

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



2904607

<https://www.phoenixcontact.com/us/products/2904607>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Primary-switched power supply unit QUINT POWER, Push-in connection, DIN rail mounting, input: 1-phase, output: 12 V DC / 7.5 A, adjustable from 12 V DC ... 15 V DC

## Product description

Our small QUINT POWER power supplies cover the power range from 30 to 100 W. These compact power supplies provide you with a perfect combination of preventive function monitoring and exceptional power reserves in a compact size.

## 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

## Commercial data

Item number	2904607
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CM10
Product key	CMPI12
GTIN	4055626255767
Weight per piece (including packing)	384.6 g
Weight per piece (excluding packing)	307 g
Customs tariff number	85044095
Country of origin	VN

## Technical data

### Input data

#### AC operation

Input voltage range	100 V AC ... 240 V AC -15 % ... +10 %
Electric strength, max.	300 V AC 60 s
Typical national grid voltage	120 V AC
	230 V AC
Voltage type of supply voltage	AC
Inrush current	typ. 11.4 A (at 25 °C)
Inrush current integral ( $I^2t$ )	< 0.2 A <sup>2</sup> s
Inrush current limitation	< 11.4 A
Frequency range ( $f_N$ )	50 Hz ... 60 Hz -10 % ... +10 %
Mains buffering time	typ. 48 ms (120 V AC)
	typ. 48 ms (230 V AC)
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
Protective circuit	Transient surge protection; Varistor
Typical response time	300 ms
Input fuse	3.15 A (slow-blow, internal)
Recommended breaker for input protection	6 A ... 16 A (Characteristic B, C or comparable)
Discharge current to PE	< 0.25 mA (264 V AC, 60 Hz)
	< 0.17 mA

#### DC operation

Input voltage range	110 V DC ... 250 V DC -20 % ... +40 %
Voltage type of supply voltage	DC
Current consumption	0.92 A (110 V DC)
	0.4 A (250 V DC)

### Output data

Efficiency	typ. 91.5 % (120 V AC)
	typ. 92.5 % (230 V AC)
Nominal output voltage	12 V DC
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 ( $\leq 60$ °C (5 s))
Feedback voltage resistance	$\leq 25$ V DC
Protection against overvoltage at the output (OVP)	$\leq 18$ V DC
	< 0.3 % (Static load change 10 % ... 90 %)

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



2904607

<https://www.phoenixcontact.com/us/products/2904607>

Control deviation	< 3 % (Dynamic load change 10 % ... 90 %, (10 Hz))
	< 0.1 % (change in input voltage $\pm 10$ %)
Residual ripple	< 35 mV <sub>PP</sub> (with nominal values)
Short-circuit-proof	yes
No-load proof	yes
Output power	90 W
	150 W
Maximum no-load power dissipation	< 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)
Crest factor	typ. 1.57 (120 V AC)
	typ. 1.67 (230 V AC)
Rise time	50 ms ( $U_{Out} = 10$ % ... 90 %)
Connection in parallel	yes, for redundancy and increased capacity
Connection in series	yes
Fuse protection (secondary side)	electronic
Signal (configurable)	
Digital	0 V DC 12 V DC 24 mA
Default	12 V DC 24 mA 12 V DC for $U_{Out} > 0.9 \times U_{Set}$

## Connection data

### Input

Connection method	Push-in connection
Conductor cross-section, rigid min.	0.2 mm <sup>2</sup>
Conductor cross-section, rigid max.	2.5 mm <sup>2</sup>
Conductor cross-section flexible min.	0.2 mm <sup>2</sup>
Conductor cross-section flexible max.	2.5 mm <sup>2</sup>
Single conductor/terminal point, stranded, with ferrule, min.	0.25 mm <sup>2</sup>
Single conductor/terminal point, stranded, with ferrule, max.	2.5 mm <sup>2</sup>
Conductor cross-section AWG min.	24
Conductor cross-section AWG max.	14
Stripping length	10 mm

