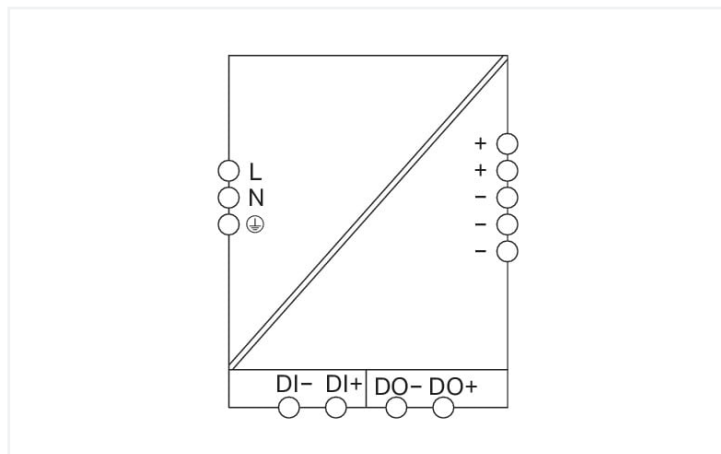


Data Sheet | Item Number: 2787-2448/000-030

Power supply; Pro 2; 1-phase; 24 VDC output voltage; 40 A output current; Top-Boost + PowerBoost; communication capability; Input voltage range: 200 ... 240 VAC



<https://www.wago.com/2787-2448/000-030>



Features:

- Power supply with TopBoost, PowerBoost and configurable overload behavior
- Configurable digital signal input and output, optical status indication, function keys
- Communication interface for configuration and monitoring
- Optional connection to IO-Link, EtherNet/IP™, Modbus TCP or Modbus RTU
- Suitable for both parallel and series operation
- Natural convection cooling when horizontally mounted
- Pluggable connection technology
- Electrically isolated output voltage (SELV/PELV) per EN 61010-2-201/UL 61010-2-201
- Marker slot for WAGO marking cards (WMB) and WAGO marking strips

Technical data

| Input | |
|------------------------------------|--|
| Phases | 1 |
| Nominal input voltage $U_{i, nom}$ | 1 x AC 200 ... 240 V |
| Input voltage range | 1 x AC 180 ... 264 V |
| Nominal mains frequency range | 50 ... 60 Hz |
| Input current I_i | ≤ 4.3 A (240 VAC; nominal load); ≤ 5.1 A (200 VAC; nominal load) |
| Inrush current | ≤ 10 A (after 1 ms) |
| Power factor | ≥ 0.98 (240 VAC) |
| Power factor correction (PFC) | Active |
| Mains failure hold-up time | ≥ 25 ms (230 VAC) |

| Output | |
|-------------------------------------|--|
| Nominal output voltage $U_{o, nom}$ | DC 24 V (SELV) |
| Output voltage range | DC 24 ... 28 V (adjustable) |
| Default setting | DC 24 V |
| Nominal output current $I_{o, nom}$ | 40 A (24 VDC) |
| Nominal output power | 960 W |
| Deviation | ≤ 1 % |
| Residual ripple | ≤ 70 mV (peak-to-peak) |
| Current limitation | $1.1 \times I_{o, nom}$ (typ.) |
| Overload behavior | TopBoost/PowerBoost/Time-limited constant current mode (other overload behaviors can be set) |
| PowerBoost | DC 60 A (5 s) |
| TopBoost | Up to 600 % |

| Signaling and communication | |
|-----------------------------|---|
| Signaling | Optical status indication (DC OK; load; warning and error states) Digital signal input and output (DI/DO) |
| Communication | USB (750-923 Communication Cable) Ethernet/IP (2789-9023 Communication Module) IO-Link (2789-9080 Communication Module) Modbus RTU (Communication Module 2789-9015) Modbus TCP (2789-9052 Communication Module) |

| Efficiency/power losses | |
|-------------------------|---|
| Power loss P_i | ≤ 1.5 W (standby); ≤ 2.4 W (No load); ≤ 40 W (230 VAC; nominal load) |
| Efficiency (typ.) | 96 % (230 VAC; 40 A; 25 °C); 96.3 % (230 VAC; 30 A; 25 °C) |

Circuit protection

| | |
|-----------------------------|-----------------------------|
| Internal fuse | T 10 A / 250 VAC |
| Backup fusing (recommended) | 16 A (for USA/Canada: 15 A) |

