Power supply unit - QUINT-PS/3AC/24DC/ 5 - 2866734

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, Pluggable screw connection, SFB Technology (Selective Fuse Breaking), input: 3-phase, output: 24 V DC / 5 A

Product Description

QUINT POWER power supplies with maximum functionality
QUINT POWER circuit breakers magnetically and therefore quickly trip at six times the nominal current, for selective and therefore cost-effective system protection. The high level of system availability is additionally ensured, thanks to preventive function monitoring, as it reports critical operating states before errors occur.
Reliable starting of heavy loads takes place via the static power reserve POWER BOOST. Thanks to the adjustable voltage, all ranges between 5 V DC ... 56 V DC are covered.

Your advantages

- High level of system availability even in the event of permanent phase failure
- Reliable starting of difficult loads
- Preventive function monitoring

Key Commercial Data

Packing unit	1 pc
GTIN	4 046356 155441
GTIN	4046356155441
Weight per Piece (excluding packing)	1,038.000 g
Custom tariff number	85044030
Country of origin	Thailand

Technical data

Dimensions

Width	40 mm

Power supply unit - QUINT-PS/3AC/24DC/ 5 - 2866734

Technical data

Dimensions

Height	130 mm
Depth	125 mm
Width with alternative assembly	122 mm
Height with alternative assembly	130 mm
Depth with alternative assembly	43 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
Installation height	5000 m

Input data

Nominal input voltage range	3x 400 V AC ... 500 V AC
Input voltage range	3x 320 V AC ... 575 V AC
	2x 360 V AC ... 575 V AC
	450 V DC ... 800 V DC
AC frequency range	45 Hz ... 65 Hz
Frequency range DC	0 Hz
Discharge current to PE	< 3.5 mA
Current consumption	3x 0.8 A (400 V AC)
	3x 0.7 A (500 V AC)
	0.2 A (600 V DC)
Nominal power consumption	268 VA
Inrush current	< 15 A (typical)
Mains buffering time	> 20 ms (400 V AC)
	> 30 ms (500 V AC)
Recommended breaker for input protection	6 A ... 16 A (AC: Characteristics B, C, D, K)
Power factor (cos phi)	0.5
Type of protection	Transient surge protection
Protective circuit/component	Varistor, gas-filled surge arrester

Output data

Nominal output voltage	24 V DC ±1 %
Setting range of the output voltage (U_{Set})	18 V DC ... 29.5 V DC (> 24 V DC, constant capacity restricted)

Power supply unit - QUINT-PS/3AC/24DC/ 5 - 2866734

Technical data

Output data

Nominal output current (I_N)	5 A (-25 °C ... 60 °C, U_{OUT} = 24 V DC)
POWER BOOST (I_{Boost})	7.5 A (-25 °C ... 40 °C permanent, U_{OUT} = 24 V DC)
Selective Fuse Breaking (I_{SFB})	30 A (12 ms)
Derating	60 °C ... 70 °C (2.5%/K)
Connection in parallel	Yes, for redundancy and increased capacity
Connection in series	yes
Feedback voltage resistance	max. 35 V DC
Protection against overvoltage at the output (OVP)	< 35 V DC
Residual ripple	< 20 mV_{PP} (with nominal values)
Output power	120 W
Typical response time	< 0.06 s
Peak switching voltages nominal load	< 20 mV_{PP} (at nominal values, 20 MHz)
Maximum power dissipation in no-load condition	4 W
Power loss nominal load max.	14 W

General

Net weight	0.7 kg
Operating voltage display	Green LED
Efficiency	> 89 % (at 400 V AC and nominal values)
MTBF (IEC 61709, SN 29500)	> 1290000 h (25 °C)
	> 680000 h (40 °C)
	> 290000 h (60 °C)
Insulation voltage input/output	4 kV AC (type test)
	2 kV AC (routine test)
Insulation voltage input / PE	3.5 kV AC (type test)
	2 kV AC (routine test)
Insulation voltage output / PE	500 V DC (routine test)
Degree of protection	IP20
Protection class	I
Mounting position	horizontal DIN rail NS 35, EN 60715
Assembly instructions	alignable: $P_N \geq 50\%$, 5 mm horizontally, 15 mm next to active components, 50 mm vertically alignable: $P_N < 50\%$, 0 mm horizontally, 40 mm vertically top, 20 mm vertically bottom

