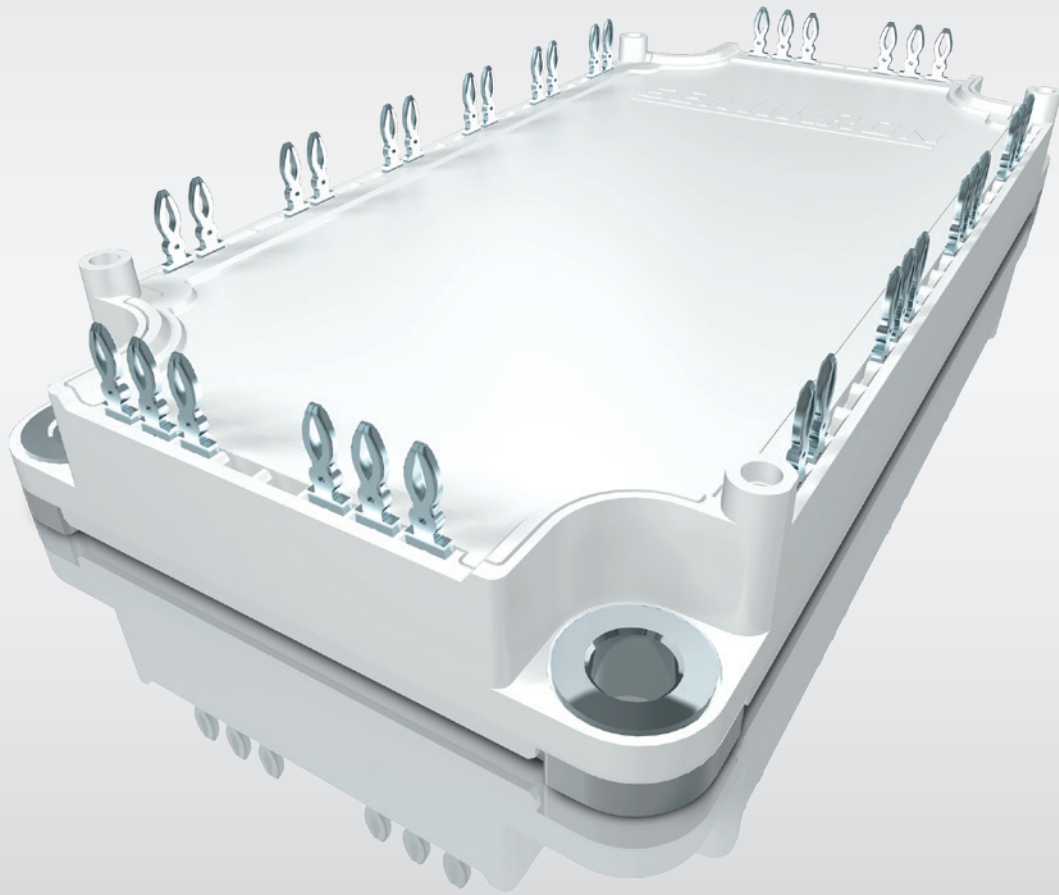


The Complete Press-Fit Standard



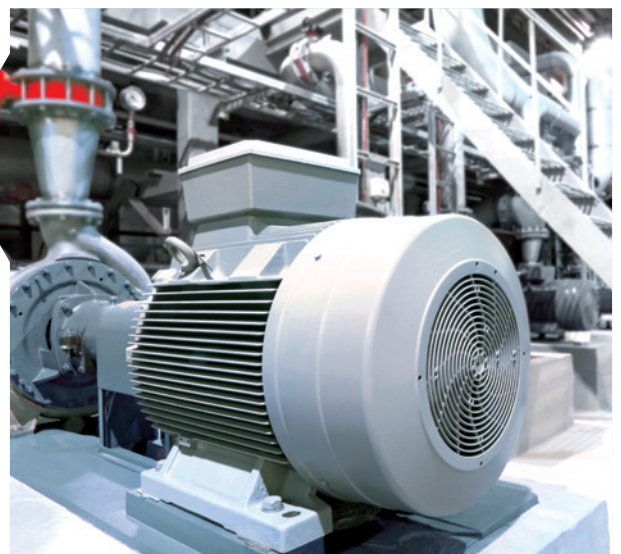
SEMIX[®] 6

Rectifier: up to 160kW

IGBT: up to 110kW



AC|DC



SEMiX[®] 6

SEMiX 6 features the state-of-the-art press-fit pin technology for the power and auxiliary terminals. Employing solder-free mounting technology, the 17-mm-high SEMiX product family is designed to maximize the efficiency of our customers' mounting processes. The SEMiX 6 features the connection of all the terminals in a single production step and completes the SEMIKRON commodity product portfolio.

Benefits

When it comes to meeting our customers' needs, the SEMiX 6 module platform constitutes a scalable and flexible solution for demanding and high-performance inverter architectures. SEMiX 6 features press-fit technology for both the auxiliary and the power terminals. Using press-fit technology for all the terminals reduces assembly costs to a minimum and offers the possibility of 100% process control. SEMiX 6 introduces a new press-fit technology designed to ensure full compatibility with the market standard. The press-fit zone is optimized for gentle and reliable PCB assembly.

