supply unit



2938811

<https://www.phoenixcontact.com/us/products/2938811>

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DIN rail power supply unit 12 V DC/10 A, primary-switched, 1-phase.
Please use the following item in new systems: 2904608

Product description

QUINT POWER power supply units for plant and special engineering reliably start heavy loads with high inrush currents using the POWER BOOST. Thanks to the wide-range input and extensive package of approvals, they can be used in all sectors of industry the world over. The switching output or floating relay contact are used for remote diagnostics.

Commercial data

Item number	2938811
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	CM11
Product key	CMPP12
Catalog page	Page 486 (IF-2007)
GTIN	4017918916374
Weight per piece (including packing)	1,497.4 g
Weight per piece (excluding packing)	1,497.4 g
Customs tariff number	85044030
Country of origin	TH

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Technical data

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
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 A ² s
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. 1.5 A (120 V AC) 0.6 A (230 V AC)
Nominal power consumption	139 W
Typical response time	< 1 s
Input fuse	6.3 A (slow-blow, internal)
Permissible DC backup fuse	DC: Connect a suitable fuse upstream
Recommended breaker for input protection	10 A ... 16 A (Characteristics B, C, D, K)

Output data

Efficiency	> 84 %
Nominal output voltage	12 V DC \pm 1 %
Setting range of the output voltage (U_{Set})	11.5 V DC ... 18 V DC
Nominal output current (I_N)	10 A (up to 60 °C)
POWER BOOST (I_{Boost})	16 A
Derating	60 °C ... 70 °C (2.5%/K)
Feedback voltage resistance	35 V DC
Protection against overvoltage at the output (OVP)	\leq 35 V DC
Max. capacitive load	unlimited
Residual ripple	< 30 mV _{PP}
Output power	120 W
Peak switching voltages nominal load	< 50 mV _{PP} (20 MHz)
Maximum no-load power dissipation	< 4 W
Power loss nominal load max.	< 22 W
Connection in parallel	yes, for redundancy and increased capacity
Connection in series	yes

Signal: DC OK active

Output description	$U_{OUT} > 0.9 \times U_N$: High signal
Maximum switching voltage	\leq 12 V

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Output voltage	+ 12 V DC
Maximum inrush current	≤ 40 mA
Continuous load current	≤ 40 mA

Signal: 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

Connection data

Input

Connection method	Screw connection
Conductor cross section, rigid min.	0.2 mm ²
Conductor cross section, rigid 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

Output

Connection method	Screw connection
Conductor cross section, rigid min.	0.2 mm ²
Conductor cross section, rigid 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
Tightening torque, min	0.5 Nm

Signal

Conductor cross section, rigid min.	0.2 mm ²
Conductor cross section, rigid 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
Screw thread	M3
Tightening torque, min	0.5 Nm
Tightening torque max	0.6 Nm

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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	$U_{OUT} < 0.9 \times U_N$: LED flashing

Signal output: DC OK floating

Status display	"DC OK" LED green
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Electrical properties

Insulation voltage input/output	2 kV (routine test)
	4 kV (type 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)
Degree of pollution	2

Dimensions

Width	85 mm
Height	130 mm
Depth	130 mm

Installation dimensions

Installation distance right/left	0 mm / 0 mm
Installation distance top/bottom	50 mm / 50 mm

Alternative assembly

Width	122 mm
Height	88 mm
Depth	88 mm

Mounting

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

Material specifications

Housing material	Metal
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Type of housing	AluNox (AlMg1)
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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 – Limitation of mains harmonic currents	EN 61000-3-2
Standard - Electrical safety	EN 62368-1
Standard - Equipment safety	GS (tested safety)
Standard – Protection against shock currents, basic requirements for protective separation in electrical equipment	EN 62368-1
Standard – Safety extra-low voltage	EN 62368-1 (SELV)
	EN 60204 (PELV)
Standard - Safe isolation	DIN VDE 0100-410

