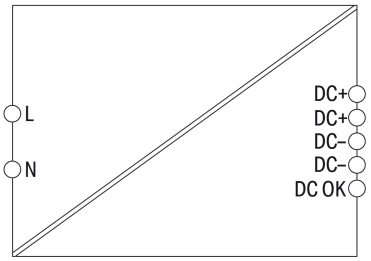
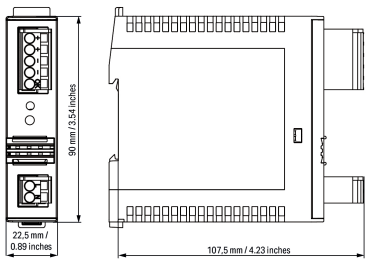
Data Sheet | Item Number: 787-1601

Switched-mode power supply; Classic; 1-phase; 12 VDC output voltage; 2 A output current; NEC Class 2; DC OK signal

https://www.wago.com/787-1601





Features:

- Switched-mode power supply
- Natural convection cooling when horizontally mounted
- Encapsulated for use in control cabinets
- Limited Power Source (LPS) per NEC Class 2
- Bounce-free switching signal (DC OK)
- Suitable for both parallel and series operation
- Electrically isolated output voltage (SELV) per UL 60950-1; PELV per EN 60204
- DNV approval, also suitable for EMC 1 in conjunction with 787-980 Filter Module

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 … 300 VDC
Input voltage derating	-2.5 %/V (< 95 VAC)
Nominal mains frequency range	44 … 66 Hz; 0 Hz
Input current I_i	≤ 0.29 A (240 VAC); ≤ 0.5 A (100 VAC)
Discharge current	≤ 0.25 mA
Inrush current	≤ 30 A

Input

Power factor correction (PFC)	Passive
Mains failure hold-up time	≥ 120 ms (230 VAC); ≥ 15 ms (100 VAC)

Output

Nominal output voltage $U_{o\,nom}$	12 VDC (SELV)
Output voltage range	11.5 … 14.5 VDC (adjustable)
Default Setting	12 VDC
Nominal output current $I_{o\,nom}$	2 A (12 VDC); 2.1 A (
Nominal output power	24 W
Deviation	≤ 1 %
Residual ripple	≤ 20 mV (peak-to-peak)
Current limitation	1.1 x $I_{o\,nom}$ (typ.)
Overload behavior	Constant current

Signaling and Communication

Signaling	1 x DC OK LED (green) 1 x Active signal output DC OK (12 VDC; 40 mA)
Operation status indicator	Green LED (U_o)

Efficiency/Power Losses

Power loss P_l	≤ 0.7 W; ≤ 5.3 W (230 VAC; nominal load)
Power loss (max.) $P_{l\,(max.)}$	5.7 W (100 VAC / 12 VDC; 2 A)
Efficiency (typ.)	82 %

Circuit Protection

Internal fuse	T 2 A / 250 VAC
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
Protection class	II
Protection type	IP20; per EN 60529
Resistance to reverse feed	≤ 25 VDC
Overvoltage category	II
Pollution degree	2
Transient suppression (primary)	Varistor
Overvoltage protection; secondary	Internal protective circuit ≤ 35 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 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

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Physical data

Width	22.5 mm / 0.886 inches
Height	90 mm / 3.543 inches
Depth from upper-edge of DIN-rail	107.5 mm / 4.232 inches

Mechanical data

Mounting type	DIN-35 rail

Material data

Fire load	0 MJ
Weight	128 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 60335-1 UL 60950-1 UL 508 DNV SEMI F47

Commercial data

Product Group	6 (INTERFACE ELECTRONIC)
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4055143060400
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

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Environmental Product Compliance

RoHS Compliance Status	Compliant,No Exemption

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	-	-
MFD for SEMI F47 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 787-1601

Documentation

Bid Text

787-1601	04.07.2019	xml 6.94 KB	
787-1601	31.05.2019	docx 19.83 KB	

Instruction Leaflet

Primär getaktete Stromversorgungen CLASSIC	pdf 314.15 KB	

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CAD/CAE-Data

CAD data

2D/3D Models
787-1601

CAE data

EPLAN Data Portal
787-1601

WSCAD Universe
787-1601

ZUKEN Portal
787-1601

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 Tool

1.1.2.1 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