

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



Clear, Quick Connections

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

EPSITRON® – POWER SUPPLIES

Selection Guide

Switched-Mode Power Supplies

Nominal voltage output	Nominal output current [ADC]		Approvals					DC OK signal/contact			Efficiency, typ. [%]	Ambient operating temperature [°C] ^{max.}	Item No.	Page
	Input, 1-phase	Input, 2-/3-phase	EN 60335	cURus 60950	cULus 508	GL	ANSI/ISA 12.12.1	ATEX / IEC Ex	RS-232 interface	TopBoost*				
24 VDC	1.0	■	■	■	■	■			■		86.0	-25 ... +70	787-1602	16
	1.25	■	■	■	■	■					80.0	-20 ... +60	787-1702	20
	1.3	■	■	■	■	■					82.0	-25 ... +60	787-1002	24
	1.3	■	■	■	■	■					82.0	-25 ... +60	787-1102	24
	1.3	■	■	■	■	■					87.0	-25 ... +70	787-1202	24
	2.0	■	■	■	■	■			■		89.0	-25 ... +70	787-1606	16
	2.5	■	■	■	■	■		■	■		86.0	-10 ... +70	787-712	20
	2.5	■	■	■	■	■					81.0	-20 ... +60	787-1712	20
	2.5	■	■	■	■	■					88.0	-25 ... +60	787-1012	24
	2.5	■	■	■	■	■					88.0	-25 ... +60	787-1112	24
	2.5	■	■	■	■	■					88.0	-25 ... +70	787-1212	24
	3.0	■	■	■	■	■				■	87.8	-25 ... +70	787-818	12
	3.8	■	■	■	■	■				■	87.0	-25 ... +70	787-1616/0000-1000**	16
	4.0	■	■	■	■	■				■	89.0	-25 ... +70	787-1616	16
	4.0	■	■	■	■	■					88.0	-25 ... +60	787-1022	24
	4.0	■	■	■	■	■					88.0	-25 ... +60	787-1122	24
	4.2	■	■	■	■	■					90.0	-25 ... +70	787-1216	24
	5.0	■	■	■	■	■				■	87.8	-25 ... +70	787-822	12
	5.0	■	■	■	■	■				■	89.0	-25 ... +70	787-1622	16
	5.0	■	■	■	■	■				■	89.0	-25 ... +70	787-1628	17
	5.0	■	■	■	■	■				■	89.0	-25 ... +70	787-1675***	34
	5.0	■	■	■	■	■		■	■		86.0	-10 ... +60	787-722	20
	5.0	■	■	■	■	■					84.0	-20 ... +60	787-1722	20
	6.0	■	■	■	■	■					90.0	-25 ... +70	787-1226	24
	6.25	■	■	■	■	■					87.0	-25 ... +70	787-738	20
	10.0	■	■	■	■	■				■	90.0	-25 ... +70	787-832	12
	10.0	■	■	■	■	■				■	91.0	-25 ... +70	787-1632	16
	10.0	■	■	■	■	■				■	90.0	-25 ... +70	787-1638	17
	10.0	■	■	■	■	■		■	■		86.0	-10 ... +70	787-732	20
	10.0	■	■	■	■	■					84.0	-20 ... +60	787-1732	20
	10.0	■	■	■	■	■				■	91.7	-25 ... +70	787-850	13
	10.0	■	■	■	■	■				■	91.7	-25 ... +70	787-840	13
	10.0	■	■	■	■	■				■	90.0	-25 ... +70	787-1640	17
	10.0	■	■	■	■	■					89.0	-25 ... +70	787-740	20
	20.0	■	■	■	■	■				■	91.0	-25 ... +70	787-834	12
	20.0	■	■	■	■	■				■	92.0	-25 ... +70	787-1634	16
	20.0	■	■	■	■	■					90.0	-25 ... +70	787-734	20
	20.0	■	■	■	■	■				■	92.9	-25 ... +70	787-852	13
	20.0	■	■	■	■	■				■	92.9	-25 ... +70	787-842	13
	20.0	■	■	■	■	■				■	92.0	-25 ... +70	787-1642	17
20.0	■	■	■	■	■					90.0	-25 ... +70	787-742	20	
40.0	■	■	■	■	■				■	90.0	-25 ... +70	787-736	20	
40.0	■	■	■	■	■				■	93.6	-25 ... +55	787-854	13	
40.0	■	■	■	■	■				■	93.6	-25 ... +55	787-844	13	
40.0	■	■	■	■	■				■	92.0	-25 ... +70	787-1644	17	

Switched-Mode Power Supplies

Nominal output voltage	Nominal output current [ADC]		Approvals					DC OK signal/contact	RS-232 interface	TopBoost*	Efficiency, typ. [%]	Ambient operating temperature [°C] ****	Item No.	Page
	Input, 1-phase	Input, 2-/3-phase	EN 60335	cURus 60950	cULus 508	GL	ANSI/ISA 12.12.1							
5 VDC	5.5										75.0	-25 ... +60	787-1020	25
12 VDC	2.0										82.0	-25 ... +70	787-1601	16
	2.0										80.0	-25 ... +60	787-1001	25
	4.0										86.0	-25 ... +70	787-1611	16
	4.0										85.0	-25 ... +60	787-1011	25
	6.0										83.0	-25 ... +70	787-819	12
	6.5										87.0	-25 ... +60	787-1021	25
	7.0										86.0	-25 ... +70	787-1621	16
	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	16
18 VDC	2.5									83.0	-25 ... +60	787-1017	25	
48 VDC	2.0										86.0	-25 ... +70	787-1623	17
	5.0										91.0	-25 ... +70	787-833	12
	5.0										92.0	-25 ... +70	787-1633	17
	10.0										91.0	-25 ... +70	787-835	12
	10.0										93.0	-25 ... +70	787-1635	17
	10.0										93.0	-25 ... +70	787-845	13
	20.0										94.4	-25 ... +70	787-847	13

DC/DC Converters

Nominal input current [VDC]	Nominal output current [VDC]	Nominal output current [A]	Approvals					DC OK signal/contact	Efficiency, typ. [%]	Ambient operating temperature [°C] ****	Item No.	Page
			EN 50155	EN 60335	cURus 60950	cULus 508	GL					
24.0	5.0	0.5							78.0	-25 ... +70	787-2801	30
24.0	10.0	0.5							86.5	-25 ... +70	787-2802	30
48.0	24.0	0.25							87.0	-25 ... +70	787-2803	30
24.0	12.0	0.5							88.0	-25 ... +70	787-2805	30
24.0	5/10/12	0.5							78.0	-25 ... +70	787-2810	30
110.0	24.0	2.0							85.0	-40 ... +70	787-1014	30
72.0	24.0	2.0							86.0	-40 ... +70	787-1014/0072-0000	30

Safety Transformers

Nominal output voltage [VAC]	Nominal output power [VA]	Nominal input voltage [VAC]	Approvals					Ambient operating temperature [°C] ****	Item No.	Page
			EN 60335	EN 61558	cURus 60950	cULus 5085	GL			
12/24	40	110/230						-25 ... +55	787-974	27
12/24	63	110/230						-25 ... +55	787-976	27

■ yes □ pending

* TopBoost enables magnetic tripping of circuit breakers in the output circuit.

For details, see glossary, page 59

** Class 2 Power Unit according to 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)

Output		Input		Approvals						Dimensions and Environmental Conditions				Item No.	Page
Nominal voltage [VDC]	Nominal current [ADC]	Nominal voltage [VAC]	Nominal voltage [VDC]	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]		
24	10.0	–	24		■	■				40.0	163.0	163.0	-10 ... +60	787-870	34
24	20.0	–	24		■	■				57.0	163.0	171.0	-10 ... +60	787-875	34
24	5.0	100 ... 240	110 ... 370		■	■	■			60.0	135.5	127.0	-25 ... +70	787-1675	34

Battery Modules

Output		Input		Approvals						Dimensions and Environmental Conditions				Item No.	Page	
Nominal voltage [VDC]	Nominal capacity [Ah]	Nominal voltage [VDC]	Nominal voltage [VDC]	EN 60335	cURus 60950	cULus 508	GL	ANSI/ISA 12.12.1	ATEX/IEC Ex	Battery tested to V&S	Width [mm]	Height [mm]	Length [mm]	Ambient operating temperature [°C]		
24	0.8	24	24			□				■	72.0	124.5	97.0	-15 ... +40	787-1671	34
24	1.2	24	24			■				■	55.0	136.5	153.0	-15 ... +40	787-876	34
24	3.2	24	24			■				■	76.2	175.5	168.0	-15 ... +40	787-871	34
24	7.0	24	24			■				■	86.0	217.5	236.0	-15 ... +40	787-872	34
24	12.0	24	24			■				■	120.5	217.5	236.0	-15 ... +40	787-873	34

Capacitive Buffer Modules

Input/Output, Buffer			Approvals						Dimensions and Environmental Conditions				Item No.	Page
Nominal input/output voltage [VDC]	Nominal output 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]		
24	10.0	0.06 ... 7.2		■	■				57.0	179.0	163.0	-10 ... +50	787-880	37
24	20.0	0.17 ... 16.5		■	■				57.0	179.0	181.0	-10 ... +50	787-881	37

■ yes □ pending

* NEC Class 2

Redundancy Modules

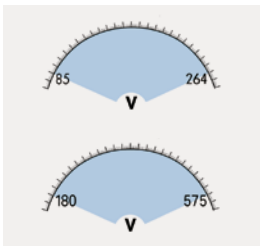
Output		Input		Approvals					Dimensions and Environmental Conditions				Item No.	Page	
Nominal voltage [VDC]	Nominal current [ADC]	Nominal voltage [VDC]		EN 60335	cURus 60950	cULus 508	GL	ANSI/ISA 12.12.1	ATEX/IEC Ex	Width [mm]	Height [mm]	Length [mm]	Ambient operating temperature [°C]		
12 ... 48	12.5	12 ... 48								50.0	92.0	130.0	-25 ... +70	787-783	39
24	20.0	24								40.0	163.0	181.0	-10 ... +60	787-885	39
24	40.0	24								42.0	139.5	127.0	-40 ... +70	787-1685	39
12 ... 48	40.0	12 ... 48								83.0	153.0	130.0	-25 ... +70	787-785	39
48	20.0	48								40.0	163.0	181.0	-10 ... +60	787-886	39

