Power supply unit - QUINT4-PS/1AC/24DC/1.3/PT - 2909575

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's documentation. Our General Terms of Use for Downloads are valid (http://phoenixcontact.com/download)

Primary-switched power supply unit, QUINT POWER, Push-in technology, DIN rail mounting, input: 1-phase, output: 24 V DC / 1.3 A

Product Description

In the power range of up to 100 W, QUINT POWER provides superior system availability in the smallest size. Preventative function monitoring and exceptional power reserves are available for applications in the low-power range.

Why buy this product

- Starting of heavy loads with dynamic boost
- Preventive function monitoring indicates critical operating states before errors occur
-
- Space savings in the control cabinet, thanks to a narrow, slim-line design
-

Key Commercial Data

Packing unit	1 STK
GTIN	4 055626 356471
GTIN	4055626356471
Weight per Piece (excluding packing)	248.450 g
Custom tariff number	85044030
Country of origin	Germany

Technical data

Dimensions

Width	22.5 mm
Height	106 mm
Depth	90 mm

Ambient conditions

Degree of protection	IP20

Power supply unit - QUINT4-PS/1AC/24DC/1.3/PT - 2909575

Technical data

Ambient conditions

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

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 30 s
Discharge current to PE	< 0.25 mA (264 V AC, 60 Hz)
Current consumption	0.46 A (100 V AC)
	0.37 A (120 V AC)
	0.2 A (230 V AC)
	0.2 A (240 V AC)
Nominal power consumption	37 VA
Inrush surge current	typ. 14 A (at 25 °C)
Mains buffering	> 43 ms (120 V AC)
	> 43 ms (230 V AC)
Input fuse	3.15 A (slow-blow, internal)
Type of protection	Transient surge protection
Protective circuit/component	Varistor

Output data

Nominal output voltage	24 V DC
Setting range of the output voltage (U_{Set})	24 V DC ... 28 V DC (constant capacity)
Nominal output current (I_N)	1.3 A
Static Boost ($I_{Stat.Boost}$)	1.625 A (≤ 40 °C)
Dynamic Boost ($I_{Dyn.Boost}$)	2.6 A (≤ 60 °C (5 s))
Derating	> 60 °C (2.5%/K)
Connection in parallel	Yes, for redundancy and increased capacity
Connection in series	yes
Feedback resistance	≤ 35 V DC
Protection against surge voltage on the output	≤ 32 V DC
Control deviation	< 0.5 % (Static load change 10 % ... 90 %)
	< 2 % (Dynamic load change 10 % ... 90 %, (10 Hz))
	< 0.1 % (change in input voltage ±10 %)
Residual ripple	< 40 mV_{PP} (with nominal values)
Output power	30 W

Power supply unit - QUINT4-PS/1AC/24DC/1.3/PT - 2909575

Technical data

Output data

Typical response time	500 ms
Maximum power dissipation in no-load condition	< 0.4 W (230 V AC)
	< 0.4 W (120 V AC)
Power loss nominal load max.	< 3.7 W (120 V AC)
	< 3.1 W (230 V AC)

General

Net weight	0.188 kg
Efficiency	typ. 89.2 % (120 V AC)
	typ. 90.7 % (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)	> 1904000 h (25 °C)
	> 1107000 h (40 °C)
	> 486000 h (60 °C)
Assembly instructions	DIN rail mounting

Connection data, input

Connection method	Push-in technology
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.	14
Stripping length	10 mm

Connection data, output

Connection method	Push-in technology
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.	14
Stripping length	10 mm

Connection data for signaling

Connection method	Push-in technology
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	2.5 mm²

Power supply unit - QUINT4-PS/1AC/24DC/1.3/PT - 2909575

Technical data

Connection data for signaling

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.	14
Stripping length	10 mm

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Standards/regulations	EN 61000-4-2
Contact discharge	4 kV (Test Level 2)
Standards/regulations	EN 61000-4-3
Frequency range	80 MHz ... 1 GHz
Test field strength	10 V/m (Test Level 3)
Frequency range	1.4 GHz ... 2 GHz
Test field strength	3 V/m (Test Level 2)
Standards/regulations	EN 61000-4-4
Comments	Criterion B
Standards/regulations	EN 61000-4-5
Signal	0.5 kV (Test Level 2 - symmetrical)
	0.5 kV (Test Level 1 - asymmetrical)
Standards/regulations	EN 61000-4-6
Frequency range	0.15 MHz ... 80 MHz
Voltage	10 V (Test Level 3)
Conducted noise emission	EN 55016 EN 61000-6-4 (Class A)
Standards/regulations	EN 61000-4-8
	EN 61000-4-11
	EN 61000-4-9
	EN 61000-4-12
	EN 61000-4-16
Standard - Electrical safety	IEC 61010-2-201 (SELV)
Standard - power supply devices for low voltage with DC output	EN 61204-3
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
UL approvals	UL Listed UL 61010-1
	UL Listed UL 61010-2-201
	UL 1310 Class 2 Power Units
	UL ANSI/ISA-12.12.01 Class I, Division 2, Groups A, B, C, D (Hazardous Location)
Shock	18 ms, 30g, in each space direction (according to IEC 60068-2-27)

Power supply unit - QUINT4-PS/1AC/24DC/1.3/PT - 2909575

Technical data

Standards and Regulations

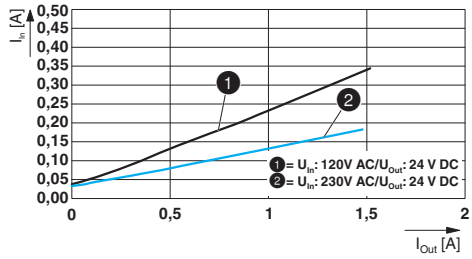
Vibration (operation)	< 15 Hz, ±2.5 mm amplitude; 15 Hz ... 100 Hz: 2.3 g 90 Min. (in accordance with IEC 60068-2-6)
Overvoltage category (EN 61010-1)	II
Overvoltage category (EN 62477-1)	III

