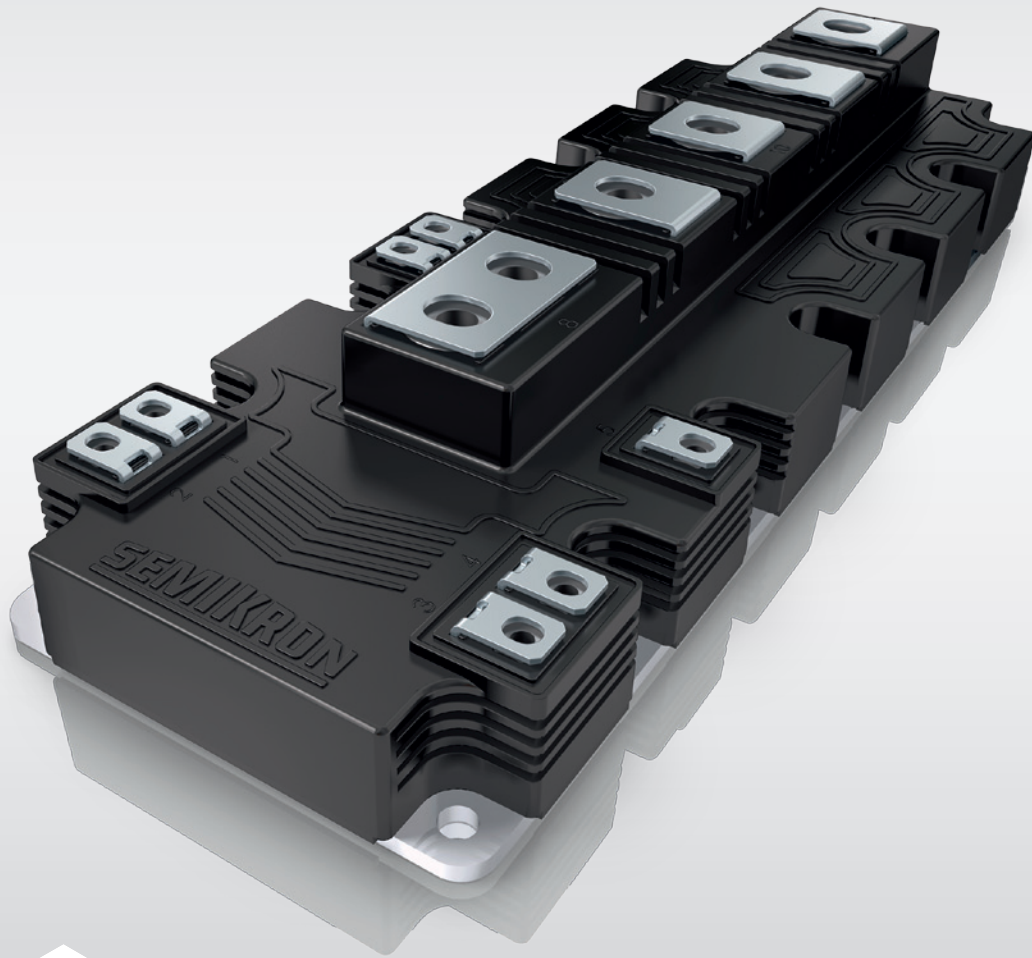


SEMITRANS® 10 Series – Exceeding the Standard



SEMITRANS® 10

500kW up to 1.5MW



SEMITRANS® 10

SEMITRANS 10 is a robust industrial standard package with copper baseplate and screw terminals for the power connections. The SEMITRANS 10 package is a low-inductance design and is available in 1200V (1400A) and 1700V (1000A/1400A) half-bridge topologies as well as MLI in 1200V IGBT technology and 1200A nominal output current. High availability is ensured by the use of multiple IGBT sources and SEMIKRON CAL diodes.

Benefits

- Robust industrial standard package
- Competitive second source IGBT
- Optimised low stray inductance design for safe operation with high DC-link voltages
- Unique low-loss switching profile
- Viable package architecture for future high temperature chip generations

Applications

This proven package is designed for a wide range of applications such as regenerative inverters up to 1500V DC bus and power supplies which have to meet strict service life and robustness requirements. Thanks to the flexibility and scaling capabilities that this architecture boasts.

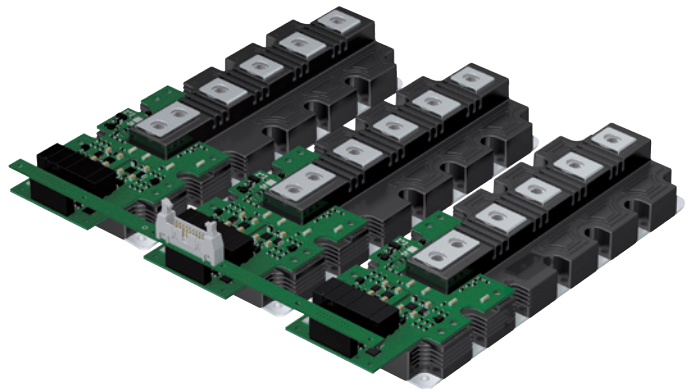
Product range

Half-bridges 1200V / 1400A and 1700V 1000A/1400A
MLI 1200V/1200A

More output power with symmetric paralleling

SEMITRANS 10 and SKYPER Prime have been optimised to provide outstanding performance, a multitude of features and sophisticated paralleling.

