

## Power supply unit - QUINT-PS/ 1AC/12DC/15 - 2866718

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Primary-switched QUINT POWER power supply for DIN rail mounting with SFB (Selective Fuse Breaking) Technology, input: 1-phase, output: 12 V DC/15 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.

### Product Features

- ✓ Quick tripping of standard circuit breakers
- ✓ Reliable starting of difficult loads
- ✓ Preventive function monitoring



### Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	1515.4 GRM
Custom tariff number	85044030
Country of origin	Thailand

### Technical data

#### Dimensions

Width	60 mm
Height	130 mm
Depth	125 mm
Width with alternative assembly	122 mm
Height with alternative assembly	130 mm
Depth with alternative assembly	63 mm

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## Technical data

### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 70 °C (> 60 °C derating, 2.5 %/K, startup at -40°C type-tested)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Max. permissible relative humidity (operation)	≤ 95 % (at 25 °C, non-condensing)
Noise immunity	EN 61000-6-2:2005

### 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 (UL 508: ≤ 250 V DC)
Short-term input voltage	300 V AC
AC frequency range	45 Hz ... 65 Hz
Frequency range DC	0 Hz
Inrush surge current	< 15 A (typical)
Power failure bypass	> 65 ms (120 V AC)
	> 65 ms (230 V AC)
Input fuse	6.3 A (slow-blow, internal)
Choice of suitable fuses	10 A ... 16 A (AC: Characteristics B, C, D, K)
Type of protection	Transient surge protection
Protective circuit/component	Varistor

### Output data

Nominal output voltage	12 V DC ±1 %
Setting range of the output voltage	5 V DC ... 18 V DC (> 12 V constant capacity)
Output current	15 A (-25 °C ... 60 °C)
	16 A (with POWER BOOST, -25°C ... 40°C permanent)
	60 A (SFB technology, 12 ms)
	60 A ( $U_{in} \geq 100$ V AC)
Derating	60 °C ... 70 °C (2.5%/K)
Connection in parallel	Yes, for redundancy and increased capacity
Connection in series	Yes
Control deviation	< 1 % (change in load, static 10 % ... 90 %)
	< 2 % (change in load, dynamic 10 % ... 90 %)
	< 0.1 % (change in input voltage ±10 %)
Residual ripple	< 10 mV <sub>PP</sub> (with nominal values)
Maximum power dissipation NO-Load	5 W
Power loss nominal load max.	21 W

### General

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## Technical data

### General

Net weight	1.1 kg
Efficiency	> 89 % (for 230 V AC and nominal values)
Insulation voltage input/output	4 kV AC (type test) 2 kV AC (routine test)
Protection class	I
	> 570000 h (40°C)
Mounting position	horizontal DIN rail NS 35, EN 60715
Assembly instructions	Alignable: 5 mm horizontally, 15 mm next to active components, 50 mm vertically
Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Noise emission	EN 50081-2
Low Voltage Directive	Conformance with LV directive 2006/95/EC
Standard – Electrical equipment of machines	EN 60204
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 (PELV)
Standard - Safe isolation	DIN VDE 0100-410 DIN VDE 0106-1010
Standard – Protection against electric shock	DIN 57100-410
Standard – Protection against shock currents, basic requirements for protective separation in electrical equipment	DIN VDE 0106-101
Standard – Limitation of mains harmonic currents	EN 61000-3-2
Standard - Equipment safety	GS (tested safety)
Standard - Approval for medical use	IEC 60601
Information technology equipment - safety (CB scheme)	CB Scheme
UL approvals	UL Listed UL 508 UL/C-UL Recognized UL 60950-1 UL ANSI/ISA-12.12.01 Class I, Division 2, Groups A, B, C, D (Hazardous Location)
Surge voltage category	III

### Connection data, input

Connection method	Pluggable screw connection
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section stranded min.	0.2 mm <sup>2</sup>
Conductor cross section stranded max.	2.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	16

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### Technical data

#### Connection data, input

Conductor cross section AWG/kcmil max	12
Stripping length	7 mm
Screw thread	M3

#### Connection data, output

Connection method	Pluggable screw connection
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section stranded min.	0.2 mm <sup>2</sup>
Conductor cross section stranded max.	2.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	16
Conductor cross section AWG/kcmil max	12
Stripping length	7 mm

