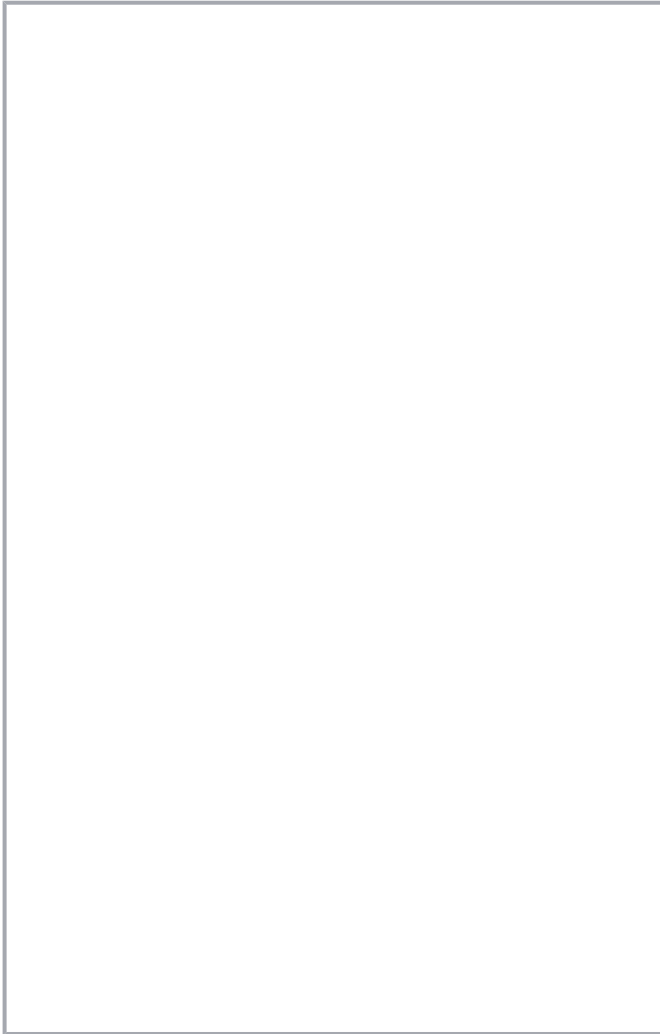


## Data sheet | Item number: 787-1642

Switched-mode power supply; Classic; 3-phase; 24 VDC output voltage; 20 A output current; TopBoost; DC OK contact

[www.wago.com/787-1642](http://www.wago.com/787-1642)



### 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

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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 $I_i$	$\leq 3 \times 1.21 \text{ A}$ (400 VAC); $\leq 3 \times 1.03 \text{ A}$ (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 $I_{o\text{ nom}}$	20 A (24 VDC)
Nominal output power	480 W
Deviation	$\leq 1 \%$
Residual ripple	$\leq 15 \text{ mV}$ (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 $P_l$	$\leq 5.8 \text{ W}$ ; $\leq 42.8 \text{ W}$ (400 VAC; nominal load)
	47.6 W (500 VAC / 24 VDC; 20 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
Overtoltage category	II
Pollution degree	2
Transient suppression (primary)	Varistor
Overtoltage 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 mm <sup>2</sup> / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm <sup>2</sup> / 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 mm <sup>2</sup> / 20 ... 8 AWG
Fine-stranded conductor 2	0.5 ... 10 mm <sup>2</sup> / 20 ... 8 AWG
Strip length 2	13 ... 15 mm / 0.51 ... 0.59 inches

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## Physical data

Width	80 mm / 3.15 inches
Height	127 mm / 5 inches
Depth from upper-edge of DIN-rail	180 mm / 7.087 inches

## Mechanical Data

Mounting type	DIN-35 rail
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## Material Data

Fire load	0.914 MJ
Weight	1623 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	4055143259170
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
	<b>EAC</b> Brjansker Zertifizierungsstelle	TP TC 004/2011, TP TC 020/2011	EAC RU C-DE.AM02.B. 00089_19
	<b>UL</b> Underwriters Laboratories Inc.	UL 508	E255817
	<b>UL</b> Underwriters Laboratories Inc.	UL 60950-1	E255815

### Declarations of conformity and manufacturer's declarations

Logo	Approval	Additional Approval Text	Certificate name
	<b>MFD with product reference</b> WAGO GmbH & Co. KG	-	-

### Approvals for marine applications

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

## Optional accessories

### Marking accessories

Marking strip		
<b>Item no.: 2009-110</b>	Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white	<a href="http://www.wago.com/2009-110">www.wago.com/2009-110</a>
<b>Item no.: 210-831</b>	Marking strips; on reel; 2.3 mm wide; plain; Self-adhesive; white	<a href="http://www.wago.com/210-831">www.wago.com/210-831</a>
<b>Item no.: 210-832</b>	Marking strips; on reel; 3 mm wide; plain; Self-adhesive; white	<a href="http://www.wago.com/210-832">www.wago.com/210-832</a>

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Marker	
<b>Item no.: 2009-145</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white	<a href="http://www.wago.com/2009-145">www.wago.com/2009-145</a>
<b>Item no.: 2009-115</b> WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white	<a href="http://www.wago.com/2009-115">www.wago.com/2009-115</a>
<b>Item no.: 248-501</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white	<a href="http://www.wago.com/248-501">www.wago.com/248-501</a>
<b>Item no.: 793-501</b> WMB marking card; as card; not stretchable; plain; snap-on type; white	<a href="http://www.wago.com/793-501">www.wago.com/793-501</a>
<b>Item no.: 793-5501</b> WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; white	<a href="http://www.wago.com/793-5501">www.wago.com/793-5501</a>

#### Mounting adapter

DIN-rail adapter	
<b>Item no.: 787-897/000-010</b> Carrier rail adapter made of zinc die-cast; horizontal mounting of 787-16xx (TS35)	<a href="http://www.wago.com/787-897/000-010">www.wago.com/787-897/000-010</a>

#### Tool

Operating tool	
<b>Item no.: 210-721</b> Operating tool; Blade: 5.5 x 0.8 mm; with a partially insulated shaft; multicoloured	<a href="http://www.wago.com/210-721">www.wago.com/210-721</a>
<b>Item no.: 210-769</b> SCREWDRIVER; green	<a href="http://www.wago.com/210-769">www.wago.com/210-769</a>
<b>Item no.: 210-720</b> Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured	<a href="http://www.wago.com/210-720">www.wago.com/210-720</a>

#### Downloads

##### Documentation

##### Bid Text

787-1642 X81 - Datei	2019 年7月4日	xml 7.6 kB	Download
787-1642 docx - Datei	2019 年6月13日	docx 22.1 kB	Download

##### Instruction Leaflet

Primär getaktete Stromversorgungen CLASSIC DC 24 V, 20 A		pdf 170.2 kB	Download
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Subject to changes. Please also observe the further product documentation!



### Additional Information

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

### 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

#### CAD data

2D/3D Models 787-1642	URL	Download
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#### CAE data

EPLAN Data Portal 787-1642	URL	Download
ZUKEN Portal 787-1642	URL	Download
WSCAD Universe 787-1642	URL	Download

### Environmental Product Compliance

#### Compliance Search

Environmental Product Compliance 787-1642	URL	Download
Switched-mode power supply; Classic; 3-phase; 24 VDC output voltage; 20 A output current; TopBoost; DC OK contact		

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



## 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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