

**EPSITRON®**  
Advanced Power Supply System





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# EPSITRON® POWER SUPPLIES



PRO Power



CLASSIC Power



COMPACT Power



ECO Power

# EPSITRON® SYSTEM MODULES



Electronic Circuit Breakers (ECBs)



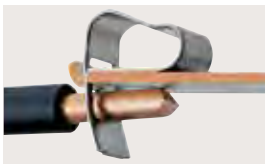
Uninterruptible Power Supplies (UPS)



Capacitive Buffer Modules



Redundancy Modules



## Quick Connections

CAGE CLAMP® Spring Pressure Connection Technology provides fast, vibration-proof and maintenance-free termination of solid, fine-stranded or ferruled conductors.



# EPSITRON® PRO POWER

The Professional and Efficient Power Supply with Enhanced Performance

Applications with high-output requirements call for PRO Power Supplies that provide output voltages of 12, 24 or 48 VDC with nominal output currents of 5 A to 40 A.



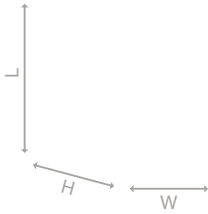
- TopBoost provides up to 60 A of additional output for 50 ms
- PowerBoost offers up to 200 % of output power for four seconds
- DC OK contact and stand-by input
- LineMonitor (optional) provides configuration and monitoring of signal inputs and outputs

WAGO's EPSITRON® PRO Power Supply Unit powers the automation components in the control cabinet of a blow-molding machine.



# EPSITRON® PRO POWER

## Technical Data



Item Number	787-819	787-821	787-831	787-818
Nominal input voltage	1/2 x 100 ... 240 VAC	1/2 x 100 ... 240 VAC	1/2 x 110 ... 240 VAC	1/2 x 100 ... 240 VAC
Input voltage range (use of DC requires external protection)	85 ... 264 VAC; 120 ... 373 VDC	85 ... 264 VAC; 120 ... 373 VDC	85 ... 264 VAC; 120 ... 373 VDC	85 ... 264 VAC; 120 ... 373 VDC
Nominal output voltage, SELV	12 VDC	12 VDC	12 VDC	24 VDC
Output voltage range	11 ... 18 VDC, adjustable	11 ... 18 VDC, adjustable	11 ... 18 VDC, adjustable	22 ... 29.5 VDC, adjustable
Output current	6 A at 12 VDC	10 A at 12 VDC	15 A at 12 VDC	3 A at 24 VDC
PowerBoost	12 ADC (for 4 s) 9 ADC (for 8 s)	20 ADC (for 4 s) 15 ADC (for 8 s)	30 ADC (for 4 s) 22.5 ADC (for 8 s)	6 ADC (for 4 s) 4.5 ADC (for 8 s)
TopBoost	21 ADC (for 25 ms)	60 ADC (for 25 ms) 40 ADC at $V_{IN} < 110$ VAC (for 25 ms)	55 ADC (for 25 ms)	14 ADC (for 25 ms)
Parallel-/Series-connections possible	Yes	Yes	Yes	Yes
Efficiency	83 % typ.	87.8 % typ.	87 % typ.	87.8 % typ.
Operation status indicator	Green LED (Vo), red LED (error)	Green LED (Vo), red LED (error)	Green LED (Vo), red LED (error)	Green LED (Vo), red LED (error)
LED indication	LED green ( $V_o > 0.85 \times 12$ V) LED red ( $V_o < 0.85 \times 12$ V) Relay contact DC OK (changeover contact)	LED green ( $V_o > 0.85 \times 12$ V) LED red ( $V_o < 0.85 \times 12$ V) Relay contact DC OK (changeover contact)	LED green ( $V_o > 0.85 \times 12$ V) LED red ( $V_o < 0.85 \times 12$ V) Relay contact DC OK (changeover contact)	LED green ( $V_o > 0.85 \times 24$ V) LED red ( $V_o < 0.85 \times 24$ V) Relay contact DC OK (changeover contact)
Stand-by input	Switches output off (stand-by operation)	Switches output off (stand-by operation)	Switches output off (stand-by operation)	Switches output off (stand-by operation)
Ambient operating temperature	-25 °C ... +70 °C Device starts at -40 °C, type-tested	-25 °C ... +70 °C Device starts at -40 °C, type-tested	-25 °C ... +70 °C Device starts at -40 °C, type-tested	-25 °C ... +70 °C Device starts at -40 °C, type-tested
Dimensions (mm) W x H x L Height from upper-edge of DIN-35 rail L = 127 mm without pluggable female connectors	40 x 163 x 163	57 x 163 x 163	57 x 179 x 163	40 x 163 x 163
Approvals	EN 60950, EN 61204-3, UL 60950, UL 508	EN 60950, EN 61204-3, UL 60950, UL 508	EN 60950, EN 61204-3, UL 60950, UL 508	EN 60950, EN 61204-3, UL 60950, UL 508



### 1) Slim Design and Versatile Mounting Options

- Save up to 50 % more cabinet space
- Units can be mounted on DIN rail horizontally or vertically
- Wall-mount adapter for screw mounting (option)

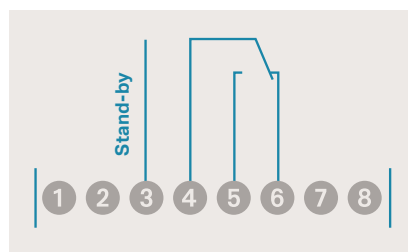
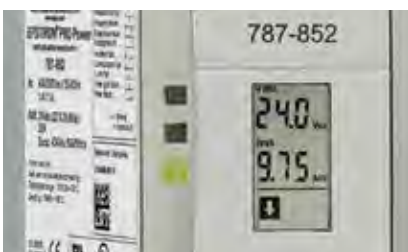
### 2) Easy to Connect

- CAGE CLAMP® connection technology – vibration-proof, fast, maintenance-free
- For solid, fine-stranded or ferruled conductors
- Colored and marked pluggable female connectors can be pre-wired





787-822	787-832	787-834	787-833	787-835
1/2 x 100 ... 240 VAC	1/2 x 110 ... 240 VAC	1/2 x 110 ... 240 VAC	1/2 x 110 ... 240 VAC	1/2 x 110 ... 240 VAC
85 ... 264 VAC; 120 ... 373 VDC	85 ... 264 VAC; 120 ... 373 VDC	85 ... 264 VAC; 120 ... 373 VDC	85 ... 264 VAC; 120 ... 373 VDC	85 ... 264 VAC; 120 ... 373 VDC
24 VDC	24 VDC	24 VDC	48 VDC	48 VDC
22 ... 29.5 VDC, adjustable	22 ... 29.5 VDC, adjustable	22 ... 29.5 VDC, adjustable	33 ... 52 VDC, adjustable	33 ... 52 VDC, adjustable
5 A at 24 VDC	10 A at 24 VDC	20 A at 24 VDC	5 A at 48 VDC	10 A at 48 VDC
10 ADC (for 4 s) 7.5 ADC (for 8 s)	20 ADC (for 4 s) 15 ADC (for 8 s)	30 ADC (for 4 s) 25 ADC (for 8 s)	10 ADC (for 4 s) 7.5 ADC (for 8 s)	17.5 ADC (for 4 s) 15 ADC (for 8 s)
21 ADC (for 25 ms)	60 ADC (for 25 ms)	80 ADC (for 25 ms)	30 ADC (for 25 ms)	60 ADC (for 25 ms)
Yes	Yes	Yes	Yes	Yes
87.8 % typ.	90 % typ.	91 % typ.	91 % typ.	91 % typ.
Green LED (Vo), red LED (error)	Green LED (Vo), red LED (error)	Green LED (Vo), red LED (error)	Green LED (Vo), red LED (error)	Green LED (Vo), red LED (error)
LED green (Vo > 0.85 x 24 V) LED red (Vo < 0.85 x 24 V) Relay contact DC OK (changeover contact)	LED green (Vo > 0.85 x 24 V) LED red (Vo < 0.85 x 24 V) Relay contact DC OK (changeover contact)	LED green (Vo > 0.85 x 24 V) LED red (Vo < 0.85 x 24 V) Relay contact DC OK (changeover contact)	LED green (Vo > 0.85 x 48 V) LED red (Vo < 0.85 x 48 V) Relay contact DC OK (changeover contact)	LED green (Vo > 0.85 x 48 V) LED red (Vo < 0.85 x 48 V) Relay contact DC OK (changeover contact)
Switches output off (stand-by operation)	Switches output off (stand-by operation)	Switches output off (stand-by operation)	Switches output off (stand-by operation)	Switches output off (stand-by operation)
-25 °C ... +70 °C Device starts at -40 °C, type-tested	-25 °C ... +70 °C Device starts at -40 °C, type-tested	-25 °C ... +70 °C Device starts at -40 °C, type-tested	-25 °C ... +70 °C Device starts at -40 °C, type-tested	-25 °C ... +70 °C Device starts at -40 °C, type-tested
57 x 163 x 163	57 x 179 x 163	97 x 187 x 171	57 x 179 x 163	97 x 187 x 171
EN 60950, EN 61204-3, UL 60950, UL 508	EN 60950, EN 61204-3, UL 60950, UL 508	EN 60950, EN 61204-3, UL 60950, UL 508	EN 60950, EN 61204-3, UL 60950, UL 508	EN 60950, EN 61204-3, UL 60950, UL 508



### 3) Communication

- LEDs clearly indicate status
- Green (DC OK), yellow\* (warning), red (fault, overload)

\*787-85x only

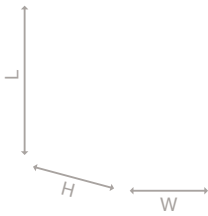
### 4) Potential-Free Contact/ Stand-By Input

- Output voltage monitoring, message via potential-free relay contact\*
- Stand-by input\* allows wear-free output deactivation via 10–28.8 VDC signal
- Energy-saving, stand-by mode (max. 0.8 W power dissipation) is ideal for a temporarily decentralized power supply

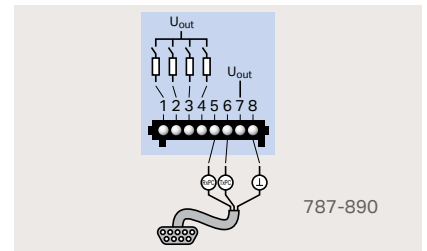
\*excludes 787-85x

# EPSITRON® PRO POWER

## Technical Data



Item Number	787-840	787-842	787-844	787-845
Nominal input voltage	2/3 x 400 ... 500 VAC	2/3 x 400 ... 500 VAC	2/3 x 400 ... 500 VAC	2/3 x 400 ... 500 VAC
Input voltage range (use of DC requires external protection)	340 ... 550 VAC; 480 ... 780 VDC	340 ... 550 VAC; 480 ... 780 VDC	340 ... 550 VAC; 480 ... 780 VDC	340 ... 550 VAC; 480 ... 780 VDC
Nominal output voltage, SELV	24 VDC	24 VDC	24 VDC	48 VDC
Output voltage range	22.8 ... 28.8 VDC, adjustable	22.8 ... 28.8 VDC, adjustable	22.8 ... 28.8 VDC, adjustable	39 ... 53 VDC, adjustable
Output current	10 A at 24 VDC	20 A at 24 VDC	40 A at 24 VDC	10 A at 48 VDC
PowerBoost	20 ADC (for 4 s) 15 ADC (for 16 s)	40 ADC (for 4 s) 30 ADC (for 16 s)	60 ADC (for 4 s) 50 ADC (for 16 s)	15 ADC (for 4 s) 12.5 ADC (for 16 s)
TopBoost	70 ADC (for 50 ms)	80 ADC (for 50 ms)	100 ADC (for 50 ms)	55 ADC (for 50 ms)
Parallel-/Series-connections possible	Yes	Yes	Yes	Yes
Efficiency	91.7 % typ.	92.9 % typ.	93.6 % typ.	93 % typ.
Operation status indicator	Green LED (Vo), red LED (error)	Green LED (Vo), red LED (error)	Green LED (Vo), red LED (error)	Green LED (Vo), red LED (error)
LED indication	LED green (Vo > 20.4 V) LED red (Vo < 20.4 V) Relay contact DC OK (changeover contact)	LED green (Vo > 20.4 V) LED red (Vo < 20.4 V) Relay contact DC OK (changeover contact)	LED green (Vo > 20.4 V) LED red (Vo < 20.4 V) Relay contact DC OK (changeover contact)	LED green (Vo > 36 V) LED red (Vo < 36 V) Relay contact DC OK (changeover contact)
LineMonitor, parameter setting and monitoring, active signal outputs, serial interface	—	—	—	—
Stand-by input	Switches output off (stand-by operation)	Switches output off (stand-by operation)	Switches output off (stand-by operation)	Switches output off (stand-by operation)
Ambient operating temperature	-25 °C ... +70 °C Device starts at -40 °C, type-tested	-25 °C ... +70 °C Device starts at -40 °C, type-tested	-25 °C ... +55 °C Device start at -40 °C type-tested	-25 °C ... +70 °C Device starts at -40 °C, type-tested
Dimensions (mm) W x H x L Height from upper-edge of DIN-rail L = 127 mm without pluggable female connectors	57 x 179 x 163	77 x 179 x 171	128 x 205 x 171	77 x 179 x 171
Approvals	EN 60950, EN 61204-3 UL 60950, UL 508	EN 60950, EN 61204-3 UL 60950, UL 508	EN 60950, EN 61204-3 UL 60950, UL 508	EN 60950, EN 61204-3 UL 60950, UL 508



### 5) TopBoost

- Multiplies the nominal current for up to 50 ms
- Fast and reliable triggering of the secondary-side fusing via circuit breakers or fuses in the event of a short-circuit or overload
- Fulfills EN 60204-1 grounding requirements in control circuits

### 6) PowerBoost

- Provides 200 % of output power for four seconds
- Provides 150 % of output power for up to 16 seconds
- Convenient during start-up or switching of capacitive loads (e.g., valve clusters, motors)
- Power reserve eliminates expensive oversizing

### 7) Active Signal Contacts\*

- Four active signal outputs\* for watchdog functions
- Each unit features a separate collective message for warning/fault
- Features two individually configurable signal outputs
- Free 759-850 Configuration Software can be downloaded at [www.wago.com](http://www.wago.com)

\*787-85x only



787-847	787-850	787-852	787-854
2/3 x 400 ... 500 VAC	2/3 x 400 ... 500 VAC	2/3 x 400 ... 500 VAC	2/3 x 400 ... 500 VAC
340 ... 550 VAC; 480 ... 780 VDC	340 ... 550 VAC; 480 ... 780 VDC	340 ... 550 VAC; 480 ... 780 VDC	340 ... 550 VAC; 480 ... 780 VDC
48 VDC	24 VDC	24 VDC	24 VDC
39 ... 53 VDC, adjustable	22.8 ... 28.8 VDC, adjustable	22.8 ... 28.8 VDC, adjustable	22.8 ... 28.8 VDC, adjustable
20 A at 48 VDC	10 A at 24 VDC	20 A at 24 VDC	40 A at 24 VDC
30 ADC (for 4 s) 25 ADC (for 16 s)	20 ADC (for 4 s) 15 ADC (for 16 s)	40 ADC (for 4 s) 30 ADC (for 16 s)	60 ADC (for 4 s) 50 ADC (for 16 s)
80 ADC (for 50 ms)	70 ADC (for 50 ms)	80 ADC (for 50 ms)	100 ADC (for 50 ms)
Yes	Yes	Yes	Yes
94.4 % typ.	91.7 % typ.	92.9 % typ.	93.6 % typ.
Green LED (Vo), red LED (error)	Green LED (Vo), red LED (error)	Green LED (Vo), red LED (error)	Green LED (Vo), red LED (error)
LED green (Vo > 36 V) LED red (Vo < 36 V) Relay contact DC OK (changeover contact)	LED green (Vo > 20.4 V) LED yellow (warnings) LED red (errors)	LED green (Vo > 20.4 V) LED yellow (warnings) LED red (errors)	LED green (Vo > 20.4V) LED yellow (warnings) LED red (errors)
—	Yes	Yes	Yes
Switches output off (stand-by operation)	—	—	—
-25 °C ... +55 °C Device start at -40 °C type-tested	-25 °C ... +70 °C Device starts at -40 °C, type-tested	-25 °C ... +70 °C Device starts at -40 °C, type-tested	-25 °C ... +55 °C Device start at -40 °C type-tested
128 x 205 x 171	57 x 179 x 163	77 x 179 x 171	128 x 205 x 171
EN 60950, EN 61204-3 UL 60950, UL 508	EN 60950, EN 61204-3 UL 60950, UL 508	EN 60950, EN 61204-3 UL 60950, UL 508	EN 60950, EN 61204-3 UL 60950, UL 508



### 8) Communication\*

- Optional LineMonitor
- Monitoring options including, current, voltage, phase position, operating hours and more
- Adjustable output voltage and overload behavior
- Integrated fault memory

### 9) RS-232 Serial Interface\*

- Front-side integrated interface\* communicates with a PC or PLC
- Free 759-850 Configuration Software and 759-851 Visualization Software can be downloaded at [www.wago.us](http://www.wago.us)
- Free function blocks are available for various PLC systems
- Serial 787-890 Communication Cable is available as an accessory





WAGO's *EPSITRON*® CLASSIC Power Supply Unit powers the automation components in the control cabinet of an absorption refrigeration system.

