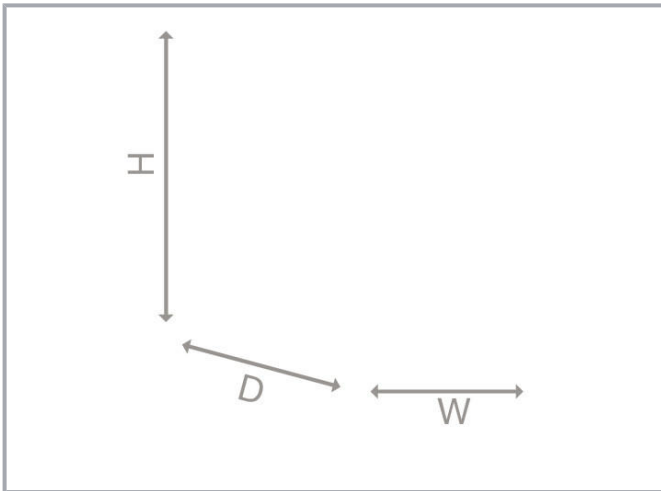
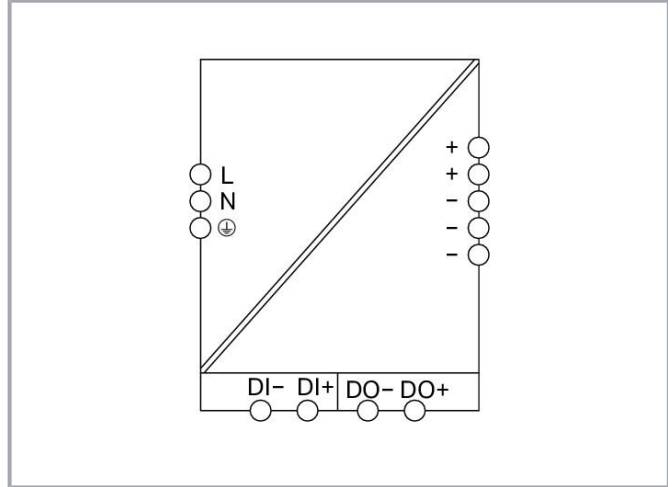


## Data sheet | Item number: 2787-2147

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



[www.wago.com/2787-2147](http://www.wago.com/2787-2147)



### 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 or Modbus RTU
- Suitable for both parallel and series operation
- Natural convection cooling when horizontally mounted

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

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Do you have any questions about our products?  
We are always happy to take your call at 01788 568 008.



- 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 $U_{i\text{ nom}}$	1 x AC 100 ... 240 V
Input voltage range	AC 90 ... 264 V; DC 130 ... 240 V
Nominal mains frequency range	47 ... 63 Hz; 0 Hz
Input current $I_i$	$\leq 2.2$ A (240 VAC; Nominal load); $\leq 5.9$ A (100 VAC; Nominal load)
Inrush current	$\leq 12$ A (after 1 ms)
Power factor	$\geq 0.98$ (240 VAC)
Power factor correction (PFC)	Active
Mains failure hold-up time	$\geq 24$ 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
Control deviation	$\leq 1$ %
Residual ripple	$\leq 70$ 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)
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Subject to changes. Please also observe the further product documentation!



## Communication

Communication interface, can be used with WAGO USB Communication Cable (750-923) or IO-Link Communication Module (2789-9080) or Modbus RTU Communication Module (2789-9015)

## Efficiency/power losses

Power loss $P_l$	$\leq 1.3$ W (Standby); $\leq 2.6$ W (No load); $\leq 24$ W (230 VAC; Nominal load)
Efficiency (typ.)	95.4 % (230 VAC; 20 A; 25 °C)

## Circuit protection

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

## Safety and protection

Isolation voltage (pri.-sec., AC)	3,510 V
Isolation voltage (pri.-GND, AC)	2,200 V
Isolation voltage (Sec.-GND)	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 ( $\leq 2000$ m a. s.I.); II ( $> 2000$ m a. s.I.)
Pollution degree	2
Transient suppression (primary)	Yes
Overvoltage protection; secondary	Internal protective circuit $\leq 35$ 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 type (1)	Input/Signaling
Connection technology	CAGE CLAMP®
WAGO Connector	WAGO 721 Series

