EPSITRON®

Advanced Power Supply System

Contents


BC
BD
BD
CJ

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

Clear, Quick Connections

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

EPSITRON® POWER SUPPLIES

Selection Guide

Primary Switch Mode Power Supplies, 24 VDC Output

Output nominal current [ADC]	Input, 1-phase	Input, 2-/3-phase	Approvals: EN 60335	cURus 60950	cULus 508	GL	ANSI/ISA 12.12.1	ATEX / IEC Ex	DC OK signal/contact	RS-232 serial interface	TopBoost	Efficiency, typ. [%]	Ambient operating temperature [°C]	Item Number	Page
1.0	■		■	■	■	■			■			86.0	−25 … +70	**787-1602**	**18**
1.25	■		■	■	■				■			80.0	−20 … +60	**787-1702**	**26**
1.3	■			■	■	■						82.0	−25 … +60	**787-1002**	**33**
2.0	■		■	■	■	■			■			89.0	−25 … +70	**787-1606**	**18**
2.5	■			■	■		■	■				86.0	−10 … +70	**787-712**	**28**
2.5	■		■	■	■							81.0	−20 … +60	**787-1712**	**26**
2.5	■			■	■	■						88.0	−25 … +60	**787-1012**	**33**
3.0	■			■	■				■		■	87.8	−25 … +70	**787-818**	**12**
3.8	■		■	■	■	■			■			87.0	−25 … +70	**787-1616/0000-1000****	**19**
4.0	■		■	■	■	■			■			89.0	−25 … +70	**787-1616**	**18**
4.0	■			■	■	■						88.0	−25 … +60	**787-1022**	**33**
5.0	■			■	■				■		■	87.8	−25 … +70	**787-822**	**13**
5.0	■		■	■	■	■			■		■	89.0	−25 … +70	**787-1622**	**19**
5.0	■	■		■	■	□			■		■	89.0	−25 … +70	**787-1628**	**22**
5.0	■			■	■	■			■	■	■	89.0	−25 … +70	**787-1675*****	**41**
5.0	■			■	■		■	■				86.0	−10 … +60	**787-722**	**28**
5.0	■		■	■	■							84.0	−20 … +60	**787-1722**	**27**
6.25		■		□	□				■			87.0	−25 … +70	**787-738**	**29**
10.0	■			■	■				■		■	90.0	−25 … +70	**787-832**	**13**
10.0	■			■	■	■			■		■	91.0	−25 … +70	**787-1632**	**19**
10.0	■			■	■		■	■				86.0	−10 … +70	**787-732**	**28**
10.0	■		■	■	■							84.0	−20 … +60	**787-1732**	**27**
10.0		■		■	■				■	■	■	91.7	−25 … +70	**787-850**	**15**
10.0		■		■	■				■		■	91.7	−25 … +70	**787-840**	**14**
10.0		■		■	■	□			■		■	90.0	−25 … +70	**787-1640**	**22**
10.0		■							■			89.0	−25 … +70	**787-740**	**29**
20.0	■			■	■				■		■	91.0	−25 … +70	**787-834**	**13**
20.0	■			■	■	■			■		■	92.0	−25 … +70	**787-1634**	**19**
20.0	■			■	■				■			90.0	−25 … +70	**787-734**	**28**
20.0		■		■	■				■	■	■	92.9	−25 … +70	**787-852**	**15**
20.0		■		■	■				■		■	92.9	−25 … +70	**787-842**	**14**
20.0		■		■	■	□			■		■	92.0	−25 … +70	**787-1642**	**23**
20.0		■		□	□				■			90.0	−25 … +70	**787-742**	**29**
40.0	■			■	■				■			90.0	−25 … +70	**787-736**	**29**
40.0		■		■	■				■	■	■	93.6	−25 … +55	**787-854**	**15**
40.0		■		■	■				■		■	93.6	−25 … +55	**787-844**	**14**
40.0		■		■	■	□			■		■	92.0	−25 … +70	**787-1644**	**23**

Primary Switch Mode Power Supplies, 5, 12, 18, 48 VDC Output

Output nominal current [ADC]	Input, 1-phase	Input, 2-/3-phase	Approvals: EN 60335	cURus 60950	cULus 508	GL	ANSI/ISA 12.12.1	ATEX / IEC Ex	DC OK signal/contact	RS-232 serial interface	TopBoost *	Efficiency, typ. [%]	Ambient operating temperature [°C]	Item Number	Page
														Output: 5 VDC	
5.5	■			■	■	□						75.0	−25 … +60	**787-1020**	**33**
														Output: 12 VDC	
2.0	■		■	■	■	■			■			82.0	−25 … +70	**787-1601**	**21**
2.0	■			■	■	■						80.0	−25 … +60	**787-1001**	**32**
4.0	■		■	■	■	■			■			86.0	−25 … +70	**787-1611**	**21**
4.0	■			■	■	■						85.0	−25 … +60	**787-1011**	**32**
6.0	■			■	■				■		■	83.0	−25 … +70	**787-819**	**12**
6.5	■			■	■	■						87.0	−25 … +60	**787-1021**	**32**
7.0	■		■	■	■	■			■			86.0	−25 … +70	**787-1621**	**21**
10.0	■			■	■				■		■	87.8	−25 … +70	**787-821**	**12**
15.0	■			■	■				■		■	87.0	−25 … +70	**787-831**	**12**
15.0	■			■	■	■			■		■	90.0	−25 … +70	**787-1631**	**21**
														Output: 18 VDC	
2.5	■			■	■	□						83.0	−25 … +60	**787-1017**	**32**
														Output: 48 VDC	
2.0	■		■	■	■	■			■			86.0	−25 … +70	**787-1623**	**20**
5.0	■			■	■				■		■	91.0	−25 … +70	**787-833**	**13**
5.0	■			■	■	■			■		■	92.0	−25 … +70	**787-1633**	**20**
10.0	■			■	■				■		■	91.0	−25 … +70	**787-835**	**13**
10.0	■			■	■	■			■		■	93.0	−25 … +70	**787-1635**	**20**
10.0		■		■	■				■		■	93.0	−25 … +70	**787-845**	**14**
20.0		■		■	■				■		■	94.4	−25 … +70	**787-847**	**15**

DC/DC Converters

Nominal voltage input [VDC]	Nominal voltage output [VDC]	Nominal current output [A]	Approvals: EN 60335	cURus 60950	cULus 508	GL	ANSI/ISA 12.12.1	ATEX / IEC Ex	DC OK signal/contact	Efficiency, typ. [%]	Ambient operating temperature [°C]	Item Number	Page
24.0	5.0	0.5		□	□	□			■	78.0	−25 … +70	**787-2801**	**36**
24.0	10.0	0.5		□	□	□			■	86.5	−25 … +70	**787-2802**	**36**
48.0	24.0	0.25		□	□				■	87.0	−25 … +70	**787-2803**	**36**
24.0	12.0	0.5		□	□	□			■	88.0	−25 … +70	**787-2805**	**36**
24.0	5/10/12	0.5		□	□	□			■	78.0	−25 … +70	**787-2810**	**37**
110.0	24.0	2.0								85.0	−40 … +70	**787-1014**	**37**
72.0	24.0	2.0								86.0	−40 … +70	**787-1014/0072-0000**	**37**

■ yes □ pending

* TopBoost enables magnetic tripping of circuit breakers in the output circuit. For details, see glossary on page 59.

** Class 2 Power Unit per cURus 1310

*** with uninterruptible power supply (UPS)

**** Device starts at −40 °C type-tested for 787-8xx, -10xx, -16xx

EPSITRON® SYSTEM MODULES

Selection Guide

Uninterruptible Power Supplies (UPS)

Input		Output		Approvals						Dimensions and Environmental Conditions					
Nominal voltage [VAC]	Nominal voltage [VDC]	Nominal voltage [VDC]	Nominal current [ADC]	EN 60335	cURus 60950	cULus 508	GL	ANSI/ISA 12.12.1	ATEX / IEC Ex	Width [mm]	Height [mm]	Length [mm]	Ambient operating temperature [°C]	Item Number	Page
–	24	24	10.0		■	■				40.0	163.0	163.0	–10 … +60	787-870	**40**
–	24	24	20.0		■	■				57.0	163.0	171.0	–10 … +60	787-875	**40**
100 … 240	110 … 370	24	5.0		■	■	■			60.0	135.5	127.0	–25 … +70	787-1675	**41**

Battery Modules

Input	Output		Approvals							Dimensions and Environmental Conditions					
Nominal voltage [VDC]	Nominal voltage [VDC]	Nominal capacity [Ah]	EN 60335	cURus 60950	cULus 508	GL	ANSI/ISA 12.12.1	ATEX / IEC Ex	Battery tested to VdS	Width [mm]	Height [mm]	Length [mm]	Ambient operating temperature [°C]	Item Number	Page
24	24	1.2			■				■	55.0	136.5	153.0	–15 … +40	787-876	**40**
24	24	3.2			■				■	76.2	175.5	168.0	–15 … +40	787-871	**41**
24	24	7.0			■				■	86.0	217.5	236.0	–15 … +40	787-872	**41**
24	24	12.0			■				■	120.5	217.5	236.0	–15 … +40	787-873	**41**

Capacitive Buffer Modules

Input/Output, Buffer			Approvals						Dimensions and Environmental Conditions					
Input/Output nominal voltage [VDC]	Output nominal current [ADC]	Buffer time [s]	EN 60335	cURus 60950	cULus 508	GL	ANSI/ISA 12.12.1	ATEX / IEC Ex	Width [mm]	Height [mm]	Length [mm]	Ambient operating temperature [°C]	Item Number	Page
24	10.0	0.06 … 7.2		■	■				57.0	179.0	163.0	–10 … +50	787-880	**43**
24	20.0	0.17 … 16.5		■	■				57.0	179.0	181.0	–10 … +50	787-881	**43**

