

## Data sheet | Item number: 787-840

Switched-mode power supply; Pro; 3-phase; 24 VDC output voltage; 10 A output current; TopBoost + PowerBoost; DC OK contact; 2,50 mm<sup>2</sup>



[www.wago.com/787-840](http://www.wago.com/787-840)



### Item description

#### Features:

- Switched-mode power supply with PowerBoost and TopBoost
- Switch off the output and minimize power consumption via stand-by input
- Output monitoring via DC OK contact
- Suitable for both parallel and series operation

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

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- Natural convection cooling when horizontally mounted
- Encapsulated for use in control cabinets
- Electrically isolated output voltage (SELV) per UL 60950-1; PELV per EN 60204

## 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 340 ... 550 V; DC 480 ... 780 V
Nominal mains frequency range	50 ... 60 Hz; 0 Hz
Input current $I_i$	$\leq 3 \times 0.6 \text{ A}$ (340 VAC; 10 ADC)
Inrush current	$\leq 30 \text{ A}$
Power factor correction (PFC)	Passive
Mains failure hold-up time	$\geq 22 \text{ ms}$ (3 x 400 VAC)

#### Output

Nominal output voltage $U_{o\text{ nom}}$	DC 24 V (SELV)
Output voltage range	DC 22.8 ... 28.8 V (adjustable)
Default setting	DC 24 V
Nominal output current $I_{o\text{ nom}}$	10 A (24 VDC)
Nominal output power	240 W
Deviation	$\leq 1 \%$
Residual ripple	$\leq 70 \text{ mV}$ (peak-to-peak)
Current limitation	$1.1 \times I_{o\text{ nom}}$ (typ.)
Overload behavior	TopBoost/PowerBoost/Constant current mode
PowerBoost	DC 20 A (4 s); DC 15 A (16 s)
TopBoost	DC 70 A (50 ms)

#### Signaling and Communication

Signaling	1 x LED DC OK (green) 1 x Error LED (red) 1 x Stand-by input 1 x DC OK relay contact (changeover contact)
Operation status indicator	Green LED (DC OK)

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

Red LED (error)

## Efficiency/power losses

Power loss $P_l$	$\leq 7.8 \text{ W}; \leq 19.9 \text{ W}$ (nominal load)
Efficiency (typ.)	91.7 %

## Circuit protection

Internal fuse	3 x T 2.5 A / 440 VAC
Backup fusing (required)	An external DC fuse is required for the DC input voltage.
Backup fusing (recommended)	3 x circuit breaker: 6 A, 10 A, 16 A; Tripping characteristic: B or C Alternative: motor circuit breaker; Setpoint: 1.6 A; Setting range: 1.6 ... 2.5 A

## Safety and protection

Isolation voltage (sec.-PE)	DC 0.7 kV
Protection class	I
Protection type	IP20; per EN 60529
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	> 500,000 h (per IEC 61709)

## Connection data

Connection type 1	Input/Output
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 231 Series
Solid conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 inches
Connection type 2	Signaling
Connection technology 2	CAGE CLAMP®
WAGO connector 2	WAGO 733 Series

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



Solid conductor 2	0.08 ... 0.5 mm <sup>2</sup> / 28 ... 20 AWG
Fine-stranded conductor 2	0.08 ... 0.5 mm <sup>2</sup> / 28 ... 20 AWG
Strip length 2	5 ... 6 mm / 0.2 ... 0.24 inches

### Physical data

Width	57 mm / 2.244 inches
Height	163 mm / 6.417 inches
Depth from upper-edge of DIN-rail	179 mm / 7.047 inches
Note (dimensions)	Height with connector

### Mechanical Data

Mounting type	DIN-35 rail
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### Material Data

Weight	1000 g
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### 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	-3 %/K (> 50 °C)
Climatic category	3K3 (per EN 60721)

### Standards and specifications

Conformity marking	CE
Standards/specifications	EN 61010-1 EN 61010-2-201 EN 61204-3 EN 61558-2-16 UL 60950 UL 508

