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

1067325

https://www.phoenixcontact.com/us/products/1067325

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

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

Signal 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 Start 230V

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 Start 120V

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)

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)

Signal AC OK

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

Signal 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 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 Parallel run

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

Signal $P>P_n$

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

Signal ground SGnd

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

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

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)

Data management status

Article revision	01

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

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
Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Conducted noise emission	EN 61000-6-4

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	± 1 kV (symmetrical)
	± 2 kV (asymmetrical)
Signal	1 kV (asymmetrical)
Comments	Criterion B

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

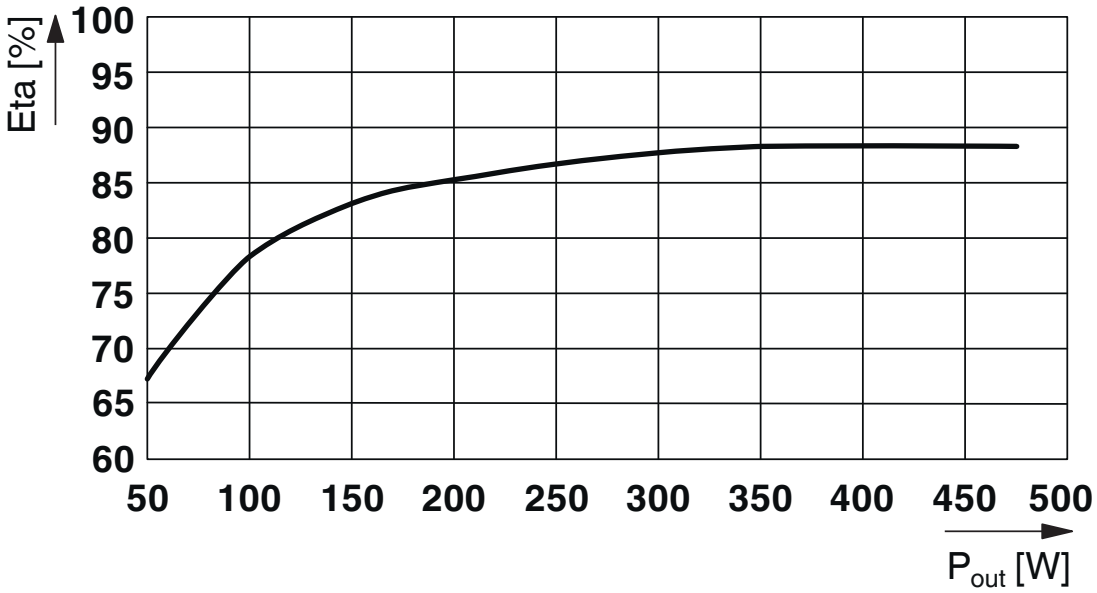
Standards/regulations	EN 61000-4-8
Frequency	50 Hz
	60 Hz
Signal	30 A/m
Comments	Criterion A

Criteria

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

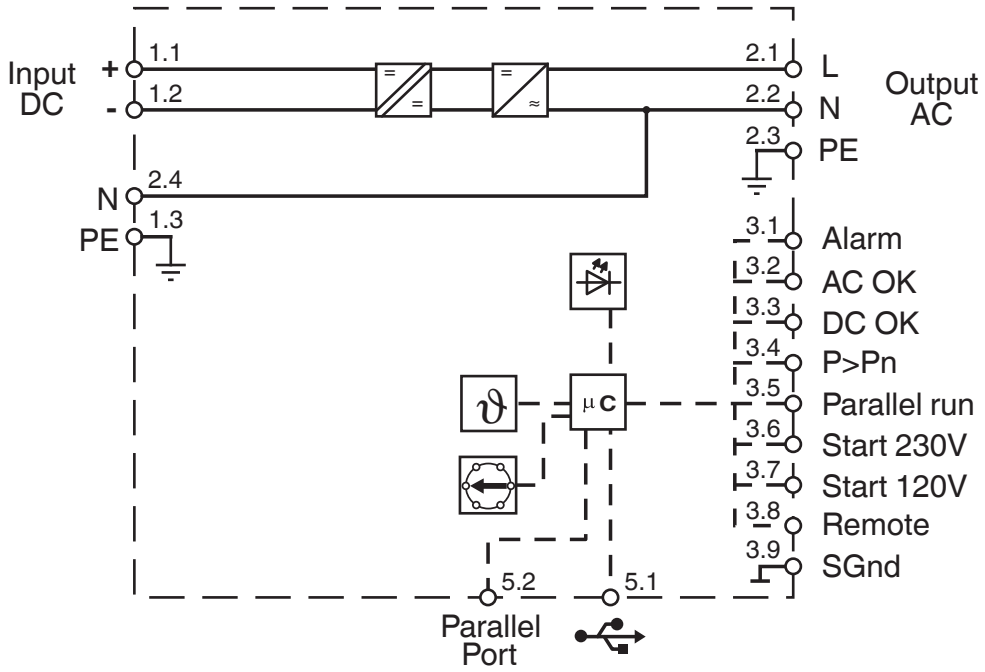
Drawings

Diagram



Efficiency

Block diagram



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

cULus Recognized

Classifications

ECLASS

ECLASS-11.0	27040202
ECLASS-13.0	27040202
ECLASS-12.0	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

Accessories

RJ45-PORT-BRIDGE/3XPARALLEL - Adapter

1205351

https://www.phoenixcontact.com/us/products/1205351

Passive RJ45 distributor with three female connectors connected in parallel and optional functional grounding

MINI-SCREW-USB-DATACABLE - Data cable

2908217

https://www.phoenixcontact.com/us/products/2908217

Used for communication between an industrial PC and Phoenix Contact devices with USB-Mini-B connection.

UWA 130 - Mounting adapter

2901664

https://www.phoenixcontact.com/us/products/2901664

2-piece universal wall adapter for securely mounting the device in the event of strong vibrations. The profiles that are screwed onto the side of the device are screwed directly onto the mounting surface. The universal wall adapter is attached on the left/right.

UWA 182/52 - Mounting adapter

2938235

https://www.phoenixcontact.com/us/products/2938235

Universal wall adapter for securely mounting the device in the event of strong vibrations. The device is screwed directly onto the mounting surface. The universal wall adapter is attached on the top/bottom.

PLT-SEC-T3-120-FM-UT - Type 3 surge protection device

2907918

https://www.phoenixcontact.com/us/products/2907918

Type 2/3 surge protection, consisting of protective plug and base element, with integrated status indicator and remote signaling for single-phase power supply networks. Nominal voltage: 120 V AC/DC

PLT-SEC-T3-230-FM-UT - Type 3 surge protection device

2907919

https://www.phoenixcontact.com/us/products/2907919

Type 2/3 surge protection, consisting of protective plug and base element with screw connection. For single-phase power supply network with integrated status indicator and remote signaling. Nominal voltage: 230 V AC/DC

POWER MANAGEMENT SUITE - Configuration software

1252232

https://www.phoenixcontact.com/us/products/1252232

Configuration and management software

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