Electronic Circuit Breakers

Input/Output				Approvals					Dimensions and Environmental Conditions				Item No.	Page			
Nominal input/output voltage [VDC]	Output channels	Nominal output current [ADC]		Active current limitation	Isolated signal contact	UL 61010	UR 2367	cULus 508	GL	ANSI/ISA 12.12.1	ATEX/IEC Ex	Width [mm]	Height [mm]	Length [mm]	Ambient operating temperature [°C]		
24	1	1										6	96	94	-25 ... +70	787-2861/0100-0000	45
	1	2										6	96	94	-25 ... +70	787-2861/0200-0000	45
	1	4										6	96	94	-25 ... +70	787-2861/0400-0000	45
	1	6										6	96	94	-25 ... +70	787-2861/0600-0000	45
	1	8										6	96	94	-25 ... +65	787-2861/0800-0000	45
24	2	2 ... 10										45	115.5	90	-25 ... +70	787-1662	42
	2	2 ... 10										45	115.5	90	-25 ... +70	787-1662/0000-0004	42
	2	2 ... 10										45	115.5	90	-25 ... +70	787-1662/0000-0054	42
	2	3.8 LPS										45	115.5	90	-25 ... +70	787-1662/0004-1000*	42
	2	0.5 ... 6										45	115.5	90	-25 ... +70	787-1662/0006-1000	42
	2	1 ... 6										45	115.5	90	-25 ... +70	787-1662/0106-0000	42
	2	2 ... 12										45	115.5	90	-25 ... +70	787-1662/0212-1000	42
	2	0.5 ... 6										45	115.5	90	-25 ... +70	787-1664-0006-1054	42
24	4	2 ... 10										45	115.5	90	-25 ... +70	787-1664	42
	4	2 ... 10										45	115.5	90	-25 ... +70	787-1664/0000-0004	42
	4	2 ... 10										45	115.5	90	-25 ... +70	787-1664/0000-0054	42
	4	3.8 LPS										45	115.5	90	-25 ... +70	787-1664/0004-1000*	42
	4	0.5 ... 6										45	115.5	90	-25 ... +70	787-1664/0006-1000	42
	4	1 ... 6										45	115.5	90	-25 ... +70	787-1664/0106-0000	42
	4	2 ... 12										45	115.5	90	-25 ... +70	787-1664/0212-1000	42
	4	0.5 ... 6										45	115.5	90	-25 ... +70	787-1664-0006-1054	42
24	8	2 ... 10										42	142.5	127	-25 ... +70	787-1668	42
	8	2 ... 10										42	142.5	127	-25 ... +70	787-1668/0000-0004	42
	8	2 ... 10										42	142.5	127	-25 ... +70	787-1668/0000-0054	42
	8	0.5 ... 6										42	142.5	127	-25 ... +70	787-1668/0006-1000	42
	8	1 ... 6										42	142.5	127	-25 ... +70	787-1668/0106-0000	42
	8	0.5 ... 6										42	142.5	127	-25 ... +70	787-1668/1054	42
12	2	2 ... 10									45	115.5	90	-25 ... +70	787-1662/0000-0100	42	
12	4	2 ... 10									45	115.5	90	-25 ... +70	787-1664/0000-0100	42	
48	2	2 ... 10										45	115.5	90	-25 ... +70	787-1622/0000-0200	42
	2	2 ... 10										45	115.5	90	-25 ... +70	787-1662/0000-0250	42
48	4	2 ... 10										45	115.5	90	-25 ... +70	787-1664/0000-0200	42
	4	2 ... 10										45	115.5	90	-25 ... +70	787-1664/0000-0250	42
48	8	2 ... 10										45	142.5	127	-25 ... +70	787-1668/0000-0200	42
	8	2 ... 10										42	142.5	127	-25 ... +70	787-1668/0000-0250	42

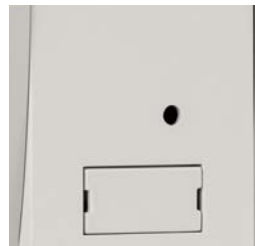
EPSITRON® PRO POWER

Professional and Efficient Power Supply with Extra Power



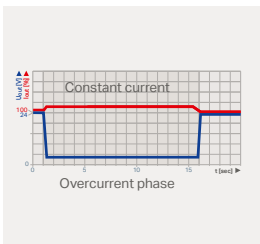
Universal Supply

- Wide input voltage range: 85 ... 264 VAC or 340 ... 550 VAC
- Can be connected worldwide to all standard (single-phase or 3-phase) power grids
- High operational reliability during power outages



Adjustable

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



High Load-Carrying Capacity

- 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



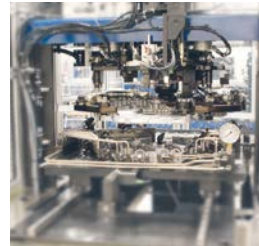
TopBoost

- Multiplies the nominal current for up to 50 ms
- 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
- Fulfills EN 60204-1 grounding requirements in control circuits



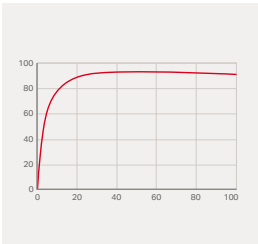
Line Length Calculator

- Configuration software for PRO Power and CLASSIC Power Supplies with TopBoost
- Quickly and reliably calculate line lengths for triggering secondary-side circuit breakers and select a cross section or power supply
- Free download at: www.wago.com/epsitron



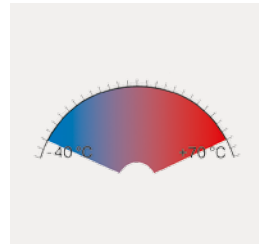
PowerBoost

- 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



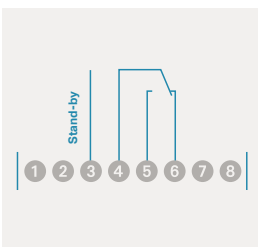
Efficiency

- Peak efficiency up to 93.4 % depending on model
- Operates in the optimal power and efficiency range via integrated PowerBoost



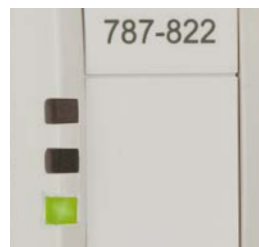
Wide Ambient Operating Temperature Range

- Cold start at -40 °C
- Rated up to +70 °C (787-844, -854: +55 °C)



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 *not for 787-85x



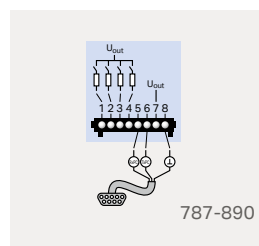
Intuitive Communication

- LEDs clearly indicate status
 - Green (DC OK), yellow* (warning), red (fault, overload)
- *787-85x only



LineMonitor*

- 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
- *787-85x only



Interface*

- Four active signal outputs and RS-232 interface for watchdog functions
 - Each unit features a separate collective message for warning/fault
 - Free configuration software (759-850) at www.wago.com
- *787-85x only



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



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)

EPSITRON® PRO POWER

Professional and Efficient Power Supply with Extra Power

Single-Phase; Input: 85 ... 264 VAC

24 VDC



787-818
3 A



787-822
5 A



787-832
10 A



787-834
20 A

Single-Phase; Input: 85 ... 264 VAC

12 VDC



787-819
6 A



787-821
10 A



787-831
15 A

Single-Phase; Input: 85 ... 264 VAC

48 VDC



787-833
5 A



787-835
10 A

Three-Phase; Input: 340 ... 550 VAC

24 VDC



787-840
10 A



787-842
20 A



787-844
40 A

Three-Phase; Input: 340 ... 550 VAC

24 VDC (with LineMonitor)



787-850
10 A



787-852
20 A



787-854
40 A

Three-Phase; Input: 340 ... 550 VAC

48 VDC



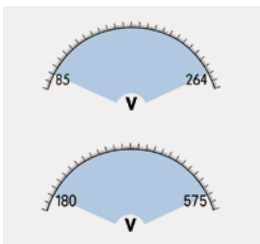
787-845
10 A



787-847
20 A

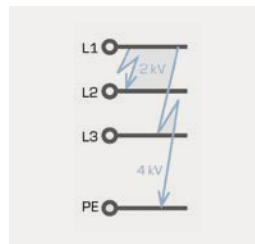
EPSITRON® CLASSIC POWER

The Robust Power Supply – with Integrated TopBoost (Optional)



Universal Supply

- Wide input voltage range:
85 ... 264 VAC, 180 ... 550 VAC
or 320 ... 575 VAC
- Can be connected worldwide to
all standard (1-phase, 2-phase or
3-phase) power grids
- High operational reliability during
power outages



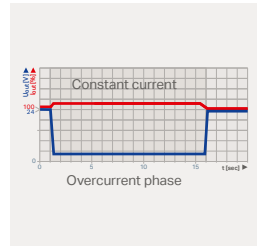
Increased Transient Suppression*

- Overvoltage-proof up to 2 kV (L-L)
or 4 kV (L-PE)
- *only for 787-1640 ... -1644



Adjustable

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



High Load-Carrying Capacity

- 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



Integrated TopBoost*

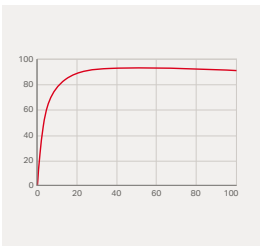
- Multiplies the nominal current
- Fast and reliable triggering of the secondary-side fusing via circuit breakers or melting fuses in the event of a short circuit and overload

*only for 787-1622 ... -1628, -1631 ... -1638, -1640 ... -1644



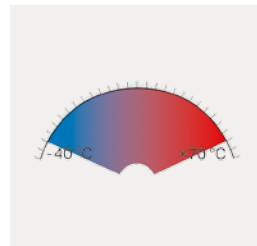
Line Length Calculator

- Configuration software for PRO Power and CLASSIC Power Supplies with TopBoost
- Quickly and reliably calculate line lengths for triggering secondary-side circuit breakers and select a cross section or power supply
- Free download at: www.wago.com/epsitron



Efficiency

- Efficiency up to 93 % depending on model
- Low power loss, especially in open-circuit operation and in the nominal load range



Wide Ambient Operating Temperature Range

- Cold start at -40 °C
- Rated up to +70 °C
- Derating begins not before +55 °C



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



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



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 mismatching



Slim Design

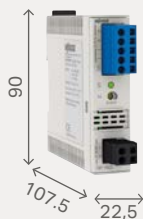
- Enclosure width has been reduced by up to 45 % compared to previous CLASSIC Power Supplies
- Save valuable cabinet space

EPSITRON® CLASSIC POWER

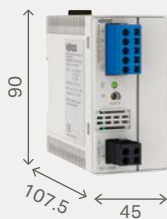
The Robust Power Supply – with Integrated TopBoost (Optional)

Single-Phase; Input: 85 ... 264 VAC

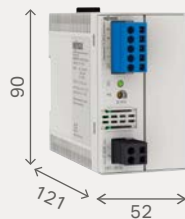
24 VDC



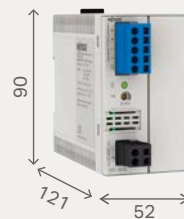
787-1602
1 A



787-1606
2 A



787-1616/0000-0100
3, 8 A NEC Cl. 2



787-1616
4 A

Single-Phase; Input: 85 ... 264 VAC

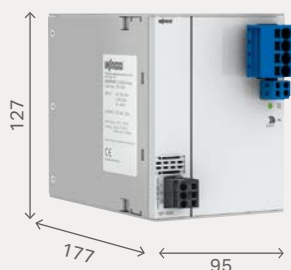
24 VDC



787-1622
5 A



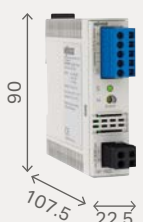
787-1632
10 A



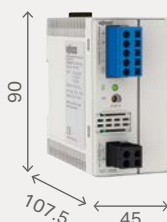
787-1634
20 A

Single-Phase; Input: 85 ... 264 VAC

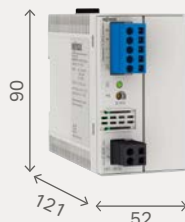
12 VDC



787-1601
2 A



787-1611
4 A



787-1621
7 A



787-1631
15 A

Single-Phase; Input: 85 ... 264 VAC

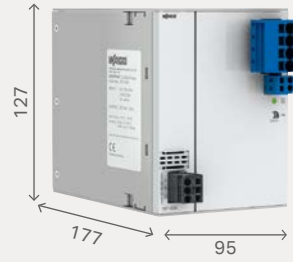
48 VDC



787-1623
10 A



787-1633
5 A



787-1635
10 A

Two-Phase; Input: 180 ... 550 VAC

24 VDC



787-1628
5 A



787-1638
10 A

Three-Phase; Input: 320 ... 575 VAC

24 VDC



787-1640
10 A



787-1642
20 A



787-1644
40 A

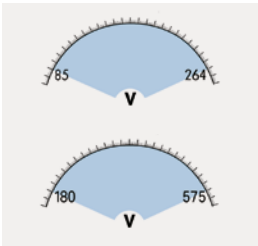
EPSITRON® ECO POWER

Economical Power Supply for Standard Applications



ATEX
IEC Ex





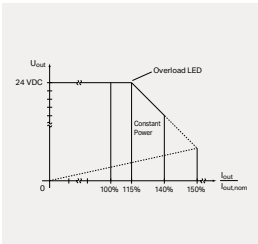
Supply Tolerance

- Wide input voltage range: 85 (90) ... 264 VAC or 325 .. 575 VAC
- Efficiently operates on different power grids — no need for additional conversion or adjustment
- High tolerance to voltage fluctuations within a power grid ensures a high level of operational reliability



