

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	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	$\leq 3 \times 1.1 \text{ A}$ (340 VAC; 10 ADC)
Discharge current	$\leq 1 \text{ mA}$
Inrush current	$\leq 30 \text{ A}$ (peak)
Power factor correction (PFC)	Passive
Mains failure hold-up time	$\geq 12 \text{ ms}$ (3 x 400 VAC)



Output

Nominal output voltage $U_{o\text{ nom}}$	DC 48 V (SELV)
Output voltage range	DC 39 ... 53 V (adjustable)
Factory preset	DC 48 V
Nominal output current $I_{o\text{ nom}}$	10 A (48 VDC)
Nominal output power	480 W
Adjustment accuracy	$\leq 1\%$
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 15 A (4 s); DC 12.5 A (16 s)
TopBoost	DC 55 A (50 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	≤ 0.8 W (stand-by); ≤ 8.2 W (no load); ≤ 38 W (nominal load)
Efficiency	93 %

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: 2.5 A, setting range: 2.5 ... 4 A

Safety and protection:

Insulation voltage (PRI-SEC)	DC 4.242 kV
Isolation voltage (PRI-GND)	DC 2.2 kV
Insulation voltage (SEC-GND)	DC 0.7 kV
Protection class	I
Protection class	IP20 (per EN 60529)
Feedback voltage	\leq DC 63 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
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)	Output
Connection technology 2	Push-in CAGE CLAMP®
WAGO terminal 2	WAGO 831 Series
Solid conductor (2)	0.5 ... 10 mm ² / 20 ... 8 AWG
Fine-stranded conductor (2)	0.5 ... 10 mm ² / 20 ... 8 AWG
Strip length (2)	13 ... 15 mm / 0.51 ... 0.59 inch
Connection type (3)	Signaling
Connection technology 3	CAGE CLAMP®
WAGO terminal 3	WAGO 733 Series
Solid conductor (3)	0.08 ... 0.5 mm ² / 28 ... 20 AWG
Fine-stranded conductor (3)	0.08 ... 0.5 mm ² / 28 ... 20 AWG
Strip length (3)	5 ... 6 mm / 0.2 ... 0.24 inch

Geometrical Data

Width	77 mm / 3.031 inch
Height	171 mm / 6.732 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	1883.3 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

Product Group	6 (Interface Electronics)
Country of origin	DE
GTIN	4050821226437
Customs Tariff No.	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

Compatible products

Marking accessories

	Item no.: 2009-110 Marking strips; on reel; not stretchable; plain; snap-on type	www.wago.com/2009-110
	Item no.: 2009-115 WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	www.wago.com/2009-115

	Item no.: 2009-115/000-002 WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	www.wago.com/2009-115/000-002
	Item no.: 2009-115/000-006 WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	www.wago.com/2009-115/000-006
	Item no.: 2009-115/000-007 WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	www.wago.com/2009-115/000-007
	Item no.: 2009-115/000-012 WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	www.wago.com/2009-115/000-012
	Item no.: 2009-115/000-017 WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	www.wago.com/2009-115/000-017
	Item no.: 2009-115/000-023 WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	www.wago.com/2009-115/000-023
	Item no.: 2009-115/000-024 WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	www.wago.com/2009-115/000-024
	Item no.: 2009-135 WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	www.wago.com/2009-135
	Item no.: 2009-145 Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	www.wago.com/2009-145
	Item no.: 2009-145/000-002 Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	www.wago.com/2009-145/000-002
	Item no.: 2009-145/000-005 Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	www.wago.com/2009-145/000-005
	Item no.: 2009-145/000-006 Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	www.wago.com/2009-145/000-006
	Item no.: 2009-145/000-007 Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	www.wago.com/2009-145/000-007
	Item no.: 2009-145/000-012 Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	www.wago.com/2009-145/000-012
	Item no.: 2009-145/000-023 Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	www.wago.com/2009-145/000-023

	<p>Item no.: 2009-145/000-024 Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type</p>	<p>www.wago.com/2009-145/000-024</p>
	<p>Item no.: 210-831 Marking strips; on reel; 2.3 mm wide; plain; Self-adhesive</p>	<p>www.wago.com/210-831</p>
	<p>Item no.: 210-832 Marking strips; on reel; 3 mm wide; plain; Self-adhesive</p>	<p>www.wago.com/210-832</p>
	<p>Item no.: 248-501 Miniature WSB Quick marking system; plain; Marker width 5 mm; 10 strips with 10 markers per card</p>	<p>www.wago.com/248-501</p>
	<p>Item no.: 248-501/000-002 Mini-WSB marking card; as card; not stretchable; plain; snap-on type</p>	<p>www.wago.com/248-501/000-002</p>
	<p>Item no.: 248-501/000-005 Mini-WSB marking card; as card; not stretchable; plain; snap-on type</p>	<p>www.wago.com/248-501/000-005</p>
	<p>Item no.: 248-501/000-006 Mini-WSB marking card; as card; not stretchable; plain; snap-on type</p>	<p>www.wago.com/248-501/000-006</p>
	<p>Item no.: 248-501/000-007 Mini-WSB marking card; as card; not stretchable; plain; snap-on type</p>	<p>www.wago.com/248-501/000-007</p>
	<p>Item no.: 248-501/000-012 Mini-WSB marking card; as card; not stretchable; plain; snap-on type</p>	<p>www.wago.com/248-501/000-012</p>
	<p>Item no.: 248-501/000-017 Mini-WSB marking card; as card; not stretchable; plain; snap-on type</p>	<p>www.wago.com/248-501/000-017</p>
	<p>Item no.: 248-501/000-023 Mini-WSB marking card; as card; not stretchable; plain; snap-on type</p>	<p>www.wago.com/248-501/000-023</p>
	<p>Item no.: 793-501 WMB marking card; as card; not stretchable; plain; snap-on type</p>	<p>www.wago.com/793-501</p>
	<p>Item no.: 793-501/000-002 WMB marking card; as card; not stretchable; plain; snap-on type</p>	<p>www.wago.com/793-501/000-002</p>
	<p>Item no.: 793-501/000-005 WMB marking card; as card; not stretchable; plain; snap-on type</p>	<p>www.wago.com/793-501/000-005</p>
	<p>Item no.: 793-501/000-006 WMB marking card; as card; not stretchable; plain; snap-on type</p>	<p>www.wago.com/793-501/000-006</p>
	<p>Item no.: 793-501/000-007 WMB marking card; as card; not stretchable; plain; snap-on type</p>	<p>www.wago.com/793-501/000-007</p>



