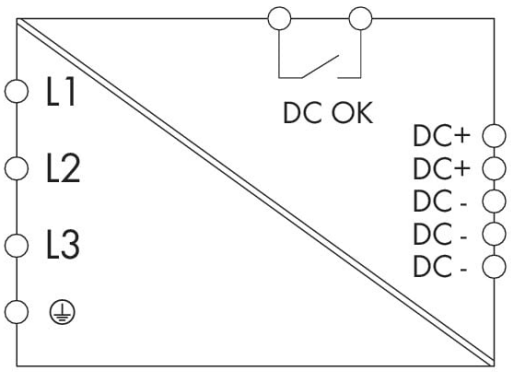
Data Sheet | Item Number: 787-738

Switched-mode power supply; Eco; 3-phase; 24 VDC output voltage; 6.25 A output current; DC OK contact

https://www.wago.com/787-738



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 $U_{i\,nom}$	(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	≤ 3 x 0.6 A (400 VAC; 24 VDC / 6.25 A)
Discharge current	≤ 3.5 mA
Inrush current	≤ 25 A
Power factor	≥ 0.5
Power factor correction (PFC)	passive
Mains failure hold-up time	≥ 17 ms (3 x 400 VAC)

Output

Nominal output voltage $U_{o\,nom}$	DC 24 V (SELV)
Output voltage range	DC 22 … 28 V (adjustable)
Default setting	DC 24 V
Nominal output current $I_{o\,nom}$	6.25 A (24 VDC)
Nominal output power	150 W
Deviation	≤ 1 %
Residual ripple	≤ 100 mV (peak-to-peak)
Overload behavior	Constant power (in overload range: 1.15 … 1.4 x $I_{o\,nom}$); 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_l	≤ 18.5 W
Power loss (max.) $P_{l\,(max.)}$	20 W
Efficiency (typ.)	87 %

Circuit protection

Internal fuse	3 x T 2 A / 250 VAC
Backup fusing (required)	An external DC fuse is required for the DC input voltage.
Backup fusing (recommended)	3 x Circuit breaker ≥ 6 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 mm² / 20 … 10 AWG
Fine-stranded conductor	0.5 … 6 mm² / 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	*picoMAX*® 3.5 (WAGO 2091 Series)
Solid conductor 2	0.2 … 1.5 mm² / 24 … 14 AWG
Fine-stranded conductor 2	0.2 … 1.5 mm² / 24 … 14 AWG
Strip length 2	8 … 9 mm / 0.31 … 0.35 inches

Physical data

Width	50 mm / 1.969 inches
Height	130 mm / 5.118 inches
Depth from upper-edge of DIN-rail	92 mm / 3.622 inches

Mechanical data

Mounting type	DIN-35 rail

Material data

Fire load	0 MJ
Weight	844 g

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Environmental requirements

Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	10 … 95 % (no condensation permissible)
Derating	-2.5 %/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

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	4050821847861
Customs tariff number	85044083900

Approvals / Certificates

General approvals

Approval	Standard	Certificate Name
EAC Brjansker Zertifizierungs-stelle	TP TC 004/2011,TP TC 020/2011	EAC RU C-DE.AM02.B.00089_19
UL Underwriters Laboratories Inc.	UL 508	E255817
UL Underwriters Laboratories Inc.	UL 60950-1	E255815

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 787-738

Documentation

 Continued on next page

Bid Text			
787-738	12.07.2019	xml 7.26 KB	
787-738	12.07.2019	docx 23.13 KB	

Instruction Leaflet			
Primary Switch Mode Power Supply ECO-Power	V 1.3.5 21.12.2020	pdf 280.65 KB	

CAD/CAE-Data

CAD data
2D/3D Models 787-738

CAE data
EPLAN Data Portal 787-738
WSCAD Universe 787-738
ZUKEN Portal 787-738

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 mm² / AWG 24; insulated; electro-tin plated; yellow

Item No.: 216-302
Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise

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.: 216-201
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white

Item No.: 216-221
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; 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.: 216-262
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.: 216-202
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray

Item No.: 216-222
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; 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.: 216-263
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.: 216-203
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red

Item No.: 216-223
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red

Item No.: 216-204
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black

Item No.: 216-224
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black

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.: 216-264
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

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1.1.1.1 Ferrule

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