## ***EPSITRON*® CLASSIC POWER**

The Slim Style and Versatile Power Supply with Optional TopBoost

For single or three phase applications requiring voltages of 12, 24 or 48 VDC and nominal output currents ranging from 1 ... 40 A.

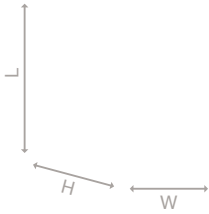




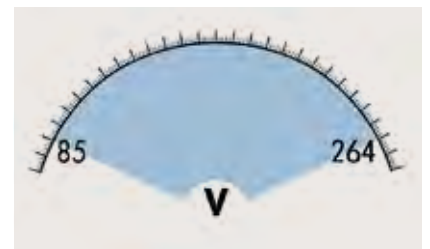
- Slim design
- Equipped with pluggable CAGE CLAMP® connectors protected against mismatching
- DC OK signal/contact
- Marking Options
- Integrated TopBoost (optional)

# EPSITRON® CLASSIC POWER

## Technical Data



Item Number	787-1602	787-1606	787-1616
Nominal input voltage	100 ... 240 VAC	100 ... 240 VAC	100 ... 240 VAC
Input voltage range	85 ... 264 VAC; 120 ... 372 VDC	85 ... 264 VAC; 120 ... 372 VDC	85 ... 264 VAC; 120 ... 372 VDC
Nominal output voltage, SELV	24 VDC	24 VDC	24 VDC
Nominal output voltage range	23 ... 28.5 VDC	23 ... 28.5 VDC	23 ... 28.5 VDC
Output current	1 A	2 A	4 A
Integrated TopBoost	No	No	No
Efficiency	86 %	89 %	89 %
LED indication	Green LED (DC OK); active DC OK signal	Green LED (DC OK); active DC OK signal	Green LED (DC OK); active DC OK signal
Ambient operating temperature	-25 °C ... +70 °C Device starts at -40 °C, type-tested	-25 °C ... +70 °C Device starts at -40 °C, type-tested	-25 °C ... +70 °C Device starts at -40 °C, type-tested
Dimensions (mm) W x H x L Height from upper-edge of DIN-35 rail	22.5 x 107.5 x 90	45 x 107.5 x 90	52 x 121 x 90
Approvals	EN 60335, cURus 60950, cULus 508, GL	EN 60335, cURus 60950, cULus 508, GL	EN 60335, cURus 60950, cULus 508, GL



### 1) Slim Design

- Enclosure width has been reduced by up to 45 % compared to previous CLASSIC Power Supplies
- Save valuable cabinet space

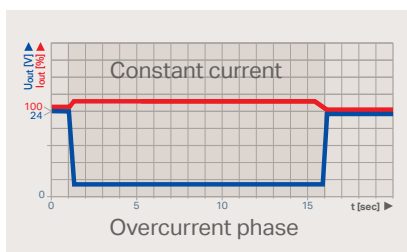
### 2) Universal Supply

- Wide input voltage range: 85 ... 264 VAC
- Can be connected worldwide to all standard power grids





787-1616/0000-1000	787-1622	787-1632	787-1634
100 ... 240 VAC	100 ... 240 VAC	100 ... 240 VAC	100 ... 240 VAC
85 ... 264 VAC; 120 ... 372 VDC	85 ... 264 VAC; 120 ... 372 VDC	85 ... 264 VAC; 100 ... 372 VDC	85 ... 264 VAC; 120 ... 372 VDC
24 VDC	24 VDC	24 VDC	24 VDC
23 ... 28.5 VDC	23 ... 28.5 VDC	23 ... 28.5 VDC	23 ... 28.5 VDC
3.8 A LPS / NEC Class 2	5 A	10 A	20 A
No	Yes	Yes	Yes
87 %	89 %	91 %	92 %
Green LED (DC OK); active DC OK signal	Green LED (DC OK); DC OK signal	Green LED (DC OK); DC OK signal	Green LED (DC OK); DC OK signal
-25 °C ... +70 °C Device starts at -40 °C, type-tested	-25 °C ... +70 °C Device starts at -40 °C, type-tested	-25 °C ... +70 °C Device starts at -40 °C, type-tested	-25 °C ... +70 °C Device starts at -40 °C, type-tested
52 x 121 x 90	42 x 137.5 x 127	55 x 172 x 127	95 x 177 x 127
EN 60335, cURus 60950, cULus 508, GL	EN 60335, cURus 60950, cULus 508, GL	cURus 60950, cULus 508, GL	cURus 60950, cULus 508, GL



### 3) High Load-Carrying Capacity

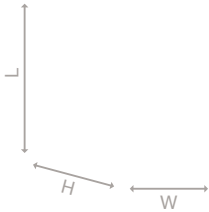
- Constant current characteristic under overload conditions
- 110 % output current with lowered output voltage – even during a short circuit
- Even high capacitive loads can be reliably started

### 4) Easy to Connect

- CAGE CLAMP® connection technology – vibration-proof, fast, maintenance-free
- For solid, fine-stranded or ferruled conductors
- Colored and marked female connectors can be pre-assembled – 100 % protected against mismatching

# EPSITRON® CLASSIC POWER

## Technical Data



Item Number	787-1623	787-1633	787-1635
Nominal input voltage	100 ... 240 VAC	100 ... 240 VAC	100 ... 240 VAC
Input voltage range	85 ... 264 VAC; 120 ... 372 VDC	85 ... 264 VAC; 100 ... 372 VDC	85 ... 264 VAC; 120 ... 372 VDC
Nominal output voltage, SELV	48 VDC	48 VDC	48 VDC
Nominal output voltage range	40 ... 56 VDC	40 ... 56 VDC	40 ... 56 VDC
Output current	2 A	5 A	10 A
Integrated TopBoost	No	Yes	Yes
Efficiency	86 %	92 %	93 %
LED indication	Green LED (DC OK); active DC OK signal	Green LED (DC OK); DC OK signal	Green LED (DC OK); DC OK signal
Ambient operating temperature	-25 °C ... +70 °C Device starts at -40 °C, type-tested	-25 °C ... +70 °C Device starts at -40 °C, type-tested	-25 °C ... +70 °C Device starts at -40 °C, type-tested
Dimensions (mm) W x H x L Height from upper-edge of DIN-35 rail	52 x 121 x 90	55 x 172 x 127	95 x 177 x 127
Approvals	EN 60335, cURus 60950, cULus 508, GL	cURus 60950, cULus 508, GL	cURus 60950, cULus 508, GL



### 5) Monitoring

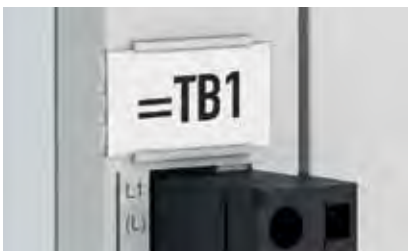
- Green LED indicates output voltage availability
- Remote monitoring via DC OK signal or isolated DC OK contact
- Easy installation and maintenance
- Quickly provides system information or machine status

### 6) Adjustable

- Front-panel adjustable output voltage via potentiometer
- Up to 20 % greater output voltage
- Easily compensate for voltage drops over long lines



787-1601	787-1611	787-1621	787-1631
100 ... 240 VAC	100 ... 240 VAC	100 ... 240 VAC	100 ... 240 VAC
85 ... 264 VAC; 120 ... 372 VDC	85 ... 264 VAC; 120 ... 372 VDC	85 ... 264 VAC; 120 ... 372 VDC	85 ... 264 VAC; 120 ... 372 VDC
12 VDC	12 VDC	12 VDC	12 VDC
11.5 ... 14.5 VDC	11.5 ... 14.5 VDC	11.5 ... 14.5 VDC	8.4 ... 15 VDC
2 A	4 A	7 A	15 A
No	No	No	Yes
82 %	86 %	86 %	90 %
Green LED (DC OK); active DC OK signal	Green LED (DC OK); active DC OK signal	Green LED (DC OK); active DC OK signal	Green LED (DC OK); DC OK signal
-25 °C ... +70 °C Device starts at -40 °C, type-tested	-25 °C ... +70 °C Device starts at -40 °C, type-tested	-25 °C ... +70 °C Device starts at -40 °C, type-tested	-25 °C ... +70 °C Device starts at -40 °C, type-tested
22.5 x 107.5 x 90	45 x 107.5 x 90	52 x 121 x 90	55 x 172 x 127
EN 60335, cURus 60950, cULus 508, GL	EN 60335, cURus 60950, cULus 508, GL	EN 60335, cURus 60950, cULus 508, GL	cURus 60950, cULus 508, GL



### 7) Device Marking

- Marking field for device identification
- Supports the WAGO WMB Multi Marking System, 5 mm pin spacing
- Supports 11 mm wide marking strips
- Securely attached marking field

### 8) Integrated TopBoost\*

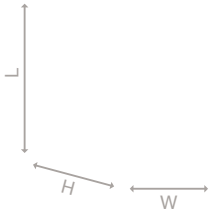
- Multiplies the nominal current
- Fast and reliable triggering of the secondary-side fusing via circuit breakers or fuses in the event of a short circuit or overload

\*for 787-1622, -1631, -1632, -1633, -1634, -1635

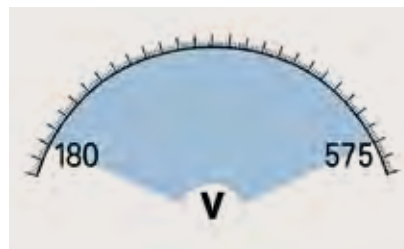


# EPSITRON® CLASSIC POWER

## Technical Data

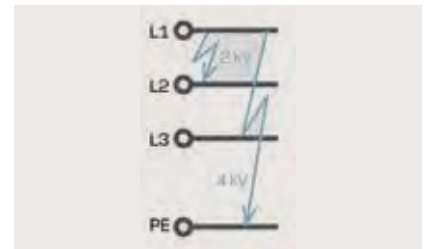


Item Number	787-1628	787-1638	787-1640
Nominal input voltage	2 x 200 ... 500 VAC	2 x 200 ... 500 VAC	3 x 400 ... 500 VAC
Input voltage range	180 ... 550 VAC; 254 ... 780 VDC	180 ... 550 VAC; 254 ... 780 VDC	320 ... 575 VAC; 450 ... 800 VDC
Nominal output voltage, SELV	24 VDC	24 VDC	24 VDC
Nominal output voltage range	23 ... 28.5 VDC	23 ... 28.5 VDC	23 ... 28.5 VDC
Output current	5 A	10 A	10 A
Integrated TopBoost	Yes	Yes	Yes
Efficiency	89 %	90 %	90 %
LED indication	Green LED (DC OK); DC OK signal	Green LED (DC OK); DC OK signal	Green LED (DC OK); DC OK signal
Ambient operating temperature	-25 °C ... +70 °C Device starts at -40 °C, type-tested	-25 °C ... +70 °C Device starts at -40 °C, type-tested	-25 °C ... +70 °C Device starts at -40 °C, type-tested
Dimensions (mm) W x H x L Height from upper-edge of DIN-35 rail	42 x 143.5 x 127	55 x 146.5 x 127	55 x 171 x 127
Approvals	cURus 60950, cULus 508	cURus 60950, cULus 508	cURus 60950, cULus 508



### 1) Universal Supply

- Voltage range of 180 ... 575 VAC
- Can be connected worldwide to many standard 1-/2-phase and 2-/3-phase power grids

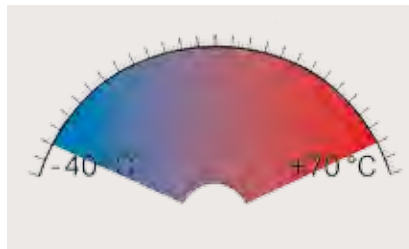


### 2) Increased Transient Suppression

- Overvoltage proof up to 2 kV (L-L) or 4 kV (L-PE)



787-1642	787-1644	
3 x 400 ... 500 VAC	3 x 400 ... 500 VAC	
320 ... 575 VAC; 450 ... 800 VDC	320 ... 575 VAC; 450 ... 800 VDC	
24 VDC	24 VDC	
23 ... 28.5 VDC	23 ... 28.5 VDC	
20 A	40 A	
Yes	Yes	
92 %	92 %	
Green LED (DC OK); DC OK signal	Green LED (DC OK); DC OK signal	
-25 °C ... +70 °C Device starts at -40 °C, type-tested	-25 °C ... +70 °C Device starts at -40 °C, type-tested	
80 x 178 x 127	126 x 196 x 127	
cURus 60950, cULus 508	cURus 60950, cULus 508	



### 3) Integrated TopBoost

- Multiplies the nominal current
- Fast and reliable triggering of the secondary-side fusing via miniature circuit breakers or melting fuses in the event of a short-circuit or overload

### 4) Wide Ambient Temperature Range

- Cold start at -40 °C
- Rated up to +70 °C
- Derating begins at +55 °C



WAGO's *EPSITRON*® ECO Power Supply powers a machine data collection system for production.

## ***EPSITRON*® ECO POWER**

The Economical power supply for standard applications -  
plus hazardous location approvals\*

Single- and three-phase Power Supplies for  
applications requiring 24 VDC and nominal  
output currents of 1.25 A to 40 A.