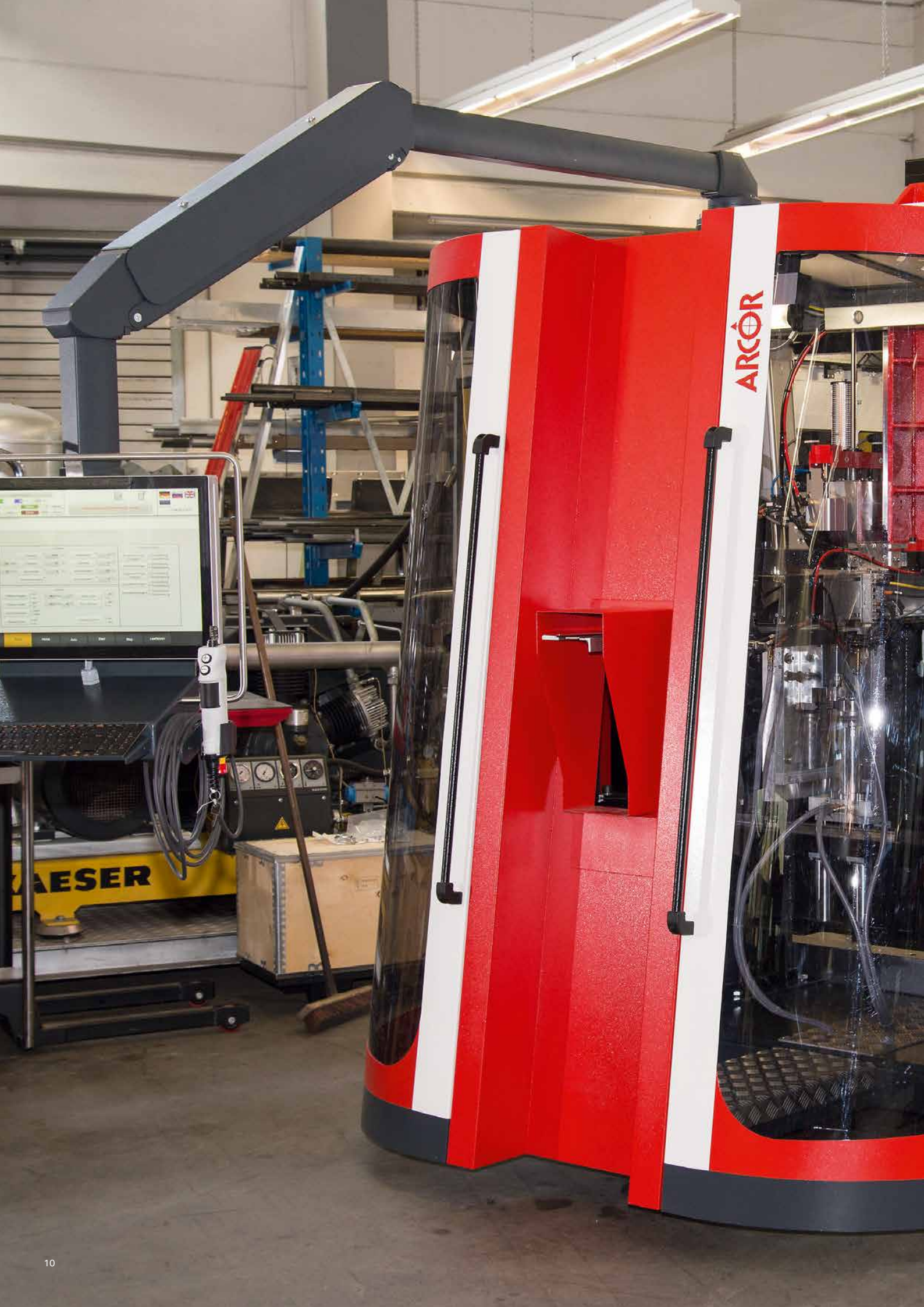
■ yes ☐ pending
* NEC Class 2

Redundancy Modules

Input	Output		Approvals						Dimensions and Environmental Conditions					
Nominal voltage [VDC]	Nominal voltage [VDC]	Nominal current [ADC]	EN 60335	cURus 60950	cULus 508	GL	ANSI/ISA 12.12.1	ATEX / IEC Ex	Width [mm]	Height [mm]	Length [mm]	Ambient operating temperature [°C]	Item Number	Page
12 ... 48	12 ... 48	12.5			■	□	□	□	50.0	92.0	130.0	–25 ... +70	**787-783**	**45**
24	24	20.0		■	■				40.0	163.0	181.0	–10 ... +60	**787-885**	**45**
12 ... 48	12 ... 48	40.0			■	□	□	□	83.0	153.0	130.0	–25 ... +70	**787-785**	**45**
48	48	20.0							40.0	163.0	181.0	–10 ... +60	**787-886**	**45**

Electronic Circuit Breakers (ECBs)

Input/Output					Approvals						Dimensions and Environmental Conditions					
Input/Output nominal voltage [VDC]	Output channels	Output nominal current [ADC]	Active current limitation	Isolated signal contact	EN 60335	UR 2367	cULus 508	GL	ANSI/ISA 12.12.1	ATEX / IEC Ex	Width [mm]	Height [mm]	Length [mm]	Ambient operating temperature [°C]	Item Number	Page
24	2	2 ... 10				■	■	■			45	115.5	90	–25 ... +70	**787-1662**	**49**
24	2	2 ... 10				■	■	■			45	115.5	90	–25 ... +70	**787-1662/0000-0004**	**49**
24	2	2 ... 10		■		□	□	■			45	115.5	90	–25 ... +70	**787-1662/0000-0054**	**51**
24	2	3.8 LPS	■			■	■	□			45	115.5	90	–25 ... +70	**787-1662/0004-1000***	**50**
24	2	0.5 ... 6	■			■	■	■			45	115.5	90	–25 ... +70	**787-1662/0006-1000**	**50**
24	2	1 ... 6				■	■	■			45	115.5	90	–25 ... +70	**787-1662/0106-0000**	**49**
24	2	2 ... 12	■			■	■	□			45	115.5	90	–25 ... +70	**787-1662/0212-1000**	**50**
24	4	2 ... 10				■	■	■			45	115.5	90	–25 ... +70	**787-1664**	**49**
24	4	2 ... 10				■	■	■			45	115.5	90	–25 ... +70	**787-1664/0000-0004**	**49**
24	4	2 ... 10		■		□	□	■			45	115.5	90	–25 ... +70	**787-1664/0000-0054**	**51**
24	4	3.8 LPS	■			■	■	□			45	115.5	90	–25 ... +70	**787-1664/0004-1000***	**50**
24	4	0.5 ... 6	■			■	■	■			45	115.5	90	–25 ... +70	**787-1664/0006-1000**	**50**
24	4	1 ... 6				■	■	■			45	115.5	90	–25 ... +70	**787-1664/0106-0000**	**49**
24	4	2 ... 12	■			■	■	□			45	115.5	90	–25 ... +70	**787-1664/0212-1000**	**50**
24	4	0.5 ... 6	■	■		■	■	□			45	115.5	90	–25 ... +70	**787-1664/0006-1054**	**50**
24	4	1 ... 6					■				40	163	171	–10 ... +60	**787-860**	**48**
24	4	1 ... 8	■				■				40	163	171	–10 ... +60	**787-861**	**48**
24	4	1 ... 10					■				40	163	171	–10 ... +60	**787-862**	**48**
24	8	2 ... 10				■	■	■			42	142.5	127	–25 ... +70	**787-1668**	**49**
24	8	2 ... 10				■	■	■			42	142.5	127	–25 ... +70	**787-1668/0000-0004**	**49**
24	8	2 ... 10		■		□	□	■			42	142.5	127	–25 ... +70	**787-1668/0000-0054**	**51**
24	8	0.5 ... 6	■			■	■	■			42	142.5	127	–25 ... +70	**787-1668/0006-1000**	**50**
24	8	1 ... 6				■	■	■			42	142.5	127	–25 ... +70	**787-1668/0106-0000**	**49**
24	8	0.5 ... 6	■	■		■	■	□			42	142.5	127	–25 ... +70	**787-1668/0006-1054**	**50**
12	2	2 ... 10				□	□	■			45	115.5	90	–25 ... +70	**787-1662/0000-0100**	**51**
12	4	2 ... 10				□	□	■			45	115.5	90	–25 ... +70	**787-1664/0000-0100**	**51**
48	2	2 ... 10				□	□	□			45	115.5	90	–25 ... +70	**787-1662/0000-0200**	**51**
48	2	2 ... 10		■		□	□	□			45	115.5	90	–25 ... +70	**787-1662/0000-0250**	**51**
48	4	2 ... 10				□	□	□			45	115.5	90	–25 ... +70	**787-1664/0000-0200**	**51**
48	4	2 ... 10		■		□	□	□			45	115.5	90	–25 ... +70	**787-1664/0000-0250**	**51**
48	8	2 ... 10				□	□	□			42	142.5	127	–25 ... +70	**787-1668/0000-0200**	**51**
48	8	2 ... 10		■		□	□	□			42	142.5	127	–25 ... +70	**787-1668/0000-0250**	**51**


ARCOR
AESER

EPSITRON® PRO POWER

Professional and Efficient Power Supplies with Extra Power

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.

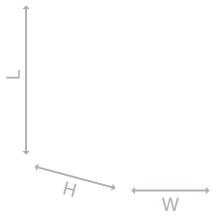
c UL us LISTED

- 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 (Uo), red LED (error)	Green LED (Uo), red LED (error)	Green LED (Uo), red LED (error)	Green LED (Uo), red LED (error)
LED indication	LED green (Uo > 0.85 x 12 V) LED red (Uo < 0.85 x 12 V) Relay contact DC OK (changeover contact)	LED green (Uo > 0.85 x 12 V) LED red (Uo < 0.85 x 12 V) Relay contact DC OK (changeover contact)	LED green (Uo > 0.85 x 12 V) LED red (Uo < 0.85 x 12 V) Relay contact DC OK (changeover contact)	LED green (Uo > 0.85 x 24 V) LED red (Uo < 0.85 x 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

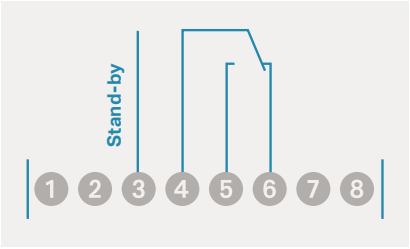
1) Slim Design and Versatile Mounting Options

- 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) Clear and 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-assembled

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 (Uo), red LED (error)	Green LED (Uo), red LED (error)	Green LED (Uo), red LED (error)	Green LED (Uo), red LED (error)	Green LED (Uo), red LED (error)
LED green (Uo > 0.85 x 24 V) LED red (Uo < 0.85 x 24 V) Relay contact DC OK (changeover contact)	LED green (Uo > 0.85 x 24 V) LED red (Uo < 0.85 x 24 V) Relay contact DC OK (changeover contact)	LED green (Uo > 0.85 x 24 V) LED red (Uo < 0.85 x 24 V) Relay contact DC OK (changeover contact)	LED green (Uo > 0.85 x 48 V) LED red (Uo < 0.85 x 48 V) Relay contact DC OK (changeover contact)	LED green (Uo > 0.85 x 48 V) LED red (Uo < 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



3) Intuitive Communication

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

*787-85x only

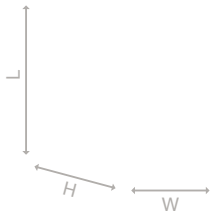
4) Potential-Free Contact/ Stand-By Input

- Output voltage monitoring, message via potential-free changeover 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

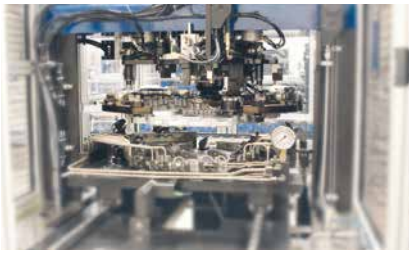
*excludes 787-85x

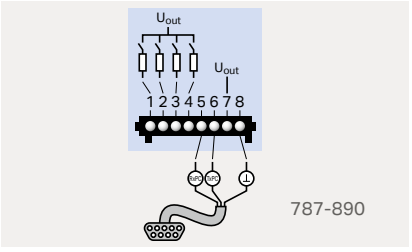
EPSITRON® PRO POWER

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 (Uo), red LED (error)	Green LED (Uo), red LED (error)	Green LED (Uo), red LED (error)	Green LED (Uo), red LED (error)
LED indication	LED green (Uo > 20.4V) LED red (Uo < 20.4V) Relay contact DC OK (changeover contact)	LED green (Uo > 20.4V) LED red (Uo < 20.4V) Relay contact DC OK (changeover contact)	LED green (Uo > 20.4V) LED red (Uo < 20.4V) Relay contact DC OK (changeover contact)	LED green (Uo > 36V) LED red (Uo < 36V) 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





