Technical Datasheet
AKKU*TEC* 2412 VdS

J. Schneider Elektrotechnik

DC-UPS

NBPA0812G01002

VdS-Number G209169
0786-CPD-20873

1 Short description

The **AKKU***TEC* 2412 VdS 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 **AKKU***TEC* 2412 VdS is characterized by the following properties:

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

2 Standards and regulations

Complete device	2014/35/EU (Low Voltage Directive) EN 54-4 + A1 + A2 EN 12101-10 + B1 EN 50178 EN 61010-1 / EN 61010-2-201 EN 62368-1 VdS 2541 EV-Type 1 environmental class III VdS 2344 UL 508 / C22.2 No. 107.1
EMC	2014/30/EU (EMC Directive) EN 62040-2 Limit value 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 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.”

3 Technical data

Input	
Input voltage VdS tested	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
Max. input current	1.8A@230VAC
Current at make	≤ 35 A/2 ms
Nominal input power	375 W @ (Vin = 230 V AC, Vout = 27.35 V DC, Iout = 12 A, ϑ = 77 °F (+25 °C))
Input power in standby mode	7 W @ (Vin = 230 V AC, Vout = 27.35 V DC, ϑ = 77 °F (+25 °C))
Output	
Nominal output voltage	24VDC
Output voltage (with temperature tracking) VdS	20.7 V DC...28.6 V DC ±0.4 %
Output voltage (without temperature tracking) VdS	20.7 V DC...26.4 V DC ±0.4 %
Charging end voltage (with temperature tracking) Charging end voltage (without temperature tracking)	26.4 V DC…28.6 V DC ±0.4 % 26.4 V DC ±0.4 %
Load shedding (Measure value with fuse board) VdS*	20.7 V DC
Overvoltage protection	30VDC
Ripple	<150 mVeff
Nominal output current	12 A
Own power consumption (in buffer mode)	75 mA
Max. power dissipation “worst-case”	40 W
Efficiency	87.3 % @ (Vin = 230 V AC, Vout = 27.35 V DC, Iout = 12 A, ϑ = 77 °F (+25 °C))
Charging characteristic	IU characteristic DIN 41773
Fuse	
Internal device protection	2 A (T), 250 V
Battery circuit fuse (external)	15 A (T, UL-248)
Output circuit fuse (external)	15 A (T, UL-248)
General	
Parallel connectivity	Yes (max. 2)
Protection class of the housing	IP20
Overvoltage category	II
Pollution degree	2
Battery type	VRLA lead battery
Dimensions (H x W x D)	6.34 in x 3.66 in x 6.97 in (161 mm x 93 mm x 177 mm)
Weight (without batteries)	3.31 lbs (1.5 kg)
Operating temperature / storage temperature Operating temperature VdS tested Operating temperature UL tested	14 °F(-10 °C)...122 °F (+50 °C) 23 °F(-5 °C)...104 °F(+40 °C) 50 °F (+10 °C)...104 °F (+40 °C)
Relative humidity	≤95 % non-condensing
Max. height above sea level (without power reduction)	6561.1 ft (2000 m)

*Measured at 100% load