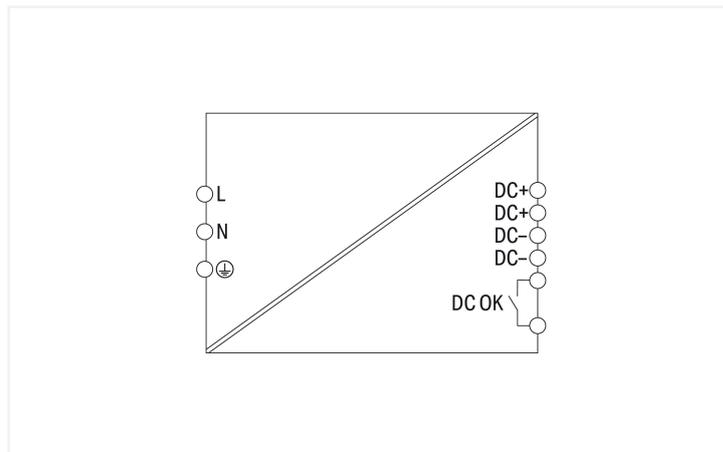


## Data Sheet | Item Number: 787-1634

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
- DNV approval

### Technical data

Input	
Phases	1
Nominal input voltage $U_{i\text{nom}}$	1 x 100 ... 240 VAC
Input voltage range	1 x 85 ... 264 VAC; 120 ... 300 VDC
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 $U_{o\text{nom}}$	24 VDC (SELV)
Output voltage range	23 ... 28.5 VDC (adjustable)
Default Setting	24 VDC
Nominal output current $I_{o\text{nom}}$	20 A (24 VDC)
Nominal output power	480 W
Deviation	$\leq 1$ %
Residual ripple	$\leq 70$ mV (peak-to-peak)
Current limitation	1.1 x $I_{o\text{nom}}$ (typ.)
Overload behavior	Constant current
TopBoost	See instruction leaflet

### Signaling and Communication

Signaling	1 x DC OK LED (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 $P_l$	$\leq 7.2$ W; $\leq 42.4$ W (230 VAC; nominal load)
Power loss (max.) $P_{l(\text{max.})}$	68.3 W (100 VAC / 24 VDC; 20 A)
Efficiency (typ.)	92 %

### Circuit Protection

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

### Safety and protection

Isolation voltage (pri.-sec.)	4.242 kVDC
Isolation voltage (pri.-PE)	2.2 kVDC
Isolation voltage (sec.-PE)	0.7 kVDC
Protection class	I
Protection type	IP20; per EN 60529
Resistance to reverse feed	≤ 35 VDC
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 1

Connection type	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 2

Connection type	Output
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 831 Series
Solid conductor	0.5 ... 10 mm <sup>2</sup> / 20 ... 8 AWG
Fine-stranded conductor	0.5 ... 10 mm <sup>2</sup> / 20 ... 8 AWG
Strip length	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)
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

Product Group	6 (INTERFACE ELECTRONIC)
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4055143060530
Customs tariff number	85044083900

### Product Classification

UNSPSC	39121004
eCl@ss 10.0	27-04-07-01
eCl@ss 9.0	27-04-07-01
ETIM 9.0	EC002540
ETIM 10.0	EC002540
ECCN	NO US CLASSIFICATION

### Environmental Product Compliance

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

#### General approvals



#### General approvals

UR Underwriters Laboratories Inc.	UL 60950-1	E255815
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Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 004/2011	EAC CoC 03078
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03081
UL Underwriters Laboratories Inc.	UL 508	E255817

**Declarations of conformity and manufacturer's declarations**

Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
MFD for SEMI F47 WAGO GmbH & Co. KG	-	-

**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	↓
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**Documentation**

**Bid Text**

787-1634	04.07.2019	xml 7.18 KB	↓
787-1634	04.06.2019	docx 21.00 KB	↓

**Instruction Leaflet**

Primär getaktete Stromversorgungen CLASSIC	pdf 251.28 KB	↓
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**CAD/CAE-Data**

**CAD data**

2D/3D Models 787-1634	↓
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**CAE data**

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	↓
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## 1 Compatible Products

### 1.1 Optional Accessories

#### 1.1.1 Marking

##### 1.1.1.1 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

**Item No.: 248-501**

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

**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

**Item No.: 793-501**

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



**Item No.: 2009-115**

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