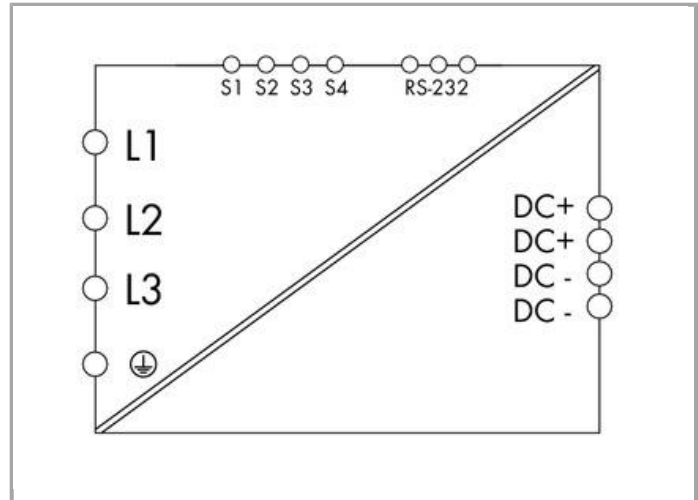


Data sheet | Item number: 787-850

Switched-mode power supply; Pro; 3-phase; 24 VDC output voltage; 10 A output current; TopBoost + PowerBoost; LineMonitor; DC OK signal



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
- Enclosed for use in control cabinets
- Electrically isolated output voltage (SELV) per EN 60950-1/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 400 ... 500 VAC
Input voltage range	(2 / 3) x 340 ... 550 VAC; 480 ... 780 VDC
Nominal mains frequency range	50 ... 60 Hz; 0 Hz
Input current I_i	$\leq 3 \times 0.6 \text{ A}$ (340 VAC; 10 ADC)
Discharge current	$\leq 1 \text{ mA}$
Inrush current	$\leq 30 \text{ A}$
Power factor correction (PFC)	Passive (changeable via software/display)
Mains failure hold-up time	$\geq 22 \text{ ms}$ (3 x 400 VAC)

Output

Nominal output voltage $U_{o\text{ nom}}$	24 VDC (SELV)
Output voltage range	22.8 ... 28.8 VDC (adjustable)
Factory preset	24 VDC
Nominal output current $I_{o\text{ nom}}$	10 A (24 VDC)
Nominal output power	240 W
Adjustment accuracy	$\leq 1 \%$
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	20 ADC (4 s); 15 ADC (16 s)
TopBoost	70 ADC (50 ms)

Signaling and communication

Signaling	1 x LED DC OK (green) 1 x LED warning (yellow) 1 x LED error (red) LCD 4 x signal output (24 VDC, max. 25 mA) 1 x RS-232 interface
Operation status indicator	LED green (DC OK) LED yellow (warning)



	LED red (error)
Communication	RS-232 serial interface

Efficiency/Power losses:

Power loss P_v	7.8 W (no load); 19.9 W (nominal load)
Efficiency	91.7 %

Fuse protection:

Internal fuse	3 x T 2.5 A / 440 VAC
External fuse (required)	an external DC fuse required for DC input voltage
External fuse (recommended)	3 x circuit breakers 6 A, 10 A, 16 A, characteristic: B or C or motor circuit breakers, setpoint: 1.6 A, setting range: 1.6 ... 2.5 A

Safety and protection:

Insulation voltage (PRI-SEC)	4.242 kV DC
Isolation voltage (PRI-GND)	2.2 kV DC
Insulation voltage (SEC-GND)	0.7 kV DC
Protection class	I
Degree of protection	IP20 (per EN 60529)
Feedback voltage	$\leq 35VDC$
Overvoltage category	II
Transient protection, primary	Varistor
Short circuit protection	Yes
No-load proof	Yes
Parallel operation	Yes
Series connection	Yes
MTBF	> 500,000 h (per IEC 61709)

Connection data

Connection type (1)	Input/Output
Connection technology	CAGE CLAMP®
WAGO terminal	WAGO 231 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 Inch
Connection type (2)	Signaling
Connection technology 2	CAGE CLAMP®
WAGO terminal 2	WAGO 733 Series
Solid conductor (2)	0.08 ... 0.5 mm ² / 28 ... 20 AWG

Fine-stranded conductor (2)	0.08 ... 0.5 mm ² / 28 ... 20 AWG
Strip length (2)	5 ... 6 mm / 0.2 ... 0.24 Inch

Geometrical Data

Width	57 mm / 2.244 inch
Height	163 mm / 6.417 inch
Length from upper-edge of DIN-35 rail	179 mm / 7.047 inch
Note on dimensions	Height including female connector

Mechanical data

Type of mounting	DIN-35 rail (EN 60715) in 2 positions
------------------	---------------------------------------

Material Data

Weight	1000 g
--------	--------

Environmental Requirements

Surrounding air (operating) temperature	-25 ... 70 °C (Device start at -40 °C type-tested)
Surrounding air (storage) temperature	-25 ... 85 °C
Relative humidity	5 ... 96 % (no condensation permissible)
Derating	-3 %/K (> 50 °C)
Pollution degree	2
Climatic category	3K3 (per EN 60721)

Standards and specifications

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

Commercial data

Country of origin	DE
GTIN	4045454909918
Customs Tariff No.	85044082900
Product Group	6 (Interface Electronics)