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
- Advantageous 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

*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 (Uo), red LED (error)	Green LED (Uo), red LED (error)	Green LED (Uo), red LED (error)	Green LED (Uo), red LED (error)
LED green (Uo > 36V) LED red (Uo < 36V) Relay contact DC OK (changeover contact)	LED green (Uo > 20.4V) LED yellow (warnings) LED red (errors)	LED green (Uo > 20.4V) LED yellow (warnings) LED red (errors)	LED green (Uo > 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

8) Innovative Communication*

- LineMonitor* with display and function keys
- Variable monitoring, e.g., current, voltage, phase position, operating hours and more
- Output voltage and overload behavior can be parameterized
- 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.com
- 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

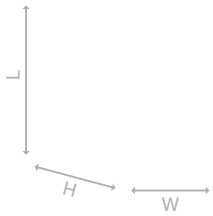
The Robust Power Supply – With Integrated TopBoost (Optional)

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

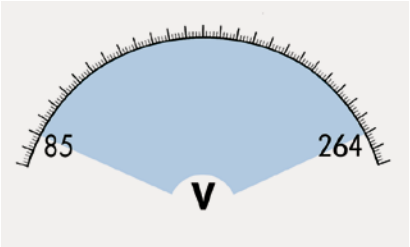
- Slim design
- Equipped with pluggable CAGE CLAMP® connectors protected against mismating
- DC OK signal/contact
- Device marking
- Integrated TopBoost (optional)

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



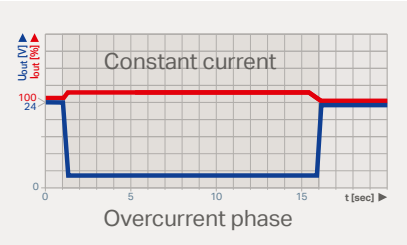
1) Slim Design

- 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 single-phase power grids
- High operational reliability during power outages

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



3) High Load-Carrying Capacity

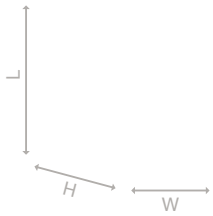
- Constant current characteristic under overload conditions
- 110 % output current with lowered output voltage – even during a short circuit
- Even high capacitive loads can be reliably started

4) Clear and 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 mismating

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

5) Communicative

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

6) Adjustable

- Front-panel adjustable output voltage
- 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

7) Device Marking

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

8) Integrated TopBoost*

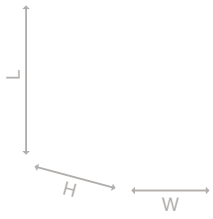
- Multiplies the nominal current
- Fast and reliable triggering of the secondary-side fusing via circuit breakers or fuses in the event of a short circuit or overload

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

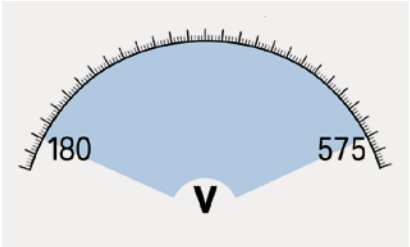
EPSITRON® CLASSIC POWER

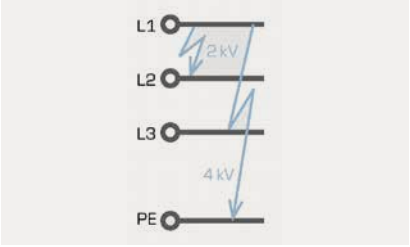
NEW

Technical Data



Item Number	787-1628	787-1640
Nominal input voltage	2 x 200 ... 500 VAC	3 x 400 ... 500 VAC
Input voltage range	180 ... 550 VAC; 254 ... 780 VDC	320 ... 575 VAC; 450 ... 800 VDC
Nominal output voltage, SELV	24 VDC	24 VDC
Nominal output voltage range	23 ... 28.5 VDC	23 ... 28.5 VDC
Output current	5 A	10 A
Integrated TopBoost	Yes	Yes
Efficiency	89 %	90 %
LED indication	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
Dimensions (mm) W x H x L Height from upper-edge of DIN-35 rail	42 x 143.5 x 127	55 x 171 x 127





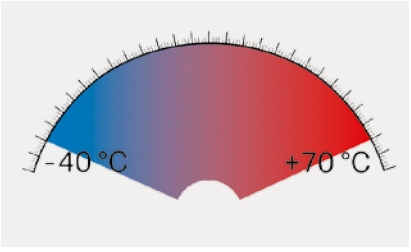
1) Universal Supply

- 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



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 not before +55 °C

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

EPSITRON® ECO POWER

Economical Power Supply for Standard Applications

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

NEW

ATEX
IEC Ex

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

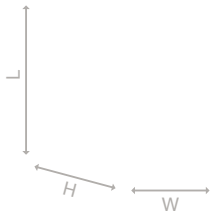
EN 60335-1

- Highly economical for basic applications
- CAGE CLAMP® connection technology
- Versatile mounting options thanks to DIN-35 rail and screw mounting

EPSITRON® ECO POWER

NEW

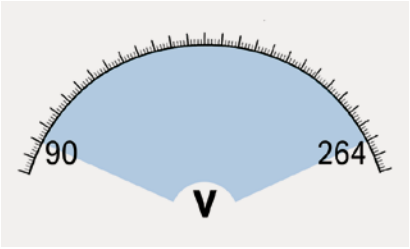
Technical Data



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

DIN-rail mount

Screw mount



1) Versatile Mounting Options

- Flexible mounting via DIN-rail adapter
- Installation flexibility thanks to screw-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

3) Clear Indication

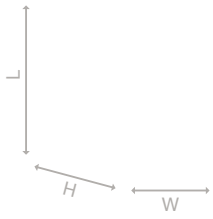
- Green LED indicates output voltage availability

4) Highly Economical

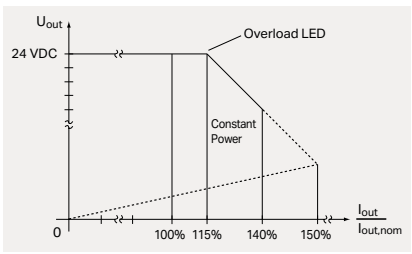
- Three times the savings thanks to low purchase costs, easy installation and freedom from maintenance
- Budget-friendly for basic applications

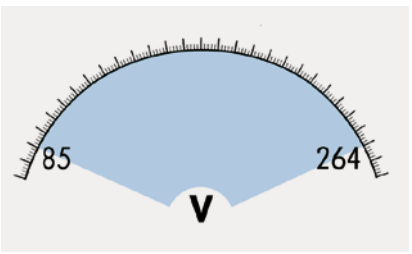
EPSITRON® ECO POWER

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





1) Clear Indication

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

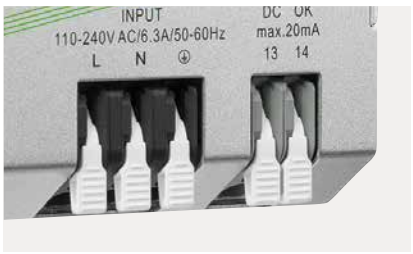
2) High Load-Carrying Capacity

- 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



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 make 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, which is frequently used in mechanical engineering applications

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


WAGO
WAGO
787-1012
WAGO

EPSITRON® COMPACT POWER

Compact, High-Performance Power Supply

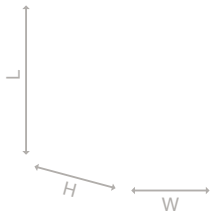
Single-phase COMPACT Power Supplies in DIN-rail-mount housings that provide output voltages of 5, 12, 18 or 24 VDC and nominal output currents up to 6.5 A.

- Compact, low-profile design
- Ideal for decentralized applications
- Overhead mounting permitted
- GL marine approval

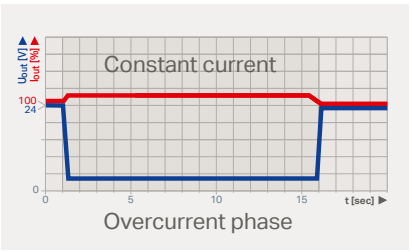
WAGO's *EPSITRON*® COMPACT Power Supply in a low-profile IP65 system housing powers a measurement and recording unit.

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 Io typ.	Constant current, 1.1 x Io typ.	Constant current, 1.1 x Io typ.	Constant current, 1.1 x Io typ.
Operation status indicator	Green LED (Uo)	Green LED (Uo)	Green LED (Uo)	Green LED (Uo)
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



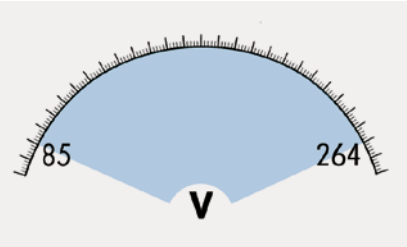
1) Clear Indication

- 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 V … 8.5 V DC, 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 (Uo)	Green LED (Uo)	Green LED (Uo)	Green LED (Uo)
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



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 (e.g., in system distribution boxes under the ceiling)

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 Specialty Voltages

DC/DC converters can be used instead of an additional power supply for applications with specialty voltages.

