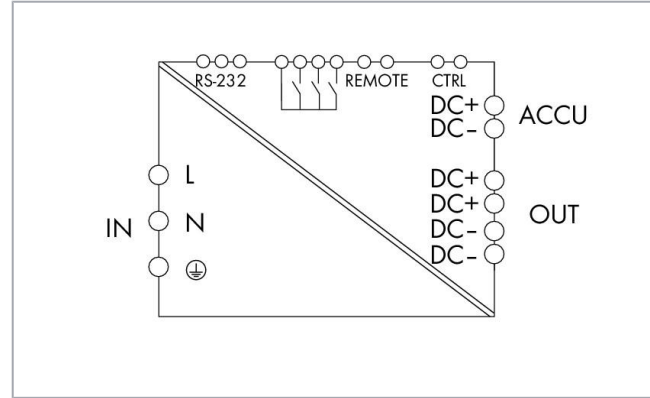
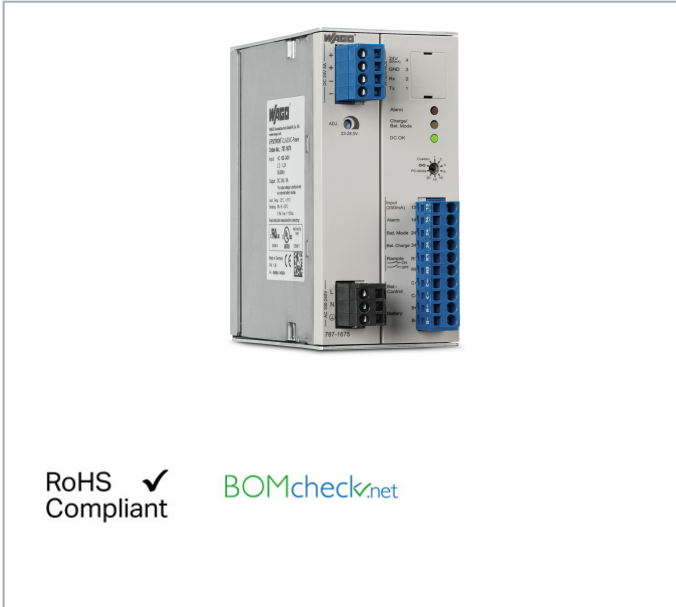


Data sheet | Item number: 787-1675

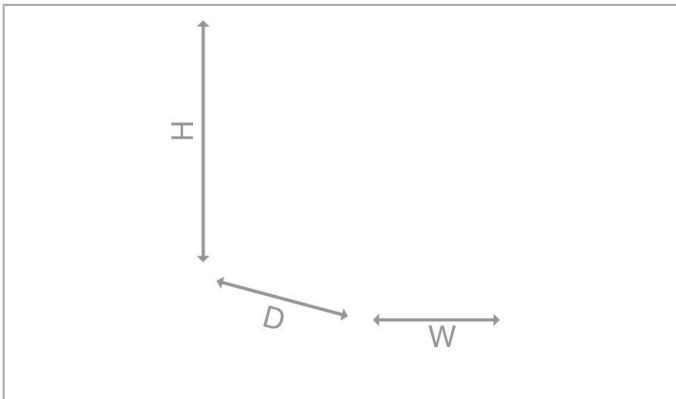
Switched-mode power supply with integrated charger and controller;
Classic; 1-phase; 24 VDC output voltage; 5 A output current; communication
capability; 10,00 mm²

www.wago.com/787-1675



RoHS
Compliant ✓

BOMcheck.net



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

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

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- 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	≤ 1.1 A (230 VAC; 5 ADC); ≤ 2.2 A (110 VAC; 5 ADC)
Discharge current	≤ 1 mA
Inrush current	≤ 30 A
Power factor correction (PFC)	Passive

Output

Nominal output voltage $U_{o\text{nom}}$	DC 24 V (SELV)
Output voltage range	DC 23 ... 28.5 V (mains operation); 18.5 ... 27.5 VDC (buffer mode)
Nominal output current $I_{o\text{nom}}$	5 A
Nominal output power	120 W
Control deviation	≤ 1 %
Residual ripple	≤ 50 mV (peak-to-peak)
Current limitation	$1.1 \times I_{o\text{nom}}$ (typ.); TopBoost
Overload behavior	Constant current

Energy storage system

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

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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	≤ 5.2 W (Buffer mode; 24 VDC; 5 A); ≤ 17 W (Mains operation; 230 VAC; 24 VDC; 5 A); ≤ 22 W
Power loss (max.) $P_{I(max)}$	30 W (90 VAC; charging)
Efficiency (typ.)	88 %

Circuit 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	\leq 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

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MTBF	> 500,000 h (per IEC 61709)
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Connection data

Connection type (1)	Input/Output/Signaling
Connection technology	CAGE CLAMP®
WAGO Connector	WAGO 721 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	Interface
Connection technology 2	CAGE CLAMP®
WAGO Connector 2	WAGO 734 Series
Solid conductor 2	0.08 ... 1.5 mm ² / 28 ... 14 AWG
Fine-stranded conductor 2	0.08 ... 1.5 mm ² / 28 ... 14 AWG
Strip length 2	6 ... 7 mm / 0.24 ... 0.28 inch
Line length (max.)	3 m (Output, Battery Control)

Physical 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
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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)

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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

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; 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

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	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
	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.: 216-241 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.: 216-243 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.: 216-262 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.: 216-263 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.: 216-301 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated; yellow	www.wago.com/216-301
	Item no.: 216-302 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated; green	www.wago.com/216-302
	Item no.: 216-321 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated; yellow	www.wago.com/216-321

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Item no.: 216-322
Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; green

www.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 mm²

www.wago.com/787-871



Item no.: 787-872
Lead-acid AGM battery module; 24 VDC input voltage; 40 A output current; 7 Ah capacity; with battery control; 10,00 mm²

www.wago.com/787-872



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 mm²

www.wago.com/787-873



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



Item no.: 787-892
RS-232 communication cable; Length 1.8 m; for 0787-1675

www.wago.com/787-892

Marking accessories



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

tools



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.: 210-720
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

www.wago.com/210-720



Item no.: 210-769
SCREWDRIVER; green

www.wago.com/210-769

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 X81 - Datei	Jul 12, 2019	xml 9.6 kB	Download
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787-1675 docx - Datei	Jul 12, 2019	docx 23.8 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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Additional Information

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

Software for Interface-Products

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

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Installation Notes

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