### Output

Connection method	Push-in connection
Conductor cross-section, rigid min.	0.2 mm <sup>2</sup>
Conductor cross-section, rigid max.	2.5 mm <sup>2</sup>
Conductor cross-section flexible min.	0.2 mm <sup>2</sup>
Conductor cross-section flexible max.	2.5 mm <sup>2</sup>
Single conductor/terminal point, stranded, with ferrule, min.	0.25 mm <sup>2</sup>
Single conductor/terminal point, stranded, with ferrule, max.	2.5 mm <sup>2</sup>
Conductor cross-section AWG min.	24

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



2904607

<https://www.phoenixcontact.com/us/products/2904607>

Conductor cross-section AWG max.	14
Stripping length	10 mm

## Signal

Connection method	Push-in connection
Conductor cross-section, rigid min.	0.2 mm <sup>2</sup>
Conductor cross-section, rigid max.	2.5 mm <sup>2</sup>
Conductor cross-section flexible min.	0.2 mm <sup>2</sup>
Conductor cross-section flexible max.	2.5 mm <sup>2</sup>
Single conductor/terminal point, stranded, with ferrule, min.	0.25 mm <sup>2</sup>
Single conductor/terminal point, stranded, with ferrule, max.	2.5 mm <sup>2</sup>
Conductor cross-section AWG min.	24
Conductor cross-section AWG max.	14
Stripping length	10 mm

## Signaling

Types of signaling	LED
--------------------	-----

## Signal output

P <sub>Out</sub>	> P <sub>Thr</sub> (LED lights up yellow, output power > P <sub>Thr</sub> , depending on the rotary selector switch setting)
U <sub>Out</sub>	> 0.9 x U <sub>Set</sub> (LED lights up green) < 0.9 x U <sub>Set</sub> (LED flashes green)

## Electrical properties

Number of phases	1
Insulation voltage input/output	4 kV AC (type test) 3 kV AC (routine test)
Switching frequency	4.00 kHz ... 70.00 kHz (Auxiliary converter stage) 80.00 kHz ... 190.00 kHz (Main converter stage) 30.00 kHz ... 150.00 kHz (PFC stage)

## Product properties

Product type	Power supply
Product family	QUINT POWER
MTBF (IEC 61709, SN 29500)	> 1221000 h (25 °C) > 671000 h (40 °C) > 248000 h (60 °C)

## Insulation characteristics

Protection class	II
Overvoltage category (EN 61010-1)	II (≤ 5000 m)
Overvoltage category (EN 62477-1)	III (≤ 2000 m)
Degree of pollution	2

## Life expectancy (electrolytic capacitors)

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



2904607

<https://www.phoenixcontact.com/us/products/2904607>

Current	7.5 A
Temperature	40 °C
Time	96000 h
Additional text	120 V AC

## Life expectancy (electrolytic capacitors)

Current	7.5 A
Temperature	40 °C
Time	145000 h
Additional text	230 V AC

## Life expectancy (electrolytic capacitors)

Current	7.5 A
Temperature	25 °C
Time	280000 h
Additional text	120 V AC

## Life expectancy (electrolytic capacitors)

Current	7.5 A
Temperature	25 °C
Time	430000 h
Additional text	230 V AC

## Dimensions

Width	45 mm
Height	106 mm
Depth	90 mm

## Installation dimensions

Installation distance right/left (active)	15 mm / 15 mm ( $P_{Out} \geq 50\%$ )
Installation distance right/left (passive)	5 mm / 5 mm ( $P_{Out} \geq 50\%$ )
Installation distance right/left (active, passive)	0 mm / 0 mm ( $P_{Out} \leq 50\%$ )
Installation distance top/bottom (active)	30 mm / 30 mm ( $P_{Out} \geq 50\%$ )
Installation distance top/bottom (passive)	30 mm / 30 mm ( $P_{Out} \geq 50\%$ )
Installation distance top/bottom (active, passive)	30 mm / 30 mm ( $P_{Out} \leq 50\%$ )

## Mounting

Mounting type	DIN rail mounting
With protective coating	no

## Material specifications

Flammability rating according to UL 94 (housing / terminal blocks)	V0
Housing material	Plastic
Type of housing	Polycarbonate
Hood version	Polycarbonate

