

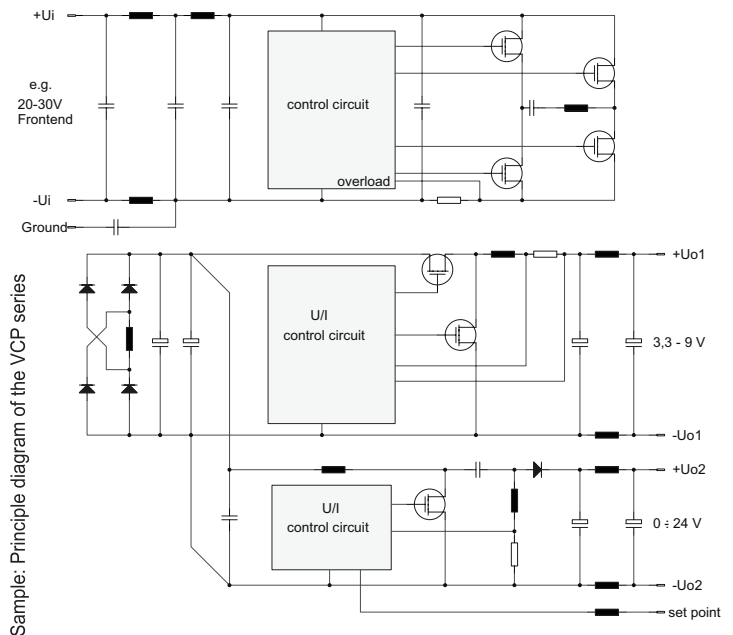
Product line D's DC/DC-converters have been developed as supplementary regulators for the use on almost constant supply voltages.

A.) The free-running push-pull converter concept transforms the nominal input voltages with an allowed range up to $\pm 5\%$ to single or multiple, isolated output voltages. Unregulated outputs are not short circuit or over load protected. Outputs with additional linear regulators in series are short circuit and over load protected.

B.) New are compulsory chopped push-pull concepts, which are used in the VCP series. These are working hard switched or current resonant and transform an input voltage with an range of $\pm 20\%$ to single or multiple, isolated outputs. Each output voltage is varying with the same percentage value as the according input voltage does. From this output intermediate voltage high efficiency buck-converters generate the regulated, to $1,2 \times I_{max}$ short circuit proof output voltage with synchron switches. Also multiple outputs, which are isolated in between each other or negative outputs are possible. With the Regenerator topology output can be build up with an adjustable voltage from zero to higher than the intermediate voltage (U_{zk}).

Combination brings functionality!

- **Over voltage protection (Thyristor)**
- **Synchron switches**
- **Inhibit (on/off)**
- **Reliable system suitability**
- **Transient adapted**
- **Simply radio interference adjustable**
- **Application reports for external circuits on request**
- **High functional security**



Model	P _{out}	Nom. U _{in}	Quantity	build up style		Special features
number	W	V	outputs			
VCP	up to >50	12 up to 110 $\pm 20\%$	any	Module / 19" / Chassis	open	use as frontend
VCT	3	5 - 48	1, 2	DIL 24-Modul	potted	
VVCN	3	5 - 28	1, 2	Leiterplatten-Modul	potted	
VVCF	3,6	5 - 28	1, 2	Leiterplatten-Modul	potted	
VC	6	5 - 28	1, 2	Leiterplatten-Modul	potted	
VCF	10	5 - 28	1, 2	Leiterplatten-Modul	potted	
BB01	15	5 - 28	3	Leiterplatten-Modul	open	
BB02	25	5 - 28	3	Leiterplatten-Modul	open	

Please ask for a modification if you need customized multiple outputs with different potentials and high dU/dt-values to supply high power stages out of an existing front-end voltage.

Application circuits with filters and disturbance protection for requirement-adaptation are available for all switching modules