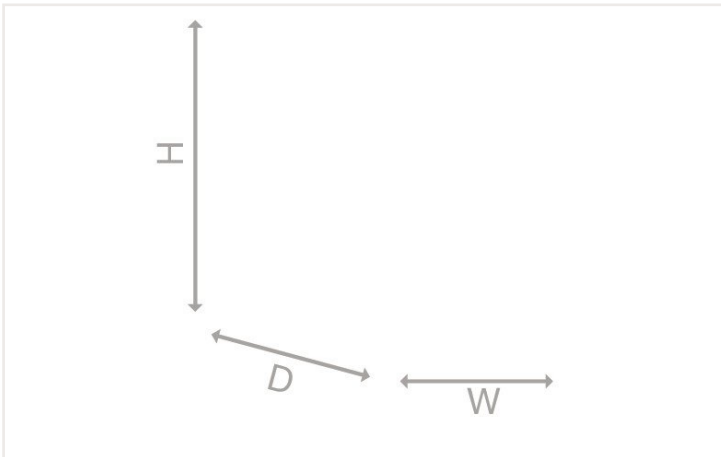
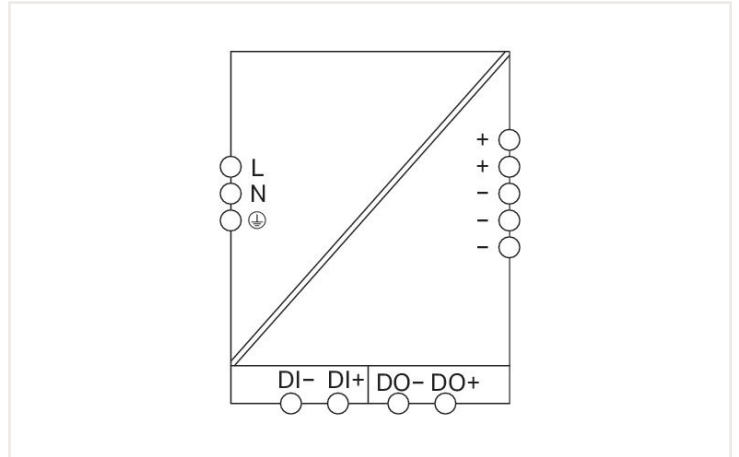


Data sheet | Item number: 2787-2147

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

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
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	0.797 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



Commercial data	
ETIM 8.0	EC002540
ETIM 7.0	EC002540
PU (SPU)	1 Stück
Packaging type	Box
Country of origin	CN
GTIN	4055143878364
Customs tariff number	85044082900

Approvals and certificates	
General approvals	Approvals for hazardous areas



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



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		Bid Text	
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	↓
	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	
Engineering-Software				
Software for Interface-Products				
WAGO Interface Configuration Software G2 FULL	1.0.8.6 20.01.2022	exe 111289.67 KB		
WAGO Interface Configuration Software G2 SMALL	1.0.8.6 20.01.2022	exe 29307.84 KB		
Runtime Software				
Firmware				
2787-2147, Stromversorgung; Pro 2	V 010513 12.10.2021	zip 1087.36 KB		
Libraries				
Device Description File				
Device description files 2787-2147	1.1 17.09.2019	zip 89.25 KB		
1 Compatible products				
1.1 Optional accessories				
1.1.1 Cables and connectors				
1.1.1.1 Communication cable				
 				
Item no.: 750-923 Configuration cable; USB connector; Length: 2.5 m		Item no.: 750-923/000-001 Configuration cable; USB connector; Length: 5 m		

1.1.2 Communication

1.1.2.1 Communication module



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

1.1.3 Ferrule

1.1.3.1 Ferrule



Item no.: 216-301

Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow



Item no.: 216-321

Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow



Item no.: 216-302

Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise



Item no.: 216-322

Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise



Item no.: 216-241

Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white



Item no.: 216-201

Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white



Item no.: 216-221

Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white



Item no.: 216-242

Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray



Item no.: 216-262

Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray



Item no.: 216-202

Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray



Item no.: 216-222

Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray



Item no.: 216-243

Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red



Item no.: 216-263

Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red



Item no.: 216-203

Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red



Item no.: 216-223

Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red



Item no.: 216-204

Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black



Item no.: 216-224

Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black



Item no.: 216-244

Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black



Item no.: 216-264

Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black



Item no.: 216-284

Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black



Item no.: 216-205

Ferrule; Sleeve for 2.08 mm² / AWG 14; insulated; electro-tin plated; yellow



Item no.: 216-206

Ferrule; Sleeve for 2.5 mm² / AWG 14; insulated; electro-tin plated; blue



Item no.: 216-246

Ferrule; Sleeve for 2.5 mm² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue



Item no.: 216-266

Ferrule; Sleeve for 2.5 mm² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue



Item no.: 216-286

Ferrule; Sleeve for 2.5 mm² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue



Item no.: 216-267

Ferrule; Sleeve for 4 mm² / AWG 12; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray



Item no.: 216-287

Ferrule; Sleeve for 4 mm² / AWG 12; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray



Item no.: 216-207

Ferrule; Sleeve for 4 mm² / AWG 12; insulated; electro-tin plated; gray



Item no.: 216-208

Ferrule; Sleeve for 6 mm² / AWG 10; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; yellow



1.1.4 Marking

1.1.4.1 Marker



Item no.: 2009-115
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

1.1.4.2 Marking strip



Item no.: 2009-110
Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white

1.1.5 Tool

1.1.5.1 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