

Power supply unit - QUINT4-PS/1AC/12DC/7.5/PT - 2904607

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Primary-switched power supply unit, QUINT POWER, Push-in connection, DIN rail mounting, input: 1-phase, output: 12 V DC / 7.5 A

Your advantages

- ✓ Starting of heavy loads with dynamic boost
- ✓ Preventive function monitoring indicates critical operating states before errors occur
- ✓ High efficiency and long service life, with low power dissipation and low heating
- ✓ Space savings in the control cabinet, thanks to a narrow, slim-line design
- ✓ Fast and easy startup, thanks to tool-free Push-in connection technology



Key Commercial Data

Packing unit	1 pc
GTIN	 4 055626 255767
GTIN	4055626255767

Technical data

Dimensions

Width	45 mm
Height	106 mm
Depth	90 mm

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 70 °C (> 60 °C Derating: 2.5 %/K)
Ambient temperature (start-up type tested)	-40 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Max. permissible relative humidity (operation)	≤ 95 % (at 25 °C, non-condensing)
Climatic class	3K3 (in acc. with EN 60721)
Degree of pollution	2

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Ambient conditions

Installation height	≤ 5000 m (> 2000 m, observe derating)
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Input data

Input voltage range	100 V AC ... 240 V AC -15 % ... +10 %
	110 V DC ... 250 V DC -20 % ... +40 %
Dielectric strength maximum	300 V AC 60 s
Frequency range (f _N)	50 Hz ... 60 Hz -10 % ... +10 %
Discharge current to PE	< 0.25 mA (264 V AC, 60 Hz)
Current consumption	1 A (100 V AC)
	0.85 A (120 V AC)
	0.46 A (230 V AC)
	0.44 A (240 V AC)
Nominal power consumption	96.3 VA
Inrush current	typ. 11.4 A (at 25 °C)
Mains buffering time	typ. 48 ms (120 V AC)
	typ. 48 ms (230 V AC)
Input fuse	3.15 A (slow-blow, internal)
Recommended breaker for input protection	6 A ... 16 A (Characteristic B, C or comparable)
Type of protection	Transient surge protection
Protective circuit/component	Varistor

Output data

Nominal output voltage	12 V
Setting range of the output voltage (U _{Set})	12 V DC ... 15 V DC (constant capacity)
Nominal output current (I _N)	7.5 A
Dynamic Boost (I _{Dyn.Boost})	12.75 A (≤ 60 °C (5 s))
Connection in parallel	Yes, for redundancy and increased capacity
Connection in series	yes
Feedback voltage resistance	≤ 25 V DC
Protection against overvoltage at the output (OVP)	≤ 18 V DC
Control deviation	< 0.3 % (Static load change 10 % ... 90 %)
	< 3 % (Dynamic load change 10 % ... 90 %, (10 Hz))
	< 0.1 % (change in input voltage ±10 %)
Residual ripple	< 35 mV _{PP} (with nominal values)
Output power	90 W
Typical response time	300 ms
Maximum power dissipation in no-load condition	< 0.6 W (230 V AC)
	< 0.6 W (120 V AC)
Power loss nominal load max.	< 8.1 W (120 V AC)
	< 7.1 W (230 V AC)

General

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Technical data

General

Net weight	0.3 kg
Efficiency	typ. 91.5 % (120 V AC)
	typ. 92.5 % (230 V AC)
Insulation voltage input/output	4 kV AC (type test)
	3 kV AC (routine test)
Protection class	II
Degree of protection	IP20
MTBF (IEC 61709, SN 29500)	> 1221000 h (25 °C)
	> 671000 h (40 °C)
	> 248000 h (60 °C)

Connection data, input

Connection method	Push-in 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.	14
Stripping length	10 mm

Connection data, output

Connection method	Push-in 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.	14
Stripping length	10 mm

Connection data for signaling

Connection method	Push-in 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.	14
Stripping length	10 mm

Standards

Standard - Safety of transformers	EN 61558-2-16
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Standards

