



Short description

The battery buffered DC power supply of the series **AKKUTEC** is working according the stand-by parallel mode and ensures in connection with a lead-acid accumulator a safe continuous DC power supply in case of mains failure.

The back-up time is depending from the state of charge of the accumulator and of the discharge current.

The power supply has the following features:

- Battery charger with I/U-charging characteristics
- Battery management by micro-controller
- Battery voltage tracking of the charging voltage by external sensor module (optional)

Nominal input voltage 115 - 230 V AC -15% +15%

Nominal frequency 47 – 63, Hz

System voltage 24 V DC

Output voltage

(depending of state of charge of the battery)

- with temperature sensor 19,8V DC-27,8V DC

- without temperature sensor 19,8V DC-26,8V DC

Nominal output current 2 A at 100% ED

current limiting at $1,1 \times I_{\text{Nenn}}$

Protective system IP 20

Secure separation (safe separation between input and output) According to EN61558-2-17 (VDE 0570 2-17)

Operational temperature 0 - 40 °C
Optimal storage temperature for battery 20°C. During storage charge battery each 6 month.

Short circuit protection Electronic, short-circuit-proof output

Battery External

Battery type Pb-Akku, maintenance free
Pb- Akku maintenance free (Option with modified characteristic curve)

Battery fuse External

Back-up time Depending on battery and load

Charging characteristics I/U DIN 41773 Teil 1

Opt. Battery voltage tracking

Charge voltage

without temperature sensor 26,8 V DC $\pm 0,4\%$

with temperature sensor 27,1V DC $\pm 0,4\%$

at 25°

Charging current at 100% load	0.25 A
Charging current at 0% load	2,1 A
Deep discharge protection of the battery	Load rejection at a battery voltage $\leq 19,8$ V
LED-display	Net OK green input voltage is present Battery OK green expires at: -battery circuit interruption (battery fuse damaged) -voltage in UPS operation $< 21,6$ V (battery low) -battery temperature above 45°C LED is blinking at -battery low (damaged battery)
Relais-outputs	mains/UPS-operation 0,5 A /30 V DC general error 0,5 A /30 V DC
Control input referring to earth 24 V	As shut down Software for PC
Shut down terminal (emergency stop)	Abort of the UPS- operation Potential free switch input Switch level: 24 V DC (6-45 V DC)
Battery management	Battery management via internal Microcontroller
Battery circuit control	Control battery circuit / battery fuse each 60 sec
Real Battery power control	Battery load test during mains operation (load of the battery with simultaneous voltage measurement each 24h)
EMC-regulation	EN 55011/03/91 EN 50082-1/1.92 EN 61000-4-2,3,4,5,6,11 EN 50178 EN 60950
Type of construction	module
connection	Spring type terminal
Dimensions	60 x 92,5 x 116 mm (w x h x d)
weight	0,55kg
Options	
Shut down Software	TECControl
Battery voltage tracking	By connecting the external temperature sensor moduls (option) at the terminal strip 'IO-1' connection 1 and 2 (to consider polarity) the temperature tracking will be automatically activated. According to the ambient temperature fluctuation of $0-45^{\circ}\text{C}$ varying the charge voltage (and hence the output voltage) in a range from 27,85 - 26,3 V DC Battery temperatures above 45°C are indicated by the extinction of the display 'Batt OK' Temperatures above 20°C at the batteries cause a strong reduction of the life duration of the batteries