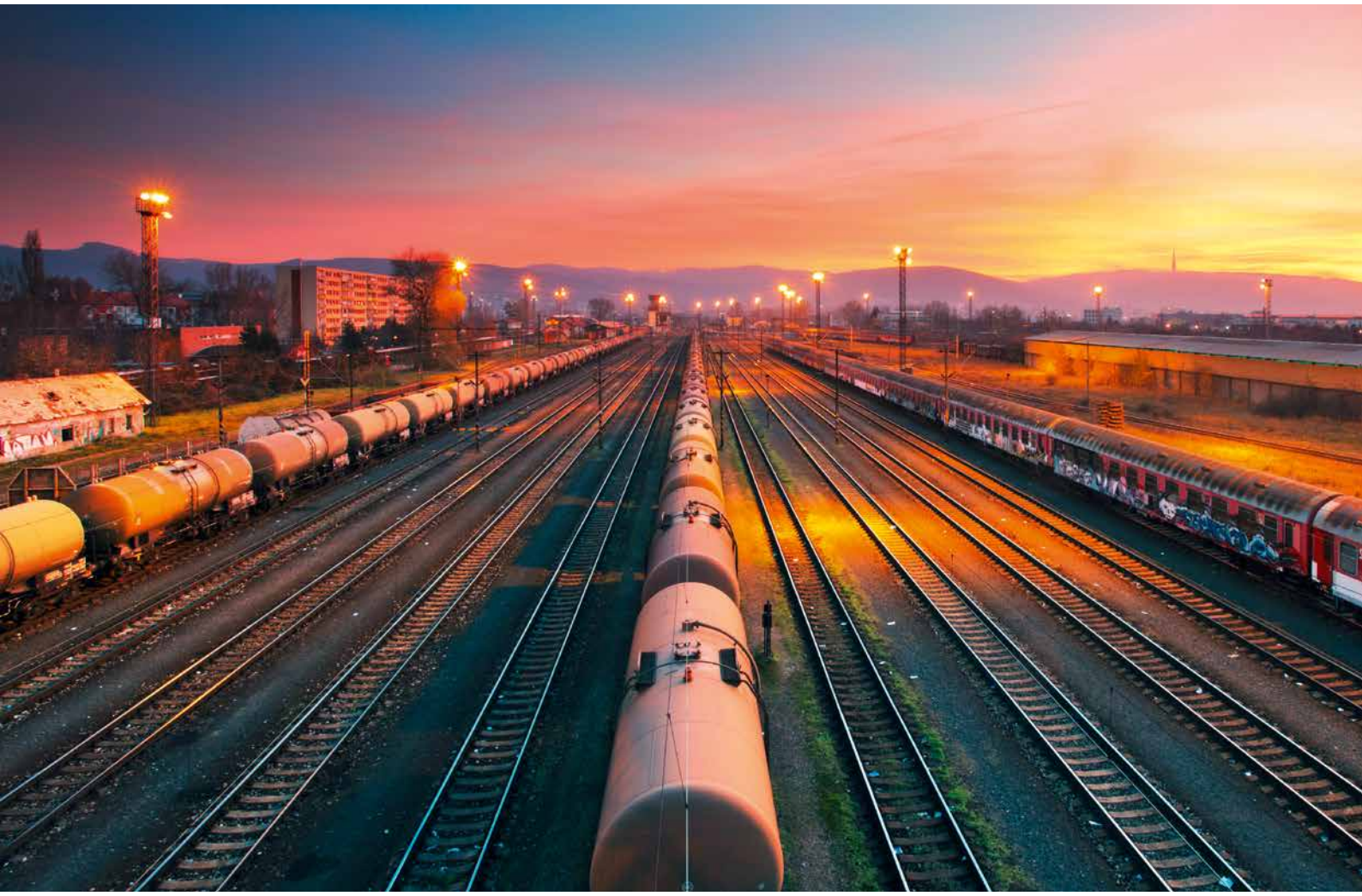
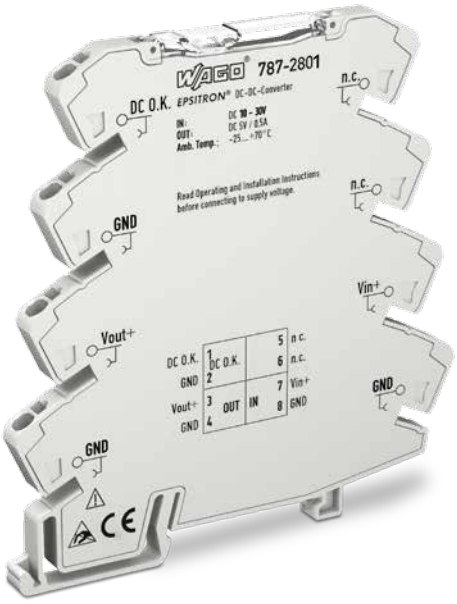


Photo (left): © panthermedia.net/Sascha Burkard; Photo (right): © TTstudio/Fotolia.com

NEW

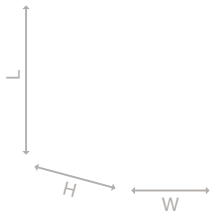


- Slim design
- Wide operating temperature range
- Ready for worldwide use in many industries thanks to both UL and GL approvals
- Can be commoned with 857/2857 Series

EPSITRON® DC/DC CONVERTERS

NEW

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 (U_{out}) Red LED (short circuit) DC OK signal	Green LED (U_{out}) Red LED (short circuit) DC OK signal	Green LED (U_{out}) Red LED (short circuit) DC OK signal	Green LED (U_{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

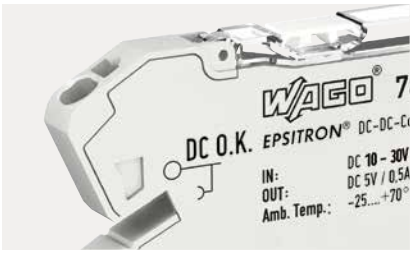
1) Commoning with 857/2857 Series

- A shared profile between the 787-28xx DC/DC Converters and the 857/2857 Series Relays and Signal Conditioners enables full commoning 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 (U_{out}) Red LED (short circuit) DC OK signal	LED green (U_{out})	LED green (U_{out})
–25 … +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



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) Communicative

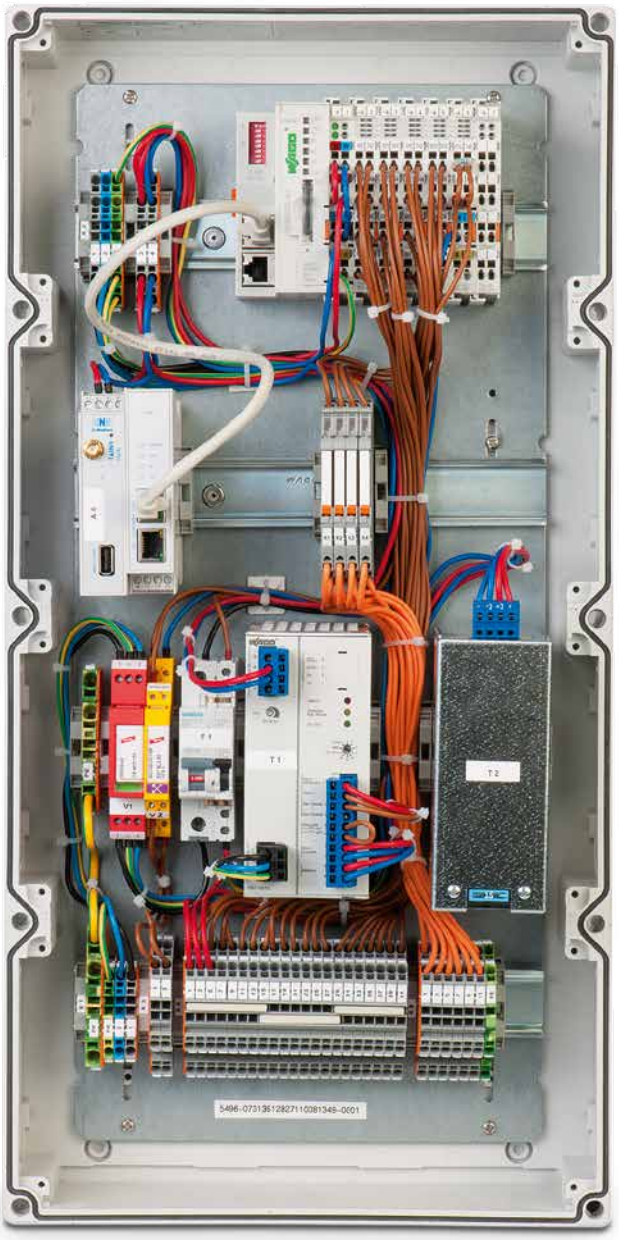
- Green LED indicates output voltage availability
- Remote monitoring via DC OK
- Easy commissioning and maintenance

© imging/Shutterstock.com

EPSITRON® UPS

Reliable Compensation – 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.

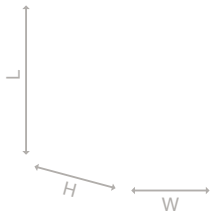


Compact and cost-effective, WAGO's 787-1675 *EPISTRON*® CLASSIC Power Supply with an integrated UPS charger and controller powers and buffers applications with low energy demands.

- 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

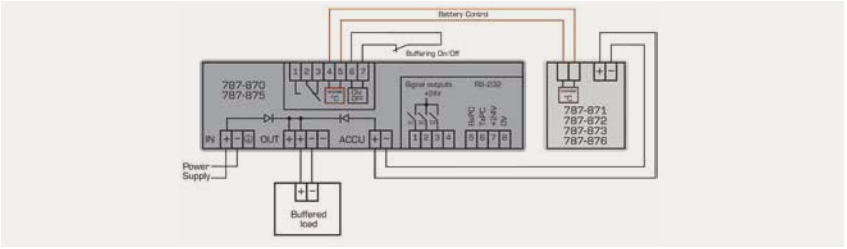
EPSITRON® UPS

Technical Data



Item Number	787-870	787-875	787-876
Description	UPS Charger and Controller	UPS Charger and Controller	Lead-Acid AGM Battery Module
Nominal input voltage	24 VDC	24 VDC	24 VDC
Input current I_i	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. 0.3 A
Switch-on threshold (adjustable)	20 … 25.5 VDC	20 … 25.5 VDC	—
Output voltage range	U_i … 1 VDC (below switch-on threshold); Battery voltage – 1 VDC (buffer mode)	U_i … 1 VDC (below switch-on threshold); Battery voltage – 1 VDC (buffer mode)	24 VDC
Output current I_o	10 A	20 A	max. 7.5 A
Buffer time/capacity	10 … 600 s, IPC mode or constant (adjustable)	10 … 600 s, IPC mode or constant (adjustable)	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)
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
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
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*	55 x 136.5 x 153

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



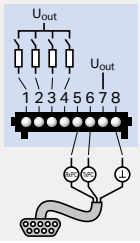
1) *EPSITRON*® Battery Control Technology

- 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

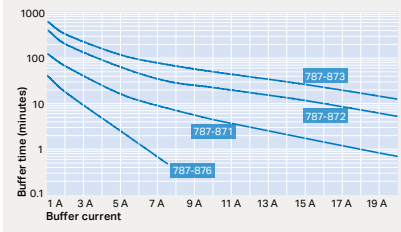
2) Diagnostics, Monitoring, Configuration

- 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



787-890



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 1.2 … 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.

