

Data sheet | Item number: 2787-2147

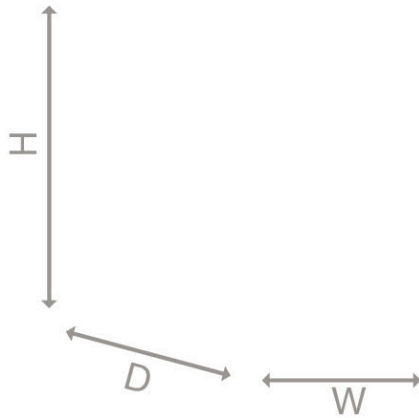
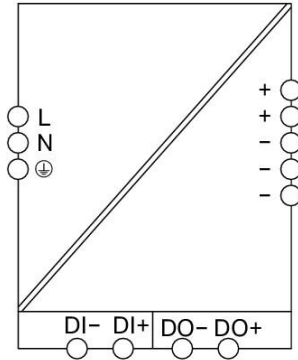
Power supply; Pro 2; 1-phase; 24 VDC output voltage; 20 A output current;
TopBoost + PowerBoost; communication capability

www.wago.com/2787-2147



RoHS
Compliant

BOMcheck.net



Item description

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
- Suitable for both parallel and series operation

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

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- Natural convection cooling when horizontally mounted
- Pluggable connection technology
- Electrically isolated output voltage (SELV/PELV) per EN 61010/UL 61010
- Marker slot for WAGO Marker Cards (WMB) and WAGO Marking Strips

Data

Technical Data

Input

Phases	1
Nominal input voltage $U_{i\text{ nom}}$	AC 100 ... 240 V
Input voltage range	AC 90 ... 264 V; DC 130 ... 373 V
Nominal mains frequency range	47 ... 63 Hz; 0 Hz
Input current I_i	$\leq 2,2\text{ A}$ (240 VAC; Nominal load); $\leq 5,9\text{ A}$ (100 VAC; Nominal load)
Inrush current	$\leq 12\text{ A}$ (after 1 ms)
Power factor	$\geq 0,98$ (240 VAC)
Power factor correction (PFC)	Active
Mains failure hold-up time	$\geq 24\text{ ms}$ (230 VAC)

Output

Nominal output voltage $U_{o\text{ nom}}$	DC 24 V (SELV)
Output voltage range	DC 24 ... 28 V (adjustable)
Factory preset	DC 24 V
Nominal output current $I_{o\text{ nom}}$	20 A (24 VDC)
Nominal output power	480 W
Adjustment accuracy	$\leq 1\%$
Residual ripple	$\leq 70\text{ mV}$ (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)

Signaling and communication

Signaling	Optical status indication (DC OK; load; warning and error states) Digital signal input and output (DI/DO)
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Communication

Communication interface, can be used with WAGO USB Communication Cable (750-923) or WAGO IO-Link Communication Module (2789-9080)

Efficiency/Power losses:

Power loss P_l	$\leq 1,3 \text{ W}$ (Stand-by); $\leq 2,6 \text{ W}$ (No load); $\leq 24 \text{ W}$ (230 VAC; Nominal load)
Efficiency (typ.)	95,4 % (230 VAC; 20 ADC; 25 °C)

Fuse protection:

Internal fuse	T 10 A / 250 VAC
External fuse (required)	An external DC fuse is required for the DC input voltage.
External fuse (recommended)	16 A (for USA/Canada: 15 A)

Safety and protection:

Insulation voltage (SEC-GND)	DC 0,5 kV
Insulation voltage (SEC-Signal)	DC 0,5 kV
Protection class	I
Protection class	IP20 (per EN 60529)
Feedback voltage	$\leq \text{DC } 35 \text{ V}$
Overvoltage category	III ($\leq 2000 \text{ m a. s.l.}$); II ($> 2000 \text{ m a. s.l.}$)
Transient protection, primary	Yes
Overvoltage protection, secondary	Internal protective circuit $\leq 35 \text{ VDC}$ (in the event of a fault)
Short circuit protection	Yes
No-load proof	Yes
Parallel operation	Yes
Series connection	Yes
MTBF	$> 800,000 \text{ h}$ (per IEC 61709)

Connection data

Connection type (1)	Input/Signaling
Connection technology	CAGE CLAMP®
WAGO terminal	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 ferrule with plastic collar	0,25 ... 1,5 mm ² / 20 ... 16 AWG

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Fine-stranded conductor with ferrule without plastic collar	0,25 ... 2,5 mm ² / 20 ... 14 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch
Connection type (2)	Output
Connection technology 2	Push-in CAGE CLAMP®
WAGO terminal 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 inch

Geometrical Data

Width	70 mm / 2.756 inch
Height	130 mm / 5.118 inch
Length from upper-edge of DIN-35 rail	130 mm / 5.118 inch
Note on dimensions	Height without connector Height with connector: 169 mm

Mechanical data

Type of mounting	DIN-35 rail (EN 60715)
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Material Data

Weight	1450 g
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Environmental Requirements

Surrounding air (operating) temperature	-25 ... 70 °C (Device starts at -40 °C (type-tested))
Surrounding air (storage) temperature	-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)
Pollution degree	2
Climatic category	3K3 (per EN 60721)
Max. operating altitude	5000 m

Standards and specifications

Conformity marking	CE
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Standards/specifications

EN 61010-1; EN 61010-2-201; EN 61204-3; UL 61010-1; UL 61010-2-201

Commercial data

Packaging type	BOX
Country of origin	CN
GTIN	4055143878364
Customs Tariff No.	85044082900

