Technical Datasheet
AKKU*TEC* 2420 1ph

J. Schneider Elektrotechnik

DC-UPS
NBPA0347G01001

1 Short description

The battery backed up DC power supply in the **AKKU***TEC* range uses the standby-parallel principle of opera-tion and, in conjunction with a lead accumulator, ensures that the DC power supply is reliably maintained in the case of a mains power failure.

The power supply has the following features:

- Switched primary, switched power supply with I/V charging characteristic
- Active power factor correction (PFC)
- Microcontroller-based battery management
- Temperature compensation for charging voltage by means of external sensor module (optional module)
- Display and control panel for switch cupboard door installation 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

3 Technical Data

3.1 Electrical Data

Input voltage range	230V AC -15/+10%
Rated input current:	2,6A AC
Input frequency	47-63Hz
max. inrush current	65A / 3ms
Ouptut voltage	a) 19...26,4V DC b) 19...28,6V DC (if boost charging is activated respectively at temperature tracking)
Final charging voltage	26,4V DC ±0,4%
Charging characteristics	I/U DIN 41773-1
Deep discharge protection and load rejection at	19,8V DC ±0,4%
Nominal output current	20A DC
Constant current limitation	1,05...1,1xI_{ANom}
Battery type	Pb-Akku, wartungsfrei
efficiency Ua=26,4V DC, Ia=20A und Ue=230V AC	90%
max. power loss 'worst-case'	65W
Earth leackage current	<3,5mA
Fusing primary	5A slow acting, 5x20 (internal)
max. pre-fusing	10A slow acting
fusing battery load circuit	25A slow acting (external)
fusing DC-output	25A slow acting (external)
Type of connection primary 'mains'	Combicon-screw type terminal 2,5mm^2
Type of connection sekundary 'Ua', 'Batt'	Combicon-screw type terminal 4mm^2
Type of connection interface 'IO-1...IO-3'	Combicon-screw type terminal 1,5mm^2
Type of connection Current-Share-Bus 'CS'	Screw type terminal 2,5mm^2

3.2 Display and Messages

‚Netzbetrieb' operation	LED green illuminates: • Mains operation (U_E>U_{Emin} and T_{Int}<T_{Intmax})
U↕	LED green (battery voltage within the monitoring window 21,6< U_{Batt} < 27V DC)
↑U	LED green (battery voltage above the monitoring window U_{Batt} =27V DC
Fehler (fault)	LED red LED illuminates at: • Battery operation (during mains operation LED is not illuminated) • U_A- error • Battery circuit interrupted respective high-ohmic (Testintervall 60s) • Battery low • Battery reverse poled • Battery-over-temperature (only in connection with temperature tracking

3.3 Operation

Terminal IO-2	External operation and display panel for the display of operation parameters and for device parameterisation (option)

3.4 Signal In- and Outputs

Mains operation [1]	potentialfree relay-contact, closer, max. contact load 30 V DC/ 0,5A
Fehler [1]	potentialfree relay-contact, changer, max. contact load 30 V DC/ 0,5A
U↕ [1]	potentialfree relay-contact, closer, max. contact load 30 V DC/ 0,5A
U↑ [1]	potentialfree relay-contact, closer, max. contact load 30 V DC/ 0,5A
Shut-Down	Shut down of UPS mode Switch input, referring ot earth, switch level: 24V DC (16-80V DC)
Starkladung (Boost charging)	Activation of boost charging (boost charging voltage 28.6V DC) Switched input referenced to earth, switching level: 24V DC (16-80V DC)

1) The signal contacts are coupled to LEDs (see Section 4.2). The illumination of an LED thus results in the energisation of the corresponding relay

3.5 General

Weight a)Individual Module b)Installation Panel Version (without batteries) c) 19 " – version d) 7.0Ah Battery Set e)12.0Ah Battery Set	 ca. 3 kg ca. 3,8 kg ca. 6,0 kg ca. 5,7 kg ca. 9,2 kg
Storage Temperature	Recommended 0...30°C, Permissible 0...50°C
Operating Temperature	Recommended 10...20°C (battery life!), Permissible 0...40°C
Protective system	IP20
dimensions	See section 10