

New!

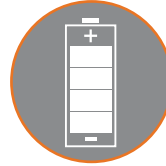
Uninterruptible Power Supply Solutions

Secure Energy in Automation



Long battery service life

Temperature-compensated characteristic charge curve ensures the best battery charge for maximized battery life.



Choice of protection

Protection from short/transient and/or long power failures.



Quick error analysis

Charging level indicator, status and error indicators provide rapid error analysis.



Wide power functionality

Modular design allows load distribution for reliable DC power.

Power interruption protection

Buffer module manages 24VDC interruptions up to 6s (1A). Up to 10 years Service Life.



UPS Control Unit



Battery Module

Buffer Module

Let's Connect

www.weidmuller.com

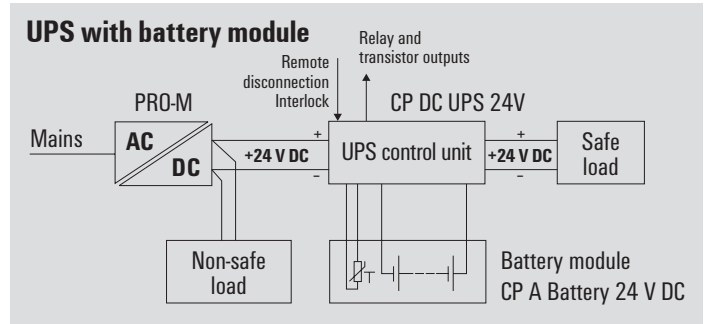
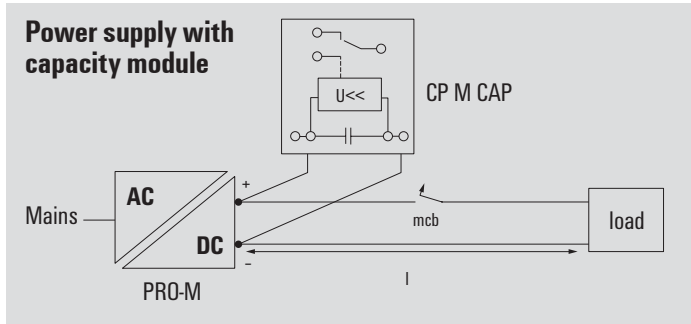
Weidmüller

