Technical Datasheet
AKKU*TEC* 2403 VdS

J. Schneider Elektrotechnik

DC-UPS

NBPA0844G01002

VdS Approval Number G209168[1]
0786-CPD-20872

1 Brief Description

This **AKKU***TEC* 2403 VdS is a battery buffered DC supply and operates on the standby parallel principle. In case of mains failure, it ensures combined with batteries the DC voltage supply without interruption for a spe-cific period.
The power supply is characterised by the following properties:

- Switching power supply with IU charging characteristic
- Micro-controller supported lead accumulator management
- RS232 interface for monitoring and parameterisation
- Temperature adjustment of the charging voltage by an external sensor

2 Standarts and Regulations

Overall unit	2014/35/EU (low voltage directive) EN 50178 EN 54-4 + A1 + A2 EN 12101-10 + B1 VdS 2541 energy supply type 1 environmental class III VdS 2344 UL 508 / C22.2 No. 107.1
EMC	2014/30/EU (EMC directive) EN 62040-2 limit class C1 EN 50130-4 + A1 + A2 EN 55011+ A1 limit class B group 1 EN 61000-6-2 AC EN 61000-6-4 + A1
Optocoupler ensuring insulation between primary /secondary side	EN 60747-5-1, fulfilled SELV / PELV
Optocoupler ensuring insulation between primary /secondary side	EN 61558-2-16, fulfilled SELV / PELV

[1] VdS approval for the system is valid only when installed in an approved enclosure.

3 Technical Data

Input	
Input voltage Input voltage VdS	115 V AC ±15 % (98 V AC…132 V AC) 230 V AC ±15 % (196 V AC…265 V AC) 230 V AC +10 %/-15 % (196 V AC…253 V AC)
Frequency	47 Hz…63 Hz
Maximum input current	1,1 A @ 110 V AC/0,5 A @ 230 V AC
Inrush current	≤ 35 A/2 ms
Nominal input power	96 W @ (Vin = 230 V AC, Vout = 27,35 V DC, Iout = 3 A, ϑ = 25 °C)
Input power charging mode	97 W @ (Vin = 230 V AC, Vout = 27,35 V DC, Iout =3 A, C_{Bat} = 40 Ah, ϑ = 25 °C)
Input power standby mode	5 W @ (Vin = 230 V AC, Vout = 27,35 V DC, ϑ=25°C)
Output	
Nominal output voltage	24VDC
Output voltage (with temperature tracking) Output voltage (with temperature tracking) VdS	20,4 V DC…28,6 V DC ±0,4 % 20,9V DC…28,3 V DC
Output voltage (without temperature tracking) Output voltage (without temperature tracking) VdS	20,4 V DC…26,4 V DC ±0,4 % 20,9 V DC…26,4 V DC
Fully charged voltage with/without temperature tracking	28,6 V DC ±0,4 %/26,4 V DC ±0,4 %
Load shedding (setting value) Load shedding (with fuse board) VdS	20,4 V DC ±0,4 % 20,9 V DC
Overvoltage protection	30VDC
Residual ripple	< 100 mVeff
Nominal output current	3 A
Self-current consumption (in buffer mode)	100 mA @ 24 V DC
Nominal output power	82 W @ (Vin = 230 V AC, Vout = 27,35 V DC, Iout = 3 A, ϑ = 25 °C)
Maximum power loss ‚worst-case'	14 W
Efficiency	85 % @ (Vin = 230 V AC, Vout = 27,35 V DC, Iout = 3 A, ϑ = 25 °C)
Charge characteristic	IU characteristic curve DIN 41773
Fuse	
Internal fuse	2 A (T), 250 V
Fuse battery circuit (external)	5 A (T, UL-248)
Fuse output circuit (external)	5 A (T, UL-248)
Overall	
Degree of protection of enclosure	IP20
Overvoltage category	II
Pollution degree	2
Battery type	VRLA lead battery
Dimensions (H x W x D)	6.29 in x 2.87 in x 5.2 in (160 mm x 73 mm x 132 mm)
Weight (without batteries)	2.21 lbs (1 kg)
Operation temperature/storage temperature Operation temperature VdS	14 °F (-10 °C)…122 °F (+50 °C) 23 °F (-5 °C) …104 °F (+40 °C)
Relative humidity	≤95 % no condensing
Maximum altitude (without power reduction)	6561.1 ft (2000 m)