



## DC-USV

### NBPA0347G01002

### 1 Short description

The battery-buffered DC power supply of the **AKKUTEC** series operates according to the standby parallel principle and, in conjunction with a lead accumulator, ensures that the DC voltage supply is safely maintained in the event of a power failure. The power supply is characterized by the following features:

- Primary switched mode power supply with I/U-charging characteristics
- active power factor correction (PFC)
- Microcontroller-supported battery management
- Temperature tracking of the charging voltage by external sensor module (optional module)
- Signal and control panel for control cabinet door mounting or surface mounting (Option)

### 2 Norms and regulations

Safety of power transformers, power supply units and similar Particular requirements for transformers for switch mode power supplies	EN 61558 2-17 (VDE 0570 2-17)
Optocouplers for protective separation against electric shock, requirements - tests	VDE 0884
EMC	EN 55011 / 1998 /..Klasse A      Group 1 EN 61000-3-2 und EN 61000-3-3 /    Klasse A EN 50082-2 / 1995
This power supply is only accredited for industrial class A!	
Environmental testing	EN 60068-2-6
Total unit	EN 50178 EN 61010-1 / EN 61010-2-201 EN 62368-1

# Technical Datasheet

## AKKUTEK 1220



### 3 Technical Data

<b>Input</b>	
Input voltage	115...230 V AC $\pm$ 15 % (196...265 V AC)
Frequency	47...63 Hz
Input current	1,4 A @ (U <sub>e</sub> = 230 V AC, U <sub>a</sub> = 13,4 V DC, I <sub>a</sub> = 20 A) 2,8 A @ (U <sub>e</sub> = 115 V AC, U <sub>a</sub> = 13,4 V DC, I <sub>a</sub> = 20 A)
Inrush current	$\leq$ 65 A/3 ms
Nominal input power	313 W @ (U <sub>e</sub> = 230 V AC, U <sub>a</sub> = 13,4 V DC, I <sub>a</sub> = 20 A)
<b>Output</b>	
Nominal output voltage	12VDC
Output voltage (without temperature tracking)	9,9...13,4 V DC $\pm$ 0,4 %
Output voltage (with temperature tracking)	9,9...14,0 V DC $\pm$ 0,4 %
Output voltage (boost charging)	14,3 V DC
Final charging voltage with / without temperature tracking	13,4 V DC $\pm$ 0,4 % / 13,25...14,0 V DC $\pm$ 0,4 %
Load shedding	9,9 V DC $\pm$ 0,4 %
Nominal output current	20 A
Constant current limitation	1,05...1,1*I <sub>Nom</sub>
Self-consumption current (in back-up operation)	135 mA
Max. power loss ,worst-case'	48 W @ (U <sub>e</sub> = 230 V AC, U <sub>a</sub> = 13,4 V DC, I <sub>a</sub> = 20 A)
efficiency	84,7 % @ (U <sub>e</sub> = 230 V AC, U <sub>a</sub> = 13,4 V DC, I <sub>a</sub> = 20 A)
Charging characteristics	IU-Kennlinie DIN 41773-1
<b>Fusing</b>	
Internal device protection	5 A (T), 250 V
Fusing battery circuit (external)	25 A (T), 250 V
Fusing output (external)	25 A (T), 250 V
Pre-fusing (external)	10 A (T), 250 V
<b>In general</b>	
Protective system of the housing	IP20
Over voltage category	II
Degree of pollution	2
Battery type	Bleiakku*
Dimensions (H x W x D) standard device	241 mm x 101 mm x 244 mm
Weight standard device (without batteries)	2,9 kg
Operational temperature	0°C...+40°C
Storage temperature	0°C...+50°C
Relative humidity	$\leq$ 95 % non-condensing
Max. height above sea level (without load reduction)	2000 m