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



Solid conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm <sup>2</sup> / 20 ... 14 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch
Connection type 2	Output
Connection technology 2	Push-in CAGE CLAMP®
Solid conductor 2	0.5 ... 10 mm <sup>2</sup> / 20 ... 8 AWG
Fine-stranded conductor 2	0.5 ... 10 mm <sup>2</sup> / 20 ... 8 AWG
Fine-stranded conductor; with insulated ferrule 2	0.5 ... 6 mm <sup>2</sup> /
Fine-stranded conductor; with uninsulated ferrule 2	0.5 ... 6 mm <sup>2</sup> /
Strip length 2	13 ... 15 mm / 0.51 ... 0.59 inch

### Physical data

Width	70 mm / 2.756 inch
Height	130 mm / 5.118 inch
Depth from upper edge of DIN-rail	130 mm / 5.118 inch
Note (dimensions)	Height without connector Height with connector: 169 mm

### Mechanical data

Mounting type	DIN-35 rail
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### Material data

Weight	1450 g
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### Environmental requirements

Surrounding air temperature (operation)	-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 (> +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)
Climatic category	3K3 (per EN 60721)
Operating altitude (max.)	5000 m

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

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## 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

Packaging type	box
Country of origin	CN
Customs tariff number	85044082900



## Approvals / Certificates

### UL-Approvals




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

## Optional accessories

















### Marking accessories

	<b>Item no.: 2009-110</b> Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white	<a href="http://www.wago.com/2009-110">www.wago.com/2009-110</a>
	<b>Item no.: 2009-115</b> WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white	<a href="http://www.wago.com/2009-115">www.wago.com/2009-115</a>
















### Ferrule

	<b>Item no.: 216-201</b> Ferrule; Sleeve for 0.5 mm <sup>2</sup> / 20 AWG; insulated; electro-tin plated; white	<a href="http://www.wago.com/216-201">www.wago.com/216-201</a>
	<b>Item no.: 216-202</b> Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray	<a href="http://www.wago.com/216-202">www.wago.com/216-202</a>
	<b>Item no.: 216-203</b> Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated; red	<a href="http://www.wago.com/216-203">www.wago.com/216-203</a>

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

	<b>Item no.: 216-204</b> Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated; black	<a href="http://www.wago.com/216-204">www.wago.com/216-204</a>
	<b>Item no.: 216-205</b> Ferrule; Sleeve for 2.08 mm <sup>2</sup> / AWG 14; insulated; electro-tin plated; yellow	<a href="http://www.wago.com/216-205">www.wago.com/216-205</a>
	<b>Item no.: 216-206</b> Ferrule; Sleeve for 2.5 mm <sup>2</sup> / AWG 14; insulated; electro-tin plated; blue	<a href="http://www.wago.com/216-206">www.wago.com/216-206</a>
	<b>Item no.: 216-207</b> Ferrule; Sleeve for 4 mm <sup>2</sup> / AWG 12; insulated; electro-tin plated; gray	<a href="http://www.wago.com/216-207">www.wago.com/216-207</a>
	<b>Item no.: 216-208</b> Ferrule; Sleeve for 6 mm <sup>2</sup> / AWG 10; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; yellow	<a href="http://www.wago.com/216-208">www.wago.com/216-208</a>
	<b>Item no.: 216-221</b> Ferrule; Sleeve for 0.5 mm <sup>2</sup> / 20 AWG; insulated; electro-tin plated; white	<a href="http://www.wago.com/216-221">www.wago.com/216-221</a>
	<b>Item no.: 216-222</b> Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray	<a href="http://www.wago.com/216-222">www.wago.com/216-222</a>
	<b>Item no.: 216-223</b> Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated; red	<a href="http://www.wago.com/216-223">www.wago.com/216-223</a>
	<b>Item no.: 216-224</b> Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated; black	<a href="http://www.wago.com/216-224">www.wago.com/216-224</a>
	<b>Item no.: 216-241</b> Ferrule; Sleeve for 0.5 mm <sup>2</sup> / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white	<a href="http://www.wago.com/216-241">www.wago.com/216-241</a>
	<b>Item no.: 216-242</b> Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray	<a href="http://www.wago.com/216-242">www.wago.com/216-242</a>
	<b>Item no.: 216-243</b> Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red	<a href="http://www.wago.com/216-243">www.wago.com/216-243</a>
	<b>Item no.: 216-244</b> Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black	<a href="http://www.wago.com/216-244">www.wago.com/216-244</a>
	<b>Item no.: 216-246</b> Ferrule; Sleeve for 2.5 mm <sup>2</sup> / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue	<a href="http://www.wago.com/216-246">www.wago.com/216-246</a>
	<b>Item no.: 216-262</b> Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray	<a href="http://www.wago.com/216-262">www.wago.com/216-262</a>
	<b>Item no.: 216-263</b> Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red	<a href="http://www.wago.com/216-263">www.wago.com/216-263</a>
	<b>Item no.: 216-264</b> Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black	<a href="http://www.wago.com/216-264">www.wago.com/216-264</a>

