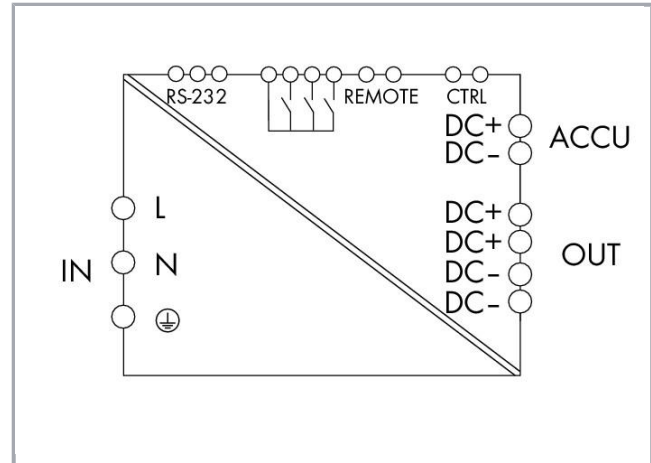


Data sheet | Item number: 787-1675

Switched-mode power supply with integrated charger and controller;
Classic; 1-phase; 24 VDC output voltage; 5 A output current; communication
capability; 10,00 mm²

www.wago.com/787-1675



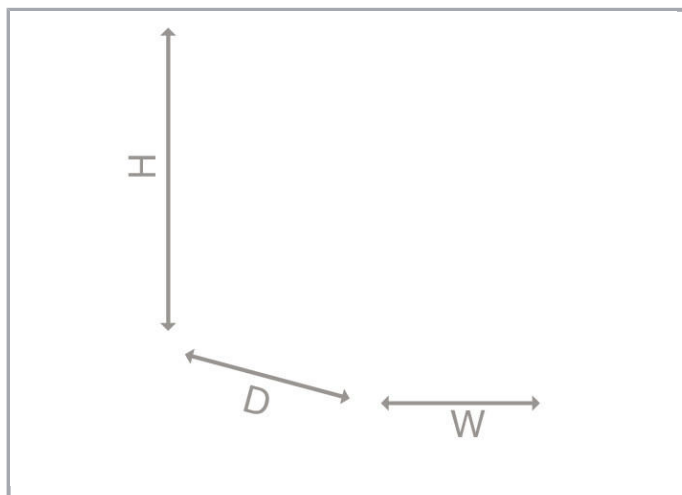
RoHS  Compliant

[BOMcheck.net](https://www.bomcheck.net)

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Item description

Features:

- Switched-mode power supply with integrated charger and controller for uninterruptible power supply (UPS)
- Battery control technology for smooth charging and predictive maintenance applications
- Potential-free contacts provide function monitoring
- Buffer time can be set on site via rotary switch
- Parameter setting and monitoring via RS-232 interface
- 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

Data

Technical Data

Input

Nominal input voltage $U_{i\text{nom}}$	AC 100 ... 240 V
Input voltage range	AC 85 ... 264 V; DC 120 ... 372 V
Input voltage derating	-1.5 %/V (< 110 VAC); -1 %/V (< 150 VDC)
Nominal mains frequency range	44 ... 66 Hz; 0 Hz
Input current I_i	$\leq 1,1$ A (230 VAC; 5 ADC); $\leq 2,2$ A (110 VAC; 5 ADC)
Discharge current	≤ 1 mA
Inrush current	≤ 30 A
Power factor correction (PFC)	Passive

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Output

Nominal output voltage $U_{o\ nom}$	DC 24 V (SELV)
Output voltage range	DC 23 ... 28,5 V (mains operation); 18.5 ... 27.5 VDC (buffer mode)
Nominal output current $I_{o\ nom}$	5 A
Nominal output power	120 W
Control deviation	$\leq 1\ %$
Residual ripple	$\leq 50\ mV$ (peak-to-peak)
Current limitation	$1.1 \times I_{o\ nom}$ (typ.); TopBoost
Overload behavior	Constant current

Energy storage

Buffer time	1 s ... 20 min (or constant; PC mode; configurable via software)
Switch-on threshold (adjustable)	DC 20 ... 25,5 V (Adjustable via software; 22 VDC (pre-configured))
Charging current	0,3 ... 1 A
End-of-charge voltage	DC 26 ... 29,5 V (temperature-controlled; optional fixed setting)
Recommended battery module	787-871, 787-872, 787-873, 787-876, 787-1671

Signaling and communication

Signaling	1 x Alarm LED (red) 1 x Battery charge LED (yellow) 1 x LED DC OK (green) 3 x Signal output (24 VDC; max. 200 mA in total) 1 x RS-232 interface
Operation status indicator	Green LED (DC OK) Yellow LED (battery mode) Red LED (alarm)
Communication	RS-232 serial interface
Remote input	Switching buffer mode off

Efficiency/Power losses:

Power loss P_I	$\leq 5,2\ W$ (Buffer mode; 24 VDC; 5 A); $\leq 17\ W$ (Mains operation; 230 VAC; 24 VDC; 5 A); $\leq 22\ W$
Power loss (max.) $P_{I\ (max.)}$	30 W (90 VAC; charging)
Efficiency (typ.)	88 %

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**Fuse protection:**

Internal fuse	T 4 A / 250 VAC (input side)
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

Safety and protection:

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)
Reverse voltage protection	yes
Resistance to reverse feed	≤ DC 35 V
Overvoltage category	II
Transient suppression (primary)	Varistor
Overvoltage protection; secondary	Internal protective circuit ≤ 38 VDC (in the event of a fault)
Parallel operation	Yes, max. 3 battery modules for buffer time extension
Series operation	No
MTBF	> 500,000 h (per IEC 61709)

Connection data

Connection type (1)	Input/Output/Signaling
Connection technology	CAGE CLAMP®
WAGO Connector	WAGO 721 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	Interface
Connection technology 2	CAGE CLAMP®
WAGO Connector 2	WAGO 734 Series
Solid conductor 2	0,08 ... 1,5 mm² / 28 ... 14 AWG
Fine-stranded conductor 2	0,08 ... 1,5 mm² / 28 ... 14 AWG
Strip length 2	6 ... 7 mm / 0.24 ... 0.28 inch
Line length (max.)	3 m (Output, Battery Control)

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



Geometrical Data

Width	60 mm / 2.362 inch
Height	127 mm / 5 inch
Depth from upper edge of DIN-rail	135,5 mm / 5.335 inch

Mechanical data

Mounting type	DIN-35 rail (EN 60715)
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Material Data

Weight	885 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)
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; GL

Commercial data

Product Group	6 (Interface Electronics)
Packaging type	BOX
Country of origin	DE
GTIN	4050821502616
Customs tariff number	85044082900

Approvals / Certificates

Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	GL Germanischer Lloyd	-	14788- 15HH

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UL-Approvals

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

Counterpart

Compatible products

ferrule

	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.: 216-202 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray	www.wago.com/216-202
	Item no.: 216-203 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red	www.wago.com/216-203
	Item no.: 216-204 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; black	www.wago.com/216-204
	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.: 216-222 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray	www.wago.com/216-222
	Item no.: 216-223 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red	www.wago.com/216-223

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**Item no.: 216-224**Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; blackwww.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; whitewww.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; graywww.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; redwww.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; blackwww.wago.com/216-244**Item no.: 216-262**Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; graywww.wago.com/216-262**Item no.: 216-263**Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; redwww.wago.com/216-263**Item no.: 216-264**Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blackwww.wago.com/216-264**Item no.: 216-284**Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blackwww.wago.com/216-284**Item no.: 216-301**Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellowwww.wago.com/216-301**Item no.: 216-302**Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; greenwww.wago.com/216-302**Item no.: 216-321**Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellowwww.wago.com/216-321**Item no.: 216-322**Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; greenwww.wago.com/216-322**General accessories****Item no.: 761-9005**

USB adapter; with 1m connection cable

www.wago.com/761-9005**Item no.: 787-1671**

Lead-acid AGM battery module; 24 VDC input voltage; 5 A output current; Capacity: 0.8 Ah; with battery control

www.wago.com/787-1671**Item no.: 787-871**Lead-acid AGM battery module; 24 VDC input voltage; 20 A output current; 3.2 Ah capacity; with battery control; 2,50 mm²www.wago.com/787-871**Item no.: 787-872**

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	Lead-acid AGM battery module; 24 VDC input voltage; 40 A output current; 7 Ah capacity; with battery control; 10,00 mm ²	www.wago.com/787-872
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	Item no.: 787-873 Lead-acid AGM battery module; 24 VDC input voltage; 40 A output current; 12 Ah capacity; with battery control; 10,00 mm ²	www.wago.com/787-873
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	Item no.: 787-876 Lead-acid AGM battery module; 24 VDC input voltage; 7.5 A output current; 1.2 Ah capacity; with battery control	www.wago.com/787-876
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	Item no.: 787-892 RS-232 communication cable; Length 1.8 m; for 0787-1675	www.wago.com/787-892
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Marking accessories

	Item no.: 210-831 Marking strips; on reel; 2.3 mm wide; plain; Self-adhesive; white	www.wago.com/210-831
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	Item no.: 210-832 Marking strips; on reel; 3 mm wide; plain; Self-adhesive; white	www.wago.com/210-832
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tools

	Item no.: 210-719 Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft	www.wago.com/210-719
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	Item no.: 210-720 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft	www.wago.com/210-720
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	Item no.: 210-769 SCREWDRIVER; green	www.wago.com/210-769
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Downloads

Documentation

Manual

Primary Switch Mode Power Supply with Integrated UPS Charger and Controller 24 VDC, 5 A	V 1.0.0	pdf 3.2 MB	Download
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Quick-Start Guide

Quickstart for Software 759-870 Configuration of the USV Control Units 787-870, 787-875 and 787-1675	V 1.0.0	pdf 3.1 MB	Download
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Bid Text

787-1675 GAEB X81 - Datei	Jul 12, 2019	xml 9.6 kB	Download
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Instruction Leaflet

Primär getaktete Stromversorgung mit integrierter USV Lade- und Kontrolleinheit DC 24 V, 5 A	May 5, 2020	pdf 253.2 kB	Download
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Engineering-Software**Software for Interface-Products**

WAGO Software 759-870	2.5.3.1	zip	Download
Software 759-870 V2, for configuration and visualization of UPS control units 787-870, 787-875 and combined UPS unit 787-1675	Jun 26, 2019	6.5 MB	

CAD/CAE-Data**CAD data**

2D/3D Models 787-1675	URL	Download
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CAE data

EPLAN Data Portal 787-1675	URL	Download
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WSCAD Universe 787-1675	URL	Download
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Installation Notes

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