

# ENERGY

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THE WORLD

## LINE VOLTAGE STABILIZER

FOR VOLTAGE BAND CONTROL  
ACCORDING TO DIN EN 50160



**ELECTRO**  
KNILL GRUPPE



# VOLTAGE STABILIZER

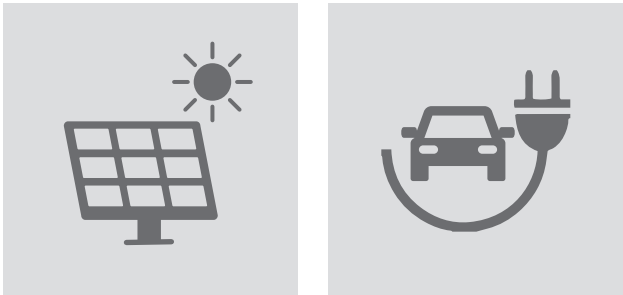
## NEW CHALLENGES

IN THE LOW-VOLTAGE GRID



Highly volatile power feeds from photovoltaic units take the classical approaches to voltage band control to their limits. The ongoing expansion of the charging infrastructure for e-mobility connects further high-load consumers to the grid, imposing further challenges for voltage band control.

To maintain line voltage within the range defined by DIN EN 50160, active voltage stabilization is required. EBG electro provides a solution especially for long grid branches and distant consumers.

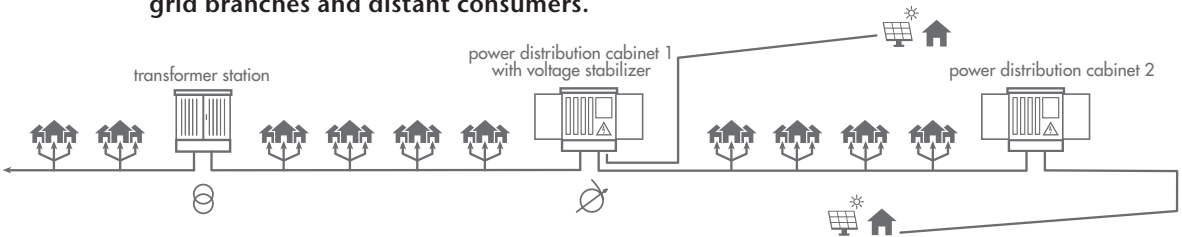


## Advantages

- completely housed and wired for quick and easy installation
- device is supplied fully parameterized, no on-site adjustment work required
- robust technology, maintenance-free
- voltage step-up and step-down within one device
- suitable for all earthing schemes (TN-C, TN-C-S, TN-S, TT)
- variant for three-wire-grid configurations available
- compact-sized to fit into standard distribution cabinets
- suitable also for temporary use cases

### Conclusion

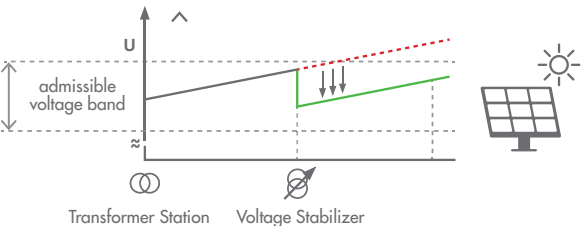
- cost-effective voltage band stabilization
- helps to avoid costly line reinforcements



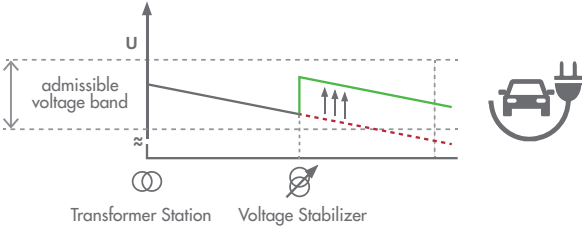
## Function of the voltage stabilizer

- the Voltage Stabilizer operates completely autonomously. Voltage stabilization need is detected by evaluation of the line voltage and the required voltage step is activated.
- no external sensors required
- voltage correction is effected by a line transformer combined with an innovative voltage stepping circuitry

### Voltage step-down in cases of overvoltage



### Voltage step-up in cases of power sags



Type	SR3		SR3X2		SR13
Implementation example	M001974	M003432	MV011910	MV012323	MV008900
Throughput capacity $S_N$	104 kVA	62 kVA	138 kVA	77 kVA	272 kVA
Phase current $I_N$	151 A	90 A	200 A	112 A	394 A
Voltage swing $\Delta U$	$\pm 2,6 \%$	$\pm 4,3 \%$	$\pm 3,9 \%$	$\pm 7 \%$	$\pm 4,3 \%$
Number of steps	3		5		3
Longitudinal impedance $Z_L$	$< 5 \text{ m}\Omega$	$< 5 \text{ m}\Omega$	$< 5 \text{ m}\Omega$		$< 5 \text{ m}\Omega$
Efficiency	$> 99,8 \%$	$> 99,8 \%$	$> 99,8 \%$		$> 99,8 \%$
Measures (Height/Width/Depth in mm)	245 x 820 x 200 (module)	480 x 820 x 200 (module)	480 x 820 x 200 (module)		1570 x 830 x 330 (Cabinet 2 x UCH size 1)
Line fusing max.	355 A, gG		355 A, gG		400 A, gG
Overvoltage resistance	CAT IV (6 kV at 1,2/50 $\mu\text{s}$ peak)				
Displays	LED controls for on/off status, switch position, temperature alarm				
Settable parameters	Stepping threshold voltages, hysteresis, switching delays				



Options shown only represent a small selection – for more info, please contact us!

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