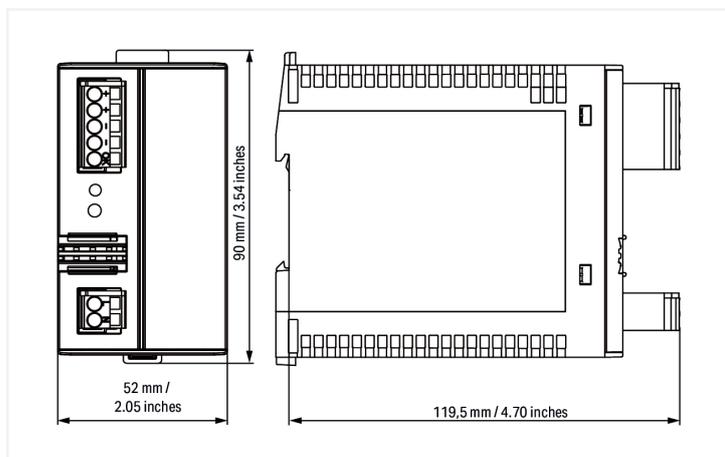
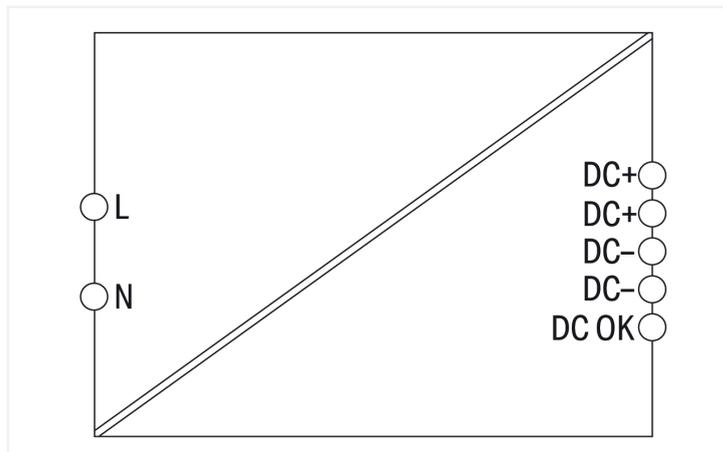


Data Sheet | Item Number: 787-1616

Switched-mode power supply; Classic; 1-phase; 24 VDC output voltage; 4 A output current; DC OK signal

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



Features:

- Switched-mode power supply
- Natural convection cooling when horizontally mounted
- Encapsulated for use in control cabinets
- 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

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 | -2.5 %/V (< 95 VAC) |
| Nominal mains frequency range | 44 ... 66 Hz; 0 Hz |
| Input current I_i | ≤ 0.98 A (240 VAC); ≤ 1.82 A (100 VAC) |
| Discharge current | ≤ 0.25 mA |
| Inrush current | ≤ 30 A |
| Power factor correction (PFC) | Passive |
| Mains failure hold-up time | ≥ 80 ms (230 VAC); ≥ 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 $I_{o,nom}$ | 4 A (24 VDC); 4.2 A (|
| Nominal output power | 96 W |
| Deviation | ≤ 1 % |
| Residual ripple | ≤ 20 mV (peak-to-peak) |
| Current limitation | $1.1 \times I_{o,nom}$ (typ.) |
| Overload behavior | Constant current |

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) |

Efficiency/power losses

| | |
|---------------------------------------|---|
| Power loss P _I | ≤ 1 W; ≤ 12.4 W (230 VAC; nominal load) |
| Power loss (max.) P _{I(max)} | 15 W (100 VAC / 24 VDC; 4 A) |
| Efficiency (typ.) | 89 % |

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: 6 A, 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 | ≤ 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/output/signaling |
| Connection technology | CAGE CLAMP® |
| WAGO connector | WAGO 721 Series |
| Solid conductor | 0.08 ... 2.5 mm ² / 28 ... 12 AWG |
| Fine-stranded conductor | 0.08 ... 2.5 mm ² / 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 | 119.5 mm / 4.705 inches |

Mechanical data

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

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 DNV SEMI F47 |

Commercial data

| | |
|-----------------------|--------------------------|
| Product Group | 6 (INTERFACE ELECTRONIC) |
| PU (SPU) | 1 pcs |
| Packaging type | Box |
| Country of origin | DE |
| GTIN | 4055143060455 |
| 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 8.0 | EC002540 |
| ECCN | NO US CLASSIFICATION |

Environmental Product Compliance

| | |
|------------------------|-------------------------|
| RoHS Compliance Status | Compliant, No Exemption |
|------------------------|-------------------------|

Approvals / Certificates

General approvals



| 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 |
| UR Underwriters Laboratories Inc. | UL 60950-1 | E255815 |

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 | - | - |
| UK-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 | ↓ |
|---|-------------------|

Documentation

| Bid Text | | | |
|----------|------------|------------------|-------------------|
| 787-1616 | 04.07.2019 | xml 6.76 KB | ↓ |
| 787-1616 | 04.06.2019 | docx 20.44 KB | ↓ |

| Instruction Leaflet | | | |
|--|------------|-------------------|-------------------|
| Primär getaktete Stromversorgungen CLASSIC | 17.05.2021 | pdf 1620.11 KB | ↓ |

CAD/CAE-Data

| CAD data | |
|-----------------------|-------------------|
| 2D/3D Models 787-1616 | ↓ |

| CAE data | |
|----------------------------|-------------------|
| EPLAN Data Portal 787-1616 | ↓ |
| WSCAD Universe 787-1616 | ↓ |
| ZUKEN Portal 787-1616 | ↓ |

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