UPS - system
Battery- buffered power supply in Parallel operation (On-Line) without battery for ext. battery
manufacturer: J. Schneider
type : **AKKU***TEC* 2410-0
Art.-No. : NBPAN33G1M01

1. Short description

The battery buffered DC power supply of the series **AKKU***TEC* 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 power supply has the following features:

- Primary switched power supply with I/U-charging characteristics
- active power factor correction (PFC)
- Battery management by micro-controller
- Battery voltage tracking of the charging voltage by external sensor module (optional)
- Display- and control panel for mount in cabinet door or module (optional)

Nominal input voltage	230 V AC -15% +10%
Nominal frequency	50/60 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	10 A at 100% ED
Protective system	IP 20
Secure separation (safe separation between input and output)	According to EN61558-2-17
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 fuse	external
Back-up time	Depending on battery
Charging characteristics	I/U DIN 41773 part 1 Opt. Battery voltage tracking Boost-charge via controla contact (til 28,6V)
Charge voltage	
without temperature sensor	26,8 V DC ± 0,4%
with temperature sensor	27,1V DC ± 0,4%
at 25°	

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Charging current at 100% load	1,5 A
Charging current at 0% load	11,5 A
Deep discharge protection of the battery	load rejection at a battery voltage ≤ 19,8 V
LED-display	mains / battery operation 'Netz OK' green LED illuminates general error 'Fehler' yellow LED battery voltage within green LED illuminates battery voltage above green LED illuminates
Relais-outputs	mains/UPS-operation 0,5 A /30 V DC general error 0,5 A /30 V DC battery voltage above 0,5 A /30 V DC battery voltage within 0,5 A /30 V DC
Control inputs referring to earth on +24VDC	Shut-down boost charge
Special features	Active current division at Master – Slave respectively redundant operation via CS-Bus Time function (load rejection after adjustable back-up time)
expendable	In 10A steps Master/Slave
active PFC	Harmonic ripple at input according to EN 61000-3-2 PF ~ 0,99
Battery management	Battery management via internal Microcontroller,
Battery circuit control	control battery circuit / battery fuse each 60sec
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 50178
Type of construction	module
connection	With terminals 4 mm²
dimensions	216 x 91 x 175 mm (h x w x d)
Weight	1,6kg

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Optionen

Display- and control panel	Well readable, 20-digit, 2-line alpha numeric LCDisplay with back-ground illumination Separate possibility for adjustment of contrast and brightness Supply and data transfer via 2-wire Bus, therefore small wiring activity necessary Reading and writing of charging and control parameters Display of status messages in plain text Acoustic signal for warnings respectively errors (deactivatable) Possibility of display of the operational data also of redundant systems with only one panel Easy user prompting 3-button operation protection of functions with pass word levels suitable for mount in cabinet door (protective system IP54)
Battery voltage tracking	With the temperature-sensor at the terminal strip IO-1 and 2 the final charging voltage is automatically adjusted according the environmental conditions(26,2-27,3 V). Over temperature at the batteries (above 45°C) is displayed and announced . Temperatures above 20°C at the batteries cause a strong reduction of the life duration of the batteries.
Shut-down	Abort of the UPS- operation Potential-free gate input Switch level: 24 V DC (6-45 V DC)

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