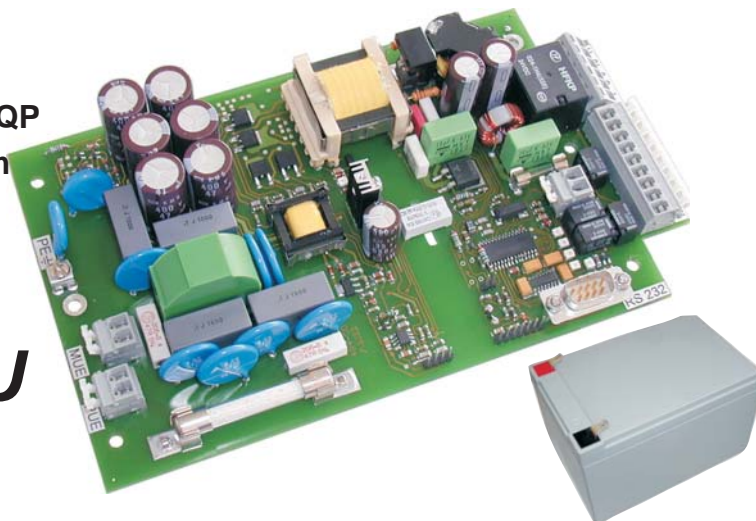


- Input voltage 380 – 1050 V DC
- Burst/Surge EN 61000-4-4/5 level X
- Over voltages acc. to IEC 1287
- Input noise suppression EN 55121 QP
- Air and creepage distances ≥ 15 mm
- Intelligent battery charging: f(TU)
- Intelligent UPS solution
- Programmable by customer

for railway / car applications / high voltage batteries



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Series ABS.USV.U Traction line UPS-supply

Main points:

Output:

- Temperature controlled charging curve
- Adjustable cvcharging charging curve (Type of battery)
- Temperature sensor on PCB (extern optionally)
- Under voltage signalling
- Low discharge signalling
- Low discharge protection (0,3 mA / 20 V)
- Battery symmetry monitoring 50% U_{Bat}
- Load relay stat. 20 A/dyn. 40 A
- RS232 interface Bedienoberfläche with limit valuing (voltage/time)
- Output diode/re-flow protection
- Battery-over temperature protection
- Service button
- Wago-plug clamps 236-401
- Power good signal (Relais)

Input:

- No-load power approx. 10 Watt / 750 V
- Input filter EN 55121 QP
- Disturbances EN 61000-4-4 level 4
EN 61000-4-5 level X 4kV
- Long term transient 1950 V/10 ms
- Emergency protection-fuse
- Reverse pol. protection diode/surge proof
- Over and under voltage protection
- Hysteresis and delayed restart
- Wago-plug clamp 255-401
- Input sided high frequent voltage ripples must be announced

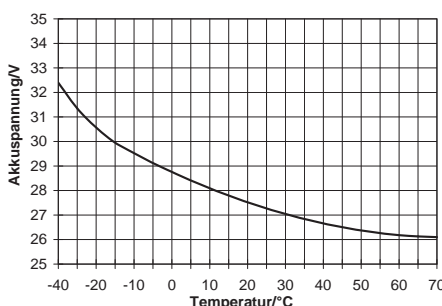
In general:

- Efficiency full load typ. 71%
- Clock frequency 100 kHz
- Voltage cascaded topology
- Isolation test voltage 3,5 kV AC 60s
- Air and creepage distances ≥ 15 mm
- Ambient temperature -25...+70°C
- Option H -40...+85°C
- Derating 1,5%/°C >70°C
- MTBF on request
- Shock/vibration acc. to EN50155
- Weight approx. 500g
- Dimension approx. 230 x 130 x 55 mm³
- CE-conformity certificate on request