## 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
Ambient temperature (start-up type tested)	-40 °C
Maximum altitude	≤ 5000 m (> 2000 m, observe derating)
Climatic class	3K3 (in acc. with EN 60721)
Max. permissible relative humidity (operation)	≤ 95 % (at 25 °C, non-condensing)
Shock	18 ms, 30g, in each space direction (according to IEC 60068-2-27)
Vibration (operation)	< 15 Hz, ±2.5 mm amplitude; 15 Hz ... 100 Hz: 2.3 g 90 Min. (in accordance with IEC 60068-2-6)
Temp code	T4 (-25 ... +70 °C; > 60 °C, Derating: 2,5 %/K)

## Standards and regulations

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

## Approvals

SIQ	CB-Scheme (IEC 61010-1, IEC 61010-2-201)
UL approvals	UL Listed UL 61010-1
	UL Listed UL 61010-2-201
	UL 121201 & CSA C22.2 No. 213-17 Class I, Division 2, Groups A, B, C, D T4 (Hazardous Location)

## EMC data

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
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
EMC requirements for power supply	IEC 61850-3 (G,H)
	EN 61000-6-5 (switching devices)

### Conducted noise emission

Standards/regulations	EN 55016
	EN 61000-6-3 (Class B)

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



2904607

<https://www.phoenixcontact.com/us/products/2904607>

## Noise emission

Standards/regulations	Additional basic standard EN 61000-6-5 (immunity in switching devices), IEC/EN 61850-3 (power supply)
-----------------------	---

## Noise emission

Standards/regulations	EN 55016
	EN 61000-6-3 (Class B)

## Harmonic currents

Standards/regulations	EN 61000-3-2
	EN 61000-3-2 (Class A)
Frequency range	0 kHz ... 2 kHz

## Flicker

Standards/regulations	EN 61000-3-3
Frequency range	0 kHz ... 2 kHz

## Electrostatic discharge

Standards/regulations	EN 61000-4-2
-----------------------	--------------

## Electrostatic discharge

Contact discharge	8 kV (Test Level 4)
Discharge in air	15 kV (Test Level 4)
Comments	Criterion A

## Electromagnetic HF field

Standards/regulations	EN 61000-4-3
-----------------------	--------------

## Electromagnetic HF field

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)

Standards/regulations	EN 61000-4-4
-----------------------	--------------

## Fast transients (burst)

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)

Standards/regulations	EN 61000-4-5
-----------------------	--------------

## Surge voltage load (surge)

Input	2 kV (Test Level 4 - symmetrical)
-------	-----------------------------------

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



2904607

<https://www.phoenixcontact.com/us/products/2904607>

	4 kV (Test Level 4 - asymmetrical)
Output	1 kV (Test Level 3 - symmetrical)
	2 kV (Test Level 3 - asymmetrical)
Signal	0.5 kV (Test Level 2 - symmetrical)
	1 kV (Test Level 2 - asymmetrical)
Comments	Criterion A

## Conducted interference

Standards/regulations	EN 61000-4-6
-----------------------	--------------

## Conducted interference

Input/output/signal	asymmetrical
Frequency range	0.15 MHz ... 80 MHz
Comments	Criterion A
Voltage	10 V (Test Level 3)

## Power frequency magnetic field

Standards/regulations	EN 61000-4-8
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
Frequency range	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

Standards/regulations	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 %

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



2904607

<https://www.phoenixcontact.com/us/products/2904607>

Number of periods	0.5 / 1 / 5 / 50 periods
Additional text	Test Level 2
Comments	Criterion B

## Pulse-shape magnetic field

Standards/regulations	EN 61000-4-9
Test field strength	1000 A/m
Comments	Criterion A

## Attenuated sinusoidal oscillations (ring wave)

Standards/regulations	EN 61000-4-12
Input	2 kV (symmetrical) 4 kV (asymmetrical)
Comments	Criterion A

