REACTORS
SGB-SMIT AT A GLANCE

YEARS OF EXPERIENCE
Combined, more than 415
Basis for know-how and for know-why

EMPLOYEES
More than 2,000
take care of your project

COUNTRIES
In more than 80
satisfied customers

READY FOR YOUR MARKET
The SGB-SMIT Group manufactures transformers for applications worldwide. Sales and service centers on all continents ensure optimum processes.

Our products meet the requirements in accordance with the applicable national standards.

PRODUCTS
• large power transformers
• medium power transformers
• large liquid-cooled distribution transformers
• liquid-cooled distribution transformers
• cast resin transformers
• shunt reactors
• series reactors
• phase shifters
• Lahmeyer-Compactstationen®

Transformers from 50 kVA up to incl. 1,200 MVA in the voltage range up to 765 kV.

QUALITY MANAGEMENT
The SGB-SMIT Group is certified in accordance with:
• DIN ISO 9001
• DIN ISO 14001
• DIN ISO 50001
• OHSAS 18001

TECHNOLOGIES
Technologies for conventional and renewable energy.
CONSTANT PERFORMANCE FOR ALL GRIDS

Reactors from the SGB-SMIT Group are the compensating element in high-voltage grids, ensuring stable transmission regardless of the line lengths.

FIELDS OF APPLICATION
POWER HARMONIZATION IN POWER DISTRIBUTION

To ensure efficient transmission and distribution of energy, power grids have to be able to compensate a host of variables, such as voltage and load fluctuations, differing resistances or overvoltages.

Reactors produced by the SGB-SMIT Group provide the required balance by stabilizing fluctuations and reducing overvoltages. Thus, they ensure highly reliable operation, protecting your investment in modern high-voltage grids.

SPECIAL FEATURE
Like the transformer family of the SGB-SMIT Group, reactors are designed individually according to customer’s specifications. They can be integrated into your energy infrastructure perfectly.

VARIANTS
INDIVIDUALIZATION FOR EACH FIELD OF APPLICATION

We manufacture reactors ideally suited to match your requirements. Depending on the intended purpose and capacity, SGB-SMIT provides you with single- and three-phase compensation reactors and current limiting reactors in a variety of designs:

- Iron core with air gaps to avoid saturation of the ferrite core
- Without iron core for high frequencies

We would be pleased to provide you with a detailed consultation in order to establish which reactor is the most economically efficient and reliable solution for your specific field of application based on factors such as spare requirements, noise development and costs.

SPECIAL FEATURE
The SGB-SMIT Group succeeded in transferring the methods developed for noise reduction of transformers to reactors – enabling our products to be considerably more silent and more environmentally compatible.
# Program

## Single-Phase

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactive power</td>
<td>up to 30 MVar</td>
</tr>
<tr>
<td>Voltage</td>
<td>up to 170 kV</td>
</tr>
</tbody>
</table>

## Single-Phase, Controllable

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## Three-Phase

<table>
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<tr>
<th>Parameter</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Reactive power</td>
<td>up to 50 MVar</td>
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## Three-Phase, Controllable

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OUR REFERENCES SPEAK FOR THEMSELVES

From power specification via design and production, down to assembly and integration into the energy infrastructure, every step of development for our reactors takes customer specifications and grid configurations into account. Even during the production period, additional improvements and required changes can be implemented. The result, highly specialized, low-noise reactors which are optimally prepared for their tasks. Consequently, SGB-SMIT reactors can be found world-wide operating successfully and sustainably under a wide variety of environmental conditions, and often with unique specifications.

50 MVAr
Oil compensation reactor
• 50 MVAr, three-phase, 50 Hertz
• 30 kV, 170 kV BIL
• Reactance 18 Ohm/phase
• 5-leg air gap core
• Installation site: Germany

23,3 MVAr
Oil compensation reactor
• 23,3 MVAr, single-phase, 60 Hertz
• Control range 7.5 MVAr - 23.3 MVAr in 10 steps
• 69 kV, 350 kV BIL
• Reactance 204 - 643 Ohm/phase
• Air gap core design
• Installation site: Northeastern USA

25 MVAr
Oil neutral point limiting reactor
• 25 MVAr, single-phase, 50 Hertz
• 150 kV, 750 kV BIL
• Reactance 300 Ohm/phase
• Air gap core design
• Installation site: Netherlands

50 MVAr
Oil compensation reactor
• 50 MVAr, three-phase, 50 Hertz
• 115 kV, 550 kV BIL
• Reactance 577 Ohm/phase
• 5-leg air gap core
• Installation site: Austria
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