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

	<p><b>Item no.: 216-266</b>                      Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue</p>	<a href="http://www.wago.com/216-266">www.wago.com/216-266</a>
	<p><b>Item no.: 216-267</b>                      Ferrule; Sleeve for 4 mm<sup>2</sup> / AWG 12; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray</p>	<a href="http://www.wago.com/216-267">www.wago.com/216-267</a>
	<p><b>Item no.: 216-284</b>                      Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black</p>	<a href="http://www.wago.com/216-284">www.wago.com/216-284</a>
	<p><b>Item no.: 216-286</b>                      Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue</p>	<a href="http://www.wago.com/216-286">www.wago.com/216-286</a>
	<p><b>Item no.: 216-287</b>                      Ferrule; Sleeve for 4 mm<sup>2</sup> / AWG 12; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray</p>	<a href="http://www.wago.com/216-287">www.wago.com/216-287</a>
	<p><b>Item no.: 216-301</b>                      Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow</p>	<a href="http://www.wago.com/216-301">www.wago.com/216-301</a>
	<p><b>Item no.: 216-302</b>                      Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; green</p>	<a href="http://www.wago.com/216-302">www.wago.com/216-302</a>
	<p><b>Item no.: 216-321</b>                      Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow</p>	<a href="http://www.wago.com/216-321">www.wago.com/216-321</a>
	<p><b>Item no.: 216-322</b>                      Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; green</p>	<a href="http://www.wago.com/216-322">www.wago.com/216-322</a>
<b>General accessories</b>		
	<p><b>Item no.: 2789-9015</b>                      Communication module; Modbus RTU; RJ45; communication capability</p>	<a href="http://www.wago.com/2789-9015">www.wago.com/2789-9015</a>
	<p><b>Item no.: 2789-9080</b>                      Communication module; IO-Link; communication capability</p>	<a href="http://www.wago.com/2789-9080">www.wago.com/2789-9080</a>
<b>Cables and pluggable connectors</b>		
	<p><b>Item no.: 750-923</b>                      Configuration cable; USB connector; Length: 2.5 m</p>	<a href="http://www.wago.com/750-923">www.wago.com/750-923</a>
	<p><b>Item no.: 750-923/000-001</b>                      Configuration cable; USB connector; Length: 5 m</p>	<a href="http://www.wago.com/750-923/000-001">www.wago.com/750-923/000-001</a>
<b>Tool</b>		
	<p><b>Item no.: 210-720</b>                      Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured</p>	<a href="http://www.wago.com/210-720">www.wago.com/210-720</a>
	<p><b>Item no.: 210-721</b>                      Operating tool; Blade: 5.5 x 0.8 mm; with a partially insulated shaft; multicoloured</p>	<a href="http://www.wago.com/210-721">www.wago.com/210-721</a>

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## Downloads

### Documentation

#### Manual

Power supply; Pro 2; 1-phase; 24 VDC output voltage; 20 A output current TopBoost + PowerBoost; communication capability	V 1.1.0 28.01.2021	pdf 5.4 MB	Download
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#### Bid Text

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#### Instruction Leaflet

WAGO Stromversorgung Pro 2 1-phasig; DC 24 V / 20 A	V 1.1.0 26.04.2021	pdf 4.6 MB	Download
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#### Additional Information

Disposal; Electrical and electronic equipment, Packaging	V 1.0.0	pdf 265.8 kB	Download
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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.	1.0.6.18 08.04.2021	exe 113.9 MB	Download
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WAGO Interface Configuration Software G2 SMALL The full setup only includes the WAGO Interface Configuration Software G2.	1.0.6.18 08.04.2021	exe 30.0 MB	Download
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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	010513 23.04.2021	zip 1.1 MB	Download
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## CAD/CAE-Data

### CAE data

EPLAN Data Portal 2787-2147	URL	Download
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ZUKEN Portal 2787-2147	URL	Download
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### CAD data

2D/3D Models 2787-2147	URL	Download
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## Device Files

### Device Description File

Device description files 2787-2147	1.1 17.09.2019	zip 91.4 kB	Download
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## Environmental Product Compliance

### Compliance Search

Environmental Product Compliance 2787-2147 Power supply; Pro 2; 1-phase; 24 VDC output voltage; 20 A output current; TopBoost + PowerBoost; communication capability	URL	Download
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## Installation Notes

## Product family

**Pro 2**  
[Show all products from the family](#)

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