## Asymmetrical conducted disturbance variables

Standards/regulations	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

Standards/regulations	EN 61000-4-18
Voltage	1 kV (symmetrical) 2.5 kV (asymmetrical) 1 kV (symmetrical)
Comments	Criterion A

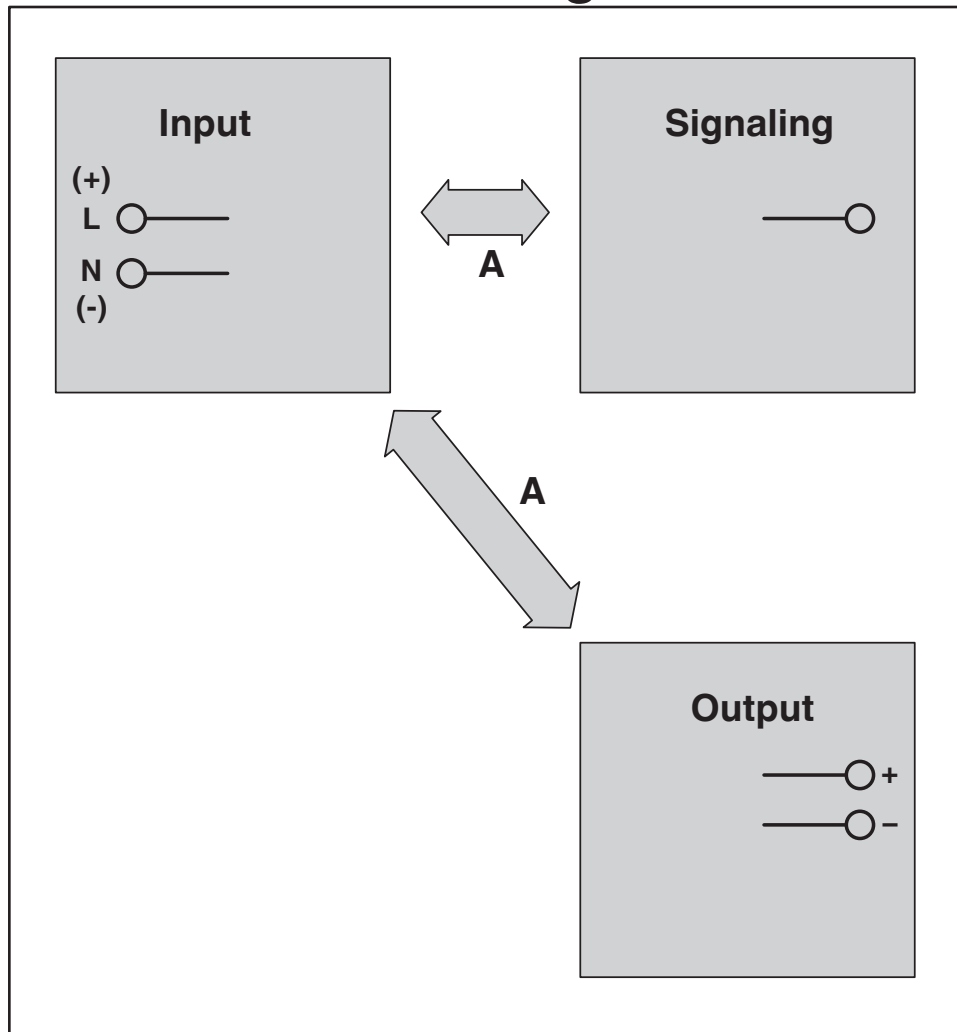
## Criteria

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.

