

Introduction

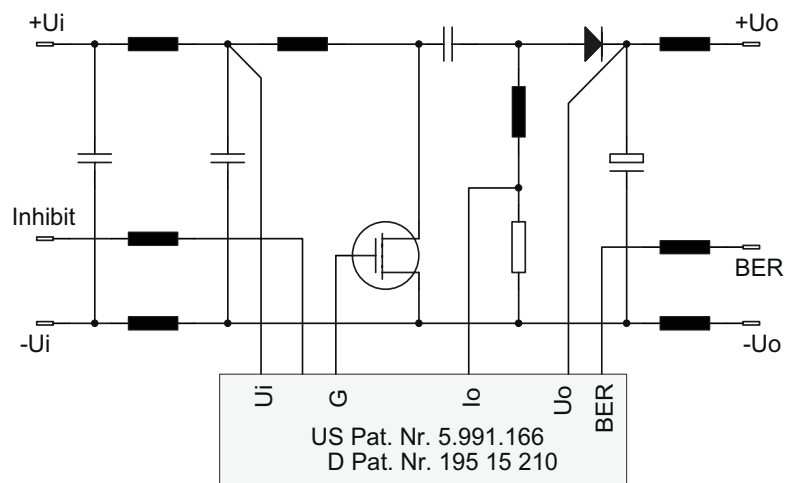
SYKO formed the name **Regenerator** for product line B's switching regulators. These are used to regenerate a rough network-voltage to a fine network structure with extreme wide input voltage ranges plus long term transients. The input voltage can be lower, equal or higher than the regulated, short circuit proof and adjustable output voltage. It is build-up as a Buck/Boost-topology with minimized component effort. Even with extreme input voltage ranges of >1:10 this topology works with an almost constant efficiency. The switching topology is international patented and patents protect the (voltage-) current cascading at (high-) low input voltages. SYKO describes this switching topology as security relevant for the dual-voltage network because a breakthrough of energy sources input-output or output-input is not possible. Applications where this topology is used are car-adapters, frontend-supplies, coil-drivers with constant current, field regulation in diesel-electric-drives, in the patented power-factor-control circuit, on-board-network simulation and speed controlled fans etc.

We recommend product line A in the case that the input voltage is always higher than the output voltage.

Combination brings functionality!

- **Patented switching topology**
- **Output voltage lower, equal or higher than the input voltage**
- **Security relevant topology**
- **High functional security**
- **Reliability system suitability**
- **Extreme input voltage ranges**
- **Transient adapted**
- **Simply radio interference adjustable**
- **Application reports for external circuits available**

Principle circuit



Sample: principle circuit series PSR.V

Converter-family	Power P _{out} [W]	Nom. Input Voltage U _{in} [V]	Quantity outputs	Build-up style	Special features
MSR.V	10	12 - 110	1	PCB-Module	potted Input range up to 1:11
NSR.V	15	12 - 110	1	PCB-Module	potted Input range up to 1:11
GSR.V	20	12 - 60	1	PCB-Module	open U _{in} static from 4,5V
PSR.V	40	12 - 110	1	PCB-Module	open U _{out} adjustable
MSG 01	50	12 - 110	1	Chassis	open Inductor driver unit
RV.USV	40	12 - 42	3	Car-Adapter	with housing USV-function / E1-certification
LSV.V	60	12 - 42	1	Car-Adapter	with housing VG96916 T5 / E1-certification
MSV.V	80	12 - 42	1	Car-Adapter	with housing VG96916 T5 / E1-certification
LSR.V	100	12 - 110	1	19"-rack version	optional with housing U _{out} adjustable
ESR.V	120	12 - 42	1	19"-rack version/Chassis	FrontendInput U _{out} adjustable
ES01.R	120	12 - 42	1	19"-rack version	FrontendInput Special functions
GTR.V	120	12 - 24	1	Chassis	with housing for special technology acc. to VG
DBR.V	400	12 - 110	1	Chassis	with housing U _{out} adjustable
BOS 02	750	12 - 110	1	Chassis	with housing For dual voltage network
BOS 01/DU	1500	12 - 110	1	Chassis	with housing Energie flow in both directions
ERG 01	700	24 - 110	1	Chassis	with housing Field regulator
ERG 02	900	24 - 110	1	Chassis	with housing Field regulator
BOS-REG	860	24 - 110	1	Chassis	with housing Network supply / regeneration
BOS-HR	1000	12 - 24	1	Chassis	with housing for special technology acc. to VG
BOS-BNV	2000	24 - 110	1	Chassis	with housing Network supply / regeneration
NSE.V	1000	12 - 24	1	19"-rack version/Chassis	housing (Option) Vehicle Start-up Unit