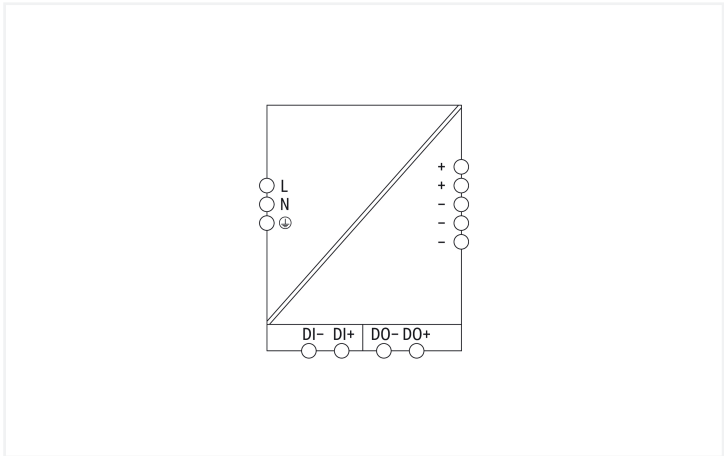


**Data Sheet | Item Number: 2787-2448**  
Power supply; Pro 2; 1-phase; 24 VDC output voltage; 40 A output current; Top-Boost + PowerBoost; communication capability; Input voltage range: 200 ... 240 VAC

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



**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                               |                                                                  | Input                         |                   |
| Phases                              | 1                                                                | Power factor                  | ≥ 0.98 (240 VAC)  |
| Nominal input voltage $U_{in\,nom}$ | 1 x 200 ... 240 VAC                                              | Power factor correction (PFC) | Active            |
| Input voltage range                 | 1 x 180 ... 264 VAC                                              | Mains failure hold-up time    | ≥ 25 ms (230 VAC) |
| 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                      | after 1 ms                                                       |                               |                   |



| Output                              |                                                                                              |
|-------------------------------------|----------------------------------------------------------------------------------------------|
| Nominal output voltage $U_{o\,nom}$ | 24 VDC (SELV)                                                                                |
| Output voltage range                | 24 ... 28 VDC (adjustable)                                                                   |
| Default Setting                     | 24 VDC                                                                                       |
| 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 x $I_{o\,nom}$ (typ.)                                                                    |
| Overload behavior                   | TopBoost/PowerBoost/Time-limited constant current mode (other overload behaviors can be set) |
| PowerBoost                          | 60 ADC (5 s)                                                                                 |
| TopBoost                            | Up to 600 %                                                                                  |

| 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)           |

| Safety and protection             |                                                                   |
|-----------------------------------|-------------------------------------------------------------------|
| Isolation voltage (pri.-sec., AC) | 3510 V                                                            |
| Isolation voltage (pri.-PE, AC)   | 2200 V                                                            |
| Isolation voltage (sec.-PE)       | 0.5 kVDC                                                          |
| Isolation voltage (sec.-signal)   | 0.5 kVDC                                                          |
| Protection class                  | I                                                                 |
| Protection type                   | IP20; per EN 60529                                                |
| Resistance to reverse feed        | ≤ 35 VDC                                                          |
| Overvoltage category              | III (≤ 2000 m a.s.l.); II (> 2000 m a.s.l.)                       |
| Pollution degree                  | 2                                                                 |
| Transient suppression (primary)   | Yes                                                               |
| Overvoltage protection; secondary | Internal protective circuit<br>≤ 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 1                                      |                                   | Connection 2                                      |                                     |
| Connection type                                   | Input/signaling                   | Connection type                                   | Output                              |
| Connection technology                             | CAGE CLAMP®                       | Connection technology                             | Push-in CAGE CLAMP®                 |
| WAGO connector                                    | WAGO 721 Series                   | WAGO connector                                    | WAGO 831 Series                     |
| Solid conductor                                   | 0.08 ... 2.5 mm² / 28 ... 12 AWG  | Solid conductor                                   | 0.5 ... 10 mm² / 20 ... 8 AWG       |
| Fine-stranded conductor                           | 0.08 ... 2.5 mm² / 28 ... 12 AWG  | Fine-stranded conductor                           | 0.5 ... 10 mm² / 20 ... 8 AWG       |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 1.5 mm² / 20 ... 16 AWG  | Fine-stranded conductor; with insulated ferrule   | 0.5 ... 6 mm²                       |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 2.5 mm² / 20 ... 14 AWG  | Fine-stranded conductor; with uninsulated ferrule | 0.5 ... 6 mm²                       |
| Strip length                                      | 8 ... 9 mm / 0.31 ... 0.35 inches | Strip length                                      | 13 ... 15 mm / 0.51 ... 0.59 inches |