\*Hazardous location approvals found on select models





ATEX  
IEC Ex



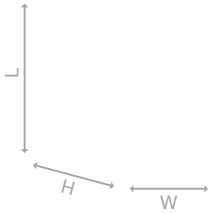
- Economically priced and packaged in a robust metal housing
- Optional DC OK contact
- Available, tool-free CAGE CLAMP® connection technology
- ATEX/IEC Ex approval, Zone 2 and Class I Div. 2



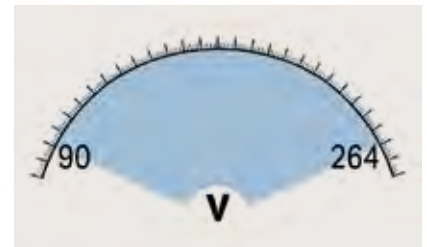
- Highly economical for standard applications
- CAGE CLAMP® connection technology
- Versatile mounting options thanks to DIN-35 rail and chassis mounting
- Approved for use in residential appliance and standard control applications.

# EPSITRON® ECO POWER

## Technical Data



Item Number	787-1702	787-1712
Nominal input voltage	100 ... 240 VAC	100 ... 240 VAC
Input voltage range	90 ... 264 VAC; 125 ... 375 VDC	90 ... 264 VAC; 125 ... 375 VDC
Nominal output voltage, SELV	24 VDC	24 VDC
Output voltage range	22 ... 26 VDC	22 ... 26 VDC
Output current	1.25 A	2.5 A
Output power	30 W	60 W
Efficiency	80 % typ.	81 % typ.
LED indication	Green LED (DC OK)	Green LED (DC OK)
Ambient operating temperature	-20 °C ... +60 °C	-20 °C ... +60 °C
Dimensions (mm) W x H x L Height from upper-edge of DIN-35 rail	30 x 99 x 90	40 x 99 x 90
Approvals	EN 60335, cULus 508	EN 60335, cULus 508



### 1) Versatile Mounting Options

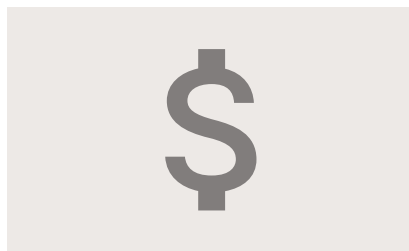
- Flexible mounting via DIN-rail adapter
- Installation flexibility thanks to chassis-mount clips

### 2) Universal Supply

- Wide input voltage range: 90 ... 264 VAC
- Efficiently operates on different power grids – no need for additional conversion or adjustment
- High tolerance of voltage fluctuations within a power grid
- High availability



787-1722	787-1732	
100 ... 240 VAC	100 ... 240 VAC	
90 ... 264 VAC; 125 ... 375 VDC	90 ... 264 VAC; 125 ... 375 VDC	
24 VDC	24 VDC	
22 ... 26 VDC	22 ... 26 VDC	
5 A	10 A	
120 W	240 W	
84 % typ.	84 % typ.	
Green LED (DC OK)	Green LED (DC OK)	
-20 °C ... +60 °C	-20 °C ... +60 °C	
60 x 99 x 130	70 x 99 x 165	
EN 60335, cULus 508	EN 60335, cULus 508	



### 3) Clear Indication

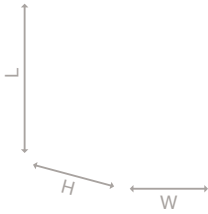
- Green LED indicates output voltage availability

### 4) Highly Economical

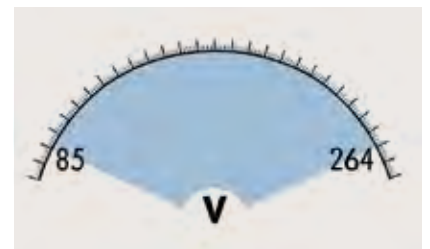
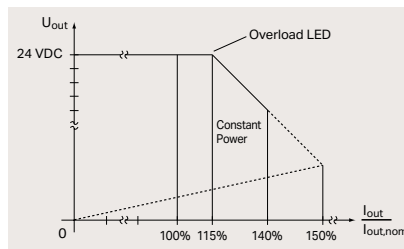
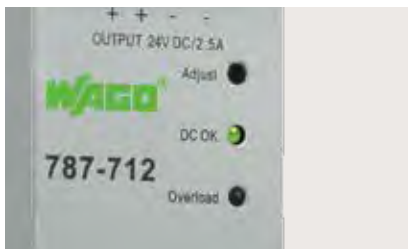
- Ease of installation and reliable connections save time and money by increasing up-time
- Budget friendly without sacrificing reliability or field of application

# EPSITRON® ECO POWER

## Technical Data



Item Number	787-712	787-722	787-732	787-734
Nominal input voltage	110 ... 240 VAC	110 ... 240 VAC	110 ... 240 VAC	110 ... 240 VAC
Input voltage range	85 ... 264 VAC; 130 ... 373 VDC	85 ... 264 VAC; 130 ... 373 VDC	85 ... 264 VAC; 130 ... 373 VDC	90 ... 264 VAC; 130 ... 373 VDC
Nominal output voltage, SELV	24 VDC	24 VDC	24 VDC	24 VDC
Output voltage range	22 ... 28 VDC	22 ... 28 VDC	22 ... 28 VDC	22 ... 28 VDC
Output current	2.5 A	5 A	10 A	20 A
Nominal output	60 W	120 W	240 W	480 W
Efficiency (230 VAC, nominal load)	86 % typ.	86 % typ.	86 % typ.	90 % typ.
LED indication	Green LED (DC OK) red LED (overload)	Green LED (DC OK) red LED (overload)	Green LED (DC OK) red LED (overload)	Green LED (DC OK), red LED (overload), signal contact (DC OK, make contact)
Ambient operating temperature	-10 °C ... +70 °C	-10 °C ... +60 °C	-10 °C ... +70 °C	-25 °C ... +70 °C
Dimensions (mm) W x H x L Height from upper-edge of DIN-35 rail	50 x 92 x 130	75 x 92 x 130	110 x 92 x 130	115 x 144 x 130
Approvals	cURus 60950, cULus 508, ANSI/ISA 12.12.1, ATEX/IECEX	cURus 60950, cULus 508, ANSI/ISA 12.12.1, ATEX/IECEX	cURus 60950, cULus 508, ANSI/ISA 12.12.1, ATEX/IECEX	cURus 60950, cULus 508



### 1) Clear Indication

- Green LED indicates output voltage availability
- Red LED indicates an overcurrent or short circuit
- Easy installation and maintenance

### 2) High Load-Carrying Capacity

- Overload warning from 1.15 times the nominal output current
- Overload of up to 1.4 times the nominal current with lowered output voltage (constant power)
- Output shutdown in case of a low-resistance short circuit; also includes automatic restart

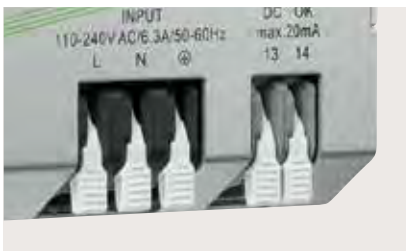
### 3) Universal Supply

- Wide input voltage range: 85 ... 264 VAC (single-phase) or 325 ... 575 VAC (two and three-phase)
- Efficiently operates on different power grids – no need for additional conversion or adjustment
- High tolerance of voltage fluctuations within a power grid
- High level of operational reliability





787-736	787-738	787-740	787-742
110 ... 240 VAC	3x (2x) 400 ... 500 VAC	3x (2x) 400 ... 500 VAC	3x (2x) 400 ... 500 VAC
90 ... 264 VAC; 130 ... 373 VDC	325 ... 575 VAC; 460 ... 800 VDC	325 ... 575 VAC; 460 ... 800 VDC	325 ... 575 VAC; 460 ... 800 VDC
24 VDC	24 VDC	24 VDC	24 VDC
22 ... 28 VDC	22 ... 28 VDC	22 ... 28 VDC	22 ... 28 VDC
40 A	6.25 A	10 A	20 A
960 W	150 W	240 W	500 W
90 % typ.	87 % typ.	89 % typ.	90 % typ.
Green LED (DC OK), red LED (overload), signal contact (DC OK, make contact)	Green LED (DC OK), red LED (overload), signal contact (DC OK, make contact)	Green LED (DC OK), red LED (overload), signal contact (DC OK, make contact)	Green LED (DC OK), red LED (overload), signal contact (DC OK, make contact)
-25 °C ... +70 °C	-25 °C ... +70 °C	-25 °C ... +70 °C	-25 °C ... +70 °C
170 x 153 x 130	50 x 92 x 130	65 x 130 x 130	110 x 153 x 130
cURus 60950, cULus 508	cURus 60950 (pending), cULus 508 (pending)	cURus 60950 (pending), cULus 508 (pending)	cURus 60950 (pending), cULus 508 (pending)



#### 4) Fast Wiring

- PCB terminal strips with integrated operating levers (2706 or 2716 Series)\*
- Convenient, tool-free wiring
- Integrated test slot simplifies testing by eliminating conductor removal

#### 5) Status Monitoring

- Isolated signal contact\*
- Indicates whether an output voltage or an overload is present
- Ideal for remote monitoring

#### 6) Easy Grounding

- Integrated third negative terminal strip on the output side\*
- Direct connection to the reference ground
- Extra termination provides a direct connection to ground

\*for 787-734 and 787-736 and three-phase power supplies



# EPSITRON® COMPACT POWER

The Low-Profile, High Performance Power Supply

Single-phase COMPACT Power Supplies in DIN-rail mount or chassis mount housings that provide output voltages of 5, 12, 18 or 24 VDC and nominal output currents up to 6.5 A.

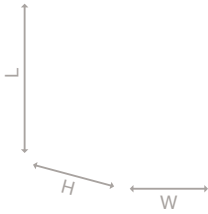


WAGO's EPSITRON® COMPACT Power Supply in a low-profile IP65 system housing powers a measurement and recording unit.

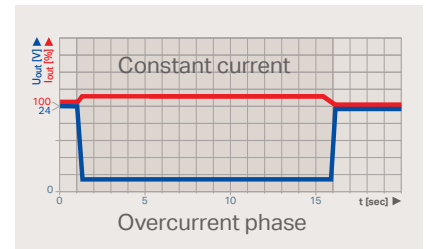
- Compact, low-profile design
- Overhead mounting permitted
- GL marine approval

# EPSITRON® COMPACT POWER

## Technical Data



Item Number	787-1001	787-1011	787-1021	787-1017
Nominal input voltage	100 ... 240 VAC	100 ... 240 VAC	100 ... 240 VAC	100 ... 240 VAC
Input voltage range	85 ... 264 VAC; 120 ... 373 VDC	85 ... 264 VAC; 120 ... 373 VDC	85 ... 264 VAC; 120 ... 373 VDC	85 ... 264 VAC; 120 ... 373 VDC
Nominal output voltage, SELV	12 VDC	12 VDC	12 VDC	18 VDC
Output voltage range	10.8 ... 18 VDC, adjustable	10.5 ... 15.5 VDC, adjustable	10.5 ... 15.5 VDC, adjustable	15 ... 28 VDC, adjustable
Output current	2 A at 12 VDC / 0.75 A at 18 VDC	4 A at 12 VDC	6.5 A at 12 VDC	2.5 A at 18 VDC / 2.3 A at 24 VDC; max. 55 W
Output current for overhead mounting	max. 1.4 A at 12 VDC	max. 2.4 A	max. 3.9 A	max. 1.6 A
Default setting	12 VDC	12 VDC	12 VDC	18 VDC
Overload behavior	Constant current, 1.1 x I <sub>o</sub> typ.	Constant current, 1.1 x I <sub>o</sub> typ.	Constant current, 1.1 x I <sub>o</sub> typ.	Constant current, 1.1 x I <sub>o</sub> typ.
Operation status indicator	Green LED (Vo)	Green LED (Vo)	Green LED (Vo)	Green LED (Vo)
Efficiency	80 % typ.	85 % typ.	87 % typ.	83 % typ. at 18 VDC / 2.5 A 85 % typ. at 24 VDC / 2.3 A
Ambient operating temperature	-25 °C ... +60 °C Device start at -40 °C type-tested	-25 °C ... +60 °C Device start at -40 °C type-tested	-25 °C ... +60 °C Device start at -40 °C type-tested	-25 °C ... +60 °C Device start at -40 °C type-tested
Dimensions (mm) W x H x L	54 x 55 x 89	72 x 55 x 89	90 x 55 x 89	72 x 55 x 89
Approvals	cURus 60950, cULus 508, GL	cURus 60950, cULus 508, GL	cURus 60950, cULus 508, GL	cURus 60950, cULus 508



### 1) Clear Indication

- Status indication via green LED
- Current operating status can be displayed quickly

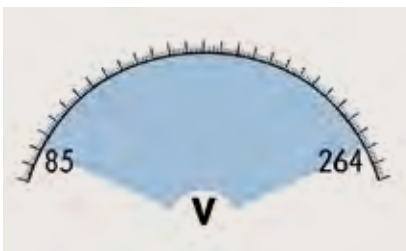
### 2) Minimum Size, Maximum Performance

- Constant current characteristic under overload conditions
- 110 % output current with lowered output voltage – even during a short circuit
- High capacitive loads can be reliably started (e.g., distributed control units or HMI devices)





787-1002	787-1012	787-1022	787-1020
100 ... 240 VAC	100 ... 240 VAC	100 ... 240 VAC	100 ... 240 VAC
85 ... 264 VAC; 120 ... 373 VDC	85 ... 264 VAC; 120 ... 373 VDC	85 ... 264 VAC; 120 ... 373 VDC	85 ... 264 VAC; 120 ... 373 VDC
24 VDC	24 VDC	24 VDC	5 VDC
22.8 ... 26.4 VDC, adjustable	22.8 ... 26.4 VDC, adjustable	22.8 ... 26.4 VDC, adjustable	4.5 ... 8.5 VDC, adjustable
1.3 A at 24 VDC	2.5 A at 24 VDC	4 A at 24 VDC	5.5 A at 5 VDC
max. 0.9 A	max. 1.6 A	max. 2.4 A	max. 3.5 A
24 VDC	24 VDC	24 VDC	5 VDC
Constant current, 1.1 x Io typ.	Constant current, 1.1 x Io typ.	Constant current, 1.1 x Io typ.	Constant current, 1.1 x Io typ.
Green LED (Vo)	Green LED (Vo)	Green LED (Vo)	Green LED (Vo)
82 % typ.	88 % typ.	88 % typ.	75 % typ.
-25 °C ... +60 °C Device start at -40 °C type-tested	-25 °C ... +60 °C Device start at -40 °C type-tested	-25 °C ... +60 °C Device start at -40 °C type-tested	-25 °C ... +60 °C Device start at -40 °C type-tested
54 x 55 x 89	72 x 55 x 89	90 x 55 x 89	72 x 55 x 89
cURus 60950, cULus 508, GL	cURus 60950, cULus 508, GL	cURus 60950, cULus 508, GL	cURus 60950, cULus 508



### 3) Universal Supply

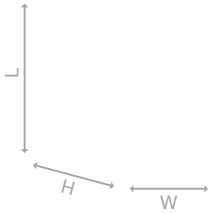
- Wide input voltage range:  
85 ... 264 VAC (single-phase)
- Efficiently operates on different power grids – no need for additional conversion or adjustment
- High tolerance of voltage fluctuations within a power grid ensures a high level of operational reliability

### 4) Overhead Mounting

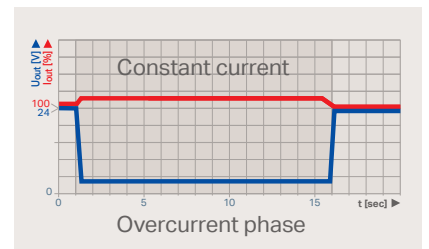
- Any type of mounting position is possible with reduced output power
- Units can even be mounted overhead