Selection table

UPS Control Modules, Power Supplies, Batteries, Buffer Module

Series/ family	Input				Output					Additional functions			Part Number	
	Single-phase	Three-phase	AC (V)	Input frequency (Hz)	DC (V)	DC (V)	Adjustable range (V)	Rated current (A)	Power rating (W)	Power boost	Status relay	Parallel connection option		Additional modules LED DC OK
PRO-M														
CP M SNT 70W 24 V 3 A	●		85...264	47...63	80...370	24	22,5...29,5	3,00	70,00	120%	yes, max. 5	●	●	8951330000
CP M SNT 120W 24 V 5 A	●		85...264	47...63	80...370	24	22,5...29,5	5,00	120,00	120%	yes, max. 5	●	●	8951340000
CP M SNT 180W 24 V 7,5 A	●		85...264	47...63	80...370	24	22,5...29,5	7,50	180,00	120%	yes, max. 5	●	●	8951350000
CP M SNT 250W 24 V 10 A	●		85...264	47...63	80...370	24	22,5...29,5	10,00	240,00	120%	yes, max. 5	●	●	8951360000
CP M SNT 500W 24 V 20 A	●		85...264	47...63	80...370	24	22,5...29,5	20,00	480,00	120%	yes, max. 3	●	●	8951370000
CP M SNT 1000W 24 V 40 A	●		85...264	47...63	80...370	24	22,5...29,5	40,00	960,00	120%	yes, max. 3	●	●	8951380000
CP M SNT3 120W 24 V 5 A		●	320...575	47...63	450...870	24	22,5...29,5	5,00	120,00	120%	yes, max. 5	●	●	8951390000
CP M SNT3 250W 24 V 10 A		●	320...575	47...63	450...870	24	22,5...29,5	10,00	240,00	120%	yes, max. 5	●	●	8951400000
CP M SNT3 500W 24 V 20 A		●	320...575	47...63	450...870	24	22,5...29,5	20,00	480,00	120%	yes, max. 3	●	●	8951410000
CP M SNT3 1000W 24 V 40 A		●	320...575	47...63	450...870	24	22,5...29,5	40,00	960,00	120%	yes, max. 3	●	●	8951420000
CP M DM20 (diode module)					18...30	Input-0.7	n/a				●			1222210000
CP M DM40 (diode module)					18...30	Input-0.7	n/a				●			1222220000
CP M RM24 (relay module)					18...30		n/a				●			1222230000
CP M CAP (capacity module)					18...30		n/a				●			1222240000
DC/DC														
CP DCDC 250 W 24 V 10 A					18...31.2		22.5...29.5	10,00	250,00					1313320010
UPS														
CP DC BUFFER 24 V 20 A					22.5...30	24	24	20	240		●		●	1251220000
CP DC UPS 24 V 20A/10 A					20...30	24	U _{in} -0,3 V	20/10	480/240		●		●	1370050010
CP DC UPS 24 V 40 A					20...30	24	U _{in} -0,3 V	40,00	960,00		●		●	1370040010
CP A BATTERY 24 V DC 1,3 Ah						24		5 A/6 min	1,3 Ah		yes, max. 2	●		1406930000
CP A BATTERY 24 V DC 3,4 Ah						24		10 A/11.3 min	3,4 Ah		yes, max. 2	●		1251070000
CP A BATTERY 24 V DC 7,2 Ah						24		20 A/11.5 min	7,2 Ah		yes, max. 2	●		1251080000
CP A BATTERY 24 V DC 12 Ah						24		20 A/22.7 min	12 Ah		yes, max. 2	●		1251090000
CP A BATTERY 24 V DC 17 Ah						24		20 A/34.2 min	17 Ah		yes, max. 2	●		1251110000

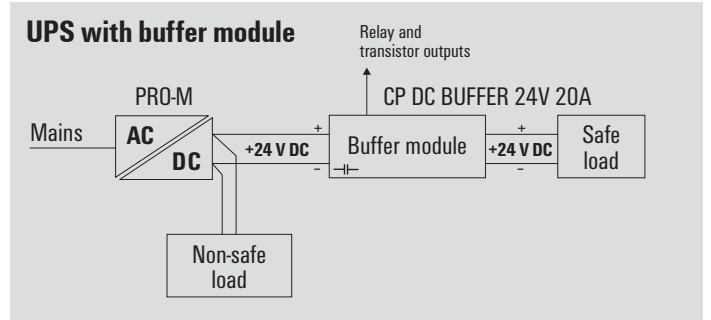
Example Applications



Information

Information is available for download on the web at www.weidmuller.com. Printed catalog versions are also available and can be ordered online.

Sales Tool	Description
LIT1404	Uninterruptible Power Supply Solutions Datasheet
1440420000	Solutions for Uninterruptible Power Supplies Brochure



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As experienced experts we support our customers and partners around the world with products, solutions and services in the industrial environment of power, signal and data. We are at home in their industries and markets and know the technological challenges of tomorrow. We are therefore continuously developing innovative, sustainable and useful solutions for their individual needs. Together we set standards in Industrial Connectivity.

An Everlasting Supply Solutions for Uninterruptible Power Supplies Let's connect.

DC-USV uninterruptible power supply Secure energy in automation

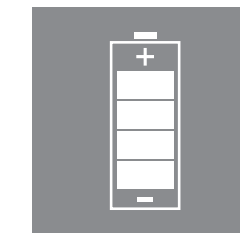
Bridge power failures of up to 30 minutes at 40 A with our uninterruptible power supply solutions. Let's connect.

