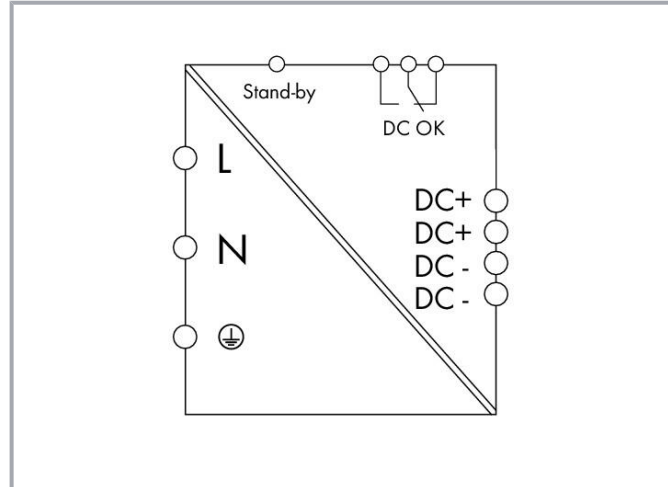


## Data sheet | Item number: 787-831

Switched-mode power supply; Pro; 1-phase; 12 VDC output voltage; 15 A output current; TopBoost + PowerBoost; DC OK contact



[www.wago.com/787-831](http://www.wago.com/787-831)



## Item description

### Features:

- Switched-mode power supply with PowerBoost and TopBoost
- Switch off the output and minimize power consumption via stand-by input
- Output monitoring via DC OK contact
- Suitable for both parallel and series operation
- Natural convection cooling when horizontally mounted
- Encapsulated for use in control cabinets
- Electrically isolated output voltage (SELV) per UL 60950-1; PELV per EN 60204

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

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## Data

### Technical data

#### Input

Phases	1
Nominal input voltage $U_{i\text{ nom}}$	1 x AC 100 ... 240 V
Input voltage range	1 x AC 85 ... 264 V; DC 120 ... 300 V
Input voltage derating	-1.5 %/V (< 110 VAC)
Nominal mains frequency range	50 ... 60 Hz; 0 Hz
Input current $I_i$	$\leq 0.9$ A (240 VAC; 15 ADC)
Inrush current	$\leq 8$ A (active power factor correction (PFC))
Power factor correction (PFC)	Active
Mains failure hold-up time	$\geq 30$ ms (230 VAC)

#### Output

Nominal output voltage $U_{o\text{ nom}}$	DC 12 V (SELV)
Output voltage range	DC 11 ... 18 V (adjustable)
Nominal output current $I_{o\text{ nom}}$	15 A (12 VDC)
Nominal output power	180 W
Residual ripple	$\leq 70$ mV (peak-to-peak)
Current limitation	$1.1 \times I_{o\text{ nom}}$ (typ.)
Overload behavior	TopBoost/PowerBoost/Constant current mode
PowerBoost	DC 30 A (4 s); DC 22.5 A (8 s)
TopBoost	DC 55 A (25 ms)

#### Signaling and Communication

Signaling	1 x LED DC OK (green) 1 x Error LED (red) 1 x Stand-by input 1 x DC OK relay contact (changeover contact)
Operation status indicator	Green LED (DC OK) Red LED (error)

#### Efficiency/power losses

Power loss $P_l$	$\leq 0.8$ W (standby); $\leq 4.6$ W (no load); $\leq 23.4$ W (nominal load)
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Subject to changes. Please also observe the further product documentation!



Efficiency (typ.)	87 %
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## Circuit protection

Internal fuse	T 6.3 A / 250 VAC
Backup fusing (required)	An external DC fuse is required for the DC input voltage.
Backup fusing (recommended)	Circuit breaker: 6 A, 10 A, 16 A; Tripping characteristic: B or C

## Safety and protection

Isolation voltage (sec.-PE)	DC 0.7 kV
Protection class	I
Protection type	IP20; per EN 60529
Overvoltage category	II
Pollution degree	2
Transient suppression (primary)	Varistor
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	Input/Output
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 231 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
Connection type 2	Signaling
Connection technology 2	CAGE CLAMP®
WAGO connector 2	WAGO 733 Series
Solid conductor 2	0.08 ... 0.5 mm <sup>2</sup> / 28 ... 20 AWG
Fine-stranded conductor 2	0.08 ... 0.5 mm <sup>2</sup> / 28 ... 20 AWG
Strip length 2	5 ... 6 mm / 0.2 ... 0.24 inches

## Physical data

Width	57 mm / 2.244 inches
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Height	163 mm / 6.417 inches
Depth from upper-edge of DIN-rail	179 mm / 7.047 inches
Note (dimensions)	Height with connector

