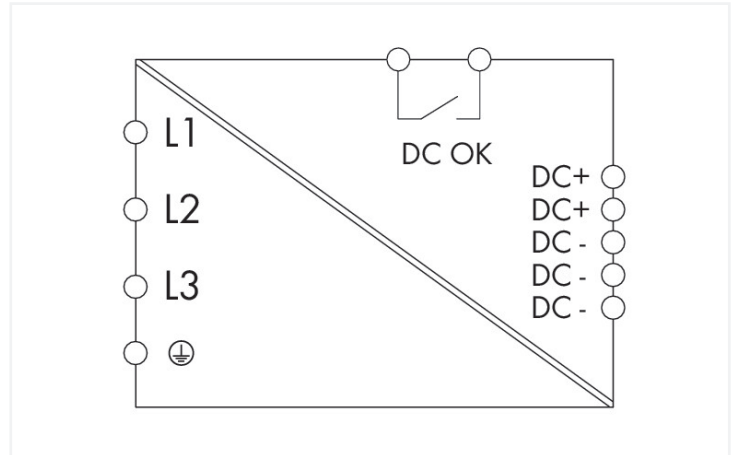


Data Sheet | Item Number: 787-742

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

<https://www.wago.com/787-742>



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

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 A)
Discharge current	$\leq 3.5 \text{ mA}$
Inrush current	$\leq 30 \text{ A}$
Power factor	≥ 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)
Default setting	DC 24 V
Nominal output current $I_{o\text{nom}}$	20 A (24 VDC)
Nominal output power	480 W
Deviation	$\leq 1 \%$
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)

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

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

Safety and protection

Isolation voltage (pri.-sec.)	DC 4.242 kV
Isolation voltage (pri.-PE)	DC 2.2 kV
Isolation voltage (sec.-PE)	DC 0.7 kV
Isolation voltage (sec.-signal)	DC 0.7 kV
Protection class	I
Protection type	IP20; per EN 60529
Resistance to reverse feed	≤ DC 30 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 h (per IEC 61709)

Connection data

Connection type 1	Input/output
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 2706 Series
Solid conductor	0.5 ... 6 mm ² / 20 ... 10 AWG
Fine-stranded conductor	0.5 ... 6 mm ² / 20 ... 10 AWG
Strip length	11 ... 12 mm / 0.43 ... 0.47 inches
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 ² / 24 ... 14 AWG
Fine-stranded conductor 2	0.2 ... 1.5 mm ² / 24 ... 14 AWG
Strip length 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
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Material data

Fire load	0 MJ
Weight	1930 g

Environmental requirements

Ambient temperature (operation)	-25 ... +70 °C
Ambient 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 SEMI F47

Commercial data

Product Group	6 (INTERFACE ELECTRONIC)
eCl@ss 10.0	27-04-07-01
eCl@ss 9.0	27-04-07-01
ETIM 8.0	EC002540
ETIM 7.0	EC002540
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	CN
GTIN	4050821848387
Customs tariff number	85044083900

Environmental Product Compliance

RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II
SCIP notification number (Bulgaria)	580705db-f9c1-4986-b762-ea0b9541d3b8
SCIP notification number (Czech Republic)	f4d1cfe3-5091-4c22-8601-3b9986e3bea0

Approvals / Certificates

General approvals **Declarations of conformity and manufacturer's declarations**

			<table border="1"> <thead> <tr> <th>Approval</th> <th>Standard</th> <th>Certificate Name</th> <th>Approval</th> <th>Standard</th> <th>Certificate Name</th> </tr> </thead> <tbody> <tr> <td>EAC Brjansker Zertifizierungs- stelle</td> <td>TP TC 004/2011,TP TC 020/2011</td> <td>EAC RU C-DE.AM02. B.00089_19</td> <td>EU-Declaration of Confor- mity WAGO GmbH & Co. KG</td> <td>-</td> <td>-</td> </tr> <tr> <td>UL Underwriters Laboratories Inc.</td> <td>UL 508</td> <td>E255817</td> <td></td> <td></td> <td></td> </tr> <tr> <td>UL Underwriters Laboratories Inc.</td> <td>UL 60950-1</td> <td>E255815</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>			Approval	Standard	Certificate Name	Approval	Standard	Certificate Name	EAC Brjansker Zertifizierungs- stelle	TP TC 004/2011,TP TC 020/2011	EAC RU C-DE.AM02. B.00089_19	EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-	UL Underwriters Laboratories Inc.	UL 508	E255817				UL Underwriters Laboratories Inc.	UL 60950-1	E255815			
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Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 787-742

Documentation

Bid Text			
787-742	12.07.2019	xml 7.25 KB	
787-742	12.07.2019	docx 23.19 KB	

Instruction Leaflet			
Primary Switch Mode Power Supply ECO-Power	V 1.5.6 21.12.2020	pdf 264.97 KB	

CAD/CAE-Data

CAD data	
2D/3D Models 787-742	

CAE data	
EPLAN Data Portal 787-742	
WSCAD Universe 787-742	
ZUKEN Portal 787-742	

1 Compatible Products

1.1 Optional Accessories

1.1.1 Ferrule

1.1.1.1 Ferrule

 Item No.: 216-301 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated; yellow	 Item No.: 216-302 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated; light turquoise	 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	 Item No.: 216-201 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; white
 Item No.: 216-221 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; white	 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	 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	 Item No.: 216-202 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray
 Item No.: 216-222 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray	 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	 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	 Item No.: 216-203 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red
 Item No.: 216-223 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.: 216-224 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; black	 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

1.1.1.1 Ferrule



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

Item No.: 216-288

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

1.1.2 Tool

1.1.2.1 Operating tool



Item No.: 210-719

Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

Item No.: 210-769

SCREWDRIVER; green