Safety and protection

| | |
|-----------------------------------|---|
| Isolation voltage (pri.-sec., AC) | 3510 V |
| Isolation voltage (pri.-PE, AC) | 2200 V |
| Isolation voltage (sec.-PE) | DC 0.5 kV |
| Isolation voltage (sec.-signal) | DC 0.5 kV |
| Protection class | I |
| Protection type | IP20; per EN 60529 |
| Resistance to reverse feed | ≤ DC 35 V |
| Overtoltage category | III (≤ 2000 m a.s.l.); II (> 2000 m a.s.l.) |
| Pollution degree | 2 |
| Transient suppression (primary) | Yes |
| Overtoltage protection; secondary | Internal protective circuit ≤ 35 VDC (in the event of a fault) |
| Short-circuit-protected | Yes |
| Open-circuit-proof | Yes |
| Parallel operation | Yes |
| Series operation | Yes |
| MTBF | > 900,000 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 ² / 28 ... 12 AWG |
| Fine-stranded conductor | 0.08 ... 2.5 mm ² / 28 ... 12 AWG |
| Fine-stranded conductor; with insulated ferrule | 0.25 ... 1.5 mm ² / 20 ... 16 AWG |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 2.5 mm ² / 20 ... 14 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 ² / 20 ... 8 AWG |
| Fine-stranded conductor 2 | 0.5 ... 10 mm ² / 20 ... 8 AWG |
| Fine-stranded conductor; with insulated ferrule 2 | 0.5 ... 6 mm ² |
| Fine-stranded conductor; with uninsulated ferrule 2 | 0.5 ... 6 mm ² |
| Strip length 2 | 13 ... 15 mm / 0.51 ... 0.59 inches |

Physical data

| | |
|-----------------------------------|---|
| Width | 120 mm / 4.724 inches |
| Height | 130 mm / 5.118 inches |
| Depth from upper-edge of DIN-rail | 130 mm / 5.118 inches |
| Note (dimensions) | Height without connector Height with connector: 169 mm |

Mechanical data

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

Material data

| | |
|-----------|--------|
| Fire load | 0 MJ |
| Weight | 1900 g |

Environmental requirements

| | |
|---------------------------------|--|
| Ambient temperature (operation) | -25 ... +70 °C (Device starts at -40 °C (type-tested)) |
| Ambient temperature (storage) | -40 ... +85 °C |
| Relative humidity | 5 ... 96 % (no condensation permissible) |
| Derating | -3 %/K (> +55 °C) |
| Climatic category | 3K3 (per EN 60721) |
| Operating altitude (max.) | 5000 m |

Standards and specifications

| | |
|--------------------------|--|
| Conformity marking | CE |
| Standards/specifications | EN 61010-1 EN 61010-2-201 EN 61204-3 UL 61010-1 UL 61010-2-201 DNV UL HazLoc SEMI F47 |

Commercial data

| | |
|-----------------------|---------------|
| ETIM 8.0 | EC002540 |
| ETIM 7.0 | EC002540 |
| PU (SPU) | 1 pcs |
| Packaging type | Box |
| Country of origin | CN |
| GTIN | 4066966115314 |
| Customs tariff number | 85044083900 |

Environmental Product Compliance

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

Approvals / Certificates

General approvals



| Approval | Standard | Certificate Name |
|---|----------------|------------------|
| UL Underwriters Laboratories Inc. | UL 61010-2-201 | E255817 |

Declarations of conformity and manufacturer's declarations

| Approval | Standard | Certificate Name |
|---|----------|------------------|
| EU-Declaration of Confor- mity WAGO GmbH & Co. KG | - | - |
| UK-Declaration of Confor- mity WAGO GmbH & Co. KG | - | - |

Approvals for marine applications



| Approval | Standard | Certificate Name |
|------------------|------------------------|------------------|
| DNV DNV GL SE | DNV-CG-0339, Aug. 2021 | TAA00002ZF |

Approvals for hazardous areas



| Approval | Standard | Certificate Name |
|---|-----------|------------------|
| UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS) | UL 121201 | A-E198726 |

Downloads

Environmental Product Compliance

| Compliance Search |
|---|
| Environmental Product Compliance 2787-2448/000-030 ↓ |

Documentation

| Manual | | | |
|---|-----------------------|-------------------|-------------------|
| Product Manual Power supply; Pro 2; 1-phase; 24 VDC output voltage; 40 A output current | V 1.2.2 18.02.2022 | pdf 8514.86 KB | ↓ |

| Instruction Leaflet | | | |
|----------------------------|-----------------------|-------------------|-------------------|
| WAGO Stromversorgung Pro 2 | V 1.1.0 21.04.2021 | pdf 4500.37 KB | ↓ |

Application Notes

| Application note SIEMENS | | | |
|---|--------------------------|--------------------|-------------------|
| Application Note TIA Portal Power supply Pro 2 with IO-Link Interface (a2019010) | 2020-04-07 07.04.2020 | zip 11946.49 KB | ↓ |

CAD/CAE-Data

| CAD data | |
|-----------------------------------|-------------------|
| 2D/3D Models 2787-2448/000-030 | ↓ |

| CAE data | |
|--|-------------------|
| EPLAN Data Portal 2787-2448/000-030 | ↓ |

Runtime Software

| Firmware | | | |
|-----------------------------------|------------------------|-------------------|-------------------|
| 2787-2448, Stromversorgung; Pro 2 | V 010513 12.10.2021 | zip 1187.52 KB | ↓ |

1 Compatible Products

1.1 Optional Accessories

1.1.1 Communication

1.1.1.1 Communication module



Item No.: 2789-9023

Communication module; EtherNet/IP; MQTT; communication capability

Item No.: 2789-9080

Communication module; IO-Link; communication capability

Item No.: 2789-9015

Communication module; Modbus RTU; RJ45; communication capability

Item No.: 2789-9052

Communication module; Modbus TCP; communication capability

1.1.2 Marking

1.1.2.1 Marker carrier



Item No.: 2789-1233

Marker carrier; for WMB or marking strips; Length: 33 mm