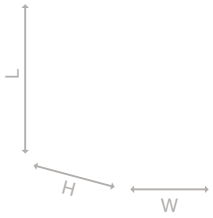
EPSITRON® CAPACITIVE BUFFER MODULES

Short-Term Power Reserve for Power Outage and Load Change

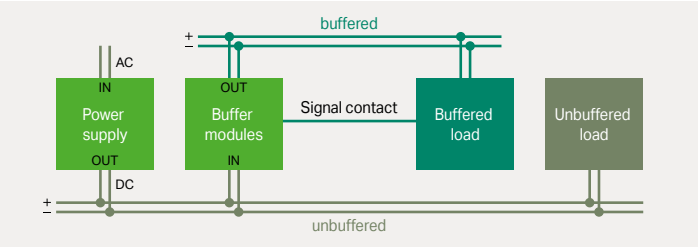
- Maintenance-free, high-energy gold caps
- Integrated diodes for decoupling buffered loads from unbuffered loads
- Unlimited parallel-connections possible
- Configurable switch-on threshold

c UL us LISTED

Technical Data



Item Number	787-880	787-881
Description	Capacitive Buffer Module	Capacitive Buffer Module
Nominal input voltage U_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	DC 20 … 24 V
Output voltage range	U_i … 0.5 VDC (below switch-on threshold); 20.4 … 24 VDC (buffer mode)	U_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

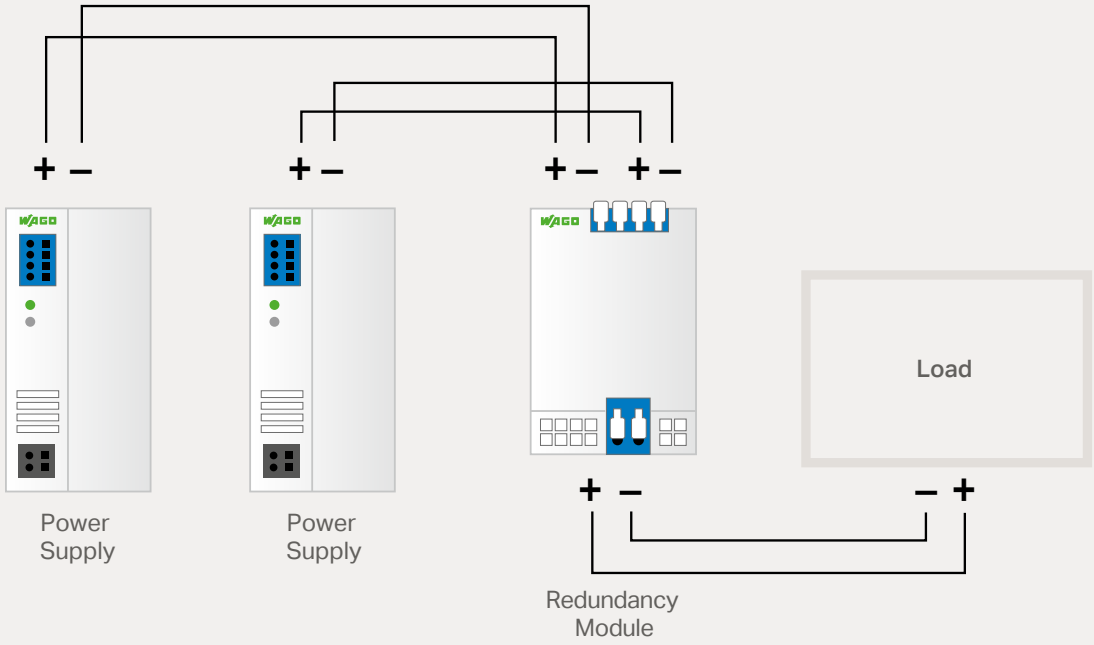


1) Decoupled Output

- 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® REDUNDANCY MODULES

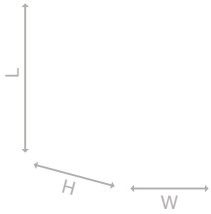
Reliably Increasing Power Supply Availability

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.

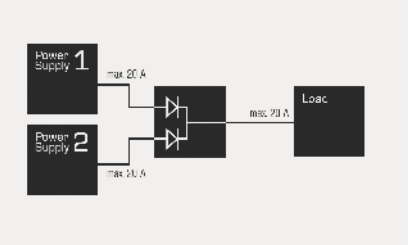
- Integrated power diodes with overload capability
- Solutions for 12/24/48 VDC supply, up to 76 A
- Parallel-connections possible, reverse voltage protection
- LED indication and optional signal contact

c UL us LISTED

Technical Data



Item Number	787-885	787-886	787-783	787-785
Description	Redundancy Module	Redundancy Module	—	—
Nominal input voltage U_i	2 x 24 VDC	2 x 48 VDC	2 x 24 VDC (9 … 54 VDC)	2 x 24 VDC (9 … 54 VDC)
Input current I_i	2 x 20 A, together max. 1 x 40 A	2 x 20 A, together max. 1 x 40 A	2 x max. 12.5 A	2 x max. 40 ADC
Nominal output voltage $U_{o\ nom}$	24 VDC	48 VDC	2 x 9 … 54 VDC	2 x 9 … 54 VDC
Output current I_o	20 A, max. 40 A	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
Efficiency	97 % typ.	96 % typ.	96 %	97 %
Power loss P_v	1.5 W (no load) / 14 W (rated load 20 A) / 26 W (rated load 40 A)	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
LED indication	LED; isolated relay contact	LED; isolated relay contact	2 x green LED (input); 1 x green LED (output)	2 x green LED (input); 1 x green LED (output)
Ambient operating temperature	–10 °C … +60 °C	–10 °C … +60 °C	–25 °C … +70 °C	–25 °C … +70 °C
Dimensions (mm) W x H x L	40 x 163 x 181	40 x 163 x 181	50 x 92 x 130	83 x 153 x 130



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® ECBs

Compact and Precise ECBs for DC Circuits

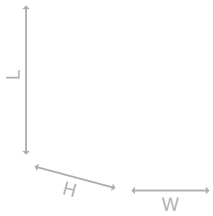
WAGO's compact 787-1664 Electronic Circuit Breaker (ECB) provides reliable and precise overcurrent protection on the output side.

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

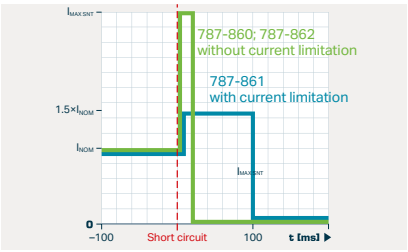
- 2, 4 or 8 channels with 6x adjustable nominal current
- Slim design, communication capability
- High switch-on capacity reduces false tripping
- Optional active current limitation

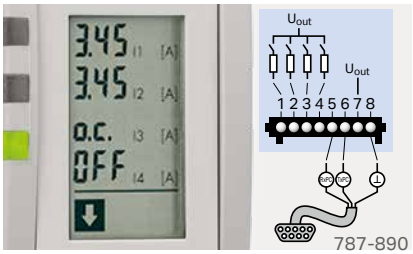
EPSITRON® ECBs

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





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

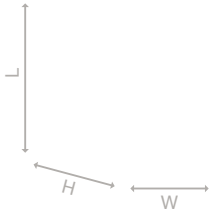
2) Switching and Acknowledging

- 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 parameterization

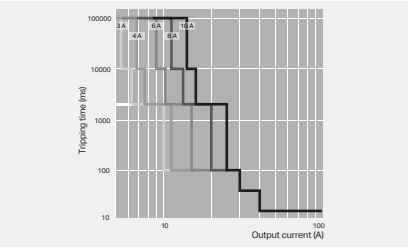
3) Indication and Configuration

- 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



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 mismating
- With marking

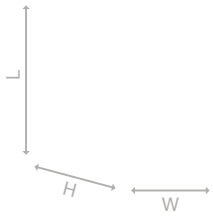
3) Marking System

- 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

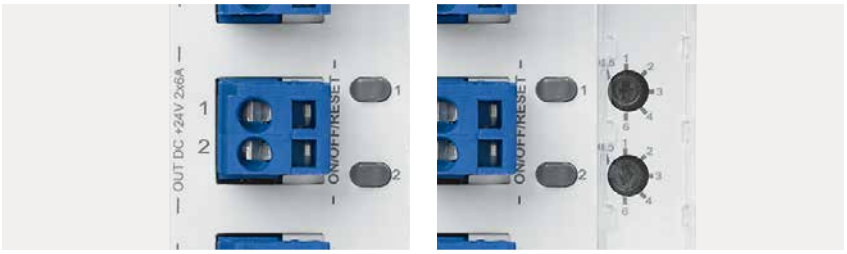
EPSITRON® ECBs

NEW

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



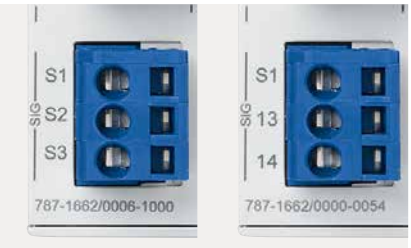
4) Intuitive Communication

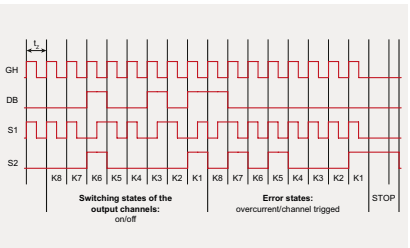
- Each output channel has backlit buttons for switching on/off, as well as acknowledgement
- Integrated, multi-color LEDs indicate the operating status of each channel

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

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	—	—	—





6) Communication 1.0

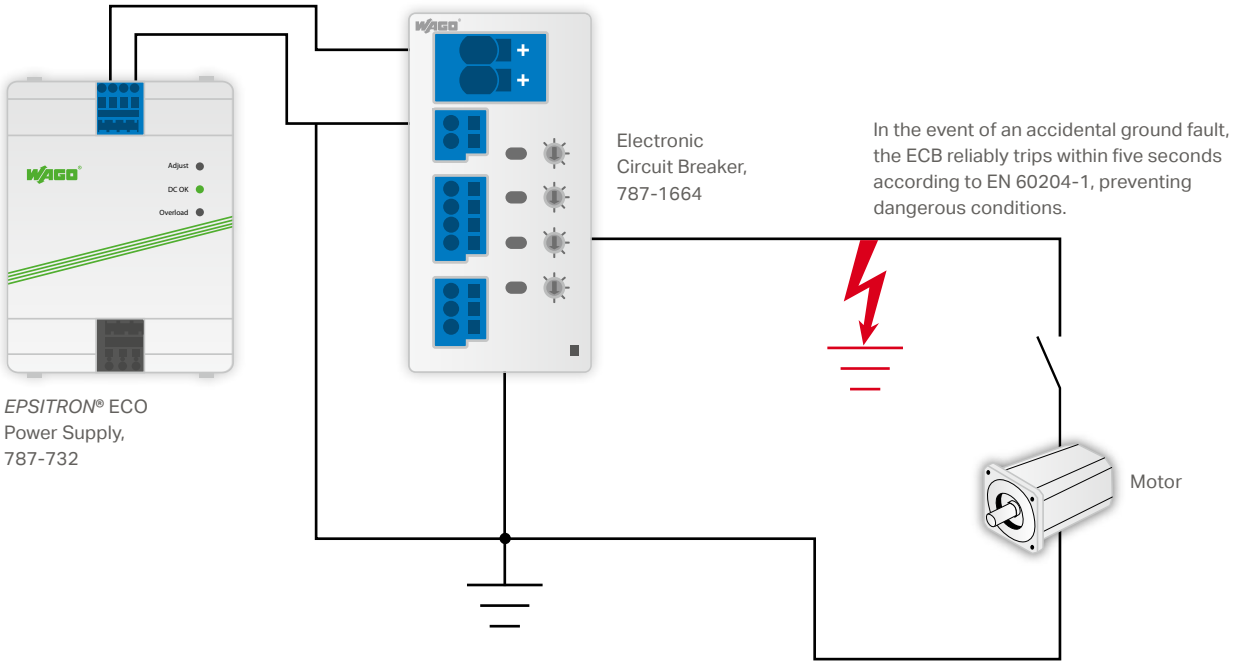
- Remote digital input S1 resets all tripped channels
- Digital output S3 transmits a simple group message indicating if one of the channels was triggered by an overcurrent
- Optional isolated signal contact 13/14 as group signal

