

Uninterruptible power supply for measurement systems

## BRICK UPS 200

### Product Overview

BRICK UPS is an extremely flat and compact uninterruptible power supply (UPS) with intelligent power management features. The typical use case is to setup an independently working sensor measurement and data recording system.

#### Industrial design for highest requirements

The battery packs have been chosen to meet extended requirements for capacity and high current capability in the full operating temperature range.

#### Reducing the influence to the board net

BRICK UPS offers a safe way to operate powerful measurement systems in a test drive in a controlled way.

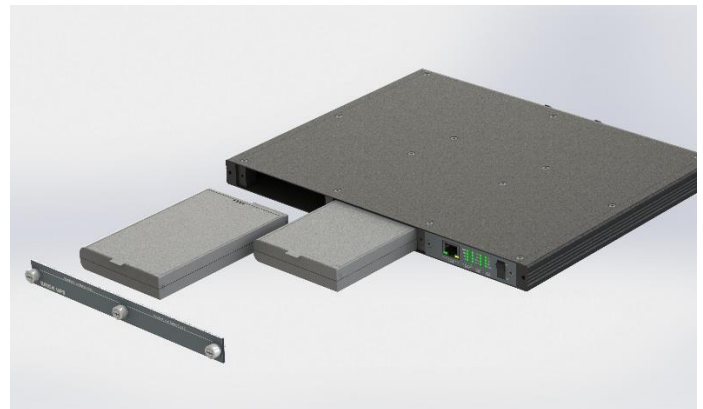
Modern power management in vehicles often disallows the tapping of power from the 12V or 24V board net. Especially in electronic powered vehicles the careful use of board net energy is getting more important. Exactly here BRICK UPS comes in play. The vehicle is now able to communicate to the UPS if it allows the tapping of energy from the board net.

#### Comfortable hold-up time with up to 160Wh

In the time where no tapping is allowed the system supplies the connected vehicle measurement system from two Li-Ion batteries with up to 180 Watt with a system capacity up to 160 Wh. Thus, longer hold-up time for bigger systems are possible. The BRICK UPS200 can be parallel clustered to increase power and capacity.



BRICK UPS front-view



BRICK UPS with removable smart batteries

### Highlights



200 Watt Power  
160 Wh Capacity



Diagnostics and power management setup via Ethernet



Minimal Dimensions



Integration in the board net management



extended temperature range



Wide range power input 10V - 32V



Changeable smart batteries

Uninterruptible power supply for measurement systems

## Technical Information

### Power Out – Energy supply

- 14,8V / 15A stable DC/DC Power output, in normal power supply range ( $V_{in} > 10V - 32V$ )
- 10,8V / 18A (8,0V to 13,0V depending on battery status) battery power output in UPS mode ( $V_{in} < 10V$ )
- UPS max. output current (electronic fuse): 18A (including GPOs)
- For higher load the BRICK UPS can operate in parallel cluster (see manual for further details)

### Interface to the vehicle - CARCTRL

- ignition on Clamp 15 signal
- LOAD – Load of the vehicle supply for the permission for load and distribute power

### Interface measurement system - SYSCTRL

- IGNITION CTRL digital control signal for the power on of the measurement system
- CAN BUS SYSCTRL communication within the BRICK components
- SIODI control API for power and status information

### LAN

- 100Mbit LAN-interface for network based device management

### GPIO

- 4xDIGITAL IN
- 4xDIGITAL OUT (max. 6A HighSide)
- Control API "SIODI" for easy integration

Note:

Max. total output current (GPO and main output) may not exceed 18A

### Main measurement power switch

- Main switch for all connected measurement devices
- External contact for remote ON / OFF (Rev. >C.03)

External	Power Switch		UPS Status
	OFF	ON	
[open] (default)	OFF	ON	
[closed]	OFF	OFF	

\*need project based software adaption

### Energy storage

- 2x Li-ion smart batteries, changeable
- Max. 80Wh per battery
- 10,8V nominal Battery voltage

### Power supply

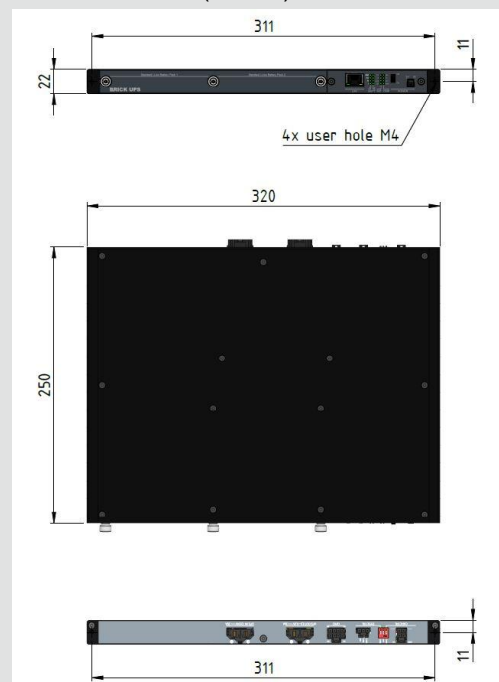
- Typ. 12V (10V - 32V)

### Operating temperature range

- Standby operation:  $-25^{\circ}C \sim +70^{\circ}C$
- Discharge (USV) Mode:  $-20^{\circ}C \sim +60^{\circ}C$
- Batterie Charge:  $0^{\circ}C \sim +50^{\circ}C$

### Housing

- Robust aluminum profile housing
- W:320mm, H:22mm(0,5HE), D:250mm
- B:320mm, H:22mm(0,5HE), T:250mm



BRICK UPS mechanical dimensions

### Certification

- CE, UL, FCC, RoHS, REACH, KC

## Orderinformationen

Name	Order-no.	Description
BRICK UPS SB200NI-1V0002300	B17575-UPS-003-0000	200Watt managed Li-ion UPS with 2x Battery Slots up to 80Wh / battery incl. 2x Batteries NI3020
BRICK UPS SB200 Cable Set	B17575-UPS-000-0001	BRICK UPS SB200 Cable Set for parallel clustering of 2 BRICK-UPS

Alle Daten bei 25°C Umgebungstemperatur, falls nicht anders angegeben. / All data at nominal input and 25° C ambient temperature, if not marked otherwise. • Alle Daten dienen nur Informationszwecken und sind nicht als zugesicherte Eigenschaften aufzufassen. / All data for information purposes only, no assured characteristics. • Technische Änderungen ohne vorherige Ankündigung sowie Irrtümer vorbehalten. / Technical modifications without notice and errors reserved. • Belastung mit Extremwerten über einen längeren Zeitraum kann die Zuverlässigkeit beeinflussen. / Strain with extreme values for a longer period may affect the reliability. • Alle Trademarks und Logos sind Eigentum der jeweiligen Unternehmen. / All trademarks and logos are property of the concerning companies. In case of doubts the German version of the document is binding. © b-plus GmbH • Jun-20 •