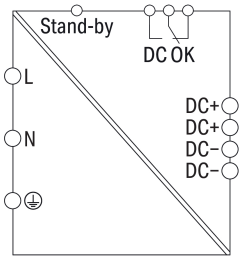
# Data Sheet | Item Number: 787-819

Switched-mode power supply; Pro; 1-phase; 12 VDC output voltage; 6 A output current; TopBoost + PowerBoost; DC OK contact

https://www.wago.com/787-819




**Features:**

- Switched-mode power supply with PowerBoost and TopBoost
- Switch off the output and minimize power consumption via stand-by input
- Output monitoring via DC OK contact
- Suitable for both parallel and series operation
- Natural convection cooling when horizontally mounted
- Encapsulated for use in control cabinets
- Electrically isolated output voltage (SELV) per UL 60950-1; PELV per EN 60204

## Technical data

### Input

| | |
|---|---|
| Phases | 1 |
| Nominal input voltage $U_{i\,nom}$ | 1 x 100 … 240 VAC |
| Input voltage range | 1 x 85 … 264 VAC; 120 … 300 VDC |
| Input voltage derating | -5 %/V (< 95 VAC) |
| Nominal mains frequency range | 50 … 60 Hz; 0 Hz |
| Input current $I_i$ | ≤ 0.51 A (240 VAC; 6 ADC) |
| Discharge current | ≤ 1 mA |
| Inrush current | ≤ 30 A (peak) |
| Power factor correction (PFC) | Passive |
| Mains failure hold-up time | ≥ 70 ms (230 VAC) |

### Output

| | |
|---|---|
| Nominal output voltage $U_{o\,nom}$ | 12 VDC (SELV) |
| Output voltage range | 11 … 18 VDC (adjustable) |
| Default Setting | 12 VDC |
| Nominal output current $I_{o\,nom}$ | 6 A (12 VDC) |
| Nominal output power | 72 W |
| Deviation | ≤ 1 % |
| Residual ripple | ≤ 70 mV (peak-to-peak) |
| Current limitation | 1.1 x $I_{o\,nom}$ (typ.) |
| Overload behavior | TopBoost/PowerBoost/Constant current mode |
| PowerBoost | 12 ADC (4 s); 9 ADC (8 s) |
| TopBoost | 21 ADC (25 ms) |

### Signaling and Communication

| | |
|---|---|
| Signaling | 1 x DC OK LED (green)<br>1 x Error LED (red)<br>1 x Stand-by input<br>1 x DC OK relay contact (changeover contact) |
| Operation status indicator | Green LED (DC OK)<br>Red LED (error) |

### Efficiency/Power Losses

| | |
|---|---|
| Power loss $P_l$ | ≤ 0.5 W (standby); ≤ 3 W (no load); ≤ 9.4 W (nominal load) |
| Efficiency (typ.) | 83 % |


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## Circuit Protection

| | |
|---|---|
| Internal fuse | T 2 A / 250 VAC |
| Pre-fuse (required) | An external DC fuse is required for the DC input voltage. |
| Backup fuse (recommended) | Circuit breaker: 6 A, 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 | ≤ 25 VDC |
| Overvoltage category | II |
| Pollution degree | 2 |
| Transient suppression (primary) | Varistor |
| 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 |
| Connection technology | CAGE CLAMP® |
| WAGO connector | WAGO 231 Series |
| Solid conductor | 0.08 … 2.5 mm² / 28 … 12 AWG |
| Fine-stranded conductor | 0.08 … 2.5 mm² / 28 … 12 AWG |
| Strip length | 8 … 9 mm / 0.31 … 0.35 inches |

### Connection 2

| | |
|---|---|
| Connection type | Signaling |
| Connection technology | CAGE CLAMP® |
| WAGO connector | WAGO 733 Series |
| Solid conductor | 0.08 … 0.5 mm² / 28 … 20 AWG |
| Fine-stranded conductor | 0.08 … 0.5 mm² / 28 … 20 AWG |
| Strip length | 5 … 6 mm / 0.2 … 0.24 inches |

## Physical data

| | |
|---|---|
| Width | 40 mm / 1.575 inches |
| Height | 163 mm / 6.417 inches |
| Depth from upper-edge of DIN-rail | 163 mm / 6.417 inches |
| Note (dimensions) | Height with connector |

## Mechanical data

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


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## Material data

| | |
|---|---|
| Weight | 800 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<br>EN 61010-2-201<br>EN 61204-3<br>EN 61558-2-16<br>UL 60950<br>UL 508 |

## Commercial data

| | |
|---|---|
| Product Group | 6 (INTERFACE ELECTRONIC) |
| PU (SPU) | 1 pcs |
| Packaging type | Box |
| Country of origin | DE |
| GTIN | 4050821226499 |
| 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 |

## Approvals / Certificates

### General approvals

| Approval | Standard | Certificate Name |
|---|---|---|
| EAC<br>GZO Almaty Standart | TP TC 004/2011 | EAC CoC 03078 |
| EAC<br>GZO Almaty Standart | TP TC 020/2011 | EAC CoC 03081 |
| UL<br>Underwriters Laboratories Inc. | UL 508 | E255817 |

### General approvals

| | | |
|---|---|---|
| UR<br>Underwriters Laboratories Inc. | UL 60950-1 | E255815 |


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## Declarations of conformity and manufacturer's declarations

| Approval | Standard | Certificate Name |
|---|---|---|
| EU-Declaration of Conformity<br>WAGO GmbH & Co. KG | - | - |

## Downloads

### Environmental Product Compliance

**Compliance Search**

| | |
|---|---|
| Environmental Product Compliance 787-819 | |

### Documentation

**Bid Text**

| | | | |
|---|---|---|---|
| 787-819 | 04.07.2019 | docx<br>22.25 KB | |
| 787-819 | 04.07.2019 | xml<br>7.52 KB | |

**Instruction Leaflet**

| | | |
|---|---|---|
| Primär getaktete Stromversorgungen PRO | pdf<br>247.20 KB | |

### CAD/CAE-Data

**CAD data**

| | |
|---|---|
| 2D/3D Models 787-819 | |

**CAE data**

| | |
|---|---|
| EPLAN Data Portal 787-819 | |
| WSCAD Universe 787-819 | |

### Engineering-Software

**Configuration and Commissioning Software**

| | | | |
|---|---|---|---|
| WAGO Line Length Calculation | 1.3.5<br>09.12.2019 | exe<br>329.50 KB | |


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# 1 Compatible Products

## 1.1 Optional Accessories

### 1.1.1 Marking

#### 1.1.1.1 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
Carrier rail adapter made of zinc die-cast; for mounting 787-8xx devices to a DIN 35 rail; gray



Item No.: 787-896
Carrier rail adapter; for mounting 787-8xx devices to a DIN 35 rail; gray

#### 1.1.2.2 Wall-mount adapter



Item No.: 787-895
Mounting carrier; for screw fixing of 787-8xx devices on mounting plate or wall without DIN 35 rail; gray

### 1.1.3 Tool

#### 1.1.3.1 Operating tool



Item No.: 210-719
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft



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