

Data sheet | Item number: 787-822

Switched-mode power supply; Pro; 1-phase; 24 VDC output voltage; 5 A output current; TopBoost + PowerBoost; DC OK contact; 2,50 mm²



www.wago.com/787-822



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

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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 EN 60950-1/UL 60950-1; PELV per EN 60204

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Data

Technical data

Phases	1
Nominal input voltage $U_{i\text{ nom}}$	1 x AC 100 ... 240 V
Input voltage range	AC 85 ... 264 V; DC 120 ... 373 V
Nominal mains frequency range	50 ... 60 Hz; 0 Hz
Input current I_i	≤ 0.97 A (240 VAC; 5 ADC)
Discharge current	≤ 1 mA
Inrush current	≤ 30 A (peak)
Power factor correction (PFC)	Passive
Mains failure hold-up time	≥ 35 ms (230 VAC)
Power loss P_i	≤ 0.5 W (Standby); ≤ 5 W (No load); ≤ 14.6 W (Nominal load)
Efficiency (typ.)	87.8 %
Nominal output voltage $U_{o\text{ nom}}$	DC 24 V (SELV)
Output voltage range	DC 22 ... 29.5 V (adjustable)
Default setting	DC 24 V
Nominal output current $I_{o\text{ nom}}$	5 A (24 VDC)
Nominal output power	120 W
Control deviation	≤ 1 %
Residual ripple	≤ 70 mV (peak-to-peak)
Current limitation	$1.1 \times I_{o\text{ nom}}$ (typ.)
Overload behavior	TopBoost/PowerBoost/Constant current mode
PowerBoost	DC 10 A (4 s); DC 7.5 A (8 s)
TopBoost	DC 21 A (25 ms)
Isolation voltage (Pri.-Sec.)	DC 4.242 kV
Isolation voltage (Pri.-GND)	DC 2.2 kV
Isolation voltage (Sec.-GND)	DC 0.7 kV
Protection class	I
Protection type	IP20 (per EN 60529)
Resistance to reverse feed	\leq DC 35 V
Overvoltage category	II
Pollution degree	2
Transient suppression (primary)	Varistor
Short-circuit-protected	Yes
Open-circuit-proof	Yes

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



Parallel operation	Yes
Series operation	Yes
MTBF	> 500,000 h (per IEC 61709)
Internal fuse	T 4 A / 250 VAC
Required backup fusing	An external DC fuse is required for the DC input voltage.
Recommended backup fusing	Circuit breaker: 6 A, 10 A, 16 A; Tripping characteristic: B or C
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)

Connection data

Connection type (1)	Input/Output
Connection technology	CAGE CLAMP®
WAGO Connector	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 Connector 2	WAGO 2616 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

Physical data

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

Mechanical data

Mounting type	DIN-35 rail
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Subject to changes. Please also observe the further product documentation!

Material data

Weight	1268 g
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Environmental requirements

Surrounding air temperature (operation)	-25 ... 70 °C (Device starts at -40 °C (type-tested))
Surrounding air 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 Electronics)
PU (SPU)	1 Stück
Packaging type	box
Country of origin	DE
GTIN	4045454993924
Customs tariff number	85044082900

Approvals / Certificates




UL-Approvals

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




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Optional accessories

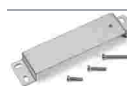


Tool

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
	Item no.: 210-769 SCREWDRIVER; green	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




Marking accessories

Marking strip		
	Item no.: 2009-110 Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white	www.wago.com/2009-110
	Item no.: 210-831 Marking strips; on reel; 2.3 mm wide; plain; Self-adhesive; white	www.wago.com/210-831
	Item no.: 210-832 Marking strips; on reel; 3 mm wide; plain; Self-adhesive; white	www.wago.com/210-832

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

Ferrule

Ferrule		
	Item no.: 216-203 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red	www.wago.com/216-203
	Item no.: 216-202 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray	www.wago.com/216-202
	Item no.: 216-204 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; black	www.wago.com/216-204

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	Item no.: 216-201 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; white	www.wago.com/216-201
	Item no.: 216-223 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red	www.wago.com/216-223
	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; white	www.wago.com/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; gray	www.wago.com/216-242
	Item no.: 216-222 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray	www.wago.com/216-222
	Item no.: 216-221 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; white	www.wago.com/216-221
	Item no.: 216-224 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; black	www.wago.com/216-224
	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; red	www.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; black	www.wago.com/216-244
	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; red	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; black	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; black	www.wago.com/216-284
	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; gray	www.wago.com/216-262
	Item no.: 216-301 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated; yellow	www.wago.com/216-301
	Item no.: 216-321 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated; yellow	www.wago.com/216-321
	Item no.: 216-322 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated; green	www.wago.com/216-322
	Item no.: 216-302 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated; green	www.wago.com/216-302

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Downloads

Documentation

Bid Text

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787-822 X81 - Datei	2019. 7. 4.	xml 7.3 kB	Download
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Instruction Leaflet

Primär getaktete Stromversorgungen PRO DC 24 V, 5 A, SELV		pdf 253.1 kB	Download
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Additional Information

Disposal; Electrical and electronic equipment, Packaging	V 1.0.0	pdf 265.8 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. 12. 9.	exe 337.4 kB	Download
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CAD/CAE-Data

CAD data

2D/3D Models 787-822		URL	Download
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CAE data

EPLAN Data Portal 787-822		URL	Download
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WSCAD Universe 787-822	URL	Download
ZUKEN Portal 787-822	URL	Download

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 787-822	URL	Download
Switched-mode power supply; Pro; 1-phase; 24 VDC output voltage; 5 A output current; TopBoost + PowerBoost; DC OK contact; 2,50 mm ²		

Installation Notes

Product family

EPSITRON PRO Power

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

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