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

EPSITRON® SOLUTIONS

ECB Prevents Accidental Restart

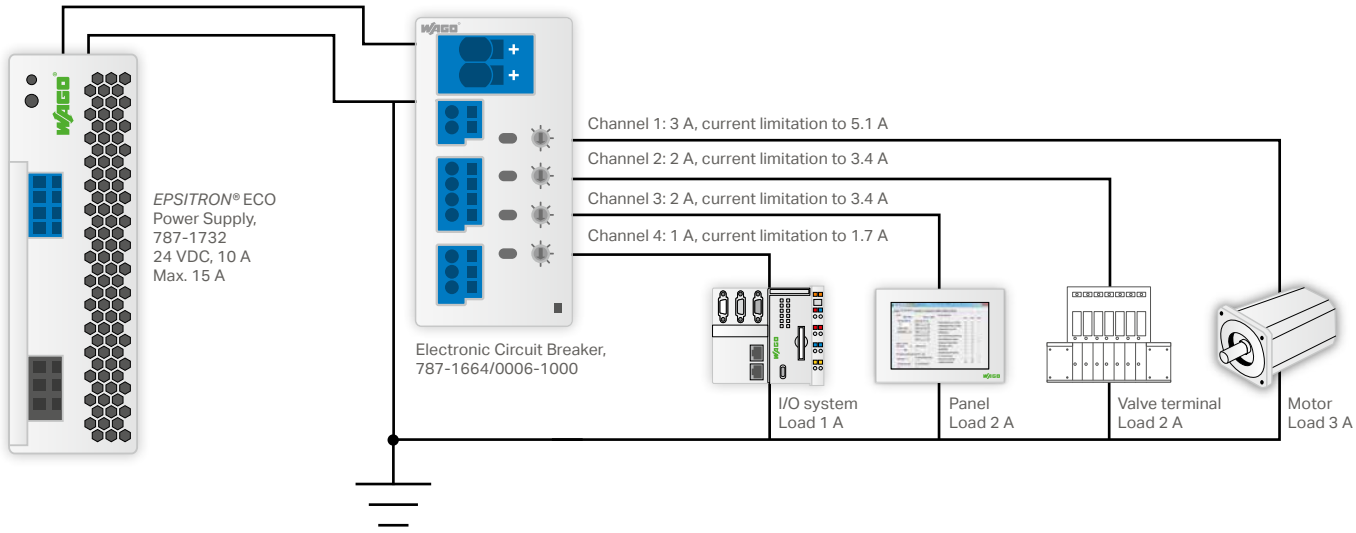


EPSITRON® ECO
Power Supply,
787-732

Electronic
Circuit Breaker,
787-1664

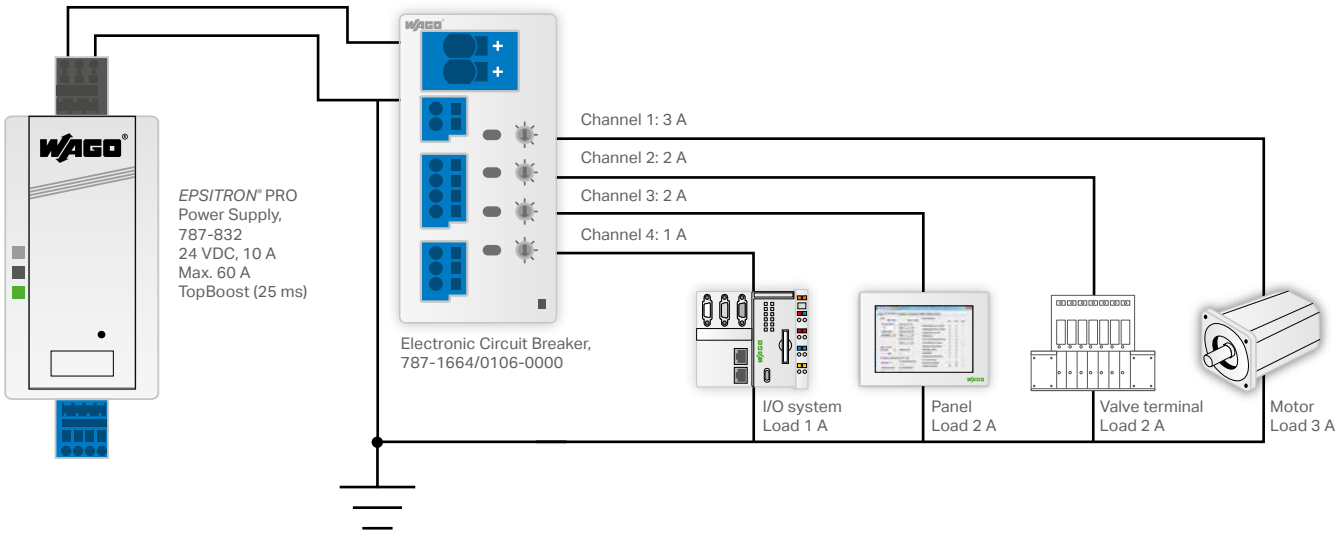
In the event of an accidental ground fault, the ECB reliably trips within five seconds according to EN 60204-1, preventing dangerous conditions.

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

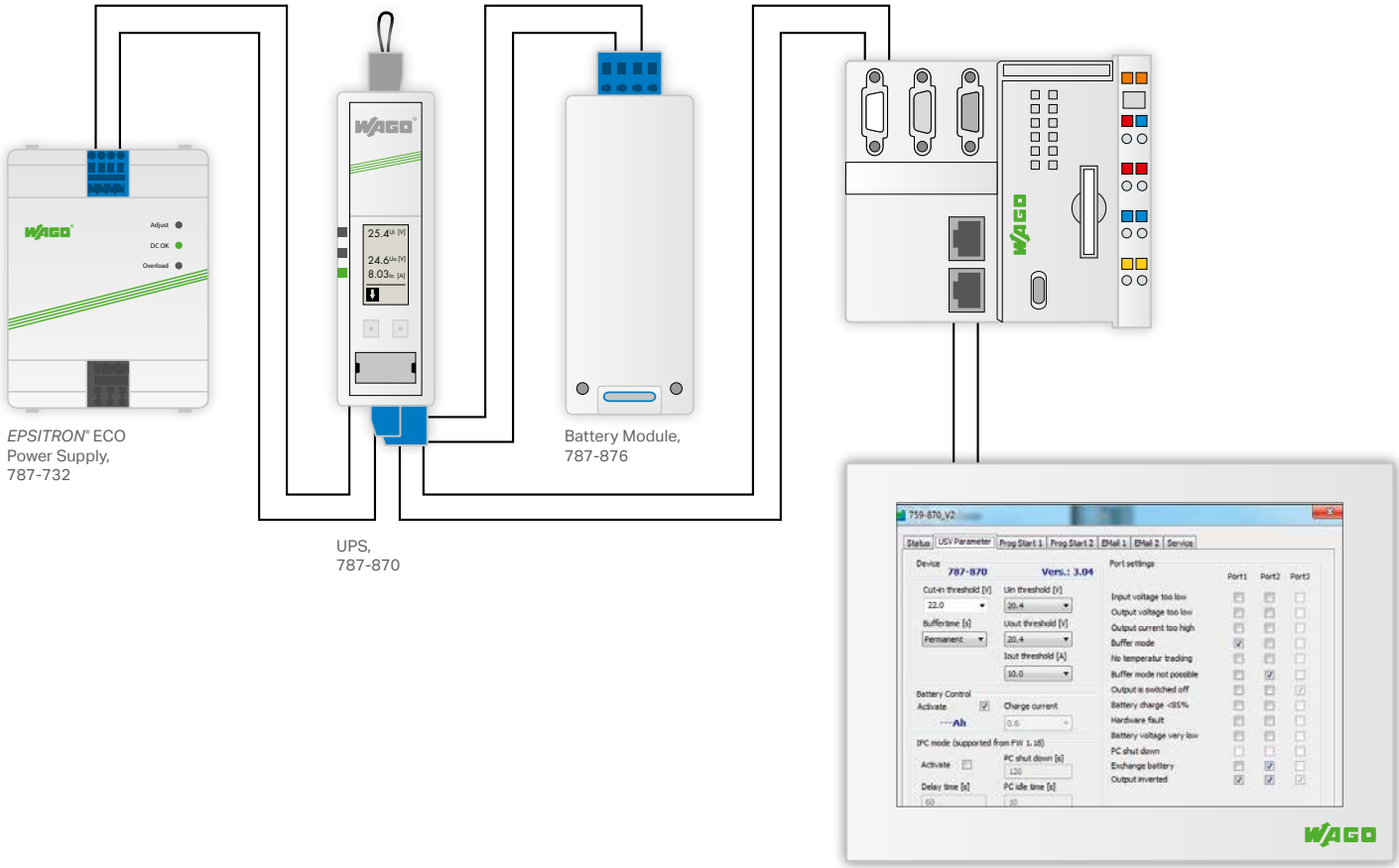


- Max. error (all channels):
  – Current is limited by impedance of the error loops
  – Voltage drop on all channels very probable as power supply unit is overloaded.
- Max. continuous current A:
  8 A (3 A + 2 A + 2 A + 1 A)
- Simple error (on channel 1):
  max. 55 A (60 A – 2 A – 2 A – 1 A)
  – Depending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

© imging/Shutterstock.com

EPSITRON® SOLUTIONS

Power Supply for a Remotely Located Mobile Phone Tower



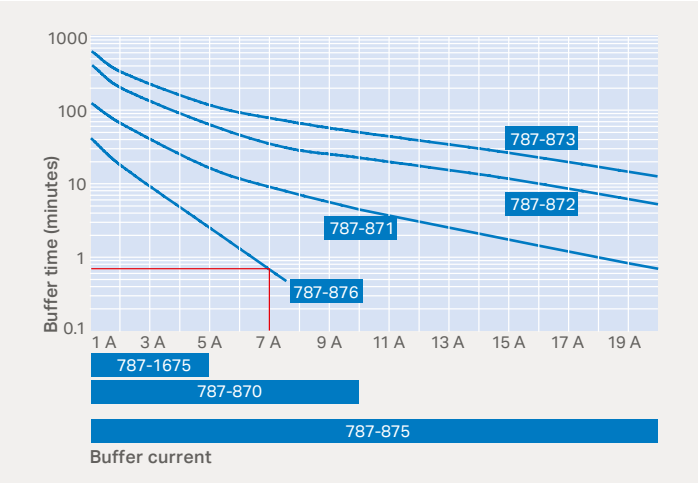
EPSITRON® ECO
Power Supply,
787-732

UPS,
787-870

Battery Module,
787-876

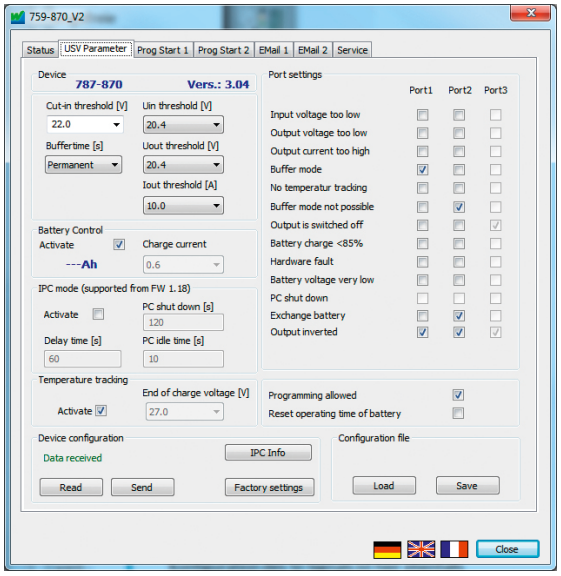
digitalvision/DV807/Getty Images

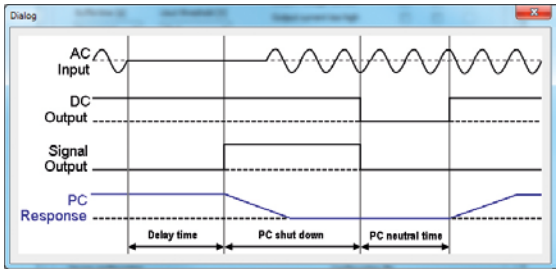
Buffer Time versus Load Current



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.

