

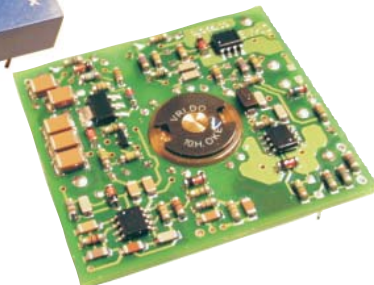
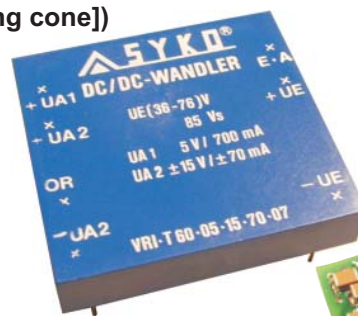
triple / four outputs
up to 9 Watt

DC/DC converters
with isolation



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

for Telecommunications / Automotive applications /
Industrial applications / Railway applications



Series VRI · V / T VRI · VO / TO (NEW: open build-up)

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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)
- Inputs-current-spike filter
- Noise suppression (see Application)

General:

- Isolation test voltage 500 V_{AC} 1 Min,
Option: 1,5 KV_{AC} (power reduction)
- Ambient temperature -25°C / +70°C,
Option H: -40°C / +85°C
- Derating 2%/°C >60°C
1%/°C >70°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 _{in} V	U _{out1} ± U _{out2} V	I _{out1} ± I _{out2} mA	Model- number
9 - 38 8V dyn	5,1 ± 12	700 ± 70	VRI-T 20-05-12-70-07
	5,1 ± 15	700 ± 70	VRI-T 20-05-15-70-07
	12 ± 05	500 ± 70	VRI-T 20-12-05-50-07
8 - 18 22V dyn	5,1 ± 12	700 ± 70	VRI-T 12-05-12-70-07
	5,1 ± 15	700 ± 70	VRI-T 12-05-15-70-07
	12 ± 05	500 ± 70	VRI-T 12-12-05-50-07
	24 ± 12	300 ± 70	VRI-T 12-24-12-30-07
14,4 - 38 45V dyn	5,1 ± 12	700 ± 70	VRI-T 23-05-12-70-07
	5,1 ± 15	700 ± 70	VRI-T 23-05-15-70-07
	12 ± 05	500 ± 70	VRI-T 23-12-05-50-07
	24 ± 12	300 ± 70	VRI-T 23-24-12-30-07
17 - 38 45V dyn	5,1 ± 12	700 ± 70	VRI-T 24-05-12-70-07
	5,1 ± 15	700 ± 70	VRI-T 24-05-15-70-07
	12 ± 05	500 ± 70	VRI-T 24-12-05-50-07
	24 ± 12	300 ± 70	VRI-T 24-24-12-30-07
36 - 76 85V dyn	5,1 ± 12	700 ± 70	VRI-T 60-05-12-70-07
	5,1 ± 15	700 ± 70	VRI-T 60-05-15-70-07
	12 ± 05	500 ± 70	VRI-T 60-12-05-50-07
	24 ± 12	300 ± 70	VRI-T 60-24-12-30-07
Isolation in-between U _{out1} / ± U _{out2}			
19 - 80	5,1 ± 12	150 ± 150	VRI-D 50-05-12-15-15
	5,1 ± 15	150 ± 150	VRI-D 50-05-15-15-15
	24 ± 05	150 ± 150	VRI-D 50-24-05-15-15
	24 ± 12	150 ± 150	VRI-D 50-24-12-15-15
All outputs isolated in-between each other			
36 - 76 135V dyn	5,1 24 12 12 V 0,15 0,1 0,1 0,1 A		VRI-V 60-01
	5,1 5,1 12 12 V 0,1 0,1 0,1 0,1 A		VRI-V 60-02
(H)	-40°C up to +85°C		Additional charge
Modification costs for possible changes above values:			on request

