

**Data sheet | Item number: 787-742**

Switched-mode power supply; Eco; 3-phase; 24 VDC output voltage; 20 A output current; DC OK contact

[www.wago.com/787-742](http://www.wago.com/787-742)



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

---

WAGO Kontakttechnik GmbH & Co. KG  
Hansastr. 27  
32423 Minden  
Phone: +49571 887-0 | Fax: +49571 887-169  
Email: [info.de@wago.com](mailto:info.de@wago.com) | Web: [www.wago.com](http://www.wago.com)

Do you have any questions about our products?  
We are always happy to take your call at +49 (571) 887-44222.



## Item description

### Features:

- Natural convection cooling when horizontally mounted
- Encapsulated for use in control cabinets
- Fast and tool-free termination via lever-actuated PCB terminal blocks
- Bounce-free switching signal (DC OK) via optocoupler
- Parallel operation
- Electrically isolated output voltage (SELV) per UL 60950-1; PELV per EN 60204

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

## Data

### Technical data

#### Input

Phases	2 / 3
Nominal input voltage $U_{i\text{nom}}$	(2 / 3) x AC 400 ... 500 V
Input voltage range	(2 / 3) x AC 360 ... 575 V; DC 500 ... 650 V
Nominal mains frequency range	47 ... 63 Hz; 0 Hz
Input current $I_i$	$\leq 3 \times 2 \text{ A}$ (400 VAC; 24 VDC / 20 ADC)
Ableitstrom	$\leq 3.5 \text{ mA}$
Inrush current	$\leq 30 \text{ A}$
Power factor	$\geq 0.5$
Power factor correction (PFC)	Passive
Mains failure hold-up time	$\geq 17 \text{ ms}$ (3 x 400 VAC)

#### Output

Nominal output voltage $U_{o\text{nom}}$	DC 24 V (SELV)
Output voltage range	DC 22 ... 28 V (adjustable)
Voreinstellung	DC 24 V
Nominal output current $I_{o\text{nom}}$	20 A (24 VDC)
Nominal output power	480 W
Regelabweichung	$\leq 1 \%$
Residual ripple	$\leq 100 \text{ mV}$ (peak-to-peak)
Overload behavior	Constant power (in overload range: $1.15 \dots 1.4 \times I_{o\text{nom}}$ ); Shutdown and automatic restart in the event of a short circuit

#### Signaling and communication

Signaling	1 x LED DC OK (green) 1 x Overload LED (red) 1 x DC OK signal output (optocoupler as make contact; max. 31.2 V; 20 mA)
Operation status indicator	Green LED ( $U_o$ ) Red LED (overload)

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

## Efficiency/power losses

Power loss $P_I$	$\leq 50 \text{ W}$
Power loss (max.) $P_{I(\max)}$	55 W
Efficiency (typ.)	90 %

## Circuit protection

Internal fuse	3 x T 5 A / 250 VAC
Required backup fusing	An external DC fuse is required for the DC input voltage.
Recommended backup fusing	3 x circuit breaker $\geq 6 \text{ A}$ ; Tripping characteristic: B or C Alternative: motor circuit breaker

## Safety and protection

Isolationsspannung (Pri.-Sek.)	DC 4.242 kV
Isolationsspannung (Pri.-PE)	DC 2.2 kV
Isolation voltage (sec.-PE)	DC 0.7 kV
Isolationsspannung (Sek.-Signal)	DC 0.7 kV
Protection class	I
Protection type	IP20
Note on protection type	Per EN 60529
Rückspeisungsfestigkeit	$\leq \text{DC } 30 \text{ V}$
Overvoltage category	II
Pollution degree	2
Transient suppression (primary)	Varistor
Short-circuit-protected	Yes
Open-circuit-proof	Yes
Parallel operation	Yes
Series operation	Yes
MTBF	$> 250,000 \text{ h}$ (per IEC 61709)

## Connection data

Connection type 1	Input/Output
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 2706 Series
Solid conductor	0.5 ... 6 mm <sup>2</sup> / 20 ... 10 AWG
Fine-stranded conductor	0.5 ... 6 mm <sup>2</sup> / 20 ... 10 AWG
Abisolierlänge	11 ... 12 mm / 0.43 ... 0.47 inches

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



Connection type 2	Signaling
Connection technology 2	Push-in CAGE CLAMP®
WAGO connector 2	<i>picoMAX</i> ® 3.5 (WAGO 2091 Series)
Solid conductor 2	0.2 ... 1.5 mm <sup>2</sup> / 24 ... 14 AWG
Fine-stranded conductor 2	0.2 ... 1.5 mm <sup>2</sup> / 24 ... 14 AWG
Abisolierlänge 2	8 ... 9 mm / 0.31 ... 0.35 inches

### Physical data

Width	110 mm / 4.331 inches
Height	130 mm / 5.118 inches
Depth from upper-edge of DIN-rail	151 mm / 5.944 inches

