24 V DC UPS FOR EXTERNAL BATTERY. 10 A

UB10.245
DC UPS 24V dc I/P 24V dc 10A & 12V dc 5A O/P 3.9-40Ah



- Requires just one 12 V dc battery
- Selectable buffer times
- Relay outputs for status
- Optimized charging of battery

PRODUCT DESCRIPTION

A DC-UPS system consists of a control unit, battery and power supply with suitable power for the application. In the event of a power outage, the battery is automatically switched in and supplies the connected loads. The control unit requires just (1) 12 V battery that then transforms the battery voltage up to 22.3 V dc. Two batteries do not need to be matched with one another and the output voltage does not follow the battery's discharge curve but is instead constant at 22.3 V. The battery capacity is utilized 100 % compared with two batteries connected in series, where one of the batteries is not fully charged. Two relay outputs indicate status; the module is ready (battery capacity >85 %) and the module is 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). At the front, optimized final charging voltage in relation to ambient temperature is selected. There are three available alternatives: 10°C, 25°C and 40°C. The buffer time can be set in different time ranges to save battery capacity. When choosing constant discharge, the output voltage will be active until the battery reaches deep discharge and the control unit then disconnects the battery. In the event of a battery fuse fault, the “ready” output is deactivated and a red LED lights on the control unit. The output is current-limited and turns itself off about 5 seconds after a short circuit to spare the battery and at the same time, avoid tripping the battery fuse. In the event of a short circuit in buffer mode, the module produces about 20 A, which helps trip any secondary fuses. Monitoring of the battery fuse and current limitation in the event of short circuits provides increased reliability and guarantees that the UPS will function after a short circuit. The input is galvanically isolated from the output side.

Battery holder for DIN rail



- Available for 7 and 24 Ah batteries
- Puls DIN rail bracket
- Wiring incl. 30 A fuse
- Heavy duty terminal blocks
- Quick and easy battery replacement

SPECIFICATIONS

Approvals	CB, CE, CSA, CSA US, EX, IECEx, UL
Charging The Battery Type	1.5
Depth	117

Efficiency	97.5
Height	124
Input Current During Charging Of Aggregates	1.2
Input voltage for battery connection	22.8
Input Voltage From battery	12
Input Voltage From The Unit	24
IP Class	IP20
Life span	114 000 h @ 10 A, 40 °C
MTBF (IEC 61709)	788 000 h @ 10 A, 40 °C
Output Current At 12 V DC	5
Output current at 24 V dc	10
Output Current During Normal Operation Via The Unit Max	15
Output current for battery operation max	10 A (15 A @ 5 s)
Output Voltage at Battery	22.25
Output Voltage At Buffering	22.25
Output voltage max	24
Output voltage min	12
Output Voltage Normal Operation	24
Permitted Battery Sizes	3,9-40 Ah
Power Reduction Of 60 To 70 ° C	5
Ripple. max	20
Temperature Range Without Derating From	-25
Temperature Range Without Derating To	50
Voltage Level Of The Connection Of The Battery	22.3
Weight	0.65
Width	49

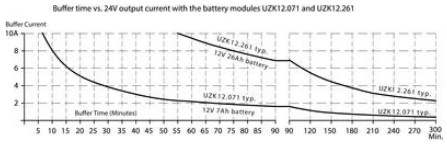


Fig. 24-2 **Front view**

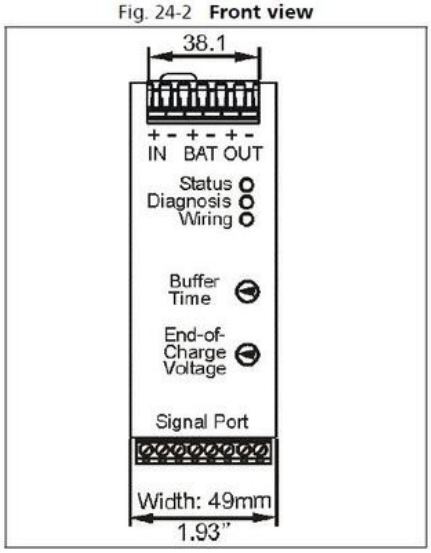
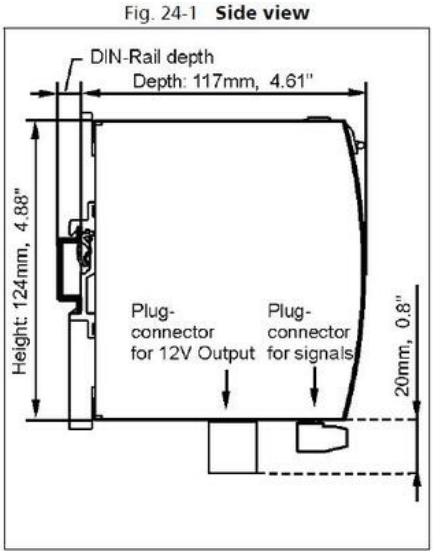
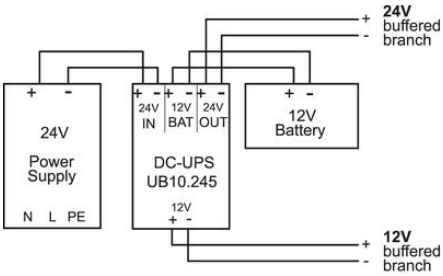
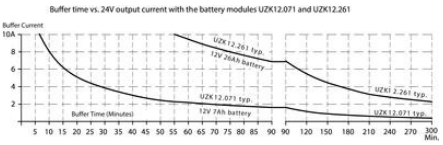


Fig. 24-1 **Side view**







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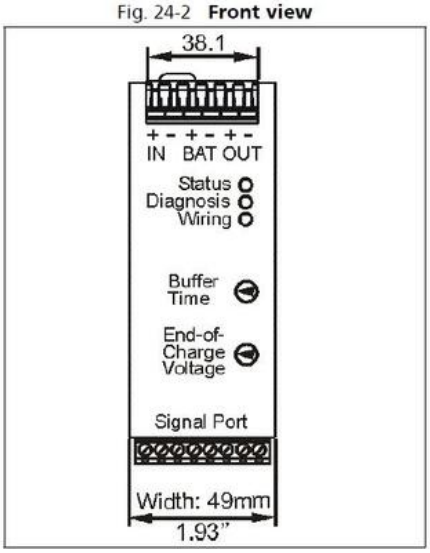

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