

24 V DC UPS INTEGRATED BATTERY 5 AH

UBC10.241
DC UPS & BATTERY 24VDC 10A

- Load current 10 A
- Only one 12 V battery
- Integrated high power battery of 5 Ah
- Relay outputs for status



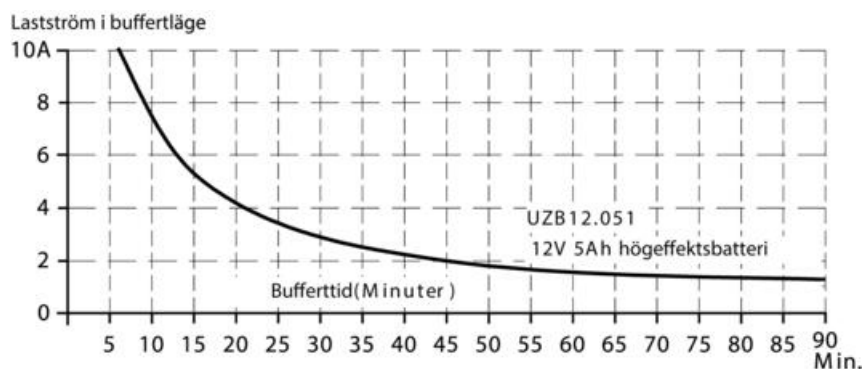
PRODUCT DESCRIPTION

A DC-UPS system comprises a control unit with integrated 5 A high power battery, and a power supply with suitable power for the application. The battery is easy to replace by undoing the screw at the front. In case of a power failure, the battery is automatically connected and feeds the connected loads. The UPS requires only one (1) 12 V battery which then transforms up the battery voltage to 22.3 V dc, one does not need to match 2 batteries with each other and the output voltage does not follow the battery's discharge curve but is constant at 22.3 V. The battery capacity is utilised 100% compared with two series-connected batteries where one of the batteries will not be fully charged.

Two relay outputs indicate status; module ready (battery capacity >85%) and module active (buffer mode). The control unit tests the battery's condition in cycles, when it is time to replace the battery, a relay output is activated (replace battery). One sensor measures the temperature and optimises the final charging voltage. The buffer time can be set in different time ranges to save battery capacity, when a constant discharge is selected, the output voltage will be active until the battery reaches deep discharge and the control unit disconnects the battery.

A fault on the battery fuse drops the Ready output and a red LED lights on the control unit. The output has a current limit and shuts itself off after about 5 seconds after a short-circuit to save the battery and at the same time avoid tripping the battery fuse. With a short-circuit in buffer mode, the module will deliver approx. 20 A which helps to trip any secondary fuse. Monitoring of the battery fuse and current limitation with short-circuits gives an increased safety and a guarantee that the UPS will function after a short circuit. The input is galvanically isolated from the output side.

BACKUP TIMES



Discharge curve for 5 Ah battery

SPECIFICATIONS

| | |
|---|---|
| Type Power Supply | DC-UPS |
| Input Current During Charging Of Aggregates | 1,3 A |
| Input Voltage From The Unit | 24 V DC |
| Input voltage for battery connection | 22,8 V DC |
| Input Voltage From battery | 12 V DC |
| Ripple. max | 20 mV pp |
| Output Voltage at Battery | 22,25 |
| Output Current During Normal Operation Via The Unit Max | 15 A |
| Temperature Range Without Derating From | 0 °C |
| Output current for battery operation max | 10 A (15 A @ 5 s) |
| Output Voltage At Buffering | 22,25 V DC |
| Output Voltage Normal Operation | 24 V DC |
| Output current at 24 V dc | 10 A |
| Temperature Range Without Derating To | 40 °C |
| Life span | 137 400 h @ 10 A, 40 °C |
| Efficiency | 97,8 % |
| MTBF (IEC 61709) | 886 000 h @ 10 A, 40 °C |
| Weight | 2,85 kg |
| Depth | 119 mm |
| Width | 123 mm |
| Height | 124 mm |
| Charging The Battery Type | 1,5 A |
| IP Class | IP20 |
| Permitted Battery Sizes | 5 Ah |
| Approvals | ABS, CB, CE, CSA, CSA US, EX, GL, IECEx, UL |
| Material Protection | Aluminium |

