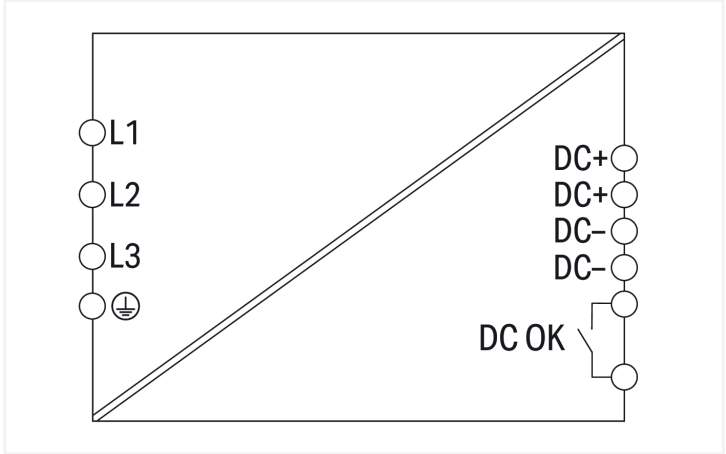




Features:

- Switched-mode power supply with TopBoost, enabling secondary-side protection via circuit breakers
- Natural convection cooling when horizontally mounted
- Encapsulated for use in control cabinets
- DC OK contact
- Suitable for both parallel and series operation
- Electrically isolated output voltage (SELV) per UL 60950-1; PELV per EN 60204

Technical data

Input		Output	
Phases	2 / 3	Nominal output voltage $U_{o\ nom}$	24 VDC (SELV)
Nominal input voltage $U_{i\ nom}$	(2 / 3) x 400 ... 500 VAC	Output voltage range	23 ... 28.5 VDC (adjustable)
Input voltage range	(2 / 3) x 320 ... 575 VAC; 450 ... 800 VDC	Default Setting	DC 24 V
Nominal mains frequency range	47 ... 63 Hz; 0 Hz	Nominal output current $I_{o\ nom}$	20 A (24 VDC)
Input current I_i	$\leq 3 \times 1.21\ A$ (400 VAC); $\leq 3 \times 1.03\ A$ (500 VAC)	Nominal output power	480 W
Discharge current	$\leq 1\ mA$	Deviation	$\leq 1\ \%$
Inrush current	$\leq 30\ A$ (NTC)	Residual ripple	$\leq 15\ mV$ (peak-to-peak)
Power factor correction (PFC)	Passive	Current limitation	$1.1 \times I_{o\ nom}$ (typ.)
Mains failure hold-up time	$\geq 25\ ms$ (500 VAC); $\geq 15\ ms$ (400 VAC)	Overload behavior	Constant current

Signaling and communication	
Signaling	1 x LED DC OK (green) 1 x DC OK contact (make contact; max. 30 VAC/DC; 1 A)
Operation status indicator	Green LED (U_o)

Efficiency/power losses	
Power loss P_i	$\leq 5.8\ W$; $\leq 42.8\ W$ (400 VAC; nominal load)
Power loss (max.) $P_{i\ (max.)}$	47.6 W (500 VAC / 24 VDC; 20 A)
Efficiency (typ.)	92 %

Circuit protection	
Internal fuse	No
Backup fusing (required)	3 x Circuit breaker: 6 A, 10 A, 16 A; Tripping characteristic: B or C, 20 A (max.) Alternative: motor circuit breaker An external DC fuse is required for the DC input voltage.



Safety and protection	
Isolation voltage (pri.-sec.)	DC 4.242 kV
Isolation voltage (pri.-PE)	DC 2.2 kV
Isolation voltage (sec.-PE)	0.7 kVDC
Protection class	I
Protection type	IP20; per EN 60529
Resistance to reverse feed	≤ 35 VDC
Overvoltage category	II
Pollution degree	2
Transient suppression (primary)	Varistor
Overvoltage protection; secondary	Internal protective circuit ≤ 40 VDC (in the event of a fault)
Short-circuit-protected	Yes
Open-circuit-proof	Yes
Parallel operation	Yes
Series operation	Yes
MTBF	> 500,000 h (per IEC 61709)