Compatible products

Mounting adapter



Item no.: 787-895

EPSITRON® wall mount adapter; for screw fixing of 787-8xx devices on mounting plate or wall without DIN 35 rail www.wago.com/787-895



Item no.: 787-896

Carrier rail adapter; for mounting 787-8xx devices to a DIN 35 rail

www.wago.com/787-896

**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**General accessories****Item no.: 761-9005**

USB adapter; with 1m connection cable

www.wago.com/761-9005**Item no.: 787-890**

RS-232 communication cable; Length 1.8 m

www.wago.com/787-890**Marking accessories****Item no.: 2009-110**

Marking strips; on reel; not stretchable; plain; snap-on type












www.wago.com/2009-110**Item no.: 210-831**

Marking strips; on reel; 2.3 mm wide; plain; Self-adhesive

www.wago.com/210-831**Item no.: 210-832**

Marking strips; on reel; 3 mm wide; plain; Self-adhesive

www.wago.com/210-832**ferrule****Item no.: 216-201**Ferrule; Sleeve for 0.5 mm² / AWG 22; insulated; electro-tin platedwww.wago.com/216-201**Item no.: 216-202**Ferrule; Sleeve for 0.75 mm² / AWG 20; insulated; electro-tin platedwww.wago.com/216-202**Item no.: 216-203**Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin platedwww.wago.com/216-203**Item no.: 216-204**Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin platedwww.wago.com/216-204**Item no.: 216-221**Ferrule; Sleeve for 0.5 mm² / AWG 22; insulated; electro-tin platedwww.wago.com/216-221**Item no.: 216-222**Ferrule; Sleeve for 0.75 mm² / AWG 20; insulated; electro-tin platedwww.wago.com/216-222**Item no.: 216-223**Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin platedwww.wago.com/216-223**Item no.: 216-224**Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin platedwww.wago.com/216-224**Item no.: 216-241**Ferrule; Sleeve for 0.5 mm² / AWG 22; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90www.wago.com/216-241**Item no.: 216-242**Ferrule; Sleeve for 0.75 mm² / AWG 20; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90www.wago.com/216-242**Item no.: 216-243**Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90www.wago.com/216-243

	Item no.: 216-244 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90	www.wago.com/216-244
	Item no.: 216-262 Ferrule; Sleeve for 0.75 mm ² / AWG 20; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90	www.wago.com/216-262
	Item no.: 216-263 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90	www.wago.com/216-263
	Item no.: 216-264 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90	www.wago.com/216-264
	Item no.: 216-284 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90	www.wago.com/216-284
	Item no.: 216-301 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated	www.wago.com/216-301
	Item no.: 216-302 Ferrule; Sleeve for 0.34 mm ² / AWG 24; insulated; electro-tin plated	www.wago.com/216-302
	Item no.: 216-321 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated	www.wago.com/216-321
	Item no.: 216-322 Ferrule; Sleeve for 0.34 mm ² / AWG 24; insulated; electro-tin plated	www.wago.com/216-322
tools		
	Item no.: 210-719 Operating tool with partially insulated shaft; Type 1, blade (2.5 x 0.4) mm	www.wago.com/210-719
	Item no.: 210-720 Operating tool with partially insulated shaft; Type 2, blade (3.5 x 0.5) mm	www.wago.com/210-720

Downloads**Documentation****Bid Text**

787-850	Jan 14, 2016	DOC	Download
Stromversorgung EPSITRON		36.9 kB	

Instruction Leaflet

Primary Switch Mode Power Supply EPSITRON-PRO-Power	May 28, 2015	PDF	Download
DC 24 V, 10 A, SELV, Line Monitor		525.5 kB	

Additional Information

Disposal; Electrical and electronic equipment, Packaging	Oct 15, 2018		Download
		265.8 kB	



Libraries

Library

Connection of 787 Series power supplies	1.2.0	ZIP	Download
The WagoLib787_01.lib library makes function blocks and visualization objects available which can be used to display information from the WAGO 787 Series power supply modules.	Aug 20, 2014	562.7 kB	

Engineering-Software

Software for Interface-Products

Software 759-851, for the visualization of 787-850, 787-852 and 787-854	1.4.4	ZIP	Download
	Aug 31, 2011	869.2 kB	
759-850 Configuration Software, for parameterizing 787-850, 787-852 and 787-854 Power Supplies	1.10.15	ZIP	Download
	Oct 25, 2011	541.8 kB	

Configuration and Commissioning Software

Used for line length calculation	1.3.3	EXE	Download
The conductor length calculation assists in planning the secondary fuse protection for conductors to power supply devices from the EPSITRON® PRO power family (787-8xx) as well as EPSITRON(R) CLASSIC Power family (787-16xx). After choosing a 787-8xx and 787-16xx power supply unit, the desired conductor size and associated fuse can be selected. The software tool then calculates the maximum conductor length at which the fuse functions correctly, while also considering the conductor and transfer resistances. The user can select a base load.	Apr 26, 2017	428.0 kB	

smartDATA

CAD data

3D Download 787-850	URL	Download
---------------------	-----	----------



Product family

EPSITRON PRO Power

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

[Show all products from the family](#)

Subject to changes.