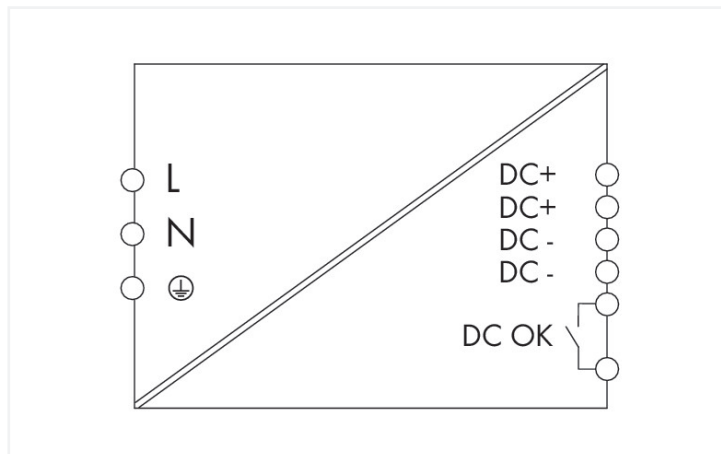


# Data Sheet | Item Number: 787-1634

Switched-mode power supply; Classic; 1-phase; 24 VDC output voltage; 20 A output current; TopBoost; DC OK contact

<https://www.wago.com/787-1634>



## Features:

- Switched-mode power supply
- Natural convection cooling when horizontally mounted
- Encapsulated for use in control cabinets
- DC OK contact
- Suitable for both parallel and series operation
- Electrically isolated output voltage (SELV) per UL 60950-1; PELV per EN 60204
- GL approval

## Technical data

Input	
Phases	1
Nominal input voltage $U_{i, nom}$	1 x AC 100 ... 240 V
Input voltage range	1 x AC 85 ... 264 V; DC 120 ... 300 V
Input voltage derating	-1.8 %/V (< 105 VAC)
Nominal mains frequency range	44 ... 66 Hz; 0 Hz
Input current $I_i$	$\leq 2.23$ A (230 VAC); $\leq 5.56$ A (100 VAC)
Discharge current	$\leq 1$ mA
Inrush current	$\leq 30$ A
Power factor correction (PFC)	active
Mains failure hold-up time	$\geq 20$ ms (230 VAC); $\geq 8$ ms (100 VAC)

Output	
Nominal output voltage $U_{o, nom}$	DC 24 V (SELV)
Output voltage range	DC 23 ... 28.5 V (adjustable)
Default setting	DC 24 V
Nominal output current $I_{o, nom}$	20 A (24 VDC)
Nominal output power	480 W
Deviation	$\leq 1$ %
Residual ripple	$\leq 70$ 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) 1 x DC OK contact (make contact; max. 30 VAC/DC; 1 A)
Operation status indicator	Green LED ( $U_o$ )

Efficiency/power losses	
Power loss $P_i$	$\leq 7.2$ W; $\leq 42.4$ W (230 VAC; nominal load)
Power loss (max.) $P_{i(max)}$	68.3 W (100 VAC / 24 VDC; 20 A)
Efficiency (typ.)	92 %

Circuit protection	
Internal fuse	T 10 A / 250 VAC
Backup fusing (required)	An external DC fuse is required for the DC input voltage.
Backup fusing (recommended)	Circuit breaker: 10 A, 16 A; Tripping characteristic: B or C

### Safety and protection

Isolation voltage (pri.-sec.)	DC 4.242 kV
Isolation voltage (pri.-PE)	DC 2.2 kV
Isolation voltage (sec.-PE)	DC 0.7 kV
Protection class	I
Protection type	IP20; per EN 60529
Resistance to reverse feed	≤ DC 35 V
Oversvoltage category	II
Pollution degree	2
Transient suppression (primary)	Varistor
Oversvoltage 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

### Physical data

Width	95 mm / 3.74 inches
Height	127 mm / 5 inches
Depth from upper-edge of DIN-rail	170 mm / 6.693 inches

### Mechanical data

Mounting type	DIN-35 rail
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### Material data

Fire load	0 MJ
Weight	1600 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	-5 %/K (> 60 °C, 196... 264 VAC); -2.5 %/K (> 50 °C, 85 ... 195 VAC)

### 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

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	4055143060530
Customs tariff number	85044083900

### Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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### Approvals / Certificates

#### General approvals



Approval	Standard	Certificate Name
EAC Brjansker Zertifizierungs- stelle	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

#### Approvals for marine applications



Approval	Standard	Certificate Name
DNV DNV Germany GmbH	DNVGL-CG-339, Dec. 2019	TAA00002YC

### Downloads

#### Environmental Product Compliance

Compliance Search			
Environmental Product Compliance 787-1634			↓

## Documentation

Bid Text				Instruction Leaflet		
787-1634	04.07.2019	xml 7.18 KB	↓	Primär getaktete Stromversorgungen CLASSIC	pdf 251.28 KB	↓
787-1634	04.06.2019	docx 21.00 KB	↓			

## CAD/CAE-Data

CAD data		CAE data	
2D/3D Models 787-1634	↓	EPLAN Data Portal 787-1634	↓
		WSCAD Universe 787-1634	↓
		ZUKEN Portal 787-1634	↓

## Engineering-Software






Configuration and Commissioning Software			
WAGO Line Length Calculation	1.3.5 09.12.2019	exe 329.50 KB	↓

## 1 Compatible Products

### 1.1 Optional Accessories

#### 1.1.1 Marking

##### 1.1.1.1 Marker

 <a href="#">Item No.: 2009-145</a> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white	 <a href="#">Item No.: 248-501</a> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white	 <a href="#">Item No.: 793-5501</a> 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="#">Item No.: 793-501</a> WMB marking card; as card; not stretchable; plain; snap-on type; white
 <a href="#">Item No.: 2009-115</a> WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white			

### 1.1.1.2 Marking strip



**Item No.: 2009-110**

Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white



**Item No.: 210-831**

Marking strips; on reel; 2.3 mm wide; plain; Self-adhesive; white



**Item No.: 210-832**

Marking strips; on reel; 3 mm wide; plain; Self-adhesive; white

### 1.1.2 Mounting adapter

#### 1.1.2.1 DIN-rail adapter



**Item No.: 787-897/000-010**

Carrier rail adapter made of zinc die-cast; horizontal mounting of 787-16xx (TS35)

### 1.1.3 Tool

#### 1.1.3.1 Operating tool



**Item No.: 210-720**

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured



**Item No.: 210-721**

Operating tool; Blade: 5.5 x 0.8 mm; with a partially insulated shaft; multicoloured



**Item No.: 210-769**

SCREWDRIVER; green