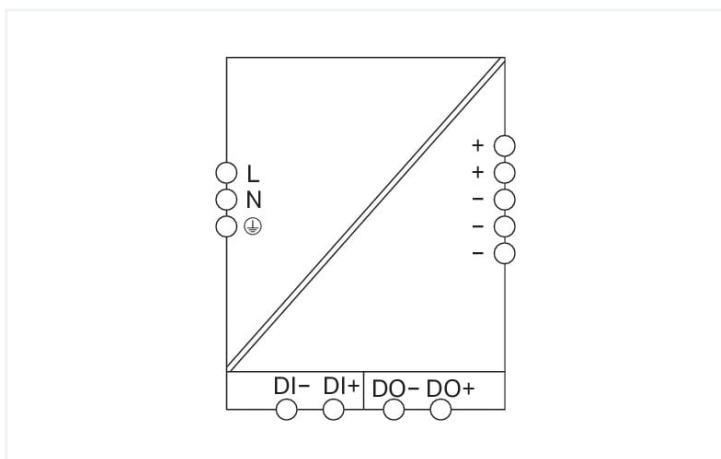


Data Sheet | Item Number: 2787-2448

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 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.)

Output

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_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)

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	\leq DC 35 V
Oversvoltage category	III (\leq 2000 m a.s.l.); II ($>$ 2000 m a.s.l.)
Pollution degree	2
Transient suppression (primary)	Yes
Oversvoltage 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 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
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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 SEMI F47

Commercial data

ETIM 8.0	EC002540
ETIM 7.0	EC002540
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	CN
GTIN	4055143878296
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 Conformity WAGO GmbH & Co. KG	-	-

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	↓
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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	↓
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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	↓
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Bid Text

2787-2448_EUSA	04.07.2019	docx 23.16 KB	↓
2787-2448_EUSA	04.07.2019	xml 7.95 KB	↓

Instruction Leaflet

WAGO Stromversorgung Pro 2	V 1.1.0 21.04.2021	pdf 4500.37 KB	↓
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Application Notes

Application Note e!COCKPIT				Application note SIEMENS			
e!COCKPIT Application Note WagoAppPower-Supply (a2019012)	1.1.1 06.12.2021	pdf 707.04 KB	↓	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		CAE data	
2D/3D Models 2787-2448	↓	EPLAN Data Portal 2787-2448	↓
		ZUKEN Portal 2787-2448	↓

Engineering-Software

Configuration and Commissioning Software			
WAGO Interface Configuration Software G2 FULL	1.00.10.01 20.01.2022	exe 112213.07 KB	↓
WAGO Interface Configuration Software G2 SMALL	1.00.10.01 20.01.2022	exe 30238.22 KB	↓

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 Cables and connectors

1.1.1.1 Communication cable



Item No.: 750-923/000-001
 Configuration cable; USB connector;
 Length: 5 m

1.1.2 Communication

1.1.2.1 Communication cable



Item No.: 750-923

Configuration cable; USB connector;
Length: 2.5 m

1.1.2.2 Communication module



Item No.: 2789-9023

Communication module; EtherNet/IP;
MQTT; communication capability



Item No.: 2789-9080

Communication module; IO-Link; commu-
nication capability



Item No.: 2789-9015

Communication module; Modbus RTU;
RJ45; communication capability



Item No.: 2789-9052

Communication module; Modbus TCP;
communication capability

1.1.3 Marking

1.1.3.1 Marker



Item No.: 2009-115

WMB-Inline; for Smart Printer; 1500 pieces
on roll; stretchable 5 - 5.2 mm; plain; snap-
on type; white

1.1.3.2 Marker carrier



Item No.: 2789-1233

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

1.1.3.3 Marking strip



Item No.: 2009-110

Marking strips; for Smart Printer; on reel;
not stretchable; plain; snap-on type; white

1.1.4 Tool

1.1.4.1 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