### Mechanical data

Mounting type	DIN-35 rail
---------------	-------------

### Material data

Weight	1930 g
--------	--------

### Environmental requirements

Ambient temperature (operation)	-25 ... +70 °C
Surrounding air temperature (storage)	-40 ... +85 °C
Relative humidity	10 ... 95 % (no condensation permissible)
Derating	-2 %/K (> 50 °C; 400 VAC)

### Standards and specifications

Conformity marking	CE
Standards/specifications	EN 62368-1 EN 61204-3 (Class A) UL 60950-1 UL 508

### Commercial data




Product Group	6 (Interface Electronics)
eCl@ss 10.0	27-04-07-01
eCl@ss 9.0	27-04-07-01
ETIM 8.0	EC002540

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

ETIM 7.0	EC002540
PU (SPU)	1 Stück
Packaging type	box
Country of origin VKOrg Germany	CN
GTIN	4050821848387
Customs tariff number VKOrg Germany	85044082900

## Approvals / Certificates

### General approvals

Logo	Approval	Additional Approval Text	Certificate name
	EAC Brjansker Zertifizierungsstelle	TP TC 004/2011, TP TC 020/2011	EAC RU C-DE.AM02.B.00089_19
	UL Underwriters Laboratories Inc.	UL 60950-1	E255815
	UL Underwriters Laboratories Inc.	UL 508	E255817

## Compatible products

### Tool

Operating tool	
Item no.: 210-719 Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft	<a href="http://www.wago.com/210-719">www.wago.com/210-719</a>
Item no.: 210-769 SCREWDRIVER; green	<a href="http://www.wago.com/210-769">www.wago.com/210-769</a>

### Ferrule

Ferrule	
Item no.: 216-203 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>
Item no.: 216-206 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>
Item no.: 216-202 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>

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.: 216-208</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.: 216-201</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.: 216-223</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.: 216-241</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.: 216-222</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.: 216-221</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.: 216-224</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.: 216-243</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.: 216-263</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.: 216-246</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.: 216-266</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	<a href="http://www.wago.com/216-266">www.wago.com/216-266</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>
<b>Item no.: 216-284</b> Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight	<a href="http://www.wago.com/216-284">www.wago.com/216-284</a>

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

crimped; acc. to DIN 46228, Part 4/09.90; black

**Item no.: 216-286**

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

[www.wago.com/216-286](http://www.wago.com/216-286)

**Item no.: 216-287**

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

[www.wago.com/216-287](http://www.wago.com/216-287)

**Item no.: 216-262**

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

[www.wago.com/216-262](http://www.wago.com/216-262)

**Item no.: 216-288**

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

[www.wago.com/216-288](http://www.wago.com/216-288)

**Item no.: 216-301**

Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow

[www.wago.com/216-301](http://www.wago.com/216-301)

**Item no.: 216-267**

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

[www.wago.com/216-267](http://www.wago.com/216-267)

**Item no.: 216-302**

Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise

[www.wago.com/216-302](http://www.wago.com/216-302)

**Downloads****Documentation****Bid Text**

787-742 X81 - Datei	2019 Jul 12	xml 7.4 kB	Download
787-742 docx - Datei	2019 Jul 12	docx 23.7 kB	Download

**Instruction Leaflet**

Primary Switch Mode Power Supply ECO-Power DC 24 V, 20 A	V 1.5.6 2020 Dec 21	pdf 271.3 kB	Download
---	------------------------	-----------------	----------

**Additional Information**

Disposal and Recycling Electrical and electronic equipment, Batteries, Packaging	V 1.1.0 2022 Aug 18	pdf 2.2 MB	Download
---	------------------------	---------------	----------

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





## CAD/CAE-Data

### CAD data

<a href="#">2D/3D Models 787-742</a>	<a href="#">URL</a>	<a href="#">Download</a>
--------------------------------------	---------------------	--------------------------

---

### CAE data

<a href="#">EPLAN Data Portal 787-742</a>	<a href="#">URL</a>	<a href="#">Download</a>
---	---------------------	--------------------------

---

<a href="#">WSCAD Universe 787-742</a>	<a href="#">URL</a>	<a href="#">Download</a>
--	---------------------	--------------------------

---

<a href="#">ZUKEN Portal 787-742</a>	<a href="#">URL</a>	<a href="#">Download</a>
--------------------------------------	---------------------	--------------------------

---

## Environmental Product Compliance

### Compliance Search

<a href="#">Environmental Product Compliance 787-742</a>	<a href="#">URL</a>	<a href="#">Download</a>
--	---------------------	--------------------------

Switched-mode power supply; Eco; 3-phase; 24 VDC output voltage; 20 A output current; DC OK contact

---

## Installation Notes

### Product family

[EPSITRON ECO Power](#)  
[Show all products from the family](#)

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