

single / double output  
up to 6 Watt

DC/DC converters  
limited input voltage range



- **Input voltage range  $\pm 7\%$**
- **PCB-mounting**  
(Base plate with distance to the PCB [Soldering cone])
- **Temperature range  $-25/+70^{\circ}\text{C}$**
- **Option  $-40/+85^{\circ}\text{C}$**
- **Input filtering C - L - C**
- **Housing  $51 \times 48 \times 10 \text{ mm}^3$**

for special technology, railway, building machinery



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## Series VC

### Main points:

#### Output:

- Accuracy absolute  $\pm 2\%$
- Regulation  $\Sigma(U_{in} + I_{out} \cdot T_U) < \pm 2\%$
- Response time  $20 \mu\text{s}$
- Ripple  $1 \text{ mV}_{\text{rms}}$
- Spikes  $< 50 \text{ mV}_{\text{pp}}$
- No-load and short circuit proof
- Current limitation  $1,2 I_{o \text{ max}}$

#### Input:

- Input voltage range  $\pm 7\%$
- Input current spike filter
- Input current ripple  $< 1\%$

#### In general:

- Isolation test voltage  $500 \text{ V}_{\text{AC}}$  1 min
- Thermal over load protection
- Very good turn-on behaviour
- Ambient temperature  $-25^{\circ}\text{C} / +70^{\circ}\text{C}$ ,  
Option:  $-40^{\circ}\text{C} / +85^{\circ}\text{C}$
- Storage temperature  $-40^{\circ}\text{C} / +100^{\circ}\text{C}$
- Derating  $2\% / ^{\circ}\text{C} > 60^{\circ}\text{C}$
- Free air convection
- MTBF on request
- Weight approx. 45 g
- Housing material Noryl GV
- Housing  $51,0 \times 48,0 \times 10,5 \text{ mm}^3$
- Tantalum- and multi layer capacitors

<u>U<sub>in</sub></u> V	<u>U<sub>out</sub></u> V	<u>I<sub>out</sub></u> mA	Model number	
5 $\pm 7\%$	5,1	1000	VC 5-1-05-100	
	12	500	VC 5-1-12-500	
	15	400	VC 5-1-15-400	
	18	330	VC 5-1-18-330	
	$\pm 12$	$\pm 230$	VC 5-2-12-230	
	$\pm 15$	$\pm 190$	VC 5-2-15-190	
	$\pm 18$	$\pm 170$	VC 5-2-18-170	
	12 $\pm 7\%$	5,1	1000	VC 12-1-05-100
		12	500	VC 12-1-12-500
		15	400	VC 12-1-15-400
18		330	VC 12-1-18-330	
$\pm 12$		$\pm 230$	VC 12-2-12-230	
$\pm 15$		$\pm 190$	VC 12-2-15-190	
$\pm 18$		$\pm 170$	VC 12-2-18-170	
24 $\pm 7\%$		5,1	1000	VC 24-1-05-100
		12	500	VC 24-1-12-500
		15	400	VC 24-1-15-400
	18	330	VC 24-1-18-330	
	$\pm 12$	$\pm 230$	VC 24-2-12-230	
	$\pm 15$	$\pm 190$	VC 24-2-15-190	
	$\pm 18$	$\pm 170$	VC 24-2-18-170	
	28 $\pm 7\%$	5,1	1000	VC 28-1-05-100
		12	500	VC 28-1-12-500
		15	400	VC 28-1-15-400
18		330	VC 28-1-18-330	
$\pm 12$		$\pm 230$	VC 28-2-12-230	
$\pm 15$		$\pm 190$	VC 28-2-15-190	
$\pm 18$		$\pm 170$	VC 28-2-18-170	
VC (H)		$-40^{\circ}\text{C}$ up to $+85^{\circ}\text{C}$		additional charge
Modification costs for possible changes above values			on request	