- Digital signal processing in the SKYPER Prime driver ensures stable switching and error characteristics across the entire temperature range
- Stable positive and negative gate voltages for symmetric current sharing
- Direct paralleling of error, sense and switching signals
- Symmetric gate control with centralised signal distribution
- Board-to-board solution eliminates the need for costly cable and connector assemblies



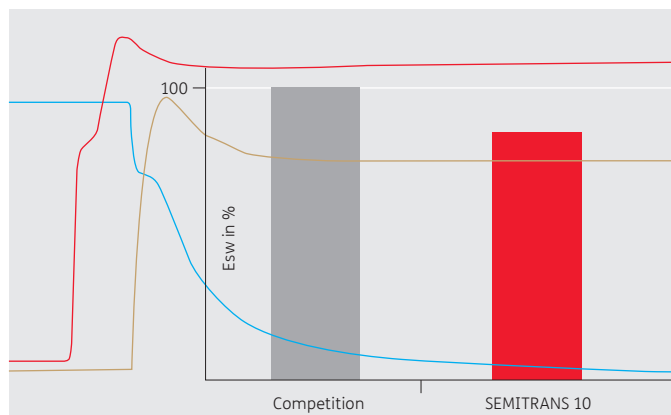
Key features

- Fully compatible with industry standard
- Half-bridge topology
- Current rating from 1000A to 1400A
- Enhanced switching performance
- Isolated copper baseplate using DBC
- Integrated gate resistors
- Integrated temperature sensor
- High isolation voltage

SEMITRANS® 10 Series

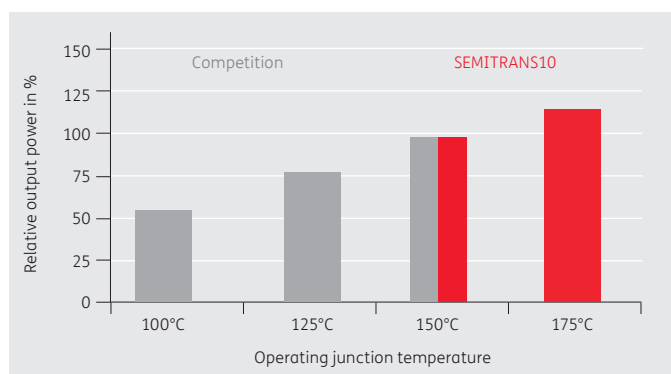
Superior dynamic switching behaviour

- Superior switching performance based on second source IGBT series in combination with Semikron CAL diodes
- Low switching and conduction loss profile
- Optimised internal bus bar ensures balanced load among the individual IGBTs and diodes



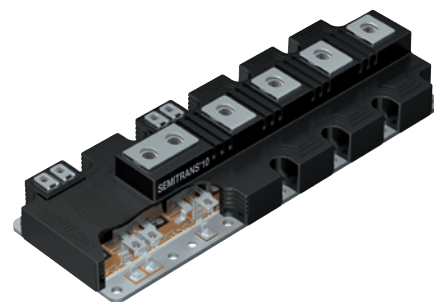
Future proof package materials

The package materials in SEMITRANS 10 have been optimised for high temperatures. This ensures stable and reliable operation with today's chip generations of chip operating junction temperatures of 150°C and future chip technologies with maximum junction temperatures up to 200°C



Highly reliable and low stray inductance design

- Optimised bus bar design and DBC layout ensures low internal stray inductance



Portfolio

Type designation	V_{ces} in V	I_{nom} in A	Topology
SKM1400GB12P4	1200	1400	GB
SKM1000GB17R8	1700	1000	GB
SKM1400GB17R8	1700	1400	GB
SKM1400GAL12P4	1200	1400	GAL
SKM1000GAL17R8	1700	1000	GAL
SKM1400GAL17R8	1700	1400	GAL
SKM1400GAR12P4	1200	1400	GAR
SKM1000GAR17R8	1700	1000	GAR
SKM1400GAR17R8	1700	1400	GAR
SKM1200MLI12TE4	1200	1200	MLI-TOP
SKM1200MLI12BE4	1200	1200	MLI-BOT



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de.linkedin.com/company/semikron

SEMIKRON INTERNATIONAL GmbH

Sigmundstrasse 200
90431 Nuremberg, Germany
Tel: +49 911 6559 6663
Fax: +49 911 6559 262
sales@semikron.com

www.semikron.com
shop.semikron.com