Adjustable

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



Robust

- 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

*except for 787-17xx



Status Monitoring

- Isolated make contact, via bounce-free operating optocoupler*
- Indicates whether an output voltage or an overload is present
- Ideal for remote monitoring

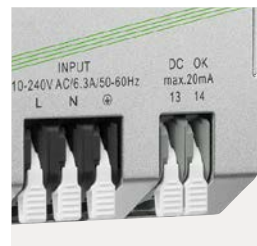
*only for 787-734 ... -742



Clear Indication

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

*except for 787-17xx



Fast Wiring

- Convenient, tool-free wiring thanks to lever-actuated terminal strips*
- Integrated test slot simplifies testing by eliminating conductor removal

*only for 787-734 ... -742



Easy Grounding

- Integrated third negative terminal strip on the output side*
- Direct connection to the reference ground, which is frequently used in machines and equipment

*only for 787-734 ... -742



Versatile Mounting Options

- Flexible mounting via carrier rail adapter*
- Flexible installation via screw-mount clips*

*only for 787-17xx



Especially Economical

- Three times the savings thanks to low purchase costs, easy installation and no maintenance
- Budget-friendly for basic applications

EPSITRON® ECO POWER

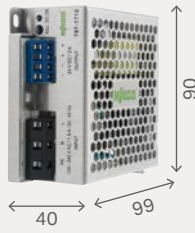
Economical Power Supply for Standard Applications

Single-Phase; Input: 85 ... 264 VAC

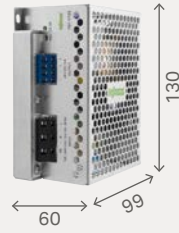
24 VDC



787-1702
1.25 A



787-1712
2.5 A



787-1722
5 A



787-1732
10 A

Single-Phase; Input: 85 ... 264 VAC

24 VDC



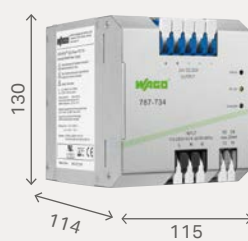
787-712
2.5 A



787-722
5 A



787-732
10 A



787-734
20 A



787-736
40 A

Three-Phase; Input: 320 ... 575 VAC

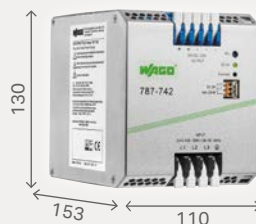
24 VDC



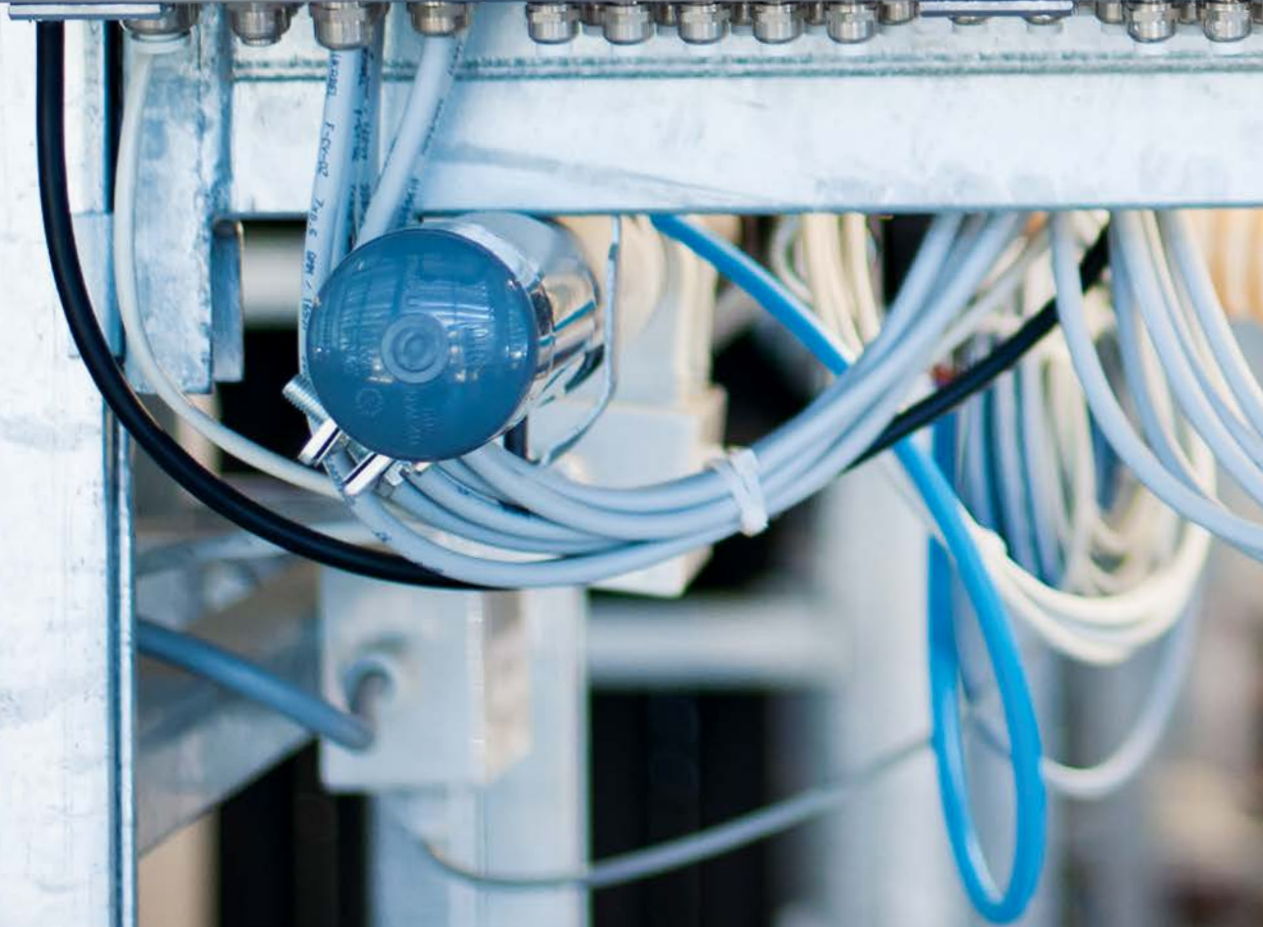
787-738
6.25 A



787-740
10 A

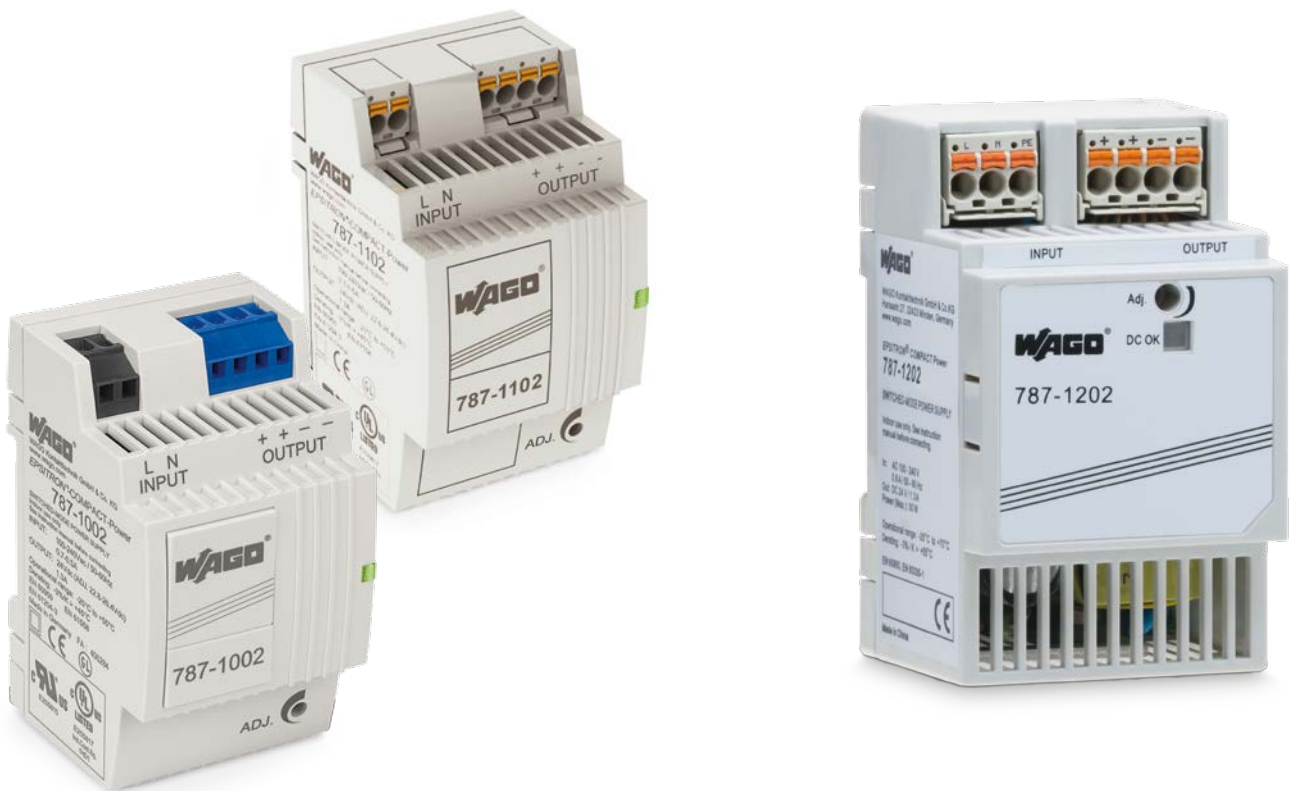


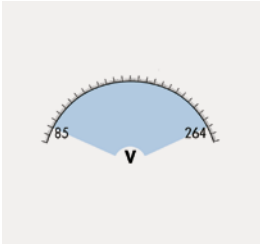
787-742
20 A



EPSITRON® COMPACT POWER

Compact, High-Performance Power Supplies





Supply Tolerance

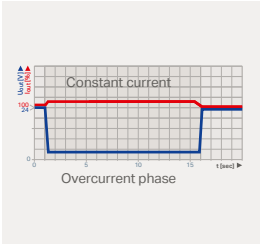
- Wide input voltage range: 85 ... 264 VAC
- Efficiently operates on different power grids – no need for additional conversion or adjustment*
- High tolerance to voltage fluctuations within a power grid ensures a high level of operational reliability

*except for 787-1226



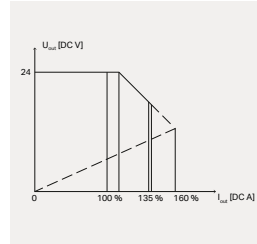
Adjustable

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



High Load-Carrying Capacity

- Constant current characteristic under overload conditions
- Short-term 110 % output current with lowered output voltage, even during a short circuit (787-10xx and 787-11xx)
- High capacitive loads can be reliably started (e.g., distributed control units or HMI devices)



Minimum Size, Maximum Performance

- Constant power characteristic under overload conditions
- Short-term 135 % output current in the event of overload (787-12xx)
- Output shutdown in case of a low-resistance short circuit; automatic restart



Clear Indication

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



Easy to Connect

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

*only for 787-11xx, 787-12xx



DIN-Rail Built-In Installation

- Housing design per EN 43880, for installation in small distribution boards or meter panels



