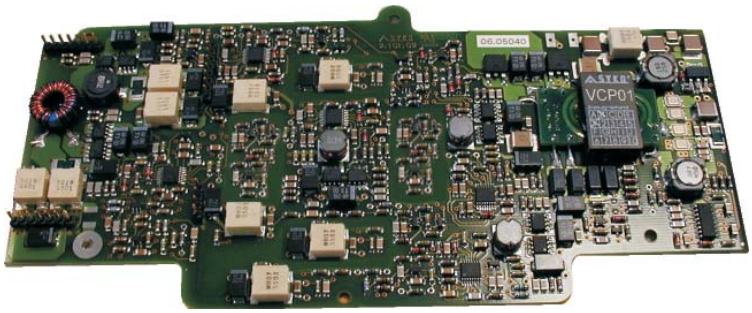
- **Input voltage range ±20 %**
- **Chassis mounting to a heat sink**
- **Temperature range -25/+70°C**
- **Option -40/+85°C**
- **Input filtering C - L² - C**
- **Open build up 196 x 102 x 8 mm³**

Series VCP.X



Main points:

Output:

- Accuracy absolute ±1%
- Regulation $\Sigma(U_{in}+I_{out}+T_U)<\pm1,5\%$
- Response time 50 µs
- Ripple 5 mV_{rms}
- Spikes < 50 mV_{pp} (50MHz/T1:1/50Ω)
- No-load and short circuit proof
- Current limitation $1,2I_{o\,max}$ up to Uout=0V
- No-load capable outputs
- Up to six outputs

Input:

- Input voltage range ± 20 %
- Input current spike filter
- Input current ripple < 1%
- Rough filtering (system suitability)

In general:

- Isolation test voltage 500 V_{AC} 1 min
- Thermal over load protection
- Very good turn-on behaviour
- Ambient temperature -25°C / +70°C, Option: -40°C / +85°C
- Storage temperature -40°C / +85°C
- Derating: no
- Free air convection
- MTBF on request
- Extremly flat build up, height 8mm

Uin	Uout	Iout	Model
V	V	A	number
9,6 - 14,5	5,1	1,0	VCP.F12.001
	5,1	3,0	
	3,3	3,0	
	2,6	3,0	
	1,2	2,0	
19 - 29	5,1	1,0	VCP.F24.002
	5,1	4,0	
	3,3	4,0	
	2,6	2,0	
	1,2	2,0	
VCP (H)	-40°C up to +85°C		additional charge
Modification costs for possible changes above values			on request

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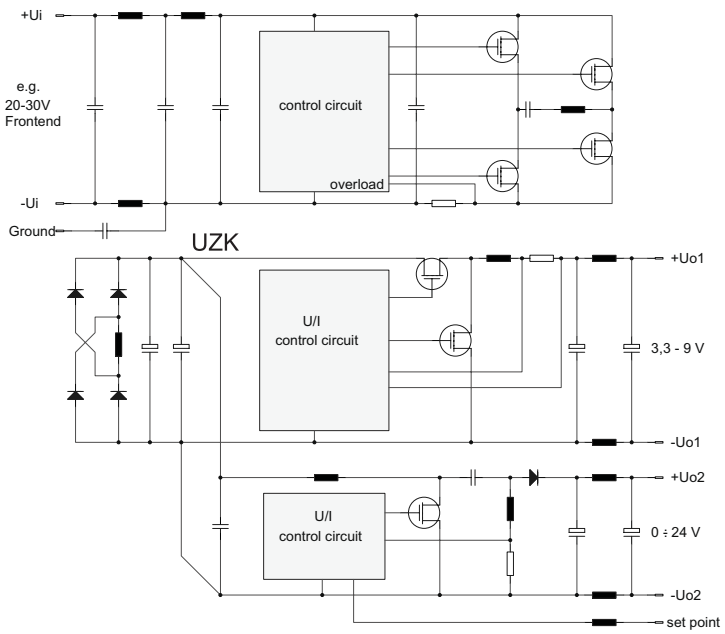
For the use on 12V/24V ±20% front end supply voltages the VCP series concept has been developed for customized modifications with isolated outputs.

The transient free input voltage is transformed with a EMC filtered push-pull stage, which is dynamically power limited and soft start capable in a hard switched or resonant version. Any isolated quantity of output circuits can be generated with the same tolerance as the input voltage .

Out of this intermediate circuit any quantity of low voltage outputs can be generated with the same ground potential as the intermediate circuit. A synchron buck-regulator is used to generate e.g. 5,1V/3,3V/ 2,6V, 1,2V as a replacement of single POL-converters with system specific defined current limitation (1,2 x Io max), sense lines and load compensation. Corresponding output filters reduce ripples and spikes.



Instead of the synchron buck-regulator the patented Regenerator topology can be used to generate an adjustable output voltage from zero up to higher than the intermediate voltage. Corresponding mechanical adaptation, thermal coupling, EMC-capability and customer specification performance lead to a system suitable converter concept. With a timing processor the switch-on points of the single outputs can be defined.

The picture shows a customized modification for the use in special vehicles in combination with a front end supply on VG/MIL/DO-defined on-board networks.

Photo: Front end supply
Input: 16 - 34V / dyn. 9 - 100V
Output: 24V / 6A, 24V / 1A with output sided VCP-concept for computer systems