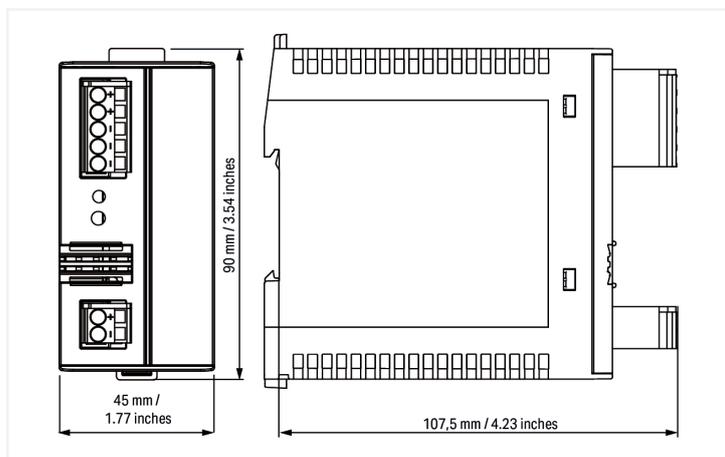
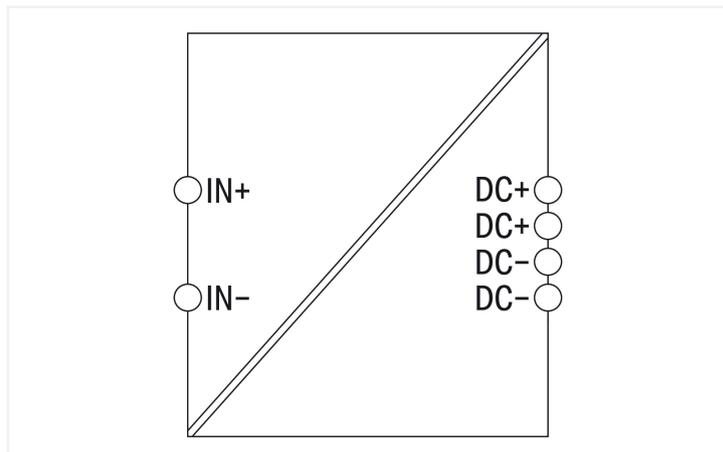


# Data Sheet | Item Number: 787-1650

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

<https://www.wago.com/787-1650>



## 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:  $\pm 1\%$

## Technical data

### Input

Nominal input voltage $U_{i, nom}$	24 VDC
Input voltage range	18 ... 60 VDC
Nominal mains frequency range	0 Hz
Input current $I_i$	$\leq 2.56$ A (24 VDC); $\leq 0.96$ A (60 VDC); $\leq 3.39$ A (18 VDC)
Discharge current	$\leq 0.25$ mA
Inrush current	$\leq 60$ A (NTC)
Mains failure hold-up time	$\geq 5$ ms (24 VDC)

### Output

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

### Signaling and communication

Signaling	1 x Status indication LED (green)
Operation status indicator	Green LED (U <sub>o</sub> )

### Efficiency/power losses

Power loss P <sub>I</sub>	≤ 1 W; ≤ 11.7 W (DC <sub>in</sub> 24 V / 4 A)
Power loss (max.) P <sub>I(max)</sub>	15 W (DC <sub>in</sub> 18 V / 4 A)
Efficiency (typ.)	84 %

### Circuit protection

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

### Safety and protection

Isolation voltage (pri.-sec.)	DC 2.2 kV
Protection class	III
Protection type	IP20; Per EN 60529
Resistance to reverse feed	≤ 25 VDC
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 1

Connection type	Input/output/signaling
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 721 Series
Solid conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm <sup>2</sup> / 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
Fire load	0 MJ
Weight	240 g

### 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

PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4055143737593
Customs tariff number	85044083900

### Product Classification

UNSPSC	39121004
eCl@ss 10.0	27-04-07-01
eCl@ss 9.0	27-04-07-01
ETIM 9.0	EC002540
ETIM 8.0	EC002540
ECCN	NO US CLASSIFICATION

### Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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### Approvals / Certificates

#### General approvals

Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 004/2011	EAC CoC 03078
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03081

#### Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-

**Downloads**

**Environmental Product Compliance**

**Compliance Search**

Environmental Product Compliance 787-1650



**Documentation**

**Bid Text**

787-1650	01.07.2019	xml 5.86 KB	
787-1650	24.06.2019	docx 19.16 KB	

**Instruction Leaflet**

DC/DC Converter	01.03.2018 08.10.2020	pdf 170.48 KB	
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**CAD/CAE-Data**

**CAD data**

2D/3D Models  
787-1650



**1 Compatible Products**

**1.1 Optional Accessories**

**1.1.1 Tool**

**1.1.1.1 Operating tool**



Item No.: [210-769](#)  
SCREWDRIVER; green