# EPSITRON® COMPACT POWER

## Technical Data



Item Number	787-1102	
Nominal input voltage	100 ... 240 VAC	
Input voltage range	85 ... 264 VAC; 120 ... 373 VDC	
Nominal output voltage, SELV	24 VDC	
Output voltage range	22.8 ... 26.4 VDC	
Output current	1.3 A	
Operation status indicator	Green LED (DC OK)	
Efficiency	82 % typ.	
Ambient operating temperature	-25 °C ... +60 °C Device start at -40 °C type-tested	
Dimensions (mm) W x H x L	54 x 55 x 89	
Approvals	cURus 60950, cULus 508, GL	



### 1) Easy to Connect

- CAGE CLAMP® connection technology - vibration-proof, fast, maintenance-free
- Pre-assembly via pluggable *picoMAX*® connection technology

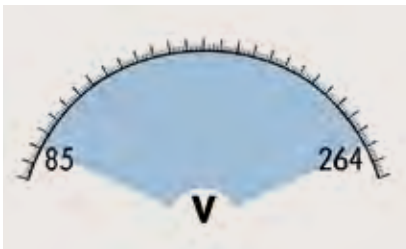
### 2) Minimum Size,

#### Maximum Performance

- Constant current characteristic under overload conditions
- 110 % output current with lowered output voltage – even during a short circuit
- High capacitive loads can be reliably started (e.g., distributed control units or HMI devices)



787-1112	787-1122	
100 ... 240 VAC	100 ... 240 VAC	
85 ... 264 VAC; 120 ... 373 VDC	85 ... 264 VAC; 120 ... 373 VDC	
24 VDC	24 VDC	
22.8 ... 26.4 VDC	22.8 ... 26.4 VDC	
2.5 A	4 A	
Green LED (DC OK)	Green LED (DC OK)	
88 % typ.	88 % typ.	
-25 °C ... +60 °C Device start at -40 °C type-tested	-25 °C ... +60 °C Device start at -40 °C type-tested	
72 x 55 x 89	90 x 55 x 89	
cURus 60950, cULus 508, GL	cURus 60950, cULus 508, GL	



### 3) Universal Supply

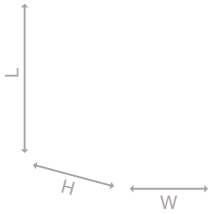
- Wide input voltage range: 85 ... 264 VAC (single-phase)
- Efficiently operates on different power grids – no need for additional conversion or adjustment
- High tolerance of voltage fluctuations within a power grid ensures a high level of operational reliability

### 4) Overhead Mounting

- Any type of mounting position is possible with reduced output power
- Units can even be mounted overhead

# EPSITRON® COMPACT POWER

## Technical Data



Item Number	787-1202		787-1212	
Nominal input voltage	100 ... 240 VAC		100 ... 240 VAC	
Input voltage range	90 ... 264 VAC; 125 ... 375 VDC		90 ... 264 VAC; 125 ... 375 VDC	
Nominal output voltage, SELV	24 VDC		24 VDC	
Output voltage range	22 ... 26 VDC		22 ... 26 VDC	
Output current	1.3 A		2.5 A	
Output power	30 W		60 W	
Operation status indicator	Green LED (DC OK)		Green LED (DC OK)	
Efficiency	87 % typ.		89 % typ.	
Ambient operating temperature	-25 °C ... +70 °C Device start at -40 °C type-tested		-25 °C ... +70 °C Device start at -40 °C type-tested	
Dimensions (mm) W x H x L	54 x 56 x 90		72 x 56 x 90	
Approvals	cURus 60950, cULus 508, EN 60335		cURus 60950, cULus 508, EN 60335	



### 1) Easy to Connect

- CAGE CLAMP® connection technology - vibration-proof, fast, maintenance-free
- Pre-assembly via pluggable *picoMAX*® connection technology

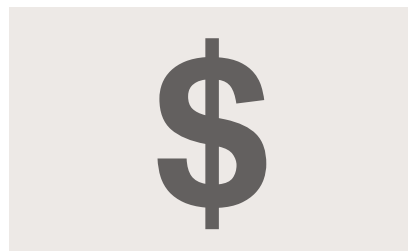
### 2) Versatile Mounting Options

- Easy DIN-rail mounting
- Flexible installation via chassis mount clips





787-1216		787-1226
100 ... 240 VAC		100 ... 240 VAC; 200 ... 240 VAC
90 ... 264 VAC; 125 ... 375 VDC		90 ... 132 VAC; 180 ... 264 VAC 250 ... 375 VDC
24 VDC		24 VDC
22 ... 26 VDC		22 ... 26 VDC
4.2 A		6 A
100 W		144 W
Green LED (DC OK)		Green LED (DC OK)
90 % typ.		90 % typ.
-25 °C ... +70 °C Device start at -40 °C type-tested		-25 °C ... +70 °C Device start at -40 °C type-tested
108 x 56 x 90		144 x 56 x 90
cURus 60950, cULus 508, EN 60335		cURus 60950, cULus 508, EN 60335



### 3) Ideal for Alternative Mounting Positions

- Improved cooling in alternative mounting positions due to removable front plate

### 4) Highly Economical

- Ease of installation and reliable connections save time and money by increasing up-time
- Budget friendly without sacrificing reliability or field of application



The *EPSITRON*® DC/DC Converters are suitable for marine (on the bridge) applications (787-28xx), as well as for railway applications (787-1014/xxxx-xxxx).

## ***EPSITRON*® DC/DC CONVERTERS**

**Dependable Power Supply for Different Voltages**

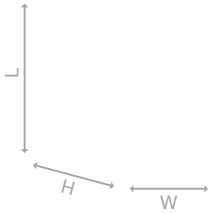
DC/DC converters can be used instead of an additional power supply for applications that requires different voltages





# EPSITRON® DC/DC CONVERTERS

## Technical Data



Item Number	787-2801	787-2802	787-2803	787-2805
Nominal input voltage	24 VDC	24 VDC	48 VDC	24 VDC
Input voltage range	10 ... 30 VDC	15 ... 30 VDC	40 ... 55 VDC	15 ... 30 VDC
Nominal output voltage, SELV	5 VDC	10 VDC	24 VDC	12 VDC
Output current	0.5 A	0.5 A	0.5 A	0.5 A
Efficiency	82.5 %	89 %	91 %	90 %
LED indication	Green LED ( $V_{out}$ ) Red LED (short circuit) DC OK signal	Green LED ( $V_{out}$ ) Red LED (short circuit) DC OK signal	Green LED ( $V_{out}$ ) Red LED (short circuit) DC OK signal	Green LED ( $V_{out}$ ) Red LED (short circuit) DC OK signal
Ambient operating temperature	-25 ... +70 °C	-25 ... +70 °C	-25 ... +70 °C	-25 ... +70 °C
Dimensions (mm) W x H x L Height from upper-edge of DIN-35 rail	6 x 96 x 94	6 x 96 x 94	6 x 96 x 94	6 x 96 x 94
Approvals	cURus 60950, cULus 508, GL	cURus 60950, cULus 508, GL	cURus 60950, cULus 508	cURus 60950, cULus 508, GL



### 1) Jumpering with 857/2857 Series

- A shared profile between the 787-28xx DC/DC Converters and the 857/2857 Series Relays and Signal Conditioners enables full jumpering of the supply voltage

### 2) Industry's Most Compact

- "True" 6.0 mm (0.23 in.) width maximizes panel space





787-2810	787-1014	787-1014/0072-0000
24 VDC	110 VDC	72 VDC
10 ... 30 VDC	77 ... 140 VDC	40 ... 90 VDC
5 / 10 / 12 VDC variable	24 VDC	24 VDC
0.5 A	2 A	2 A
82.5 %	85 %	86 %
Green LED ( $V_{out}$ ) Red LED (short circuit) DC OK signal	LED green ( $V_{out}$ )	LED green ( $V_{out}$ )
-25 °C ... +70 °C	-40 °C ... +70 °C	-40 °C ... +70 °C
6 x 96 x 94	72 x 55 x 89	72 x 55 x 89
cURus 60950, cULus 508, GL	EN 50155	EN 50155



### 3) Suitable for Railway Applications per EN 50155\*

- Wide DC input voltage range
- Wide temperature range
- Protective coating

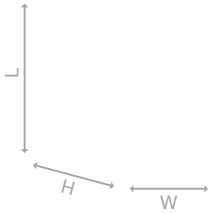
\*only for 787-1014 & 787-1014/0072-0000

### 4) Monitoring

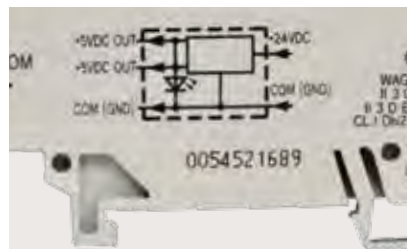
- Green LED indicates output voltage availability
- Remote monitoring via DC OK
- Easy installation and maintenance

# EPSITRON® DC/DC CONVERTERS

## Technical Data



Item Number	859-801	859-802	51012297	
Nominal input voltage	24 VDC	24 VDC	48 VDC	
Input voltage range	10 ... 30 VDC	15 ... 30 VDC	40 ... 55 VDC	
Nominal output voltage, SELV	5 VDC	10 VDC	24 VDC variable	
Output current	500 mA	500 mA	1.2 A	
Efficiency	70 %	85 %	93 %	
LED indication	Red LED (Vo)	Red LED (Vo)	Red LED (Vo)	
Ambient operating temperature	0 °C ... +40 °C	-25 °C ... +55 °C	-25 °C ... +55 °C	
Dimensions (mm) W x H x L Height from upper-edge of DIN-35 rail	6 x 56 x 91	6 x 56 x 91	25 x 51 x 52	
Approvals	CE, cULus, ATEX, UL Class 1, Div. 2	CE, cULus, UL Class 1, Div. 2	No approvals	



### 1) Convenient

- Optional end plate included and installed
- Reverse polarity protected
- Wiring diagram on housing
- Highly efficient

### 2) Industry's Most Compact

- "True" 6 mm width maximizes panel space
- Depth of only 56 mm from top edge of DIN rail saves cabinet space



789-851	789-852	859-805	859-804
24 VDC	24 VDC	24 VDC	12 VDC
19.2 ... 28.8 VDC	19.2 ... 28.8 VDC	15 ... 30 VDC	8 ... 16 VDC
5 VDC variable	5 VDC variable	12 VDC	24 VDC
1.5 A	1.5 A	500 mA	250 mA
82 %	90 %	85 %	83 %
Red LED (Vo)	Red LED (Vo)	Red LED (Vo)	Red LED (Vo)
-25 °C ... +55 °C	-25 °C ... +55 °C	-25 °C ... +55 °C	-25 °C ... +40 °C
17.5 x 55 x 90	17.5 x 55 x 90	6 x 56 x 91	6 x 56 x 91
No approvals	No approvals	CE, cULus, UL Class 1, Div. 2	CE



### 3) Approvals

- cULus Listed
- ATEX approval for use in hazardous locations\*



\*On certain models

### 4) Monitoring

- LED for voltage indication
- Easy commissioning with top entry terminations
- Common side jumpering reduces wiring



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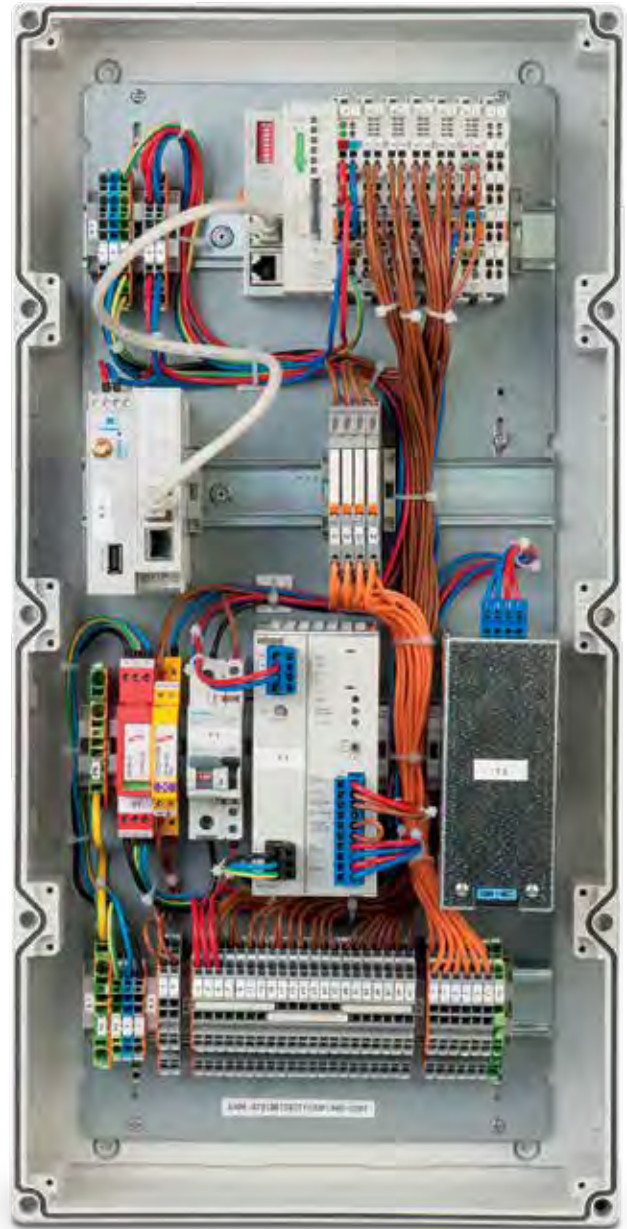




# EPSITRON® UPS

Reliable Back-up Power – Even for Longer Power Outages

Consisting of a UPS charger and controller, as well as one or more connected batteries, WAGO's Uninterruptible Power Supply reliably powers an application for several hours.



Compact and cost-effective, WAGO's 787-1675 *EPISTRON*® CLASSIC Power Supply with an integrated UPS charger and controller powers and buffers applications with low energy demands.

