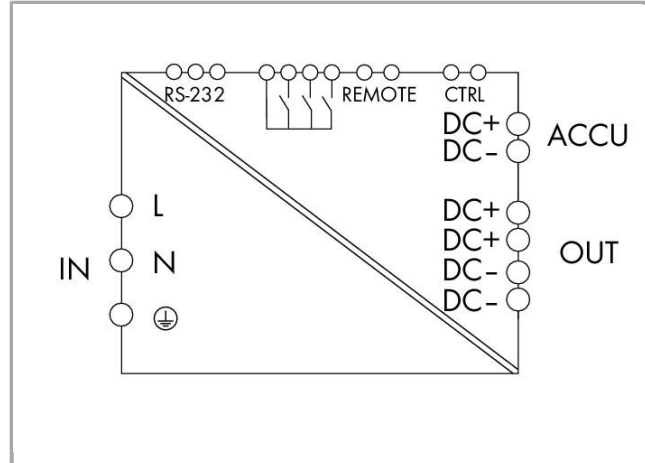


Data sheet | Item number: 787-1675

Switched-mode power supply with integrated charger and controller;  
Classic; 1-phase; 24 VDC output voltage; 5 A output current; communication  
capability; 10,00 mm<sup>2</sup>



[www.wago.com/787-1675](http://www.wago.com/787-1675)

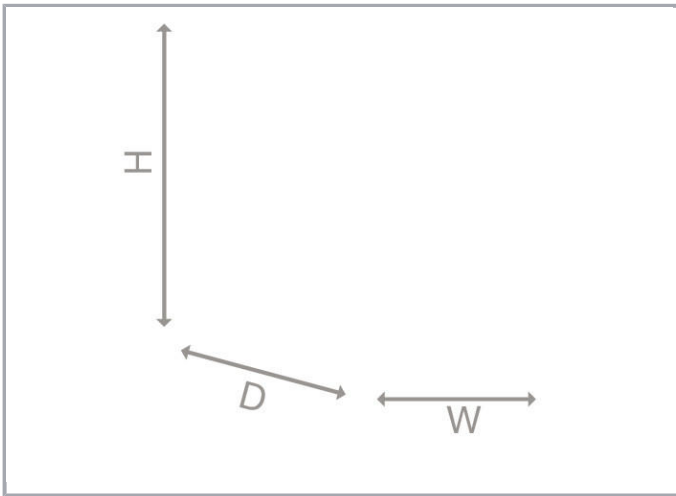


RoHS  Compliant [BOMcheck.net](http://BOMcheck.net)

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

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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	$\leq 1$ mA
Inrush current	$\leq 30$ A
Power factor correction (PFC)	Passive

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

## 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
Adjustment accuracy	$\leq 1\ %$
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	<ul style="list-style-type: none"> <li>1 x Alarm LED (red)</li> <li>1 x Battery charge LED (yellow)</li> <li>1 x LED DC OK (green)</li> <li>3 x Signal output (24 VDC; max. 200 mA in total)</li> <li>1 x RS-232 interface</li> </ul>
Operation status indicator	<ul style="list-style-type: none"> <li>Green LED (DC OK)</li> <li>Yellow LED (battery mode)</li> <li>Red LED (alarm)</li> </ul>
Communication	RS-232 serial interface
Remote input	Switching buffer mode off

## Efficiency/Power losses:

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

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



### Fuse protection:

Internal fuse	T 4 A / 250 VAC (input side)
External fuse (required)	An external DC fuse is required for the DC input voltage.
External fuse (recommended)	Circuit breaker: 6 A, 10 A, 16 A; Tripping characteristic: B or C

### 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)
Reverse voltage protection	yes
Feedback voltage	≤ DC 35 V
Overvoltage category	II
Transient protection, 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 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 <sup>2</sup> / 28 ... 12 AWG
Fine-stranded conductor	0,08 ... 2,5 mm <sup>2</sup> / 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 <sup>2</sup> / 28 ... 14 AWG
Fine-stranded conductor (2)	0,08 ... 1,5 mm <sup>2</sup> / 28 ... 14 AWG
Strip length (2)	6 ... 7 mm / 0.24 ... 0.28 inch
Max. line length	3 m (Output, Battery Control)

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

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## 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	885 g
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## Environmental Requirements

Surrounding air (operating) temperature	-25 ... 70 °C (Device starts 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

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

## Approvals / Certificates



### Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>GL</b> Germanischer Lloyd	-	14788-15HH

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





## 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


## Marking accessories


	<b>Item no.: 210-831</b> Marking strips; on reel; 2.3 mm wide; plain; Self-adhesive; white	<a href="http://www.wago.com/210-831">www.wago.com/210-831</a>
	<b>Item no.: 210-832</b> Marking strips; on reel; 3 mm wide; plain; Self-adhesive; white	<a href="http://www.wago.com/210-832">www.wago.com/210-832</a>