Versatile Mounting Options

- Easy mounting on DIN-rails
- Flexible installation via screw-mount clips also possible*

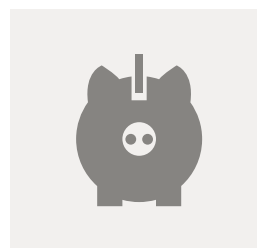
*only for 787-12xx



Overhead Mounting

- Any type of mounting position is possible at reduced output power
- Units can even be mounted overhead (e.g., in ceiling-mounted distribution boxes)
- Improved cooling due to removable front plate*

*only for 787-1202, -1212



Highly Economical

- Three times the savings thanks to low purchase costs, easy installation and no maintenance
- Budget-friendly for basic applications

EPSITRON® COMPACT POWER

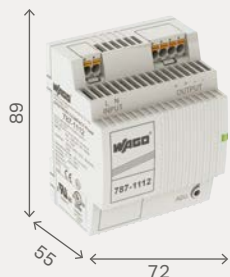
Compact, High-Performance Power Supplies

Single-Phase; Input: 85 ... 264 VAC

24 VDC (with *picoMAX*®)



787-1102
1.3 A



787-1112
2.5 A



787-1122
4 A

Single-Phase; Input: 85 ... 264 VAC

24 VDC



787-1002
1.3 A



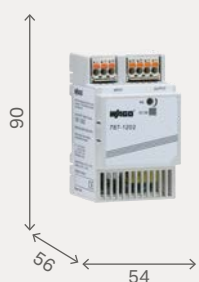
787-1012
2.5 A



787-1022
4 A

Single-Phase; Input: 90 ... 264 VAC

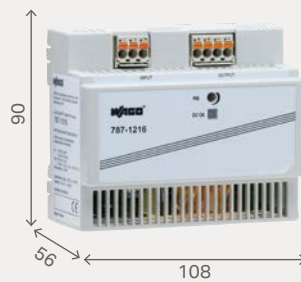
24 VDC with *picoMAX*®



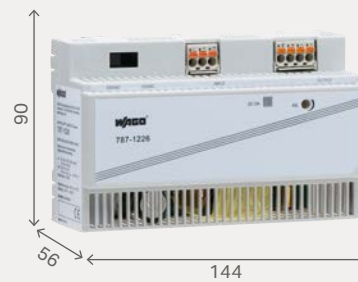
787-1202
1.3 A



787-1212
2.5 A



787-1216
4.2 A



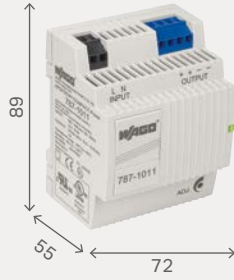
787-1226
6 A

Single-Phase; Input: 85 ... 264 VAC

12 VDC



787-1001
2 A



787-1011
4 A



787-1021
6.5 A

Single-Phase; Input: 85 ... 264 VAC

18 VDC



787-1017
2.5 A

Single-Phase; Input: 85 ... 264 VAC

5 VDC

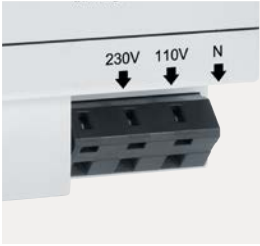


787-1020
5.5 A

EPSITRON® – SAFETY TRANSFORMERS

Robust and Low-Profile DIN-Rail-Mount Modules





Flexible Voltages

- Appropriate for 110 V and 230 V input voltages via center tap
- Supply applications with 12 VAC and/or 24 VAC



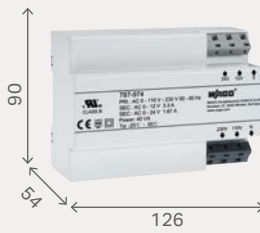
Shock and Vibration Tested

- Meet all shock (EN 60068-2-6) and vibration (EN 60068-2-27) requirements despite high weight

Safety Transformers

40 VA

63 VA



787-974
12/24 VAC



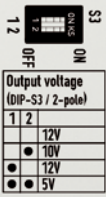
787-976
12/24 VAC

EPSITRON® – DC/DC CONVERTERS

Dependable Power Supply for Specialty Voltages



Read Operating and Installation Instructions before connecting to supply voltage.



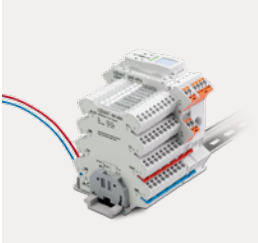
A Device for a Wide Variety of Applications

- Output voltage of the DC/DC converter (787-2810) set with the built-in DIP switch



Communicative

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



Can be Commoned with 857/2857 Series

- Full commoning of the supply voltage thanks to shared profile between the 787-28xx DC/DC Converters and the 857/2857 Series Relays and Signal Conditioners



Industry's Most Compact

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



Suitable for Railway Applications per EN 50155

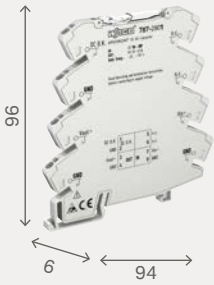
- Wide DC input voltage range
- Wide temperature range
- Protective coating

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

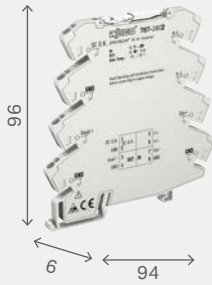
EPSITRON® – DC/DC CONVERTERS

Dependable Power Supply for Specialty Voltages

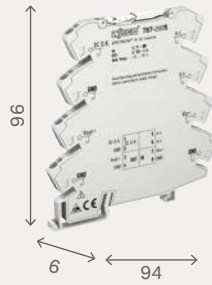
24 VDC



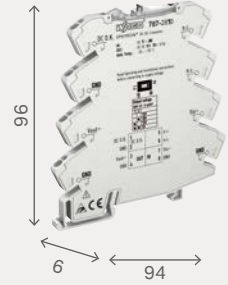
787-2801
5 VDC
0.5 A



787-2802
10 VDC
0.5 A

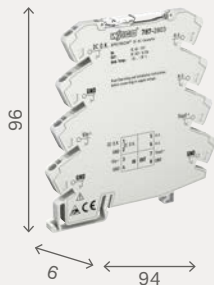


787-2805
12 VDC
0.5 A



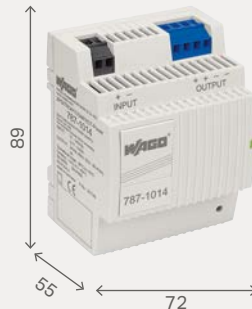
787-2810
5/10/12 VDC, adjustable
0.5 A

48 VDC



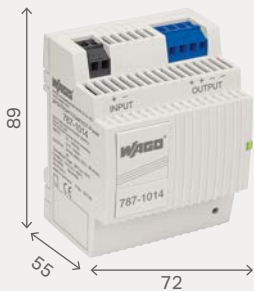
787-2803
24 VDC
0.5 A

72 VDC



787-1014/0072-0000
24 VDC
2 A

110 VDC



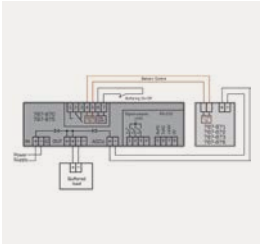
787-1014
24 VDC
2 A



EPSITRON® – UNINTERRUPTIBLE POWER SUPPLY (UPS)

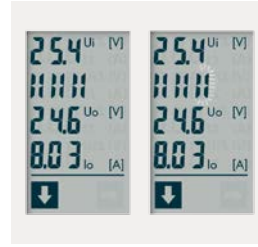
Reliable Compensation – Even for Longer Power Outages





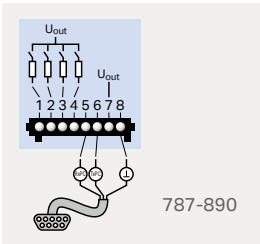
**EPSITRON®
Battery Control Technology**

- Allows continuous data exchange between intelligent battery modules (787-87x) and a UPS charger/controller
- Automatically detects a connected battery module (787-87x)
- Maximized battery life via temperature-controlled battery management



Display with Charge Level Indication

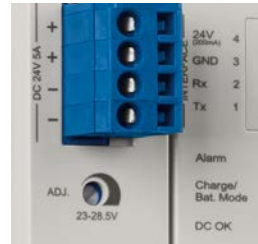
- Indicates actual current and voltage values
- Bar graph displays the charge level of connected batteries
- Integrated fault memory



RS-232 Serial Interface

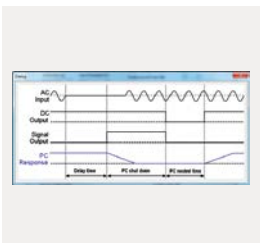
- Free download* of the configuration and visualization software (759-870)
- Free download of function blocks for visualization on standard PLC systems
- Serial communication cable (787-890 or -892) available as an accessory

* www.wago.com/epsitron



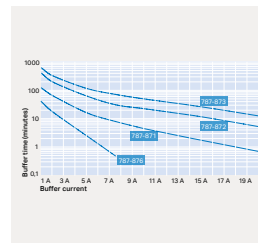
Diagnostics, Monitoring, Configuration

- 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



IPC Mode

- Function for controlled shutdown of controllers and PCs
- Shutdown signal transmitted to controller through UPS
- Adjustable wait time and dead times



Buffer Time

- Based on battery capacity and discharge current
- Several battery modules available with capacities from 0.8 Ah to 12 Ah (up to 26 Ah upon request)
- Parallel connection of up to three battery modules of the same type increases buffer time – any lead battery modules can be connected

EPSITRON® – UNINTERRUPTIBLE POWER SUPPLIES (UPS)

The Robust Power Supply – with Integrated TopBoost (Optional)