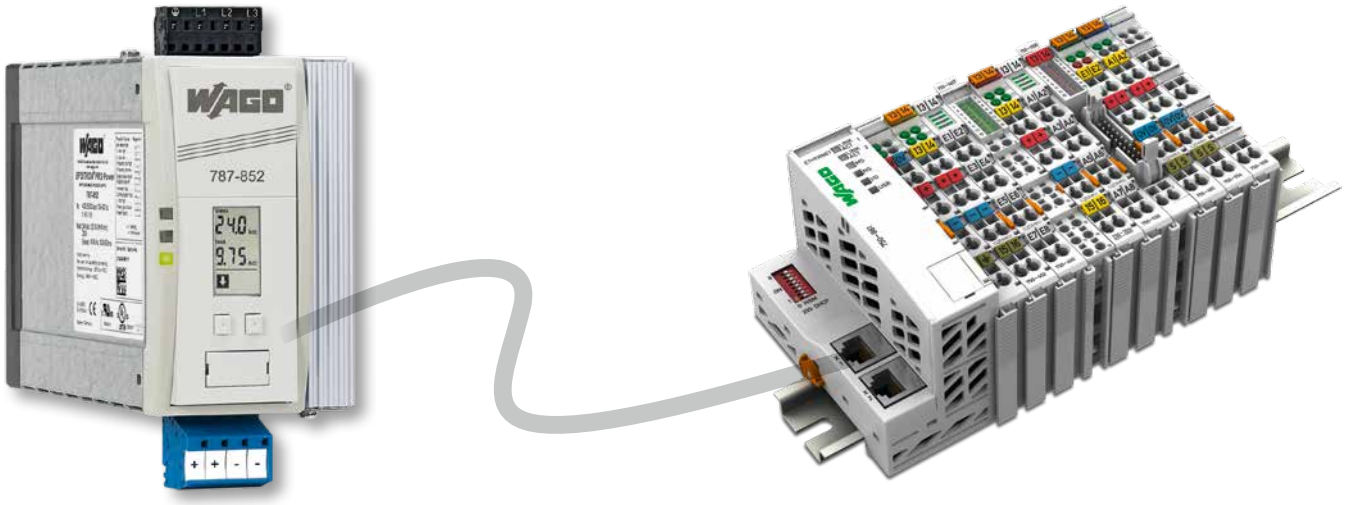
UPS Shutdown Function Permits Controlled System Shutdown

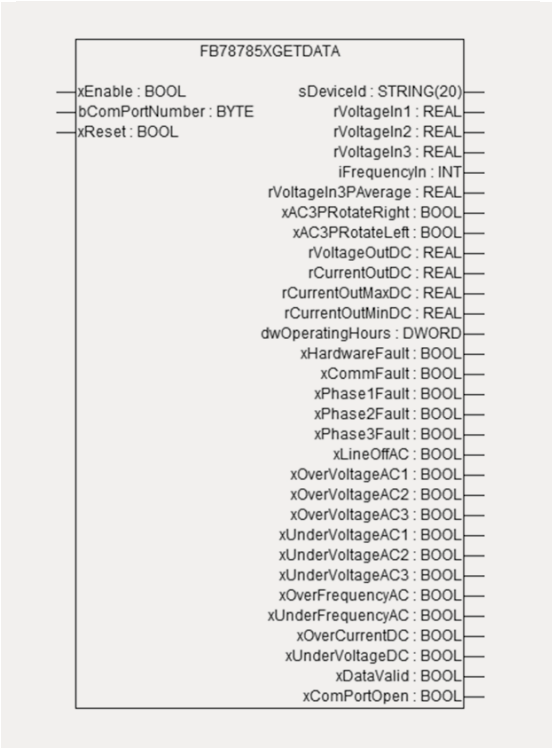


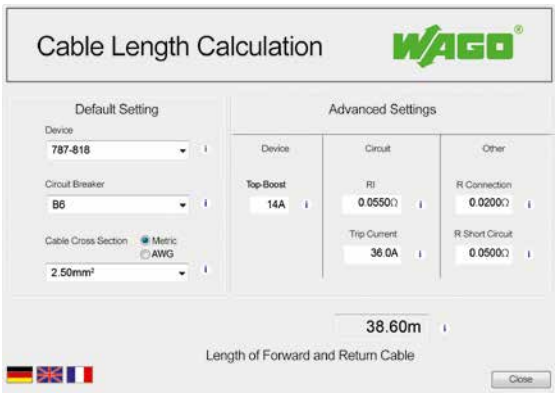


EPSITRON® COMMUNICATION

EPSITRON® PRO Power



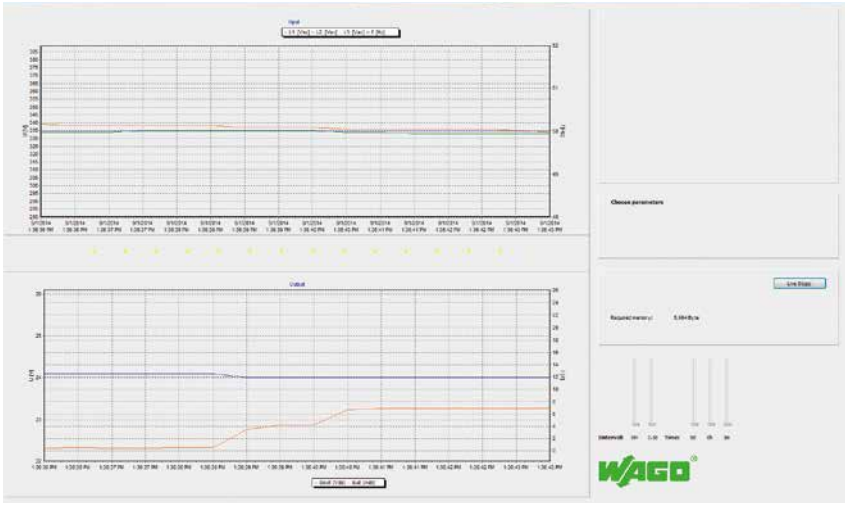




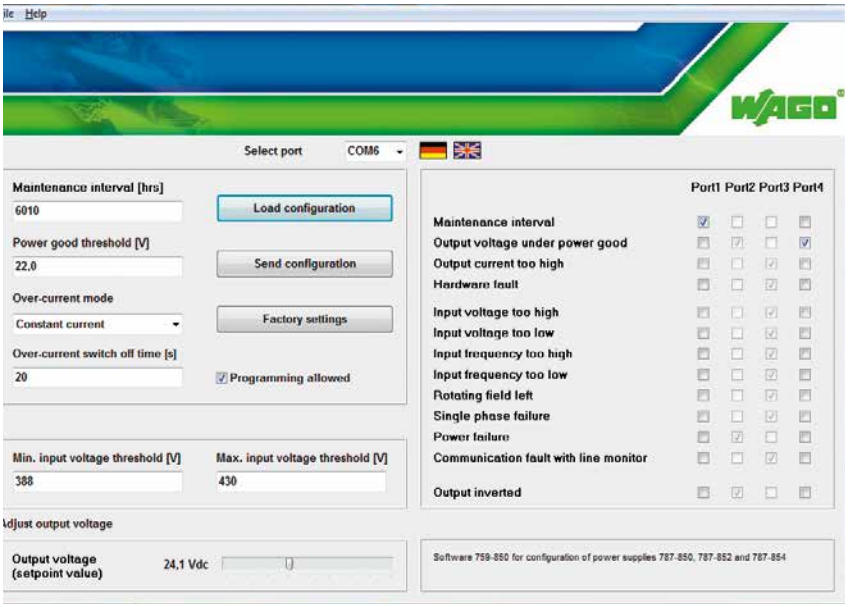
Easy Configuration and Monitoring of 787-85x PRO Power Supplies via RS-232 Interface

Easily connect a notebook 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*® 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).

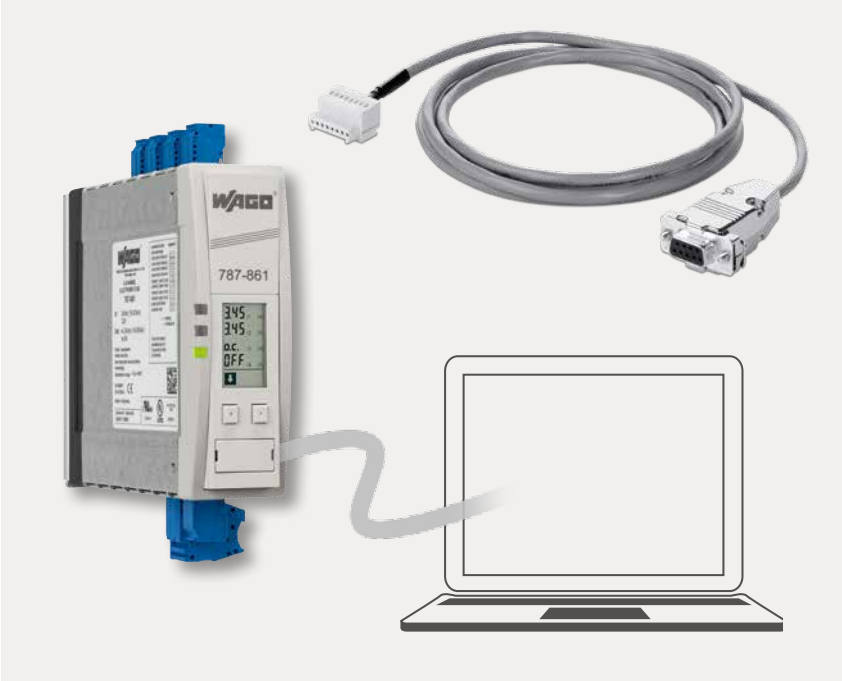


The free 759-850 Configuration Software allows you to set a maintenance timer that notifies the user when the operating hours are complete. Permissible voltage and current levels can also be set and monitored with the configuration software. This value-added benefit eliminates the need for additional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

