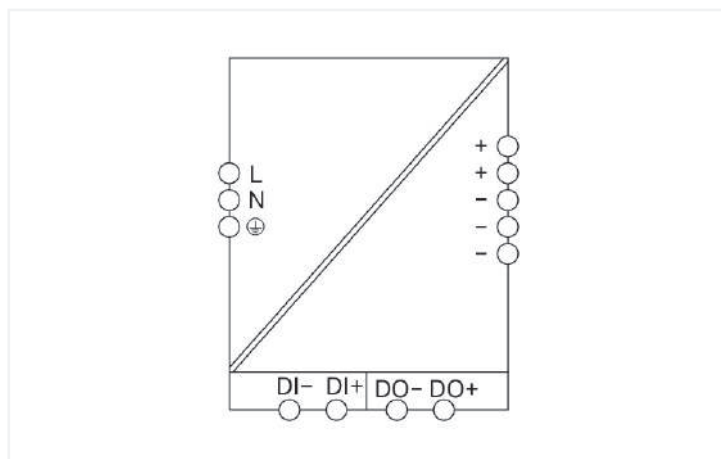


## Data Sheet | Item Number: 2787-2448/000-070

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



<https://www.wago.com/2787-2448/000-070>



### 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
- Coated PCBs, resistant to flowing mixed gas per ISA S71.04:1985, G3 Group A
- Marker slot for WAGO marking cards (WMB) and WAGO marking strips

### Technical data

Input	
Phases	1
Nominal input voltage $U_{in, nom}$	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

Input	
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 × $I_{o, nom}$ (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 %

## Efficiency/power losses

Power loss $P_1$	≤ 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)	DC 0.5 kV
Isolation voltage (sec.-signal)	DC 0.5 kV
Protection class	I
Protection type	IP20; per EN 60529
Protective coating	Coated PCBs
Resistance to reverse feed	≤ DC 35 V
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 ≤ 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)

## Signaling and communication

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

## Circuit protection

Internal fuse	T 10 A / 250 VAC
Backup fusing (required)	An external DC fuse is required for the DC input voltage.
Backup fusing (recommended)	16 A (for USA/Canada: 15 A)

## Connection data

Connection type 1	Input/signaling
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 721 Series
Solid conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm <sup>2</sup> / 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 <sup>2</sup> / 20 ... 8 AWG
Fine-stranded conductor 2	0.5 ... 10 mm <sup>2</sup> / 20 ... 8 AWG
Fine-stranded conductor; with insulated ferrule 2	0.5 ... 6 mm <sup>2</sup>

### Connection data

Fine-stranded conductor; with uninsulated ferrule 2	0.5 ... 6 mm <sup>2</sup>
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
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### 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)
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 ISA S71.04:1985; G3 Group A SEMI F47

### Commercial data

ETIM 8.0	EC002540
ETIM 7.0	EC002540
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	CN
GTIN	4066966125962
Customs tariff number	85044083900

**Environmental Product Compliance**

RoHS Compliance Status	Compliant, No Exemption
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**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 Germany GmbH	DNV-CG-0339, Aug. 2021	TAA00002ZF

**Approvals for hazardous areas**



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

**Downloads**

**Environmental Product Compliance**

Compliance Search
Environmental Product Compliance 2787-2448/000-070 <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>

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

**Application Notes**

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

## CAD/CAE-Data

CAD data	
2D/3D Models 2787-2448/000-070	

CAE data	
EPLAN Data Portal 2787-2448/000-070	

## 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; 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