- Slim UPS charger and controller with convenient visualization and configuration
- Optional power supply with integrated UPS charger and controller (787-1675)
- Battery control technology for predictive maintenance that extends battery life



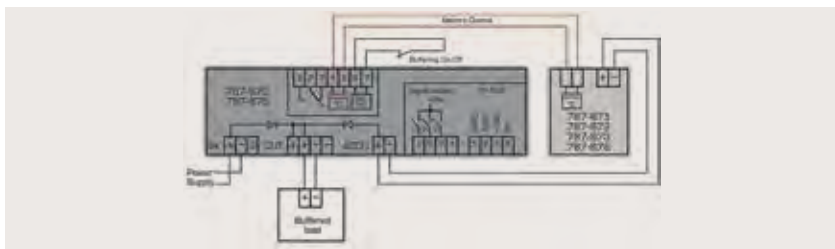
# EPSITRON® UPS

## Technical Data



Item Number	787-870	787-875	787-1671	787-876
Description	UPS Charger and Controller	UPS Charger and Controller	Lead-Acid AGM Battery Module	Lead-Acid AGM Battery Module
Nominal input voltage	24 VDC	24 VDC	24 VDC	24 VDC
Input current I <sub>i</sub>	0.1 A (no-load running); 0.8 A (charging); 10.8 A (max.)	0.1 A (no-load running); 1.5 A (charging); 21.5 A (max.)	max. 0.2 A	max. 0.3 A
Switch-on threshold (adjustable)	20 ... 25.5 VDC	20 ... 25.5 VDC	—	—
Output voltage range	V <sub>1</sub> ... 1 VDC (below switch-on threshold); Battery voltage – 1 VDC (buffer mode)	V <sub>1</sub> ... 1 VDC (below switch-on threshold); Battery voltage – 1 VDC (buffer mode)	24 VDC	24 VDC
Output current I <sub>o</sub>	10 A	20 A	5 A	max. 7.5 A
Buffer time/capacity	10 ... 600 s, IPC mode or constant (adjustable)	10 ... 600 s, IPC mode or constant (adjustable)	0.8 Ah	1.2 Ah
End-of-charge voltage	26 ... 29.5 VDC or temperature-controlled (adjustable)	26 ... 29.5 VDC or temperature-controlled (adjustable)	27 VDC (at 25 °C)	27 VDC (at 25 °C)
LED indication	LED, LCD, 3 x signal output 24 VDC, 25 mA and 1 x isolated relay contact	LED, LCD, 3 x signal output 24 VDC, 25 mA and 1 x isolated relay contact	Battery control	Battery control
Interface	RS-232 (optional accessory: 787-890 Communication Cable)	RS-232 (optional accessory: 787-890 Communication Cable)	—	—
Remote input	Switches buffer mode off	Switches buffer mode off	—	—
Ambient operating temperature	-10 °C ... +60 °C	-10 °C ... +60 °C	-15 °C ... +40 °C	-15 °C ... +40 °C
Dimensions (mm) W x H x L Height from upper-edge of DIN-35 rail	40 x 163 x 163*	57 x 163 x 171*	72 x 124.5 x 97	55 x 136.5 x 153
Approvals	cURus 60950, cULus 508	cURus 60950, cULus 508	cULus 508	cULus 508

\*L = 127 mm, without pluggable female connectors (787-870 and 787-875 only)



### 1) EPSITRON® Battery Control Technology

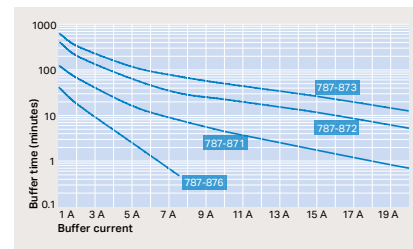
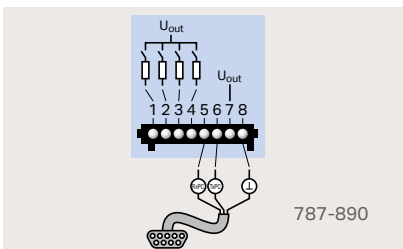
- Allows continuous data exchange between intelligent battery modules (787-87x) and a UPS charger/controller
- Automatically detects a connected battery module (787-87x)
- Maximum battery life via temperature-controlled battery management
- Reliable, early warning of decreasing battery life
- Determines battery life expectancy based on the ambient operating temperature
- Display current status

### 2) Diagnostics, Monitoring, Configuration

- LEDs display operating status, warnings and errors
- Signal outputs can be processed as a digital signal in a PLC
- Potential-free signal contacts
- Parameter setting via on-unit buttons or rotary switch
- Visualization or configuration via RS-232 serial interface



787-871	787-872	787-873	787-1675
Lead-Acid AGM Battery Module	Lead-Acid AGM Battery Module	Lead-Acid AGM Battery Module	Power Supply, 1-Phase, with Integrated UPS Charger and Controller
24 VDC	24 VDC	24 VDC	100 ... 240 VAC
max. 0.8 A	max. 1.8 A	max. 3 A	1.1 AAC at 230 VAC and 5 ADC
—	—	—	22 VDC (pre-configured), 20 ... 25.5 VDC (configurable via software)
24 VDC	24 VDC	24 VDC	23.0 ... 28.5 VDC (mains operation) 18.5 ... 27.5 VDC (battery operation)
20 A	max. 40 A	max. 40 A	5 A
3.2 Ah	7 Ah	12 Ah	1 s to 20 min, IPC mode or constant (adjustable)
27 VDC (at 25 °C)	27 VDC (at 25 °C)	27 VDC (at 25 °C)	26 ... 29.5 VDC temperature-controlled (fixed or adjustable)
Battery control	Battery control	Battery control	3 x 24 VDC signal output, 25 mA
—	—	—	RS-232 (optional accessories: 787-892 Communication Cable)
—	—	—	Switches buffer mode off
-15 °C ... +40 °C	-15 °C ... +40 °C	-15 °C ... +40 °C	-25 °C ... +70 °C
76.2 x 175.5 x 168	86 x 217.5 x 236	120.5 x 217.5 x 236	60 x 135.5 x 127
cULus 508	cULus 508	cULus 508	cURus 60950, cULus 508, GL



### 3) RS-232 Serial Interface

- Free download\* of 759-870 Configuration and Visualization Software
- Free download of function blocks for visualization on standard PLC systems
- 787-890 Serial Communication Cable available as an accessory

\* www.wago.com/epsitron

### 4) Display with Charge Status Indication

- Indicates actual current and voltage values
- Bar graph displays the charge level of connected batteries
- Integrated fault memory

### 5) Buffer Time

- Based on battery capacity and discharge current
- Four battery modules are available with capacities from 0.8 ... 12 Ah
- Parallel connection of up to three battery modules of the same type increases buffer time – any lead battery modules can be connected



Capacitive buffer modules maintain power supply within the control cabinet – even during a temporary voltage drop when starting the motor of an impact crusher.

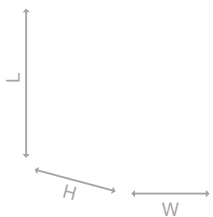
## EPSITRON® CAPACITIVE BUFFER MODULES

Short-Term Power Reserve for Power Failure and Load Change

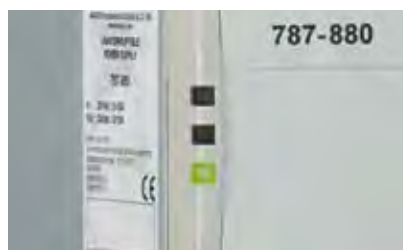
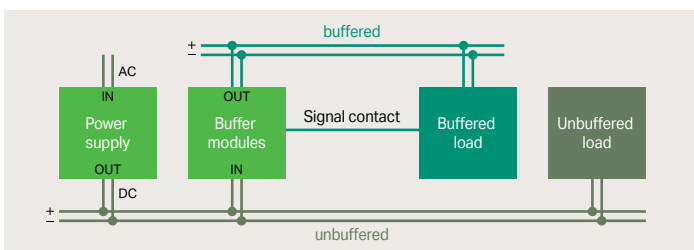
- Maintenance-free, high-energy gold caps
- Integrated diodes for decoupling buffered loads from unbuffered loads
- Unlimited parallel-connections possible
- Configurable switch-on threshold



## Technical Data



Item Number	787-880	787-881
Description	Capacitive Buffer Module	Capacitive Buffer Module
Nominal input voltage $V_i$	24 VDC	24 VDC
Input current $I_i$	60 mA (no-load running); 1 A (charging); 11 A (max.)	60 mA (no load running); 1 A (charging); 22 A (max.)
Charging time	approx. 5 minutes	approx. 5 minutes
Switch-on threshold (adjustable)	20 ... 24 VDC	20 ... 24 VDC
Output voltage range	$V_i$ ... 0.5 VDC (below switch-on threshold); 20.4 ... 24 VDC (buffer mode)	$V_i$ ... 1 VDC (below switch-on threshold); 20.4 ... 24 V (buffer mode)
Output current $I_o$	10 A	20 A
Buffer time	0.06 ... 7.2 s (depends on load current and switch-on threshold)	0.17 ... 16.5 s (depends on load current and switch-on threshold)
Parallel-connections possible	Yes	Yes
LED indication	LED; isolated relay contact	LED; isolated relay contact
Ambient operating temperature	-10 °C ... +50 °C	-10 °C ... +50 °C
Dimensions (mm) W x H x L H from upper-edge of DIN-35 rail; L=127mm, without pluggable female connectors	57 x 179 x 163	57 x 179 x 181
Approvals	cURus 60950, cULus 508	cURus 60950, cULus 508



### 1) Decoupled Output

- Integrated diode
- Buffered and unbuffered loads can be decoupled
- Multiple buffer modules can be parallel-connected to increase buffer time or load current

### 2) Indication

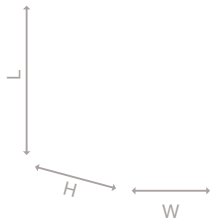
- Three LEDs (green/yellow/red) indicate the current operating status
- The isolated signal contact indicates the charge level



# EPSITRON® AC TRANSFORMERS AND REDUNDANCY MODULES

Reliably Increase Power Supply Availability & Transform AC Voltages

## AC Transformer



Item Number	787-974	787-976
Description	AC Transformer	AC Transformer
Nominal input voltage	110/230 VAC	110/230 VAC
Input voltage range	0 ... 230 VAC	0 ... 230 VAC
Output voltage, SELV	12/24 VAC	12/24 VAC
Output voltage range	0 ... 24 VAC	0 ... 24 VAC
Isolation voltage	4,200 VAC	4,200 VAC
Output current/ power	3.3 A / 1.67 A, 40 VA	5.2 A / 2.6 A, 63 VA
Ambient operating temperature	-25 °C ... +55 °C	-25 °C ... +55 °C
Dimensions (mm) W x H x L	126 x 54 x 90	144 x 54 x 90
Approvals	CE, cRUus Class B	CE, cRUus Class B

## Redundancy Module



Item Number	787-885
Description	Redundancy Module
Nominal input voltage $V_i$	2 x 24 VDC
Input current $I_i$	2 x 20 A, together max. 1 x 40 A
Nominal output voltage $V_{o,nom}$	24 VDC
Output current $I_o$	20 A, max. 40 A
Efficiency	97 % typ.
Power loss $P_V$	1.5 W (no load) / 14 W (rated load 20 A) / 26 W (rated load 40 A)
LED indication	LED; isolated relay contact
Ambient operating temperature	-10 °C ... +60 °C
Dimensions (mm) W x H x L	40 x 163 x 181
Approvals	cURus 60950, cULus 508

## Reliably Increasing Power Supply Availability

Redundancy modules decouple two parallel-connected power supplies and are ideal for applications where an electrical load must be reliably supplied – even in the event of a power supply failure.

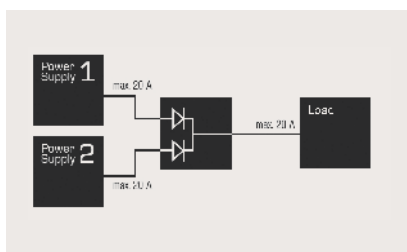
- Integrated power diodes with overload capability
- Solutions for 12/24/48 VDC supply, up to 76 A
- Parallel-connections possible, reverse voltage protection
- LED indication and optional signal contact







787-886	787-783	787-785	787-1685
Redundancy Module	—	—	MOSFET Redundancy Module
2 x 48 VDC	2 x 24 VDC (9 ... 54 VDC)	2 x 24 VDC (9 ... 54 VDC)	2 x 24 VDC
2 x 20 A, together max. 1 x 40 A	2 x max. 12.5 A	2 x max. 40 ADC	2 x 20 A / 1 x 40 A (max.)
48 VDC	2 x 9 ... 54 VDC	2 x 9 ... 54 VDC	24 VDC
20 A, max. 40 A	max. 12.5 A as redundancy module, max. 25 A in parallel operation	max. 40 A as redundancy module, max. 76 A in parallel operation	max. 40 A as
96 % typ.	96 %	97 %	99.5 %
1.7 W (no load) / 20 W (nominal load 20 A) / 40 W (nominal load 40 A)	12.5 W at nominal load	30 W at nominal load	1.5 W (no load) / 9.5 W (nominal load)
LED; isolated relay contact	2 x green LED (input); 1 x green LED (output)	2 x green LED (input); 1 x green LED (output)	green LED (DC OK); DC OK contact
-10 °C ... +60 °C	-25 °C ... +70 °C	-25 °C ... +70 °C	-40 °C ... +70 °C
40 x 163 x 181	50 x 92 x 130	83 x 153 x 130	42 x 139.5 x 127
None	cULus 508, GL, ANSI/ISA 12.12.1, ATEX/IECEX	cULus 508, GL, ANSI/ISA 12.12.1, ATEX/IECEX	cURus 60950, cULus 508, GL



## 1) Indication

- Three LEDs indicate the presence of an input or output voltage
- Optional isolated signal contact\* indicates a power outage at the input

\*for 787-885 and -886

## 2) High Overload Capability

- Power diodes in each input path feature a high overload capability and are also suitable for power supplies with TopBoost or PowerBoost
- Bridging the input paths permits output currents up to 76 A



## **EPSITRON® Electronic Circuit Breakers (ECBs)**

Precise, space-saving protection for 24 VDC

**WAGO's compact 787-1664 Electronic Circuit Breaker (ECB) provides reliable and precise overcurrent protection on the output side.**

2-, 4- and 8-channel electronic circuit breakers with adjustable currents ranging from 0.5 ... 12 A.

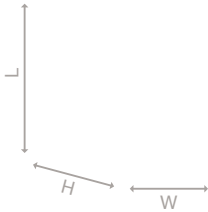


- Slim design, communication capability
- High switch-on capacity reduces false tripping
- Optional active current limitation

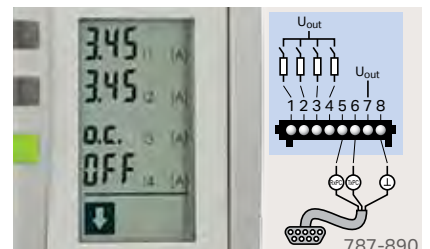
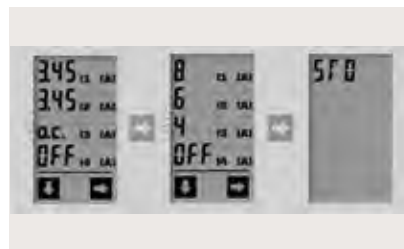
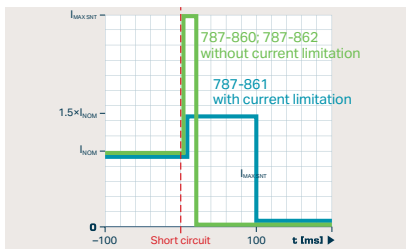


# EPSITRON® ECBs

## Technical Data



Item Number	787-860	787-862	787-861
Description	Electronic Circuit Breaker	Electronic Circuit Breaker	Electronic Circuit Breaker with Active Current Limitation
Nominal input voltage	24 VDC	24 VDC	24 VDC
Nominal output voltage	4 x 24 VDC	4 x 24 VDC	4 x 24 VDC
Nominal current	4 x 1 ... 6 ADC (adjustable for each channel in 1 A steps)	4 x 1 ... 10 ADC (adjustable for each channel in 1 A steps)	4 x 1 ... 8 ADC (adjustable for each channel in 1 A steps)
Trip time	100 s (100 ms to 600 s; adjustable)	100 s (100 ms to 600 s; adjustable)	100 ms (100 ms to 1.5 s; adjustable, depending on nominal current)
Switch-on capacity	max. 20,000 µF per channel	max. 20,000 µF per channel	max. 20,000 µF per channel
Switch-on behavior	Time-delayed channel switching (250 ms each)	Time-delayed channel switching (250 ms each)	Time-delayed channel switching (250 ms each)
LED indication	LED, LCD, 4 x signal output 24 VDC, 25 mA and 1 x isolated relay contact 60 VDC, 3 A	LED, LCD, 4 x signal output 24 VDC, 25 mA and 1 x isolated relay contact 60 VDC, 3 A	LED, LC display, 4 x signal output 24 VDC, 25 mA
Remote control input	Yes	Yes	No
Short circuit current limitation	-/-	-/-	1.5 x nominal current typ.
Ambient operating temperature	-10 °C ... +60 °C	-10 °C ... +60 °C	-10 °C ... +60 °C
Dimensions (mm) W x H x L	40 x 163 x 171	40 x 163 x 171	40 x 163 x 171
Approvals	cULus 508	cULus 508	cULus 508