Connection data, input

Connection method	Pluggable screw connection
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	2.5 mm²

Power supply unit - QUINT-PS/3AC/24DC/ 5 - 2866734

Technical data

Connection data, input

Conductor cross section flexible min.	0.2 mm²
Conductor cross section flexible max.	2.5 mm²
Conductor cross section AWG min.	20
Conductor cross section AWG max.	12
Stripping length	7 mm
Screw thread	M3

Connection data, output

Connection method	Pluggable screw connection
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.	20
Conductor cross section AWG max.	12
Stripping length	7 mm
Screw thread	M3

Connection data for signaling

Connection method	Pluggable screw connection
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.	20
Conductor cross section AWG max.	12
Screw thread	M3

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Noise immunity	EN 61000-6-2
Connection in acc. with standard	CSA
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)

Power supply unit - QUINT-PS/3AC/24DC/ 5 - 2866734

Technical data

Standards and Regulations

Standards/regulations	EN 61000-4-4
Comments	Criterion B
Standards/regulations	EN 61000-6-3
	EN 61000-4-6
Frequency range	0.15 MHz ... 80 MHz
Voltage	10 V (Test Level 3)
Low Voltage Directive	Conformance with Low Voltage Directive 2014/35/EC
Standard - Electrical safety	IEC 60950-1/VDE 0805 (SELV)
Standard – Electronic equipment for use in electrical power installations and their assembly into electrical power installations	EN 50178/VDE 0160 (PELV)
Standard – Safety extra-low voltage	IEC 60950-1 (SELV) and EN 60204-1 (PELV)
Standard - Safe isolation	DIN VDE 0100-410
Standard – Protection against shock currents, basic requirements for protective separation in electrical equipment	EN 50178
Standard – Limitation of mains harmonic currents	EN 61000-3-2
Standard - Equipment safety	GS (tested safety)
Standard - Approval for medical use	IEC 60601-1, 2 x MOOP
Shipbuilding approval	DNV GL (EMC A), ABS, LR, RINA, NK, BV
UL approvals	UL Listed UL 508
	UL/C-UL Recognized UL 60950-1 (3-wire + PE, star net)
	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)
Vibration (operation)	< 15 Hz, amplitude ±2.5 mm (according to IEC 60068-2-6)
	15 Hz ... 150 Hz, 2.3g, 90 min.
Approval - requirement of the semiconductor industry with regard to mains voltage dips	SEMI F47-0706 Compliance Certificate
Certificate	CB Scheme
Rail applications	EN 50121-4
Overvoltage category (EN 62477-1)	III

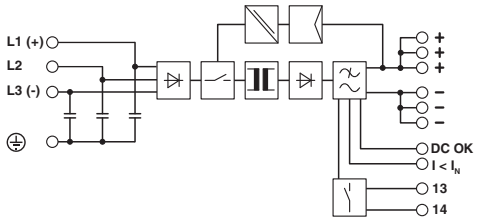
Environmental Product Compliance

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 25;
	For details about hazardous substances go to tab “Downloads”, Category “Manufacturer's declaration”

Drawings

Power supply unit - QUINT-PS/3AC/24DC/ 5 - 2866734

Block diagram



Classifications

eCl@ss

eCl@ss 10.0.1	27040701
eCl@ss 11.0	27040701
eCl@ss 4.0	27040700
eCl@ss 4.1	27040700
eCl@ss 5.0	27049000
eCl@ss 5.1	27049000
eCl@ss 6.0	27049000
eCl@ss 7.0	27049002
eCl@ss 8.0	27049002
eCl@ss 9.0	27040701

