

# Buffer modules CP-B range, ultra-capacitor based Accessories for power supplies (e.g. switch mode power supplies CP range)

Ultra-capacitor based energy storage  
for power supply units





In most areas of energy management and automation technology power supply systems have to be highly reliable. Often batteries are used for supporting the supply system in case of mains failures. Batteries have limited lifetimes depending on environmental parameters and, therefore, have to be maintained regularly, which causes efforts and costs.

Using the latest ultra-capacitor technology, ABB offers an innovative and completely maintenance-free new product for buffering the 24 V DC supply up to 20 A in case of interrupted mains on the primary side of the switch mode power supply.

The CP-B range buffer modules provide an ultra-capacitor buffered energy storage for power supply units. They ensure a short-term uninterrupted power supply system. In case of power loss, the energy stored in the capacitor guarantees that the load is continually provided, depending on the load current, up to several hundred seconds.

## Characteristics

- 3 buffer modules for buffering 24 V DC systems
  - CP-B 24/3.0 (3 A / 1 kW<sup>1)</sup>)
  - CP-B 24/10.0 (10 A / 10 kW<sup>1)</sup>)
  - CP-B 24/20.0 (20 A / 8 kW<sup>1)</sup>)
- CP-B 24/3.0 and CP-B 24/20.0 expandable with additional extension module CP-B EXT.2 (2 kW<sup>1)</sup>)
- Output voltage 24.0 V DC (in buffer mode 23.2 V using for example the CP-B 24/20.0)
- LEDs for status indication
- Relay contacts for status messaging
- Very high backup times (e.g. with CP-B 24/10.0 up to 6 minutes at 1 A load current)
- Short charging times
- High efficiency, higher than 90 %
- Wide temperature range -40...+60 °C (except CP-B 24/20.0: -20...+60 °C)
- DIN rail mountable, compact enclosures
- Advantages in comparison to battery buffers
  - Maintenance free
  - No deep discharge
  - Temperature resistant
- Approvals:  (UL508, CSA 22.2 No.14) and 

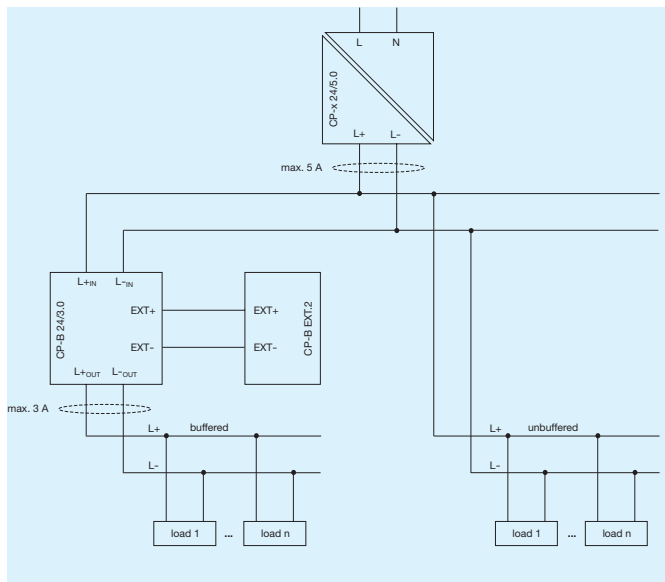
<sup>1)</sup> internal energy buffer

## Product selection table and order data

Typ		CP-B 24/3.0	CP-B 24/10.0	CP-B 24/20.0	CP-B EXT.2
Order code		1SVR 427 060 R0300	1SVR 427 060 R1000	1SVR 427 060 R2000	1SVR 427 065 R0000
Rated input voltage		24 V DC	24 V DC	24 V DC	-
Rated current		3 A DC	10 A DC	20 A DC	-
Energy storage (min.)		1000 Ws	10000 Ws	8000 Ws	2000 Ws
Typical charging time	100 %	65 s	134 s	135 s	
at load current	0 %	56 s	82 s	62 s	
<b>Typical buffer time<sup>1)</sup></b>					
at load current	100 %	13 s	38 s	15 s	
	50 %	28 s	76 s	30 s	
	25 %	66 s	140 s	60 s	
	10 %	148 s	380 s	150 s	
<b>Dimensions</b>					
Width		60 mm	116 mm	84 mm	60 mm
Height		99 mm	170 mm	197 mm	99 mm
Depth		120 mm	147 mm	213 mm	120 mm

## Application example

$$^1) \text{ buffer time} \approx \frac{\text{energy storage} \times 0.9}{\text{load current} \times \text{output voltage (buffer mode)}}$$



## Contact us

ABB STOTZ-KONTAKT GmbH

<http://www.abb.com/lowvoltage>

-> Control Products -> Power Supplies

[www.abb.com/contacts](http://www.abb.com/contacts)

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