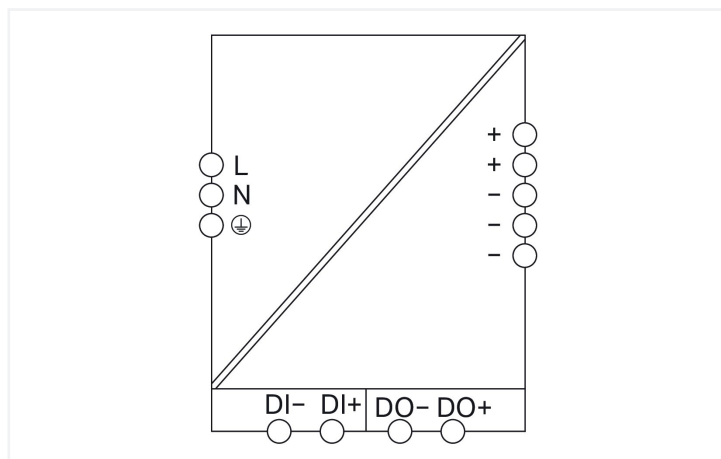


Data Sheet | Item Number: 2787-2147

Power supply; Pro 2; 1-phase; 24 VDC output voltage; 20 A output current; Top-Boost + PowerBoost; communication capability

<https://www.wago.com/2787-2147>



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		Output	
Input		Output	
Phases	1	Nominal output voltage $U_{o\ nom}$	DC 24 V (SELV)
Nominal input voltage $U_{i\ nom}$	1 x AC 100 ... 240 V	Output voltage range	DC 24 ... 28 V (adjustable)
Input voltage range	1 x AC 90 ... 264 V	Default Setting	DC 24 V
Nominal mains frequency range	50 ... 60 Hz	Nominal output current $I_{o\ nom}$	20 A (24 VDC)
Input current I_i	≤ 2.2 A (240 VAC; nominal load); ≤ 5.9 A (100 VAC; nominal load)	Nominal output power	480 W
Inrush current	≤ 12 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	≥ 24 ms (230 VAC)	Overload behavior	TopBoost/PowerBoost/Time-limited constant current mode (other overload behaviors can be set)

Output

PowerBoost	DC 30 A (5 s)
TopBoost	Up to 600 %

Signaling and communication

Signaling	Digital signal input and output (DI/DO) Optical status indication (DC OK; load; warning and error states)
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_1	≤ 1.3 W (standby); ≤ 2.6 W (no load); ≤ 24 W (230 VAC; nominal load)
Efficiency (typ.)	95.4 % (230 VAC; 20 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
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
MTBF	$> 800,000$ 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	70 mm / 2.756 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	0.973 MJ
Weight	1450 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	-1 %/V (> +40 °C and $U_i < 100$ VAC); -3 %/K (> +55 °C and $U_i < 230$ VAC); -3 %/K (> +60 °C and $U_i \geq 230$ VAC); -5 %/V ($U_o > 24$ VDC)
Climatic category	3K3 (per EN 60721)
Operating altitude (max.)	5000 m

Standards and specifications

Conformity marking	CE
Standards/specifications	SEMI F47 EN 61010-1 EN 61010-2-201 EN 61204-3 UL 61010-1 UL 61010-2-201

Commercial data

ETIM 9.0	EC002540
ETIM 8.0	EC002540
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	CN
GTIN	4055143878364
Customs tariff number	85044083900

Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
------------------------	-------------------------

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	-	-
MFD for SEMI F47 WAGO GmbH & Co. KG	-	-
UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-

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 2787-2147	↓
--	-------------------

Documentation

Manual			
Product Manual Power supply; Pro 2; 1-phase; 24 VDC output voltage; 20 A output current	V 1.2.2 18.02.2022	pdf 8262.81 KB	↓

Bid Text			
2787-2147_EUSA	04.07.2019	docx 23.26 KB	↓
2787-2147_EUSA	04.07.2019	xml 7.90 KB	↓
ausschreiben.de 2787-2147			↓

Instruction Leaflet

WAGO Stromversor- gung Pro 2	V 1.1.0 26.04.2021	pdf 4461.95 KB	↓
---------------------------------	-----------------------	-------------------	-------------------

CAD/CAE-Data

CAD data		CAE data	
2D/3D Models 2787-2147		EPLAN Data Portal 2787-2147	
		ZUKEN Portal 2787-2147	

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			
2787-2147, Stromversorgung; Pro 2	V 010513 12.10.2021	zip 1087.36 KB	

1 Compatible Products

1.1 Product Expansions

1.1.1 Communication module



Item No.: 2789-9023
Communication module; EtherNet/IP; MQTT; 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

1.2.2 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