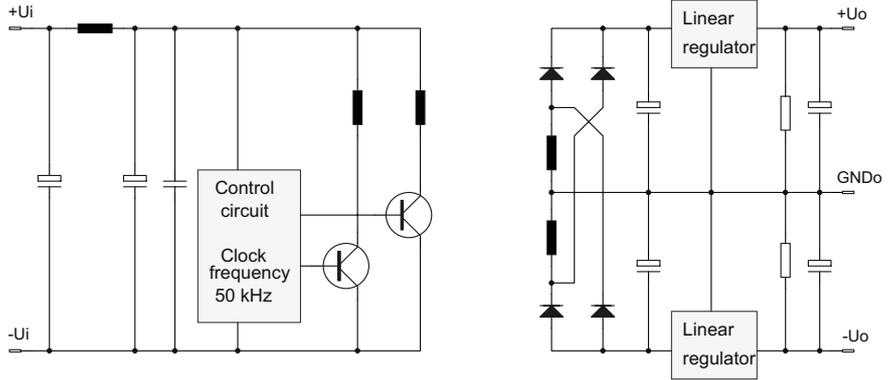
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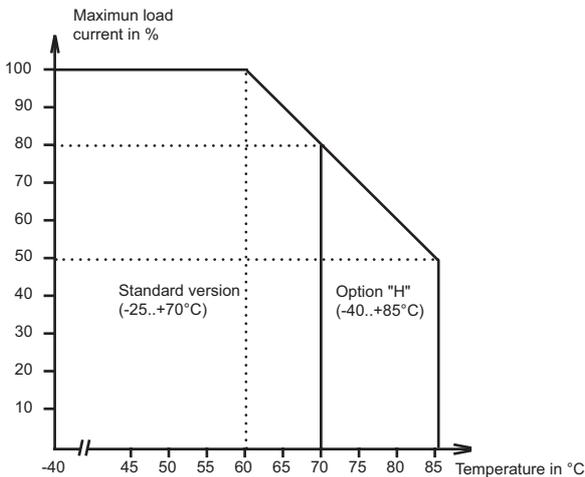
Modules of the **VC** series are low power converters with galvanic isolation and short circuit proof outputs. Input sided current filters reduce voltage ripples.

The converter is available with single and double voltage output. The outputs are independent of each other. At almost constant supply voltage and almost constant load this converters are used preferred as supplementary converters in series with non-isolating switching regulators and for data capturing applications.

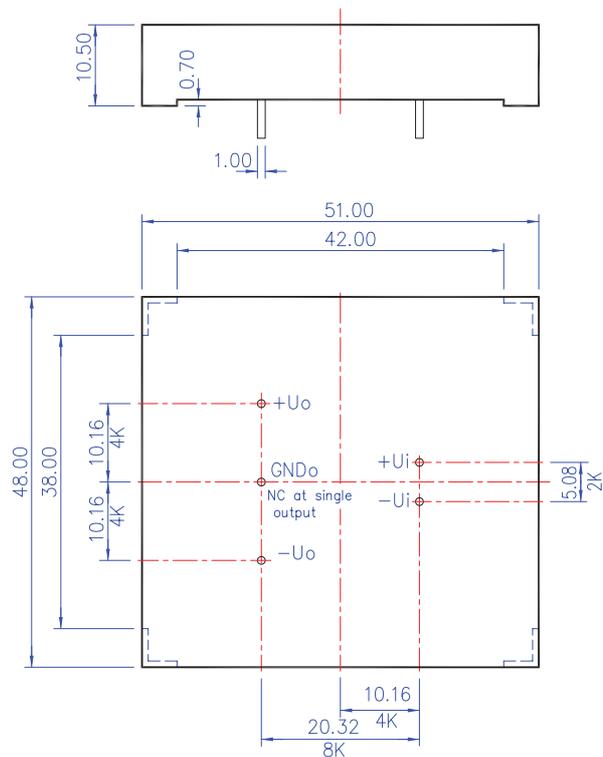


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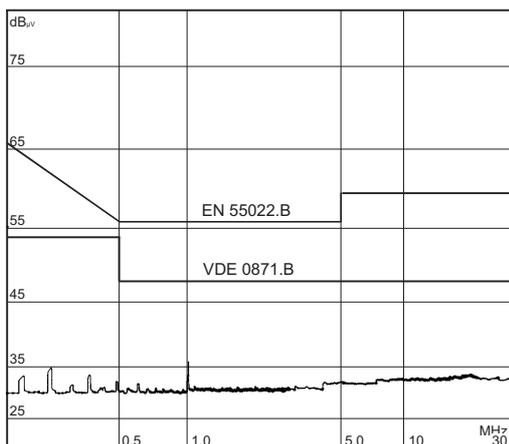
### Derating-curve



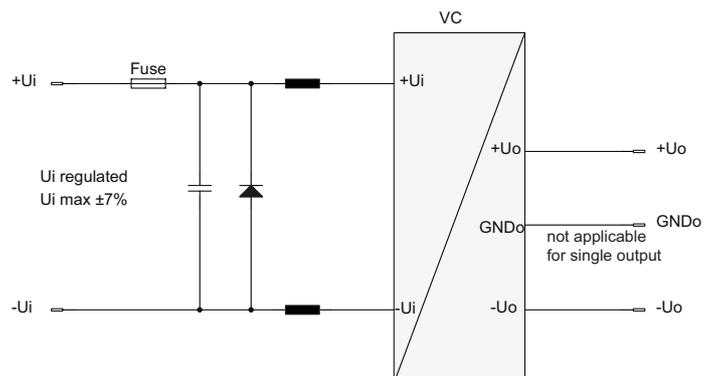
### Pinning B



### Measurement of radion interference



### Application noise suppression



Stand: 11/06