### Mechanical Data

Mounting type	DIN-35 rail
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### Material Data

Weight	1480 g
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### Environmental requirements

Ambient temperature (operation)	-25 ... +70 °C (Device starts at -40 °C (type-tested))
Ambient temperature (storage)	-25 ... +85 °C
Relative humidity	5 ... 96 % (no condensation permissible)
Derating	-3 %/K (> 50 °C)

### Standards and specifications

Conformity marking	CE
Standards/specifications	EN 61010-1 EN 61010-2-201 EN 61204-3 EN 61558-2-16 UL 60950 UL 508

### Commercial data

Product Group	6 (INTERFACE ELECTRONIC)
eCl@ss 10.0	27-04-07-01
eCl@ss 9.0	27-04-07-01
ETIM 8.0	EC002540
ETIM 7.0	EC002540
PU (SPU)	1 pcs
Packaging type	box
Country of origin	DE
GTIN	4050821226475
Customs tariff number	85044083900

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




## Environmental Product Compliance

RoHS Compliance Status


Compliant, No Exemption

## 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
	UL Underwriters Laboratories Inc.	UL 508	E255817
	UL Underwriters Laboratories Inc.	UL 60950-1	E255815




### Declarations of conformity and manufacturer's declarations

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

## Optional accessories

### Marking accessories

#### Marking strip

	<b>Item no.: 2009-110</b> Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white	<a href="http://www.wago.com/2009-110">www.wago.com/2009-110</a>
	<b>Item no.: 210-831</b> Marking strips; on reel; 2.3 mm wide; plain; Self-adhesive; white	<a href="http://www.wago.com/210-831">www.wago.com/210-831</a>
	<b>Item no.: 210-832</b> Marking strips; on reel; 3 mm wide; plain; Self-adhesive; white	<a href="http://www.wago.com/210-832">www.wago.com/210-832</a>

#### Tool

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

Operating tool



**Item no.: 210-719**  
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

[www.wago.com/210-719](http://www.wago.com/210-719)



**Item no.: 210-769**  
SCREWDRIVER; green

[www.wago.com/210-769](http://www.wago.com/210-769)



**Item no.: 210-720**  
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

[www.wago.com/210-720](http://www.wago.com/210-720)

Mounting adapter

Wall-mount adapter



**Item no.: 787-895**  
Mounting carrier; for screw fixing of 787-8xx devices on mounting plate or wall without DIN 35 rail

[www.wago.com/787-895](http://www.wago.com/787-895)

DIN-rail adapter



**Item no.: 787-897**  
Carrier rail adapter made of zinc die-cast; for mounting 787-8xx devices to a DIN 35 rail

[www.wago.com/787-897](http://www.wago.com/787-897)



**Item no.: 787-896**  
Carrier rail adapter; for mounting 787-8xx devices to a DIN 35 rail

[www.wago.com/787-896](http://www.wago.com/787-896)

Downloads

Documentation

Bid Text

787-831 X81 - Datei	2019 Jul 4	xml 6.2 kB	Download
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787-831 docx - Datei	2019 Jul 4	docx 21.5 kB	Download
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Instruction Leaflet

Primär getaktete Stromversorgungen PRO DC 12 V, 15 A		pdf 253.1 kB	Download
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Additional Information

Disposal and Recycling Electrical and electronic equipment, Batteries, Packaging	V 1.1.0 2022 Aug 18	pdf 2.2 MB	Download
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## Engineering-Software

### Configuration and Commissioning Software

WAGO Line Length Calculation	1.3.5	exe	Download
Die WAGO Leitungslaengenrechnung hilft bei der Planung der sekundärseitigen Absicherung von Leitungen an WAGO Stromversorgungen Pro (787-8xx) und Classic (787-16xx). Nach Auswahl eines Netzgerätes kann der gewünschte Leitungsquerschnitt und der zugehörige Leitungsschutzschalter ausgewählt werden. Das Software-Werkzeug berechnet dann die maximale Leitungslänge, bei der die Absicherung unter Berücksichtigung der Leitungs- und Übergangswiderstände ordnungsgemäß funktioniert. Die Auswahl einer Grundlast kann vom Anwender vorgenommen werden.	2019 Dec 9	337.4 kB	

## CAD/CAE-Data

### CAD data

2D/3D Models 787-831	URL	Download
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### CAE data

EPLAN Data Portal 787-831	URL	Download
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WSCAD Universe 787-831	URL	Download
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ZUKEN Portal 787-831	URL	Download
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## Environmental Product Compliance

### Compliance Search

Environmental Product Compliance 787-831	URL	Download
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## Installation Notes

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## Product family

### EPSITRON PRO Power

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