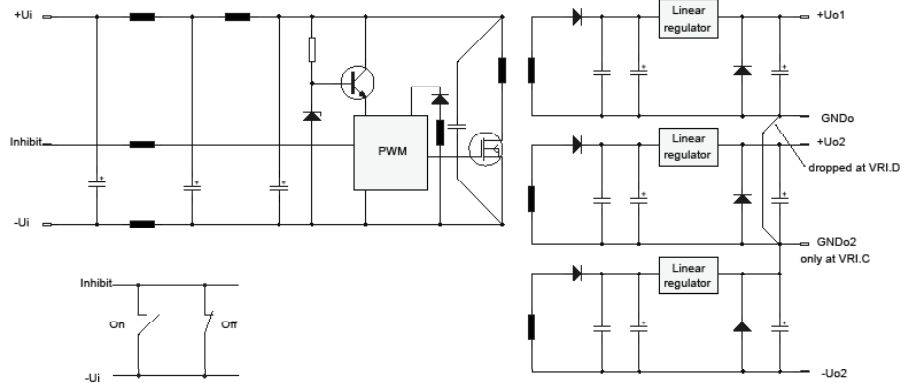
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Modules of the **VRI.T/VRI.D/VRI.V** series are ideal for the use in industrial and battery networks because of the wide input voltage range and the high efficiency. They have been designed especially for the analogue data capturing in small processor solutions on wide varying on-board networks.

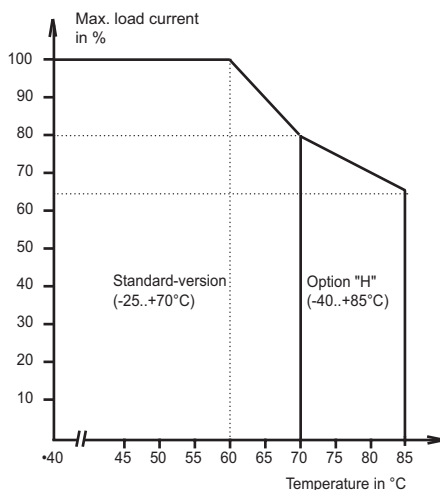
The proportional high share of SMD-components and special tantalum- / multiple-layer capacitors lead to a converter's high functional live.



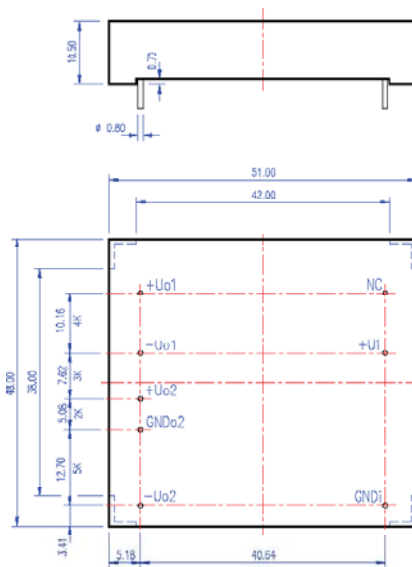
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Optionally a special transformer body realises a high isolation voltage between input and output. With a special technology an isolation test voltage of 4kV AC (1 min) can be connected (Pinning B / potted).

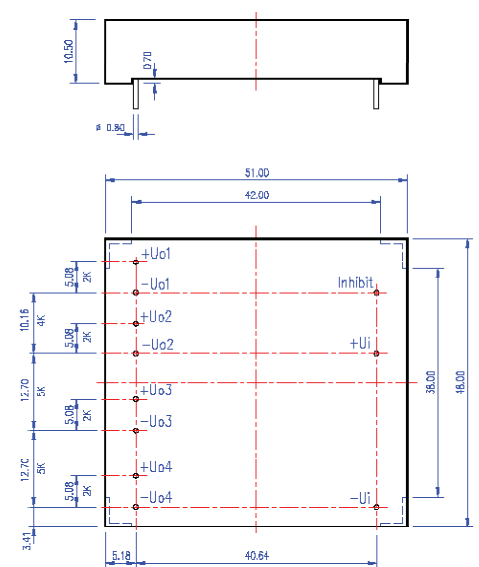
Derating-curve



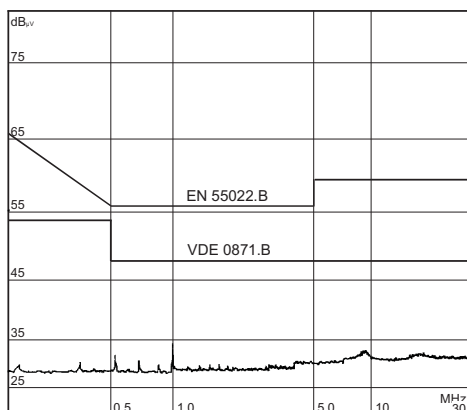
VRI.D



VRI.V (four outputs)



Measurement of radio interference



Application Noise suppression / EMC

