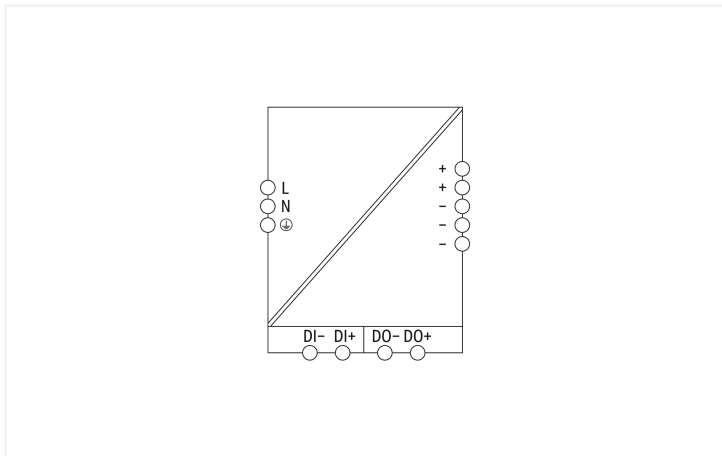


# Data Sheet | Item Number: 2787-2448

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	
Phases	1
Nominal input voltage $U_{i,nom}$	1 x 200 ... 240 VAC
Input voltage range	1 x 180 ... 264 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	≤ 10 A (after 1 ms)

Input	
Power factor	≥ 0.98 (240 VAC)
Power factor correction (PFC)	Active
Mains failure hold-up time	≥ 25 ms (230 VAC)

Output	
Nominal output voltage $U_{o, nom}$	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	$\leq 1 \%$
Residual ripple	$\leq 70$ 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	60 ADC (5 s)
TopBoost	Up to 600 %

Efficiency/Power Losses	
Power loss $P_1$	$\leq 1.5$ W (standby); $\leq 2.4$ W (no load); $\leq 40$ 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	$\leq 35$ VDC
Overvoltage category	III ( $\leq 2000$ m a.s.l.); II ( $> 2000$ m a.s.l.)
Pollution degree	2
Transient suppression (primary)	Yes
Overvoltage protection; secondary	Internal protective circuit $\leq 35$ 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 mm <sup>2</sup> / 28 ... 12 AWG	Solid conductor	0.5 ... 10 mm <sup>2</sup> / 20 ... 8 AWG
Fine-stranded conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG	Fine-stranded conductor	0.5 ... 10 mm <sup>2</sup> / 20 ... 8 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG	Fine-stranded conductor; with insulated ferrule	0.5 ... 6 mm <sup>2</sup>
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm <sup>2</sup> / 20 ... 14 AWG	Fine-stranded conductor; with uninsulated ferrule	0.5 ... 6 mm <sup>2</sup>
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) Digital signal input and output (DI/DO)
Communications	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)

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 Height with connector: 169 mm

### Mechanical data

Mounting type	DIN-35 rail
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### Material data

Fire load	0.797 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 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
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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 03080
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03081
UL Underwriters Laboratories Inc.	UL 61010-2-201	E255817

Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-

**Approvals for hazardous areas**



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

**Downloads**

**Environmental Product Compliance**

Compliance Search	
Environmental Product Compliance 2787-2448	<a href="#">↓</a>

**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	<a href="#">↓</a>

Additional Information			
Application Note STEP 7 Power supply Pro 2 2787-2xxx with IO-Link Interface (a2019011)	2020-04-07 07.04.2020	zip 6128.55 KB	<a href="#">↓</a>

Bid Text			
2787-2448_EUSA	04.07.2019	docx 23.16 KB	<a href="#">↓</a>
2787-2448_EUSA	04.07.2019	xml 7.95 KB	<a href="#">↓</a>

Instruction Leaflet			
WAGO Stromversorgung Pro 2	V 1.1.0 21.04.2021	pdf 4500.37 KB	<a href="#">↓</a>

### Application Notes

Application Note e!COCKPIT			
e!COCKPIT Application Note WagoAppPower-Supply (a2019012)	1.1.1 06.12.2021	pdf 707.04 KB	<a href="#">↓</a>

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	<a href="#">↓</a>

### CAD/CAE-Data

CAD data	
2D/3D Models 2787-2448	<a href="#">↓</a>

CAE data	
EPLAN Data Portal 2787-2448	<a href="#">↓</a>
ZUKEN Portal 2787-2448	<a href="#">↓</a>

### Runtime Software

Firmware			
2787-2448, Stromversorgung; Pro 2	V 010513 12.10.2021	zip 1187.52 KB	<a href="#">↓</a>

### 1 Compatible Products

#### 1.1 Product Expansions

##### 1.1.1 Communication Module



[Item No.: 2789-9023](#)  
Communication module; EtherNet/IP; MQTT Pub/Sub; 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

#### 1.2 Optional Accessories

##### 1.2.1 Cables and connectors

###### 1.2.1.1 Communication cable



[Item No.: 750-923/000-001](#)  
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