

QUINT-PS/ 3AC/24DC/40

Order No.: 2866802

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DIN rail power supply unit 24 V DC/40 A, primary switched-mode, 3-phase. The SFB technology (Selective Fuse Breaking Technology) can now also be used to trigger standard power circuit breakers reliably and quickly.



Commercial data	
EAN	4046356152877
sales group	H031
Pack	1 pcs.
Customs tariff	85044081
Weight/Piece	3.031 KG
Catalog page information	Page 565 (IF-2009)

Product notes

WEEE/RoHS-compliant since:
10/11/2007



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Product description

QUINT POWER power supply units – Maximum system availability with SFB technology

Compact power supply units of the new QUINT POWER generation maximize the availability of your system. With the SFB technology (Selective Fuse Breaking Technology), six times the nominal current for 12 ms, even the standard power circuit-breakers can now also be triggered reliably and quickly. Faulty current paths are switched off selectively, the fault is located and important system parts continue to operate. Comprehensive diagnostics are provided through constant monitoring of output voltage and current. This preventive function monitoring visualizes critical operating modes and reports them to the control unit before an error can occur.

Technical data

Input data

Nominal input voltage	3x 400 V AC ... 500 V AC
AC input voltage range	3x 320 V AC ... 575 V AC
DC input voltage range	450 V DC ... 800 V DC
AC frequency range	45 Hz ... 65 Hz
DC frequency range	0 Hz
Current consumption	Approx. 3x 3.1 A (400 V AC) Approx. 3x 2.7 A (500 V AC)
Inrush surge current	< 20 A (typical)
Power failure bypass	> 25 ms (400 V AC) > 35 ms (500 V AC)
Name of protection	Transient surge protection
Protective circuit/component	Varistor, gas-filled surge arrester

Output data

Nominal output voltage	24 V DC \pm 1%
Setting range of the output voltage	18 V DC ... 29.5 V DC (> 24 V constant capacity)
Output current	40 A (-25°C ... 60°C, U _{OUT} = 24 V DC) 45 A (with POWER BOOST, -25°C ... 40°C continuously, U _{OUT} = 24 V DC) 215 A (with SFB technology, 12 ms)
Derating	From +60°C to 70°C: 2.5% per Kelvin
Connection in parallel	Yes, for redundancy and increased capacity
Connection in series	Yes
Residual ripple	< 40 mV _{PP} (with nominal values)
Peak switching voltages nominal load	< 5 mV _{PP} (at nominal values, 20 MHz)
Maximum power dissipation idling	< 18 W
Power loss nominal load max.	< 63 W

General data

Width	96 mm
Height	130 mm
Depth	176 mm
Weight	2.5 kg
Operating voltage display	LED green

Efficiency	> 94 % (at 400 V AC and nominal values)
Insulation voltage input/output	4 kV AC (type test) 2 kV AC (routine test)
Degree of protection	IP20
Class of protection	I, with PE connection
MTBF	> 500 000 h in acc. with IEC 61709 (SN 29500)
Ambient temperature (operation)	-25 °C ... 70 °C (> 60 °C derating)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Max. permissible relative humidity (operation)	≤ 95 % (at 25 °C, no condensation)
Mounting position	Horizontal DIN rail NS 35, EN 60715
Assembly instructions	Can be aligned: horizontally 5 mm, in addition to active components of 15 mm, vertically 5 cm
Electromagnetic compatibility	Conformance with EMC guideline 2004/108/EC and for low-voltage guideline 2006/95/EC
Immunity to interference	EN 61000-6-2:2005
Standard – Electrical equipment of machines	EN 60204
Standard - Safety of transformers	IEC 61558-2-17
Standard - Electrical safety	IEC 60950/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 (SELV) and EN 60204 (PELV)
Standard - Safe isolation	DIN VDE 0100-410 DIN VDE 0106-101
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)
Certificate	CB Scheme
UL approvals	UL Listed UL 508 UL/C-UL Recognized UL 60950 (3-wire + PE, star net)
Surge voltage category	III
Connection data, input	
Type of connection	Screw connection
Conductor cross section solid min.	0.2 mm ²

Conductor cross section solid max.	6 mm ²
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded max.	4 mm ²
Conductor cross section AWG/kcmil min.	18
Conductor cross section AWG/kcmil max	10
Stripping length	7 mm
Screw thread	M3

Connection data, output

Type of connection	Screw connection
Conductor cross section solid min.	0.5 mm ²
Conductor cross section solid max.	16 mm ²
Conductor cross section stranded min.	0.5 mm ²
Conductor cross section stranded max.	16 mm ²
Conductor cross section AWG/kcmil min.	8
Conductor cross section AWG/kcmil max	6
Stripping length	10 mm

Signaling

Output name	DC OK active
Output description	$U_{OUT} > 0.9 \times U_N$: High signal
Output voltage	+ 24 V DC
Maximum inrush current	≤ 20 mA (short circuit resistant)
Continuous load current	≤ 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
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	6 mm ²
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded max.	4 mm ²
Conductor cross section AWG/kcmil min.	18
Conductor cross section AWG/kcmil max	10
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	$\leq 30 \text{ V AC/DC}$
Maximum inrush current	$\leq 1 \text{ A}$ ($\leq 0.5 \text{ A}$ at 60 V DC)
Continuous load current	$\leq 1 \text{ A}$
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	+ 24 V DC
Maximum inrush current	$\leq 20 \text{ mA}$ (short circuit resistant)
Continuous load current	$\leq 20 \text{ mA}$
Status display	$I_{OUT} > I_N$: LED "BOOST" yellow

Certificates / Approvals



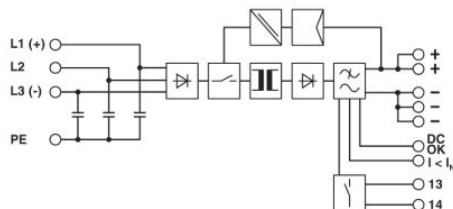
Certification: CSA, CUL, UL, UL Listed
 Certifications applied for: GL / LR / NV / BV / NK / ABS

Accessories

Item	Designation	Description
2938235	UWA 182/52	Universal wall adapter

Diagrams/Drawings

Block diagram



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