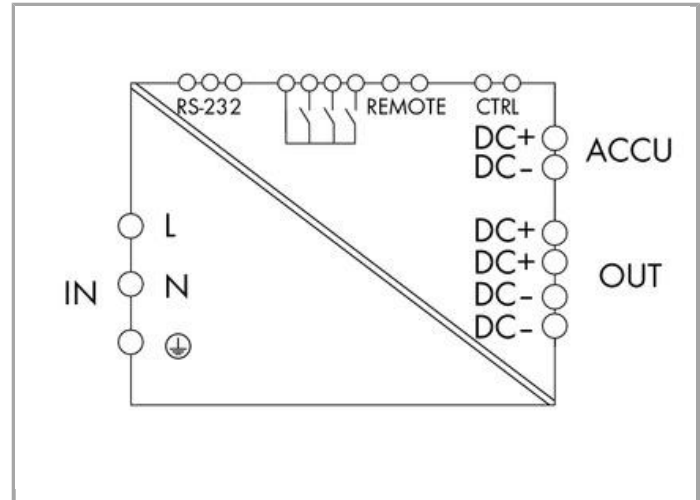


Data sheet | Item number: 787-1675

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



www.wago.com/787-1675



RoHS Compliant

BOMcheck.net

Item description

Features:

- Primary switch 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

- 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

Nominal input voltage $U_{i \text{ nom}}$	100 ... 240 VAC
Input voltage range	85 ... 264 VAC; 120 ... 372 VDC
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	$\leq 1.1 \text{ A}$ (230 VAC; 5 ADC); $\leq 2.2 \text{ A}$ (110 VAC; DC 5 A)
Discharge current	$\leq 1 \text{ mA}$
Inrush current	$\leq 30 \text{ A}$
Power factor correction (PFC)	Passive

Output

Nominal output voltage $U_{o \text{ nom}}$	24 VDC (SELV)
Output voltage range	23 ... 28.5 VDC (at mains operation); 18.5 ... 27.5 VDC (at buffer operation)
Nominal output current $I_{o \text{ nom}}$	5 A
Nominal output power	120 W
Adjustment accuracy	$\leq 1 \%$
Residual ripple	$\leq 50 \text{ mV}$ (peak-to-peak)
Current limitation	$1.3 \times I_{o \text{ nom}}$ typ.
Overload behavior	Constant current

Energy storage

Buffer time	1 s ... 20 min (or continuously; PC mode; adjustable via software)
Switch-on threshold (adjustable)	20 ... 25.5 VDC (configurable via software; pre-configured: 22 VDC)
Charging current	0.3 ... 1 A
End-of-charge voltage	26 ... 29.5 VDC (temperature-controlled; optional fixed setting)
Recommended battery module	787-871, 787-872, 787-873, 787-876, 787-1671

Signaling and communication

Signaling	1 x LED alarm (red) 1 x LED battery charge (yellow) 1 x LED DC OK (green)
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	3 x signal output (24 VDC, max. 200 mA in total) 1 x RS-232 interface
Operation status indicator	LED green (DC OK) LED yellow (battery mode) LED red (alarm)
Communication	RS-232 serial interface
Remote input	to switch off buffer operation

Efficiency/Power losses:

Power loss P_v	5.2 W (buffer operation; 24 VDC; 5 A); 17 W (mains operation; AC 230 V; DC 24 V; 5 A); 22 W
Max. power loss $P_{v \max}$	30 W (90 VAC; charging)
Efficiency	88 %

Fuse protection:

Internal fuse	T 4 A / 250 VAC (input side)
External fuse (required)	an external DC fuse required for DC input voltage
External fuse (recommended)	Circuit breakers 6 A, 10 A, 16 A, characteristic: B or C

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
Degree of protection	IP20 (per EN 60529)
Reverse voltage protection	yes
Feedback voltage	≤ 35 VDC
Overvoltage category	II
Transient protection, primary	Varistor
Overvoltage protection, secondary	Internal protection circuit ≤ 38 VDC (in case of an error)
Parallel operation	Yes, max. 3 battery modules for buffer time extension
Series connection	No
MTBF	> 500,000 h (per IEC 61709)

Connection data

Connection type (1)	Input/Output/Signaling
Connection technology	CAGE CLAMP®
WAGO terminal	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 terminal 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
Max. line length	3 m (Output, Battery Control)

Geometrical Data

Width	60 mm / 2.362 inch
Height	127 mm / 5 inch
Length from upper-edge of DIN-35 rail	135.5 mm / 5.335 inch

Mechanical data

Type of mounting	DIN-35 rail (EN 60715)
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Material Data

Weight	847.8 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; GL

Commercial data

Country of origin	DE
GTIN	4050821502616
Customs Tariff No.	85044082900
Product Group	6 (Interface Electronics)



Approvals / Certificates

Ship Approvals








Logo	Approval	Certificate name
	GL Germanischer Lloyd	14788-15HH

Compatible products




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

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	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	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	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

ferrule

	Item no.: 216-201 Ferrule; Sleeve for 0.5 mm ² / AWG 22; insulated; electro-tin plated	www.wago.com/216-201
	Item no.: 216-202 Ferrule; Sleeve for 0.75 mm ² / AWG 20; insulated; electro-tin plated	www.wago.com/216-202
	Item no.: 216-203 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated	www.wago.com/216-203

	Item no.: 216-204 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated	www.wago.com/216-204
	Item no.: 216-221 Ferrule; Sleeve for 0.5 mm ² / AWG 22; insulated; electro-tin plated	www.wago.com/216-221
	Item no.: 216-222 Ferrule; Sleeve for 0.75 mm ² / AWG 20; insulated; electro-tin plated	www.wago.com/216-222
	Item no.: 216-223 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated	www.wago.com/216-223
	Item no.: 216-224 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated	www.wago.com/216-224
	Item no.: 216-241 Ferrule; Sleeve for 0.5 mm ² / AWG 22; 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 mm ² / AWG 20; 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 mm ² / 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 mm ² / 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.: 216-262 Ferrule; Sleeve for 0.75 mm ² / AWG 20; 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.: 216-284 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.: 216-301 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 / AWG 24; 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 / AWG 24; insulated; electro-tin plated	www.wago.com/216-322

Marking accessories

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

www.wago.com/210-832

Downloads

Documentation

Manual

<i>EPSITRON</i> [®] Primary Switch Mode Power Supply with Integrated UPS Charger and Controller 24 VDC, 5 A	Apr 3, 2013	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	Jan 17, 2018	3.1 MB	Download
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Bid Text

787-1675 Stromversorgung EPSITRON	Jan 14, 2016	DOC 36.4 kB	Download
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Instruction Leaflet

Switched-Mode Power Supply with integrated UPS Charger and Control Module 24VDC / 5A 24 VDC, 5 A	May 22, 2017	PDF 431.9 kB	Download
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Additional Information

Disposal; Electrical and electronic equipment, Packaging	Oct 15, 2018	265.8 kB	Download
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Engineering-Software

Software for Interface-Products

759-870 Software, for configuration and visualization of 787-870 and 787-875 UPS Controllers	2.5.0 Jul 10, 2013	ZIP 3.2 MB	Download
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smartDATA

CAD data

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Subject to changes.

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