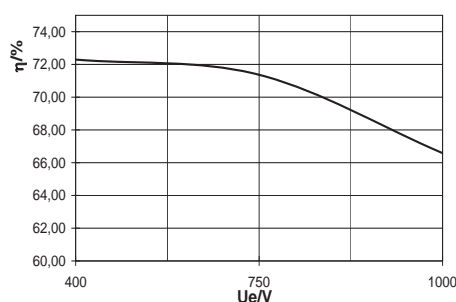
<u>U_{in}</u> V	<u>P_{out}</u> W	<u>U_{out}</u> Bat./max	<u>I_{out}</u> A	Model number
150 - 330 550 V / 10 ms	32	12/16	2,0	ABS.USV.U250.12.20
	32	24/32	1,0	ABS.USV.U250.24.10
	48 ¹⁾	24/32	1,5	ABS.USV.U250.24.15
300 - 600 1065 V / 10 ms	36	48/64	0,6	on request
	32	12/16	2,0	ABS.USV.U450.12.20
	32	24/32	1,0	ABS.USV.U450.24.10
400 - 1050 1950 V / 10 ms	48 ¹⁾	24/32	1,5	ABS.USV.U450.24.15
	36	48/64	0,6	on request
	32	12/16	2,0	ABS.USV.U750.12.20
Version H	32	24/32	1,0	ABS.USV.U750.24.10
	48 ¹⁾	24/32	1,5	ABS.USV.U750.24.15
	36	48/64	0,6	on request
		-40°C up to 85°C		additional charge
		Mounting plate for >IP55-box:		on request
		First sample projecting costs:		on request
		Modification costs for possible changes above values:		on request
		1) only with forced air ventilation		

Charging curve 24V lead gel battery

Other characteristic curves on request



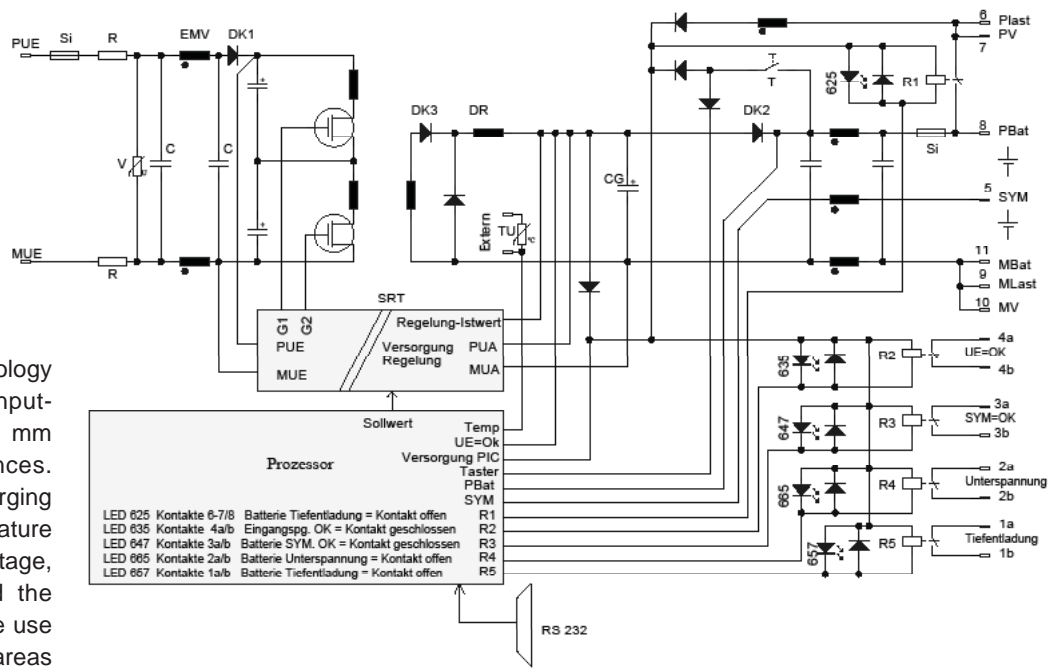
Efficiency



The ABS.USV.01 series is designed for the mobile and stationary use especially for traction line and high voltage batteries with an output power of 48W. Battery charging and the parallel system supply or the use as start-up power supply is possible.

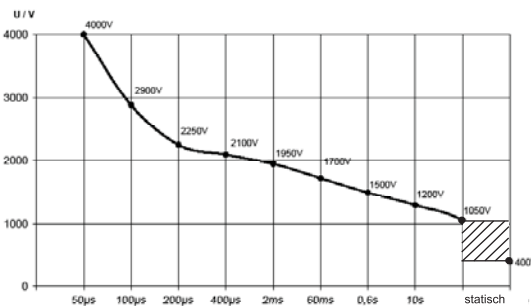
The special switching topology allows extremely high input-output isolation with >15 mm air and creepage distances. Processor controlled charging characteristic with temperature adapted charging end voltage, monitoring functions and the controlled run-up allow the use in mobile and stationary areas of traffic engineering.