### 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

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ETIM 7.0	EC002540
Recupel Type	
PU (SPU)	1 pcs
Packaging type	box
Country of origin	DE
GTIN	4045454909949
Customs tariff number	85044083900

## Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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## Approvals / Certificates

### General approvals

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

### Declarations of conformity and manufacturer's declarations

Logo	Approval	Additional Approval Text	Certificate name
	<b>EU-Declaration of Conformity</b> WAGO GmbH & Co. KG	-	-

## Optional accessories

### Marking accessories

Marking strip		
<b>Item no.: 2009-110</b> Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white		<a href="http://www.wago.com/2009-110">www.wago.com/2009-110</a>
<b>Item no.: 210-831</b> Marking strips; on reel; 2.3 mm wide; plain; Self-adhesive; white		<a href="http://www.wago.com/210-831">www.wago.com/210-831</a>
<b>Item no.: 210-832</b> Marking strips; on reel; 3 mm wide; plain; Self-adhesive; white		<a href="http://www.wago.com/210-832">www.wago.com/210-832</a>

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## Tool

Operating tool		
<b>Item no.: 210-719</b> 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>
<b>Item no.: 210-769</b> SCREWDRIVER; green		<a href="http://www.wago.com/210-769">www.wago.com/210-769</a>
<b>Item no.: 210-720</b> Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured		<a href="http://www.wago.com/210-720">www.wago.com/210-720</a>
Mounting adapter		
Wall-mount adapter		
<b>Item no.: 787-895</b> Mounting carrier; for screw fixing of 787-8xx devices on mounting plate or wall without DIN 35 rail		<a href="http://www.wago.com/787-895">www.wago.com/787-895</a>
DIN-rail adapter		
<b>Item no.: 787-897</b> Carrier rail adapter made of zinc die-cast; for mounting 787-8xx devices to a DIN 35 rail		<a href="http://www.wago.com/787-897">www.wago.com/787-897</a>
<b>Item no.: 787-896</b> Carrier rail adapter; for mounting 787-8xx devices to a DIN 35 rail		<a href="http://www.wago.com/787-896">www.wago.com/787-896</a>

## Downloads

### Documentation

#### Bid Text

787-840 X81 - Datei	2019 年7月4日	xml 7.6 kB	Download
787-840 docx - Datei	2019 年7月4日	docx 20.4 kB	Download

#### Instruction Leaflet

Primär getaktete Stromversorgungen PRO DC 24 V, 10 A, SELV		pdf 367.9 kB	Download
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#### Additional Information

Disposal and Recycling Electrical and electronic equipment, Batteries, Packaging	V 1.1.0 2022 年8月18日	pdf 2.2 MB	Download
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## Engineering-Software

### Configuration and Commissioning Software

WAGO Line Length Calculation	1.3.5	exe	Download
Die WAGO Leitungslaengenrechnung hilft bei der Planung der sekundärseitigen Absicherung von Leitungen an WAGO Stromversorgungen Pro (787-8xx) und Classic (787-16xx). Nach Auswahl eines Netzgerätes kann der gewünschte Leitungsquerschnitt und der zugehörige Leitungsschutzschalter ausgewählt werden. Das Software-Werkzeug berechnet dann die maximale Leitungslänge, bei der die Absicherung unter Berücksichtigung der Leitungs- und Übergangswiderstände ordnungsgemäß funktioniert. Die Auswahl einer Grundlast kann vom Anwender vorgenommen werden.	2019 年12月9日	337.4 kB	

## CAD/CAE-Data

### CAE data

EPLAN Data Portal 787-840	URL	Download
WSCAD Universe 787-840	URL	Download
ZUKEN Portal 787-840	URL	Download

### CAD data

2D/3D Models 787-840	URL	Download
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## Environmental Product Compliance

### Compliance Search

Environmental Product Compliance 787-840	URL	Download
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## Installation Notes

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## Product family

### EPSITRON PRO Power

EPSITRON® PRO POWER: Professional and Efficient Power Supply with Extra Power

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