

# Smart BatteryProtect 48V-100A

Bluetooth enabled

System on-off switch

[www.victronenergy.com](http://www.victronenergy.com)



Smart BatteryProtect BP 48-100



Connector with preassembled DC minus cable (included)

## Protects the battery against excessive discharge and can be used as a system on/off switch

The Smart BatteryProtect disconnects the battery from non-essential loads before it is completely discharged (which would damage the battery) or before it has insufficient power left to crank the engine.

The Smart BatteryProtect can also be used as a system on/off switch. See manual for details.

## Bluetooth: programming made easy

When using Bluetooth to program the Smart BatteryProtect any required engage/disengage levels can be set.

Alternatively, one of nine predefined engage/disengage levels can be set with the programming pin (see manual).

If required, Bluetooth can be disabled.

## A special setting for Li-ion batteries

In this mode the Battery Protect can be controlled by the VE.Bus BMS.

*Note: the BatteryProtect can also be used as a charge interrupter in between a battery charger and a Li-ion battery. See connection diagram in the manual.*

## Ultra-low current consumption

This is important in case of Li-ion batteries, especially after low voltage shutdown.

Please see our Li-ion battery datasheet and the VE.Bus BMS manual for more information.

## Over voltage protection

To prevent damage to sensitive loads due to over voltage, the load is disconnected whenever the DC voltage exceeds 64 V.

## Ignition proof

No relays but MOSFET switches, and therefore no sparks.

## Delayed alarm output

The alarm output is activated if the battery voltage drops below the preset disconnect level during more than 12 seconds. Starting the engine will therefore not activate the alarm. The alarm output is a short circuit proof open collector output to the negative (minus) rail, max. current 50 mA. The alarm output is typically used to activate a buzzer, LED or relay.

## Delayed load disconnect and delayed reconnect

The load will be disconnected 90 seconds after the alarm has been activated. If the battery voltage increases again to the connect threshold within this time period (after the engine has been started for example), the load will not be disconnected.

The load will be reconnected 30 seconds after the battery voltage has increased to more than the preset reconnect voltage.

| Smart BatteryProtect                                                            |         | SBP 48 100                                                    |
|---------------------------------------------------------------------------------|---------|---------------------------------------------------------------|
| Maximum cont. load current*                                                     |         | 100A                                                          |
| Peak current                                                                    |         | 250 A                                                         |
| Operating voltage range                                                         |         | 24 – 70 V                                                     |
| Current consumption                                                             | BLE on  | When on: 1,9mA When off or low voltage shutdown: 1,7mA        |
|                                                                                 | BLE off | When on: 1,7mA When off or low voltage shutdown: 1,6mA        |
| Alarm output delay                                                              |         | 12 seconds                                                    |
| Max. load on alarm output                                                       |         | 50mA (short circuit proof)                                    |
| Load disconnect delay                                                           |         | 90 seconds (immediate if triggered by the VE.Bus BMS)         |
| Default thresholds                                                              |         | Disengage: 42V Engage: 48V                                    |
| Operating temperature range                                                     |         | Full load: -40°C to +40°C (up to 60% of nominal load at 50°C) |
| IP rating                                                                       |         | Electronics: IP67 (potted) Connections: IP00                  |
| Connection                                                                      |         | M8                                                            |
| Weight                                                                          |         | 0,8kg 1.8 lbs                                                 |
| Dimensions (h x w x d)                                                          |         | 62 x 123 x 120 mm 2.5 x 4.9 x 4.8 inch                        |
| * The BatteryProtect is not designed for reverse currents from charging sources |         |                                                               |

