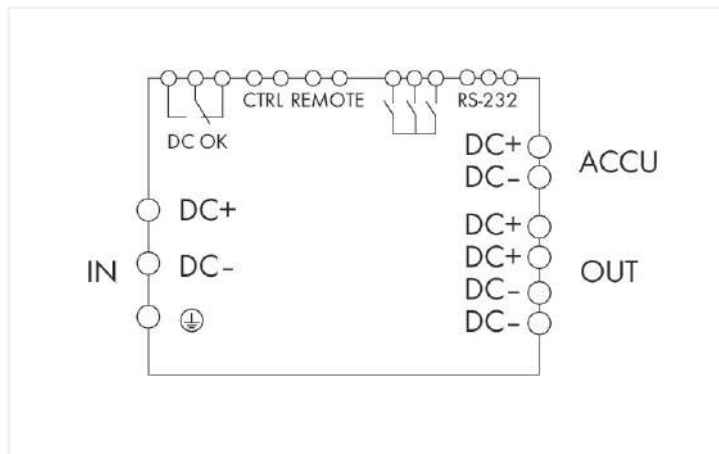


Data Sheet | Item Number: 787-870

UPS charger and controller; 24 VDC input voltage; 24 VDC output voltage; 10 A output current; LineMonitor; communication capability; 2,50 mm²

<https://www.wago.com/787-870>



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

Technical data

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

Output	
Nominal output voltage $U_{o, nom}$	DC 24 V
Output voltage range	$U_i - 1$ VDC (rated operation); 20 ... 25.5 VDC (buffer mode)
Nominal output current $I_{o, nom}$	10 A
Current limitation	1.1 ... 1.4 x $I_{o, nom}$ (typ.)

Energy storage system	
Buffer time	10 s ... 10 min or constant; 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 Warning LED (yellow) 1 x Error LED (red) LCD 3 x Signal output (24 VDC; max. 25 mA) 1 x Isolated relay contact (max. 30 VDC; 1 A) 1 x RS-232 interface Battery control (C+; C-)
Operation status indicator	Green LED (U_o) Yellow LED (warning) Red LED (error)
Communication	RS-232 serial interface
Remote input	Switching buffer mode off

Efficiency/power losses

Power loss P_1	$\leq 15 \text{ W}; \leq 20 \text{ W}$ (nominal load)
Efficiency (typ.)	95 %

Circuit protection

Internal fuse	T 15 A
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Safety and protection

Isolation voltage (connectors – housing)	DC 0.5 kV
Protection class	III
Protection type	IP20; per EN 60529
Reverse voltage protection	Yes
Resistance to reverse feed	$\leq \text{DC } 35 \text{ V}$
Pollution degree	2
Parallel operation	Yes, max. 3 battery modules for buffer time extension (temperature measurement evaluation is only possible via one battery module)
Series operation	No
MTBF	> 500,000 h (per IEC 61709)

Connection data

Connection type 1	Input/output
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 231 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 inches
Connection type 2	Signaling
Connection technology 2	CAGE CLAMP®
WAGO connector 2	WAGO 733 Series
Solid conductor 2	0.08 ... 0.5 mm ² / 28 ... 20 AWG
Fine-stranded conductor 2	0.08 ... 0.5 mm ² / 28 ... 20 AWG
Strip length 2	5 ... 6 mm / 0.2 ... 0.24 inches
Cable length (max.)	3 m (Input, output, battery control)

Physical data

Width	40 mm / 1.575 inches
Height	163 mm / 6.417 inches
Depth from upper-edge of DIN-rail	163 mm / 6.417 inches
Note (dimensions)	Height with connector

Mechanical data

Mounting type	DIN-35 rail
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Material data

Fire load	0 MJ
Weight	800 g

Environmental requirements

Ambient temperature (operation)	-10 ... +60 °C
Ambient temperature (storage)	-25 ... +85 °C
Relative humidity	5 ... 96 % (no condensation permissible)

Standards and specifications

Conformity marking	CE
Standards/specifications	EN 61010-1 EN 61010-2-201 UL 60950 UL 508 EN 61000-6-2 EN 61000-6-3

Commercial data

Product Group	6 (INTERFACE ELECTRONIC)
eCl@ss 10.0	27-04-06-90
eCl@ss 9.0	27-04-06-90
ETIM 8.0	EC000382
ETIM 7.0	EC000382
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4045454909857
Customs tariff number	85044060900

Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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Approvals / Certificates

General approvals



Approval	Standard	Certificate Name
EAC Brjansker Zertifizierungs- stelle	TP TC 020/2011	RU_C-DE.AM02. B.00093-19
UL Underwriters Laboratories Inc.	UL 508	E255817
UL Underwriters Laboratories Inc.	UL 60950-1	E255815

Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-

Downloads

Environmental Product Compliance

Compliance Search			
Environmental Product Compliance 787-870			↓

Documentation

Quick-Start Guide			
Quickstart for Software 759-870	V 1.0.0	pdf 3043.43 KB	↓

Bid Text			
787-870	12.07.2019	xml 7.79 KB	↓
787-870	12.07.2019	docx 22.98 KB	↓
ausschreiben.de 787-870			↓

Instruction Leaflet			
Uninterruptible power supply	27.04.2020	pdf 1264.21 KB	↓

CAD/CAE-Data

CAD data	
2D/3D Models 787-870	

CAE data	
EPLAN Data Portal 787-870	↓
WSCAD Universe 787-870	↓
ZUKEN Portal 787-870	↓

Engineering-Software

Configuration and Commissioning Software			
WAGO UPS Shutdown Tool	4.13 18.11.2021	exe 48463.53 KB	↓
WAGO Software 759-870	4.13 10.05.2021	zip 38762.69 KB	↓

Libraries

Library			
Anbindung Stromversorgungen Serie 787	1.3.0 14.05.2014	zip 549.48 KB	↓

1 Compatible Products

1.1 Optional Accessories

1.1.1 Cables and connectors

1.1.1.1 Communication cable



Item No.: 787-890

RS-232 communication cable; Length 1.8 m

1.1.1.2 Connecting cable



Item No.: 761-9005

USB adapter; with 1m connection cable

1.1.2 Marking

1.1.2.1 Marking strip



Item No.: 2009-110

Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white



Item No.: 210-831

Marking strips; on reel; 2.3 mm wide; plain; Self-adhesive; white



Item No.: 210-832

Marking strips; on reel; 3 mm wide; plain; Self-adhesive; white

1.1.3 Mounting adapter

1.1.3.1 DIN-rail adapter



Item No.: 787-897

Carrier rail adapter made of zinc die-cast; for mounting 787-8xx devices to a DIN 35 rail



Item No.: 787-896

Carrier rail adapter; for mounting 787-8xx devices to a DIN 35 rail

1.1.3.2 Wall-mount adapter



Item No.: 787-895

Mounting carrier; for screw fixing of 787-8xx devices on mounting plate or wall without DIN 35 rail

1.1.4 Power supply

1.1.4.1 Uninterruptible power supply



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



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



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



Item No.: 787-1671

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



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

1.1.5 Tool

1.1.5.1 Operating tool



Item No.: 210-719

Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft



Item No.: 210-720

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured