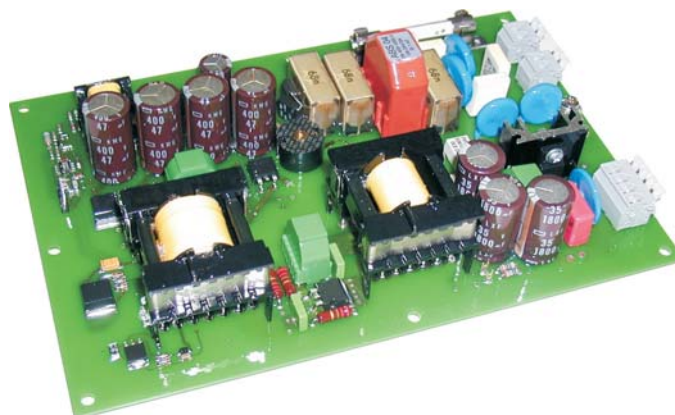


- Input voltage 400 - 1050 V stat.
- Burst/Surge EN 61000-4-4/5 level X
- Over voltages acc. to IEC1287 up to 1950 V / 2ms
- Input noise suppression EN 55022.B
- 12 mm air and creepage distances
- LES-DB / Railway EN 50155 / 121
- Power failure bridging

for railway / car applications / high voltage batteries



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Series ABS04.U Traction line- / Start-up power supply

Main points:

Output:

- Regulation $\Sigma (U_{in} + I_{out} + T_U) < \pm 2\%$
- Accuracy absolute $\pm 2\%$
- Ripple $< 200 \text{ mV}_{pp}$ (over T_U)
- Spikes $< 300 \text{ mV}_{pp}$ (T 1:1/50MHz)
- Response time $\Delta I = 50\% \leq 2 \text{ ms}$
- Constant current limitation $< 1,2 I_{Amax}$
- Output spike filter (C - L² - C)
- No-load, over load, short circuit proof
- Output length diode (bridgable)
- The output diode can be bridged to reduce power loss (KV2)
- Switchable U_{out} /charging end voltage (KV1)
- Start-up/dead battery start capable
- Wago plug clamp Type 255-401

Input:

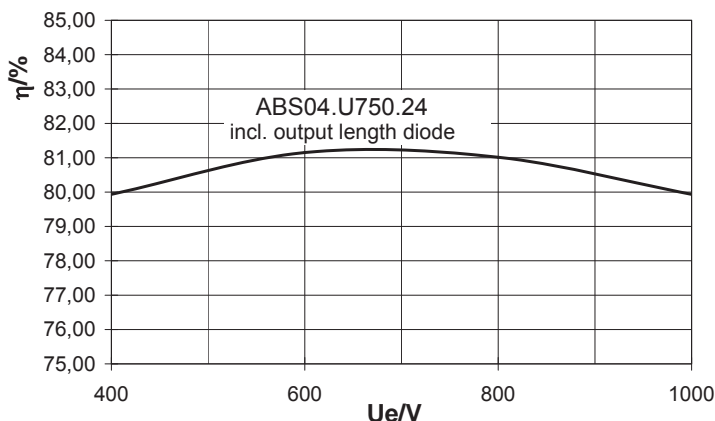
- No-load power approx. 2,5 Watt
- Input filter acc. to EN 55022.B
- Disturbances EN 61000-4-4 level 4 Burst EN 61000-4-5 level X Surge 4kV on 2W / 50 μ s up to 2,5 x U_{nom}
- Input fuse 1,2kV 8x50 mm with adapted melt flow characteristic
- Inrush current + run-up current limitation
- Reverse pol. protection length diode DE surge proof (positiv and negativ)
- Over and under voltage switch off with hysteresis and delayed restart
- Wago plug clamp Type 255-401
- Input sided voltage ripples of $> 10\%$ must be announced

In general:

- Efficiency typ. 86% (750 V / 75 W)
- Clock frequency $> 80 \text{ kHz}$
- zweifach Voltage cascaded topology
- Isolation test voltage 3,75 KV_{AC} 1 min
- 12 mm air and creepage distances (PCB + transformer)
- Ambient temperature $-25^\circ\text{C} / +70^\circ\text{C}$
- Option: $-40^\circ\text{C} / +85^\circ\text{C}$ (LES-DB)
- Derating 1,3% / $^\circ\text{C} > 70^\circ\text{C}$
- MTBF on request
- Shock/vibration acc. to EN50155
- Weight approx. 700g
- Dimension approx. 215 x 145 x 40 mm³
- CE-conformity certificate on request
- Power failure bridging at nominal voltage

