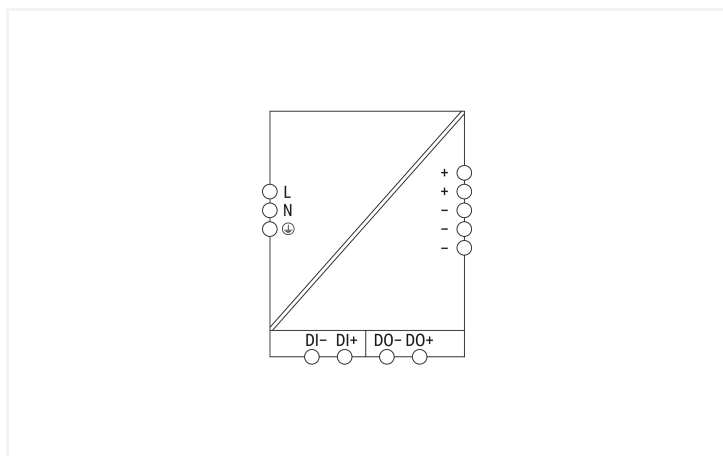


Data Sheet | Item Number: 2787-2448/000-070

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		Output	
Phases	1	Nominal output voltage $U_{o, nom}$	24 VDC (SELV)
Nominal input voltage $U_{i, nom}$	1 x 200 ... 240 VAC	Output voltage range	24 ... 28 VDC (adjustable)
Input voltage range	1 x 180 ... 264 VAC	Default Setting	24 VDC
Nominal mains frequency range	50 ... 60 Hz	Nominal output current $I_{o, nom}$	40 A (24 VDC)
Input current I_i	≤ 4.3 A (240 VAC; nominal load); ≤ 5.1 A (200 VAC; nominal load)	Nominal output power	960 W
Inrush current	≤ 10 A (after 1 ms)	Deviation	≤ 1 %
Power factor	≥ 0.98 (240 VAC)	Residual ripple	≤ 70 mV (peak-to-peak)
Power factor correction (PFC)	Active	Current limitation	1.1 x $I_{o, nom}$ (typ.)
Mains failure hold-up time	≥ 25 ms (230 VAC)	Overload behavior	TopBoost/PowerBoost/Time-limited constant current mode (other overload behaviors can be set)
		PowerBoost	60 ADC (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)
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)

Efficiency/Power Losses

Power loss P_l	≤ 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 fuse (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)	0.5 kVDC
Isolation voltage (sec.-signal)	0.5 kVDC
Protection class	I
Protection type	IP20; per EN 60529
Protective coating	Coated PCBs
Resistance to reverse feed	≤ 35 VDC
Oversoltage category	III (≤ 2000 m a.s.l.); II (> 2000 m a.s.l.)
Pollution degree	2
Transient suppression (primary)	Yes
Oversoltage 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

Safety and protection

MTBF	> 900,000 h (per IEC 61709)
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Connection Data

Connection 1

Connection type	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 2

Connection type	Output
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 831 Series
Solid conductor	0.5 ... 10 mm ² / 20 ... 8 AWG
Fine-stranded conductor	0.5 ... 10 mm ² / 20 ... 8 AWG
Fine-stranded conductor; with insulated ferrule	0.5 ... 6 mm ²
Fine-stranded conductor; with uninsulated ferrule	0.5 ... 6 mm ²
Strip length	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)
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 121201 (HazLoc) ISA S71.04:1985; G3 Group A

Commercial data

PU (SPU)	1 pcs
Packaging type	Box
Country of origin	CN
GTIN	4066966125962
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



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

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 LOCA- TIONS)	UL 121201	E198726

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance
2787-2448/000-070



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
2787-2448/000-070



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 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 Marking

1.2.1.1 Marker carrier



Item No.: [2789-1233](#)

Marker carrier; for WMB or marking strips;

Length: 33 mm