Item no.: 793-501/000-012
WMB marking card; as card; not stretchable; plain; snap-on type

www.wago.com/793-501/000-012



Item no.: 793-501/000-017
WMB marking card; as card; not stretchable; plain; snap-on type

www.wago.com/793-501/000-017



Item no.: 793-501/000-023
WMB marking card; as card; not stretchable; plain; snap-on type

www.wago.com/793-501/000-023



Item no.: 793-501/000-024
WMB marking card; as card; not stretchable; plain; snap-on type

www.wago.com/793-501/000-024



Item no.: 793-5501
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501



Item no.: 793-5501/000-002
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501/000-002



Item no.: 793-5501/000-005
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501/000-005



Item no.: 793-5501/000-006
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501/000-006



Item no.: 793-5501/000-007
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501/000-007



Item no.: 793-5501/000-012
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501/000-012



Item no.: 793-5501/000-017
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501/000-017



Item no.: 793-5501/000-023
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501/000-023



Item no.: 793-5501/000-024
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501/000-024

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



Item no.: 210-721
Operating tool with partially insulated shaft; Type 3, blade (5.5 x 0.8) mm

www.wago.com/210-721



Item no.: 210-769
SCREWDRIVER

www.wago.com/210-769

ferrule



Item no.: 216-201
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated

www.wago.com/216-201



Item no.: 216-202
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated

www.wago.com/216-202



Item no.: 216-203
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated

www.wago.com/216-203



Item no.: 216-204
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated

www.wago.com/216-204



Item no.: 216-205
Ferrule; Sleeve for 2.08 mm² / AWG 14; insulated; electro-tin plated

www.wago.com/216-205



Item no.: 216-206
Ferrule; Sleeve for 2.5 mm² / AWG 14; insulated; electro-tin plated

www.wago.com/216-206



Item no.: 216-207
Ferrule; Sleeve for 4 mm² / AWG 12; insulated; electro-tin plated

www.wago.com/216-207



Item no.: 216-208
Ferrule; Sleeve for 6 mm² / AWG 10; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90

www.wago.com/216-208



Item no.: 216-221
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated

www.wago.com/216-221



Item no.: 216-222
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated

www.wago.com/216-222



Item no.: 216-223
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated

www.wago.com/216-223



Item no.: 216-224
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated

www.wago.com/216-224



Item no.: 216-241
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90

www.wago.com/216-241



Item no.: 216-242
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90

www.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 4/09.90

www.wago.com/216-243


















Item no.: 216-244
Ferrule; Sleeve for 1.5 mm² / 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.: 216-246
Ferrule; Sleeve for 2.5 mm² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight

www.wago.com/216-246

	crimped; acc. to DIN 46228, Part 4/09.90	
	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	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.: 216-266 Ferrule; Sleeve for 2.5 mm ² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90	www.wago.com/216-266
	Item no.: 216-267 Ferrule; Sleeve for 4 mm ² / AWG 12; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90	www.wago.com/216-267
	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.: 216-286 Ferrule; Sleeve for 2.5 mm ² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90	www.wago.com/216-286
	Item no.: 216-287 Ferrule; Sleeve for 4 mm ² / AWG 12; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90	www.wago.com/216-287
	Item no.: 216-288 Ferrule; Sleeve for 6 mm ² / AWG 10; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90	www.wago.com/216-288
	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 / 22 AWG; 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 / 22 AWG; insulated; electro-tin plated	www.wago.com/216-322
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



Downloads

Documentation

Bid Text

787-845	Apr 4, 2012	doc	Download
Stromversorgung EPSITRON		36.9 kB	

Instruction Leaflet

Primary Switch Mode Power Supply EPSITRON-PRO-Power		pdf	Download
48 VDC, 10 A		367.9 kB	

Additional Information

Disposal; Electrical and electronic equipment, Packaging	V 1.0.0	pdf	Download
		265.8 kB	

Engineering-Software

Configuration and Commissioning Software

Used for line length calculation	1.3.4	zip	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.	Mar 20, 2017	125.5 kB	

CAD/CAE - Smart Data

CAD data

3D Download 787-845		URL	Download
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Product family

EPSITRON PRO Power

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

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Subject to changes.

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