QUINT4-INV/24DC/1AC/600VA/USB - DC/AC inverter

1067325

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QUINT INVERTER, DIN rail mounting, input:24 V DC, output:1AC / 600 VA, Pure sine.

Product description

The DC/AC inverter in the QUINT POWER family offers a compact solution to generate alternating current in DC applications. It delivers a pure sine curve and current with constantly high quality. The inverter also ensures the trouble-free supply of voltage-sensitive loads.

Your advantages

- Manual selection of AC output voltage via signal terminal enables worldwide use
- Pure sine curve at the output
- USB interface for connecting to industrial PCs, for example
- Can be switched in parallel for various applications
- Space savings, thanks to the compact design

Commercial data

Item number	1067325
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CM23
Product key	CMII45
GTIN	4055626737003
Weight per piece (including packing)	2,834 g
Weight per piece (excluding packing)	2,525 g
Customs tariff number	85044085
Country of origin	DE

Technical data

Input data

Input voltage	24 V DC
Input voltage range DC	20 V DC ... 30 V DC
Current consumption	typ. 23 A
	max. 28 A

Output data

Efficiency	> 86 % (120 V AC)
	> 87 % (230 V AC)
Output voltage	120 V AC ±2 % (100 V AC / 6 A...130 V AC / 4,6 A)
	230 V AC ±2 % (200 V AC / 3 A...240 V / 2,5 A)
Form of output voltage	Pure sine
Nominal output current (I_N)	5 A (120 V AC)
	2.6 A (230 V AC)
Maximum no-load power dissipation	typ. 21 W (120 V AC)
	typ. 21 W (230 V AC)
Power loss nominal load max.	typ. 72 W (120 V AC)
	typ. 66 W (230 V AC)
Nominal output frequency	60 Hz 50 Hz ±0.5 %
Derating	50 °C ... 60 °C (2.5 %/K)
Apparent power	600 VA
Real power	480 W
Power factor (cos phi)	0.8
Crest factor	2.8
Total harmonic distortion factor (THD)	< 3 % (linear load)
	< 8 % (non-linear load)
Connection in parallel	yes
	max. 3
Connection in series	no
Overload capacity Mains operation	105 % (permanent)
	120 % ... 150 % (20 s / 5 s, then shutdown)
Electronic current limitation	> 2,5 x I_N (> 200 ms)

Connection data

Input

Position	1.x

Conductor connection

Connection method	Screw connection
rigid	0.2 mm² ... 6 mm²
flexible	0.2 mm² ... 4 mm²

flexible with ferrule without plastic sleeve	0.2 mm² ... 4 mm²
flexible with ferrule with plastic sleeve	0.2 mm² ... 4 mm²
rigid (AWG)	30 ... 10
Stripping length	8 mm
Tightening torque	0.5 Nm ... 0.6 Nm
Drive form screw head	Slotted L

Output

Position	2.x

Conductor connection

Connection method	Screw connection
rigid	0.2 mm² ... 6 mm²
flexible	0.2 mm² ... 4 mm²
flexible with ferrule without plastic sleeve	0.2 mm² ... 4 mm²
flexible with ferrule with plastic sleeve	0.2 mm² ... 4 mm²
rigid (AWG)	30 ... 10
Stripping length	8 mm
Tightening torque	0.5 Nm ... 0.6 Nm
Drive form screw head	Slotted L

Signal

Position	3.x

Conductor connection

Connection method	Screw connection
rigid	0.2 mm² ... 1.5 mm²
flexible	0.2 mm² ... 1.5 mm²
flexible with ferrule without plastic sleeve	0.2 mm² ... 1.5 mm²
flexible with ferrule with plastic sleeve	0.2 mm² ... 1.5 mm²
rigid (AWG)	30 ... 12
Stripping length	8 mm
Tightening torque	0.5 Nm ... 0.6 Nm
Drive form screw head	Slotted L

Interfaces

Interface	USB (Modbus/RTU)
Number of interfaces	1
Connection method	MINI-USB Type B
Connection marking	5.1
Locking	Screw
Transmission physics	USB 2.0
Features	lockable
Maximum cable length	3 m
Electrical isolation	yes
Interface	Parallel Port

Number of interfaces	1
Connection method	RJ45
Connection marking	5.2
Locking	Locking clip
Electrical isolation	yes

Signaling

Signal input Start

Connection labeling	3.6
Signalization designation	Start 230V
Low signal	Connection to SGnd with < 2.7 kΩ
High signal	Open (> 200 kΩ between Start and SGnd)

Signal input Start

Connection labeling	3.7
Signalization designation	Start 120V
Low signal	Connection to SGnd with < 2.7 kΩ
High signal	Open (> 200 kΩ between Start and SGnd)