Connection data			
Connection 1		Connection 2	
Connection type	Input/signaling	Connection type	Output
Connection technology	CAGE CLAMP®	Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 721 Series	WAGO connector	WAGO 831 Series
Solid conductor	0.08 ... 2.5 mm² / 28 ... 12 AWG	Solid conductor	0.5 ... 10 mm² / 20 ... 8 AWG
Fine-stranded conductor	0.08 ... 2.5 mm² / 28 ... 12 AWG	Fine-stranded conductor	0.5 ... 10 mm² / 20 ... 8 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 inches	Strip length	13 ... 15 mm / 0.51 ... 0.59 inches

Physical data	
Width	80 mm / 3.15 inches
Height	127 mm / 5 inches
Depth from upper-edge of DIN-rail	180 mm / 7.087 inches

Mechanical data	
Mounting type	DIN-35 rail

Material data	
Fire load	1.076 MJ
Weight	1623 g

Environmental requirements	
Ambient temperature (operation)	-25 ... +70 °C (device starts at -40 °C (type-tested))
Ambient temperature (storage)	-25 ... +85 °C
Relative humidity	5 ... 96 % (no condensation permissible)
Derating	-2.5 %/K (> 55 °C)



Standards and specifications	
Conformity marking	CE
Standards/specifications	EN 61010-1 EN 61010-2-201 EN 61204-3 UL 60950-1 UL 508 DNV SEMI F47

Commercial data	
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4055143259170
Customs tariff number	85044083900

Product classification	
UNSPSC	39121004
eCl@ss 10.0	27-04-07-01
eCl@ss 9.0	27-04-07-01
ETIM 9.0	EC002540
ETIM 8.0	EC002540
ECCN	NO US CLASSIFICATION

Environmental Product Compliance	
RoHS Compliance Status	Compliant, No Exemption

Approvals / Certificates		
General approvals		Declarations of conformity and manufacturer's declarations
 		
Approval	Standard	Certificate Name
UL Underwriters Laboratories Inc.	UL 508	E255817
UR Underwriters Laboratories Inc.	UL 60950-1	E255815

Approval	Standard	Certificate Name
MFD for SEMI F47 WAGO GmbH & Co. KG	-	-

Approvals for marine applications		
		
Approval	Standard	Certificate Name
DNV DNV Germany GmbH	DNV-CG-0339, Aug. 2021	TAA00000KT



Downloads

Environmental Product Compliance

Compliance Search			
Environmental Product Compliance 787-1642			

Documentation

Bid Text			
787-1642	04.07.2019	xml 7.37 KB	
787-1642	13.06.2019	docx 21.61 KB	

Instruction Leaflet			
Primär getaktete Stromversorgungen CLASSIC		pdf 166.24 KB	

CAD/CAE-Data

CAD data			
2D/3D Models 787-1642			

CAE data			
EPLAN Data Portal 787-1642			
WSCAD Universe 787-1642			
ZUKEN Portal 787-1642			

Engineering-Software

Configuration and Commissioning Software			
WAGO Line Length Calculation	1.3.5 09.12.2019	exe 329.50 KB	

1 Compatible Products

1.1 Optional Accessories

1.1.1 Marking

1.1.1.1 Marker



Item No.: 2009-145

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white



Item No.: 248-501

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white



Item No.: 793-5501

WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; white



Item No.: 793-501

WMB marking card; as card; 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



1.1.1.2 Marking strip



Item No.: 2009-110
Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white



Item No.: 210-831
Marking strips; on reel; 2.3 mm wide; plain; Self-adhesive; white



Item No.: 210-832
Marking strips; on reel; 3 mm wide; plain; Self-adhesive; white

1.1.2 Mounting adapter

1.1.2.1 DIN-rail adapter



Item No.: 787-897/000-010
Carrier rail adapter made of zinc die-cast; horizontal mounting of 787-16xx (TS35)

1.1.3 Tool

1.1.3.1 Operating tool



Item No.: 210-720
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured



Item No.: 210-721
Operating tool; Blade: 5.5 x 0.8 mm; with a partially insulated shaft; multicoloured



Item No.: 210-769
SCREWDRIVER; green