

## Data sheet | Item number: 787-850

Switched-mode power supply; Pro; 3-phase; 24 VDC output voltage; 10 A output current; TopBoost + PowerBoost; LineMonitor; DC OK signal; 2,50 mm<sup>2</sup>

[www.wago.com/787-850](http://www.wago.com/787-850)



### Item description

#### Features:

- Switched-mode power supply with PowerBoost and TopBoost
- Suitable for both parallel and series operation
- Natural convection cooling when horizontally mounted
- Encapsulated for use in control cabinets

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

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- Electrically isolated output voltage (SELV) per UL 60950-1; PELV per EN 60204
- LineMonitor for parameter setting and monitoring
- RS-232 serial interface
- Four signal outputs

## Data

### Technical data

#### Input

Phases	2 / 3
Nominal input voltage $U_{i\text{ nom}}$	(2 / 3) x AC 400 ... 500 V
Input voltage range	(2 / 3) x AC 340 ... 550 V; DC 480 ... 780 V
Nominal mains frequency range	50 ... 60 Hz; 0 Hz
Input current $I_i$	$\leq 3 \times 0.6 \text{ A}$ (340 VAC; 10 ADC)
Inrush current	$\leq 30 \text{ A}$
Power factor correction (PFC)	Passive (adjustable via software/display)
Mains failure hold-up time	$\geq 22 \text{ ms}$ (3 x 400 VAC)

#### Output

Nominal output voltage $U_{o\text{ nom}}$	DC 24 V (SELV)
Output voltage range	DC 22.8 ... 28.8 V (adjustable)
Default setting	DC 24 V
Nominal output current $I_{o\text{ nom}}$	10 A (24 VDC)
Nominal output power	240 W
Deviation	$\leq 1 \%$
Residual ripple	$\leq 70 \text{ mV}$ (peak-to-peak)
Current limitation	$1.1 \times I_{o\text{ nom}}$ (typ.)
Overload behavior	Adjustable (constant current/fuse mode)
PowerBoost	DC 20 A (4 s); DC 15 A (16 s)
TopBoost	DC 70 A (50 ms)

#### Signaling and Communication

Signaling	1 x LED DC OK (green) 1 x Warning LED (yellow) 1 x Error LED (red)
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Subject to changes. Please also observe the further product documentation!



	LCD 1 x RS-232 interface
Operation status indicator	Green LED (DC OK) Yellow LED (warning) Red LED (error)
Communication	RS-232 serial interface

### Efficiency/power losses

Power loss $P_l$	$\leq 7.8 \text{ W}; \leq 19.9 \text{ W}$ (nominal load)
Efficiency (typ.)	91.7 %

### Circuit protection

Internal fuse	3 x T 2.5 A / 440 VAC
Backup fusing (required)	An external DC fuse is required for the DC input voltage.
Backup fusing (recommended)	3 x circuit breaker: 6 A, 10 A, 16 A; Tripping characteristic: B or C Alternative: motor circuit breaker; Setpoint: 1.6 A; Setting range: 1.6 ... 2.5 A

### 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

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



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
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	1000 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)
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 UL 60950 UL 508

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## 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
Recupel Type	
PU (SPU)	1 pcs
Packaging type	box
Country of origin	DE
GTIN	4045454909918
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
	<b>EAC</b> Brjansker Zertifizierungsstelle	TP TC 004/2011, TP TC 020/2011	EAC RU C-DE.AM02.B. 00089_19
	<b>UL</b> Underwriters Laboratories Inc.	UL 508	E255817
	<b>UL</b> Underwriters Laboratories Inc.	UL 60950-1	E255815

### Declarations of conformity and manufacturer's declarations

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

## Optional accessories

### Marking accessories

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## 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>

## Cables and pluggable connectors

## Communication cable

<b>Item no.: 787-890</b> RS-232 communication cable; Length 1.8 m	<a href="http://www.wago.com/787-890">www.wago.com/787-890</a>
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## Connecting cable

<b>Item no.: 761-9005</b> USB adapter; with 1m connection cable	<a href="http://www.wago.com/761-9005">www.wago.com/761-9005</a>
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## Mounting adapter

## Wall-mount adapter

<b>Item no.: 787-895</b> Mounting carrier; for screw fixing of 787-8xx devices on mounting plate or wall without DIN 35 rail	<a href="http://www.wago.com/787-895">www.wago.com/787-895</a>
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## DIN-rail adapter

<b>Item no.: 787-897</b> Carrier rail adapter made of zinc die-cast; for mounting 787-8xx devices to a DIN 35 rail	<a href="http://www.wago.com/787-897">www.wago.com/787-897</a>
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<b>Item no.: 787-896</b> Carrier rail adapter; for mounting 787-8xx devices to a DIN 35 rail	<a href="http://www.wago.com/787-896">www.wago.com/787-896</a>
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## Tool

## Operating tool

<b>Item no.: 210-719</b> Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft	<a href="http://www.wago.com/210-719">www.wago.com/210-719</a>
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<b>Item no.: 210-720</b> Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured	<a href="http://www.wago.com/210-720">www.wago.com/210-720</a>
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## Downloads

## Documentation

## Bid Text

787-850 docx - Datei	2019 年7月4日	docx 21.2 kB	Download
787-850 X81 - Datei	2019 年7月4日	xml 7.7 kB	Download

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

## Instruction Leaflet

Primär getaktete Stromversorgungen PRO DC 24 V, 10 A, SELV, Line Monitor		pdf 525.5 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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## Libraries

### Library

Anbindung Stromversorgungen Serie 787 Die Bibliothek "WagoLib787_01.lib" stellt Funktionsbausteine und Visualisierungen zur Verfügung, mit deren Hilfe die Informationen der WAGO Stromversorgungsmodule der Serie 787 angezeigt werden können.	1.3.0 2014 年5月14 日	zip 562.7 kB	Download
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## Engineering-Software

### Configuration and Commissioning Software

WAGO Line Length Calculation Die WAGO Leitungslängenrechnung 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.	1.3.5 2019 年12月9 日	exe 337.4 kB	Download
WAGO Software 759-850 Configuration software 759-850, for parameterization of power supply units 787-850, 787-852 and 787-854	1.10.16 2011 年5月24 日	zip 532.7 kB	Download
WAGO Software 759-851 Software 759-851, for visualization of power supply units 787-850, 787-852 und 787-854	1.4.5 2009 年11月11 日	zip 842.9 kB	Download

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## CAD/CAE-Data

### CAE data

WSCAD Universe 787-850	<a href="#">URL</a>	<a href="#">Download</a>
ZUKEN Portal 787-850	<a href="#">URL</a>	<a href="#">Download</a>
EPLAN Data Portal 787-850	<a href="#">URL</a>	<a href="#">Download</a>

### CAD data

2D/3D Models 787-850	<a href="#">URL</a>	<a href="#">Download</a>
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## Environmental Product Compliance

### Compliance Search

Environmental Product Compliance 787-850 Switched-mode power supply; Pro; 3-phase; 24 VDC output voltage; 10 A output current; TopBoost + PowerBoost; LineMonitor; DC OK signal; 2,50 mm <sup>2</sup>	<a href="#">URL</a>	<a href="#">Download</a>
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## Installation Notes

### Product family

#### EPSITRON PRO Power

EPSITRON® PRO POWER: Professional and Efficient Power Supply with Extra Power

[Show all products from the family](#)

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