



DC-UPS

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

1 Short Description

The accumulator buffered DC supply works according to the standby parallel principle and guarantees, in connection with a lead accumulator and for a certain amount of time, a safe backup operation of the DC supply in case of a mains failure. The overall output current is split up between consumer supply and lead accumulator charge.

The power supply is characterized by the following properties:

- Primary switched power supply with I/U charging characteristic
- Active power factor correction (PFC)
- Micro-controller supported lead accumulator management
- RS232 for monitoring and parameterization
- Temperature tracking of the charging voltage with external temperature sensor

2 Technical Data

Nominal input voltage	110/230 V AC ($\pm 15\%$)
Input voltage range for charging operation	93.5 V ... 264.5 V
Nominal frequency	47 Hz ... 63 Hz
Power consumption	90 VA
Self current consumption	100 mA @ 24 V
Max. nominal input current	0.5 A
Max. inrush current	35 A / 2 ms
Max. nominal output current	3 A
Nominal output voltage (in mains operation)	24 V DC
Output voltage range (with temperature tracking)	26.4 V ... 28.6 V DC $\pm 0.4\%$
Charging characteristics	I/U DIN41773
Charging end voltage without temp.-Sensor	26.4 V DC $\pm 0.4\%$
Deep discharge protection and load shedding	20.4 V DC $\pm 0.4\%$
Max power loss ,worst-case'	14 W
Efficiency	85% @ ($U_e=230$ V; $U_a=26.4$ V DC; $I_a=I_{Nenn}$)
Voltage ripple	< 100 mV eff.
Internal device protection	2 A (T), 250 V
Fuse DC-output circuit (external)	5 A (T, UL-248)
Fuse DC-battery circuit (external)	5 A (T, UL-248)
Connection in parallel	yes
Connection in series	no
Max. signal contact load (Mains-OK ¹)	30V/ 0,5A potential-free relay-contact
Max. signal contact load (Bat-OK ²)	30V/ 0,5A potential-free relay-contact
Max. signal contact load (General fault ²)	30V/ 0,5A potential-free relay-contact

¹ The signal contacts are coupled with LED displays. (see section 4.1) The illumination of a LED effects the activating of the corresponding relay.

Technical Datasheet

AKKUTEC 2403 VdS C



J. Schneider
Elektrotechnik

Max. signal voltage range (Shut-Down)	24 V DC (6-45 V DC) floating switching input
Accumulator type	Pb-accumulator, maintenance-free max 40 Ah
Back-up time	Accumulator specific
Protective system	IP54
Operating temperature	-10°C ... 50°C
Storage temperature	-10°C ... 50°C
Rel. Humidity	≤95% no condensation
Max. installation altitude (without load reduction)	2000 m above sea level
Dimensions (HxWxD)	500 mm, 500 mm, 300 mm
weight	25.5 Kg

3 Norms and regulations

Power supplies for fire alarm systems are subject to rigorous regulations; the power supply unit of the fire alarm system is tested according to the European Product Standards EN 54-4 and VdS 2541. The power supply is **VdS approved** and is listed under No.: G209168.

EMC	EN 55011 limit value class B EN 62040-2 limit value class C1 EN 61000-6-2 EN 61000-6-4 EN 50130-4+A1+A2
Overall unit	2014/30/EU+A1+A2 EN 50178 EN 54-4+A1+A2 EN 12101-10+B1 VdS 2541 VdS 2344
Optocoupler for guaranteeing a safe primary / secondary separation	EN 60747-5-1, complies with SELV / PELV
Power HF-transmitter to ensure the safe separation of primary and secondary.	EN 61558 2-16, complies with SELV / PELV

Technical Datasheet

AKKUTEK 2403 VdS C



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Technical specification

Nominal input voltage	110/230 V AC ($\pm 15\%$)
Input voltage range for charging operation	93.5 V ... 264.5 V
Nominal frequency	47 Hz ... 63 Hz
Power consumption	90 VA
Self current consumption	100 mA @ 24 V
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Max. nominal output current	3 A
Nominal output voltage (in mains operation)	24 V DC
Output voltage range (with temperature tracking)	26.4 V ... 28.6 V DC $\pm 0.4\%$
Charging characteristics	I/U DIN41773
Charging end voltage without temp.-Sensor	26.4 V DC $\pm 0.4\%$
Deep discharge protection and load shedding	20.4 V DC $\pm 0.4\%$
Max power loss ,worst-case'	14 W
Efficiency	85% q ($U_e=230$ V; $U_a=26.4$ V DC; $I_a=I_{Nenn}$)
Voltage ripple	< 100 mV eff.
Internal device protection	2 A (T), 250 V
Fuse DC-output circuit (external)	5 A(T)
Fuse DC-battery circuit (external)	5 A(T)
Max. signal contact load (mains-OK ²)	30 V/ 0.5 A potential-free relay-contact
Max. signal contact load (Bat-OK ²)	30 V/ 0.5 A potential-free relay-contact
Max. signal contact load (General fault ²)	30 V/ 0.5 A potential-free relay-contact
Max. signal voltage range (Shut-Down)	24 V DC (6-45 V DC) floating switching input
Accumulator type	Pb-accumulator, maintenance-free max 2 x 26 Ah
Back-up time	Accumulator specific
Protective system	IP31
Operating temperature	-10 °C ... 50 °C
Storage temperature	-10 °C ... 50 °C
Rel. humidity	$\leq 95\%$ no condensation
Max. installation altitude	2000 m above sea level
Dimensions (HxWxD)	362 mm, 464 mm, 145 mm
Weight	7,5 Kg

² The signal contacts are coupled with LED displays. (see section **Fehler! Verweisquelle konnte nicht gefunden werden.**) The illumination of a LED effects the activating of the corresponding relay.