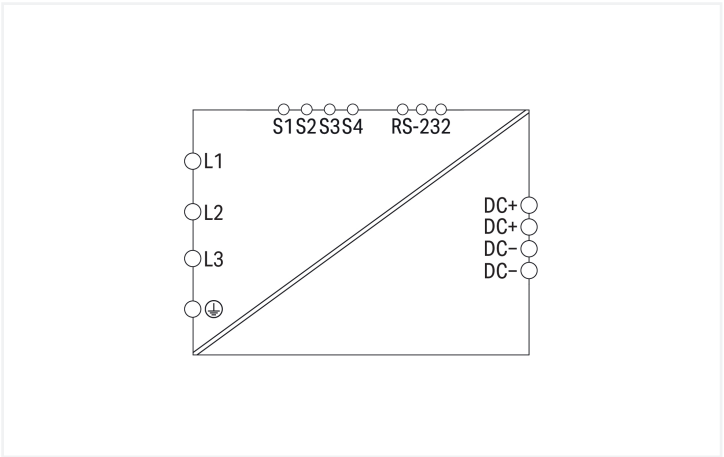


Data Sheet | Item Number: 787-854

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

<https://www.wago.com/787-854>



Features:

- Switched-mode power supply with PowerBoost and TopBoost
- Suitable for both parallel and series operation
- 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
- LineMonitor for parameter setting and monitoring
- RS-232 serial interface
- Four signal outputs

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                | 22.8 ... 28.8 VDC (adjustable)          |
| Input voltage range                | (2 / 3) x 340 ... 550 VAC; 480 ... 780 VDC | Default Setting                     | 24 VDC                                  |
| Nominal mains frequency range      | 50 ... 60 Hz; 0 Hz                         | Nominal output current $I_{o\ nom}$ | 40 A (24 VDC)                           |
| Input current $I_i$                | $\leq 3 \times 2$ A (340 VAC)              | Nominal output power                | 960 W                                   |
| Discharge current                  | $\leq 1$ mA                                | Deviation                           | $\leq 1$ %                              |
| Inrush current                     | $\leq 30$ A                                | Residual ripple                     | $\leq 70$ mV (peak-to-peak)             |
| Power factor correction (PFC)      | Passive (adjustable via software/display)  | Current limitation                  | $1.1 \times I_{o\ nom}$ (typ.)          |
| Mains failure hold-up time         | $\geq 15$ ms (3 x 400 VAC)                 | Overload behavior                   | Adjustable (constant current/fuse mode) |
|                                    |                                            | PowerBoost                          | 60 ADC (4 s); 50 ADC (16 s)             |
|                                    |                                            | TopBoost                            | 100 ADC (50 ms)                         |

| Signaling and Communication |                                                                                                                                                   | Efficiency/Power Losses |                                          |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|------------------------------------------|
| Signaling                   | 1 x DC OK LED (green)<br>1 x Warning LED (yellow)<br>1 x Error LED (red)<br>LCD<br>4 x Signal output (24 VDC; max. 25 mA)<br>1 x RS-232 interface | Power loss $P_l$        | $\leq 7$ W; $\leq 61.5$ W (nominal load) |
| Operation status indicator  | Green LED (DC OK)<br>Yellow LED (warning)<br>Red LED (error)                                                                                      | Efficiency (typ.)       | 93.6 %                                   |
| Communications              | RS-232 serial interface                                                                                                                           |                         |                                          |



| Circuit Protection        |                                                                                                                                                            |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Internal fuse             | 3 x T 3.2 A / 440 VAC                                                                                                                                      |
| Pre-fuse (required)       | An external DC fuse is required for the DC input voltage.                                                                                                  |
| Backup fuse (recommended) | 3 x Circuit breaker: 6 A, 10 A, 16 A; Trip-ping characteristic: B or C<br>Alternative: motor circuit breaker; Set-point: 3.2 A; Setting range: 2.5 ... 4 A |

| Safety and protection           |                             |
|---------------------------------|-----------------------------|
| Isolation voltage (pri.-sec.)   | 4.242 kVDC                  |
| Isolation voltage (pri.-PE)     | 2.2 kVDC                    |
| 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                    |
| 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                             | Connection type         | Output                              |
| Connection technology   | CAGE CLAMP®                       | Connection technology   | Push-in CAGE CLAMP®                 |
| WAGO connector          | WAGO 231 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 |

