

**QUINT-PS-3X400-500AC/24DC/ 5**

Order No.: 2938594

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DIN rail power supply unit 24 V DC/5 A, primary switched-mode, 3-phase.

Commercial data	
EAN	4017918908362
Pack	1 pcs.
Customs tariff	85044081
Weight/Piece	1.3116 KG
Catalog page information	Page 482 (IF-2007)

## Product notes

WEEE/RoHS-compliant since:  
04/05/2006

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Technical data	
<b>Input data</b>	
Nominal input voltage	3 x 400 V AC ... 500 V AC
AC input voltage range	3 x 320 V AC ... 575 V AC (for all three phases)
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 0.36 A (400 V AC)
	3x 0.34 A (480 V AC)
Nominal power consumption	120 W
Inrush surge current	< 15 A (typical)
Power failure bypass	> 50 ms (400 V AC)
	> 50 ms (480 V AC)
Input fuse	5 A (slow-blow, internal)
Permissible backup fuse	3 x 6 A
	10 A
	16 A (characteristic B)
Name of protection	Transient surge protection
Protective circuit/component	Varistor

#### Output data

Nominal output voltage	24 V DC $\pm$ 1%
Setting range of the output voltage	22.5 V ... 28.5 V
Output current	5 A (up to 60 °C)
	7.5 A (with POWER BOOST)
Derating	From +60°C 2.5% per Kelvin
Connection in parallel	Yes, for redundancy and increased capacity
Connection in series	Yes
Current limitation	Approx. $I_{BOOST} = 7.5$ A (for short circuit)
Control deviation	< 1 % (change in load, static 10% ... 90%)
	< 2 % (change in load, dynamic 10% ... 90%)
	< 0.1 % (change in input voltage $\pm$ 10%)
Residual ripple	< 10 mV <sub>PP</sub> (with nominal values)
Peak switching voltages nominal load	< 140 mV <sub>PP</sub> (20 MHz)
Maximum power dissipation idling	< 3 W
Power loss nominal load max.	< 17 W

#### General data

Width	70 mm
Height	130 mm
Depth	125 mm
Weight	0.95 kg

Operating voltage display	LED green
Efficiency	> 88 %
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: Horizontal 0 cm, vertical 5 cm
Electromagnetic compatibility	Conformance with EMC directive 89/336/EEC
Emitted interference	EN 50081-2
Immunity to interference	EN 61000-6-2:2005
Standard – Electrical equipment of machines	EN 60204
Standard - Safety of transformers	EN 61558-2-17
Standard - Electrical safety	EN 60950/VDE 0805 (SELV) EN 61558-2-17
Shipbuilding approval	German Lloyd, ABS
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	EN 60950 (SELV) 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)
Certificate	CB Scheme
UL approvals	UL/C-UL listed UL 508 UL/C-UL Recognized UL 60950 UL/C-UL Listed UL 1604 Class I, Division 2, Groups A, B, C, D

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Surge voltage category	III
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**Connection data, input**

Type of connection	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.	24
Conductor cross section AWG/kcmil max	12
Stripping length	8 mm
Screw thread	M3

**Connection data, output**

Type of connection	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.	24
Conductor cross section AWG/kcmil max	12
Stripping length	8 mm

**Signaling**

Output name	DC OK active
Output description	$U_{OUT} > 0.9 \times U_N$ : High signal
Maximum switching voltage	$\leq 24$ V
Output voltage	+ 24 V DC (signal)
Maximum inrush current	$\leq 40$ mA
Continuous load current	$\leq 40$ mA
Status display	"DC OK" LED green
Note on status display	$U_{OUT} < 0.9 \times U_N$ : LED flashing
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.	24

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	$\leq 30$ V AC/DC
Maximum inrush current	$\leq 1$ A
Continuous load current	$\leq 1$ A
Status display	"DC OK" LED green

### Certificates / Approvals



Certification ABS, CB, CUL, CUL Listed, DNV, GL, GOST, UL, UL Listed

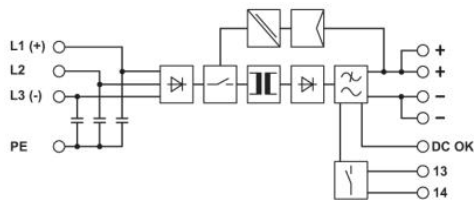
Certification Ex: CUL-EX LIS, UL-EX LIS

### Accessories

Item	Designation	Description
<b>General</b>		
2938196	QUINT-PS-ADAPTERS7/1	Assembly adapter for QUINT-PS... power supply on S7-300 rail
2938235	UWA 182/52	Universal wall adapter

### Diagrams/Drawings

Block diagram



Approbationslogos (EX-Bereich)

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