### 1) Trip Characteristics

- Reliable and precise disconnection in case of an overcurrent or short circuit
- Nominal currents can be set separately for each channel in 1 A increments
- Tripping time can be configured in defined increments
- Optional, active short circuit current limitation\* to 1.5 times the nominal current prevents a voltage drop in other current paths

### 2) Switching and Acknowledging

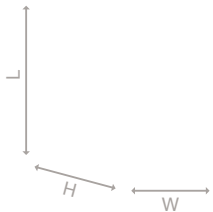
- Activate tripped and switch channels with the click of a button
- Activate tripped channels via RS-232 interface
- Optional activation of all tripped channels via an impulse at the remote control input\*\*
- Display and function keys for direct, on-site programming

### 3) Indication and Configuration

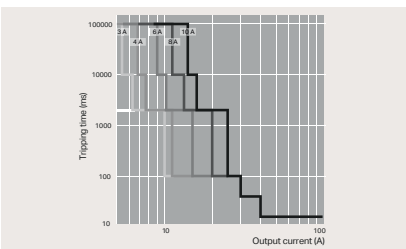
- Three LEDs (green/yellow/red) for operating condition monitoring
- Display shows actual current and voltage levels, as well as status messages
- Integrated fault memory for quick diagnostics
- Four active signal outputs
- RS-232 serial interface permits fault diagnostics and configuration on a PC or PLC
- Potential-free contact\*\*

\*for 787-861 only \*\*for 787-860 and -862





Item Number	787-166x	787-166x/0106-0000	787-166x/0000-0004
Description	Electronic Circuit Breaker	Electronic Circuit Breaker	Electronic Circuit Breaker
Nominal input voltage	24 VDC	24 VDC	24 VDC
Channel variants	Available as 2-, 4- and 8-channel variants	Available as 2-, 4- and 8-channel variants	Available as 2-, 4- and 8-channel variants
Adjustable nominal current	2 ... 10 A	1 ... 6 A	2 ... 10 A
Trip time	Load-dependent (16 ms to 100 s)	Load-dependent (16 ms to 100 s)	Load-dependent (16 ms to 100 s)
Switch-on capacity	> 50,000 µF per channel	> 50,000 µF per channel	> 50,000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, 50 ms to 5 s)	Time-delayed channel switching (load-dependent, 50 ms to 5 s)	Time-delayed channel switching (load-dependent, 50 ms to 5 s)
LED indication	LED (green/red/orange) per channel, signal output	LED (green/red/orange) per channel, signal output	LED (green/red/orange) per channel, signal output
Remote control input	Yes	Yes	Yes
Ambient operating temperature	-25 °C ... +70 °C	-25 °C ... +70 °C	-25 °C ... +70 °C
Special configuration	—	—	Indication: "triggered" and "switched off" Default setting: 2 A; all channels switched off
Approvals	UR 2367, cULus 508, GL	UR 2367, cULus 508, GL	UR 2367, cULus 508, GL



### 1) Trip Characteristics

- Reliable and precise disconnection in case of an overcurrent and short circuit
- Optional active current limitation to 1.5 times set rated current

### 2) Pluggable CAGE CLAMP® Connection Technology

- Fast, vibration-proof, maintenance-free
- For solid, fine-stranded or ferruled conductors
- 100 % protected against mismatching

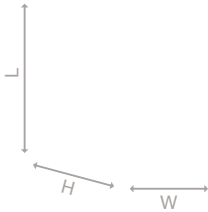
### 3) Marking System

- Device identification via WMB markers or TOPJOB® S marking strips
- Label individual channels via marking strips that can be inserted into the rotary switch cover from the outside

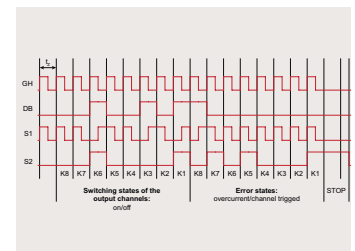
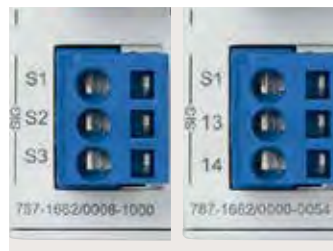


# EPSITRON® ECBs

## Technical Data



Item Number	787-166x/0004-1000	787-166x/0006-1000	787-166x/0212-1000	787-166x/0006-1054
Description	Electronic Circuit Breaker with Active Current Limitation	Electronic Circuit Breaker with Active Current Limitation	Electronic Circuit Breaker with Active Current Limitation	Electronic Circuit Breaker with Active Current Limitation
Nominal input voltage	24 VDC	24 VDC	24 VDC	24 VDC
Channel variants	Available as 2- and 4-channel variants	Available as 2-, 4- and 8-channel variants	Available as 2- and 4-channel variants	Available as 4- and 8-channel variants
Adjustable nominal current	3.8 A fixed setting	0.5 ... 6 A	2 ... 12 A	0.5 ... 6 A
Trip time	Load-dependent (16 ms to 5 s)	Load-dependent (16 ms to 5 s)	Load-dependent (16 ms to 5 s)	Load-dependent (16 ms to 5 s)
Switch-on capacity	> 65,000 µF per channel	> 65,000 µF per channel	> 65,000 µF per channel	> 58,000 µF per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, 50 ms to 5 s)	Time-delayed channel switching (load-dependent, 50 ms to 5 s)	Time-delayed channel switching (load-dependent, 50 ms to 5 s)	Time-delayed channel switching (load-dependent, 50 ms to 5 s)
LED indication	LED (green/red/orange) per channel, signal output	LED (green/red/orange) per channel, signal output	LED (green/red/orange) per channel, signal output	LED (green/red/orange) per channel, isolated signal contact
Remote control input	Yes	Yes	Yes	No
Ambient operating temperature	-25 °C ... +70 °C	-25 °C ... +70 °C	-25 °C ... +70 °C	-25 °C ... +70 °C
Special configuration	—	—	—	Indication: "triggered" and "switched off" Default setting: 2 A; all channels switched off
Approvals	UR 2367, cULus 508, GL, NEC Class 2	UR 2367, cULus 508, GL	UR 2367, cULus 508, GL	UR 2367, cULus 508, GL



### 4) Intuitive Communication

- Each output channel has backlit buttons for switching on/off, as well as acknowledgement
- Integrated, multi-color LEDs indicate the operating status of each channel

### 5) Rotary Switch

- Nominal current can be individually adjusted for each channel
- The setting is visible even when no voltage is applied
- Transparent cover can be sealed and marked

### 6) Communication 1.0

- Remote digital input S1 resets all tripped channels
- Digital output S3 transmits a simple group message indicating if one of the channels was triggered by an overcurrent
- Optional isolated signal contact 13/14 as group signal

### 7) Communication 2.0

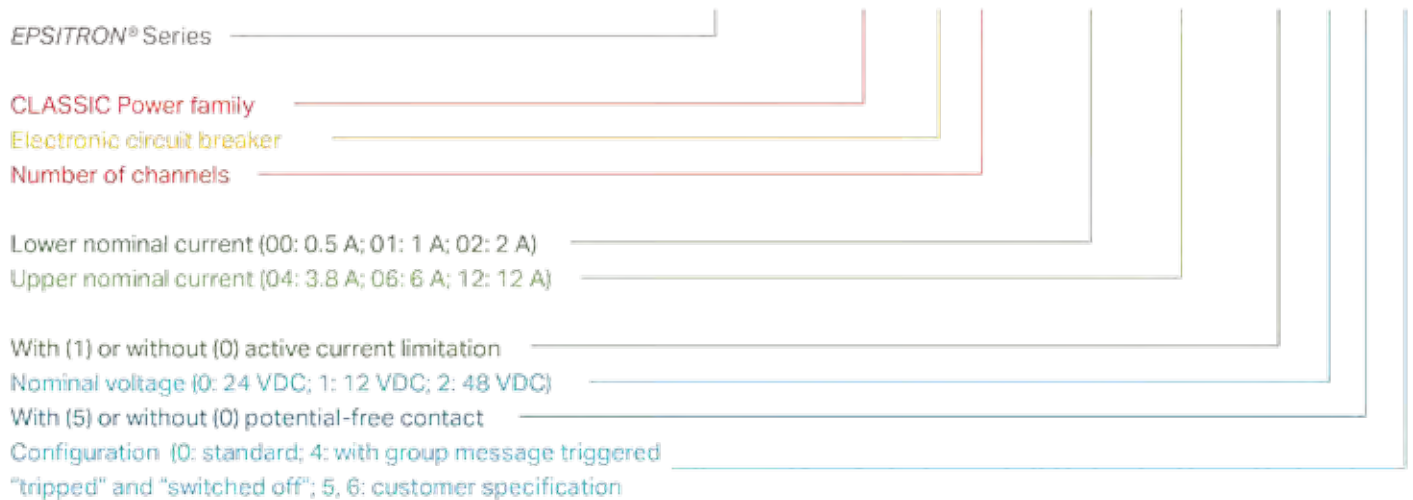
- Remote digital input S1 switches on and off certain channels via pulse sequence
- Digital output S2 transmits the current status (on/off/tripped/overcurrent) of each individual channel
- Optional transmission of input voltage and output/nominal current value for each channel



787-166x/0000-0054	787-166x/0000-0100	787-166x/0000-0200	787-166x/0000-0250
Electronic Circuit Breaker	Electronic Circuit Breaker	Electronic Circuit Breaker	Electronic Circuit Breaker
24 VDC	12 VDC	48 VDC	48 VDC
Available as 2-, 4- and 8-channel variants	Available as 2- and 4-channel variants	Available as 2-, 4- and 8-channel variants	Available as 2-, 4- and 8-channel variants
2 ... 10 A	2 ... 10 A	2 ... 10 A	2 ... 10 A
Load-dependent (16 ms to 100 s)	Load-dependent (16 ms to 100 s)	Load-dependent (16 ms to 100 s)	Load-dependent (16 ms to 100 s)
> 50,000 µF per channel	> 50,000 µF per channel	> 23,000 µF per channel	> 23,000 µF per channel
Time-delayed channel switching (load-dependent, 50 ms to 5 s)	Time-delayed channel switching (load-dependent, 50 ms to 5 s)	Time-delayed channel switching (load-dependent, 50 ms to 5 s)	Time-delayed channel switching (load-dependent, 50 ms to 5 s)
LED (green/red/orange) per channel, isolated signal contact	LED (green/red/orange) per channel, signal output	LED (green/red/orange) per channel, signal output	LED (green/red/orange) per channel, isolated signal contact
No	Yes	Yes	No
-25 °C ... +70 °C	-25 °C ... +70 °C	-25 °C ... +70 °C	-25 °C ... +70 °C
Indication: "triggered" and "switched off" Default setting = 2 A; all channels switched off	—	—	—
UR 2367, cULus 508, GL	UR 2367, cULus 508, GL	UR 2367, cULus 508, GL	UR 2367, cULus 508, GL

Number code:

# 787-166a/bbcc-defg

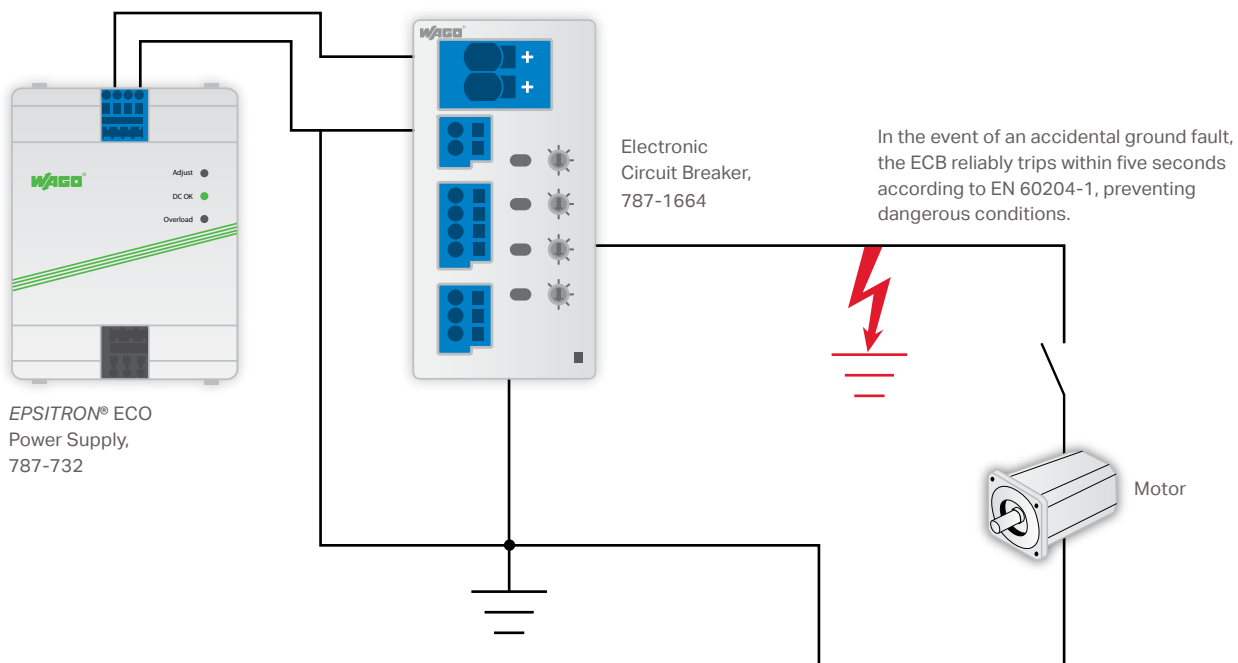




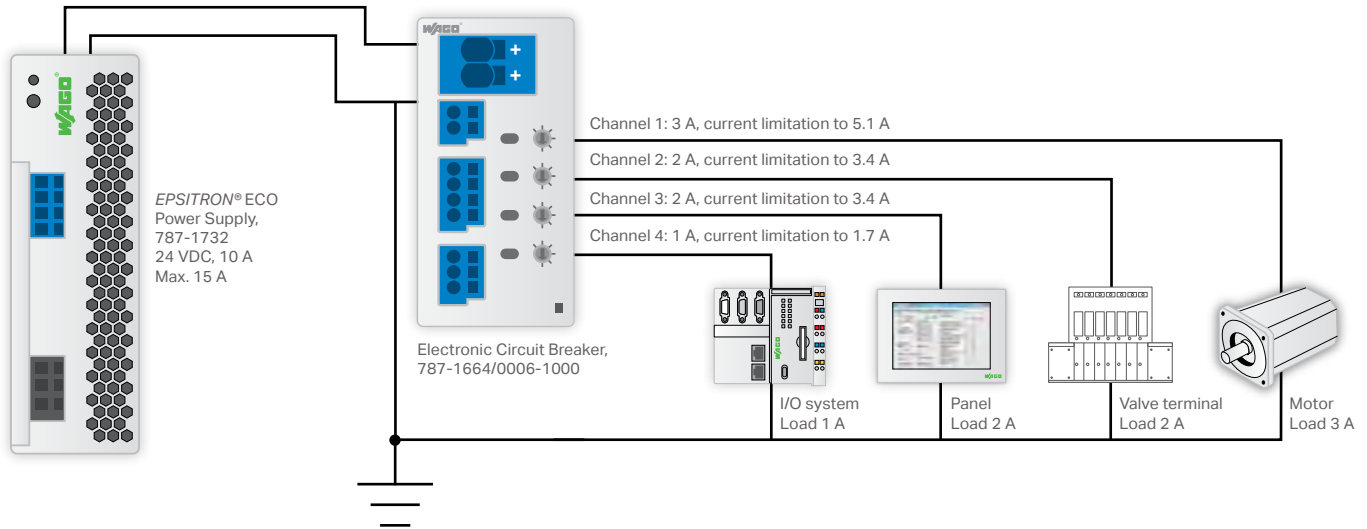
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## EPSITRON® SOLUTIONS