Signal input Remote

Connection labeling	3.8
Signalization designation	Remote
Low signal	Connection to SGnd with < 2.7 kΩ
High signal	Open (> 35 kΩ between Remote and SGnd)

Signal output AC OK

Connection labeling	3.2
Signalization designation	AC OK
Type of signaling	LED (green)
Switching output	Transistor output, active
Output voltage	24 V
Continuous load current	≤ 20 mA
LED status indicator	green

Signal output DC OK

Connection labeling	3.3
Signalization designation	DC OK
Switching output	Transistor output, active
Output voltage	24 V
Continuous load current	≤ 20 mA
LED status indicator	green

Signal output Alarm

Connection labeling	3.1
Signalization designation	Alarm
Type of signaling	LED red

Switching output	Transistor output, active
Output voltage	24 V
Continuous load current	≤ 20 mA
LED status indicator	red

Signal output P > P_N

Connection labeling	3.4
Signalization designation	$P>P_n$
Switching output	Transistor output, active
Continuous load current	≤ 20 mA
LED status indicator	green

Signal output Parallel run

Connection labeling	3.5
Signalization designation	Parallel run
Switching output	Transistor output, active
Continuous load current	≤ 20 mA

Signal ground SGnd

Connection labeling	3.9
Function	Signal ground
Reference potential	For signal inputs and signal outputs

Electrical properties

Number of phases	1.00

Product properties

Product type	DC/AC inverters
Product family	QUINT INVERTER
MTBF (IEC 61709, SN 29500)	532525 h (40 °C)

Insulation characteristics

Protection class	I
Degree of pollution	2

Dimensions

Item dimensions

Width	180 mm
Height	130 mm
Depth	125 mm

Installation dimensions

Installation distance right/left	0 mm / 0 mm
Installation distance top/bottom	50 mm / 50 mm

Mounting

Mounting type	DIN rail mounting

Material specifications

Housing material	Metal

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 60 °C (> 50 °C: 2,5 % / K)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Maximum altitude	≤ 3000 m (> 2000 m: 0,6 % / 100 m)
Max. permissible relative humidity (operation)	≤ 95 %
Shock	20g in all directions (EN 60068-2-27)
Vibration (operation)	5 Hz ... 100 Hz, 0.7g (EN 60068-2-6)

Standards and regulations

Overvoltage category

EN 61010-2-201	II

Approvals

UL

Identification	UL/C-UL Recognized UL 1778

UL

Identification	UL/C-UL Listed UL 61010-1

UL

Identification	UL/C-UL Listed UL 61010-2-201

EMC data

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Low Voltage Directive	Conformance with Low Voltage Directive 2014/35/EC
Interference emission	Noise emission in accordance with EN 61000-6-4
Noise immunity	Immunity in accordance with EN 61000-6-2

Electrostatic discharge

Standards/regulations	EN 61000-4-2

Electrostatic discharge

Contact discharge	± 6 kV
Discharge in air	± 8 kV
Comments	Criterion A

Electromagnetic HF field

Standards/regulations	EN 61000-4-3

Electromagnetic HF field

Frequency range	80 MHz ... 6 GHz
Test field strength	10 V/m
Comments	Criterion A

Fast transients (burst)

Standards/regulations	EN 61000-4-4

Fast transients (burst)

Input	± 2 kV
Output	± 2 kV
Signal	± 2 kV
	± 2 kV (USB)
Comments	Criterion A (B for USB)

Surge voltage load (surge)

Standards/regulations	EN 61000-4-5

Surge voltage load (surge)

Input	± 1 kV (symmetrical)
	± 2 kV (asymmetrical)
Output	± 2 kV (symmetrical)
	± 4 kV (asymmetrical)
Signal	1 kV (asymmetrical)
Comments	Criterion A

