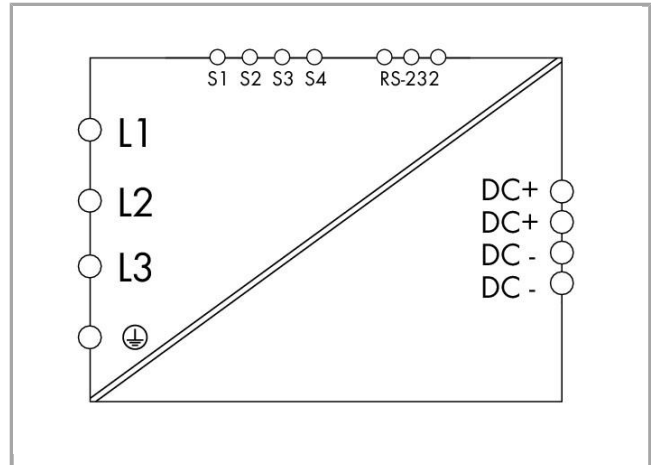


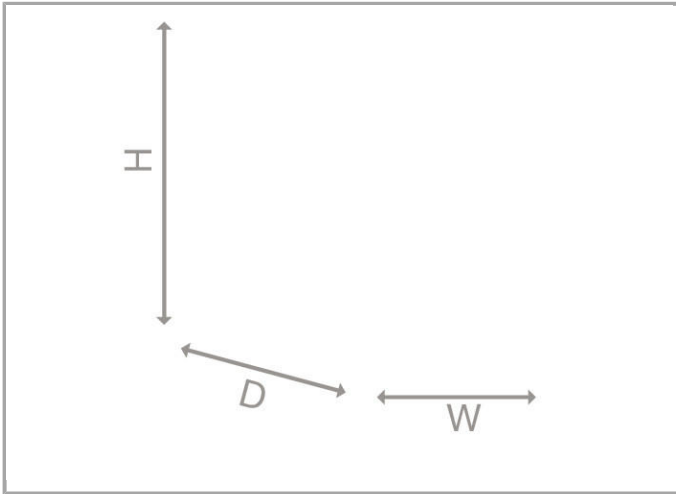
Data sheet | Item number: 787-852

Switched-mode power supply; Pro; 3-phase; 24 VDC output voltage; 20 A output current; TopBoost + PowerBoost; LineMonitor; DC OK signal



787-852





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 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; 20 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	$\geq 13 \text{ ms}$ (3 x 400 VAC)

Output

Nominal output voltage $U_{o\ nom}$	DC 24 V (SELV)
Output voltage range	DC 22.8 ... 28.8 V (adjustable)
Factory preset	DC 24 V
Nominal output current $I_{o\ nom}$	20 A (24 VDC)
Nominal output power	480 W
Adjustment accuracy	$\leq 1\ %$
Residual ripple	$\leq 70\ mV$ (peak-to-peak)
Current limitation	$1.1 \times I_{o\ nom}$ typ.
Overload behavior	Adjustable (constant current/fuse mode)
PowerBoost	DC 40 A (4 s); DC 30 A (16 s)
TopBoost	DC 80 A (50 ms)

Signaling and communication

Signaling	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> LED green (DC OK) LED yellow (warning) LED red (error)
Communication	RS-232 serial interface

Efficiency/Power losses:

Power loss P_v	$\leq 8.3\ W$ (no load); $\leq 34.1\ W$ (nominal load)
Efficiency	92.9 %

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)	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	≤ DC 35 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
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	1300 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	4045454909901
Customs Tariff No.	85044082900



















Approvals / Certificates
















UL-Approvals

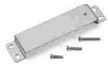
Logo	Approval	Additional Approval Text	Certificate name
	UL Underwriters Laboratories Inc.	UL 60950-1	E255815
	UL Underwriters Laboratories Inc.	UL 508	E255817

Compatible products

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.: 216-205 Ferrule; Sleeve for 2.08 mm ² / AWG 14; insulated; electro-tin plated	216-205
	Item no.: 216-206 Ferrule; Sleeve for 2.5 mm ² / AWG 14; insulated; electro-tin plated	216-206
	Item no.: 216-207 Ferrule; Sleeve for 4 mm ² / AWG 12; insulated; electro-tin plated	216-207
	Item no.: 216-208 Ferrule; Sleeve for 6 mm ² / AWG 10; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90	216-208
	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.: 216-246 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	216-246
	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.: 216-266	
	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	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	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	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	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	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	216-288
	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.: 210-721 Operating tool with partially insulated shaft; Type 3, blade (5.5 x 0.8) mm	210-721
General accessories		
	Item no.: 761-9005 USB adapter; with 1m connection cable	761-9005
	Item no.: 787-890 RS-232 communication cable; Length 1.8 m	787-890
Mounting adapter		
	Item no.: 787-895 EPSITRON® wall mount adapter; for screw fixing of 787-8xx devices on mounting plate or wall without	787-895