#### Signaling

Output name	DC OK active
Output description	$U_{OUT} > 0.9 \times U_N$ : High signal
Maximum inrush current	20 mA (short-circuit resistant)
Continuous load current	$\leq 20$ mA
Status display	$U_{OUT} > 0.9 \times U_N$ : "DC OK" LED green
Note on status display	$U_{OUT} < 0.9 \times U_N$ : Flashing "DC OK" LED
	$I_{OUT} < I_N$ : LED ON
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section stranded min.	0.2 mm <sup>2</sup>
Conductor cross section stranded max.	2.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	16
Conductor cross section AWG/kcmil max	12
Tightening torque, min	0.5 Nm
Tightening torque max	0.6 Nm
Screw thread	M3
Output name	DC OK floating
Output description	Relay contact, $U_{OUT} > 0.9 \times U_N$ : Contact closed
Maximum switching voltage	30 V AC
	24 V DC
Maximum inrush current	0.5 A
	1 A
Continuous load current	1 A

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## Technical data

### Signaling

Status display	$U_{OUT} > 0.9 \times U_N$ : "DC OK" LED green
Note on status display	$U_{OUT} < 0.9 \times U_N$ : Flashing "DC OK" LED
Output name	POWER BOOST, active
Output description	$I_{OUT} < I_N$ : High signal
Output voltage	+ 12 V DC
Maximum inrush current	20 mA (short-circuit resistant)
Continuous load current	$\leq 20$ mA
Status display	$I_{OUT} > I_N$ : LED "BOOST" yellow

## Classifications

### eCl@ss

eCl@ss 4.0	27040702
eCl@ss 4.1	27040702
eCl@ss 5.0	27049002
eCl@ss 5.1	27049002
eCl@ss 6.0	27049002
eCl@ss 7.0	27049002
eCl@ss 8.0	27049002

### ETIM

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

### UNSPSC

UNSPSC 6.01	30211502
UNSPSC 7.0901	39121004
UNSPSC 11	39121004
UNSPSC 12.01	39121004
UNSPSC 13.2	39121004

## Approvals

### Approvals

# Power supply unit - QUINT-PS/ 1AC/12DC/15 - 2866718

## Approvals

### Approvals

CSA / UL Recognized / UL Listed / cUL Recognized / IEC CB Scheme / SEMI F47 / Bauartgeprüft / cUL Recognized / SEMI F47 / Bauartgeprüft / EAC / cULus Recognized

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### Ex Approvals

UL Listed / cUL Listed / cULus Listed


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### Approvals submitted

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### Approval details

CSA 

UL Recognized 

UL Listed 

cUL Recognized 

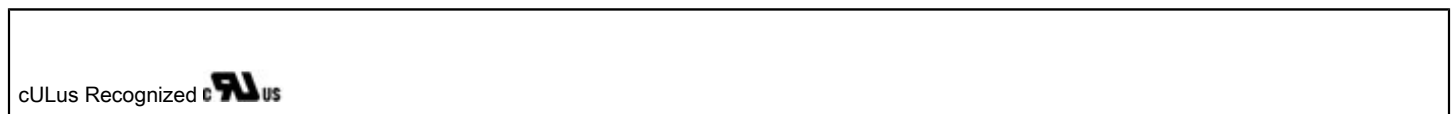
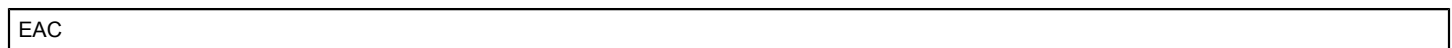
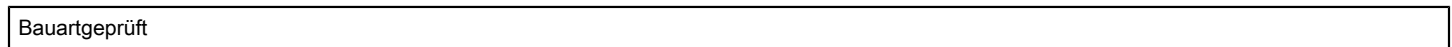
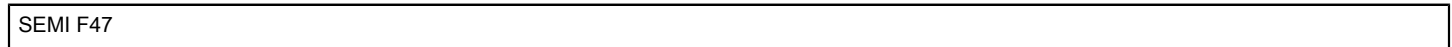
IECEE CB Scheme 

SEMI F47

Bauartgeprüft

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### Approvals



### Accessories

#### Accessories

#### Assembly adapter

Assembly adapters - UWA 182/52 - 2938235



Universal wall adapter

Assembly adapters - QUINT-PS-ADAPTERS7/2 - 2938206



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

#### Mounting rail adapter

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### Accessories

Assembly adapters - UTA 107 - 2853983

Universal DIN rail adapter



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### Redundancy module

Diode module, with protective coating - 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.

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



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

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### Thermomagnetic device circuit breakers

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.

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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.



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## Accessories

Thermomagnetic device circuit breaker - CB TM1 3A SFB P - 2800838



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

Thermomagnetic device circuit breaker - CB TM1 4A SFB P - 2800839



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

Thermomagnetic device circuit breaker - CB TM1 5A SFB P - 2800840



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

## Drawings

Block diagram