This UPS-power supply is interference suppressed and protected against over voltages input and output sided. By reaching the charging end voltage = f (TBAT) the converter reduces the charging current or reduces the current to the system supply current. An operating interface (Option) allows the customer to change the charging characteristic = f (TBAT), the switching points of under voltage, deep discharge, over temperature and the time delay. A high voltage power failure is signalled. Under voltage and deep discharge is signalled delayed. In a deep discharge situation the load is cut off with a high current relay. An output sided length diode prevents the energy re-flow in the case of deep discharge and the residual current is <0,3 mA.

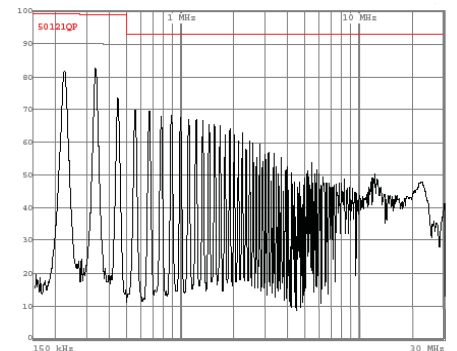


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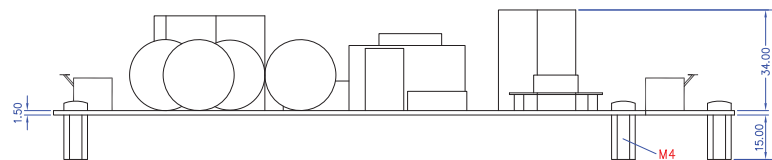
Dynamical over voltages for 750V-traction line



Measurement of radio interference

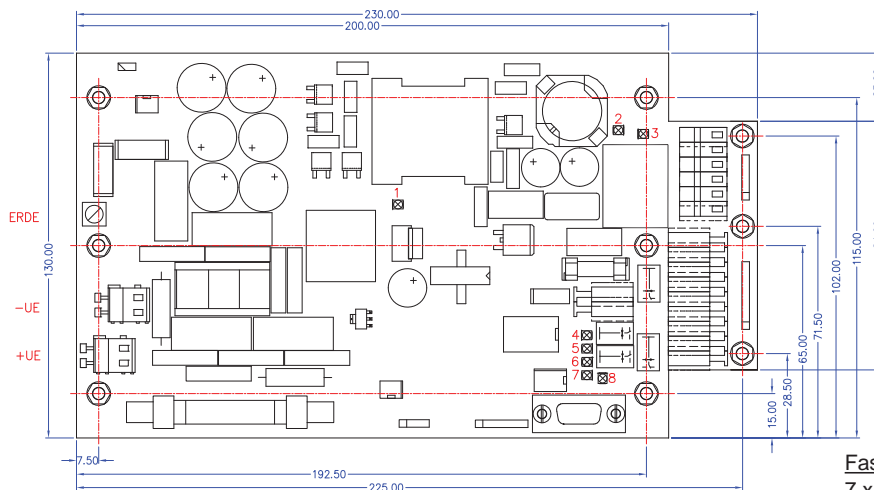


Mechanik



Definition LEDs

- 1 = U Hilfsspannung (Eingang)
- 2 = UA
- 3 = UA (Verbraucher)
- 4 = Relais (R1 Verbraucher)
- 5 = Relais (R2 UE=OK)
- 6 = Relais (R3 SYM=OK)
- 7 = Relais (R4 Tiefentladung)
- 8 = Relais (R5 Unterspannung)



- MBat
- MV
- MLast
- PBat
- PV
- PLast
- SYM
- >UE=OK
- >SYM=OK
- >Tiefentladung
- >Unterspannung

Fastening:
7 x distant bolts size 7
Inside thread M4 x 8mm
Torque 2 Nm

Ground connection screw (for M3 ring cable lug) torque 1,4 Nm

Pin 1 = 0V
Pin 2 = 0V
Pin 3 = 0V
Pin 4 = 0V
Pin 5 = 0V
Pin 6 = 0V
Pin 7 = 0V
Pin 8 = 0V