Environmental Product Compliance

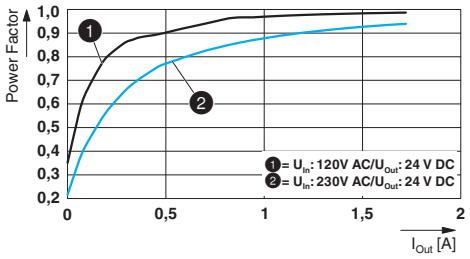
China RoHS	Environmentally Friendly Use Period = 25;
	For details about hazardous substances go to tab “Downloads”, Category “Manufacturer's declaration”

Drawings

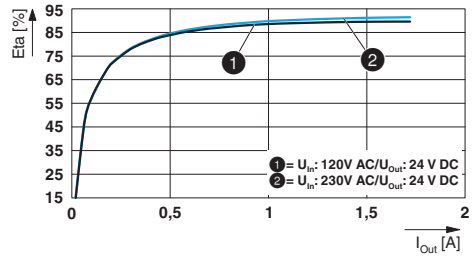
Diagram



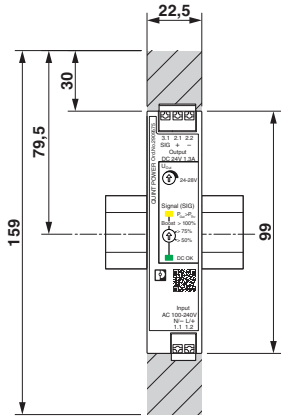
Diagram



Diagram

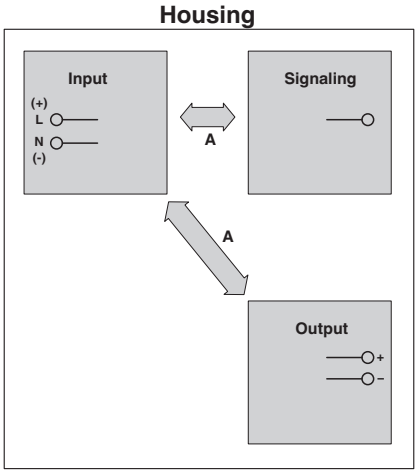


Dimensional drawing

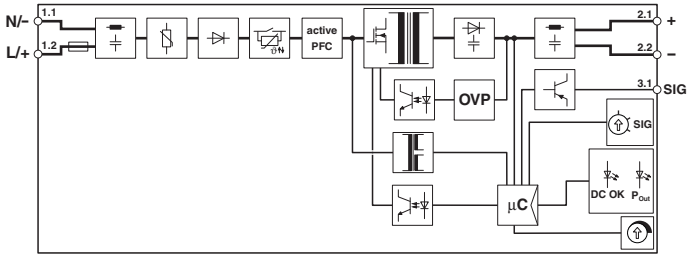


Power supply unit - QUINT4-PS/1AC/24DC/1.3/PT - 2909575

Schematic diagram



Block diagram



Classifications

eCl@ss

eCl@ss 5.1	27242213
eCl@ss 6.0	27049000
eCl@ss 7.0	27049002
eCl@ss 8.0	27049002
eCl@ss 9.0	27040701

ETIM

ETIM 6.0	EC002540

UNSPSC

UNSPSC 13.2	39121004

Approvals

Approvals

Approvals

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

Power supply unit - QUINT4-PS/1AC/24DC/1.3/PT - 2909575

Approvals

Ex Approvals

UL Listed / cUL Listed / cULus Listed

Approval details

IECEE CB Scheme	http://www.iecee.org/	SI-6241
UL Listed	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 123528
cUL Listed	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 123528
DNV GL	http://exchange.dnv.com/tari/	TAA00001SN
EAC		RU C-DE.A*30.B.01082
cULus Listed	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	

Accessories

Accessories

Device circuit breakers

Electronic device circuit breaker - CBMC E4 24DC/1-10A NO - 2906032

Multi-channel electronic device circuit breaker for protecting four loads at 24 V DC in the event of overload and short circuit. With electronic locking of the set nominal currents. For installation on DIN rails.

Power supply unit - QUINT4-PS/1AC/24DC/1.3/PT - 2909575

Accessories

Electronic device circuit breaker - CBMC E4 24DC/1-4A NO - 2906031

Multi-channel electronic device circuit breaker for protecting four loads at 24 V DC in the event of overload and short circuit. With electronic locking of the set nominal currents. For installation on DIN rails.

Electronic device circuit breaker - CBMC E4 24DC/1-4A NO-C - 2908713

Multi-channel electronic device circuit breaker that can be preconfigured, for protecting four loads at 24 V DC in the event of overload and short circuit. With electronic locking of the set nominal currents. For installation on DIN rails.

Device protection

Type 3 surge protection device - PLT-SEC-T3-230-FM-PT - 2907928

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

Type 3 surge protection device - PLT-SEC-T3-24-FM-PT - 2907925

Type 3 surge protection, consisting of protective plug and base element, with integrated status indicator and remote signaling for single-phase power supply networks. Nominal voltage 24 V AC/DC.

Screwdriver tools

Screwdriver - SF-SL 0,4X2,0-60 - 1212546

Screwdriver, flat bladed, size: 0.4 x 2.0 x 60 mm, 2-component grip, with non-slip grip