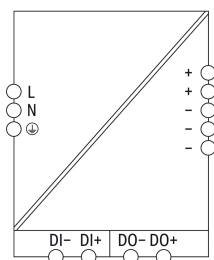


Data Sheet | Item Number: 2787-2147/000-070

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		Output	
Phases	1	Nominal output voltage $U_{o\,nom}$	24 VDC (SELV)
Nominal input voltage $U_{i\,nom}$	1 x 100 ... 240 VAC	Output voltage range	24 ... 28 VDC (adjustable)
Input voltage range	1 x 90 ... 264 VAC	Default Setting	24 VDC
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	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	$1.1 \times I_{o\,nom}$ (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)
		PowerBoost	30 ADC (5 s)
		TopBoost	Up to 600 %

Signaling and Communication		Efficiency/Power Losses	
Signaling	Optical status indication (DC OK; load; warning and error states) Digital signal input and output (DI/DO)	Power loss P_i	≤ 1.3 W (standby); ≤ 2.6 W (no load); ≤ 24 W (230 VAC; nominal load)
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 (typ.)	95.4 % (230 VAC; 20 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
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	$> 800,000$ 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
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 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 ≥ 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 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		4066966125955
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



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 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	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 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 2787-2147/000-070		EPLAN Data Portal 2787-2147/000-070	

Runtime Software

Firmware			
2787-2147, Stromver-sorgung; 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 Pub/Sub; 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

1.2 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

Subject to changes. Please also observe the further product documentation!

Current addresses can be found at: www.wago.com