UPS Chargers and Controllers

24 VDC



787-870
10 A



787-875
20 A

Power Supply with Integrated UPS Charger and Controller

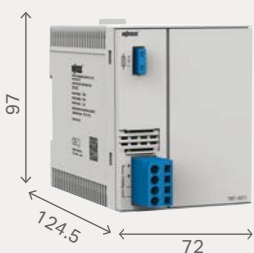
24 VDC



787-1675
5 A

Battery Modules

24 VDC



787-1671
0.8 Ah



787-876
1.2 Ah



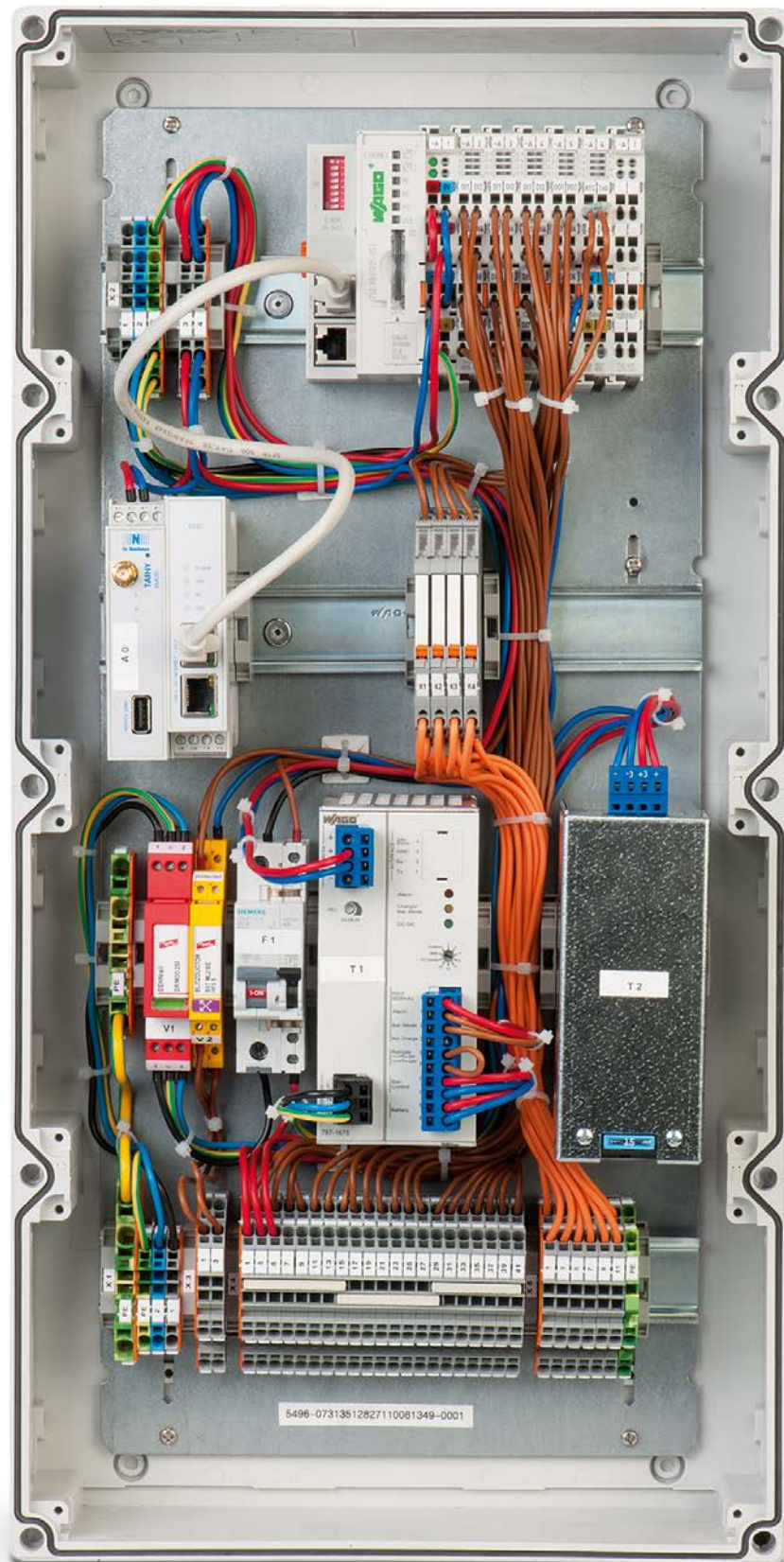
787-871
3.2 Ah



787-872
7 Ah



787-873
12 Ah

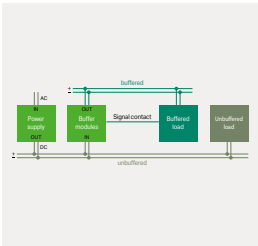


Compact and cost-effective, WAGO's 787-1675 EPSITRON® CLASSIC Power Supply with an integrated UPS charger and controller powers and buffers applications with low energy demands.

EPSITRON® – CAPACITIVE BUFFER MODULES

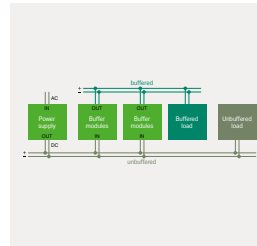
Short-Term Power Reserve for Power Outage and Load Change





Decoupled Output

- Integrated diode
- Buffered and unbuffered loads can be decoupled



Parallel Connection Possible

- Multiple buffer modules can be parallel-connected to increase buffer time or load current



Signaling

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



Maintenance-Free

- Regular replacement of the modules not necessary thanks to the long life of the integrated gold caps

Capacitive Buffer Modules

24 VDC



787-880
10 A/0.06 ... 7.2 s

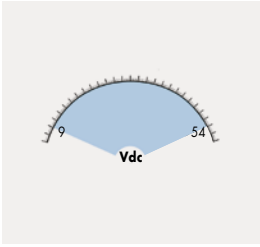


787-881
20 A/0.17 ... 16.5 s

EPSITRON® – REDUNDANCY MODULES

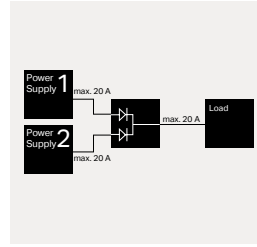
Reliably Increasing Power Supply Availability





Highly Versatile

- The diode redundancy modules (787-783 and -785) can be used for 12 V, 15 V, 24 V, or 48 V power supplies thanks to their wide voltage range



High Load Capacity

- Power diodes in each input path feature a high overload capacity and are also suitable for power supplies with TopBoost or PowerBoost
- Output currents up to 76 A thanks to parallel connection of the input paths



Signaling

- Three LEDs indicate the presence of an input or output voltage
- An isolated signal contact optionally indicates a power supply failure on the input*

* only for 787-885 and -886

Redundancy Modules

Input: 2 x 24 VDC / 2 x 20 A

Input: 2 x 48 VDC / 2 x 20 A



787-885
24 VDC / max. 20/40 A

787-1685 (MOSFET Redundancy Module)
24 VDC / max. 40 A

787-886
48 VDC / max. 20/40 A

Redundancy Modules

Input: 2 x 9 54 VDC / 2 x max. 12.5 A

Input: 2 x 9 54 VDC / 2 x max. 40 A



787-783
9 ... 54 VDC / max. 12.5/25 A

787-785
9 ... 54 VDC / max. 40/76 A

EPSITRON® – ELECTRONIC CIRCUIT BREAKERS (ECBs)

Compact and Precise ECBs for DC Circuits





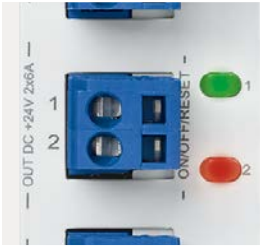
Pluggable CAGE CLAMP® Connection Technology

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



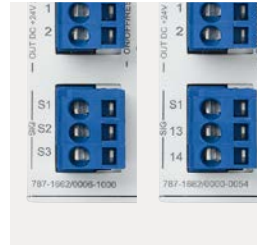
Rotary Switch

- 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



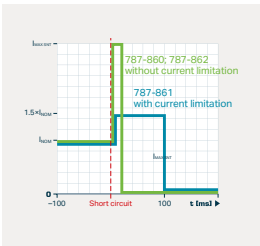
Intuitive Status Indication

- 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



Communication 1.0

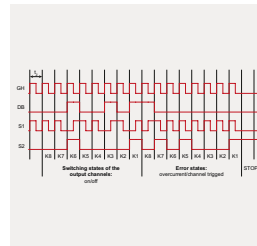
- Remote digital input S1 resets all tripped channels
- Digital output S3 transmits a simple group message indicating whether one of the channels was triggered by an overcurrent
- Optional isolated signal contact 13/14 as group signal



Trip Characteristics

- Reliable and precise disconnection in case of overcurrent and 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 1.7 times the nominal current prevents a voltage drop in other current paths

* only for 787-166x/xxxx-1xxx



Communication 2.0

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



Marking

- 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® – ELECTRONIC CIRCUIT BREAKERS (ECBs)

Compact and Precise ECBs for DC Circuits



Nominal Voltage [V] DC	Number of Channels	Adjustable Nominal Current	Active Current Limitation	Isolated Signal Contact	Specialty Configuration	Item Number
24	2	2 ... 10				787-1662
		2 ... 10			■	787-1662/0000-0004
		2 ... 10		■	■	787-1662/0000-0054
		3.8 LPS	■			787-1662/0004-1000
		0.5 ... 6	■			787-1662/0006-1000
		1 ... 6				787-1662/0106-0000
		2 ... 12	■			787-1662/0212-1000
24	4	2 ... 10				787-1664
		2 ... 10			■	787-1664/0000-0004
		2 ... 10		■	■	787-1664/0000-0054
		3.8 LPS	■			787-1664/0004-1000
		0.5 ... 6	■			787-1664/0006-1000
		1 ... 6				787-1664/0106-0000
		2 ... 12	■			787-1664/0212-1000
		0.5 ... 6	■		■	787-1664/0006-1054
24	8	2 ... 10				787-1668
		2 ... 10			■	787-1668/0000-0004
		2 ... 10		■	■	787-1668/0000-0054
		0.5 ... 6	■			787-1668/0006-1000
		1 ... 6				787-1668/0106-0000
		0.5 ... 6	■		■	787-1668/0006-1054
12	2	2 ... 10				787-1662/0000-0100
	4	2 ... 10				787-1664/0000-0100
48	2	2 ... 10				787-1662/0000-0200
		2 ... 10		■		787-1662/0000-0250
	4	2 ... 10				787-1664/0000-0200
		2 ... 10		■		787-1664/0000-0250
	8	2 ... 10				787-1668/0000-0200
		2 ... 10			■	787-1668/0000-0250



787-166a/bbcc-defg

Number code:

EPSITRON® Series

CLASSIC Power family

Electronic circuit breaker

Number of channels

Lower nominal current (00: 0.5 A; 01: 1 A; 02: 2 A)

Upper nominal current (04: 3.8 A; 06: 6 A; 12: 12 A)

With (1) or without (0) active current limitation

Nominal voltage (0: 24 VDC; 1: 12 VDC; 2: 48 VDC)

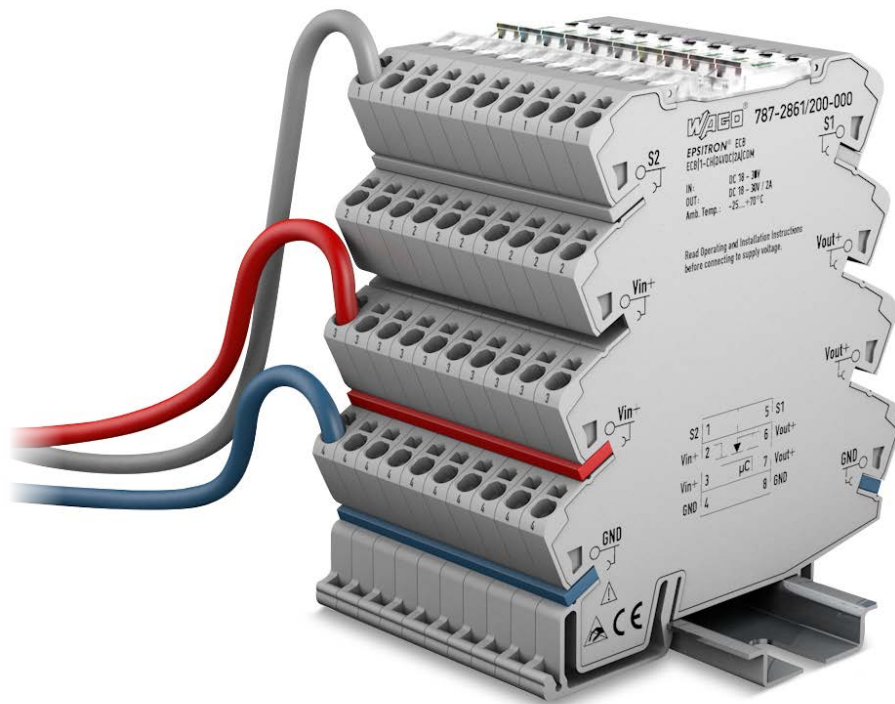
With (5) or without (0) potential-free contact

Configuration (0: standard; 4: with group message triggered "tripped" and "switched off"; 5, 6: customer specification)

EPSITRON® – ELECTRONIC CIRCUIT BREAKERS (ECBs)

Compact and Precise ECBs for DC Circuits

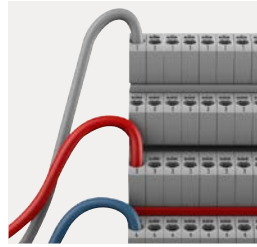
NEW





Push-in CAGE CLAMP® Connection

- Terminate solid and ferruled conductors via Push-in CAGE CLAMP® connection – no operation tool needed