Approvals / Certificates

UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL Underwriters Laboratories Inc.	UL 61010-2-201	E255817

Counterpart

Compatible products

Marking accessories

	Item no.: 2009-110 Marking strips; on reel; not stretchable; plain; snap-on type; white	www.wago.com/2009-110
	Item no.: 2009-115 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white	www.wago.com/2009-115
	Item no.: 2009-115/000-002 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow	www.wago.com/2009-115/000-002
	Item no.: 2009-115/000-006 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue	www.wago.com/2009-115/000-006
	Item no.: 2009-115/000-007 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray	www.wago.com/2009-115/000-007

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	Item no.: 2009-115/000-012 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange	www.wago.com/2009-115/000-012
	Item no.: 2009-115/000-017 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; light green	www.wago.com/2009-115/000-017
	Item no.: 2009-115/000-023 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green	www.wago.com/2009-115/000-023
	Item no.: 2009-115/000-024 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet	www.wago.com/2009-115/000-024

General accessories

	Item no.: 2789-9080 Communication module; IO-Link; communication capability	www.wago.com/2789-9080
	Item no.: 750-923 Configuration cable; USB connector; Length: 2.5 m; black	www.wago.com/750-923
	Item no.: 750-923/000-001 Configuration cable; USB connector; Length: 5 m	www.wago.com/750-923/000-001

ferrule

	Item no.: 216-201 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; white	www.wago.com/216-201
	Item no.: 216-202 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray	www.wago.com/216-202
	Item no.: 216-203 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red	www.wago.com/216-203
	Item no.: 216-204 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; black	www.wago.com/216-204
	Item no.: 216-205 Ferrule; Sleeve for 2.08 mm ² / AWG 14; insulated; electro-tin plated; yellow	www.wago.com/216-205
	Item no.: 216-206 Ferrule; Sleeve for 2.5 mm ² / AWG 14; insulated; electro-tin plated; blue	www.wago.com/216-206
	Item no.: 216-207 Ferrule; Sleeve for 4 mm ² / AWG 12; insulated; electro-tin plated; gray	www.wago.com/216-207
	Item no.: 216-208 Ferrule; Sleeve for 6 mm ² / AWG 10; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; yellow	www.wago.com/216-208

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	Item no.: 216-221 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; white	www.wago.com/216-221
	Item no.: 216-222 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray	www.wago.com/216-222
	Item no.: 216-223 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red	www.wago.com/216-223
	Item no.: 216-224 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; black	www.wago.com/216-224
	Item no.: 216-241 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white	www.wago.com/216-241
	Item no.: 216-242 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray	www.wago.com/216-242
	Item no.: 216-243 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red	www.wago.com/216-243
	Item no.: 216-244 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black	www.wago.com/216-244
	Item no.: 216-246 Ferrule; Sleeve for 2.5 mm ² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue	www.wago.com/216-246
	Item no.: 216-262 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray	www.wago.com/216-262
	Item no.: 216-263 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red	www.wago.com/216-263
	Item no.: 216-264 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black	www.wago.com/216-264
	Item no.: 216-266 Ferrule; Sleeve for 2.5 mm ² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue	www.wago.com/216-266
	Item no.: 216-267 Ferrule; Sleeve for 4 mm ² / AWG 12; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray	www.wago.com/216-267
	Item no.: 216-284 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black	www.wago.com/216-284
	Item no.: 216-286 Ferrule; Sleeve for 2.5 mm ² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue	www.wago.com/216-286
	Item no.: 216-287	

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Ferrule; Sleeve for 4 mm² / AWG 12; insulated; electro-tin plated; electrolytic copper; gastight crimped; www.wago.com/216-287
acc. to DIN 46228, Part 4/09.90; gray

Item no.: 216-301

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

www.wago.com/216-301

**Item no.: 216-302**

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

www.wago.com/216-302

Item no.: 216-321

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

www.wago.com/216-321

**Item no.: 216-322**

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

www.wago.com/216-322

tools**Item no.: 210-720**

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft

www.wago.com/210-720

**Item no.: 210-721**

Operating tool; Blade: 5.5 x 0.8 mm; with a partially insulated shaft

www.wago.com/210-721

Downloads**Documentation****Instruction Leaflet**

WAGO Stromversorgung Pro 2
1-phasig; DC 24 V / 20 A

V 1.0.0
09-Sep-2019

pdf
4.4 MB

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Additional Information

Disposal; Electrical and electronic equipment, Packaging

V 1.0.0

pdf
265.8 kB

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Engineering-Software**Software for Interface-Products**

WAGO Interface Configuration Software G2 FULL

The full setup, in addition to the WAGO Interface Configuration Software G2, includes the installation for the Microsoft .NET Framework.

1.0.1.29
26-Aug-2019

exe
97.4 MB

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WAGO Interface Configuration Software G2 SMALL

The full setup only includes the WAGO Interface Configuration Software G2.

1.0.1.29
26-Aug-2019

exe
13.4 MB

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Runtime Software

Firmware

Firmware: 2787-2147 Power supply; Pro 2; 1-phase; 24 VDC output voltage; 20 A output current; TopBoost + PowerBoost; communication capability	V010204 09-Oct-2019	zip 87.1 kB	Download
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CAD/CAE-Data

CAE data

EPLAN Data Portal 2787-2147	URL	Download
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Device Files

Device Description File

Device description files 2787-2147	1.1 17-Sep-2019	zip 91.4 kB	Download
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Installation Notes

Product family

Pro 2

[Show all products from the family](#)

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