DIN 35 rail

**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

Marking accessories**Item no.: 2009-110**

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

2009-110

**Item no.: 2009-115**

WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

2009-115

**Item no.: 2009-115/000-002**

WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

2009-115

/000-002

**Item no.: 2009-115/000-006**

WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

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

2009-115

/000-007

**Item no.: 2009-115/000-012**

WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

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

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

2009-115

/000-023

**Item no.: 2009-115/000-024**

WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

2009-115

/000-024

**Item no.: 2009-135**

WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

2009-135

**Item no.: 2009-145**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

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

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

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	/000-006	2009-145
	Item no.: 2009-145/000-007 Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	/000-007	2009-145
	Item no.: 2009-145/000-012 Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	/000-012	2009-145
	Item no.: 2009-145/000-023 Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	/000-023	2009-145
	Item no.: 2009-145/000-024 Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	/000-024	2009-145
	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
	Item no.: 248-501 Miniature WSB Quick marking system; plain; Marker width 5 mm; 10 strips with 10 markers per card		248-501
	Item no.: 248-501/000-002 Mini-WSB marking card; as card; not stretchable; plain; snap-on type	/000-002	248-501
	Item no.: 248-501/000-005 Mini-WSB marking card; as card; not stretchable; plain; snap-on type	/000-005	248-501
	Item no.: 248-501/000-006 Mini-WSB marking card; as card; not stretchable; plain; snap-on type	/000-006	248-501
	Item no.: 248-501/000-007 Mini-WSB marking card; as card; not stretchable; plain; snap-on type	/000-007	248-501
	Item no.: 248-501/000-012 Mini-WSB marking card; as card; not stretchable; plain; snap-on type	/000-012	248-501
	Item no.: 248-501/000-017 Mini-WSB marking card; as card; not stretchable; plain; snap-on type	/000-017	248-501
	Item no.: 248-501/000-023 Mini-WSB marking card; as card; not stretchable; plain; snap-on type	/000-023	248-501
	Item no.: 793-501 WMB marking card; as card; not stretchable; plain; snap-on type		793-501

	Item no.: 793-501/000-002 WMB marking card; as card; not stretchable; plain; snap-on type	793-501 /000-002
	Item no.: 793-501/000-005 WMB marking card; as card; not stretchable; plain; snap-on type	793-501 /000-005
	Item no.: 793-501/000-006 WMB marking card; as card; not stretchable; plain; snap-on type	793-501 /000-006
	Item no.: 793-501/000-007 WMB marking card; as card; not stretchable; plain; snap-on type	793-501 /000-007
	Item no.: 793-501/000-012 WMB marking card; as card; not stretchable; plain; snap-on type	793-501 /000-012
	Item no.: 793-501/000-017 WMB marking card; as card; not stretchable; plain; snap-on type	793-501 /000-017
	Item no.: 793-501/000-023 WMB marking card; as card; not stretchable; plain; snap-on type	793-501 /000-023
	Item no.: 793-501/000-024 WMB marking card; as card; not stretchable; plain; snap-on type	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	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	793-5501 /000-002
	Item no.: 793-5501/000-005 WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type	793-5501 /000-005
	Item no.: 793-5501/000-006 WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type	793-5501 /000-006
	Item no.: 793-5501/000-007 WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type	793-5501 /000-007
	Item no.: 793-5501/000-012 WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type	793-5501 /000-012
	Item no.: 793-5501/000-017 WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type	793-5501 /000-017



Item no.: 793-5501/000-023

WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

/000-023

793-5501



Item no.: 793-5501/000-024

WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

/000-024

793-5501

Downloads

Documentation

Bid Text

787-852 Stromversorgung EPSITRON	Apr 4, 2012	doc 37.4 kB	Download
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Instruction Leaflet

Primary Switch Mode Power Supply EPSITRON-PRO-Power DC 24 V, 20 A, SELV, Line Monitor		pdf 525.5 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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Libraries

Library

Connection of 787 Series power supplies 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.	V1.3.0 May 14, 2014	zip 562.7 kB	Download
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Engineering-Software

Configuration and Commissioning Software

Used for line length calculation 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.	1.3.4 Mar 20, 2017	zip 125.5 kB	Download
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Software for Interface-Products



759-850 Configuration Software, for parameterizing 787-850, 787-852 and 787-854 Power Supplies	1.10.16 May 24, 2011	zip 532.7 kB	Download
Software 759-851, zur Visualisierung der Stromversorgungen 787-850, 787-852 und 787-854	1.4.5 Nov 11, 2009	zip 842.9 kB	Download

CAD/CAE - Smart Data

CAD data

3D Download 787-852	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.