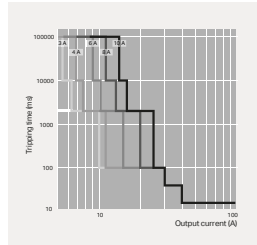
Easy Wiring

- Input potential up to 40 A via double connection
- Signal output can be commoned for up to 30 devices
- Total reset by commoning the signal inputs



Intuitive Status Indication

- Integrated, multi-color LEDs indicate the operating status of each channel
- Push/slide switch for switching on/off and acknowledgement



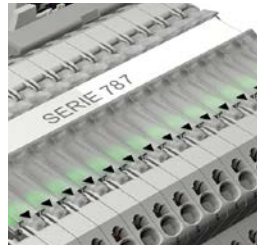
Trip Characteristics

- Reliable, rapid, and precise disconnection in case of an overcurrent and short circuit
- High switch-on capacities > 50,000 µF



Industry's Most Compact

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



Marking

- Device identification via WMB markers or TOPJOB® S marking strips
- With devices color coded according to nominal current

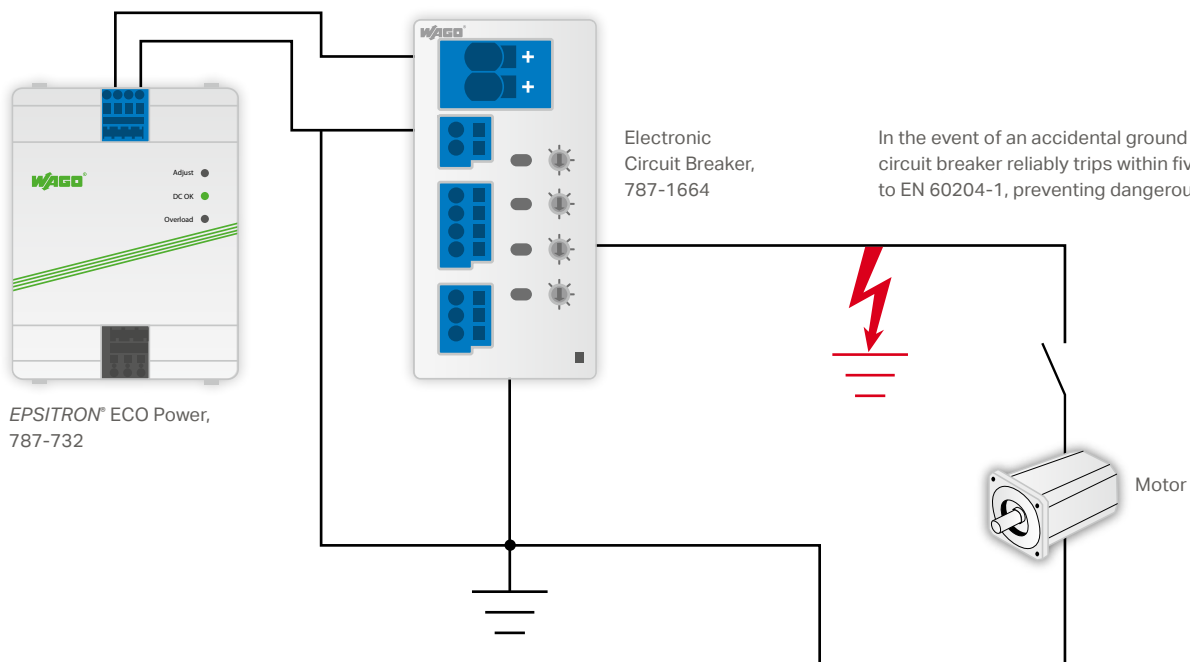
24 VDC			
1 Channel			
Electronic Circuit Breakers		Nominal Current	Color Coding
	787-2861/0100-0000	1 A	
	787-2861/0200-0000	2 A	
	787-2861/0400-0000	4 A	
	787-2861/0600-0000	6 A	
	787-2861/0800-0000	8 A	



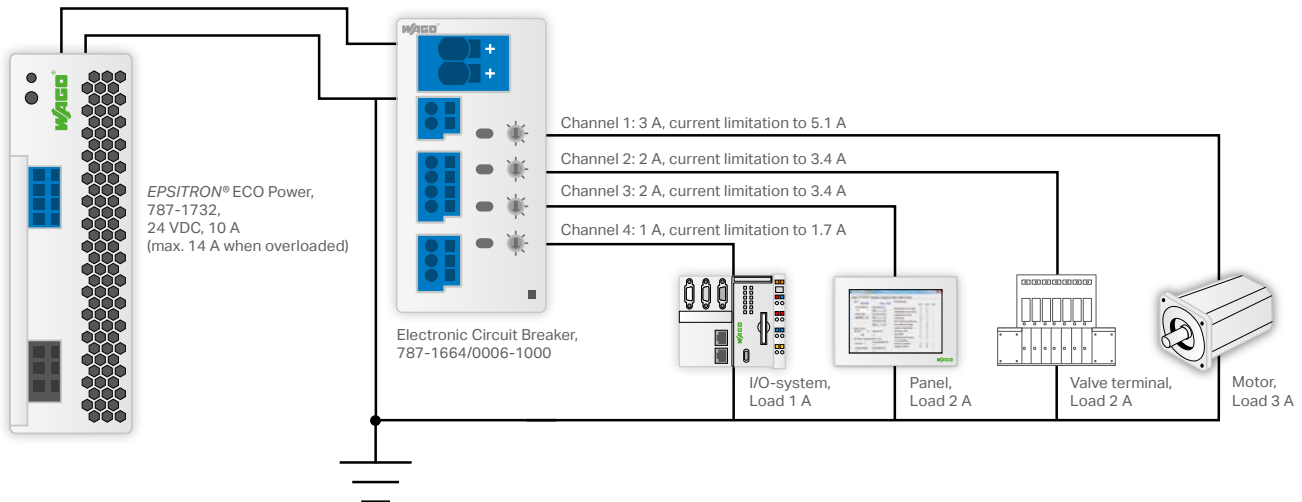
© Nataliya Hora/Fotolia.com

EPSITRON® – SOLUTIONS

ECBs Prevent Accidental Restart

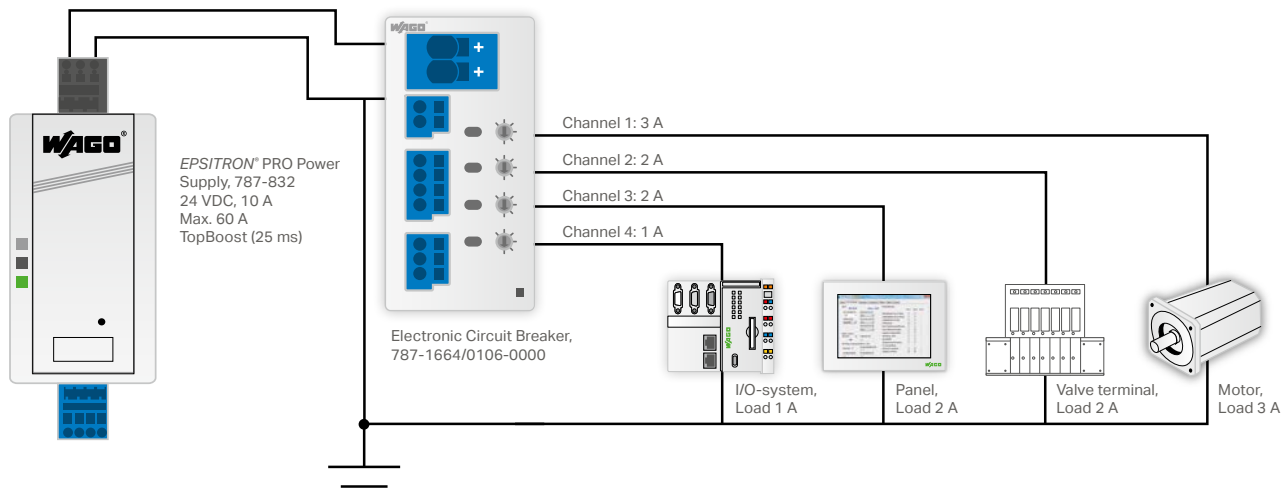


Power Supply Selection for ECBs with Active Current Limitation



	Channel 1	Channel 2	Channel 3	Channel 4	Σ	Effects
Max. continuous current (no error)	3 A	2 A	2 A	1 A	8 A	<ul style="list-style-type: none"> Normal operation
Max. continuous current (error: channel 1)	5.1 A	2 A	2 A	1 A	10.1 A	<ul style="list-style-type: none"> Current on channel 1 is limited to 1.7 times the nominal current Impedance of the error loop not significant No voltage drop on channels 2, 3, and 4
Max. continuous current (error: all channels)	5.1 A	3.4 A	3.4 A	1.7 A	13.6 A	<ul style="list-style-type: none"> Current per channel is limited to 1.7 times the nominal current Impedance of the error loop not significant Voltage drop on all channels, since power supply is overloaded Circuit breaker switched off due to undervoltage detection

Power Supply Selection for ECBs without Current Limitation



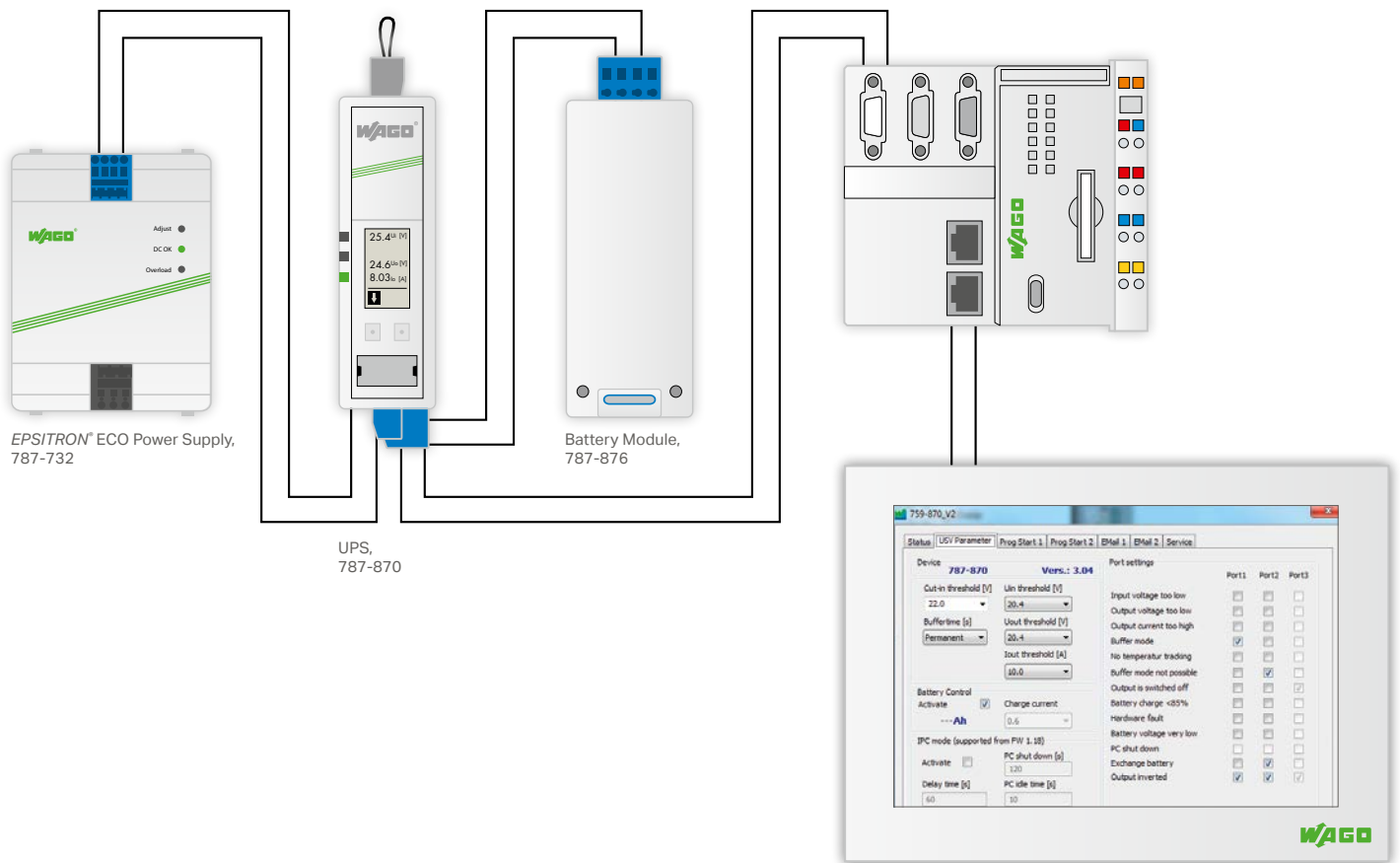
	Channel 1	Channel 2	Channel 3	Channel 4	Σ	Effects
Max. continuous current (no error)	3 A	2 A	2 A	1 A	8 A	<ul style="list-style-type: none"> Normal operation
Max. continuous current (error: channel 1)	Max. 55 A available*	2 A	2 A	1 A	60 A (TopBoost)	<ul style="list-style-type: none"> Depending on impedance of the error loop Short voltage drop possible; trigger time according to characteristic
Max. continuous current (error: all channels)	Current values depend on the impedance of the error loop				60 A (TopBoost)	<ul style="list-style-type: none"> Current is limited by impedance of the error loops Voltage drop on all channels very probable, as power supply is overloaded