In automation, a highly reliable 24 V power supply avoids the costly machinery breakdowns caused by power outages.

Our maintenance-free buffer modules are recommended for handling short-time interruptions of up to several 100 ms and have lifetime service of up to ten years, depending on the application. Longer power outages can be bridged out with our uninterruptible power supply unit, combined with a battery module. This module provides power up to 40 A for 30 minutes or 1 A for 30 hours, depending on your needs. The temperature-compensated charging characteristic curve guarantees a long service life for the battery.

Customisation makes them applicable for multiple types of operation. Let's connect.

Long battery service life
The temperature-compensated characteristic charge curve ensures the best charge for the battery. This maintains the battery's long service life.



Usable around the globe
International approvals (cURus, cULus) and TÜV certification facilitate the use of these products around the world, and in different applications.



Time saving
The three additional active 24 V DC transistor outputs simplify cabling and save time.



Space saving

The ability to mount the UPS components side-by-side in only 66 mm width saves space in the electronics cabinet.

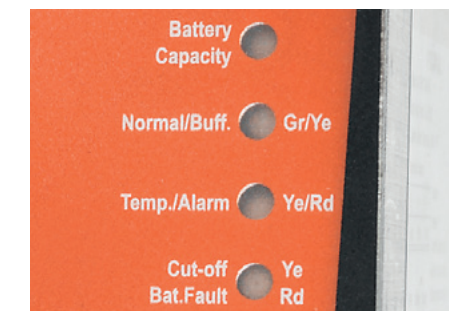


Create your own, individual power supply solution

The PRO-H and PRO-M power supply units with diverse add-on modules meet nearly every requirement for durable power supplies.

Quick error analysis

The charging level indicator and the status and error indicators facilitate rapid error analysis.



Buffers around 500 ms

You can reliably manage short interruptions of power of several 100 ms with the maintenance-free buffer module.



Versatile battery modules of 1.3 to 17 Ah

The battery modules are equipped with maintenance-free AGM VRLA batteries. An integrated temperature sensor ensures the constant, accurate charging of the battery.



Flexible application

Multiple operation modes optimise the use of battery power and facilitate its flexible application.



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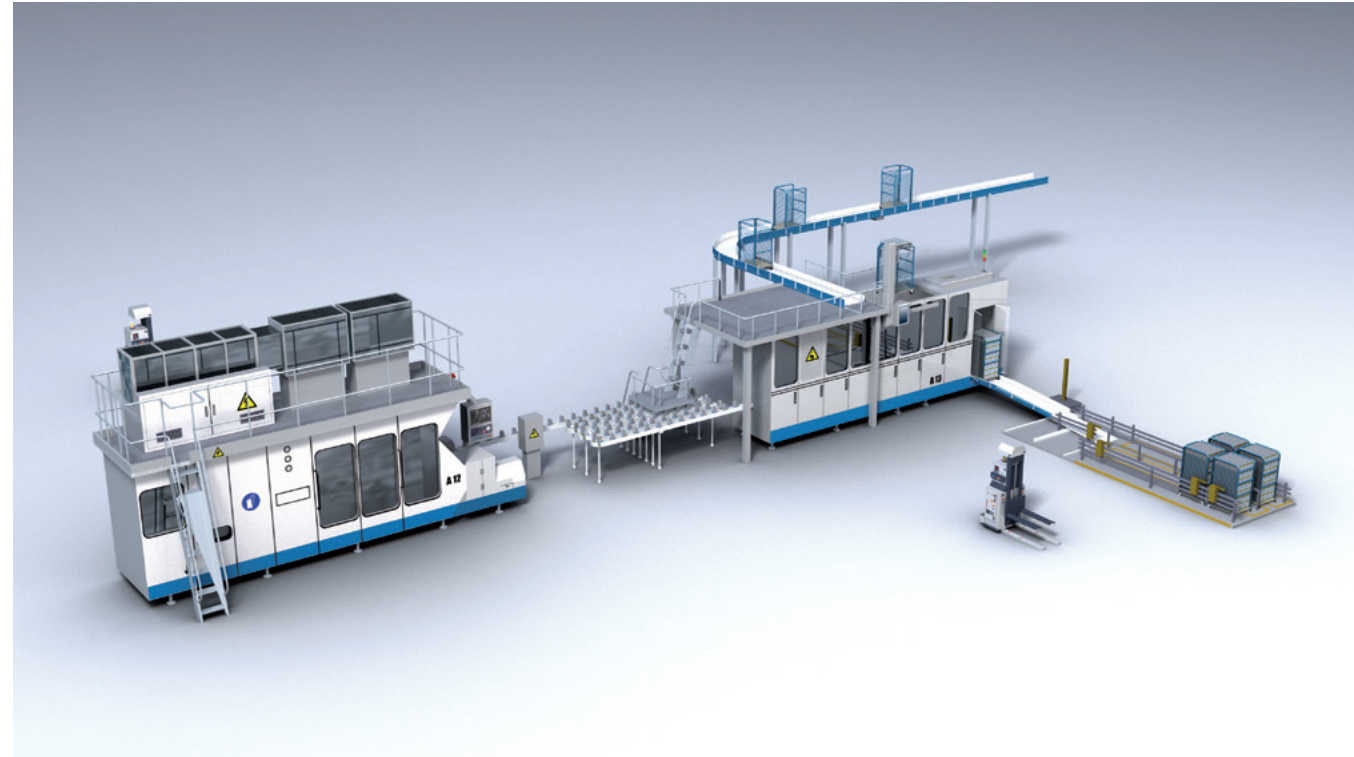
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Can your facility afford to experience a power failure

Allow us to supply you so that you are safe from failure and downtime

Let's connect.



Of course, it is necessary to safeguard a facility's energy supply in the event of an outage. You cannot do without the important signals from the field, which serve to control the entire process. In addition, you are also need to monitor a whole range of functions and performance parameters for your facility.



Our highly modular power supply concept helps you to meet all your needs in a practical way. At the same time, we will also familiarise ourselves with your high requirements and provide you with an individual, tailor-made solution, with components that are precisely aligned to work with each other. To ensure a continuous, steady supply of power and clean control voltage, we use redundancy circuitry, selective short-circuit tripping, battery storage and DC/DC converters.

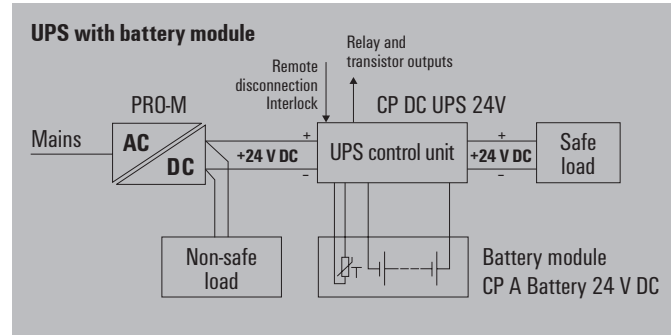
And because lightning and power surges can put an uninterrupted power supply in a production facility at risk, we also provide lightning and overvoltage protection. The VARITECTOR PU series provides unrestricted operations of power supplies and automation devices such as sensors, actuators and control units. When the grid comes back on line, the facility operator can start all equipment up again in a controlled manner.

