

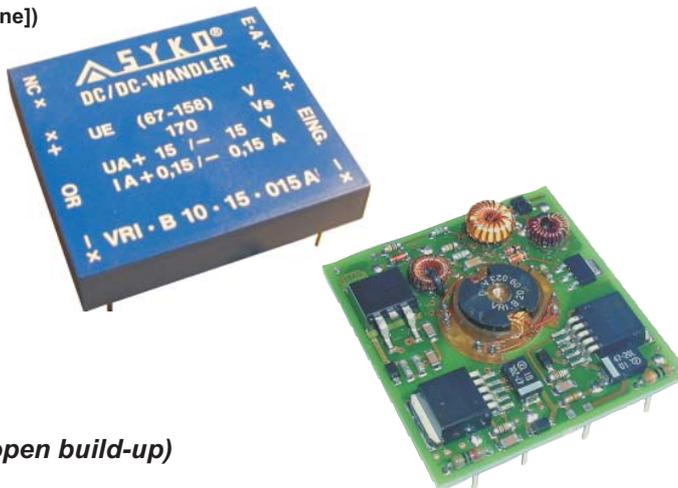
double output
up to 10 Watt

DC/DC converters
with isolation



- **Input voltage range up to 1:5**
- **PCB-mountable**
(Base plate with distance to the PCB [Soldering cone])
- **Flange mounting (Option)**
- **Input C-L²-C-Filter**
- **Test voltage 2,5 KV_{AC} (Option)**
- **NEW: 8 - 38 V**
67 - 170 V
14,4 - 45 V

for Telecommunications / Automotive applications /
Industrial applications / Railway applications



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Series VRI-B

VRI-BO (NEW: open build-up)

Main Points:

Output:

- Accuracy absolute $\pm 1\%$
- Regulation factor $\Sigma(U_{in} + I_{out} + T_u) \pm 1,5\%$
- Ripple $< 3 \text{ mV}_{pp}$
- Spikes $< 50 \text{ mV}_{pp}$ (T 1:1/50MHz)
- Response time $\Delta I = 50\% \leq 30\mu\text{s}$
- Current limiting $< 1,2 I_{outmax}$ (except 1))
- No-load-, over-load-, short circuit proof

Input:

- ON-OFF-application (A-Pinning)(Inhibit)
- Input-current-spike filter
- Noise suppression (siehe Application)

General:

- Isolation test voltage 500 V_{AC} 1 Min,
Option: 2,5 KV_{AC} (power reduction)
- Ambient temperature $-25^\circ\text{C} / +70^\circ\text{C}$,
Option H: $-40^\circ\text{C} / +85^\circ\text{C}$
- Derating $2\%/^\circ\text{C} > 60^\circ\text{C}$
 $1\%/^\circ\text{C} > 70^\circ\text{C}$
- Convection cooled
- MTBF On request
- Weight approx. 55g
- Housing material: Noryl GV
- Dimension 50,8 x 48 x 10,5 mm³
- Tantalum and multiple-layer-capacitors used
- Constant ripple over T_u

- Other standard pin-assignments
On request

	<u>U_{in}</u> V	<u>U_{out}</u> V	<u>I_{out}</u> mA	Model- number
	9 - 35	± 12	± 200	VRI-B 20-12-020
	8-38V dyn	± 15	± 170	VRI-B 20-15-017
	7 - 18	± 12	± 230	VRI-B 12-12-023
	22V dyn.	± 15	± 200	VRI-B 12-15-020
	14,4 - 38	± 12	± 200	VRI-B 23-12-020
	45V dyn.	± 12	± 270	VRI-B 23-12-027 1)
		± 15	± 180	VRI-B 23-15-018
		± 15	± 270	VRI-B 23-15-027 1)
	17 - 38	± 12	± 230	VRI-B 24-12-023
	45V dyn	± 12	± 300	VRI-B 24-12-030 1)
		± 15	± 200	VRI-B 24-15-020
		± 15	± 300	VRI-B 24-15-030 1)
	36 - 76	± 12	± 230	VRI-B 48-12-023
	85V dyn	± 12	± 300	VRI-B 48-12-030 1)
		± 15	± 200	VRI-B 48-15-020
		± 15	± 300	VRI-B 48-15-030 1)
	67 - 158	± 12	± 180	VRI-B 10-12-018
	170V dyn	± 15	± 150	VRI-B 10-15-015
	(only A-Pinning)			
	(H)	-40°C up to $+85^\circ\text{C}$		Additional charge
	Modification costs for possible changes above values: on request			
	1) Hight 11,6 mm (only at Pinning B)			