* (60 A - 2 A - 2 A - 1 A)



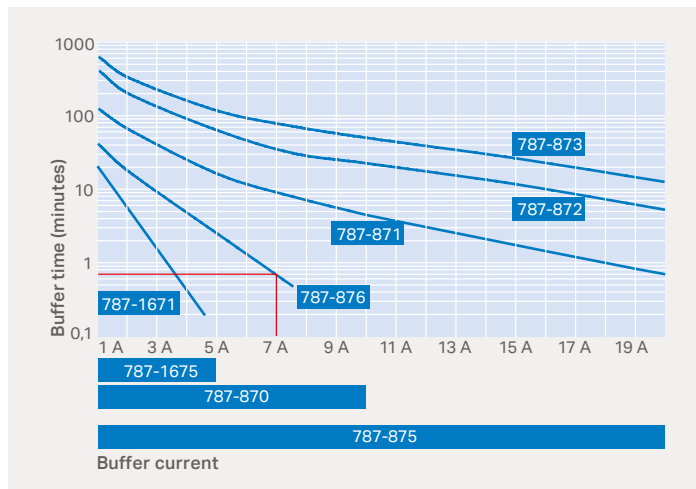
EPSITRON® – SOLUTIONS

Power Supply for a Remotely Located Mobile Phone Tower

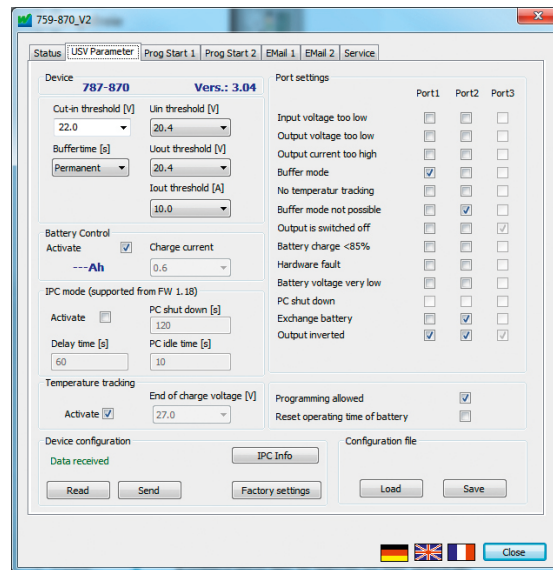




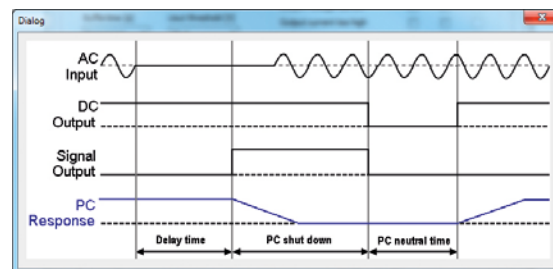
Buffer Time vs. Load Current



UPS Shutdown Function Permits Controlled System Shutdown

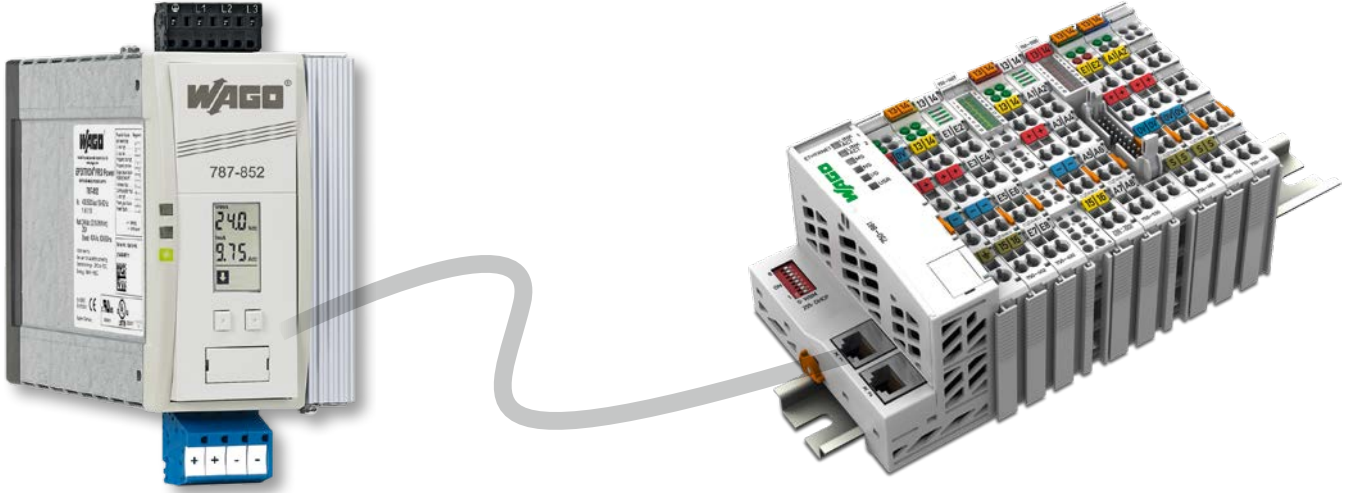


Different buffer times/currents can be achieved depending on the battery module selected. The example below shows a 7 A load current provided for approximately 30 seconds by a 787-870 UPS Charger/Controller (10 A) and 787-876 Battery Module.



EPSITRON® – COMMUNICATION

EPSITRON® PRO Power



```

FB78785XGETDATA
-----
xEnable : BOOL          sDeviceId : STRING(20)
bComPortNumber : BYTE   rVoltageIn1 : REAL
xReset : BOOL           rVoltageIn2 : REAL
                        rVoltageIn3 : REAL
                        iFrequencyIn : INT
rVoltageIn3PAverage : REAL
xAC3PRotateRight : BOOL
xAC3PRotateLeft : BOOL
rVoltageOutDC : REAL
rCurrentOutDC : REAL
rCurrentOutMaxDC : REAL
rCurrentOutMinDC : REAL
dwOperatingHours : DWORD
xHardwareFault : BOOL
xCommFault : BOOL
xPhase1Fault : BOOL
xPhase2Fault : BOOL
xPhase3Fault : BOOL
xLineOffAC : BOOL
xOverVoltageAC1 : BOOL
xOverVoltageAC2 : BOOL
xOverVoltageAC3 : BOOL
xUnderVoltageAC1 : BOOL
xUnderVoltageAC2 : BOOL
xUnderVoltageAC3 : BOOL
xOverFrequencyAC : BOOL
xUnderFrequencyAC : BOOL
xOverCurrentDC : BOOL
xUnderVoltageDC : BOOL
xDataValid : BOOL
xComPortOpen : BOOL
    
```

Line length calculation

Power supply → Circuit breaker → Short circuit

Power supply with 50% basic load → load

Default Settings

Device: 787-819 | Cross section of line: Metric AWG

Circuit breaker: B2 | 0,5mm²

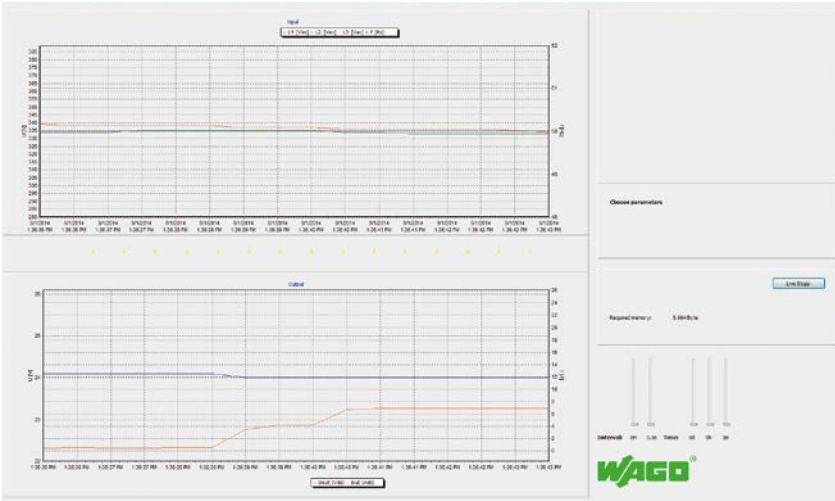
Maximum line length: 2,73 m
 Length of both forward and return line: 5,46 m

English | Version: 1.32

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

Fast monitoring and configuration are possible with a notebook or PLC (e.g., the WAGO-I/O-SYSTEM) via the RS-232 interface of the PRO Power Supply (787-85x). Free function blocks are available for various PLC systems.

The line 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 the visualization software (759-851). In addition to monitoring, both input/output data recording and analysis are possible (see graphic).

The screenshot shows a real-time monitoring dashboard for a power supply. On the left, there is a 3D model of the power supply unit. The main area displays various parameters:

- Input voltage:** 227 Vac
- Input frequency:** 50 Hz
- Rotating field:** (empty)
- Input voltage L1:** 341 Vac
- Input voltage L2:** 339 Vac
- Input voltage L3:** 3 Vac
- Output voltage:** 24.1 Vdc
- Output current:** 0.15 Adc
- Operating time:** 407 h
- Minimum output voltage:** 10.6 Vdc
- Maximum output current:** 4.84 Adc

On the right side, there is a list of fault indicators with checkboxes for L1, L2, and L3 phases:

- 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
- Rotating field left
- Output voltage too low
- Output current too high
- Hardware fault

The screenshot shows the configuration interface for the power supply. It includes a 'Maintenance interval [hrs]' set to 6010 and a 'Power good threshold [V]' set to 22.0. There are buttons for 'Load configuration', 'Send configuration', and 'Factory settings'. A 'Programming allowed' checkbox is checked. Below, there are fields for 'Min. input voltage threshold [V]' (388) and 'Max. input voltage threshold [V]' (430). A slider for 'Output voltage (setpoint value)' is set to 24.1 Vdc. On the right, a table allows for configuring fault monitoring for four ports (Port1, Port2, Port3, Port4):

	Port1	Port2	Port3	Port4
Maintenance interval	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Output voltage under power good	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Output current too high	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hardware fault	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Input voltage too high	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Input voltage too low	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Input frequency too high	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Input frequency too low	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Rotating field left	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Single phase failure	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Power failure	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Communication fault with line monitor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Output inverted	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Software 759-850 for configuration of power supplies 787-850, 787-852 and 787-854

The free configuration software (759-850) 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. *EPSITRON*® Series ECBs have digital inputs and outputs that provide communication via a Manchester protocol.

