Extract from the online catalog

QUINT-PS/24DC/24DC/ 5

Order No.: 2320034

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QUINT DC/DC converter, with SFB technology, primary-switched, input: 24 V DC, output: 24 V DC/5 A

H D W

SFB TECHNOLOGY

Commercial data	
EAN	4 046356 482035
Pack	1
Customs tariff	85044082
Country of Origin	CN
Catalog page information	Page 608 (IF-2011)

Product notes

WEEE/RoHS-compliant since: 18/12/2008

Please note that the data given here has been taken from the online catalog. For comprehensive information and data, please refer to the user documentation at http://www.download.phoenixcontact.com. The General Terms and Conditions of Use apply to Internet downloads.

Product description

The QUINT 24 V/5 A DC/DC converter converts a DC voltage of 18 V ... 32 V to an adjustable, regulated, and electrically isolated 24 V output voltage. If no regulated and stable 24 V DC voltage is available to supply a load, the DC/DC converter ensures the adjustment of the 24 V load: from an unregulated DC voltage, an adjustable output voltage of 18 V ... 29.5 V is generated.

Technical data

Input data

Nominal input voltage	24 V DC
DC input voltage range	18 V DC ... 32 V DC
	14 V DC ... 18 V DC (Consider derating during operation)
Current consumption	7 A (24 V, I_{BOOST})
Inrush surge current	< 15 A (typical)
Power failure bypass	> 10 ms (24 V DC)
Input fuse	15 A (internal (device protection))
Permissible backup fuse	B10
	B16
Type of protection	Transient surge protection
Protective circuit/component	Varistor

Output data

Nominal output voltage	24 V DC ±1%
Setting range of the output voltage	18 V DC ... 29.5 V DC (> 24 V constant capacity)
Output current	5 A (-25 °C ... 60 °C)
	6.25 A (with POWER BOOST, -25°C ... 40°C permanently, U_{OUT} = 24 V DC)
	30 A (SFB technology, 12 ms)
Magnetic fuse tripping	C2
Derating	60 °C ... 70 °C (2.5%/K)
Connection in parallel	Yes, for redundancy and increased capacity
Connection in series	Yes
Max. capacitive load	Unlimited
Current limitation	Approximately 7.2 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	< 20 mV_{PP}
Peak switching voltages nominal load	< 10 mV_{PP} (20 MHz)
Maximum power dissipation NO-Load	2.4 W
Power loss nominal load max.	11.4 W

General data	
Width	32 mm
Height	130 mm
Depth	125 mm
Width with alternative assembly	122 mm
Height with alternative assembly	130 mm
Depth with alternative assembly	35 mm
Net weight	0.7 kg
Efficiency	> 92 %
Insulation voltage input/output	1 kV (routine test)
	1.5 kV (type test)
Degree of protection	IP20
Protection class	III
MTBF (IEC 61709, SN 29500)	> 500000 h
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 0 mm, vertically 50 mm
Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Noise immunity	EN 61000-6-2:2005
Standard – Electrical equipment of machines	EN 60204-1
Standard - Safety of transformers	EN 61558-2-17
Standard - Electrical safety	EN 60950-1/VDE 0805 (SELV)
Shipbuilding approval	Germanischer Lloyd (EMC 1)
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 60950-1 (SELV)
	EN 60204-1 (PELV)
Standard - Safe isolation	DIN VDE 0100-410
UL approvals	UL/C-UL listed UL 508
	UL/C-UL Recognized UL 60950
	UL listed ANSI/ISA-12.12.01 class I, division 2, groups A, B, C, D

Connection data, input	
Connection method	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	8 mm
Screw thread	M3

Connection data, output

Connection method	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 inrush current	< 20 mA (short-circuit resistant)
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	POWER BOOST, active
Output description	I_{OUT} < I_N: High signal
Maximum inrush current	< 20 mA (short-circuit resistant)

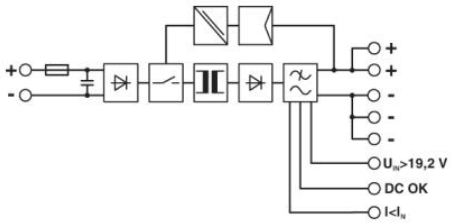
Status display	"BOOST" LED yellow/I_{OUT} > I_N : LED on
Output name	U_{IN} OK, active
Output description	U_{IN} > 19.2 V: High signal
Maximum inrush current	< 20 mA (short-circuit resistant)
Status display	LED "U_{IN} < 19.2 V" yellow/U_{IN} < 19.2 V DC: LED on

Certificates

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

Drawings

Block diagram



Connection data incl. use groups

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