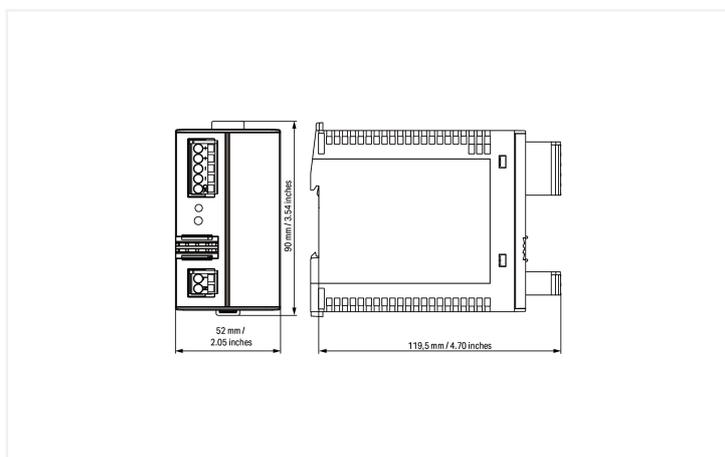
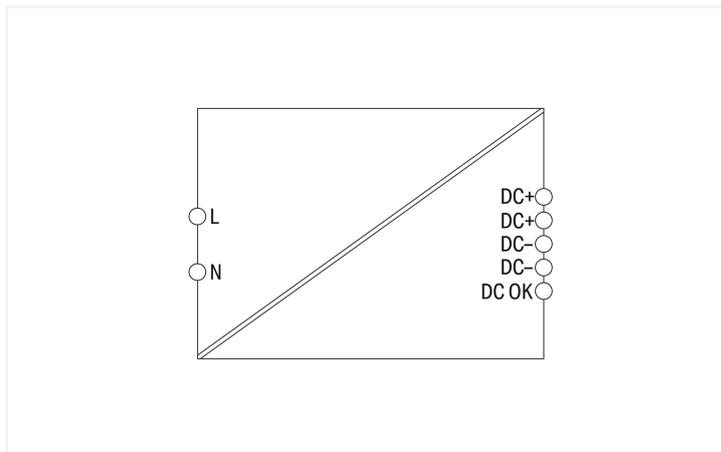


# Data Sheet | Item Number: 787-1616/000-1000

Switched-mode power supply; Classic; 1-phase; 24 VDC output voltage; 3.8 A output current; NEC Class 2; DC OK signal

<https://www.wago.com/787-1616/000-1000>



## Features:

- Switched-mode power supply
- Natural convection cooling when horizontally mounted
- Encapsulated for use in control cabinets
- Limited Power Source (LPS) per NEC Class 2
- Bounce-free switching signal (DC OK)
- Suitable for both parallel and series operation
- Electrically isolated output voltage (SELV) per UL 60950-1; PELV per EN 60204
- DNV approval, also suitable for EMC 1 in conjunction with 787-980 Filter Module

## Technical data

Input	
Phases	1
Nominal input voltage $U_{in, nom}$	1 x 100 ... 240 VAC
Input voltage range	1 x 85 ... 264 VAC; 120 ... 300 VDC
Input voltage derating	-2.5 %/V (< 95 VAC)
Nominal mains frequency range	44 ... 66 Hz; 0 Hz
Input current $I_i$	$\leq 0.95$ A (240 VAC); $\leq 1.73$ A (100 VAC)
Discharge current	$\leq 0.25$ mA
Inrush current	$\leq 30$ A

Input	
Power factor correction (PFC)	Passive
Mains failure hold-up time	$\geq 80$ ms (230 VAC); $\geq 15$ ms (100 VAC)

## Output

Nominal output voltage $U_{o, nom}$	24 VDC (SELV)
Output voltage range	23 ... 28.5 VDC (adjustable)
Default Setting	DC 24 V
Nominal output current $I_{o, nom}$	3.8 A (24 VDC)
Nominal output power	91.2 W
Deviation	$\leq 1 \%$
Residual ripple	$\leq 20$ mV (peak-to-peak)
Current limitation	3.8 A (3.2 A at $U_o > 25$ VDC); LPS per NEC Class 2
Overload behavior	Constant current

## Efficiency/power losses

Power loss $P_1$	$\leq 2.8$ W; $\leq 14$ W (230 VAC; nominal load)
Power loss (max.) $P_{1(max)}$	20 W (100 VAC / 91 W)
Efficiency (typ.)	87 %

## Signaling and communication

Signaling	1 x DC OK LED (green) 1 x Active signal output DC OK (24 VDC; 20 mA)
Operation status indicator	Green LED ( $U_o$ )

## Circuit protection

Internal fuse	T 4 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.)	DC 4.242 kV
Protection class	II
Protection type	IP20; Per EN 60529
Resistance to reverse feed	$\leq 35$ VDC
Oversvoltage category	II
Pollution degree	2
Transient suppression (primary)	Varistor
Oversvoltage protection; secondary	Internal protective circuit $\leq 40$ 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/output/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

### Physical data

Width	52 mm / 2.047 inches
Height	90 mm / 3.543 inches
Depth from upper-edge of DIN-rail	119 mm / 4.685 inches

### Mechanical data

Mounting type	DIN-35 rail
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### Material data

Fire load	0 MJ
Weight	384 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	-3 %/K (> 50 °C)
Climatic category	3K3 (per EN 60721)

### Standards and specifications

Conformity marking	CE
Standards/specifications	EN 61010-1 EN 61010-2-201 EN 61204-3 EN 60335-1 UL 60950-1 UL 508 UL 1310 DNV

### Commercial data

Product Group	6 (INTERFACE ELECTRONIC)
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4055143060462
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** **Declarations of conformity and manufacturer's declarations**



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
UL Underwriters Laboratories Inc.	UL 1310	E471180
UR Underwriters Laboratories Inc.	UL 60950-1	E255815

Approval	Standard	Certificate Name
EU-Declaration of Conformity 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 787-1616/000-1000	<a href="#">↓</a>

**Documentation**

Bid Text			
787-1616/000-1000	04.07.2019	docx 20.86 KB	<a href="#">↓</a>
787-1616/000-1000	04.07.2019	xml 7.00 KB	<a href="#">↓</a>

Instruction Leaflet			
Primär getaktete Stromversorgungen CLASSIC	17.05.2021	pdf 1620.11 KB	<a href="#">↓</a>

## CAD/CAE-Data

CAD data	CAE data
2D/3D Models 787-1616/000-1000 	EPLAN Data Portal 787-1616/000-1000 
	WSCAD Universe 787-1616/000-1000 
	ZUKEN Portal 787-1616/000-1000 

## 1 Compatible Products

## 1.1 Optional Accessories

## 1.1.1 Marking

## 1.1.1.1 Marker

**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 Tool

## 1.1.2.1 Operating tool

**Item No.: 210-720**

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

**Item No.: 210-769**

SCREWDRIVER; green