EPSITRON® COMMUNICATION

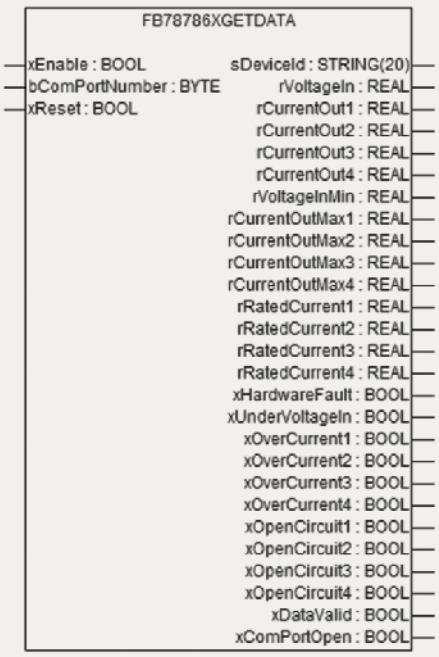
Electronic Circuit Breakers (ECBs)

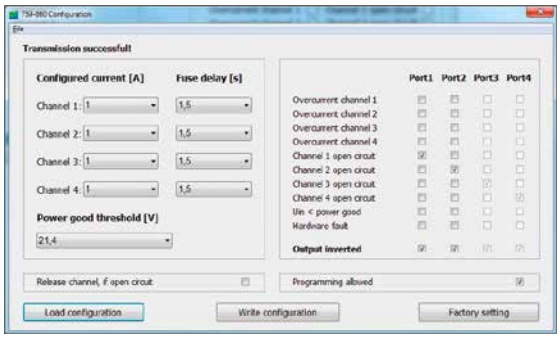
Function blocks for ECB monitoring that use the WAGO-I/O-SYSTEM, or different control systems, are available for free. Select ECBs and UPS units from the *EPSITRON*® Series also feature an built-in display and an RS-232 interface for convenient configuration and monitoring. Each of the four channels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

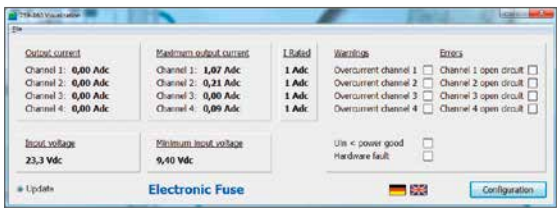


Visualize:

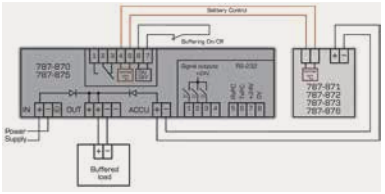
- Nominal current
- Actual output current
- Maximum output current per channel
- Input voltage
- Minimum input voltage
- Warnings and error condition







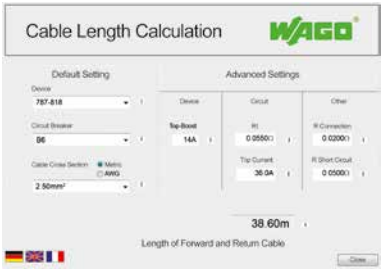
EPSITRON® GLOSSARY



Battery Control

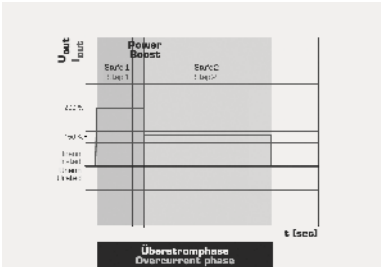
EPSITRON® battery control technology allows data exchange between intelligent battery modules and a UPS charger/ controller.

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.



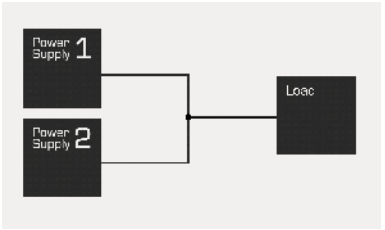
TopBoost

In order for high-speed magnetic miniature circuit breakers to trip, currents that are significantly higher 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. This increases uptime of the entire power supply while fulfilling EN 60204-1 requirements regarding grounding in control circuits. Using the free cable length calculator available from www.wago.com/epsitron, the designer or planer can 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

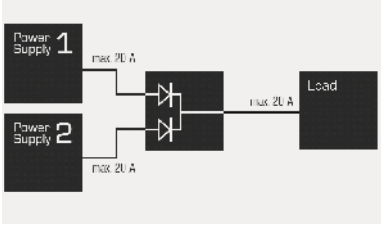
During start-up or the switching of capacitive loads (valve clusters, motors, etc.), there is an increased need for current. However, conventional switch mode power supplies usually require a much larger switch mode power supply to avoid switching to overload operation or short circuit limitation. In this case, PRO Power Supplies provide power reserves – up to 200 % of the nominal current at the output for up to four seconds, maximum 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, except for 787-601 and 787-602 devices. 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.

Star 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, power supply 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

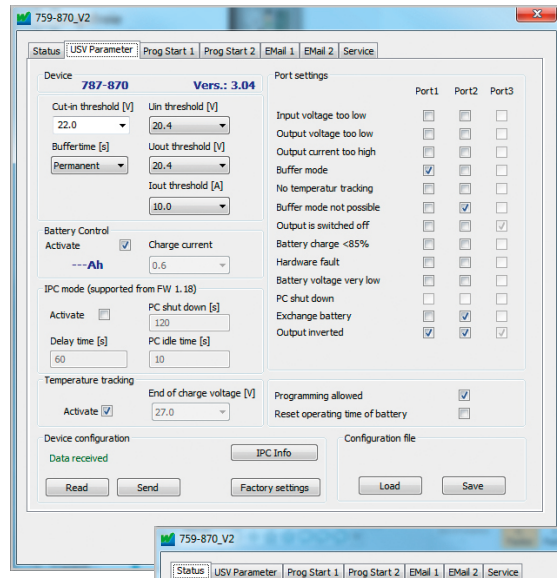
Parallel connection using decoupling diodes in the respective current path can increase system availability and reliability. In normal operation, both units supply the load.

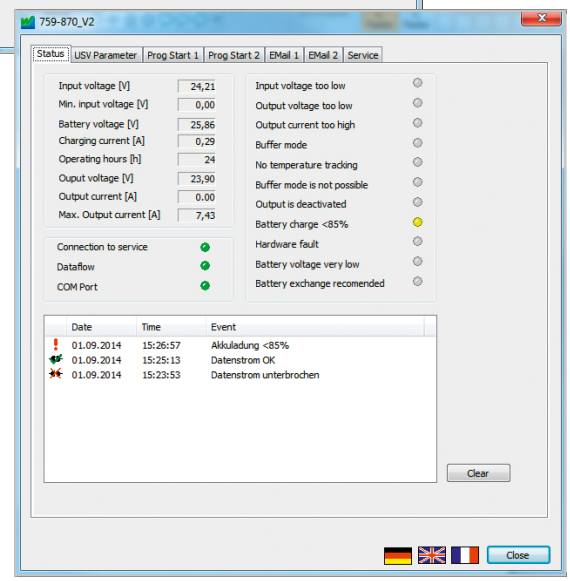
If a power supply fails, the intact power supply becomes responsible for complete supply of the load. Of course, the nominal current of each power supply must be higher than the maximum arising load current. The redundancy modules feature powerful decoupling diodes which reliably prevent reverse currents.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

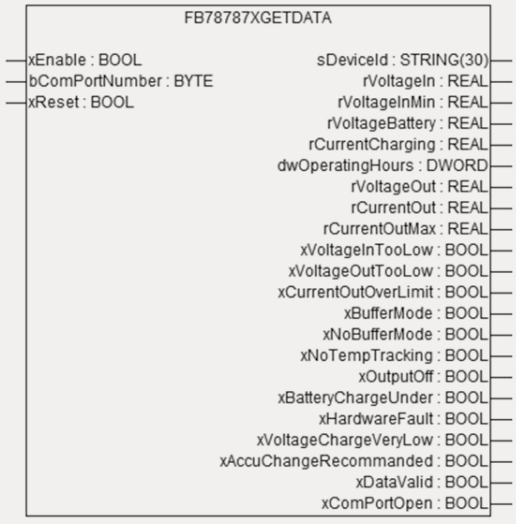
Uninterruptible Power Supplies (UPS)

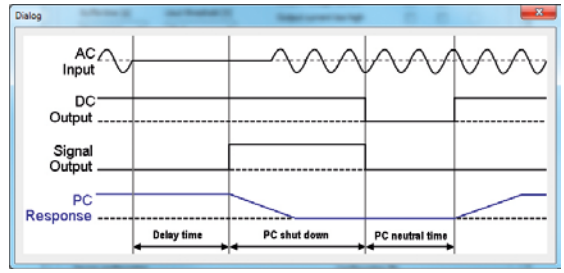
The *EPSITRON*® UPS unit can be conveniently configured using the free 759-870 Software. Values for the input voltage, battery data, output voltage and current, as well as error status are displayed in the software.

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









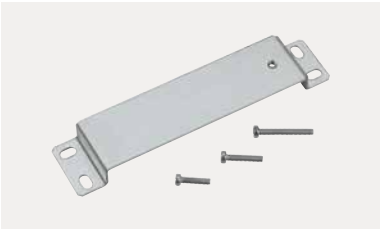
EPSITRON® ACCESSORIES

787-890 RS-232 Communication Cable, 1.8 m long
The communication cable is used for configuration and visualization via PC, notebook 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

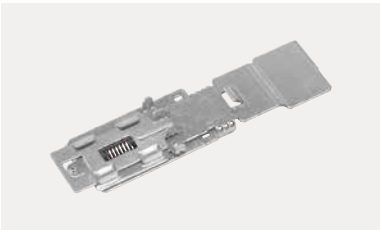
761-9005 USB Adapter with 1 m connection cable
The USB adapter transmits RS-232 signals to the USB interface of a PC or notebook. The adapter is simply plugged into the 787-890 Communication Cable Connector.

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



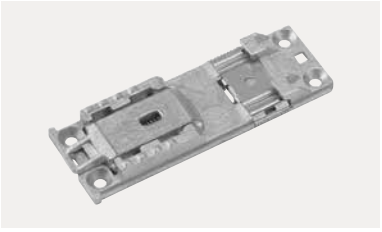
787-895 Wall Mount Adapter secures 787-8xx devices on a mounting plate or wall without DIN-rail

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 permanent 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

WE INNOVATE!

60290800 – 0888-0160/0902-6901 – EPSITRON BROCHURE 9.2 US – 03/2016 – Printed in Germany – Subject to design changes

WAGO Kontakttechnik GmbH & Co. KG
Postfach 2880 · 32385 Minden
Hansastraße 27 · 32423 Minden
info@wago.com
www.wago.com

Headquarters	+49 571/ 887 - 0
Sales	+49 571/ 887 - 222
Order Service	+49 571/ 887 - 44 333
Fax	+49 571/ 887 - 844 169