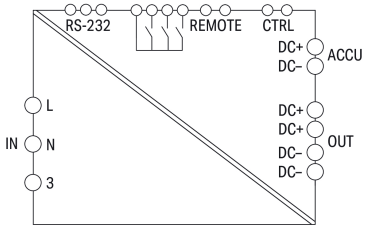
Data Sheet | Item Number: 787-1675

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

https://www.wago.com/787-1675





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

Technical data

Input

Phases	1
Nominal input voltage $U_{i\,nom}$	1 x 100 … 240 VAC
Input voltage range	1 x 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	≤ 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 $U_{o\,nom}$	24 VDC (SELV)
Output voltage range	23 … 28.5 VDC (mains operation); 18.5 … 27.5 VDC (buffer mode)
Nominal output current $I_{o\,nom}$	5 A
Nominal output power	120 W
Deviation	≤ 1 %
Residual ripple	≤ 50 mV (peak-to-peak)
Current limitation	1.1 x $I_{o\,nom}$ (typ.); TopBoost
Overload behavior	Constant current

Energy storage systems

Buffer time	1 s … 20 min or constant; PC mode; configurable via software
Switch-on threshold	DC 20 … 25.5 V (Adjustable via software; pre-configured: 22 VDC)
Memory type	Lead-acid fleece
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 Alarm LED (red) 1 x Battery charge LED (yellow) 1 x DC OK LED (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)
Communications	RS-232 serial interface
Remote input	Switching buffer mode off

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Efficiency/Power Losses

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

Circuit Protection

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

Safety and protection

Isolation voltage (pri.-sec.)	4.242 kVDC
Isolation voltage (pri.-PE)	2.2 kVDC
Isolation voltage (sec.-PE)	0.7 kVDC
Protection class	I
Protection type	IP20; per EN 60529
Reverse voltage protection	Yes
Resistance to reverse feed	≤ 35 VDC
Overvoltage category	II
Pollution degree	2
Transient suppression (primary)	Varistor
Overvoltage protection; secondary	Internal protective circuit ≤ 38 VDC (in the event of a fault)
Parallel operation	Yes, up to 3 battery modules for extending the buffer time
Series operation	No
MTBF	> 500,000 h (per IEC 61709)

Connection Data

Cable length (max.)	3 m (output, battery control)

Connection 1

Connection type	Input/output/signaling
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 721 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 inches

Connection 2

Connection type	Interface
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 734 Series
Solid conductor	0.08 … 1.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 1.5 mm² / 28 … 14 AWG
Strip length	6 … 7 mm / 0.24 … 0.28 inches

Physical data

Width	60 mm / 2.362 inches
Height	127 mm / 5 inches
Depth from upper-edge of DIN-rail	135.5 mm / 5.335 inches

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Mechanical data

Mounting type	DIN-35 rail

Material data

Fire load	0.552 MJ
Weight	885 g

Environmental requirements

Ambient temperature (operation)	-25 … +70 °C (Device starts at -40 °C (type-tested))
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	-3 %/K (> 50 °C)
Climatic category	3K3 (per EN 60721)

Standards and Specifications

Conformity marking	CE
Standards/specifications	EN 61010-1 EN 61010-2-201 EN 61204-3 EN 61558-2-16 UL 60950 UL 508 DNV

Commercial data

Product Group	6 (INTERFACE ELECTRONIC)
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4050821502616
Customs tariff number	85044083900

Product Classification

UNSPSC	39121004
eCl@ss 10.0	27-04-07-01
eCl@ss 9.0	27-04-07-01
ETIM 9.0	EC002540
ETIM 10.0	EC002540
ECCN	NO US CLASSIFICATION

Environmental Product Compliance

RoHS Compliance Status	Compliant,No Exemption

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Approvals / Certificates

General approvals

Approval	Standard	Certificate Name
UL Underwriters Laboratories Inc.	UL 508	E255817
UR Underwriters Laboratories Inc.	UL 60950-1	E255815

Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Approvals for marine applications

Approval	Standard	Certificate Name
DNV DNV Germany GmbH	DNVGL-CG-339,Dec.2019	TAA00002YC

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 787-1675

Documentation

Manual

Product Manual Primary Switch Mode Power Supply with Integrated UPS Charger and Controller	V 1.0.0	pdf 3133.43 KB	

Quick-Start Guide

Quickstart for Software 759-870	V 1.0.0	pdf 3043.43 KB	

Bid Text

787-1675	12.07.2019	xml 9.33 KB	
787-1675	12.07.2019	docx 23.28 KB	
ausschreiben.de 787-1675			

Instruction Leaflet

Primär getaktete Stromversorgung mit integrierter USV Lade- und Kontrolleinheit	05.05.2020	pdf 247.29 KB	

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CAD/CAE-Data

CAD data	CAE data
2D/3D Models 787-1675	EPLAN Data Portal 787-1675
	WSCAD Universe 787-1675
	ZUKEN Portal 787-1675

Engineering-Software

Configuration and Commissioning Software		
WAGO Software 759-870	4.13 10.05.2021	zip 38762.69 KB

1 Compatible Products

1.1 Optional Accessories

1.1.1 Cables and connectors

1.1.1.1 Communication cable



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

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.: 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

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1.1.3 Mounting adapter

1.1.3.1 DIN-rail adapter



Item No.: 787-897/000-010
Carrier rail adapter made of zinc die-cast; horizontal mounting of 787-16xx (TS35)

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



Item No.: 787-873
Lead-acid AGM battery module; 24 VDC input voltage; 40 A output current; 12 Ah capacity; with battery control



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



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



Item No.: 210-769
SCREWDRIVER; green