PRO-M

- Used to save space in automation technology
- Efficiency $\geq 90\%$
- Up to 5 devices can be mounted directly, in parallel
- Optional diode modules with fault signalling
- Expanded temperature range of -25 up to $75\text{ }^\circ\text{C}$

UPS

- Different status relays for status monitoring
- Direct switchover to battery operation in the event of mains failure
- Automatic reconnection to load when power recovers
- Long battery life due to integrated deep discharge protection
- Optimised charging feature



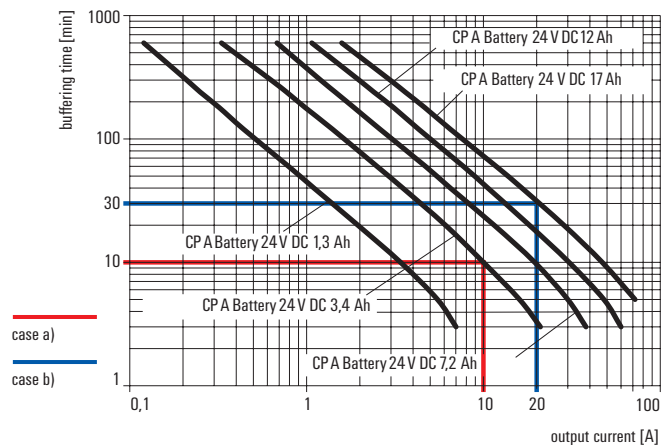
Uninterruptible DC-power supply

Weidmüller's uninterruptible power supplies reliably protect 24 V DC consumers from voltage drop-outs and dips, such as those that could occur as a result of mains faults. These products therefore play a key role in increasing systems availability.

The UPS control unit, together with the accompanying battery module and the power supply, form a complete DC UPS system with support times in minutes or hours. The modular construction allows for the overall load to be distributed into non-safe and safe load circuits, such that often a smaller UPS can be designed.

A huge variety of operating modes are available to suit the particular application precisely. A remote input to block battery operation, as well as multiple signal outputs, enable remote operation of the UPS.

Buffer times - battery modules



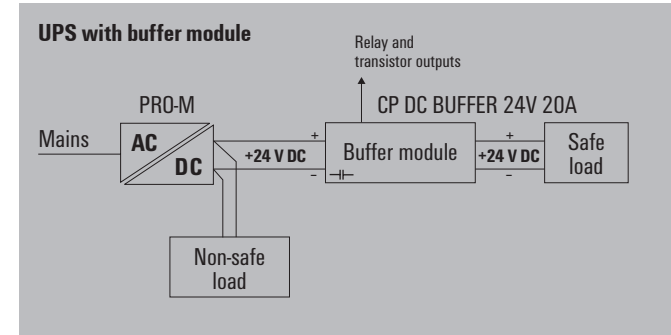
Battery selection

The selection of the correct battery can be made using the buffer time - battery module diagram. Typical battery selection is shown in example case a). In this example, a battery module is sought that can provide a buffer current of 10 A for 10 minutes. If the power of a single battery is not sufficient, 2 batteries can be connected in parallel. Alternatively, half of the total current is to be expected (see case study b). Due to the influencing factors of ageing and very low temperatures, after performing the calculation, the next size battery module should be selected.

In addition to the number of cycles, the service life of a battery is essentially linked to 2 conditions:

- A careful and optimum battery charge (temperature-controlled charging - as with the Weidmüller UPS control units)
- And lowest average operating temperature (e.g. arrangement of the battery at the bottom of a cabinet)