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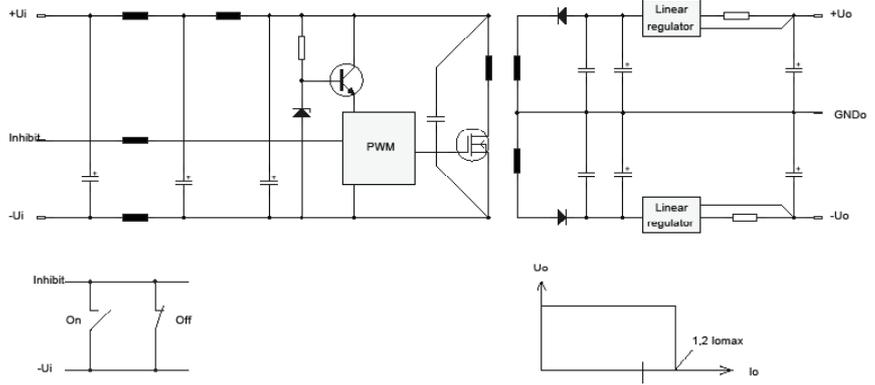
DC/DC converters
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Modules from the **VRI.B** series are ideal for the use in industrial and battery networks because of the wide input voltage range and the high efficiency.

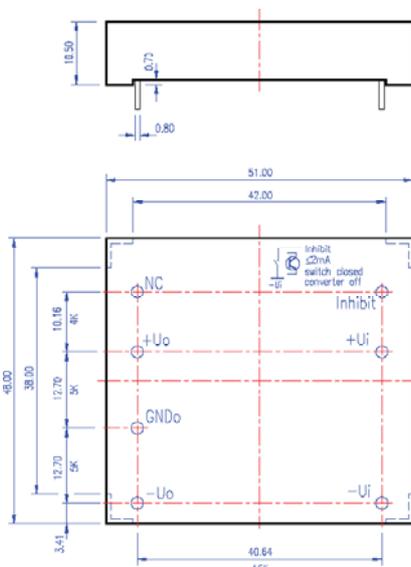
The converter's behaviour is controlled in all operational situations because of the used complex switching technology. This includes the no-load and the short circuit situation. The proportional high share of SMD-components and special tantalum- / multiple-layer capacitors lead to a converter's high functional live and reliability security.

Optionally a special transformer body realises a high isolation voltage between input and output. With a special technology an isolation test voltage of 4kV AC (1 min) can be connected (Pinning B / potted)

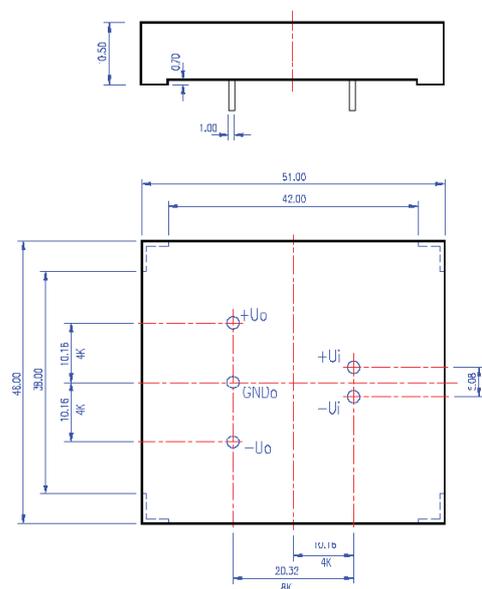


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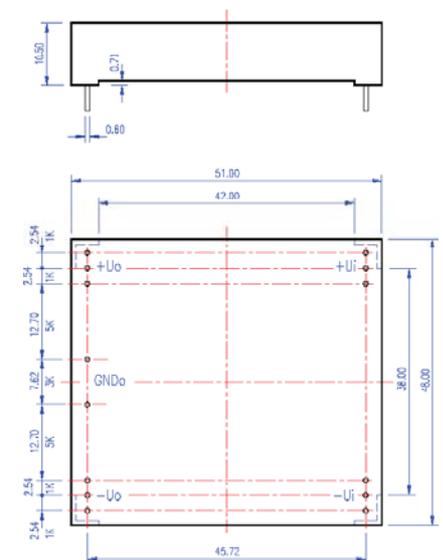
Pinning A



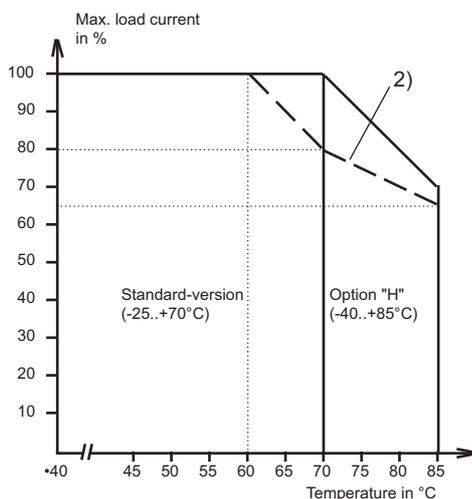
Pinning B



Pinning D



Derating-curve



Application Noise suppression / Disturbances

