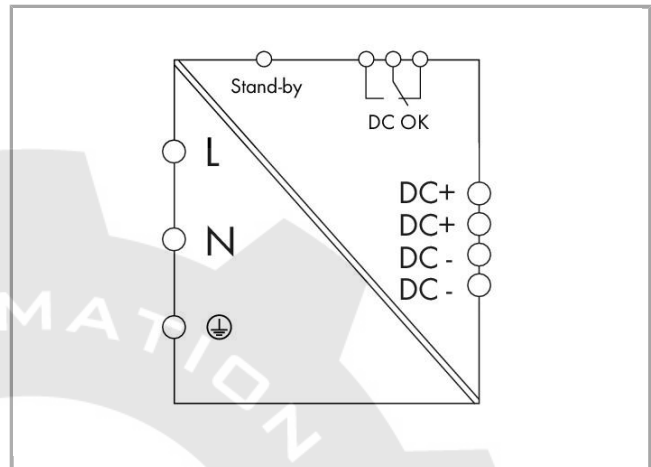


Data sheet | Item number: 787-831

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

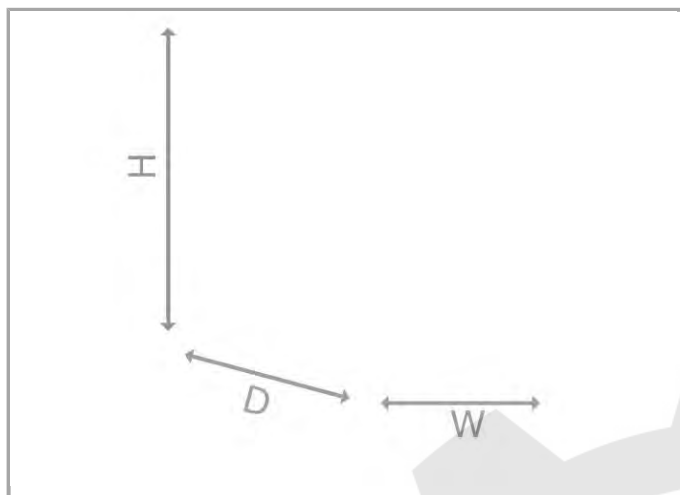


787-831



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 $U_{i\text{nom}}$	AC 100 ... 240 V
Input voltage range	AC 85 ... 264 V; DC 120 ... 373 V
Input voltage derating	-1.5 %/V (< 110 VAC)
Nominal mains frequency range	50 ... 60 Hz; 0 Hz
Input current I_i	≤ 0.9 A (230 VAC; 15 ADC)
Discharge current	≤ 1 mA
Inrush current	≤ 8 A (active power factor correction (PFC))
Power factor correction (PFC)	Aktive
Mains failure hold-up time	≥ 30 ms (230 VAC)

Output

Nominal output voltage $U_{o\ nom}$	DC 12 V (SELV)
Output voltage range	DC 11 ... 18 V (adjustable)
Factory preset	DC 12 V
Nominal output current $I_{o\ nom}$	15 A (12 VDC)
Nominal output power	180 W
Adjustment accuracy	$\leq 1\ %$
Residual ripple	$\leq 70\ mV$ (peak-to-peak)
Current limitation	$1.1 \times I_{o\ nom}$ 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 LED error (red) 1 x stand-by input 1 x Relaiskontakt DC O.K. (changeover contact)
Operation status indicator	LED green (DC OK) LED red (error)

Efficiency/Power losses:

Power loss P_v	$\leq 0.8\ W$ (stand-by); $\leq 4.6\ W$ (no load); $\leq 23.4\ W$ (nominal load)
Efficiency	87 %

Fuse protection:

Internal fuse	T 6.3 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
Protection class	IP20 (per EN 60529)
Feedback voltage	$\leq DC\ 25\ V$
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 mm² / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm² / 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 mm² / 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
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Material Data

Weight	1480 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	1
Standards/specifications	EN 60950; EN 61204-3; EN 61558-2-16; UL 60950; UL 508

Commercial data

Product Group	6 (Interface Electronics)
Country of origin	DE
GTIN	4050821226475
Customs Tariff No.	85044082900

Approvals / Certificates

UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL Underwriters Laboratories Inc.	UL 508	E255817
	UL Underwriters Laboratories Inc.	UL 60950-1	E255815

Compatible products

ferrule		
	Item no.: 216-201 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated	216-201
	Item no.: 216-202 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated	216-202
	Item no.: 216-203 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated	216-203
	Item no.: 216-204 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated	216-204
	Item no.: 216-221 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated	216-221
	Item no.: 216-222 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated	216-222

	Item no.: 216-223 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated	216-223
	Item no.: 216-224 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated	216-224
	Item no.: 216-241 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90	216-241
	Item no.: 216-242 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90	216-242
	Item no.: 216-243 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90	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	216-244
	Item no.: 216-262 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90	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	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	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	216-284
	Item no.: 216-301 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated	216-301
	Item no.: 216-302 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated	216-302
	Item no.: 216-321 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated	216-321
	Item no.: 216-322 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated	216-322
tools		
	Item no.: 210-719 Operating tool with partially insulated shaft; Type 1, blade (2.5 x 0.4) mm	210-719
	Item no.: 210-720 Operating tool with partially insulated shaft; Type 2, blade (3.5 x 0.5) mm	210-720
	Item no.: 210-769 SCREWDRIVER	210-769
Marking accessories		
	Item no.: 2009-110 Marking strips; on reel; not stretchable; plain; snap-on type	2009-110

**Item no.: 210-831**

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

210-831

**Item no.: 210-832**

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

210-832

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

787-895

**Item no.: 787-896**

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

787-896

**Item no.: 787-897**

Carrier rail adapter made of zinc die-cast; for mounting 787-8xx devices to a DIN 35 rail

787-897

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

787-831

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Stromversorgung EPSITRON

Instruction LeafletPrimary Switch Mode Power Supply EPSITRON-PRO-Power
12 VDC, 15 Apdf
253.1 kB

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Disposal; Electrical and electronic equipment, Packaging

V 1.0.0

pdf
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Engineering-Software**Configuration and Commissioning Software**

Used for line length calculation

1.3.4
Mar 20, 2017zip
125.5 kB

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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.

CAD/CAE - Smart Data**CAD data**

Product family

EPSITRON PRO Power

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

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Subject to changes.