

Power supply unit - QUINT-PS-3X400-500AC/48DC/20 - 2938222

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DIN rail power supply, 48 V DC/20 A, primary-switched, 3-phase



Key Commercial Data

Packing unit	1 pc
GTIN	 4 017918 927066
GTIN	4017918927066
Weight per Piece (excluding packing)	3,885.200 g
Custom tariff number	85044030
Country of origin	Germany

Technical data

Dimensions

Width	240 mm
Height	130 mm
Depth	125 mm
Width with alternative assembly	122 mm
Height with alternative assembly	130 mm
Depth with alternative assembly	243 mm

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 70 °C (> 60 °C Derating: 2.5 %/K)
Ambient temperature (storage/transport)	-40 °C ... 85 °C

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Ambient conditions

Max. permissible relative humidity (operation)	95 % (at 25 °C, non-condensing)
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Input data

Nominal input voltage range	3x 400 V AC ... 500 V AC
Input voltage range	3x 320 V AC ... 575 V AC (for all three phases)
	450 V DC ... 800 V DC (for all three phases)
AC frequency range	45 Hz ... 65 Hz
Frequency range DC	0 Hz
Current consumption	approx. 3x 2.3 A (400 V AC)
	1.9 A (480 V AC)
Nominal power consumption	1034 W
Inrush current	< 15 A
Mains buffering time	> 20 ms (400 V AC)
	> 30 ms (480 V AC)
Recommended breaker for input protection	3x 6 A ... 16 A (Characteristics B, C, D, K)
Type of protection	Transient surge protection
Protective circuit/component	Varistor

Output data

Nominal output voltage	48 V DC \pm 1 %
Setting range of the output voltage (U_{Set})	30 V DC ... 56 V DC (> 48 V DC, constant capacity restricted)
Nominal output current (I_N)	20 A (-25 °C ... 60 °C)
POWER BOOST (I_{Boost})	22 A (-25°C ... 40°C permanent)
Derating	60 °C ... 70 °C (2.5%/K)
Connection in parallel	Yes, for redundancy and increased capacity
Connection in series	yes
Residual ripple	< 20 mV _{PP}
Output power	960 W
Typical response time	< 1 s
Peak switching voltages nominal load	< 140 mV _{PP} (20 MHz)
Maximum power dissipation in no-load condition	20 W
Power loss nominal load max.	90 W

General

Net weight	3.5 kg
Operating voltage display	Green LED
Efficiency	> 90 % (for 230 V AC and nominal values)
MTBF (IEC 61709, SN 29500)	> 500000 h
Insulation voltage input/output	3 kV (type test)

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General

	1.5 kV (routine test)
Degree of protection	IP20
Protection class	I (with PE connection)
Mounting position	horizontal DIN rail NS 35, EN 60715
Assembly instructions	alignable: horizontally 0 mm, vertically 50 mm

Connection data, input

Connection method	Screw connection
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	6 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	4 mm ²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	10
Stripping length	8 mm
Screw thread	M3

Connection data, output

Connection method	Screw connection
Conductor cross section solid min.	0.5 mm ²
Conductor cross section solid max.	16 mm ²
Conductor cross section flexible min.	0.5 mm ²
Conductor cross section flexible max.	10 mm ²
Conductor cross section AWG min.	20
Conductor cross section AWG max.	6
Stripping length	10 mm
Screw thread	M4

Signaling

Output name	DC OK active
Output description	$U_{OUT} > 0.9 \times U_N$: High signal
Maximum switching voltage	≤ 24 V
Output voltage	+ 24 V DC
Maximum inrush current	≤ 20 mA
Continuous load current	≤ 20 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.	0.5 mm ²
Conductor cross section solid max.	16 mm ²

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Signaling

Conductor cross section flexible min.	0.5 mm ²
Conductor cross section flexible max.	10 mm ²
Conductor cross section AWG min.	20
Conductor cross section AWG max.	6
Screw thread	M4
Output name	DC OK floating
Output description	Relay contact, U _{OUT} > 0.9 x U _N : Contact closed
Maximum switching voltage	≤ 30 V AC/DC
Maximum inrush current	max. 0.5 A
Continuous load current	≤ 1 A
Status display	"DC OK" LED green
Note on status display	U _{OUT} < 0.9 x U _N : LED flashing

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Noise emission	EN 55011 (EN 55022)
Noise immunity	EN 61000-6-2
Connection in acc. with standard	CUL
Low Voltage Directive	Conformance with Low Voltage Directive 2014/35/EC
Standard - Safety of transformers	EN 61558-2-17
Standard - Electrical safety	EN 60950-1/VDE 0805 (SELV)
	EN 61558-2-17
Standard – Electronic equipment for use in electrical power installations and their assembly into electrical power installations	EN 50178/VDE 0160 (PELV)
Standard - Safe isolation	DIN VDE 0100-410
Standard – Limitation of mains harmonic currents	EN 61000-3-2
Standard - Equipment safety	GS (tested safety)
UL approvals	UL/C-UL listed UL 508
	UL/C-UL Recognized UL 60950-1
Certificate	CB Scheme

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

