

Data sheet | Item number: 787-1650

DC/DC Converter; 24 VDC input voltage; 12 VDC output voltage; 4 A output current; galvanically isolated



www.wago.com/787-1650



Subject to changes. Please also observe the further product documentation!

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We are always happy to take your call at +49 (571) 887-44222.



Item description

Features:

- Switched-mode power supply
- Natural convection cooling when horizontally mounted
- Suitable for both parallel and series operation
- Electrically isolated output voltage (SELV) per EN 60950-1
- Control deviation: $\pm 1\%$

Data

Technical data

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Input

Nominal input voltage $U_{i\text{ nom}}$	DC 24 V
Input voltage range	DC 18 ... 60 V
Nominal mains frequency range	0 Hz
Input current I_i	≤ 2.56 A (24 VDC); ≤ 0.96 A (60 VDC); ≤ 3.39 A (18 VDC)
Inrush current	≤ 60 A (NTC)
Mains failure hold-up time	≥ 5 ms (24 VDC)

Output

Nominal output voltage $U_{o\text{ nom}}$	DC 12 V (SELV)
Output voltage range	DC 11.5 ... 14.5 V (adjustable)
Default setting	DC 12 V
Nominal output current $I_{o\text{ nom}}$	4 A
Nominal output power	48 W
Deviation	≤ 1 %
Residual ripple	≤ 50 mV (peak-to-peak)
Current limitation	$1.1 \times I_{o\text{ nom}}$ (typ.)
Overload behavior	Constant current

Signaling and Communication

Signaling	1 x Status indication LED (green)
Operation status indicator	Green LED (U_o)

Efficiency/power losses

Power loss P_l	≤ 1 W; ≤ 11.7 W (DC_{in} 24 V / 4 A); ≤ 1.28 W (48 VDC; 40 A)
Power loss (max.) $P_{l(max)}$	15 W (DC_{in} 18 V / 4 A)
Efficiency (typ.)	84 %

Circuit protection

Internal fuse	T 4 A / 250 VDC
Backup fusing (recommended)	T 6.3 A

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Safety and protection

Protection class	III
Protection type	IP20; per EN 60529
Overvoltage category	II
Pollution degree	2
Transient suppression (primary)	Varistor
Overvoltage protection; secondary	Internal protective circuit ≤ 35 VDC (in the event of a fault)
Short-circuit-protected	Yes
Open-circuit-proof	Yes
Parallel operation	Yes
Series operation	Yes
MTBF	> 500,000 h (per IEC 61709)

Connection data

Connection type 1	Eingang/Ausgang/Signalisierung
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 721 Series
Solid conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 inches

Physical data

Width	45 mm / 1.772 inches
Height	90 mm / 3.543 inches
Depth from upper-edge of DIN-rail	107.5 mm / 4.232 inches

Mechanical Data

Mounting type	DIN-35 rail
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Material Data

Flammability class per UL94	V0
Weight	240 g

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Environmental requirements

Ambient temperature (operation)	-25 ... +70 °C
Ambient temperature (storage)	-25 ... +85 °C
Relative humidity	5 ... 96 % (no condensation permissible)
Derating	-2 %/K (> 55 °C)
Climatic category	3K3 (per EN 60721)

Standards and specifications

Conformity marking	CE
Standards/specifications	EN 61010-1 EN 61010-2-201 EN 61204-3 EN 61558-2-16

Commercial data

eCl@ss 10.0	27-04-07-01
eCl@ss 9.0	27-04-07-01
ETIM 8.0	EC002540
ETIM 7.0	EC002540
Recupel Type	
PU (SPU)	1 pcs
Packaging type	box
Country of origin	DE
GTIN	4055143737593
Customs tariff number	85044083900

Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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Approvals / Certificates

General approvals

Logo	Approval	Additional Approval Text	Certificate name
	EAC Brjansker Zertifizierungsstelle	TP TC 004/2011, TP TC 020/2011	EAC RU C-DE.AM02. B. 00089_19

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Declarations of conformity and manufacturer's declarations

Logo	Approval	Additional Approval Text	Certificate name
	EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Optional accessories

Tool

Operating tool			
	Item no.: 210-769 SCREWDRIVER; green		www.wago.com/210-769

Downloads

Documentation

Bid Text

787-1650 X81 - Datei	2019 年7月1日	xml 6.0 kB	Download
787-1650 docx - Datei	2019 年6月24日	docx 19.6 kB	Download

Instruction Leaflet

DC/DC Converter 24 VDC input voltage; 12 VDC output voltage; 4 A output current; galvanically isolated	01.03.2018 2020 年10月8日	pdf 174.6 kB	Download
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Additional Information

Disposal and Recycling Electrical and electronic equipment, Batteries, Packaging	V 1.1.0 2022 年8月18日	pdf 2.2 MB	Download
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CAD/CAE-Data

CAD data

2D/3D Models 787-1650		URL	Download
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Environmental Product Compliance

Compliance Search

Environmental Product Compliance 787-1650

URL

Download

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Installation Notes

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