## General accessories

	<b>Item no.: 761-9005</b> USB adapter; with 1m connection cable	<a href="http://www.wago.com/761-9005">www.wago.com/761-9005</a>
	<b>Item no.: 787-1671</b> Lead-acid AGM battery module; 24 VDC input voltage; 5 A output current; Capacity: 0.8 Ah; with battery control	<a href="http://www.wago.com/787-1671">www.wago.com/787-1671</a>
	<b>Item no.: 787-871</b> Lead-acid AGM battery module; 24 VDC input voltage; 20 A output current; 3.2 Ah capacity; with battery control; 2,50 mm <sup>2</sup>	<a href="http://www.wago.com/787-871">www.wago.com/787-871</a>
	<b>Item no.: 787-872</b> Lead-acid AGM battery module; 24 VDC input voltage; 40 A output current; 7 Ah capacity; with battery control; 10,00 mm <sup>2</sup>	<a href="http://www.wago.com/787-872">www.wago.com/787-872</a>
	<b>Item no.: 787-873</b>	


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

 Lead-acid AGM battery module; 24 VDC input voltage; 40 A output current; 12 Ah capacity; with battery control; 10,00 mm<sup>2</sup> [www.wago.com/787-873](http://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](http://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](http://www.wago.com/787-892)

**ferrule**

 **Item no.: 216-201**  
Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; white [www.wago.com/216-201](http://www.wago.com/216-201)

**Item no.: 216-202**  
Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray [www.wago.com/216-202](http://www.wago.com/216-202)


**Item no.: 216-203**  
Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; red [www.wago.com/216-203](http://www.wago.com/216-203)

 **Item no.: 216-204**  
Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; black [www.wago.com/216-204](http://www.wago.com/216-204)


**Item no.: 216-221**  
Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; white [www.wago.com/216-221](http://www.wago.com/216-221)

**Item no.: 216-222**  
Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray [www.wago.com/216-222](http://www.wago.com/216-222)

 **Item no.: 216-223**  
Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; red [www.wago.com/216-223](http://www.wago.com/216-223)


 **Item no.: 216-224**  
Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; black [www.wago.com/216-224](http://www.wago.com/216-224)

**Item no.: 216-241**  
Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white [www.wago.com/216-241](http://www.wago.com/216-241)

 **Item no.: 216-242**  
Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray [www.wago.com/216-242](http://www.wago.com/216-242)






 **Item no.: 216-243**  
Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red [www.wago.com/216-243](http://www.wago.com/216-243)

 **Item no.: 216-244**  
Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black [www.wago.com/216-244](http://www.wago.com/216-244)

 **Item no.: 216-262**  
Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray [www.wago.com/216-262](http://www.wago.com/216-262)

**Item no.: 216-263**  
Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red [www.wago.com/216-263](http://www.wago.com/216-263)

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

	<b>Item no.: 216-264</b> Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black	<a href="http://www.wago.com/216-264">www.wago.com/216-264</a>
	<b>Item no.: 216-284</b> Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black	<a href="http://www.wago.com/216-284">www.wago.com/216-284</a>
	<b>Item no.: 216-301</b> Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow	<a href="http://www.wago.com/216-301">www.wago.com/216-301</a>
	<b>Item no.: 216-302</b> Ferrule; Sleeve for 0.34 mm <sup>2</sup> / 22 AWG; insulated; electro-tin plated; green	<a href="http://www.wago.com/216-302">www.wago.com/216-302</a>
	<b>Item no.: 216-321</b> Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow	<a href="http://www.wago.com/216-321">www.wago.com/216-321</a>
	<b>Item no.: 216-322</b> Ferrule; Sleeve for 0.34 mm <sup>2</sup> / 22 AWG; insulated; electro-tin plated; green	<a href="http://www.wago.com/216-322">www.wago.com/216-322</a>
<b>tools</b>		
	<b>Item no.: 210-719</b> Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft	<a href="http://www.wago.com/210-719">www.wago.com/210-719</a>
	<b>Item no.: 210-720</b> Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft	<a href="http://www.wago.com/210-720">www.wago.com/210-720</a>
	<b>Item no.: 210-769</b> SCREWDRIVER; green	<a href="http://www.wago.com/210-769">www.wago.com/210-769</a>

## 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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#### Instruction Leaflet

Primär getaktete Stromversorgung mit integrierter USV Lade- und Kontrolleinheit DC 24 V, 5 A		pdf 431.9 kB	Download
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#### Additional Information

Disposal: Electrical and electronic equipment. Packaging  
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V 1.0.0

pdf  
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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
WSCAD Universe 787-1675	URL	Download

## Installation Notes

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