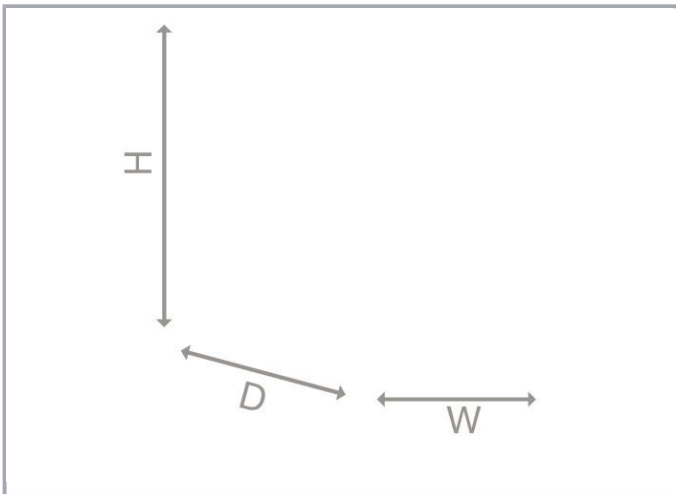
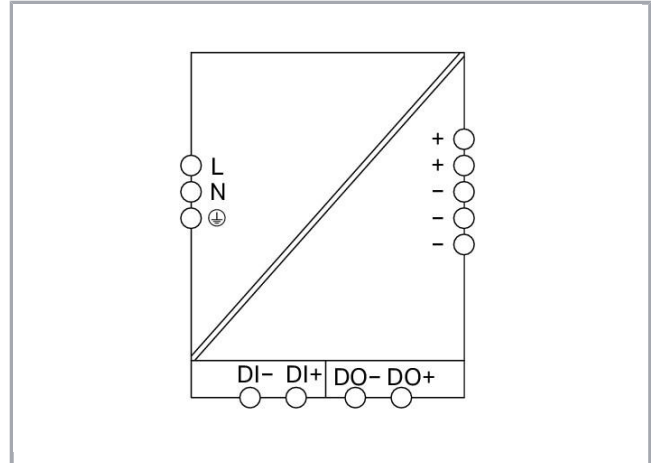


Data sheet | Item number: 2787-2147

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



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!



- 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	$\leq 2,2$ A (240 VAC; Nominal load); $\leq 5,9$ A (100 VAC; Nominal load)
Inrush current	≤ 12 A (after 1 ms)
Power factor	$\geq 0,98$ (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
Control 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)

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 WAGO IO-Link Communication Module (2789-9080)

Efficiency/Power losses:

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

Fuse 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:

Isolationsspannung (Pri.-Sek., AC)	3,510 V
Isolationsspannung (Pri.-PE, 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 (≤ 2000 m a. s.I.); II (> 2000 m a. s.I.)
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 type (1)	Input/Signaling
Connection technology	CAGE CLAMP®
WAGO Connector	WAGO 721 Series
Solid conductor	0,08 ... 2,5 mm ² / 28 ... 12 AWG

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



Fine-stranded conductor	0,08 ... 2,5 mm ² / 28 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0,25 ... 1,5 mm ² / 20 ... 16 AWG
Fine-stranded conductor; with uninsulated ferrule	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 Connector 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
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 (EN 60715)
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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)
Pollution degree	2
Climatic category	3K3 (per EN 60721)
Operating altitude (max.)	5000 m

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

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
GTIN	4055143878364
Customs tariff number	85044082900



Approvals / Certificates

UL-Approvals




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

Compatible products

tools








	Item no.: 210-720 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft
	Item no.: 210-721 Operating tool; Blade: 5.5 x 0.8 mm; with a partially insulated shaft

General accessories

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

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

Marking accessories

	Item no.: 2009-110 Marking strips; on reel; not stretchable; plain; snap-on type; white
	Item no.: 2009-115 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white
	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
	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
	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
	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
	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
	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
	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

ferrule

	Item no.: 216-201 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; white
	Item no.: 216-202 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray
	Item no.: 216-203 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red
	Item no.: 216-204 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; black
	Item no.: 216-205 Ferrule; Sleeve for 2.08 mm ² / AWG 14; insulated; electro-tin plated; yellow
	Item no.: 216-206 Ferrule; Sleeve for 2.5 mm ² / AWG 14; insulated; electro-tin plated; blue

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

**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**Item no.: 216-221**Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white**Item no.: 216-222**Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray**Item no.: 216-223**Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red**Item no.: 216-224**Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black**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.: 216-242**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.: 216-243**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.: 216-244**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.: 216-246**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.: 216-262**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.: 216-263**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.: 216-264**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.: 216-266**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.: 216-267**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.: 216-284**

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



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.: 216-286



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.: 216-287



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.: 216-301

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; green

Item no.: 216-321

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



Item no.: 216-322

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

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