Standard - safety for equipment for measurement, control, and laboratory use	IEC 61010-1
Standard – Safety extra-low voltage	IEC 61010-1 (SELV)
	IEC 61010-2-201 (PELV)
Standard - Safe isolation	IEC 61558-2-16
Standard – Limitation of mains harmonic currents	EN 61000-3-2

Conformance/approvals

UL approvals	UL Listed UL 61010-1
	UL Listed UL 61010-2-201
	ANSI/UL 121201 Class I, Division 2, Groups A, B, C, D (Hazardous Location)
SIQ	CB-Scheme (IEC 61010-1, IEC 61010-2-201)

EMC data

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Conducted noise emission	EN 55016
	EN 61000-6-3 (Class B)
Noise emission	EN 55016
	EN 61000-6-3 (Class B)
Harmonic currents	EN 61000-3-2
	EN 61000-3-2 (Class A)
Flicker	EN 61000-3-3
Electrostatic discharge	EN 61000-4-2
Contact discharge	8 kV (Test Level 4)
Discharge in air	15 kV (Test Level 4)
Electromagnetic HF field	EN 61000-4-3
Frequency range	80 MHz ... 1 GHz
Test field strength	20 V/m (Test Level 3)
Frequency range	1 GHz ... 6 GHz
Test field strength	10 V/m (Test Level 3)
Comments	Criterion A
Fast transients (burst)	EN 61000-4-4
Input	4 kV (Test Level 4 - asymmetrical)
Output	4 kV (Test Level 4 - asymmetrical)
Signal	4 kV (Test Level 4 - asymmetrical)
Comments	Criterion A
Surge voltage load (surge)	EN 61000-4-5
Input	2 kV (Test Level 4 - symmetrical)
	4 kV (Test Level 4 - asymmetrical)
Output	1 kV (Test Level 3 - symmetrical)
	2 kV (Test Level 3 - asymmetrical)

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Technical data

EMC data

Signal	0.5 kV (Test Level 2 - symmetrical)
Comments	Criterion A
I/O/S	asymmetrical
Frequency range	0.15 MHz ... 80 MHz
Voltage	10 V (Test Level 3)
Comments	Criterion A
Frequency	16.67 Hz
	50 Hz
	60 Hz
Test field strength	100 A/m
Additional text	60 s
Comments	Criterion A
Frequency	50 Hz
	60 Hz
Test field strength	1 kA/m
Additional text	3 s
Frequency	0 Hz
Test field strength	300 A/m
Additional text	DC, 60 s
Voltage dips	EN 61000-4-11
Voltage	100 V AC
Frequency	60 Hz
Voltage dip	70 %
Number of periods	0.5 / 1 / 30 periods
Additional text	Test Level 2
Comments	Criterion A
Voltage dip	40 %
Number of periods	5 / 10 / 50 periods
Additional text	Test Level 2
Comments	Criterion B
Voltage dip	0 %
Number of periods	0.5 / 1 / 5 / 50 periods
Additional text	Test Level 2
Comments	Criterion B
Pulse-shape magnetic field	EN 61000-4-9
Test field strength	1000 A/m
Comments	Criterion A
Attenuated sinusoidal oscillations (ring wave)	EN 61000-4-12
Input	2 kV (symmetrical)
	4 kV (asymmetrical)