ECB Prevent Against Accidental Restart

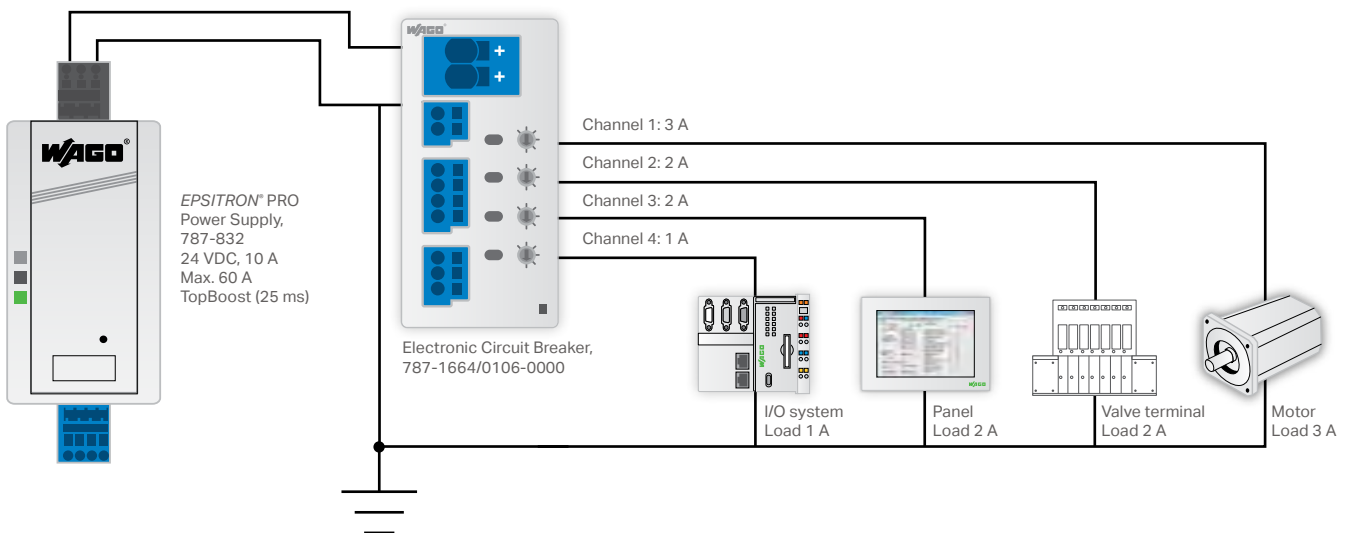


## Power Supply Selection for ECBs with Active Current Limitation



- Max. continuous current: 8 A (3 A + 2 A + 2 A + 1 A)
- Simple error (on channel 1): max. 10.1 A (5.1 A + 2 A + 2 A + 1 A)
  - Independent of impedance of the error loop
  - No voltage drop on channel 2, 3 and 4
- Max. error (all channels): 13.6 A (5.1 A + 3.4 A + 3.4 A + 1.7 A)
  - Independent of impedance of the error loops
  - Voltage drop possible on all channels if power supply unit is too overloaded

## Power Supply Selection for ECBs without Current Limitation



- Max. error (all channels):
  - Current is limited by impedance of the error loops
  - Voltage drop on all channels very probable as power supply unit is overloaded.
- Max. continuous current A: 8 A (3 A + 2 A + 2 A + 1 A)
- Simple error (on channel 1): max. 55 A (60 A – 2 A – 2 A – 1 A)
  - Depending on impedance of the error loop
- Short voltage drop possible, trigger time according to characteristic

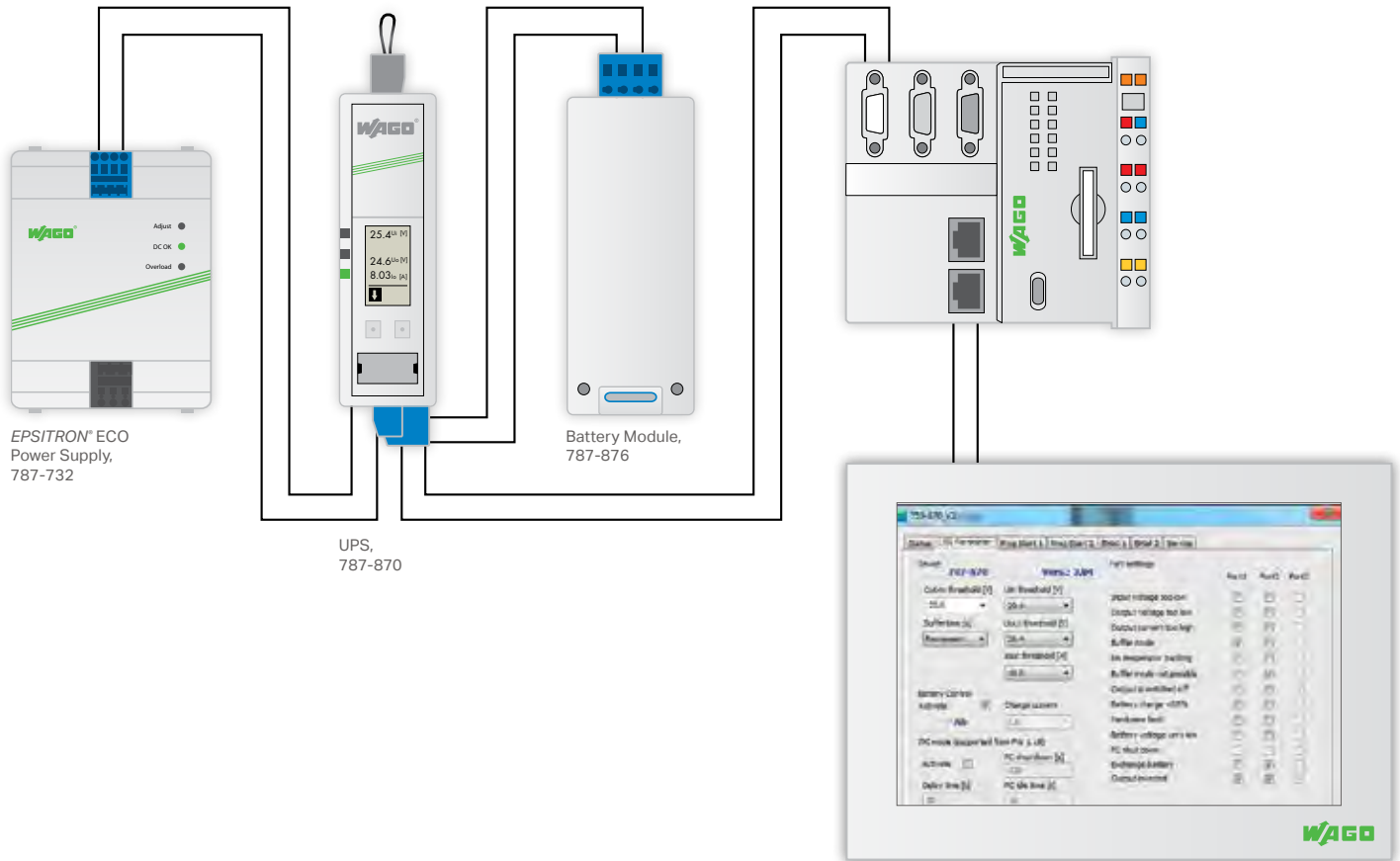




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# EPSITRON® SOLUTIONS

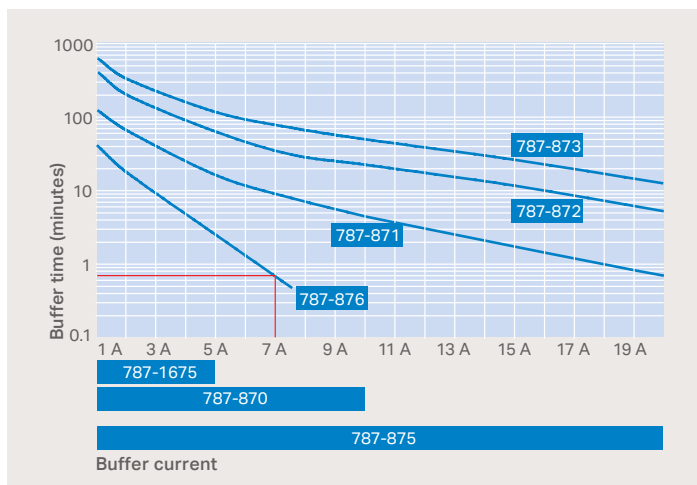
Power Supply for Remote Application





digitalvision/DV807/Getty Images

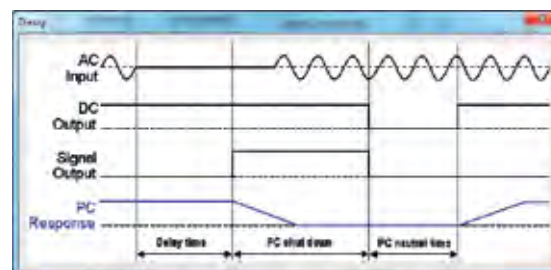
### Buffer Time versus Load Current



### UPS Shutdown Function Permits Controlled System Shutdown



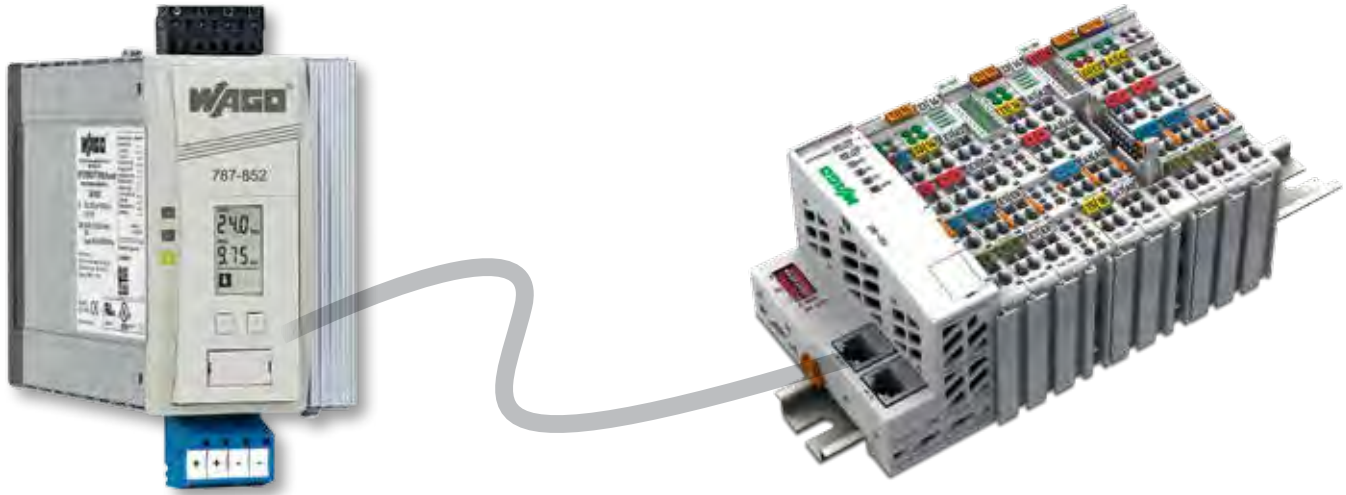
Different buffer times/currents can be achieved depending on the battery module selected. The example below shows a 7 A load current provided for approximately 30 seconds by a 787-870 UPS Charger and Controller (10 A) and 787-876 Battery Module.



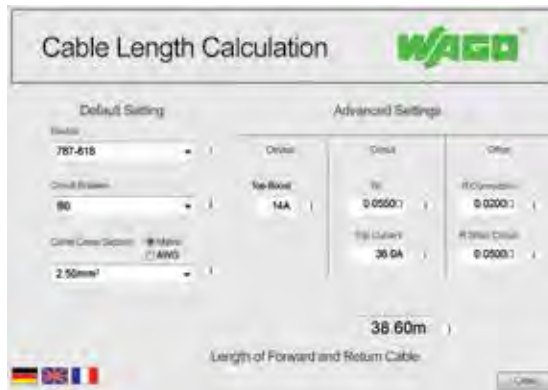
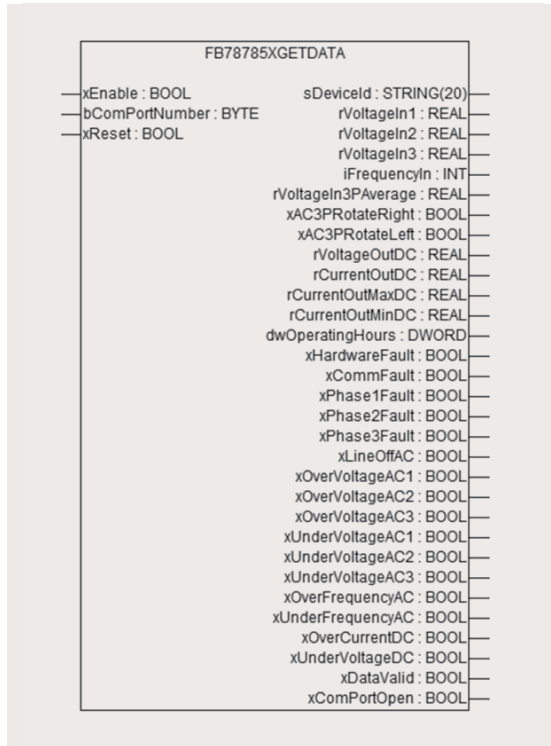


# EPSITRON® Pro Power Monitoring via PLC

EPSITRON® PRO Power



## PLC Function Block

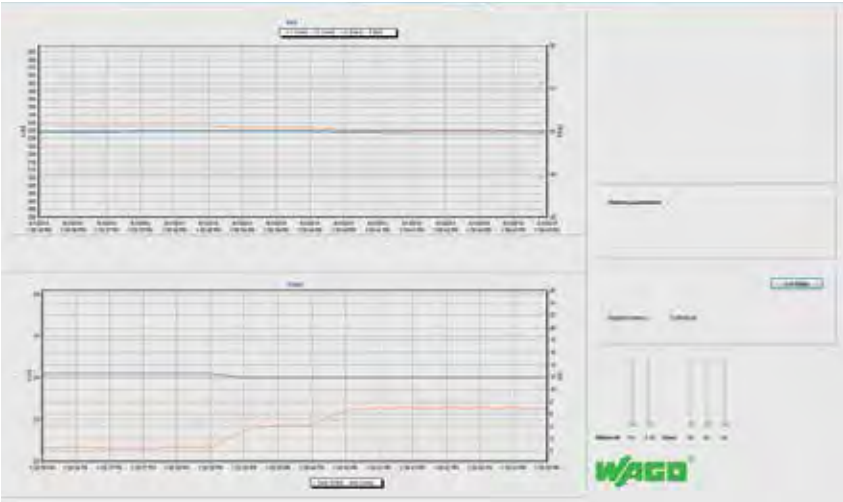


## Easy Configuration and Monitoring of 787-85x PRO Power Supplies via RS-232 Interface

Easily connect a PC or PLC (e.g., the WAGO-I/O-SYSTEM) via the RS-232 interface of the 787-85x PRO Power Supplies for fast monitoring and configuration. Free function blocks are available for various PLC systems.

