Extract from the online catalog

QUINT-PS-100-240AC/24DC/ 5

Order No.: 2938581

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DIN rail power supply unit 24 V DC/5 A, primary switched-mode, 1-phase.

Product notes

WEEE/RoHS-compliant since: 03/27/2006

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Commercial data	
EAN	4017918890520
Pack	1 pcs.
Customs tariff	85044081
Weight/Piece	1.223 KG
Catalog page information	Page 480 (IF-2007)

Technical data

Input data

Nominal input voltage	100 V AC ... 240 V AC
AC input voltage range	85 V AC ... 264 V AC
DC input voltage range	90 V DC ... 350 V DC
AC frequency range	45 Hz ... 65 Hz

DC frequency range	0 Hz
Current consumption	Approx. 1.6 A (120 V AC)
	Approx. 0.84 A (230 V AC)
Nominal power consumption	120 W
Inrush surge current	< 20 A (typical)
Power failure bypass	> 30 ms (120 V AC)
	> 130 ms (230 V AC)
Input fuse	5 A (slow-blow, internal)
Permissible backup fuse	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 ±1%
Setting range of the output voltage	22.5 V DC ... 28.5 V DC
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
Max. capacitive load	Unlimited
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 ±10%)
Residual ripple	< 10 mV_{PP} (with nominal values)
Peak switching voltages nominal load	< 30 mV_{PP} (20 MHz)
Maximum power dissipation idling	< 2 W
Power loss nominal load max.	< 14 W

General data

Width	55 mm
Height	130 mm
Depth	125 mm

Weight	0.83 kg
Operating voltage display	LED green
Efficiency	> 89 %
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 Recognized UL 60950
	UL/C-UL listed UL 508
	UL/C-UL Listed UL 1604 Class I, Division 2, Groups A, B, C, D
Surge voltage category	III

Connection data, input

Type of connection	Pluggable screw connection
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	2.5 mm²
Conductor cross section stranded min.	0.2 mm²
Conductor cross section stranded max.	2.5 mm²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	12
Stripping length	7 mm
Screw thread	M3

Connection data, output

Type of connection	Pluggable screw connection
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	2.5 mm²
Conductor cross section stranded min.	0.2 mm²
Conductor cross section stranded max.	2.5 mm²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	12
Stripping length	7 mm

Signaling

Output name	DC OK active
Output description	U_{OUT} > 0.9 x U_N: High signal
Maximum switching voltage	≤ 24 V
Output voltage	+ 24 V DC (signal)
Maximum inrush current	≤ 40 mA
Continuous load current	≤ 40 mA
Status display	"DC OK" LED green
Note on status display	U_{OUT} < 0.9 x U_N: LED flashing
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	2.5 mm²

Conductor cross section stranded min.	0.2 mm²
Conductor cross section stranded max.	2.5 mm²
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 x U_N: Contact closed
Maximum switching voltage	≤ 30 V AC/DC
Maximum inrush current	≤ 1 A
Continuous load current	≤ 1 A
Status display	"DC OK" LED green

Certificates / Approvals

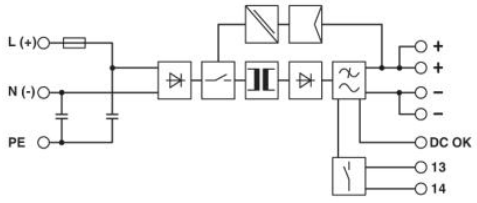
Certification	ABS, CB, CUL, CUL Listed, DNV, GL, GOST, UL, UL Listed
Certification Ex:	CUL-EX LIS, UL-EX LIS

Accessories

Item	Designation	Description
General		
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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