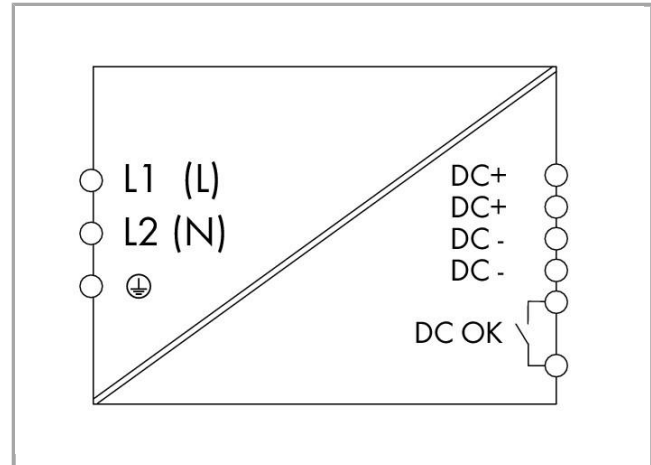


Data sheet | Item number: 787-1638

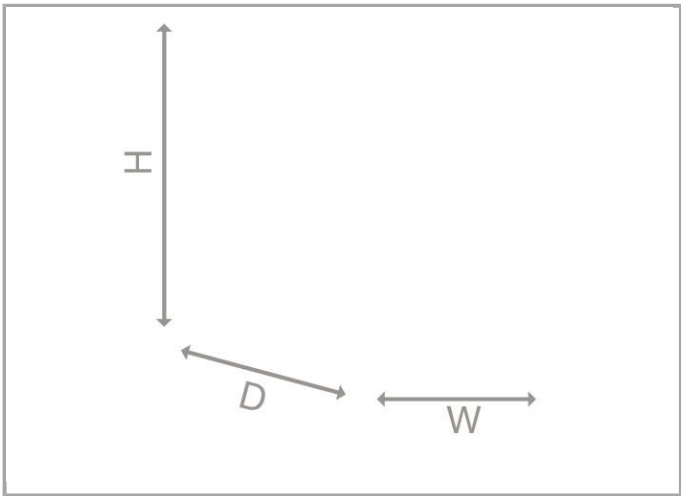
Switched-mode power supply; Classic; 2-phase; 24 VDC output voltage; 10 A output current; TopBoost; DC OK contact

www.wago.com/787-1638



RoHS
Compliant

BOMcheck.net



Item description

Features:

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

Data
Technical Data

Input

Phases	1 2
Nominal input voltage $U_{i\text{ nom}}$	(1 / 2) x AC 200 ... 500 V
Input voltage range	(1 / 2) x AC 180 ... 550 V; DC 254 ... 780 V
Input voltage derating	-0.5 %/V (< 200 VAC); -0.4 %/V (< 280 VDC)
Nominal mains frequency range	44 ... 66 Hz; 0 Hz
Input current I_i	$\leq 1.98\text{ A}$ (230 VAC); $\leq 1.36\text{ A}$ (230 VAC)
Discharge current	$\leq 1\text{ mA}$
Inrush current	$\leq 30\text{ A}$ (NTC)
Power factor correction (PFC)	Passive
Mains failure hold-up time	$\geq 78\text{ ms}$ (400 VAC); $\geq 20\text{ ms}$ (200 VAC)



Output

Nominal output voltage $U_{o\ nom}$	DC 24 V (SELV)
Output voltage range	DC 23 ... 28.5 V (adjustable)
Factory preset	DC 24 V
Nominal output current $I_{o\ nom}$	10 A (24 VDC)
Nominal output power	240 W
Adjustment accuracy	$\leq 1\ %$
Residual ripple	$\leq 30\ mV$ (peak-to-peak)
Current limitation	$1.1 \times I_{o\ nom}$ typ.
Overload behavior	Constant current

Signaling and communication

Signaling	1 x LED DC OK (green) 1 x DC OK contact (make contact; max. 30 V AC/DC, 1 A)
Operation status indicator	LED green (U_o)

