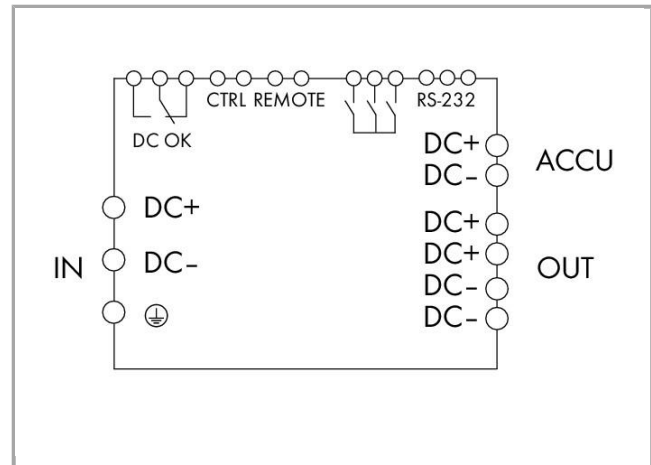


Data sheet | Item number: 787-870

UPS charger and controller; 24 VDC input voltage; 24 VDC output voltage;
10 A output current; LineMonitor; communication capability

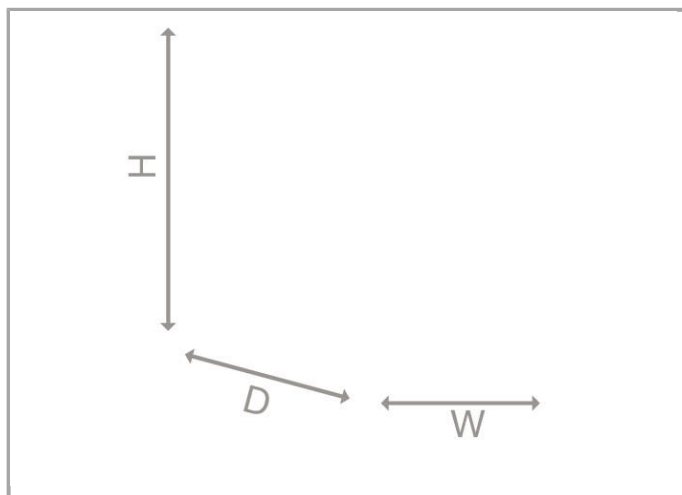


787-870



RoHS
Compliant

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Item description

Features:

- Charger and controller for uninterruptible power supply (UPS)
- Current and voltage monitoring, as well as parameter setting via LCD and RS-232 interface
- Active signal outputs for function monitoring
- Remote input for deactivating the buffered output
- Input for temperature control of connected battery
- Battery control (from manufacturing no. 215563 onwards) detects both battery life and battery type

Data

Technical Data

Input

Nominal input voltage $U_{i\text{ nom}}$	DC 24 V
Input voltage range	DC 22 ... 29 V
Nominal mains frequency range	0 Hz
Input current I_i	$\leq 0.1\text{ A}$ (no load); $\leq 0.8\text{ A}$ (charging); $\leq 10.8\text{ A}$
Inrush current	$\leq 4\text{ A}$ (no load)

Output

Nominal output voltage $U_{o\text{ nom}}$	DC 24 V
Output voltage range	$U_i - 1\text{ VDC}$ (at nominal operation); 20 ... 25.5 VDC (at buffer operation)
Nominal output current $I_{o\text{ nom}}$	10 A
Current limitation	$1.1 \dots 1.4 \times I_{o\text{ nom}}$ typ.