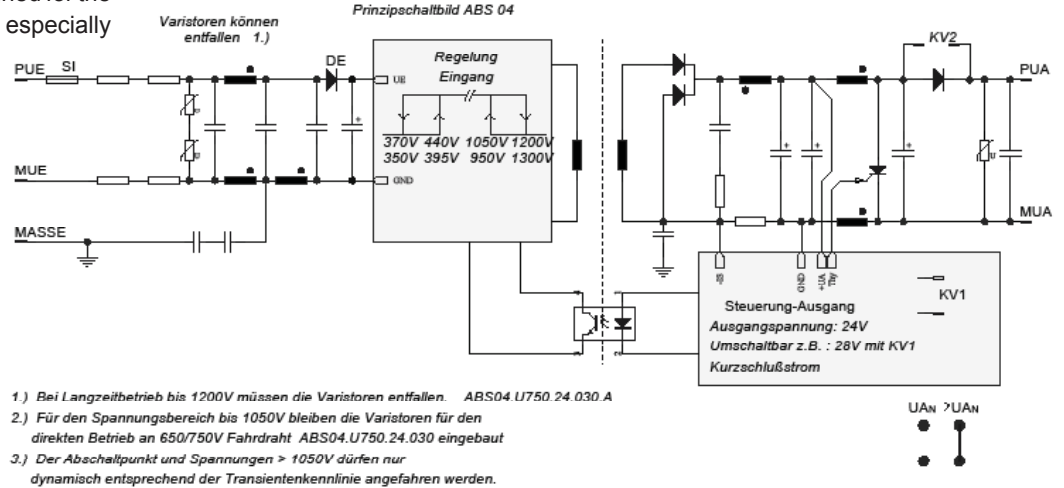
<u>U_{in}</u> V	<u>P_{out}</u> W stat./dyn.	<u>U_{out}</u> V	<u>I_{out}</u> A stat./dyn.	Model number
135 - 330 550 V / 2 ms	50 / 60	12	4,0 / 5,0	ABS 04.U220.12.050
		24	2,0 / 3,0	ABS 04.U220.24.030
		48	1,0 / 1,5	ABS 04.U220.48.015
270 - 680 1125 V / 2 ms	50 / 60	12	4,0 / 5,0	ABS 04.U450.12.050
		24	2,0 / 3,0	ABS 04.U450.24.030
		48	1,0 / 1,5	ABS 04.U450.48.015
400 - 1050 1950 V / 2 ms	50 / 75	12	4,0 / 5,0	ABS 04.U750.12.050
		24	2,0 / 3,0	ABS 04.U750.24.030
		48	1,0 / 1,5	ABS 04.U750.48.015
Version H	-40°C up to 85°C			additional charge
Modification costs for possible changes above values:				on request

Efficiency:

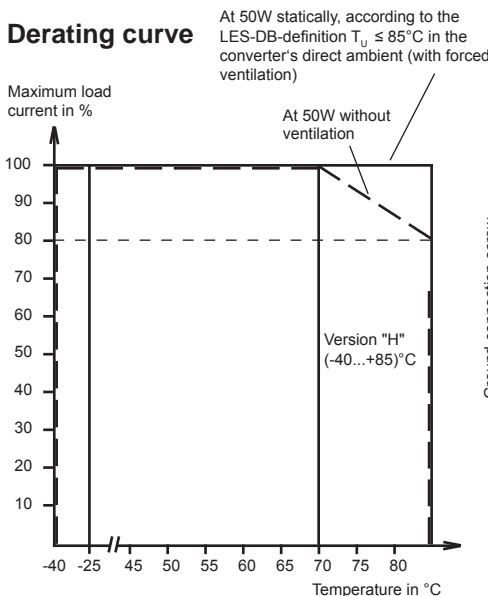


The **ABS04** series is designed for the mobile and stationary use especially for traction line and high voltage battery applications with an output power of 50 W / 75W.

