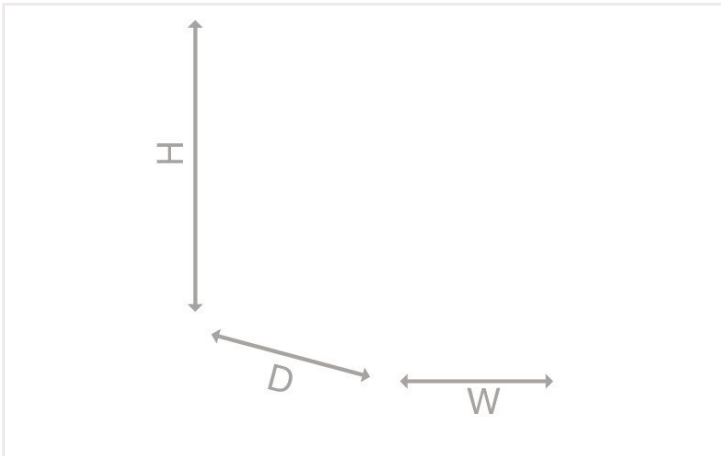
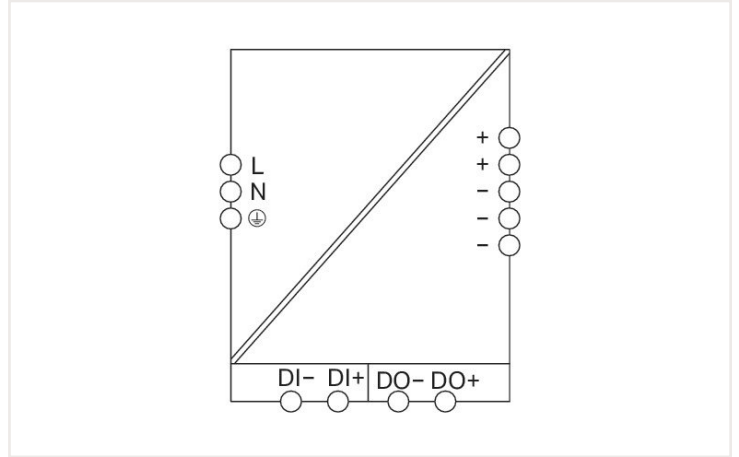


Data sheet | Item number: 2787-2147/000-070

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



<https://www.wago.com/2787-2147/000-070>



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 $U_{i\text{nom}}$	1 x AC 100 ... 240 V
Input voltage range	1 x AC 90 ... 264 V; DC 130 ... 240 V
Nominal mains frequency range	50 ... 60 Hz
Input current I_i	≤ 2.2 A (240 VAC; nominal load); ≤ 5.9 A (100 VAC; nominal load)
Inrush current	≤ 12 A (after 1 ms)
Power factor	≥ 0.98 (240 VAC)
Power factor correction (PFC)	active
Mains failure hold-up time	≥ 24 ms (230 VAC)

Output

Nominal output voltage $U_{o\text{nom}}$	DC 24 V (SELV)
Output voltage range	DC 24 ... 28 V (adjustable)
Default setting	DC 24 V
Nominal output current $I_{o\text{nom}}$	20 A (24 VDC)
Nominal output power	480 W
Deviation	≤ 1 %
Residual ripple	≤ 70 mV (Peak-to-peak)
Current limitation	$1.1 \times I_{o\text{nom}}$ (typ.)
Overload behavior	TopBoost/PowerBoost/Time-limited constant current mode (other overload behaviors can be set)
PowerBoost	DC 30 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	Communication interface, can be used with WAGO USB Communication Cable (750-923) or IO-Link Communication Module (2789-9080), Modbus RTU Communication Module (2789-9015) or Modbus TCP Communication Module (2789-9052)

Efficiency/power losses

Power loss P_i	≤ 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 (required)	An external DC fuse is required for the DC input voltage.
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
Protective Coating	Coated PCBs
Resistance to reverse feed	$\leq$ DC 35 V
Overvoltage category	III (≤ 2000 m a. s.l.); II (
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	

Connection data

Connection type 1	Input/signaling
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 721 Series
Solid conductor	0.08 ... 2.5 mm² / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm² / 28 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm² / 20 ... 16 AWG
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm² / 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 mm² / 20 ... 8 AWG
Fine-stranded conductor 2	0.5 ... 10 mm² / 20 ... 8 AWG
Fine-stranded conductor; with insulated ferrule 2	0.5 ... 6 mm²
Fine-stranded conductor; with uninsulated ferrule 2	0.5 ... 6 mm²
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
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Material Data

Fire load	0 MJ
Weight	1450 g

Environmental requirements

Ambient temperature (operation at U _N)	-25 ... 70 °C (Device starts at -40 °C (type-tested))
Surrounding air temperature (storage)	-40 ... +85 °C
Relative humidity	5 ... 96 % (no condensation permissible)
Derating	-1 %/V (
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



Commercial data	
ETIM 8.0	EC002540
ETIM 7.0	EC002540
PU (SPU)	1 Pieces
Packaging type	Box
Country of origin	CN
GTIN	4066966125955
Customs tariff number	85044082900

Approvals and certificates

General approvals

Approvals for marine applications



Approval	Standard	Certificate name
UL Underwriters Laboratories Inc.	UL 61010-2-201	E255817



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 LOCATIONS)	UL 121201	A-E198726

Downloads

Environmental Product Compliance	
Compliance Search	
Environmental Product Compliance 2787-2147/000-070	

Documentation

Manual		Instruction Leaflet	
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	
		WAGO Stromversorgung Pro 2	V 1.1.0 26.04.2021 pdf 4461.95 KB



Runtime Software				
Firmware				
2787-2147, Stromver-sorgung; Pro 2	V 010513 12.10.2021	zip 1087.36 KB		

1 Compatible products
1.1 Optional accessories
1.1.1 Communication
1.1.1.1 Communication module



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
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