

Data sheet | Item number: 787-1638

Switched-mode power supply; Classic; 2-phase; 24 VDC output voltage; 10 A output current; TopBoost; DC OK contact

www.wago.com/787-1638



Item description

Features:

- Switched-mode power supply with TopBoost, enabling secondary-side protection via circuit breakers
- Natural convection cooling when horizontally mounted
- Encapsulated for use in control cabinets
- DC OK contact
- Suitable for both parallel and series operation

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

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We are always happy to take your call at +49 (571) 887-44222.

- Electrically isolated output voltage (SELV) per EN 60950-1/UL 60950-1; PELV per EN 60204

Data

Technical data

Input

Phases	1 / 2
Nominal input voltage $U_{i \text{ nom}}$	(1 / 2) x AC 200 ... 500 V
Input voltage range	(1 / 2) x AC 180 ... 550 V; DC 254 ... 780 V
Input voltage derating	-0.5 %/V (< 200 VAC); -0.4 %/V (< 280 VDC)
Nominal mains frequency range	44 ... 66 Hz; 0 Hz
Input current I_i	$\leq 1.975 \text{ A}$ (230 VAC); $\leq 1.36 \text{ A}$ (230 VAC)
Inrush current	$\leq 30 \text{ A}$ (NTC)
Power factor correction (PFC)	Passive
Mains failure hold-up time	$\geq 78 \text{ ms}$ (400 VAC); $\geq 20 \text{ ms}$ (200 VAC)

Output

Nominal output voltage $U_{o \text{ nom}}$	DC 24 V (SELV)
Output voltage range	DC 23 ... 28.5 V (adjustable)
Default setting	DC 24 V
Nominal output current $I_{o \text{ nom}}$	10 A (24 VDC)
Nominal output power	240 W
Deviation	$\leq 1 \%$
Residual ripple	$\leq 30 \text{ mV}$ (peak-to-peak)
Current limitation	$1.1 \times I_{o \text{ nom}}$ (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_i	$\leq 1.3 \text{ W}$; $\leq 27.8 \text{ W}$ (230 VAC; nominal load); $\leq 20.3 \text{ W}$ (400 VAC; nominal load)
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Power loss (max.) $P_{I(max)}$	27.8 W (230 VAC / 24 VDC; 10 A)
Efficiency (typ.)	89 % (230 VAC); 92.5 % (400 VAC)

Circuit protection

Internal fuse	T 6.3 A / 500 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

Isolation voltage (sec.-PE)	DC 0.7 kV
Protection class	I
Protection type	IP20; per EN 60529
Overvoltage category	II
Pollution degree	2
Transient suppression (primary)	Varistor
Overvoltage protection; secondary	Internal protective circuit ≤ 40 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	146.5 mm / 5.768 inches

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Mechanical Data

Mounting type	DIN-35 rail
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Material Data

Fire load	0.36 MJ
Weight	830 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	-2.5 %/K (> 55 °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 UL 60950-1 UL 508 DNV SEMI F47

Commercial data

eCl@ss 10.0	27-04-07-01
eCl@ss 9.0	27-04-07-01
ETIM 8.0	EC002540
ETIM 7.0	EC002540
Recupel Type	
PU (SPU)	1 pcs
Packaging type	box
Country of origin	DE
GTIN	4055143521420
Customs tariff number	85044083900

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



Environmental Product Compliance

RoHS Compliance Status

Compliant, No Exemption

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 508	E255817
	UL Underwriters Laboratories Inc.	UL 60950-1	E255815

Declarations of conformity and manufacturer's declarations

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

Approvals for marine applications

Logo	Approval	Additional Approval Text	Certificate name
	DNV DNV Germany GmbH	DNV-CG-0339, Aug. 2021	TAA00000KT

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		
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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
Mounting adapter	
DIN-rail adapter	
Item no.: 787-897/000-010 Carrier rail adapter made of zinc die-cast; horizontal mounting of 787-16xx (TS35)	www.wago.com/787-897/000-010

Downloads

Documentation

Bid Text

787-1638 X81 - Datei	2019 年7月4日	xml 7.4 kB	Download
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787-1638 docx - Datei	2019 年6月4日	docx 22.0 kB	Download
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Instruction Leaflet

Primär getaktete Stromversorgungen CLASSIC DC 24 V, 10 A, TopBoost		pdf 163.3 kB	Download
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Additional Information

Disposal and Recycling Electrical and electronic equipment, Batteries, Packaging	V 1.1.0 2022 年8月18日	pdf 2.2 MB	Download
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Engineering-Software

Configuration and Commissioning Software

WAGO Line Length Calculation	1.3.5	exe	Download
Die WAGO Leitungslaengenrechnung hilft bei der Planung der sekundärseitigen Absicherung von Leitungen an WAGO Stromversorgungen Pro (787-8xx) und Classic (787-16xx). Nach Auswahl eines Netzgerätes kann der gewünschte Leitungsquerschnitt und der zugehörige Leitungsschutzschalter ausgewählt werden. Das Software-Werkzeug berechnet dann die maximale Leitungslänge, bei der die Absicherung unter Berücksichtigung der Leitungs- und Übergangswiderstände ordnungsgemäß funktioniert. Die Auswahl einer Grundlast kann vom Anwender vorgenommen werden.	2019 年12 月9 日	337.4 kB	

CAD/CAE-Data

CAE data

EPLAN Data Portal 787-1638		URL	Download
WSCAD Universe 787-1638		URL	Download
ZUKEN Portal 787-1638		URL	Download

CAD data

2D/3D Models 787-1638		URL	Download
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Environmental Product Compliance

Compliance Search

Environmental Product Compliance 787-1638		URL	Download
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Installation Notes

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Product family

Classic

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

[Show all products from the family](#)

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