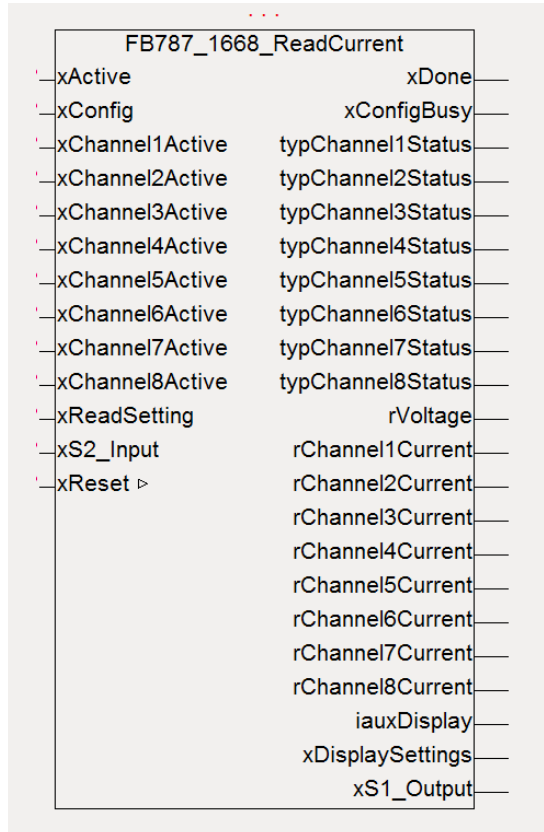
All channels can be diagnosed and switched remotely independently of each other.

Transmission of:

- State per channel
- Current output current
- Nominal current setting per channel
- Input voltage
- Power on/off and reset per channel

Available Function Blocks:

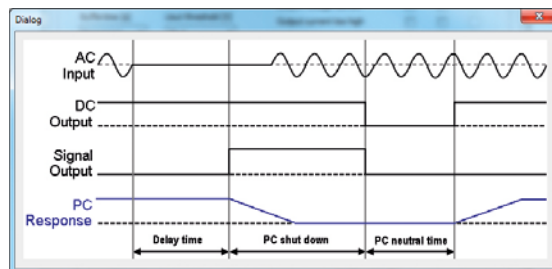
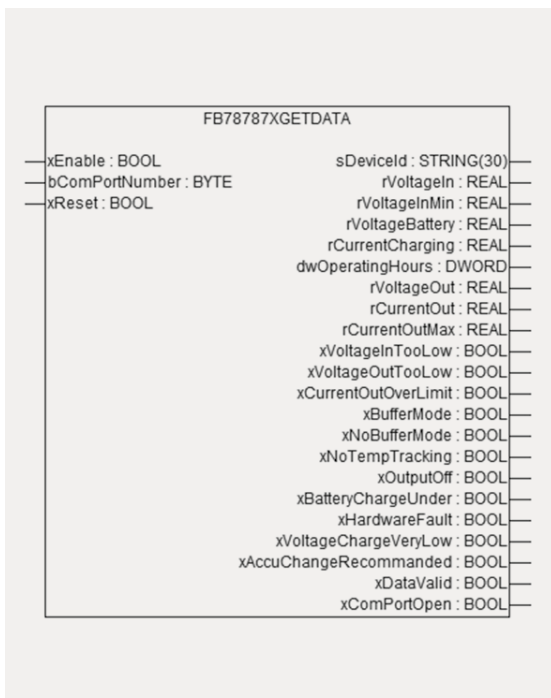
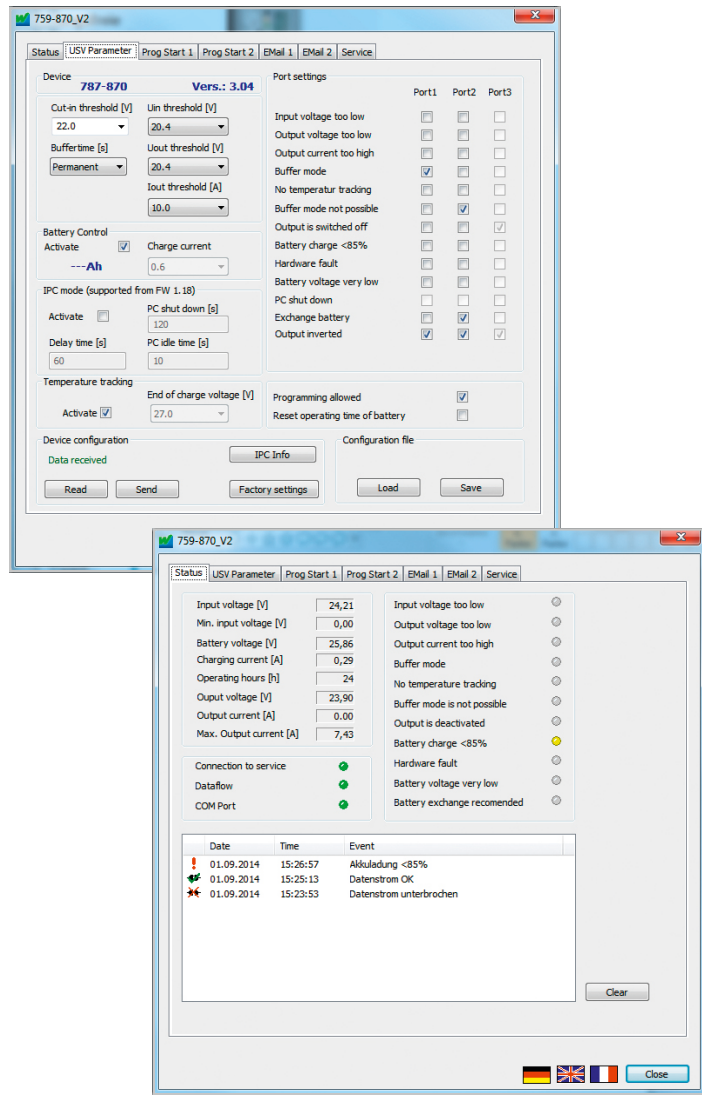
- CODESYS
- Siemens S7 / TIA-Portal
- Schneider
- Rockwell
- Mitsubishi (pending)



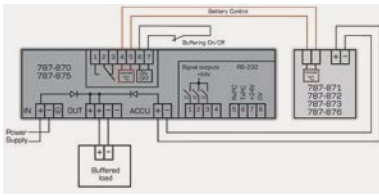
Uninterruptible Power Supplies (UPS)

The *EPSITRON*® UPS units can be conveniently configured via free software (759-870). 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 units 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.



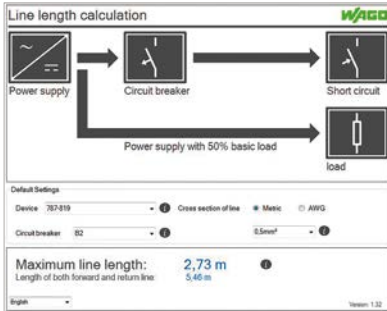
EPSITRON® – GLOSSARY



Battery Control

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

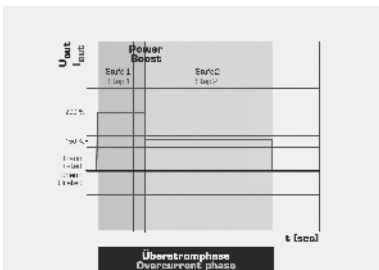
In addition to the temperature value, information on the type and service life of the connected battery modules is also transmitted to the charger and controller.



TopBoost

In order for high-speed magnetic 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 the availability of the entire power supply while fulfilling EN 60204-1 requirements regarding ground faults in control circuits.

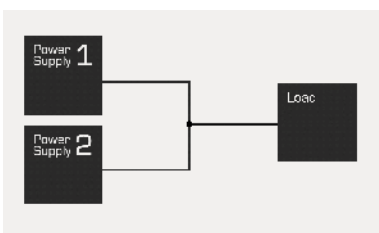
Using the free line length calculator available from www.wago.com/epsitron, the designer or planner can check in advance the layout of the line protection based on cable lengths, cable cross-section, characteristics of the protective device, and type of power supply.



PowerBoost

During start-up or switching of capacitive loads (valve clusters, motors, etc.), there is an increased need for current. However, using conventional power supplies previously always required using a much larger power supply to avoid switching to overload operation or short circuit limitation. In this case, the power supplies of the PRO Power family offer power reserves and

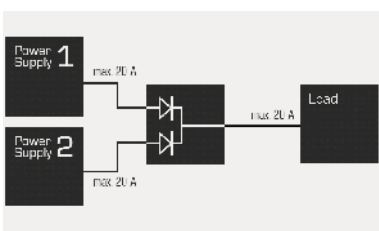
provide up to 200 % of the nominal current at the output for up to four seconds and a maximum 150 % in a second stage. The availability of twice the output power for a short time ensures reliable operation and eliminates the expensive oversizing of power supplies. This also saves space in the control 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.

Star wiring using external rail-mount 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 one 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 that occurs. 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.

EPSITRON® – ACCESSORIES



RS-232 Communication Cable, 1.8 m Long, 787-890

The communication cable is used for configuration and visualization via PC, notebook, or controller. It is suitable for all 787-8xx Series modules equipped with a serial interface.

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

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

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

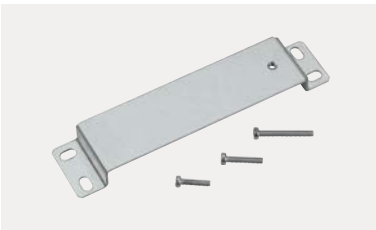


USB Adapter with 1 m Connection Cable, 761-9005

The USB adapter transmits RS-232 signals to the USB interface of a PC or notebook. The adapter is simply plugged into the communication cable (787-890).

Connectors: 9-pole D-sub male connector (RS-232), USB connector (type A)

Note: No electrical isolation



Wall-Mount Adapter for Securing 787-8xx Devices on Mounting Plate or Wall without DIN-35 Rail, 787-895

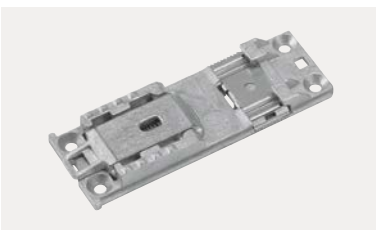
The wall-mount adapter replaces the rail support for a 787-8xx device. The adapter is secured to the 787-8xx device via the provided screws.



Carrier Rail Adapter for Mounting 787-8xx Devices to DIN-35 Rails, 787-896

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

Mounting the Carrier Rail Adapter (787-896) to the device is performed by sliding both single parts into the guide slots of the cooling element and then screwing. This allows the position to be easily changed.



Carrier Rail Adapter Made of Die-Cast Zinc for Mounting 787-8xx Devices to DIN-35 Rails, 787-897

Mounting the Carrier Rail Adapter (787-897) to the device is performed by pressing the adapter into the guide slots of the cooling element with a tool.

An extremely secure fit ensures reliable operation even in environments subject to permanent vibrations.

The adapter can also be fastened via 4 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, blade 2.5 x 0.4 mm, suitable for 733 and 734 Series Female Connectors

210-720: Operating tool with a 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, blade 5.5 x 0.8 mm, 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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