



# AKKUTEC 2412 VdS

**NBPA2015G10\*\*\*  
VdS approval number G209167<sup>1</sup>**

## 1 Brief description

The **AKKUTEC** is a battery-buffered power supply and it works in accordance with the standby parallel principle. The batteries are charged in grid mode. The connected consumers are supplied simultaneously. At grid failure the **AKKUTEC** in conjunction with the batteries ensures that a safe supply of direct current remains intact for a specific period of time.

The **AKKUTEC** has the following properties:

- Primary clocked, switched-mode supply with I/U charging curve
- Active power factor correction (PFC)
- Microcontroller-supported battery management
- USB-C interface for monitoring and setting parameters
- Temperature tracking of the charging voltage via a sensor

## 2 Standards and regulations

Overall device	2014/35/EU (Low Voltage Directive) 2011/65/EU with 2015/863/EU (RoHS) 1907/2006/EC (REACH) 2009/125/EC (Eco Design) EN 54-4 + A1 + A2 EN 12101-10 + AC EN 61010-1 / EN 61010-2-201 EN 62368-1 VdS 2541 EV-Typ 1 Umweltklasse III VdS 2593 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 Limit Class B Group 1 EN 61000-6-2 EN 61000-6-4
Batteries	EN 62485-2

<sup>1</sup> VdS approval under this number applies when installed in an approved housing



### 3 Technical data

<b>Input</b>	
Rated input voltage range	100 V AC - 130 V AC / 210 V AC - 240 V AC
Permissible input voltage tolerance	±10 %
Rated input voltage VdS tested	230 V AC -15 % / +10 %
Frequency	50 / 60 Hz ±3 Hz
Rated input current	1,7 A
Switch-on current	≤35 A / 2 ms
Rated input power	366 W @ (U <sub>e</sub> = 230 V AC, U <sub>a</sub> = 27,4 V DC, I <sub>a</sub> = 12 A, θ = 25 °C)
<b>Output</b>	
Rated output voltage	24 V DC (SELV / PELV)
Output voltage	20,6 - 28,6 V DC
Charging plateau voltage	26,5 - 28,6 V DC @ (θ = -10 - +50 °C)
Load shedding (measured value with fuse board) VdS*	20,6 V DC
Residual ripple**	≤200 mVpp @ (U <sub>e</sub> = 230 V AC, U <sub>a</sub> = 27,4 V DC, I <sub>a</sub> = 12 A)
Rated output current	12 A @ 230 V AC 6 A @ 115 V AC
Internal consumption in buffer mode	~36 mA
Power loss	38 W @ (U <sub>e</sub> = 230 V AC, U <sub>a</sub> = 27,4 V DC, I <sub>a</sub> = 12 A, θ = 25 °C)
Efficiency	89,5 % @ (U <sub>e</sub> = 230 V AC, U <sub>a</sub> = 27,4 V DC, I <sub>a</sub> = 12 A, θ = 25 °C)
Charging characteristic	IU curve DIN 41773-1
<b>Fusing</b>	
Fusing of the battery circuit FKS / FK2	15 A (T)
Fusing of the output FKS / FK2	External
<b>General</b>	
Protection rating of the enclosure	IP20
Overvoltage category	II
Pollution degree	2
Battery type	Lead-acid battery
Dimensions (H x W x D)	154 mm x 94 mm x 171 mm
Weight (without batteries)	1,5 kg
Storage temperature	-10 - +50 °C
Operating temperature	-10 - +40 °C
Operating temperature VdS tested	-5 - +40 °C
Relative humidity	≤95 % non-condensing
Max. elevation above sea level	2000 m

\*Measurement at 100% load

\*\*Measurement at 20 MHz bandwidth with 30 cm twisted pair and 10 µF capacitor