ETIM

ETIM 2.0	EC001039
ETIM 3.0	EC001039
ETIM 4.0	EC000599
ETIM 5.0	EC002540
ETIM 6.0	EC002540
ETIM 7.0	EC002540

UNSPSC

UNSPSC 6.01	30211502
UNSPSC 7.0901	39121004
UNSPSC 11	39121004
UNSPSC 12.01	39121004
UNSPSC 13.2	39121004
UNSPSC 18.0	39121004
UNSPSC 19.0	39121004
UNSPSC 20.0	39121004
UNSPSC 21.0	39121004

Power supply unit - QUINT-PS/3AC/24DC/ 5 - 2866734

Approvals

Approvals

Approvals

DNV GL / CSA / BV / LR / NK / ABS / RINA / UL Listed / UL Recognized / cUL Recognized / IECEE CB Scheme / SEMI F47 / EAC / EAC / cULus Recognized

Ex Approvals

UL Listed / cUL Listed / cULus Listed

Approval details

DNV GL	https://approvalfinder.dnvgl.com/	TAE000014W
CSA	http://www.csagroup.org/services-industries/product-listing/	1921250
BV	http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials	21004-C0 BV
LR	http://www.lr.org/en	08/20069 E4
NK	http://www.classnk.or.jp/hp/en/	08A039
ABS	http://www.eagle.org/eagleExternalPortalWEB/	20-2022476-PDA
RINA	http://www.rina.org/en	ELE316517XG

Power supply unit - QUINT-PS/3AC/24DC/ 5 - 2866734

Approvals

UL Listed	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 123528
UL Recognized	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 211944
cUL Recognized	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 211944
IECEE CB Scheme	http://www.iecee.org/	SI-2301
SEMI F47		SEMI F47
EAC		EAC-Zulassung
EAC		RU*DE*08.B.01873/19
cULus Recognized		

Accessories

Accessories

Assembly adapter

Power supply unit - QUINT-PS/3AC/24DC/ 5 - 2866734

Accessories

Assembly adapters - UTA 107/30 - 2320089



Universal DIN rail adapter

Assembly adapters - UWA 182/52 - 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.

Assembly adapters - QUINT-PS-ADAPTERS7/1 - 2938196



Assembly adapter for QUINT-PS... power supply on S7-300 rail

Device protection

Type 3 surge protection device - PLT-SEC-T3-3S-230-FM - 2905230



Plug-in device protection, according to type 3/class III, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE), with integrated surge-proof fuse and remote indication contact.

Type 3 surge protection device - PLT-SEC-T3-24-FM-UT - 2907916



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.

Power supply unit - QUINT-PS/3AC/24DC/ 5 - 2866734

Accessories

Fan

Fan - QUINT-PS/FAN/4 - 2320076



The fan for QUINT-PS/1AC and .../3AC can be mounted without the need for tools or other accessories. By using the fan, optimum cooling is ensured at high ambient temperatures or if the mounting position is rotated.

Redundancy module

Diode - QUINT-DIODE/12-24DC/2X20/1X40 - 2320157



DIN rail diode module 12-24 V DC/2x20 A or 1x40 A. Uniform redundancy up to the consumer.

Redundancy module, with protective coating - QUINT-ORING/24DC/2X10/1X20 - 2320173



Active QUINT redundancy module for DIN rail mounting with Auto Current Balancing ACB technology and monitoring functions, input: 24 V DC, output: 24 V DC/2 x 10 A or 1 x 20 A, including mounted UTA 107/30 universal DIN rail adapter

Redundancy module - TRIO-DIODE/12-24DC/2X10/1X20 - 2866514



Redundancy module with function monitoring, 12 ... 24 V DC, 2x 10 A, 1x 20 A

Thermomagnetic device circuit breakers

Power supply unit - QUINT-PS/3AC/24DC/ 5 - 2866734

Accessories

Thermomagnetic device circuit breaker - CB TM1 1A SFB P - 2800836



Thermomagnetic device circuit breaker, 1-pos., tripping characteristic SFB, 1 PDT contact, plug for base element.

Thermomagnetic device circuit breaker - CB TM1 2A SFB P - 2800837



Thermomagnetic device circuit breaker, 1-pos., tripping characteristic SFB, 1 PDT contact, plug for base element.

Phoenix Contact 2021 © - all rights reserved
http://www.phoenixcontact.com