| Connection 3            |                                  |
|-------------------------|----------------------------------|
| Connection type         | Signaling                        |
| Connection technology   | CAGE CLAMP®                      |
| WAGO connector          | WAGO 733 Series                  |
| Solid conductor         | 0.08 ... 0.5 mm² / 28 ... 20 AWG |
| Fine-stranded conductor | 0.08 ... 0.5 mm² / 28 ... 20 AWG |
| Strip length            | 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 |  |        |
|---------------|--|--------|
| Fire load     |  | 0 MJ   |
| Weight        |  | 2300 g |

| Environmental requirements      |  |                                                        |
|---------------------------------|--|--------------------------------------------------------|
| 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<br>EN 61010-2-201<br>EN 61204-3<br>EN 61558-2-16<br>UL 60950<br>UL 508 |

| Commercial data       |  |                          |
|-----------------------|--|--------------------------|
| Product Group         |  | 6 (INTERFACE ELECTRONIC) |
| PU (SPU)              |  | 1 pcs                    |
| Packaging type        |  | Box                      |
| Country of origin     |  | DE                       |
| GTIN                  |  | 4045454909895            |
| 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 10.0              |  | EC002540             |
| ECCN                   |  | NO US CLASSIFICATION |

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



Approvals / Certificates

General approvals



| Approval                             | Standard       | Certificate Name |
|--------------------------------------|----------------|------------------|
| EAC<br>GZO Almaty Standart           | TP TC 004/2011 | EAC CoC 03078    |
| EAC<br>GZO Almaty Standart           | TP TC 020/2011 | EAC CoC 03081    |
| UL<br>Underwriters Laboratories Inc. | UL 508         | E255817          |
| UR<br>Underwriters Laboratories Inc. | UL 60950-1     | E255815          |

Declarations of conformity and manufacturer's declarations

| Approval                                                | Standard | Certificate Name |
|---------------------------------------------------------|----------|------------------|
| EU-Declaration of Confor-<br>mity<br>WAGO GmbH & Co. KG | -        | -                |

Downloads

Environmental Product Compliance

| Compliance Search                           |
|---------------------------------------------|
| Environmental Product<br>Compliance 787-854 |



Documentation

| Bid Text |            |                  |  |
|----------|------------|------------------|--|
| 787-854  | 04.07.2019 | xml<br>7.75 KB   |  |
| 787-854  | 04.07.2019 | docx<br>20.94 KB |  |

| Instruction Leaflet                          |  |                  |  |
|----------------------------------------------|--|------------------|--|
| Primär getaktete<br>Stromversorgungen<br>PRO |  | pdf<br>513.14 KB |  |

CAD/CAE-Data

| CAD data             |
|----------------------|
| 2D/3D Models 787-854 |



| CAE data                     |  |  |  |
|------------------------------|--|--|--|
| EPLAN Data Portal<br>787-854 |  |  |  |
| WSCAD Universe<br>787-854    |  |  |  |
| ZUKEN Portal 787-854         |  |  |  |



| Engineering-Software                     |                       |                  |                                 |  |
|------------------------------------------|-----------------------|------------------|---------------------------------|--|
| Configuration and Commissioning Software |                       |                  | Software for Interface-Products |  |
| WAGO Line Length Calculation             | 1.3.5<br>09.12.2019   | exe<br>329.50 KB | ↓                               |  |
| WAGO Software 759-851                    | 1.4.5<br>11.11.2009   | zip<br>823.13 KB | ↓                               |  |
| WAGO Software 759-850                    | 1.10.16<br>24.05.2011 | zip<br>520.23 KB | ↓                               |  |

| Libraries                             |                     |                  |   |  |
|---------------------------------------|---------------------|------------------|---|--|
| Library                               |                     |                  |   |  |
| Anbindung Stromversorgungen Serie 787 | 1.3.0<br>14.05.2014 | zip<br>549.48 KB | ↓ |  |

| 1 Compatible Products       |
|-----------------------------|
| 1.1 Optional Accessories    |
| 1.1.1 Cables and connectors |
| 1.1.1.1 Communication cable |



[Item No.: 787-890](#)  
RS-232 communication cable; Length 1.8 m

|                          |
|--------------------------|
| 1.1.1.2 Connecting cable |
|--------------------------|



[Item No.: 761-9005](#)  
USB adapter; with 1m connection cable

| 1.1.2 Marking  |
|----------------|
| 1.1.2.1 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

1.1.2.2 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

1.1.3 Mounting adapter

1.1.3.1 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; gray



**Item No.: 787-896**  
Carrier rail adapter; for mounting 787-8xx devices to a DIN 35 rail; gray

1.1.3.2 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; gray

1.1.4 Tool

1.1.4.1 Operating tool



**Item No.: 210-719**  
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft



**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