SEMiX 6 will be available as a B6U rectifier module for up to 2200V. These modules will mark the launch of our new SKR PEP rectifier technology for leading edge power density and environmental robustness. With junction temperatures of up to 175°C, this technology delivers far superior performance than comparable solutions on the market. This improved performance combined with our design for minimum power losses is ideal when it comes to achieving compact inverter systems on a single PCB basis. The target area of application is rectifiers for motor drives of up to 160kW.

The rectifier portfolio is the perfect match for the IGBT 6-packs in the same module package, equipped with the latest IGBT chip technology in 650V, 1200V and 1700V.

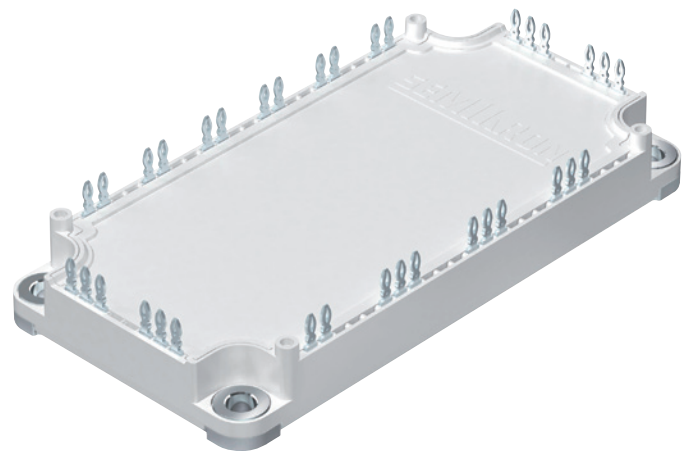
Applications

This tried and tested package features a robust baseplate solution combined with a full press-fit concept for all the electric terminals, creating a competitive platform for all-in-one PCB inverter solutions. The package is suitable for a broad range of applications:

- AC inverter drives
- UPS systems
- Renewable energy systems

Product range

SEMiX 6 is available as a B6U rectifier module with a V_{RRM} of 1600V and 2200V optimized for drives inverters of up to 160kW. The portfolio will be completed with IGBT 6-packs in 650V, 1200V and 1700V.



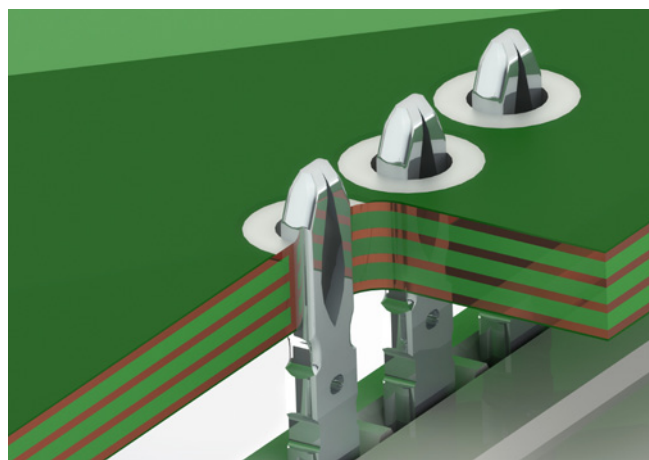
Key features

- Fully compatible to industry standard
- Solder-free assembly
- 17mm in height
- Press-fit technology for auxiliary and power terminals
- Baseplate solution
- Flexible platform for custom designs

The Industry Standard for Reliable Connection Technology

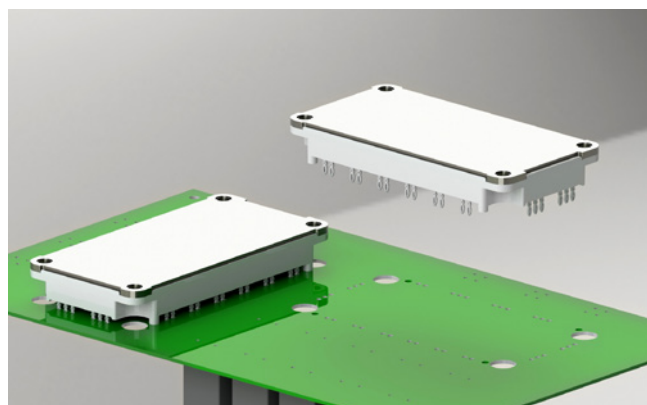
Press-fit technology for reliable, solder-free mounting

- Fast mechanical connection in cold welding process
- Direct elastic connection with defined parameters and high electrical conductivity
- Thermal material expansion is absorbed elastically by each individual connection
- All the contacts to the PCB connected in just 0.1s
- Reliable and controlled press-fit connection



All-in-one PCB For compact designs and optimized process costs

- Efficient, easy to automate production process
- Low-induction connection for DC link capacitors
- Simpler logistics and fewer parts
- Easy ISO coordination
- Compact system design



Product portfolio

SEMiX 6: 122.0mm x 62.0mm x 17.0mm (L x W x H)

Rectifier

Type Designation	Topology	V_{RRM} in [V]	I_{FAV} in [A]
SEMiX636D16p	3-phase rectifier	1600	600
SEMiX586D16p	3-phase rectifier	1600	450
SEMiX526D22p	3-phase rectifier	2200	440


IGBT Modules


Type Designation	Topology	V_{CES} in [V]	$I_{C_{nom}}$ in [A]
SEMiX106GD12T4p	6-pack	1200	100
SEMiX156GD12T4p	6-pack	1200	150
SEMiX206GD12T4p	6-pack	1200	200




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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

