

Data sheet | Item number: 787-1601

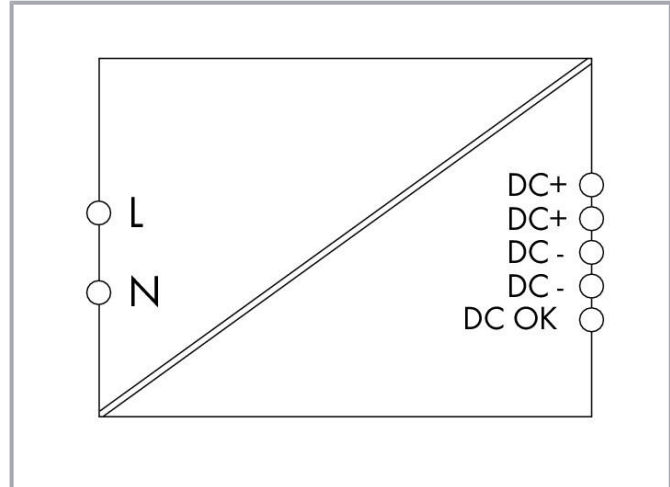
Switched-mode power supply; Classic; 1-phase; 12 VDC output voltage; 2 A output current; NEC Class 2; DC OK signal



www.wago.com/787-1601



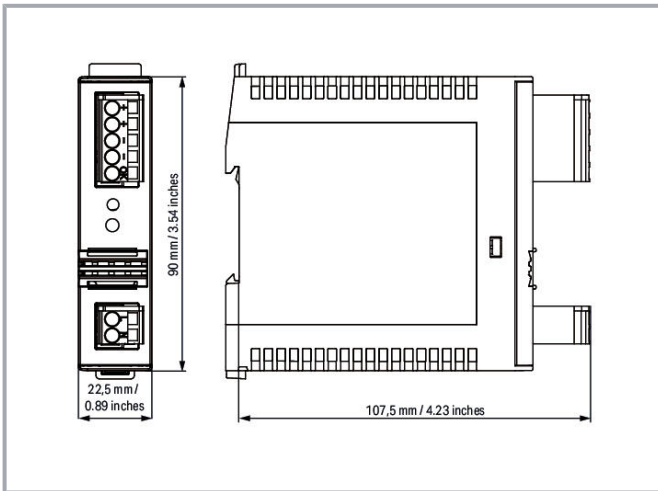
Similar to picture



Subject to changes. Please also observe the further product documentation!

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Item description

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
- GL approval, also suitable for EMC 1 in conjunction with 787-980 Filter Module

Data

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 (< 95 VAC)
Nominal mains frequency range	44 ... 66 Hz; 0 Hz
Input current I_i	$\leq 0.29 \text{ A}$ (240 VAC); $\leq 0.5 \text{ A}$ (100 VAC)
Inrush current	$\leq 30 \text{ A}$
Power factor correction (PFC)	Passive

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Mains failure hold-up time	≥ 120 ms (230 VAC); ≥ 15 ms (100 VAC)
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Output

Nominal output voltage $U_{o\ nom}$	DC 12 V (SELV)
Output voltage range	DC 11.5 ... 14.5 V (adjustable)
Nominal output current $I_{o\ nom}$	2 A (12 VDC); 2.1 A (< 40 °C)
Nominal output power	24 W
Residual ripple	≤ 20 mV (peak-to-peak)
Current limitation	$1.1 \times I_{o\ nom}$ (typ.)
Overload behavior	Constant current

Signaling and Communication

Signaling	1 x LED DC OK (green)
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
Backup fusing (required)	An external DC fuse is required for the DC input voltage.
Backup fusing (recommended)	Circuit breaker: 6 A, 10 A, 16 A; Tripping characteristic: B or C

Safety and protection

Protection class	II
Protection type	IP20; per EN 60529
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

Subject to changes. Please also observe the further product documentation!



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	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
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Material Data

Weight	128 g
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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)

Standards and specifications

Conformity marking	CE
Standards/specifications	EN 61010-1 EN 61010-2-201 EN 61204-3 EN 60335-1

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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 8.0	EC002540
ETIM 7.0	EC002540
PU (SPU)	1 pcs
Packaging type	box
Country of origin	DE
GTIN	4055143060400
Customs tariff number	85044083900

Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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Approvals / Certificates

General approvals

Logo	Approval	Additional Approval Text	Certificate name
	EAC Brjansker Zertifizierungsstelle	TP TC 004/2011, TP TC 020/2011	EAC RU C-DE.AM02.B.00089_19
	UL Underwriters Laboratories Inc.	UL 60950-1	E255815
	UL Underwriters Laboratories Inc.	UL 508	E255817

Declarations of conformity and manufacturer's declarations

Logo	Approval	Additional Approval Text	Certificate name
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EU-Declaration of Conformity
WAGO GmbH & Co. KG



Approvals for marine applications

Logo	Approval	Additional Approval Text	Certificate name
	DNV DNV Germany GmbH	DNVGL-CG-339,Dec.2019	TAA00002YC

Optional accessories




Tool

Operating tool




	Item no.: 210-769 SCREWDRIVER; green	www.wago.com/210-769
	Item no.: 210-720 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured	www.wago.com/210-720

Marking accessories

Marking strip

	Item no.: 2009-110 Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white	www.wago.com/2009-110
	Item no.: 210-831 Marking strips; on reel; 2.3 mm wide; plain; Self-adhesive; white	www.wago.com/210-831
	Item no.: 210-832 Marking strips; on reel; 3 mm wide; plain; Self-adhesive; white	www.wago.com/210-832

Marker

	Item no.: 2009-115 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white	www.wago.com/2009-115
	Item no.: 793-501 WMB marking card; as card; not stretchable; plain; snap-on type; white	www.wago.com/793-501
	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	www.wago.com/793-5501

Subject to changes. Please also observe the further product documentation!

Downloads

Documentation

Bid Text

787-1601 X81 - Datei	2019 Jul 4	xml 7.1 kB	Download
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787-1601 docx - Datei	2019 May 31	docx 20.3 kB	Download
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Instruction Leaflet

Primär getaktete Stromversorgungen CLASSIC DC 12 V, 2 A		pdf 321.7 kB	Download
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Additional Information

Disposal and Recycling Electrical and electronic equipment, Batteries, Packaging	V 1.1.0 2022 Aug 18	pdf 2.2 MB	Download
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CAD/CAE-Data

CAD data

2D/3D Models 787-1601		URL	Download
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CAE data

EPLAN Data Portal 787-1601		URL	Download
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WSCAD Universe 787-1601		URL	Download
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ZUKEN Portal 787-1601		URL	Download
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Environmental Product Compliance

Compliance Search

Environmental Product Compliance 787-1601 Switched-mode power supply; Classic; 1-phase; 12 VDC output voltage; 2 A output current; NEC Class 2; DC OK signal		URL	Download
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Installation Notes

Product family

Classic

EPSITRON® CLASSIC POWER: The Robust Power Supply – with Integrated TopBoost (Optional)

[Show all products from the family](#)

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