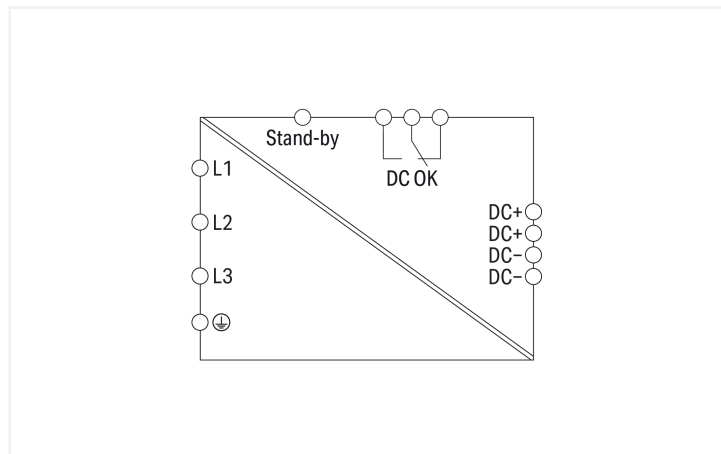


Data Sheet | Item Number: 787-842

Switched-mode power supply; Pro; 3-phase; 24 VDC output voltage; 20 A output current; TopBoost + PowerBoost; DC OK contact; 2,50 mm²

<https://www.wago.com/787-842>



Features:

- Switched-mode power supply with PowerBoost and TopBoost
- Switch off the output and minimize power consumption via stand-by input
- Output monitoring via DC OK contact
- 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

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	$\leq 3 \times 1.1$ A (340 VAC; 20 ADC)
Discharge current	≤ 1 mA
Inrush current	≤ 30 A
Power factor correction (PFC)	Passive
Mains failure hold-up time	≥ 13 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	24 VDC
Nominal output current $I_{o, nom}$	20 A (24 VDC)
Nominal output power	480 W
Deviation	≤ 1 %
Residual ripple	≤ 70 mV (peak-to-peak)
Current limitation	$1.1 \times I_{o, nom}$ (typ.)
Overload behavior	TopBoost/PowerBoost/Constant current mode
PowerBoost	40 ADC (4 s); 30 ADC (16 s)
TopBoost	80 ADC (50 ms)

Signaling and Communication	
Signaling	1 x DC OK LED (green) 1 x Error LED (red) 1 x Stand-by input 1 x DC OK relay contact (changeover contact)

Operation status indicator	Green LED (DC OK) Red LED (error)
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Efficiency/Power Losses	
Power loss P_l	≤ 8.3 W; ≤ 34.1 W (nominal load)
Efficiency (typ.)	92.9 %

Circuit Protection

Internal fuse	3 x T 2.5 A / 440 VAC
Pre-fuse (required)	An external DC fuse is required for the DC input voltage.
Backup fuse (recommended)	3 x Circuit breaker: 6 A, 10 A, 16 A; Tripping characteristic: B or C Alternative: motor circuit breaker; Set-point: 2.5 A; Setting range: 2.5 ... 4 A

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
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 type	Input
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 2

Connection type	Output
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 831 Series
Solid conductor	0.5 ... 10 mm ² / 20 ... 8 AWG
Fine-stranded conductor	0.5 ... 10 mm ² / 20 ... 8 AWG
Strip length	13 ... 15 mm / 0.51 ... 0.59 inches

Connection 3

Connection type	Signaling
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 733 Series
Solid conductor	0.08 ... 0.5 mm ² / 28 ... 20 AWG
Fine-stranded conductor	0.08 ... 0.5 mm ² / 28 ... 20 AWG
Strip length	5 ... 6 mm / 0.2 ... 0.24 inches

Physical data

Width	77 mm / 3.031 inches
Height	171 mm / 6.732 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
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Material data

Fire load	0 MJ
Weight	1300 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)
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4045454909932
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
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

Declarations of conformity and manufacturer's declarations

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

Downloads

Environmental Product Compliance

Compliance Search
Environmental Product Compliance 787-842 ↓

Documentation

Bid Text			
787-842	04.07.2019	xml 7.56 KB	↓
787-842	04.07.2019	docx 20.40 KB	↓

Instruction Leaflet		
Primär getaktete Stromversorgungen PRO	pdf 359.24 KB	↓

CAD/CAE-Data

CAD data
2D/3D Models 787-842 ↓

CAE data	
EPLAN Data Portal 787-842	↓
WSCAD Universe 787-842	↓
ZUKEN Portal 787-842	↓

Engineering-Software

Configuration and Commissioning Software

WAGO Line Length Calculation	1.3.5 09.12.2019	exe 329.50 KB	
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1 Compatible Products

1.1 Optional Accessories

1.1.1 Marking

1.1.1.1 Marker



Item No.: 2009-145

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white



Item No.: 248-501

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white



Item No.: 793-5501

WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; white



Item No.: 793-501

WMB marking card; as card; not stretchable; plain; snap-on type; white



Item No.: 2009-115

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

1.1.1.2 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

1.1.2 Mounting adapter

1.1.2.1 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; gray



Item No.: 787-896

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

1.1.2.2 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; gray

1.1.3 Tool

1.1.3.1 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.: 210-721](#)

Operating tool; Blade: 5.5 x 0.8 mm; with a partially insulated shaft; multicoloured

[Item No.: 210-769](#)

SCREWDRIVER; green