Energy storage

Buffer time	10 s ... 10 min (or continuously; adjustable)
Switch-on threshold (adjustable)	DC 20 ... 25.5 V
Charging current	≤ 0.6 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 LED DC OK (green) 1 x LED warning (yellow) 1 x LED error (red) LCD 3 x signal output (24 VDC, max. 25 mA) 1 x potential-free relay contact (max. 30 VDC, 1 A) 1 x RS-232 interface Battery Control (C+, C-)
Operation status indicator	LED green (U_o) LED yellow (warning) LED red (error)
Communication	RS-232 serial interface
Remote input	to switch off buffer operation

Efficiency/Power losses:

Power loss P_v	≤ 15 W (no load); ≤ 20 W (nominal load)
Efficiency	95 %

Fuse protection:

Internal fuse	T 15 A
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Safety and protection:

Insulation voltage (connectors-housing)	DC 0.5 kV
Protection class	III
Protection class	IP20 (per EN 60529)
Reverse voltage protection	yes
Feedback voltage	$\leq$ DC 35 V
Parallel operation	Yes, a maximum three battery modules for buffer time extension (temperature measurement evaluation is only possible via one battery module)
Series connection	No
MTBF	$> 500,000$ h (per IEC 61709)



Connection data

Connection type (1)	Input/Output
Connection technology	CAGE CLAMP®
WAGO terminal	WAGO 231 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)	Signaling
Connection technology 2	CAGE CLAMP®
WAGO terminal 2	WAGO 733 Series
Solid conductor (2)	0.08 ... 0.5 mm² / 28 ... 20 AWG
Strip length (2)	5 ... 6 mm / 0.2 ... 0.24 inch
Max. line length	3 m (Input, Output, Battery Control)

Geometrical Data

Width	40 mm / 1.575 inch
Height	163 mm / 6.417 inch
Length from upper-edge of DIN-35 rail	163 mm / 6.417 inch
Note on dimensions	Height including pluggable connector

Mechanical data

Type of mounting	DIN-35 rail (EN 60715) in 2 positions
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Material Data

Weight	800 g
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Environmental Requirements

Surrounding air (operating) temperature	-10 ... 60 °C
Surrounding air (storage) temperature	-25 ... 85 °C
Relative humidity	5 ... 96 % (no condensation permissible)
Pollution degree	2

Standards and specifications

Conformity marking	1
Standards/specifications	EN 60950; UL 60950; UL 508; EN 61000-6-2; EN 61000-6-3

Commercial data

Product Group	6 (Interface Electronics)
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Country of origin	DE
GTIN	4045454909857
Customs Tariff No.	85044055900

Approvals / Certificates

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

Mounting adapter

	Item no.: 787-895 EPSITRON® wall mount adapter; for screw fixing of 787-8xx devices on mounting plate or wall without DIN 35 rail	787-895
	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

General accessories

	Item no.: 761-9005 USB adapter; with 1m connection cable	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	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	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	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	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

787-876

**Item no.: 787-890**

RS-232 communication cable; Length 1.8 m

787-890

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

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

2009-110

**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

ferrule**Item no.: 216-201**Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated

216-201

**Item no.: 216-202**Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated

216-202

**Item no.: 216-203**Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated

216-203

**Item no.: 216-204**Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated

216-204

**Item no.: 216-221**Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated

216-221

**Item no.: 216-222**Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated

216-222

**Item no.: 216-223**Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated

216-223

**Item no.: 216-224**Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated

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

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

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

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

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

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.: 216-284 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.: 216-301 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

Downloads

Documentation

Quick-Start Guide

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

Bid Text

787-870	Apr 4, 2012	doc	Download
Stromversorgung EPSITRON		31.2 kB	

Instruction Leaflet

EPSITRON UPS Charger and Control Module		pdf	Download
24 VDC, 10 A		875.9 kB	

Additional Information

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



Libraries

Library

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

Engineering-Software

Configuration and Commissioning Software

UPS shutdown tool, for automatic shut-down of Windows PCs via UPS	1.0.2	zip	Download
	Jun 1, 2010	853.7 kB	

Software for Interface-Products

759-870 Software, for configuration and visualization of 787-870 and 787-875 UPS Controllers	2.5.3.1.	zip	Download
	Feb 5, 2019	2.2 MB	

CAD/CAE - Smart Data

CAD data

3D Download 787-870	URL	Download
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Subject to changes.