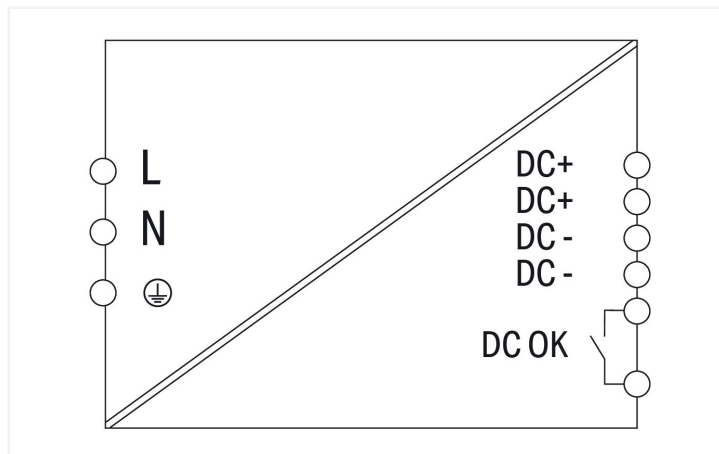


Data Sheet | Item Number: 787-1631

Switched-mode power supply; Classic; 1-phase; 12 VDC output voltage; 15 A output current; TopBoost; DC OK contact

<https://www.wago.com/787-1631>



Features:

- Switched-mode power supply
- Natural convection cooling when horizontally mounted
- Encapsulated for use in control cabinets
- DC OK contact
- Suitable for both parallel and series operation
- Electrically isolated output voltage (SELV) per UL 60950-1; PELV per EN 60204
- GL approval

Technical data

Input	
Phases	1
Nominal input voltage $U_{i, \text{nom}}$	1 x AC 100 ... 240 V
Input voltage range	1 x AC 85 ... 264 V; DC 120 ... 300 V
Input voltage derating	-2.5 %/V (< 100 VAC)
Nominal mains frequency range	44 ... 66 Hz; 0 Hz
Input current I_i	$\leq 0.93 \text{ A}$ (240 VAC); $\leq 2.05 \text{ A}$ (100 VAC)
Discharge current	$\leq 1 \text{ mA}$
Inrush current	$\leq 30 \text{ A}$
Power factor correction (PFC)	Active
Mains failure hold-up time	$\geq 28 \text{ ms}$ (230 VAC); $\geq 28 \text{ ms}$ (100 VAC)

Output	
Nominal output voltage $U_{o, \text{nom}}$	DC 12 V (SELV)
Output voltage range	DC 11.5 ... 15 V (adjustable)
Default Setting	DC 12 V
Nominal output current $I_{o, \text{nom}}$	15 A (12 VDC)
Nominal output power	180 W
Deviation	$\leq 1 \%$
Residual ripple	$\leq 35 \text{ mV}$ (peak-to-peak)
Current limitation	$1.1 \times I_{o, \text{nom}}$ (typ.)
Overload behavior	Constant current
TopBoost	See instruction leaflet

Signaling and communication	
Signaling	1 x LED DC OK (green) 1 x DC OK contact (make contact; max. 30 VAC/DC; 1 A)
Operation status indicator	Green LED (U_o)

Efficiency/power losses	
Power loss P_i	$\leq 4.4 \text{ W}$; $\leq 21.8 \text{ W}$ (230 VAC; nominal load)
Power loss (max.) $P_{i(\text{max.})}$	24.7 W (100 VAC / 12 VDC; 15 A)
Efficiency (typ.)	90 %

Circuit protection	
Internal fuse	T 6.3 A / 250 VAC
Backup fusing (required)	An external DC fuse is required for the DC input voltage.
Backup fusing (recommended)	Circuit breaker: 10 A, 16 A; Tripping characteristic: B or C

Safety and protection

Isolation voltage (pri.-sec.)	DC 4.242 kV
Isolation voltage (pri.-PE)	DC 2.2 kV
Isolation voltage (sec.-PE)	DC 0.7 kV
Protection class	I
Protection type	IP20; per EN 60529
Resistance to reverse feed	≤ DC 25 V
Oversvoltage category	II
Pollution degree	2
Transient suppression (primary)	Varistor
Oversvoltage protection; secondary	Internal protective circuit ≤ 20 VDC (in the event of a fault)
Short-circuit-protected	Yes
Open-circuit-proof	Yes
Parallel operation	Yes
Series operation	Yes
MTBF	> 500,000 h (per IEC 61709)

Connection data

Connection type 1	Input/output/signaling
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 721 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

Physical data

Width	55 mm / 2.165 inches
Height	127 mm / 5 inches
Depth from upper-edge of DIN-rail	172 mm / 6.772 inches

Mechanical data

Mounting type	DIN-35 rail
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Material data

Fire load	0 MJ
Weight	930 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	-5 %/K (> 60 °C, 196 ... 264 VAC); -2.5 %/K (> 50 °C, 85 ... 195 VAC)
Climatic category	3K3 (per EN 60721)

Standards and specifications

Conformity marking	CE
Standards/specifications	EN 61010-1 EN 61010-2-201 EN 61204-3 UL 60950-1 UL 508 DNV SEMI F47

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	4055143060509
Customs tariff number	85044083900

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 Confor- mity WAGO GmbH & Co. KG	-	-
MFD for SEMI F47 WAGO GmbH & Co. KG	-	-
UK-Declaration of Confor- mity 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 787-1631			↓

Documentation

Bid Text			
787-1631	04.07.2019	xml 6.98 KB	↓
787-1631	03.06.2019	docx 20.50 KB	↓

Instruction Leaflet		
Primär getaktete Stromversorgungen CLASSIC	pdf 244.90 KB	↓

CAD/CAE-Data

CAD data	
2D/3D Models 787-1631	↓

CAE data	
EPLAN Data Portal 787-1631	↓
WSCAD Universe 787-1631	↓
ZUKEN Portal 787-1631	↓

Engineering-Software

Configuration and Commissioning Software			
WAGO Line Length Calculation	1.3.5 09.12.2019	exe 329.50 KB	↓

1 Compatible Products

1.1 Optional Accessories

1.1.1 Marking

1.1.1.1 Marker



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.: 787-897/000-010

Carrier rail adapter made of zinc die-cast; horizontal mounting of 787-16xx (TS35)

1.1.3 Tool

1.1.3.1 Operating tool



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