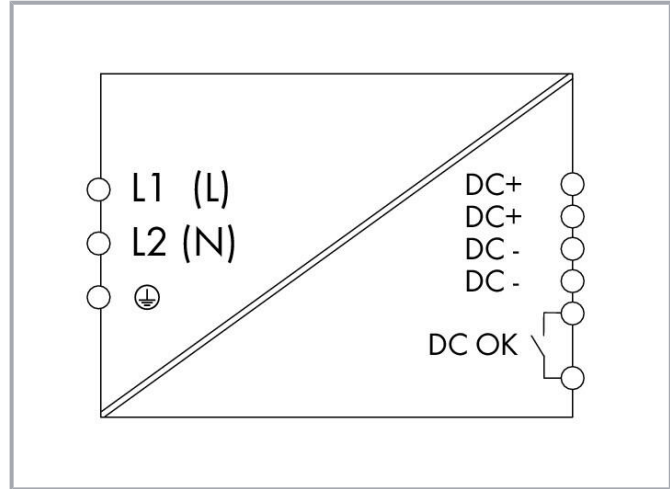


Data sheet | Item number: 787-1638

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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- 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)
Nominal output current $I_{o \text{ nom}}$	10 A (24 VDC)
Nominal output power	240 W
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)
Power loss (max.) $P_{i \text{ (max.)}}$	27.8 W (230 VAC / 24 VDC; 10 A)
Efficiency (typ.)	89 % (230 VAC); 92.5 % (400 VAC)

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



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

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)

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
PU (SPU)	1 pcs
Packaging type	box
Country of origin	DE
GTIN	4055143521420
Customs tariff number	85044083900

Environmental Product Compliance




RoHS Compliance Status	Compliant, No Exemption
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Approvals / Certificates


General approvals

Certificate


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

Logo	Approval	Additional Approval Text	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	-	-

Approvals for marine applications




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

Optional accessories

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			

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

	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
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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

Downloads

Documentation

Bid Text

787-1638 X81 - Datei	2019 Jul 4	xml 7.4 kB	Download
787-1638 docx - Datei	2019 Jun 4	docx 22.0 kB	Download

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 Aug 18	pdf 2.2 MB	Download
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Subject to changes. Please also observe the further product documentation!

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Engineering-Software

Configuration and Commissioning Software

WAGO Line Length Calculation	1.3.5	exe	Download
Die WAGO Leitungslaengerechnung 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 Dec 9	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
Switched-mode power supply; Classic; 2-phase; 24 VDC output voltage; 10 A output current; TopBoost; DC OK contact			

Installation Notes

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



Product family

Classic

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

[Show all products from the family](#)

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