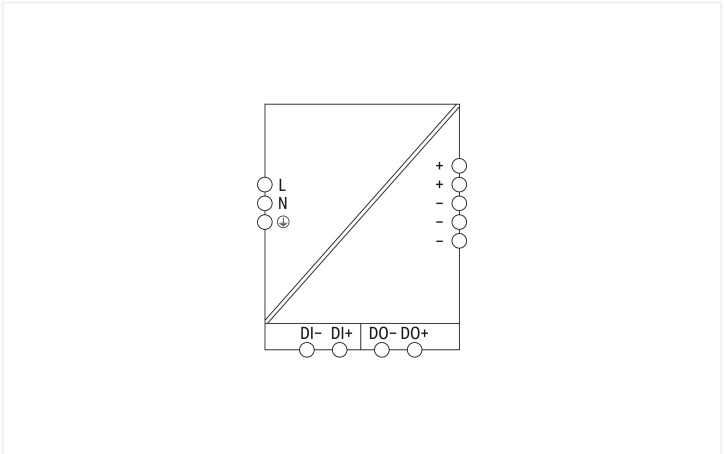


Data Sheet | Item Number: 2787-2147

Power supply; Pro 2; 1-phase; 24 VDC output voltage; 20 A output current; TopBoost + 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			
Input		Input	
Phases	1	Power factor correction (PFC)	Active
Nominal input voltage $U_{in\,nom}$	1 x 100 ... 240 VAC	Mains failure hold-up time	≥ 24 ms (230 VAC)
Input voltage range	1 x 90 ... 264 VAC		
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)		



Output	
Nominal output voltage $U_{o\,nom}$	24 VDC (SELV)
Output voltage range	24 ... 28 VDC (adjustable)
Default Setting	24 VDC
Nominal output current $I_{o\,nom}$	20 A (24 VDC)
Nominal output power	480 W
Deviation	$\leq 1\%$
Residual ripple	$\leq 70\text{ mV}$ (peak-to-peak)
Current limitation	$1.1 \times I_{o\,nom}$ (typ.)
Overload behavior	TopBoost/PowerBoost/Time-limited constant current mode (other overload behaviors can be set)
PowerBoost	30 ADC (5 s)
TopBoost	Up to 600 %

Efficiency/Power Losses	
Power loss P_l	$\leq 1.3\text{ W}$ (standby); $\leq 2.6\text{ W}$ (no load); $\leq 24\text{ W}$ (230 VAC; nominal load)
Efficiency (typ.)	95.4 % (230 VAC; 20 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	$\leq 35\text{ VDC}$
Overvoltage category	III ($\leq 2000\text{ m a.s.l.}$); II ($> 2000\text{ m a.s.l.}$)
Pollution degree	2
Transient suppression (primary)	Yes
Overvoltage protection; secondary	Internal protective circuit $\leq 35\text{ VDC}$ (in the event of a fault)
Short-circuit-protected	Yes
Open-circuit-proof	Yes
Parallel operation	Yes
Series operation	Yes
MTBF	$> 800,000\text{ h}$ (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	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	0.663 MJ
Weight	1713 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 UL 121201 (HazLoc)

Commercial data	
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	IN
GTIN	4066966915709

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		
EAC EAC 					
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	MFD for SEMI F47 WAGO GmbH & Co. KG	-	-
UL Underwriters Laboratories Inc.	UL 61010-2-201	E255817	UK-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 2787-2147	

Documentation

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

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 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