Efficiency/Power losses:

Power loss P_v	$\leq 1.3\ W$ (no load); $\leq 27.8\ W$ (230 VAC; nominal load); $\leq 20.3\ W$ (400 VAC; nominal load)
Max. power loss $P_{v\ max.}$	27.8 W (230 VAC / 24 VDC; 10 A)
Efficiency	89 % (230 VAC); 92.5 % (400 VAC)

Fuse protection:

Internal fuse	T 6.3 A / 500 VAC
External fuse (required)	an external DC fuse required for DC input voltage
External fuse (recommended)	Circuit breakers 6 A, 10 A, 16 A, characteristic: B or C

Safety and protection:

Insulation voltage (PRI-SEC)	4.242 kV DC
Isolation voltage (PRI-GND)	2.2 kV DC
Insulation voltage (SEC-GND)	0.7 kV DC
Protection class	I
Protection class	IP20 (per EN 60529)
Feedback voltage	$\leq DC\ 35\ V$
Overvoltage category	II
Transient protection, primary	Varistor
Overvoltage protection, secondary	Internal protective VDCe circuit



	≤ 40 VDC (in case of an error)
Short circuit protection	Yes
No-load proof	Yes
Parallel operation	Yes
Series connection	Yes
MTBF	> 500,000 h (per IEC 61709)

Connection data

Connection type (1)	Input/Output/Signaling
Connection technology	CAGE CLAMP®
WAGO terminal	WAGO 721 Series
Solid conductor	0.08 ... 2.5 mm² / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm² / 28 ... 12 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch

Geometrical Data

Width	55 mm / 2.165 inch
Height	127 mm / 5 inch
Length from upper-edge of DIN-35 rail	146.5 mm / 5.768 inch

Mechanical data

Type of mounting	DIN-35 rail (EN 60715)
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Material Data

Weight	830 g
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Environmental Requirements

Surrounding air (operating) temperature	-25 ... 70 °C (Device start at -40 °C type-tested)
Surrounding air (storage) temperature	-25 ... 85 °C
Relative humidity	5 ... 96 % (no condensation permissible)
Derating	-2.5 %/K (> 55 °C)
Pollution degree	2
Climatic category	3K3 (per EN 60721)

Standards and specifications

Conformity marking	1
Standards/specifications	EN 60950-1; EN 61204-3; UL 60950-1; UL 508; DNV GL

Commercial data

Country of origin	DE
GTIN	4055143521420
Customs Tariff No.	85043180888

Approvals / Certificates

Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAA00000KT

UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL Underwriters Laboratories Inc.	UL 508	E255817
	UL Underwriters Laboratories Inc.	UL 60950-1	E255815

Compatible products

Marking accessories

	Item no.: 2009-110 Marking strips; on reel; not stretchable; plain; snap-on type	www.wago.com/2009-110
	Item no.: 2009-115 WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	www.wago.com/2009-115
	Item no.: 2009-115/000-002 WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	www.wago.com/2009-115/000-002
	Item no.: 2009-115/000-006 WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	www.wago.com/2009-115/000-006

**Item no.: 2009-115/000-007**

WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/2009-115/000-007**Item no.: 2009-115/000-012**

WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/2009-115/000-012**Item no.: 2009-115/000-017**

WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/2009-115/000-017**Item no.: 2009-115/000-023**

WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/2009-115/000-023**Item no.: 2009-115/000-024**

WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/2009-115/000-024**Item no.: 210-831**