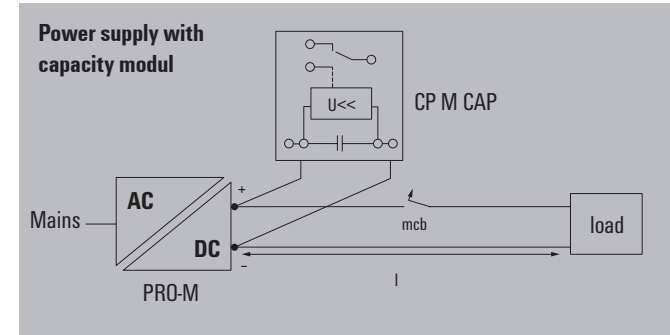
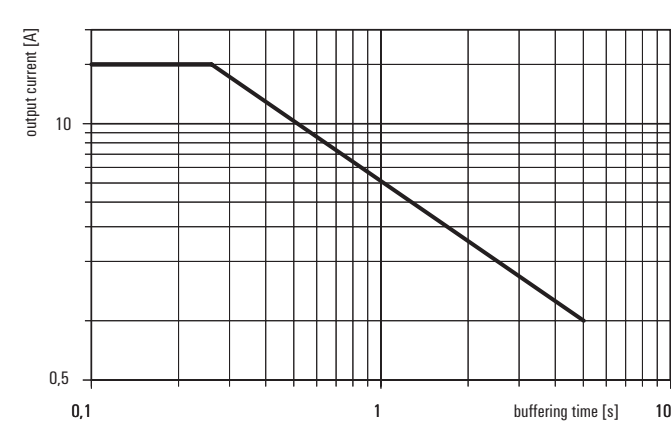
Further information on the use and care of batteries can be found on the website: www.weidmueller.com/UPS



Short-term power supply failures

The buffer module is the perfect solution for bridging short-term power supply failures or dips of up to 100 ms. The capacitor-based technology enables maintenance-free operation, depending on the application, of up to 10 years.

Buffering time



Selective load protection

The distribution of the total secondary load in single load circuits, with fast shut-off safety elements in the event of a fault, is known as selective load protection. Weidmüller has developed the capacity module for the special requirements of selective load protection. First, a resistor ensures a gentle charging of the capacitor. In the event of a fault (short circuit), the capacity module provides enough power for a fast tripping of the circuit breaker within 10 ms. For the fast tripping certain short circuit impedance of the cable between the power supply unit and the load must not be exceeded.

The following table describes the maximum cable lengths for the shut-off of the circuit breaker under the following conditions:

- Ambient temperature $20\text{ }^\circ\text{C}$
- Inner resistance of the circuit breakers is taken into account
- Half of the rated current flows to a neighbouring circuit before the short circuit is formed
- DC - compatible circuit breakers: including Siemens 5SY series

Technical data

Conductor cross-section	B6	B10	B16	
0.75 mm ²	10 m			
1.0 mm ²	14 m	6 m		
1.5 mm ²	20 m	9 m	4 m	
2.5 mm ²	30 m	15 m	6 m	
4 mm ²	50 m	24 m	10 m	
6 mm ²			16 m	
	C2	C4	C6	C10
0.75 mm ²	11 m	6 m	3 m	
1.0 mm ²	14 m	8 m	3.5 m	2 m
1.5 mm ²	21 m	12 m	5.5 m	3 m
2.5 mm ²	34 m	19 m	9 m	5 m
4 mm ²		32 m	14 m	8 m
6 mm ²				12 m

