OEM Automatic Ltd
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24 V DC 20A UPS FOR EXTERNAL BATTERY 3.9-130 AH

UB20.241
DC UPS 24V dc I/P 24V dc 20A O/P 3.9-150Ah



- Load current 20 A
- Control of each individual battery
- Selectable output voltage in battery mode
- Temperature compensated charging
- Relay outputs for status

PRODUCT DESCRIPTION

The UB20.241 uninterruptible power supply controller (DC-UPS) is used in addition with a 24V power supply and batteries to bridge power failures or voltage fluctuations. This configuration can prevent expensive downtimes, long restart cycles and loss of data.
A unique feature of the UB20 series is the constant voltage in battery mode, which will not change as the batteries discharge. The buffer voltage in battery mode can be set to four different output values. Another feature is the utilization of two independent battery chargers for the two 12V-batteries in series. This feature makes matching batteries unnecessary and allows for precise battery charging, testing and optimized usage of the battery capacity to achieve the longest battery service life.
The UB20.241 includes many battery diagnostic functions that ensure a reliable operation of the entire system. Furthermore, a temperature controlled charging extends the life of the batteries. It also includes a selectable buffer time limiter as well as ready, buffering and replace battery contacts. For safety and maintenance, an inhibit input signal is included which prevents a battery backup.

TECHNICAL DATA

INPUT DATA

Input voltage from the unit	24 V DC
Input voltage from the battery	24 V DC
Input voltage for battery connection	22.8 V DC
Input current during charging	3.4 A

OUTPUT DATA

Output current at 24 V dc	20 A
Output voltage for battery operation	22.5
Output voltage normal operation	24 V DC
Output current for battery operation max	20 A (30 A @ 4 s)
Output current during operation max	25 A

EFFICIENCY / LIFETIME / MTBF

Efficiency	99 %
Life span	122 000 h @ 20 A, 40 °C
MTBF (IEC 61709)	649 000 h @ 20 A, 40 °C

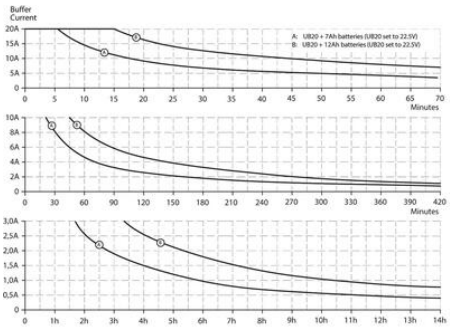
DIMENSIONS

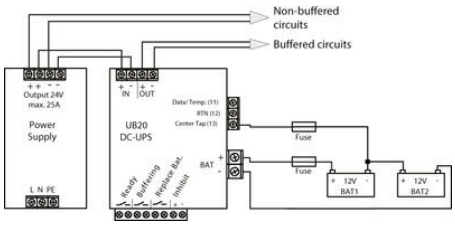
Width	49 mm
Height	124 mm
Depth	117 mm
Weight	0.7 kg

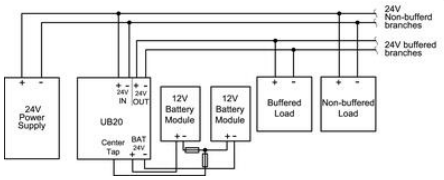
OTHER

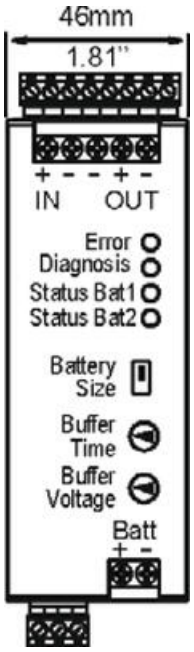
Approvals	ABS, CB, CE, CSA, CSA US, EX, GL, IECEx, UL
IP class	IP20
Charging the battery type	3 A
Material protection	Aluminium
Ripple max	120 mV pp
Voltage level for battery connection	24 V DC
Power drop from +60 °C to + 70 °C	12 W/°C
Temperature min without derating	-40 °C
Temperature max without derating	60 °C
Permitted battery sizes	3,9-150 Ah