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

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



| 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<br>Height with connector: 169 mm |

| Mechanical data |             |
|-----------------|-------------|
| Mounting type   | DIN-35 rail |

| Material data |          |
|---------------|----------|
| Fire load     | 0.794 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<br>EN 61010-2-201<br>EN 61204-3<br>UL 61010-1<br>UL 61010-2-201<br>UL 121201 (HazLoc) |

| Commercial data       |               |
|-----------------------|---------------|
| PU (SPU)              | 1 pcs         |
| Packaging type        | Box           |
| Country of origin     | CN            |
| GTIN                  | 4055143878296 |
| Customs tariff number | 85044083900   |

| Product Classification |                      |
|------------------------|----------------------|
| UNSPSC                 | 39121004             |
| 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                       |                |                  | Declarations of conformity and manufacturer's declarations |          |                  |
|-----------------------------------------|----------------|------------------|------------------------------------------------------------|----------|------------------|
|                                         |                |                  |                                                            |          |                  |
| Approval                                | Standard       | Certificate Name | Approval                                                   | Standard | Certificate Name |
| EAC<br>GZO Almaty Standart              | TP TC 004/2011 | EAC CoC 03080    | EU-Declaration of Confor-<br>mity<br>WAGO GmbH & Co. KG    | -        | -                |
| EAC<br>GZO Almaty Standart              | TP TC 020/2011 | EAC CoC 03081    |                                                            |          |                  |
| UL<br>Underwriters Laboratories<br>Inc. | UL 61010-2-201 | E255817          |                                                            |          |                  |

| Approvals for hazardous areas                                      |           |                  |
|--------------------------------------------------------------------|-----------|------------------|
|                                                                    |           |                  |
| Approval                                                           | Standard  | Certificate Name |
| UL<br>Underwriters Laboratories<br>Inc. (HAZARDOUS LOCA-<br>TIONS) | UL 121201 | E198726          |

| Downloads                                     |  |
|-----------------------------------------------|--|
| Environmental Product Compliance              |  |
| Compliance Search                             |  |
| Environmental Product<br>Compliance 2787-2448 |  |

| Documentation                                                                                    |                       |                       |                                                                                                 |                          |                       |
|--------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------------------------------------------------------------------------------------|--------------------------|-----------------------|
| Manual                                                                                           |                       |                       | Additional Information                                                                          |                          |                       |
| Product Manual Power<br>supply; Pro 2; 1-phase;<br>24 VDC output voltage;<br>40 A output current | V 1.2.2<br>18.02.2022 | pdf<br>8514.86 KB<br> | Application Note STEP<br>7 Power supply Pro 2<br>2787-2xxx with IO-Link<br>Interface (a2019011) | 2020-04-07<br>07.04.2020 | zip<br>6128.55 KB<br> |
| Bid Text                                                                                         |                       |                       | Instruction Leaflet                                                                             |                          |                       |
| 2787-2448_EUSA                                                                                   | 04.07.2019            | docx<br>23.16 KB<br>  | WAGO Stromversor-<br>gung Pro 2                                                                 | V 1.1.0<br>21.04.2021    | pdf<br>4500.37 KB<br> |
| 2787-2448_EUSA                                                                                   | 04.07.2019            | xml<br>7.95 KB<br>    |                                                                                                 |                          |                       |



| Application Notes                                         |                     |                  |                          |                                                                                     |                                                     |
|-----------------------------------------------------------|---------------------|------------------|--------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------|
| Application Note e!COCKPIT                                |                     |                  | Application note SIEMENS |                                                                                     |                                                     |
| e!COCKPIT Application Note WagoAppPower-Supply (a2019012) | 1.1.1<br>06.12.2021 | pdf<br>707.04 KB | ↓                        | Application Note TIA Portal<br>Power supply Pro 2 with IO-Link Interface (a2019010) | 2020-04-07<br>07.04.2020<br>zip<br>11946.49 KB<br>↓ |

| CAD/CAE-Data                   |                                     |
|--------------------------------|-------------------------------------|
| CAD data                       | CAE data                            |
| 2D/3D Models<br>2787-2448<br>↓ | EPLAN Data Portal<br>2787-2448<br>↓ |
|                                | ZUKEN Portal<br>2787-2448<br>↓      |

| Runtime Software                  |                        |                   |   |
|-----------------------------------|------------------------|-------------------|---|
| Firmware                          |                        |                   |   |
| 2787-2448, Stromversorgung; Pro 2 | V 010513<br>12.10.2021 | zip<br>1187.52 KB | ↓ |

| 1 Compatible Products                                                                                            |                                                                                                |                                                                                                         |                                                                                                   |
|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| 1.1 Product Expansions                                                                                           |                                                                                                |                                                                                                         |                                                                                                   |
| 1.1.1 Communication Module                                                                                       |                                                                                                |                                                                                                         |                                                                                                   |
|                               |             |                      |              |
| <a href="#">Item No.: 2789-9023</a><br>Communication module; EtherNet/IP; MQTT Pub/Sub; communication capability | <a href="#">Item No.: 2789-9080</a><br>Communication module; IO-Link; communication capability | <a href="#">Item No.: 2789-9015</a><br>Communication module; Modbus RTU; RJ45; communication capability | <a href="#">Item No.: 2789-9052</a><br>Communication module; Modbus TCP; communication capability |

| 1.2 Optional Accessories                                                            |                                                                                              |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| 1.2.1 Cables and connectors                                                         |                                                                                              |
| 1.2.1.1 Communication cable                                                         |                                                                                              |
|  | <a href="#">Item No.: 750-923/000-001</a><br>Configuration cable; USB connector; Length: 5 m |

1.2.3 Marking

1.2.3.1 Marker



**Item No.: 2009-115**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

1.2.3.2 Marker carrier



**Item No.: 2789-1233**  
Marker carrier; for WMB or marking strips; Length: 33 mm

1.2.3.3 Marking strip



**Item No.: 2009-110**  
Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white

1.2.4 Tool

1.2.4.1 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