Approvals

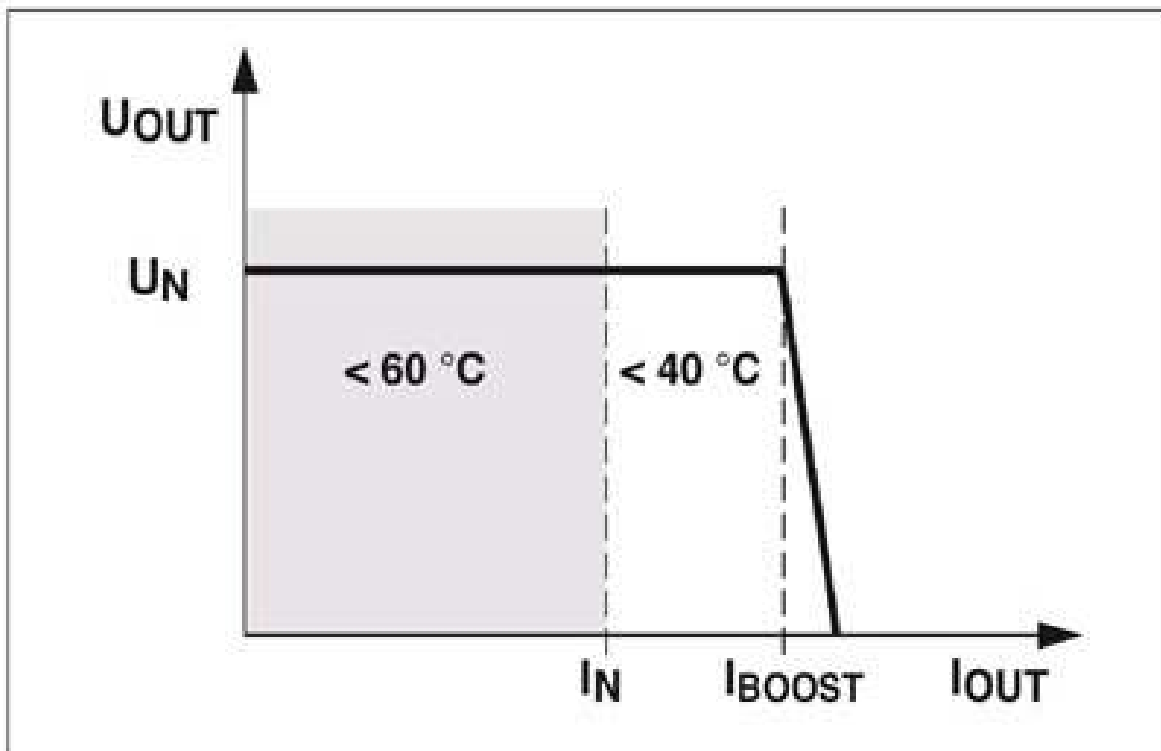
Shipbuilding approval	DNV GL (EMC A)
UL approvals	UL/C-UL Recognized UL 60950-1
	UL/C-UL listed UL 508
	UL/C-UL Listed UL 1604 Class I, Division 2, Groups A, B, C, D

EMC data

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
Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU

Drawings

Diagram



POWER BOOST

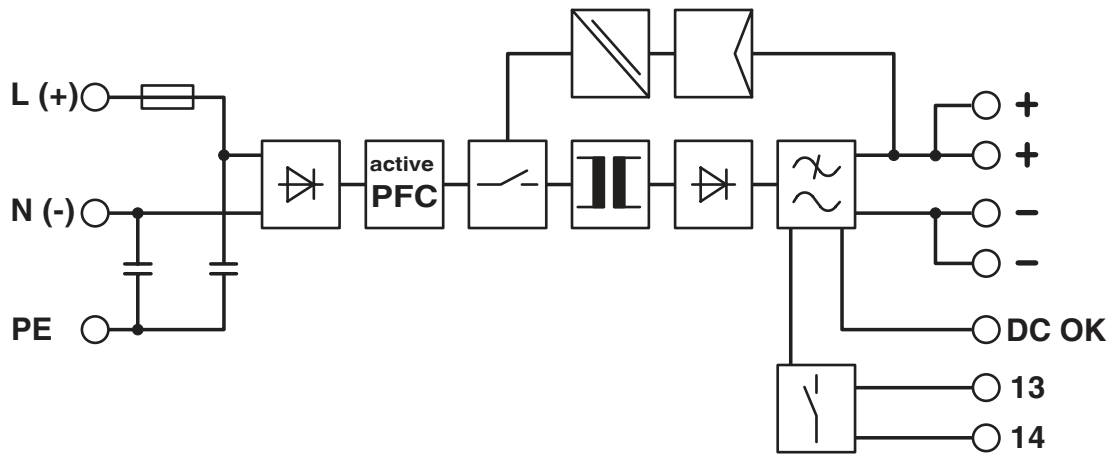
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Block diagram



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Approvals

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cUL Recognized
Approval ID: FILE E 211944



UL Recognized
Approval ID: FILE E 211944



EAC
Approval ID: EAC-Zulassung



EAC
Approval ID: RU S-DE.BL08.W.00764



UL Listed
Approval ID: FILE E 123528



cUL Listed
Approval ID: FILE E 123528



EAC
Approval ID: RU S-DE.BL08.W.00764



cUL Listed
Approval ID: FILE E 199827



UL Listed
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Classifications

ECLASS

ECLASS-11.0

27040701

ETIM

ETIM 8.0

EC002540

UNSPSC

UNSPSC 21.0

39121000

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Environmental product compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 25;
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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Accessories

QUINT-PS-ADAPTERS7/2 - Mounting adapter

2938206

<https://www.phoenixcontact.com/us/products/2938206>

Assembly adapter for QUINT POWER 10A on S7-300 rail



UWA 182/52 - Mounting adapter

2938235

<https://www.phoenixcontact.com/us/products/2938235>

Universal wall adapter for securely mounting the device in the event of strong vibrations. The device is screwed directly onto the mounting surface. The universal wall adapter is attached on the top/bottom.



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UTA 107 - DIN rail adapter

2853983

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Universal DIN rail adapter, for screwing on switchgear



PLT-SEC-T3-230-FM-UT - Type 3 surge protection device

2907919

<https://www.phoenixcontact.com/us/products/2907919>



Type 2/3 surge protection, consisting of protective plug and base element with screw connection. For single-phase power supply network with integrated status indicator and remote signaling. Nominal voltage: 230 V AC/DC

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TTC-6P-T3-24DC-PT-I - Type 3 surge protection device

1027586

<https://www.phoenixcontact.com/us/products/1027586>



Type 3 surge protection, consisting of protective plug and base element, with integrated status indicator for 24 V DC power supplies

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