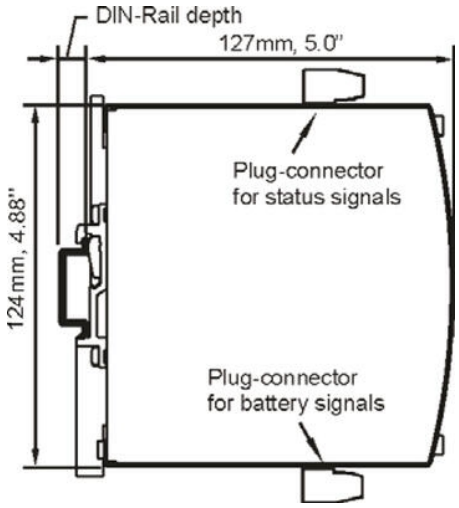
Type Power Supply	DC-UPS

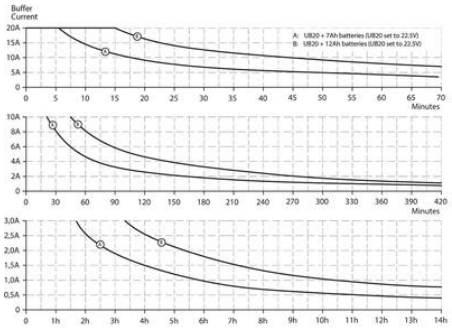


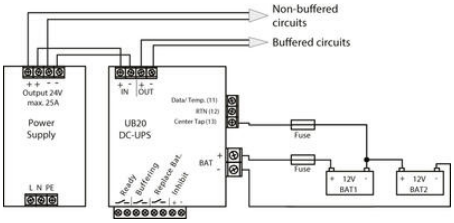


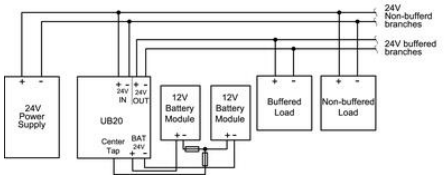


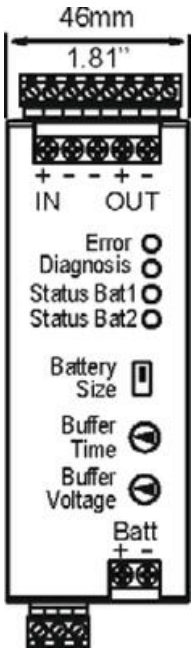

46mm
1.81"
+ - - + -
IN OUT
Error
Diagnosis
Status Bat1
Status Bat2
Battery Size
Buffer Time
Buffer Voltage
Batt
+ -


DIN-Rail depth
127mm, 5.0"
124mm, 4.88"
Plug-connector for status signals
Plug-connector for battery signals


Buffer Current
A: UB20 + 7Ah batteries (UB20 set to 22.5V)
B: UB20 + 12Ah batteries (UB20 set to 22.5V)
Minutes
Minutes


Non-buffered circuits
Buffered circuits
Output 24V max. 25A
Power Supply
L N PE
IN OUT
UB20 DC-UPS
Data/ Temp. (11)
RTN (12)
Center Tap (13)
Ready
Buffering
Replace Bat.
Inhibit
BAT
Fuse
Fuse
12V BAT1
12V BAT2


24V Non-bufferd branches
24V buffered branches
24V Power Supply
UB20
24V IN
24V OUT
Center Tap
BAT 24V
12V Battery Module
12V Battery Module
Buffered Load
Non-buffered Load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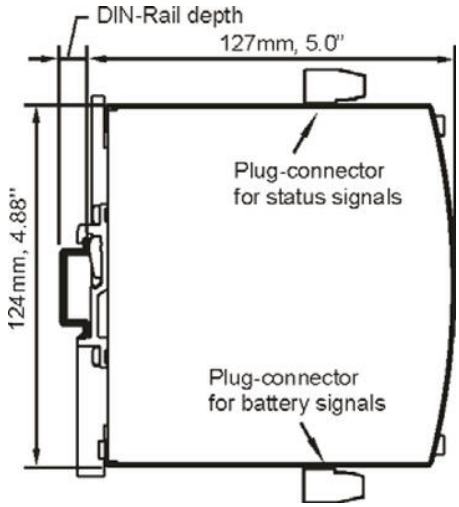
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