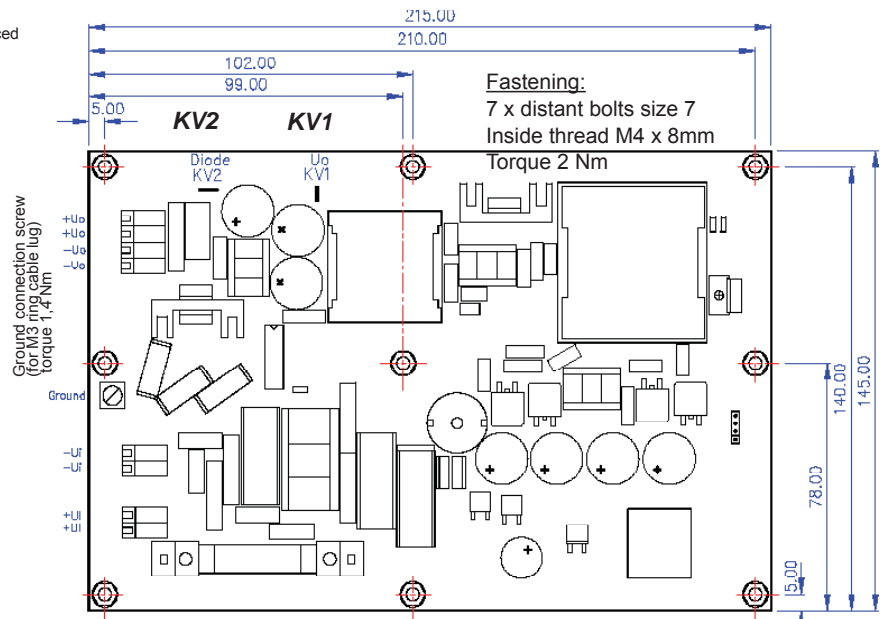
The special switching topology allows extremely high input-output isolation with 12 mm air and creepage distances on the PCB and in the transformer. The robust and stable mechanical build-up for extreme shock and vibration demands is ideal for traffic applications e.g. trolley-cars, busses and on the fuel cell. For higher climatic requirements this series can be integrated in a special IP65 level housing.



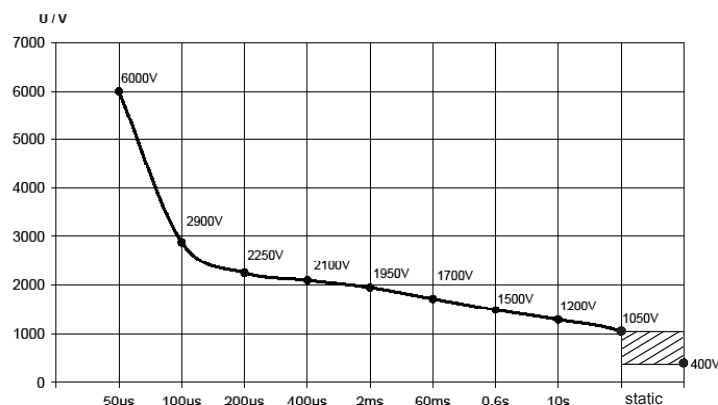
This standard power supply is protected and filtered against over voltages and disturbances at the input and output side. The power supply produces a regulated, short circuit proof, no-load proof and isolated low voltage with a maximum dynamical power of 75W directly out of the high voltage network. This low voltage can be used for system supplies or battery charging. The output voltage can be switched-over from the nominal voltage to the maximum charging end voltage (customs demand) for batteries. The output length diode prevents the energy re-flow and allows the parallel connection for security reasons.



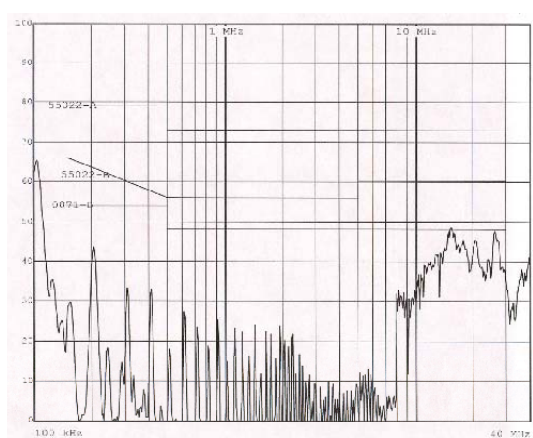
Mechanics



Dynamical over voltages for 750V traction line



Measurement of radio interference



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