Marking strips; on reel; 2.3 mm wide; plain; Self-adhesive

www.wago.com/210-831**Item no.: 210-832**

Marking strips; on reel; 3 mm wide; plain; Self-adhesive

www.wago.com/210-832**Item no.: 793-501**

WMB marking card; as card; not stretchable; plain; snap-on type

www.wago.com/793-501**Item no.: 793-501/000-002**

WMB marking card; as card; not stretchable; plain; snap-on type

www.wago.com/793-501/000-002**Item no.: 793-501/000-005**

WMB marking card; as card; not stretchable; plain; snap-on type

www.wago.com/793-501/000-005**Item no.: 793-501/000-006**

WMB marking card; as card; not stretchable; plain; snap-on type

www.wago.com/793-501/000-006**Item no.: 793-501/000-007**

WMB marking card; as card; not stretchable; plain; snap-on type

www.wago.com/793-501/000-007**Item no.: 793-501/000-012**

WMB marking card; as card; not stretchable; plain; snap-on type

www.wago.com/793-501/000-012**Item no.: 793-501/000-017**

WMB marking card; as card; not stretchable; plain; snap-on type

www.wago.com/793-501/000-017**Item no.: 793-501/000-023**

WMB marking card; as card; not stretchable; plain; snap-on type

www.wago.com/793-501/000-023



Item no.: 793-501/000-024
WMB marking card; as card; not stretchable; plain; snap-on type

www.wago.com/793-501/000-024



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

www.wago.com/793-5501



Item no.: 793-5501/000-002
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501/000-002



Item no.: 793-5501/000-005
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501/000-005



Item no.: 793-5501/000-006
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501/000-006



Item no.: 793-5501/000-007
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501/000-007



Item no.: 793-5501/000-012
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501/000-012



Item no.: 793-5501/000-014
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501/000-014



Item no.: 793-5501/000-017
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501/000-017



Item no.: 793-5501/000-023
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501/000-023



Item no.: 793-5501/000-024
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501/000-024

ferrule



Item no.: 216-201
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated

www.wago.com/216-201



Item no.: 216-202
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated

www.wago.com/216-202



Item no.: 216-203
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated

www.wago.com/216-203



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

www.wago.com/216-204



Item no.: 216-221
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated

www.wago.com/216-221

	Item no.: 216-222 Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated	www.wago.com/216-222
	Item no.: 216-223 Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated	www.wago.com/216-223
	Item no.: 216-224 Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated	www.wago.com/216-224
	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	www.wago.com/216-241
	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	www.wago.com/216-242
	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	www.wago.com/216-243
	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	www.wago.com/216-244
	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	www.wago.com/216-262
	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	www.wago.com/216-263
	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	www.wago.com/216-264
	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	www.wago.com/216-284
	Item no.: 216-301 Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated	www.wago.com/216-301
	Item no.: 216-302 Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated	www.wago.com/216-302
	Item no.: 216-321 Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated	www.wago.com/216-321
	Item no.: 216-322 Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated	www.wago.com/216-322
tools		
	Item no.: 210-720 Operating tool with partially insulated shaft; Type 2, blade (3.5 x 0.5) mm	www.wago.com/210-720
	Item no.: 210-769 SCREWDRIVER	www.wago.com/210-769



Downloads

Documentation

Bid Text

787-1638	doc 37.4 kB	Download
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Instruction Leaflet

Primär getaktete Stromversorgungen EPSITRON® CLASSIC Power DC 24 V, 10 A, TopBoost	pdf 163.3 kB	Download
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Additional Information

Disposal; Electrical and electronic equipment, Packaging	V 1.0.0	pdf 265.8 kB	Download
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Engineering-Software

Configuration and Commissioning Software

Used for line length calculation	1.3.4	zip	Download
The conductor length calculation assists in planning the secondary fuse protection for conductors to power supply devices from the EPSITRON® PRO power family (787-8xx) as well as EPSITRON(R) CLASSIC Power family (787-16xx). After choosing a 787-8xx and 787-16xx power supply unit, the desired conductor size and associated fuse can be selected. The software tool then calculates the maximum conductor length at which the fuse functions correctly, while also considering the conductor and transfer resistances. The user can select a base load.	Mar 20, 2017	125.5 kB	

Product family

EPSITRON CLASSIC Power

EPSITRON® CLASSIC POWER: The Robust Power Supply – with Integrated TopBoost (Optional)

[Show all products from the family](#)

Subject to changes.

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