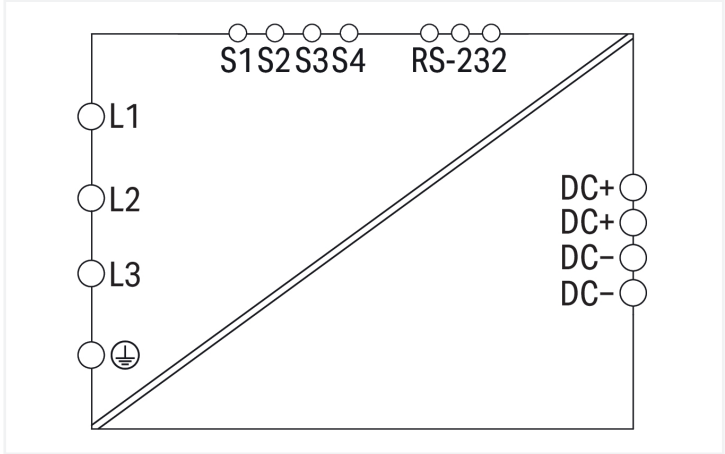


Data Sheet | Item Number: 787-850

Switched-mode power supply; Pro; 3-phase; 24 VDC output voltage; 10 A output current; TopBoost + PowerBoost; LineMonitor; DC OK signal; 2,50 mm²

<https://www.wago.com/787-850>



Features:

- Switched-mode power supply with PowerBoost and TopBoost
- Suitable for both parallel and series operation
- Natural convection cooling when horizontally mounted
- Encapsulated for use in control cabinets
- Electrically isolated output voltage (SELV) per UL 60950-1; PELV per EN 60204
- LineMonitor for parameter setting and monitoring
- RS-232 serial interface
- Four signal outputs

Technical data

Input	
Phases	2 / 3
Nominal input voltage $U_{i, nom}$	(2 / 3) x 400 ... 500 VAC
Input voltage range	(2 / 3) x 340 ... 550 VAC; 480 ... 780 VDC
Nominal mains frequency range	50 ... 60 Hz; 0 Hz
Input current I_i	$\leq 3 \times 0.6 \text{ A}$ (340 VAC; 10 ADC)
Discharge current	$\leq 1 \text{ mA}$
Inrush current	$\leq 30 \text{ A}$
Power factor correction (PFC)	Passive (adjustable via software/display)
Mains failure hold-up time	$\geq 22 \text{ ms}$ (3 x 400 VAC)

Output	
Nominal output voltage $U_{o, nom}$	24 VDC (SELV)
Output voltage range	22.8 ... 28.8 VDC (adjustable)
Default Setting	DC 24 V
Nominal output current $I_{o, nom}$	10 A (24 VDC)
Nominal output power	240 W
Deviation	$\leq 1 \%$
Residual ripple	$\leq 70 \text{ mV}$ (peak-to-peak)
Current limitation	$1.1 \times I_{o, nom}$ (typ.)
Overload behavior	adjustable (constant current/fuse mode)
PowerBoost	DC 20 A (4 s); DC 15 A (16 s)
TopBoost	70 ADC (50 ms)

Signaling and communication	
Signaling	1 x LED DC OK (green) 1 x Warning LED (yellow) 1 x Error LED (red) LCD 4 x Signal output (24 VDC; max. 25 mA) 1 x RS-232 interface
Operation status indicator	Green LED (DC OK) Yellow LED (warning) Red LED (error)
Communications	RS-232 serial interface

Efficiency/power losses	
Power loss P_i	$\leq 7.8 \text{ W}$; $\leq 19.9 \text{ W}$ (nominal load)
Efficiency (typ.)	91.7 %



Circuit protection	
Internal fuse	3 x T 2.5 A / 440 VAC
Backup fusing (required)	An external DC fuse is required for the DC input voltage.
Backup fusing (recommended)	3 x Circuit breaker: 6 A, 10 A, 16 A; Trip-ping characteristic: B or C Alternative: motor circuit breaker; Set-point: 1.6 A; Setting range: 1.6 ... 2.5 A

Safety and protection	
Isolation voltage (pri.-sec.)	DC 4.242 kV
Isolation voltage (pri.-PE)	DC 2.2 kV
Isolation voltage (sec.-PE)	0.7 kVDC
Protection class	I
Protection type	IP20; per EN 60529
Resistance to reverse feed	≤ 35 VDC
Overvoltage category	II
Pollution degree	2
Transient suppression (primary)	Varistor
Short-circuit-protected	Yes
Open-circuit-proof	Yes
Parallel operation	Yes
Series operation	Yes
MTBF	> 500,000 h (per IEC 61709)

Connection data			
Connection 1		Connection 2	
Connection type 1	Input/output	Connection type	Signaling
Connection technology	CAGE CLAMP®	Connection technology	CAGE CLAMP®
WAGO connector	WAGO 231 Series	WAGO connector 2	WAGO 733 Series
Solid conductor	0.08 ... 2.5 mm² / 28 ... 12 AWG	Solid conductor	0.08 ... 0.5 mm² / 28 ... 20 AWG
Fine-stranded conductor	0.08 ... 2.5 mm² / 28 ... 12 AWG	Fine-stranded conductor	0.08 ... 0.5 mm² / 28 ... 20 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 inches	Strip length	5 ... 6 mm / 0.2 ... 0.24 inches

Physical data	
Width	57 mm / 2.244 inches
Height	163 mm / 6.417 inches
Depth from upper-edge of DIN-rail	179 mm / 7.047 inches
Note (dimensions)	Height with connector

Mechanical data	
Mounting type	DIN-35 rail



Material data	
Fire load	0 MJ
Weight	1000 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

Commercial data	
Product Group	6 (INTERFACE ELECTRONIC)
eCl@ss 10.0	27-04-07-01
eCl@ss 9.0	27-04-07-01
ETIM 9.0	EC002540
ETIM 8.0	EC002540
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4045454909918
Customs tariff number	85044083900

Environmental Product Compliance	
RoHS Compliance Status	Compliant, No Exemption

Approvals / Certificates		
General approvals		Declarations of conformity and manufacturer's declarations
  		
Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 004/2011	EAC CoC 03078
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03081
UL Underwriters Laboratories Inc.	UL 508	E255817
UR Underwriters Laboratories Inc.	UL 60950-1	E255815



Downloads				
Environmental Product Compliance				
Compliance Search				
Environmental Product Compliance 787-850				↓

Documentation				
Bid Text			Instruction Leaflet	
787-850	04.07.2019	xml 7.55 KB	Primär getaktete Stromversorgungen PRO	pdf 513.14 KB ↓
787-850	04.07.2019	docx 20.66 KB		↓

CAD/CAE-Data				
CAD data			CAE data	
2D/3D Models 787-850			EPLAN Data Portal 787-850	↓
			WSCAD Universe 787-850	↓
			ZUKEN Portal 787-850	↓

Engineering-Software				
Configuration and Commissioning Software			Software for Interface-Products	
WAGO Line Length Calculation	1.3.5 09.12.2019	exe 329.50 KB	WAGO Software 759-851	1.4.5 11.11.2009 zip 823.13 KB ↓
			WAGO Software 759-850	1.10.16 24.05.2011 zip 520.23 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 Tool

1.1.4.1 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