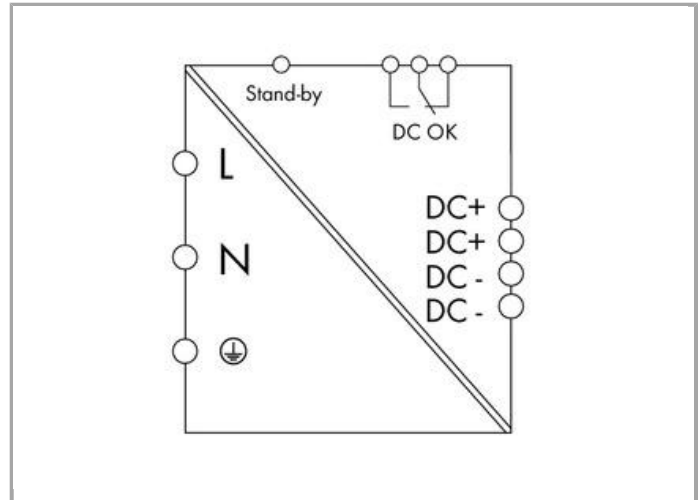


## Data sheet | Item number: 787-818

Switched-mode power supply; Pro; 1-phase; 24 VDC output voltage; 3 A output current; TopBoost + PowerBoost; DC OK contact



[www.wago.com/787-818](http://www.wago.com/787-818)



RoHS Compliant ✓

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### Item description

#### Features:

- Switched-mode power supply with PowerBoost and TopBoost
- Stand-by input for switching off the output and minimizing power consumption

- DC OK contact for output monitoring
- 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

## Data

### Technical Data

#### Input

Phases	1
Nominal input voltage $U_{i\text{ nom}}$	100 ... 240 VAC
Input voltage range	85 ... 264 VAC; 120 ... 373 VDC
Input voltage derating	-5 %/V (< 95 VAC)
Nominal mains frequency range	50 ... 60 Hz; 0 Hz
Input current $I_i$	$\leq 0.51$ A (230 VAC; 3 ADC)
Discharge current	$\leq 1$ mA
Inrush current	$\leq 30$ A (peak)
Power factor correction (PFC)	Passive
Mains failure hold-up time	$\geq 70$ ms (230 VAC)

#### Output

Nominal output voltage $U_{o\text{ nom}}$	24 VDC (SELV)
Output voltage range	22 ... 29.5 VDC (adjustable)
Factory preset	24 VDC
Nominal output current $I_{o\text{ nom}}$	3 A (24 VDC)
Nominal output power	72 W
Adjustment accuracy	$\leq 1$ %
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	6 ADC (4 s); 4.5 ADC (8 s)
TopBoost	14 ADC (25 ms)

#### Signaling and communication

Signaling	1 x LED DC OK (green) 1 x LED error (red) 1 x stand-by input 1 x Relaiskontakt DC O.K. (changeover contact)
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Operation status indicator	LED green (DC OK) LED red (error)
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### Efficiency/Power losses:

Power loss $P_v$	0.5 W (stand-by); 3 W (no load); 8.8 W (nominal load)
Efficiency	87.8 %

### Fuse protection:

Internal fuse	T 2 A / 250 VAC
External fuse (required)	an external DC fuse required for DC input voltage
External fuse (recommended)	Circuit breakers 6 A, 10 A, 16 A, characteristic: B or C

### 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 <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 Inch
Connection type (2)	Signaling
Connection technology 2	CAGE CLAMP®
WAGO terminal 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 Inch
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### Geometrical Data

Width	40 mm / 1.575 inch
Height	163 mm / 6.417 inch
Length from upper-edge of DIN-35 rail	163 mm / 6.417 inch
Note on dimensions	Height including female connector

### Mechanical data

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

Weight	960 g
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### 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	4045454998097
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](http://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](http://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](http://www.wago.com/787-897)

### Marking accessories

**Item no.: 2009-110**

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

[www.wago.com/2009-110](http://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](http://www.wago.com/210-831)**Item no.: 210-832**

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

[www.wago.com/210-832](http://www.wago.com/210-832)

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

### ferrule

**Item no.: 216-201**Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; insulated; electro-tin plated[www.wago.com/216-201](http://www.wago.com/216-201)**Item no.: 216-202**Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; insulated; electro-tin plated[www.wago.com/216-202](http://www.wago.com/216-202)**Item no.: 216-203**Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated[www.wago.com/216-203](http://www.wago.com/216-203)**Item no.: 216-204**Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated[www.wago.com/216-204](http://www.wago.com/216-204)**Item no.: 216-221**Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; insulated; electro-tin plated[www.wago.com/216-221](http://www.wago.com/216-221)**Item no.: 216-222**Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; insulated; electro-tin plated[www.wago.com/216-222](http://www.wago.com/216-222)**Item no.: 216-223**Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated[www.wago.com/216-223](http://www.wago.com/216-223)**Item no.: 216-224**Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated[www.wago.com/216-224](http://www.wago.com/216-224)**Item no.: 216-241**Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90[www.wago.com/216-241](http://www.wago.com/216-241)**Item no.: 216-242**Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90[www.wago.com/216-242](http://www.wago.com/216-242)**Item no.: 216-243**Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90[www.wago.com/216-243](http://www.wago.com/216-243)

	<b>Item no.: 216-244</b> Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90	<a href="http://www.wago.com/216-244">www.wago.com/216-244</a>
	<b>Item no.: 216-262</b> Ferrule; Sleeve for 0.75 mm <sup>2</sup> / AWG 20; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90	<a href="http://www.wago.com/216-262">www.wago.com/216-262</a>
	<b>Item no.: 216-263</b> Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90	<a href="http://www.wago.com/216-263">www.wago.com/216-263</a>
	<b>Item no.: 216-264</b> Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90	<a href="http://www.wago.com/216-264">www.wago.com/216-264</a>
	<b>Item no.: 216-284</b> Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90	<a href="http://www.wago.com/216-284">www.wago.com/216-284</a>
	<b>Item no.: 216-301</b> Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; insulated; electro-tin plated	<a href="http://www.wago.com/216-301">www.wago.com/216-301</a>
	<b>Item no.: 216-302</b> Ferrule; Sleeve for 0.34 mm <sup>2</sup> / AWG 24; insulated; electro-tin plated	<a href="http://www.wago.com/216-302">www.wago.com/216-302</a>
	<b>Item no.: 216-321</b> Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; insulated; electro-tin plated	<a href="http://www.wago.com/216-321">www.wago.com/216-321</a>
	<b>Item no.: 216-322</b> Ferrule; Sleeve for 0.34 mm <sup>2</sup> / AWG 24; insulated; electro-tin plated	<a href="http://www.wago.com/216-322">www.wago.com/216-322</a>

## Downloads

### Documentation

#### Bid Text

787-818	Jan 14, 2016	DOC	Download
Stromversorgung EPSITRON		34.3 kB	

#### Instruction Leaflet

Primary Switch Mode Power Supply EPSITRON-PRO-Power	Apr 10, 2017	PDF	Download
24 VDC, 3 A		253.1 kB	

#### Additional Information

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

## Engineering-Software

### Configuration and Commissioning Software

Used for line length calculation	1.3.3	EXE	Download
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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 787-818

URL

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## Product family

### EPSITRON PRO Power

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Subject to changes.