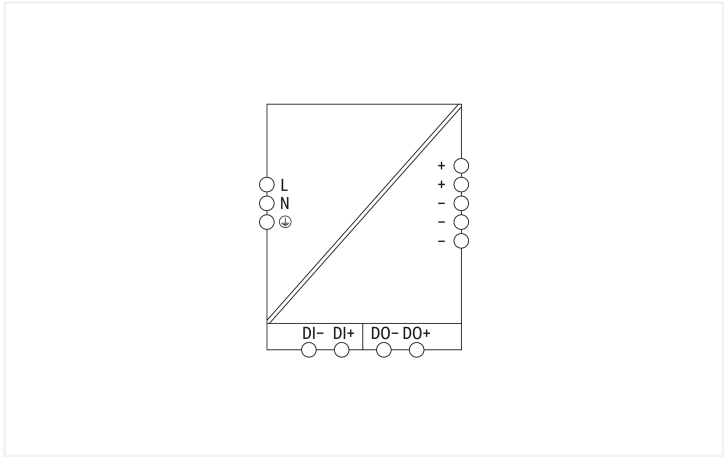


Data Sheet | Item Number: 2787-2448

Power supply; Pro 2; 1-phase; 24 VDC output voltage; 40 A output current; TopBoost + 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 correction (PFC)	Active
Nominal input voltage $U_{i\text{nom}}$	1 x 200 ... 240 VAC	Mains failure hold-up time	≥ 25 ms (230 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)		
Power factor	≥ 0.98 (240 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	≤ 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 ≤ 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) 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 6.3 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

Material data	
Fire load	0.917 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

Approvals / Certificates

General approvals			Declarations of conformity and manufacturer's declarations		
 					
Approval	Standard	Certificate Name	Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 004/2011	EAC CoC 03080	EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03081			
UL Underwriters Laboratories Inc.	UL 61010-2-201	E255817			

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	

Documentation

Manual				Additional Information			
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		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	
Bid Text				Instruction Leaflet			
2787-2448_EUSA	04.07.2019	docx 23.16 KB		WAGO Stromversorgung Pro 2	V 1.1.0 21.04.2021	pdf 4500.37 KB	
2787-2448_EUSA	04.07.2019	xml 7.95 KB					

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 ↓

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
1.1.2 Display Module			
 Item No.: 2789-9090 Display Module			



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

1.2.2 Communication

1.2.2.1 Communication cable



Item No.: 750-923
Configuration cable; USB connector; Length:
2.5 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