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Technical data

EMC data

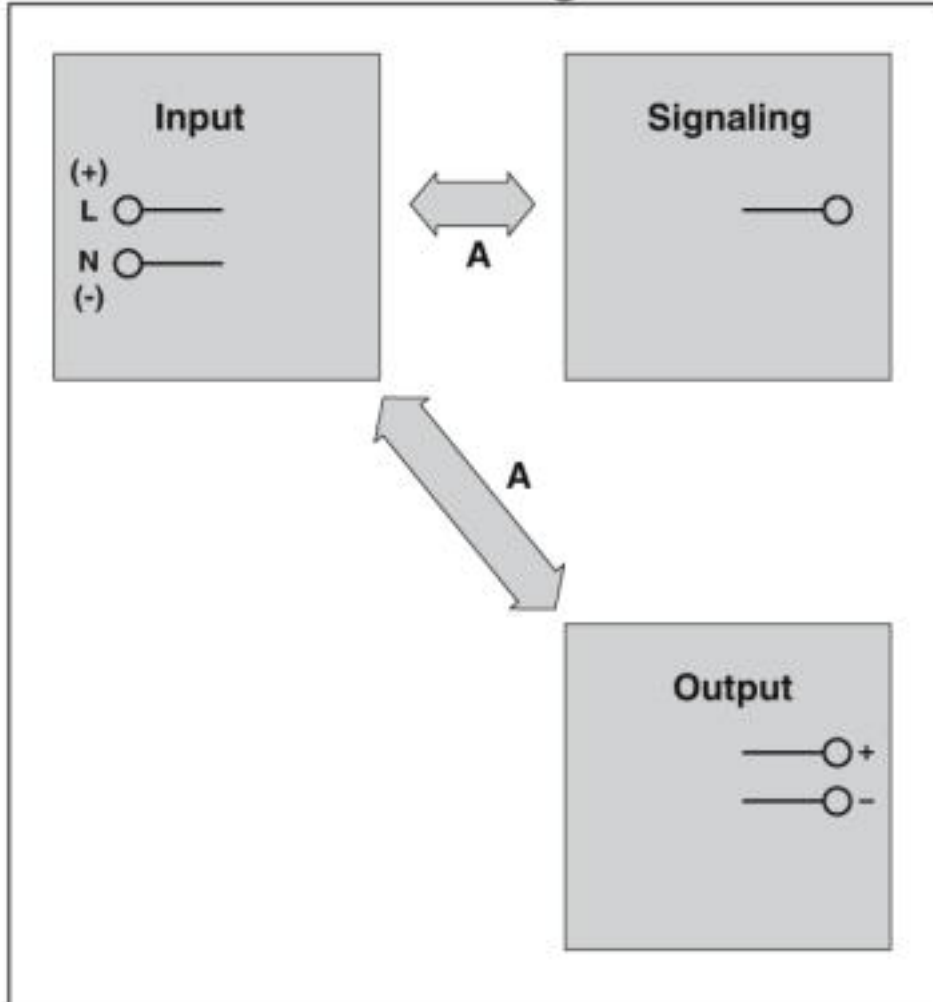
Comments	Criterion A
Asymmetrical conducted disturbance variables	EN 61000-4-16
Test level 1	16.67 Hz 50 Hz 60 Hz 150 Hz 180 Hz (Test Level 3)
Voltage	30 V (10 s)
Test level 2	16.67 Hz 50 Hz 60 Hz (Test Level 2)
Voltage	300 V (1 s)
Comments	Criterion A
Attenuated oscillating wave	EN 61000-4-18
Voltage	1 kV (symmetrical)
	2.5 kV (asymmetrical)
	1 kV (symmetrical)
Comments	Criterion A
Criterion A	Normal operating behavior within the specified limits.
Criterion B	Temporary impairment to operational behavior that is corrected by the device itself.
Criterion C	Temporary adverse effects on the operating behavior, which the device corrects automatically or which can be restored by actuating the operating elements.

