Extract from the online catalog

QUINT-PS- 24DC/24DC/10

Order No.: 2866378

http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2866378

Quint DC-DC converter, primary switched mode, input: 24 V DC, output: 24 V DC / 10 A

Commercial data	
EAN	4017918987169
Pack	1 pcs.
Customs tariff	85044081
Weight/Piece	1.4008 KG
Catalog page information	Page 598 (IF-2009)

Product notes

WEEE/RoHS-compliant since: 11/21/2006

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Product description

The QUINT DC-DC converter 24 V/10 A converts the DC voltage from 18 V ... 32 V to an adjustable, controlled and galvanically separated 24 V output voltage. If no regulated and stable 24 V DC voltage is available to supply a load, DC-DC converters ensure the adjustment of the 24 V load: A non-regulated DC voltage is converted to an adjustable output voltage of 22.5 V ...28.5 V.

Due to electrical isolation, the DC voltage circuits are electrically isolated from each other in a safe way. With a design width of only 80 mm, the housing is extremely slim. The floating DC-OK output and an LED are available for signaling.

Technical data

Input data

Nominal input voltage	24 V DC
	24 V DC
DC input voltage range	18 V DC ... 32 V DC
DC frequency range	0 Hz
Current consumption	Approx. 11.4 A (24 V)
Inrush surge current	< 20 A (typical)
Power failure bypass	> 3 ms (24 V DC)
Input fuse	25 A (slow-blow, internal)
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 (> 24 V constant capacity)
Output current	10 A (-25 °C ... 60 °C)
Derating	From +60°C to 70°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. 18 A
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	< 60 mV_{PP}
Maximum power dissipation idling	< 2 W
Power loss nominal load max.	< 28 W

General data

Width	80 mm
Height	130 mm
Depth	125 mm
Weight	0.95 kg
Operating voltage display	LED green
Efficiency	> 88 % (at 24 V DC and nominal values)

Insulation voltage input/output	1 kV (routine test)
	1.5 kV (type test)
Degree of protection	IP20
Class of protection	III
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
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)
Shipbuilding approval	German Lloyd, ABS, DNV
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 shock currents, basic requirements for protective separation in electrical equipment	DIN VDE 0106-101
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

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

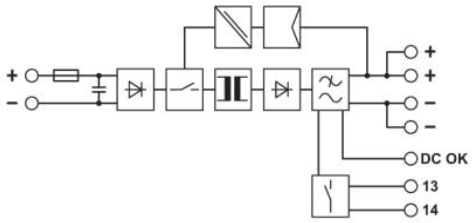
Output name	DC OK active
Output description	U_{OUT} > 21.5 V: High signal
Maximum switching voltage	≤ 24 V DC
Output voltage	+ 24 V DC
Continuous load current	≤ 40 mA
Status display	"DC OK" LED green
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	2.5 mm²
Conductor cross 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	U_{OUT} > 21.5 V: Contact closed
Maximum switching voltage	≤ 30 V AC/DC
Continuous load current	≤ 1 A
Status display	"DC OK" LED green

Certificates / Approvals

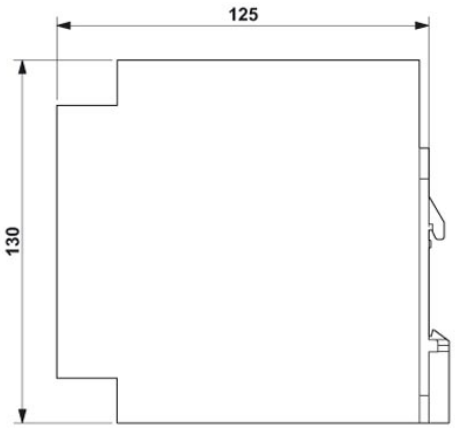
Certification	ABS, CUL, CUL Listed, DNV, GL, UL, UL Listed
Certification Ex:	CUL-EX LIS, UL-EX LIS

Diagrams/Drawings

Block diagram



Dimensioned drawing



Approbationslogos (EX-Bereich)

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