Selection table

Power supplies

Series/ family	Description	Input		Output					Additional functions			Order No.			
		Singlephase Three-phase	AC (V)	Input frequency (Hz)	DC (V)	DC (V)	Adjustable range (V)	Rated current (A)	Power rating (W)	Power boost	Status relay		Parallel connection option	Additional modules	
PRO-M	CP M SNT 70W 24 V 3 A**	•	85..264	47..63	80..370	24	22.5..29.5	3.00	70.00	120%		yes, max. 5	•	8951330000	
	CP M SNT 120W 24 V 5 A**	•	85..264	47..63	80..370	24	22.5..29.5	5.00	120.00	120%		yes, max. 5	•	8951340000	
	CP M SNT 180W 24 V 7.5 A**	•	85..264	47..63	80..370	24	22.5..29.5	7.50	180.00	120%		yes, max. 5	•	8951350000	
	CP M SNT 250W 24 V 10 A**	•	85..264	47..63	80..370	24	22.5..29.5	10.00	240.00	120%		yes, max. 5	•	8951360000	
	CP M SNT 500W 24 V 20 A**	•	85..264	47..63	80..370	24	22.5..29.5	20.00	480.00	120%		yes, max. 3	•	8951370000	
	CP M SNT 1000W 24 V 40 A**	•	85..264	47..63	80..370	24	22.5..29.5	40.00	960.00	120%		yes, max. 3	•	8951380000	
	CP M SNT 250W 24 V 10 A UW	•		85..264	47..63	80..430	24	22.5..29.5	10.00	240.00	120%		yes, max. 2	•	1165480010
	CP M SNT3 120W 24 V 5 A**	•		320..575	47..63	450..870	24	22.5..29.5	5.00	120.00	120%		yes, max. 5	•	8951390000
	CP M SNT3 250W 24 V 10 A**	•		320..575	47..63	450..870	24	22.5..29.5	10.00	240.00	120%		yes, max. 5	•	8951400000
	CP M SNT3 500W 24 V 20 A**	•		320..575	47..63	450..870	24	22.5..29.5	20.00	480.00	120%		yes, max. 3	•	8951410000
	CP M SNT3 1000W 24 V 40 A**	•		320..575	47..63	450..870	24	22.5..29.5	40.00	960.00	120%		yes, max. 3	•	8951420000
	CP M DM20 (diode module)* **					18..30	Input-0.7	n/a				•		•	1222210000
	CP M DM40 (diode module)* **					18..30	Input-0.7	n/a				•		•	1222220000
	CP M RM24 (relay module)*					18..30		n/a				•		•	1222230000
CP M CAP (capacity module)* **					18..30		n/a				•		•	1222240000	
DC/DC	CP DCDC 250 W 24 V 10 A				18..31.2	22.5..29.5		10.00	250.00					•	1313320010
UPS	CP DC BUFFER 24 V 20 A				22.5..30	24	24	20	240		•		•	1251220000	
	CP DC UPS 24 V 20A/10 A				20..30	24	U ₀ -0.3 V	20/10	480/240		•		•	1370050010	
	CP DC UPS 24 V 40 A				20..30	24	U ₀ -0.3 V	40.00	960.00		•		•	1370040010	
	CP A BATTERY 24 V DC 1.3 Ah					24		5 A/6 min	1.3 Ah			yes, max. 2	•	1406930000	
	CP A BATTERY 24 V DC 3.4 Ah					24		10 A/11.3 min	3.4 Ah			yes, max. 2	•	1251070000	
	CP A BATTERY 24 V DC 7.2 Ah					24		20 A/11.5 min	7.2 Ah			yes, max. 2	•	1251080000	
INSTAPOW	CP A BATTERY 24 V DC 12 Ah					24		20 A/22.7 min	12 Ah			yes, max. 2	•	1251090000	
	CP A BATTERY 24 V DC 17 Ah					24		20 A/34.2 min	17 Ah			yes, max. 2	•	1251110000	
	CP SNT 24W 28V 1 A	•	85..265	50/60	120..300	28	n/a	1.00	28.00					9928890028	
	CP SNT 24W 24 V 1 A	•	85..265	50/60	120..300	24	n/a	1.00	24.00					9928890024	
	CP SNT 24W 15V 1.5 A	•	85..265	50/60	120..300	15	n/a	1.50	17.50					9928890015	
	CP SNT 24W 12V 1.5 A	•	85..265	50/60	120..300	12	n/a	1.50	15.00					9928890012	
INSTAPOW	CP SNT 24W 5V 2 A	•	85..265	50/60	120..300	5	n/a	2.00	10.00					9928890005	
	CP SNT 25W 5V 5 A	•	85..264	50/60	110..370	5	4..8	5.00	25.00					8754960000	
	CP SNT 48W 12V 4 A	•	85..264	50/60	110..370	12	9..15	4.00	48.00					8754970000	
	CP SNT 48W 24 V 2 A	•	85..264	50/60	110..370	24	15..28	2.00	48.00					8739140000	
	CP SNT 48W 48V 1A	•	85..264	50/60	110..370	48	46..55	1.00	48.00					8879230000	

* Supplementary modules

** Available with metal snap-on foot as optional

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