

Data sheet | Item number: 787-844

Switched-mode power supply; Pro; 3-phase; 24 VDC output voltage; 40 A output current; TopBoost + PowerBoost; DC OK contact; 2,50 mm²

www.wago.com/787-844



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

—
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 | $\leq 3 \times 2 \text{ A}$ (340 VAC; 40 ADC) |
| Inrush current | $\leq 30 \text{ A}$ |
| Power factor correction (PFC) | Passive |
| Mains failure hold-up time | $\geq 15 \text{ ms}$ (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 $I_{o\text{ nom}}$ | 40 A (24 VDC) |
| Nominal output power | 960 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 60 A (4 s); DC 50 A (16 s) |
| TopBoost | DC 100 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 | $\leq 7 \text{ W}; \leq 61.5 \text{ W}$ (nominal load) |
| Efficiency (typ.) | 93.6 % |

Circuit protection

| | |
|-----------------------------|--|
| Internal fuse | 3 x T 3.2 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: 3.2 A; Setting range: 2.5 ... 4 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 |
| Connection technology | CAGE CLAMP® |
| WAGO connector | WAGO 231 Series |
| Solid conductor | 0.08 ... 2.5 mm ² / 28 ... 12 AWG |
| Fine-stranded conductor | 0.08 ... 2.5 mm ² / 28 ... 12 AWG |
| Strip length | 8 ... 9 mm / 0.31 ... 0.35 inches |
| Connection type 2 | Output |
| Connection technology 2 | Push-in CAGE CLAMP® |
| WAGO connector 2 | WAGO 831 Series |

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



| | |
|---------------------------|--|
| Solid conductor 2 | 0.5 ... 10 mm ² / 20 ... 8 AWG |
| Fine-stranded conductor 2 | 0.5 ... 10 mm ² / 20 ... 8 AWG |
| Strip length 2 | 13 ... 15 mm / 0.51 ... 0.59 inches |
| Connection type 3 | Signaling |
| Connection technology 3 | CAGE CLAMP® |
| WAGO connector 3 | WAGO 733 Series |
| Solid conductor 3 | 0.08 ... 0.5 mm ² / 28 ... 20 AWG |
| Fine-stranded conductor 3 | 0.08 ... 0.5 mm ² / 28 ... 20 AWG |
| Strip length 3 | 5 ... 6 mm / 0.2 ... 0.24 inches |

Physical data

| | |
|-----------------------------------|-----------------------|
| Width | 128 mm / 5.039 inches |
| Height | 171 mm / 6.732 inches |
| Depth from upper-edge of DIN-rail | 205 mm / 8.071 inches |
| Note (dimensions) | Height with connector |

Mechanical Data

| | |
|---------------|-------------|
| Mounting type | DIN-35 rail |
|---------------|-------------|

Material Data

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|--------|--------|
| Weight | 2500 g |
|--------|--------|

Environmental requirements

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|---------------------------------|--|
| Ambient temperature (operation) | -25 ... +55 °C (Device starts at -40 °C (type-tested)) |
| Ambient temperature (storage) | -25 ... +85 °C |
| Relative humidity | 5 ... 96 % (no condensation permissible) |
| Derating | -5 %/K (> 45 °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 |

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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 |
| Recupel Type | |
| PU (SPU) | 1 pcs |
| Packaging type | box |
| Country of origin | DE |
| GTIN | 4045454909925 |
| Customs tariff number | 85044083900 |

Environmental Product Compliance

| | |
|------------------------|-------------------------|
| RoHS Compliance Status | Compliant, No Exemption |
|------------------------|-------------------------|

Approvals / Certificates

General approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|------|---|--------------------------------|-----------------------------|
| | EAC Brjansker Zertifizierungsstelle | 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 |

Declarations of conformity and manufacturer's declarations

| Logo | Approval | Additional Approval Text | Certificate name |
|------|---|--------------------------|------------------|
| | EU-Declaration of Conformity WAGO GmbH & Co. KG | - | - |
| | UK-Declaration of Conformity WAGO GmbH & Co. KG | - | - |

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Optional accessories

Tool

| Operating tool | | |
|--------------------------|--|--|
| Item no.: 210-719 | Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft | www.wago.com/210-719 |
| Item no.: 210-721 | Operating tool; Blade: 5.5 x 0.8 mm; with a partially insulated shaft; multicoloured | www.wago.com/210-721 |
| Item no.: 210-769 | SCREWDRIVER; green | www.wago.com/210-769 |
| Item no.: 210-720 | Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured | www.wago.com/210-720 |

Mounting adapter

| Wall-mount adapter | | |
|--------------------------|---|--|
| Item no.: 787-895 | Mounting carrier; for screw fixing of 787-8xx devices on mounting plate or wall without DIN 35 rail | www.wago.com/787-895 |
| DIN-rail adapter | | |
| Item no.: 787-897 | Carrier rail adapter made of zinc die-cast; for mounting 787-8xx devices to a DIN 35 rail | www.wago.com/787-897 |
| Item no.: 787-896 | Carrier rail adapter; for mounting 787-8xx devices to a DIN 35 rail | www.wago.com/787-896 |

Marking accessories

| Marking strip | | |
|---------------------------|---|--|
| Item no.: 2009-110 | Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white | www.wago.com/2009-110 |
| Item no.: 210-831 | Marking strips; on reel; 2.3 mm wide; plain; Self-adhesive; white | www.wago.com/210-831 |
| Item no.: 210-832 | Marking strips; on reel; 3 mm wide; plain; Self-adhesive; white | www.wago.com/210-832 |
| 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 | www.wago.com/2009-145 |
| Item no.: 2009-115 | WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white | www.wago.com/2009-115 |
| Item no.: 248-501 | Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white | www.wago.com/248-501 |
| Item no.: 793-501 | | www.wago.com/793-501 |

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WMB 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 www.wago.com/793-5501

Downloads

Documentation

Bid Text

| | | | |
|-------------------------|------------|-----------------|----------|
| 787-844 docx - Datei | 2019 年7月4日 | docx 20.9 kB | Download |
|-------------------------|------------|-----------------|----------|

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|------------------------|------------|---------------|----------|
| 787-844 X81 - Datei | 2019 年7月4日 | xml 7.8 kB | Download |
|------------------------|------------|---------------|----------|

Instruction Leaflet

| | | | |
|---|--|-----------------|----------|
| Primär getaktete Stromversorgungen PRO DC 24 V, 40 A, SELV | | pdf 367.9 kB | Download |
|---|--|-----------------|----------|

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 |
|---|------------------------|---------------|----------|

Engineering-Software

Configuration and Commissioning Software

| | | | |
|--|----------------------|-----------------|----------|
| WAGO Line Length Calculation 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. | 1.3.5 2019 年12月9日 | exe 337.4 kB | Download |
|--|----------------------|-----------------|----------|

CAD/CAE-Data

CAD data

2D/3D Models 787-844

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CAE data

| | | |
|---|---------------------|--------------------------|
| WSCAD Universe 787-844 | URL | Download |
| ZUKEN Portal 787-844 | URL | Download |
| EPLAN Data Portal 787-844 | URL | Download |

Environmental Product Compliance

Compliance Search

| | | |
|--|---------------------|--------------------------|
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|--|---------------------|--------------------------|

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Installation Notes

Product family

EPSITRON PRO Power

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

[Show all products from the family](#)

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