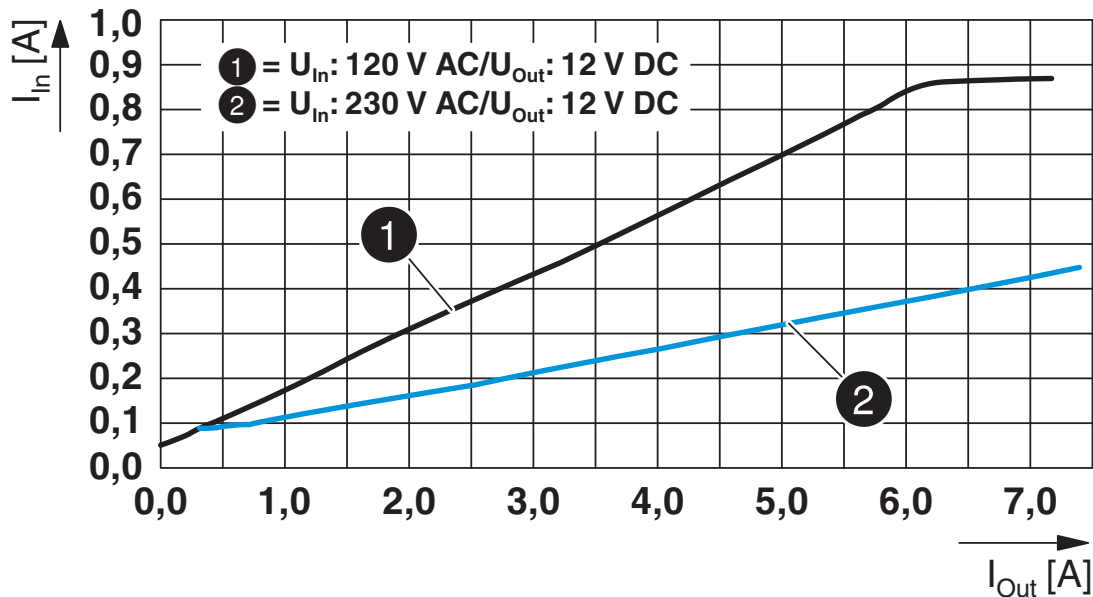
Drawings

Schematic diagram

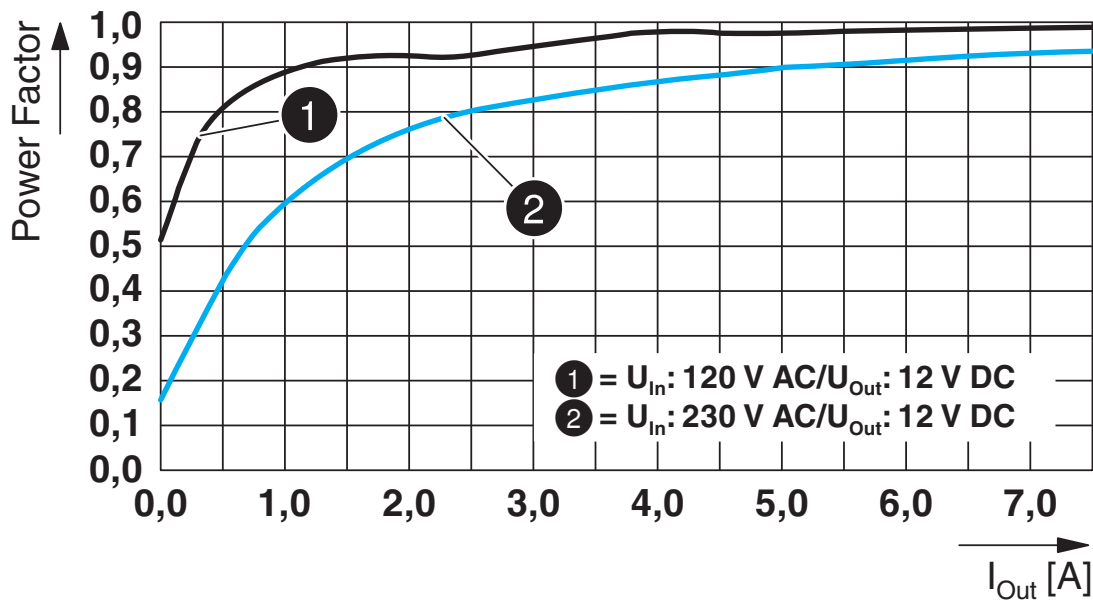
# Housing



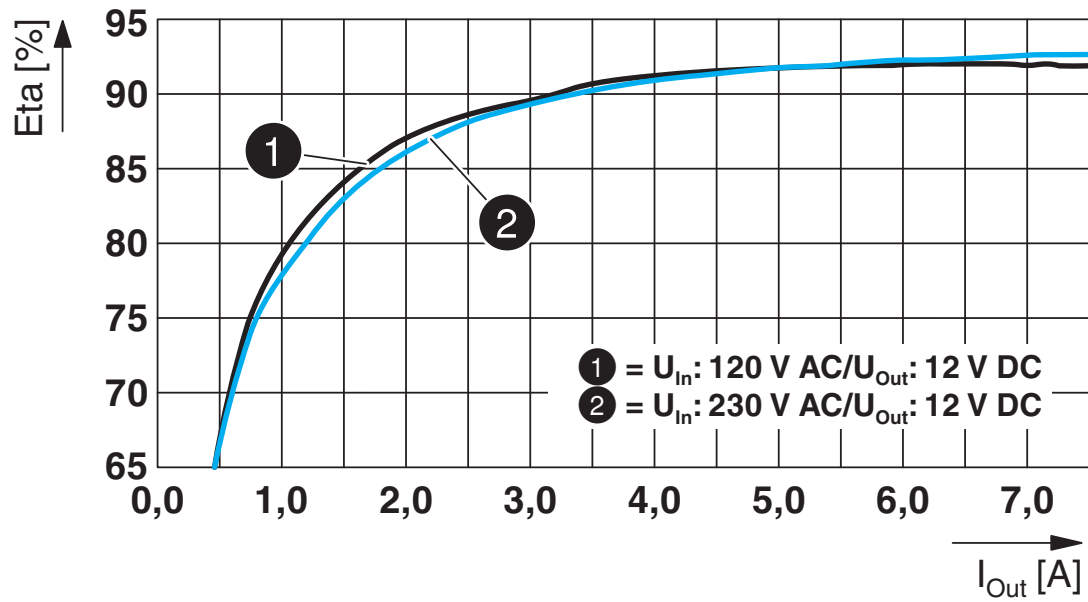
Diagram



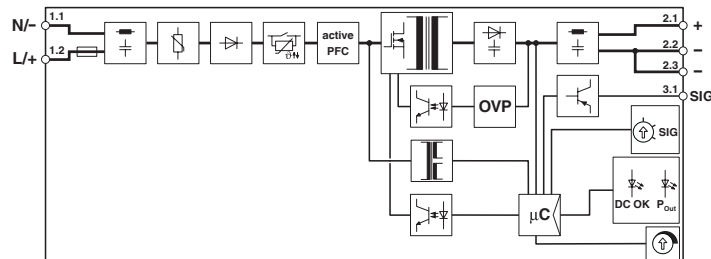
Diagram



Diagram



Block diagram



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



2904607

<https://www.phoenixcontact.com/us/products/2904607>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2904607>



**IECEE CB Scheme**

Approval ID: SI-7008



**EAC**

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



**UL Listed**

Approval ID: E123528



**cUL Listed**

Approval ID: E123528



**EAC**

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

**DNV**

Approval ID: TAA00001YD



**BV**

Approval ID: 44621/B1 BV



**cUL Listed**

Approval ID: E199827



**UL Listed**

Approval ID: E199827

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



2904607

<https://www.phoenixcontact.com/us/products/2904607>

## Classifications

### ECLASS

ECLASS-13.0	27040701
ECLASS-15.0	27040701

### ETIM

ETIM 10.0	EC002540
-----------	----------

### UNSPSC

UNSPSC 21.0	39121000
-------------	----------

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



2904607

<https://www.phoenixcontact.com/us/products/2904607>

## Environmental product compliance

### EU RoHS

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

### EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
	Lead(CAS: 7439-92-1)
SCIP	0c7ace05-b5de-466f-8ef2-05caf4801fbd

### EF3.1 Climate Change

CO2e kg	10.45 kg CO2e
---------	---------------

Phoenix Contact 2026 © - all rights reserved  
<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)