Drawings

Power supply unit - QUINT4-PS/1AC/12DC/7.5/PT - 2904607

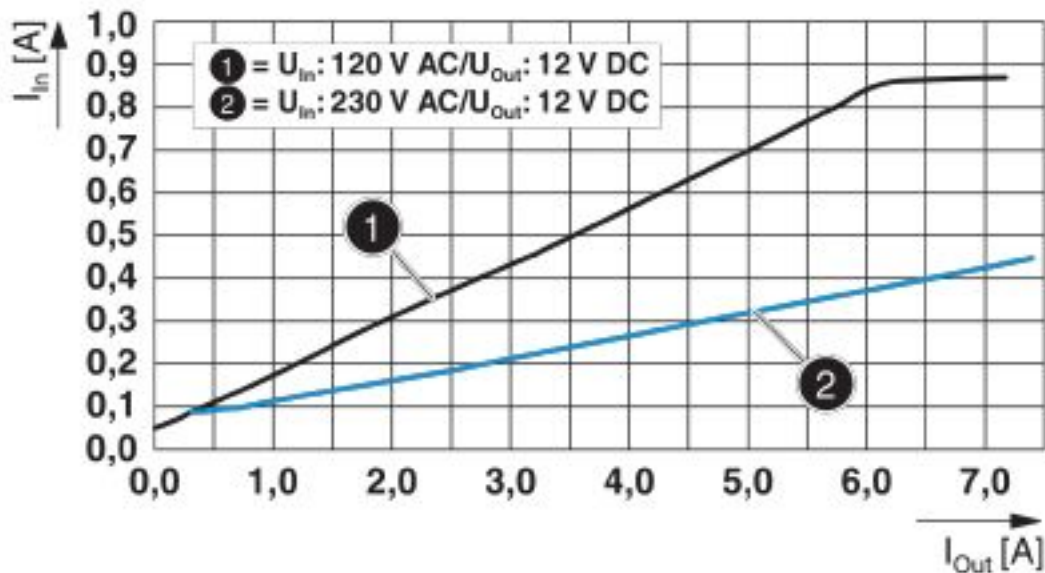
Schematic diagram

Housing

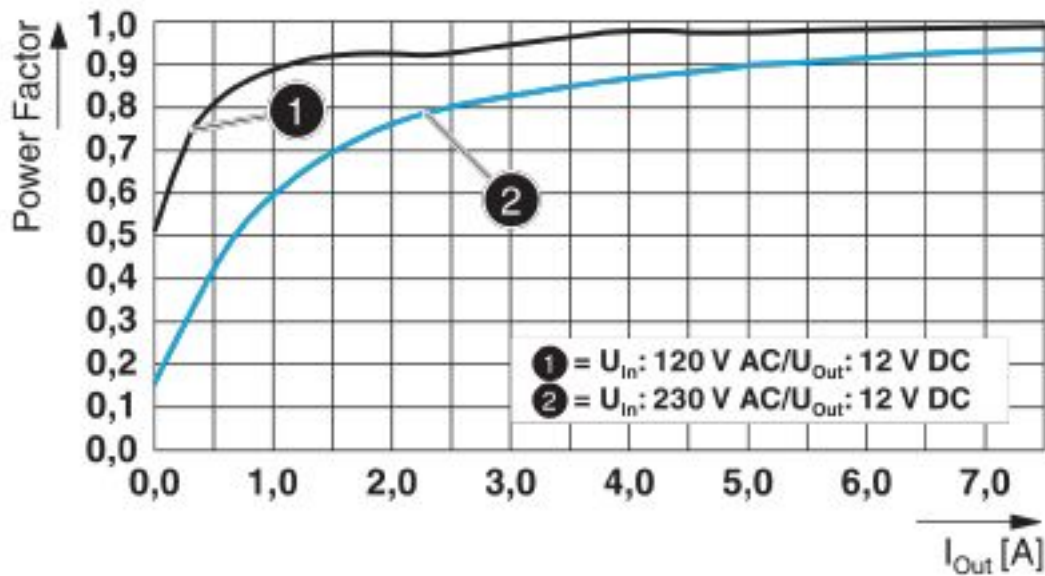


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Diagram

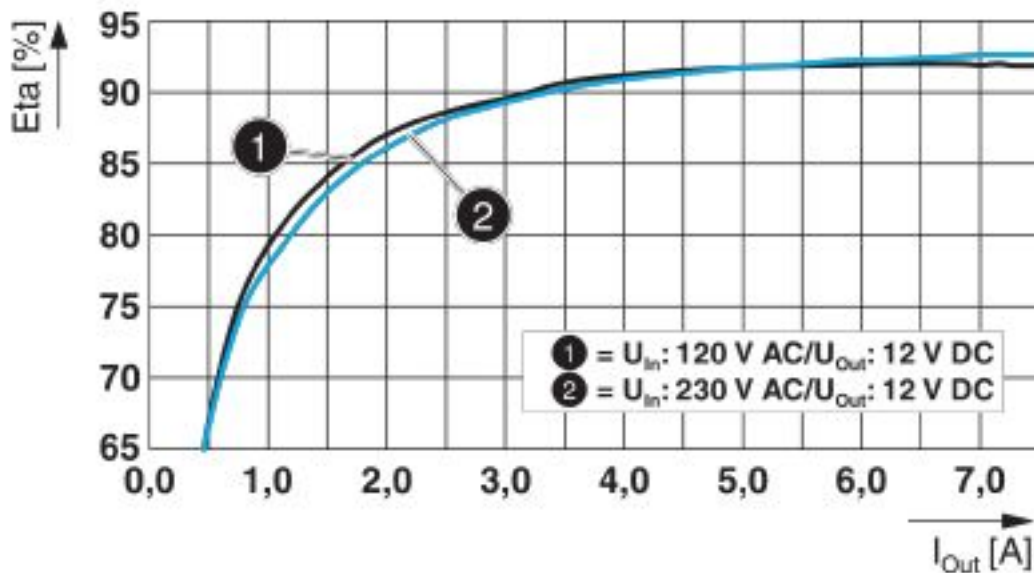


Diagram

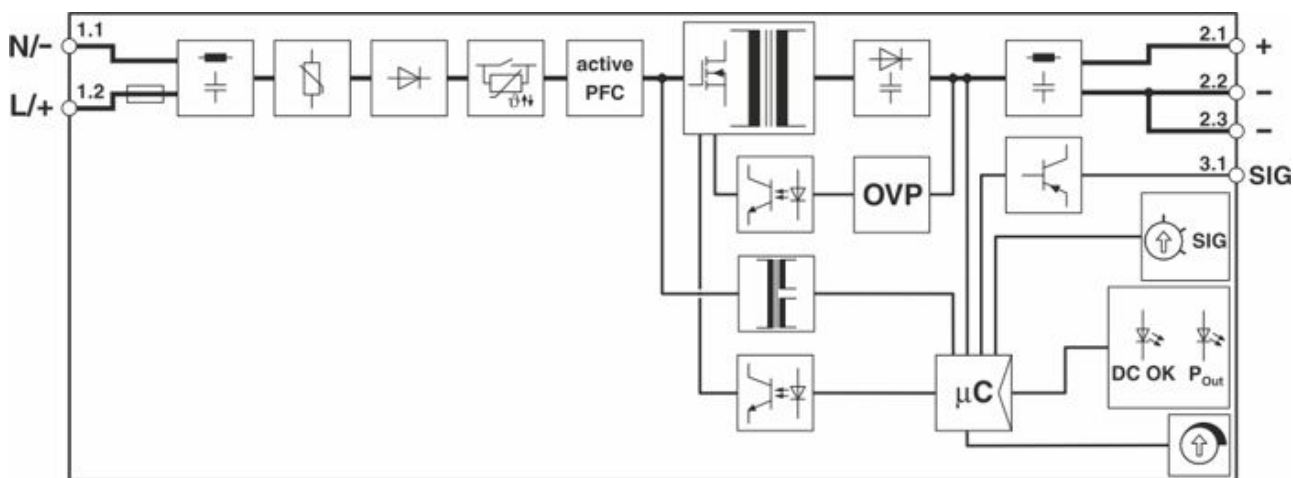


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Diagram



Block diagram



Approvals

Approvals

Approvals

UL Listed / IECCE CB Scheme / cUL Listed / EAC / DNV GL / cULus Listed

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Approvals

Ex Approvals

UL Listed / cUL Listed / cULus Listed

Approval details

UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 123528
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IECEE CB Scheme		http://www.iecee.org/	SI-7008
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cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 123528
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EAC			RU C- DE.A*30.B.01082
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DNV GL		https://approvalfinder.dnvgl.com/	TAA00001SN
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cULus Listed			
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