



DC-UPS

NBPG0903G01***
VdS-Nummer G209168
0786-CPD-20872

1 Short Description

The **AKKUTEK 2403 VdS P** is a battery-buffered power supply and operates according to the stand-by principle in parallel. In the event of a mains failure, it guarantees safe delivery of DC voltage for a certain period of time without interruption.

The **AKKUTEK 2403 VdS P** is characterized by the following properties:

- Primary clocked switching power supply with I/U loading characteristic
- Micro-controller supported battery management
- RS232-interface for monitoring and parameterization
- Temperature adjustment of the charging voltage by external sensor

2 Norms and regulations

Complete Device	2014/35/EU (low voltage regulation) EN 54-4 + A1 + A2 EN 12101-10 + B1 EN 50178 EN 61010-1 / EN 61010-2-201 EN 62368-1 VdS 2541 EV-Typ 1 environmental class III VdS 2344
EMC	2014/30/EU (EMC-regulation) EN 62040-2 limit value class C1 EN 50130-4 EN 55011+ A1 limit value class B group 1 EN 61000-6-2 AC EN 61000-6-4
Optocoupler to ensure safe primary/secondary separation	EN 60747-5-1, complies with SELV / PELV
Power HF transmitter to ensure safe primary/secondary separation	EN 61558-2-16, complies with SELV / PELV

- **EN 55011 Limit class B:** "Class B devices are devices which are suitable for use in residential areas and in areas directly connected to a low-voltage supply network which supplies (also) residential buildings."
- **EN 55011 group 1:** "Group 1 includes all equipment... in which HF energy is not intentionally... generated in the radio frequency range 9 kHz to 400 GHz."

Technical Datasheet

AKKUTEK 2403 VdS P



J. Schneider
Elektrotechnik

3 Technical Data

Input	
Input voltage	115 V AC...230 V AC $\pm 15\%$ (98 V AC...265 V AC)
VdS tested	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, $\vartheta = 77^\circ\text{F}$ (+25 °C))
Input power standby mode	5 W @ (Vin = 230 V AC, Vout = 27,35 V DC, $\vartheta = 77^\circ\text{F}$ (+25 °C))
Output	
Nominal output voltage	24 V DC
Output voltage (with temperature tracking) VdS	20,9 V DC...28,6 V DC $\pm 0,4\%$
Output voltage (without temperature tracking) VdS	20,9 V DC...26,4 V DC $\pm 0,4\%$
Fully charged voltage (with temperature tracking)	26,4 V DC...28,6 V DC $\pm 0,4\%$
Fully charged voltage (without temperature tracking)	26,4 V DC $\pm 0,4\%$
Load shedding (measured value with fuse board) VdS*	20,9 V DC
Overvoltage protection	30 V DC
Residual ripple	< 100 mVeff
Nominal output current	3 A
Self-current consumption (in buffer mode)	100 mA
Maximum power loss ,worst-case'	14 W
Efficiency	85,9 % @ (Vin = 230 V AC, Vout = 27,35 V DC, Iout = 3 A, $\vartheta = 77^\circ\text{F}$ (+25 °C))
Charge characteristic	IU characteristic curve DIN 41773
Fuse	
Internal device protection AKKUTEK 2403 VdS	2 A (T), 250 V
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)
General	
Protection class of the housing	IP54
Overvoltage category	II
Pollution degree	2
Battery type	VRLA lead battery
Dimensions (H x W x D)	19.68 in x 19.68 in x 12.08 in (500 mm x 500 mm x 307 mm)
Weight (without batteries)	56.2 lbs (25,5 kg)
Operating temperature / storage temperature	14 °F (-10 °C)...122 °F (+50 °C)
Operating temperature VdS tested	23 °F (-5 °C)...104 °F (+40 °C)
Operating temperature UL tested	50 °F (+10 °C)...104 °F (+40 °C)
Relative humidity	$\leq 95\%$ no condensing
Maximum altitude (without power reduction)	6561.1 ft (2000 m)

*Measured at 100% load