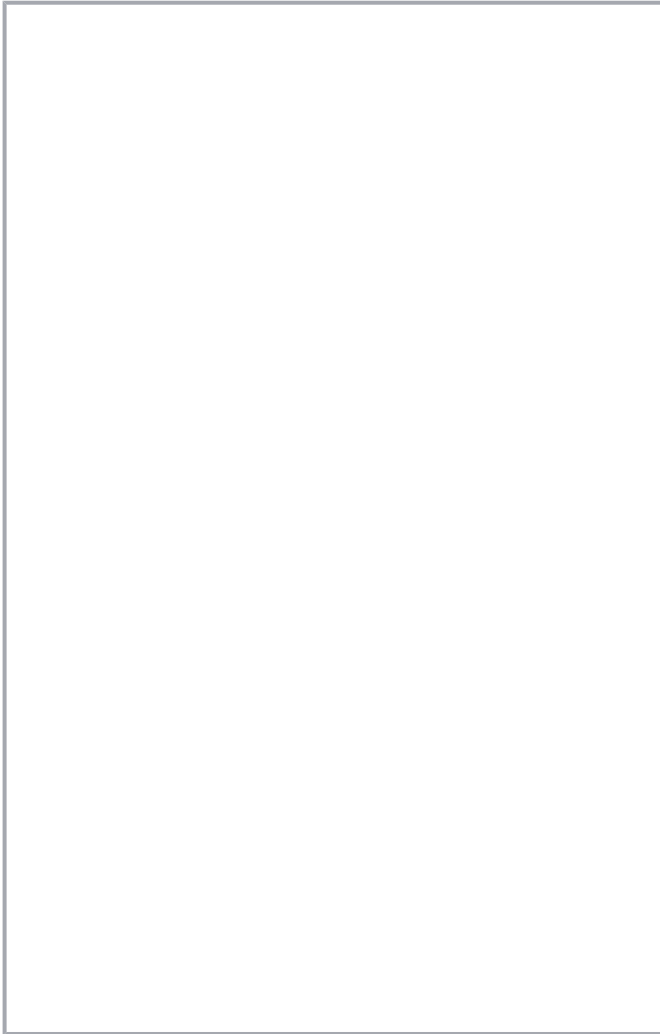


Data sheet | Item number: 787-1644

Switched-mode power supply; Classic; 3-phase; 24 VDC output voltage; 40 A output current; TopBoost; DC OK contact

www.wago.com/787-1644



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

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

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- Suitable for both parallel and series operation
- Electrically isolated output voltage (SELV) per UL 60950-1; PELV per EN 60204

Data

Technical data

Input

Phases	2 / 3
Nominal input voltage $U_{i\text{ nom}}$	(2 / 3) x AC 400 ... 500 V
Input voltage range	(2 / 3) x AC 320 ... 575 V; DC 450 ... 800 V
Nominal mains frequency range	47 ... 63 Hz; 0 Hz
Input current I_i	$\leq 3 \times 2.15 \text{ A}$ (400 VAC); $\leq 3 \times 1.82 \text{ A}$ (500 VAC)
Inrush current	$\leq 30 \text{ A}$ (NTC)
Power factor correction (PFC)	Passive
Mains failure hold-up time	$\geq 25 \text{ ms}$ (500 VAC); $\geq 15 \text{ ms}$ (400 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 $I_{o\text{ nom}}$	40 A (24 VDC)
Nominal output power	960 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_l	$\leq 4.2 \text{ W}$; $\leq 83.9 \text{ W}$ (400 VAC; nominal load)
	83.9 W (500 VAC / 24 VDC; 40 A)

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

Power loss (max.) $P_{I(max)}$

Efficiency (typ.) 92 %

Circuit protection

Internal fuse No

Backup fusing (required) Alternative: motor circuit breaker
An external DC fuse is required for the DC input voltage.

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/Signaling

Connection technology CAGE CLAMP®

WAGO connector WAGO 721 Series

Solid conductor 0.08 ... 2.5 mm² / 28 ... 12 AWGFine-stranded conductor 0.08 ... 2.5 mm² / 28 ... 12 AWG

Strip length 8 ... 9 mm / 0.31 ... 0.35 inches

Connection type 2 Output

Connection technology 2 Push-in CAGE CLAMP®

WAGO connector 2 WAGO 831 Series

Solid conductor 2 0.5 ... 10 mm² / 20 ... 8 AWGFine-stranded conductor 2 0.5 ... 10 mm² / 20 ... 8 AWG

Strip length 2 13 ... 15 mm / 0.51 ... 0.59 inches

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Physical data

Width	126 mm / 4.96 inches
Height	127 mm / 5 inches
Depth from upper-edge of DIN-rail	198 mm / 7.795 inches

Mechanical Data

Mounting type	DIN-35 rail
---------------	-------------

Material Data

Fire load	0.914 MJ
Weight	2800 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
Recupel Type	
PU (SPU)	1 pcs
Packaging type	box
Country of origin	DE

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



GTIN	4055143259187
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 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.: 210-721 Operating tool; Blade: 5.5 x 0.8 mm; with a partially insulated shaft; multicoloured		www.wago.com/210-721
Item no.: 210-769 SCREWDRIVER; green		www.wago.com/210-769

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

**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.: 2009-145

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

www.wago.com/2009-145**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.: 248-501**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white

www.wago.com/248-501**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**

787-1644 X81 - Datei	2019 年7月4日	xml 7.5 kB	Download
787-1644 docx - Datei	2019 年6月13日	docx 22.2 kB	Download

Instruction Leaflet

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Primär getaktete Stromversorgungen CLASSIC
DC 24 V, 40 A

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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
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Engineering-Software

Configuration and Commissioning Software

WAGO Line Length Calculation

1.3.5
2019 年12月9 日

exe
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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.

CAD/CAE-Data

CAD data

2D/3D Models 787-1644

URL
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CAE data

EPLAN Data Portal 787-1644

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Environmental Product Compliance

Compliance Search

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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](#)

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