Conducted interference

Standards/regulations	EN 61000-4-6

Conducted interference

Frequency range	0.15 MHz ... 80 MHz
Signal	10 V
Comments	Criterion A

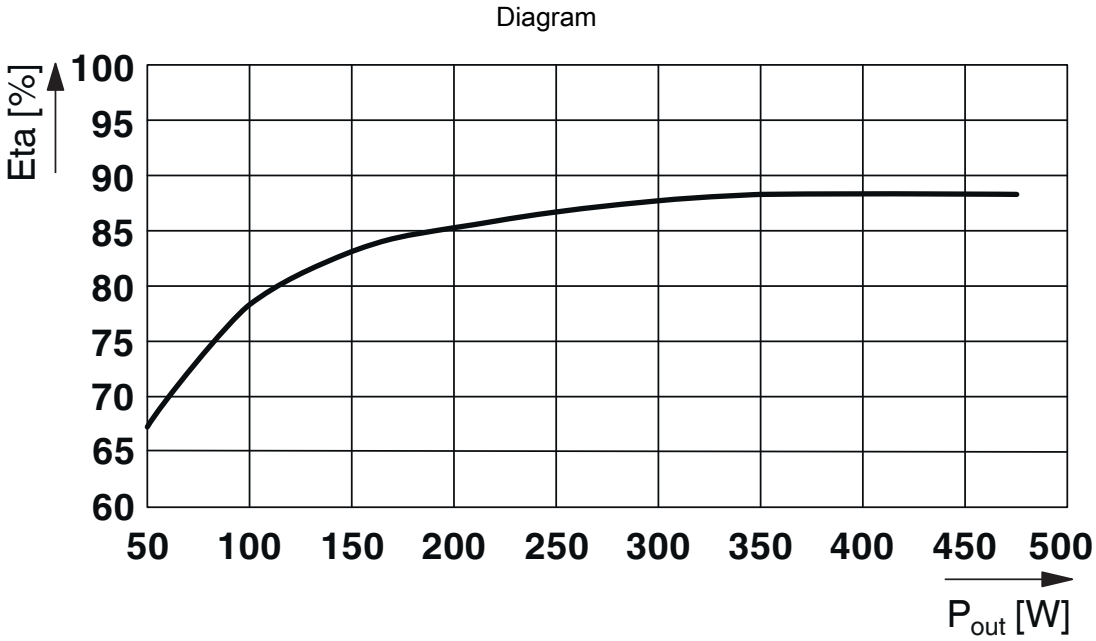
Power frequency magnetic field

Standards/regulations	EN 61000-4-8
Frequency	50 Hz
	60 Hz
Signal	30 A/m
Comments	Criterion A

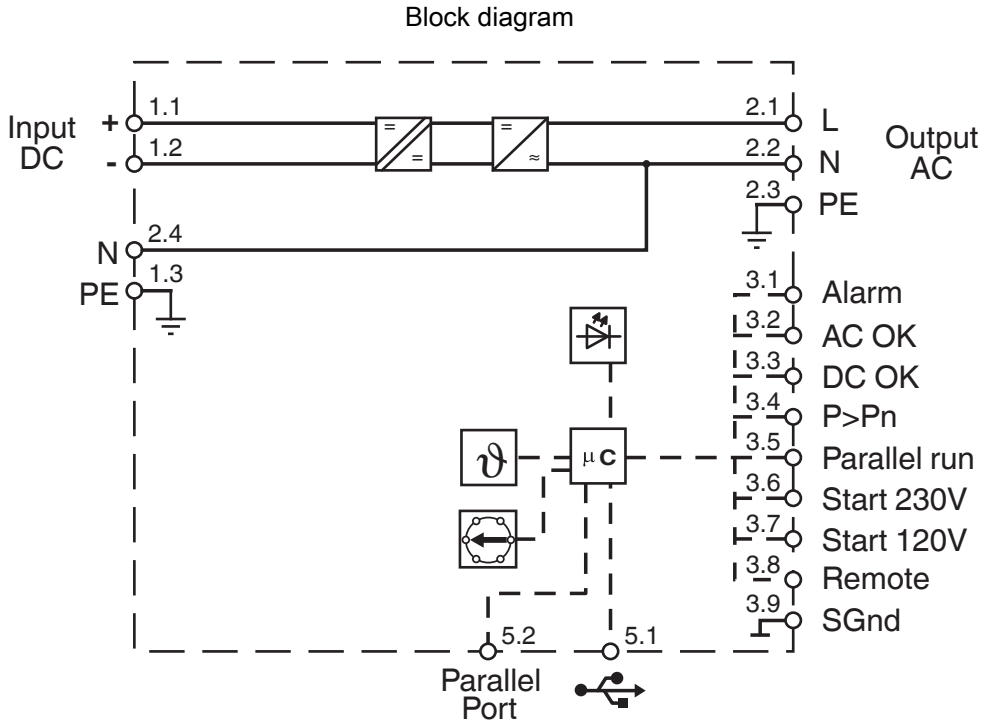
Criteria

Criterion A	Normal operating behavior within the specified limits.
Criterion B	Temporary impairment to operational behavior that is corrected by the device itself.

Drawings



Efficiency



Block diagram

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1067325

IECEE CB Scheme
Approval ID: DK-95874-M1-UL

cULus Recognized
Approval ID: FILE E 342453

cULus Recognized
Approval ID: FILE E 123528

EAC
Approval ID: RU S-DE.BL08.W.00764

cUL Recognized
Approval ID: FILE E 359066

UL Recognized
Approval ID: FILE E 359066

Classifications

ECLASS

ECLASS-13.0	27040202

ETIM

ETIM 9.0	EC001747

UNSPSC

UNSPSC 21.0	32121700

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c)

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	0ca010f8-3c23-4d21-b5d9-0cb3d1a696c5

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