An integrated cable length calculator helps configure the system. It determines whether the PRO Power Supply can trip the required thermomagnetic circuit breaker at the required cable cross-section and length.

Both input and output of the *EPSITRON*<sup>®</sup> PRO Power Supply are monitored via 759-851 Visualization Software. In addition to monitoring, both input and output data recording and analysis are possible (see graphic).



This screenshot shows the main monitoring interface of the WAGO 759-851 Visualization Software. It features a header with the WAGO logo and a product image. The main area is divided into several sections:

- Input parameters:** Input voltage (227 Vac), Input frequency (50 Hz), Input voltage L1 (341 Vac), Input voltage L2 (339 Vac), and Input voltage L3 (3 Vac).
- Output parameters:** Output voltage (24.1 Vdc), Output current (0.15 Adc), and Operating time (407 h).
- Minimum output voltage:** 10.6 Vdc.
- Maximum output current:** 4.84 Adc.
- Alerts and status:** A list of alerts including 'Input voltage too high', 'Input voltage too low', 'Single phase failure', 'Input frequency too high', 'Input frequency too low', 'Power failure', 'Communication fault with line monitor', 'Floating field', 'Output voltage too low', 'Output current too high', and 'Hardware fault'. Each alert has a corresponding status icon.

The free 759-850 Configuration Software allows you to set a maintenance timer that notifies the user when the operating hours are complete. Permissible voltage and current levels can also be set and monitored with the configuration software. This value-added benefit eliminates the need for additional equipment, such as an hour meter or phase monitoring device.

This screenshot shows the configuration interface of the WAGO 759-850 Configuration Software. It includes a header with the WAGO logo and a 'Select port' dropdown menu set to 'COM6'. The main area is divided into several sections:

- Maintenance interval:** 6000 hours.
- Power good threshold:** 22.9 V.
- Over current mode:** Constant current.
- Over current switch off time:** 20 s.
- Min. input voltage threshold:** 380 V.
- Max. input voltage threshold:** 430 V.
- Output voltage (setpoint value):** 24.1 Vdc.
- Alerts and status:** A list of alerts including 'Maintenance interval', 'Output voltage under power good', 'Output current too high', 'Hardware fault', 'Input voltage too high', 'Input voltage too low', 'Input frequency too high', 'Input frequency too low', 'Floating field', 'Single phase failure', 'Power failure', 'Communication fault with line monitor', and 'Output inverter'. Each alert has a corresponding status icon.



# EPSITRON® COMMUNICATION

## Electronic Circuit Breakers (ECBs)

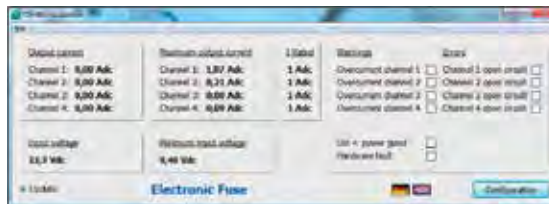
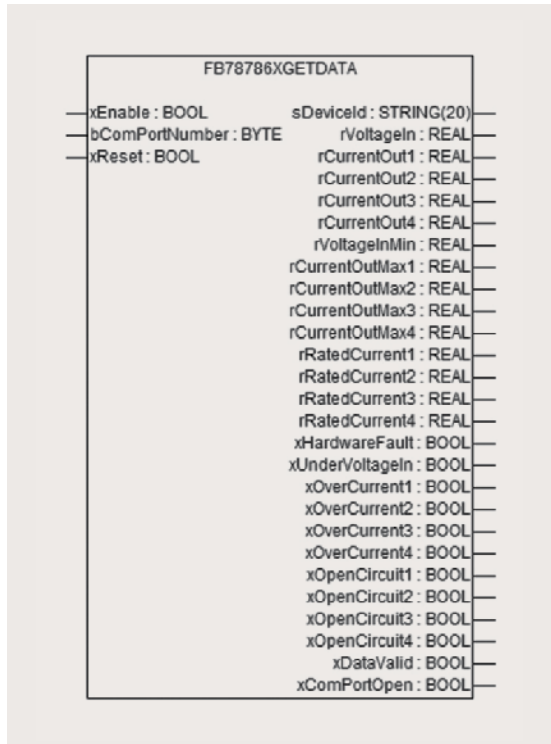
Function blocks for ECB monitoring that use the WAGO-I/O-SYSTEM, or different control systems, are available for free. Select ECBs and UPS units from the *EPSITRON®* Series also feature an built-in display and an RS-232 interface for convenient configuration and monitoring. Each of the four channels can be independently configured via 759-860 Configuration Software.

### Visualize:

- Nominal current
- Actual output current
- Maximum output current per channel
- Input voltage
- Minimum input voltage
- Warnings and error condition



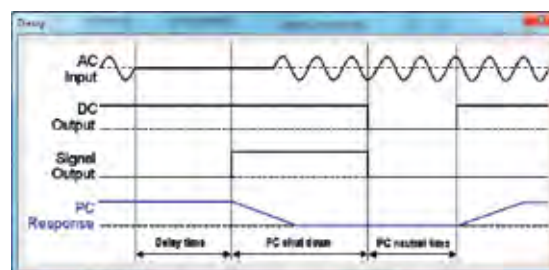
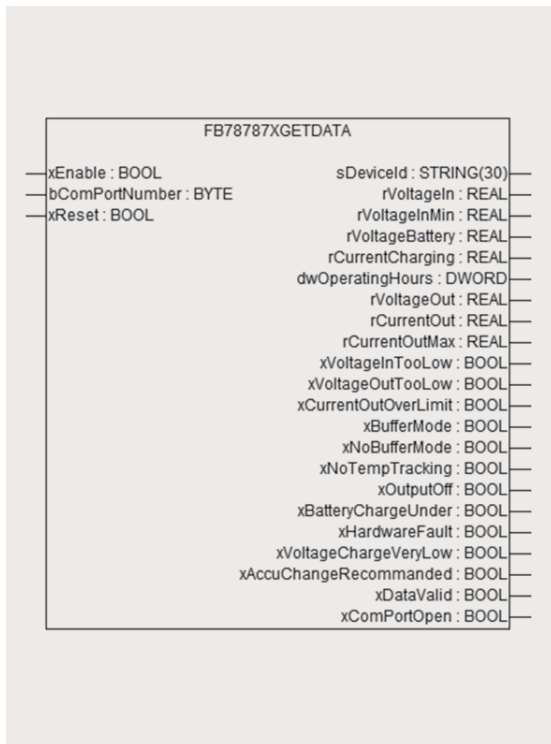
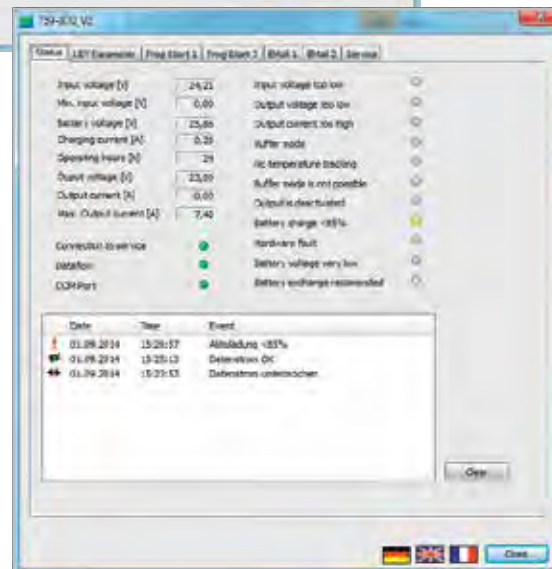
## ECB Function Block



## Uninterruptible Power Supplies (UPS)

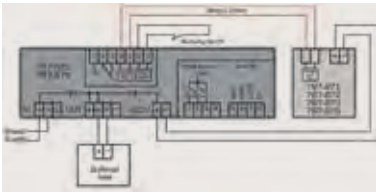
The *EPSITRON*® UPS unit can be conveniently configured using the free 759-870 Software. Values for the input voltage, battery data, output voltage and current, as well as error status are displayed in the software.

In addition to easily connecting to a laptop, the UPS unit can be connected to the WAGO-I/O-SYSTEM or another PLC via RS-232 interface. Free function blocks allow easy monitoring of the UPS input and output data.



This is a function block for use with the WAGO-I/O-SYSTEM (CoDeSYS) and RS-Logix

# EPSITRON® GLOSSARY



## Battery Control

EPSITRON® battery control technology allows data exchange between intelligent battery modules and a UPS charger/controller.

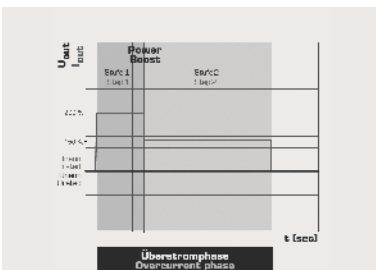
In addition to the temperature value, information on type and service life of the connected battery modules is also transmitted to the charger and controller.



## TopBoost

In order for high-speed magnetic miniature circuit breakers to trip, significantly higher currents than the rated current are required for 10-12 milliseconds. PRO Power Supplies deliver a multiple of their nominal current for a short time – the faulty circuit can be shut off within milliseconds during a short circuit

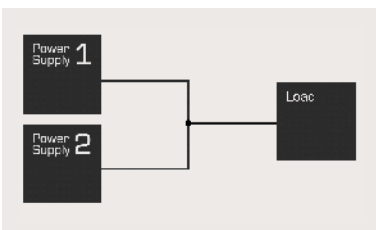
regarding grounding in control circuits. The free cable length calculator available from wago.us allows you to check in advance the layout of the line protection based on cable lengths, cable cross-section, characteristics of the protective device and type of power supply.



## PowerBoost

During start-up or the switching of capacitive loads (valve clusters, motors, etc.), there is an increased need for current. However, conventional switch mode power supplies usually require a much larger switch mode power supply to avoid switching to overload operation or short circuit limitation. In this case, PRO Power Supplies provide power reserves –

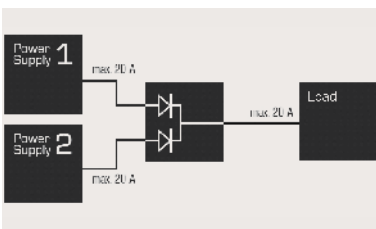
up to 200 % of the nominal current at the output for up to four seconds, up to 150 % in a second stage. The availability of twice the output power for a short time ensures reliable operation and eliminates the expensive oversizing of switch mode power supplies. This also saves space in the control cabinet and reduces power losses, while ensuring optimum efficiency.



## Parallel Connection of Power Supplies – for Extra Power

Most power supplies from the EPSITRON® Series allow parallel connection of power supply units for extra power. To achieve load distribution that is as uniform as possible for parallel-connected devices, the output voltage without load must be set as precisely as possible to the same value. Wiring using external rail-mounted terminal blocks is required to ensure the resistance levels for all power supplies

are as equal as possible to the load. Do not perform parallel connection directly via the power supplies' female connectors. Using PRO Power Supplies, units with differing output power levels may also be connected in parallel. Otherwise, only connect power supplies of the same type in parallel.



## Parallel Connection of Power Supplies – for Increased Power Availability

Parallel connection using decoupling diodes in the respective current path can increase system availability and reliability. In normal operation, both units supply the load. If a power supply fails, the intact power supply becomes responsible for complete supply of the load.

Of course, the nominal current of each power supply must be higher than the maximum load current. The redundancy modules feature powerful decoupling diodes which reliably prevent reverse currents. The decoupling diodes ensure 100 % redundancy, i.e., in the rare case of an internal secondary short circuit in the power supply unit.

# EPSITRON® ACCESSORIES



**787-890 RS-232  
Communication Cable,  
1.8 m long**

The communication cable is used for configuration and visualization via PC, laptop or PLC. It is suitable for all 787-8xx Series modules equipped with an RS-232 serial interface.

**Connectors:** 8-pole 733-108 Female Connector with strain relief (787-8xx module side), 9-pole D-sub Female Connector (PC/PLC side)

**787-892 RS-232 Communication Cable, 1.8 m long (not pictured)**

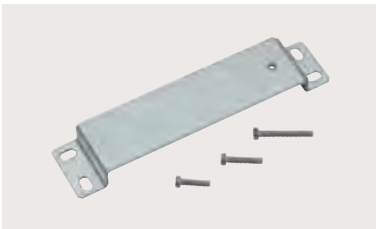
Similar to 787-890, but carries a 4-pole 734-104 Female Connector compatible with 787-1675



**761-9005 USB Adapter with 1 m  
connection cable**

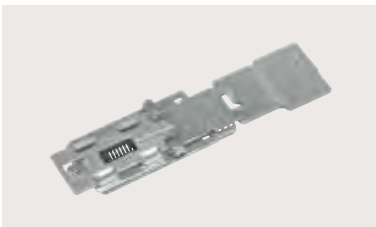
The USB adapter transmits RS-232 signals to the USB interface of a PC or laptop. The adapter is simply plugged into the 787-890 Communication Cable Connector.

**Connectors:** 9-pole D-sub male connector (RS-232), USB connector type A  
Notice: No electrical isolation



**787-895 Wall Mount Adapter**  
secures 787-8xx devices on  
a mounting plate or wall without  
DIN rail

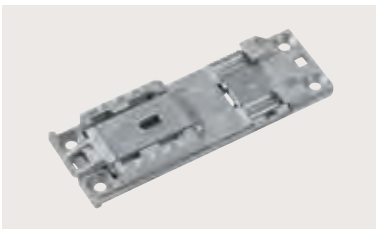
The wall mount adapter replaces the rail support for a 787-8xx device. The adapter is secured to the 787-8xx device via provided screws.



**787-896 Carrier Rail Adapter for  
mounting 787-8xx devices to DIN rail**

The 787-896 Carrier Rail Adapter supports both the vertical and horizontal mounting of 787-8xx devices.

To mount the adapter to the device, slide both single parts into the cooling element's guide slots and then screw; this allows the position to be easily changed.



**787-897 Carrier Rail Adapter made  
of zinc die-cast for mounting 787-8xx  
devices to DIN rail**

Mounting the adapter to the device is performed by pressing the adapter into the guide slots of the cooling element via operating tool.

An extremely secure fit ensures reliable operation – even in environments subject to vibrations. The adapter can also be fastened via four screws (not included) and thus serve as a universal carrier rail adapter.



**Operating tools with a partially insulated  
shaft, ideal for operating terminal blocks**

**210-719:** Operating tool with a partially insulated shaft, type 1, (2.5 x 0.4) mm blade, suitable for 733 and 734 Series Female Connectors.

**210-720:** Operating tool with partially insulated shaft, type 2, blade 3.5 x 0.5 mm, suitable for 231, 236 and 721 Series Female Connectors

**210-721:** Operating tool with a partially insulated shaft, type 3, (5.5 x 0.8) mm blade, suitable for 831 Series Female Connectors

**210-769:** Phillips PH0 operating tool, type 1, PH0 blade; used for setting the voltage of 787-10xx, 787-17xx, 787-7xx Series EPSITRON® COMPACT Power Supplies



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