

ENGINEERING
TOMORROW

Danfoss

Customised current for tomorrow's cars. Stay in the fast lane with **automotive power modules**

25 million cars worldwide

use reliable, energy efficient power modules to ensure a smooth ride and a comfortable driving experience.



siliconpower.danfoss.com

OPTIMISE PERFORMANCE

Danfoss Silicon Power modules are used in a wide range of automotive applications:

- *Electric Traction (Hybrid and battery electric drive train)*
- *Medium voltage high power electronics / 48 V electronics*
- *Electric Power Steering*
- *Power management: DC/DC converter, body electronics, auxiliary drives*
- *Thermal Management with ShowerPower®*

CORE COMPETENCES

- *Power module design*
- *Advanced bonding and joining technologies*
- *Prototyping and qualification*
- *High-volume manufacturing*
- *Semiconductor independence*

MANUFACTURING AND QUALITY MANAGEMENT

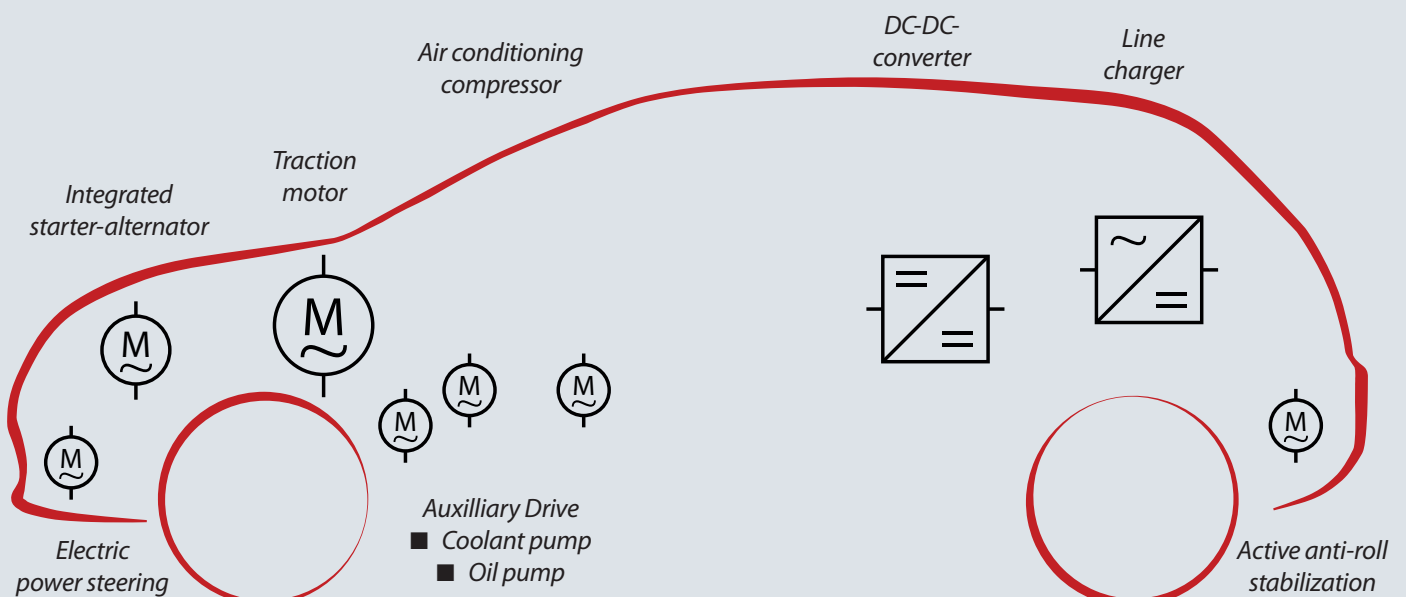
- *ISO/TS 16949*
- *ISO 14001*
- *ISO 9001*
- *ISO 50001*
- *OHSAS 18001*

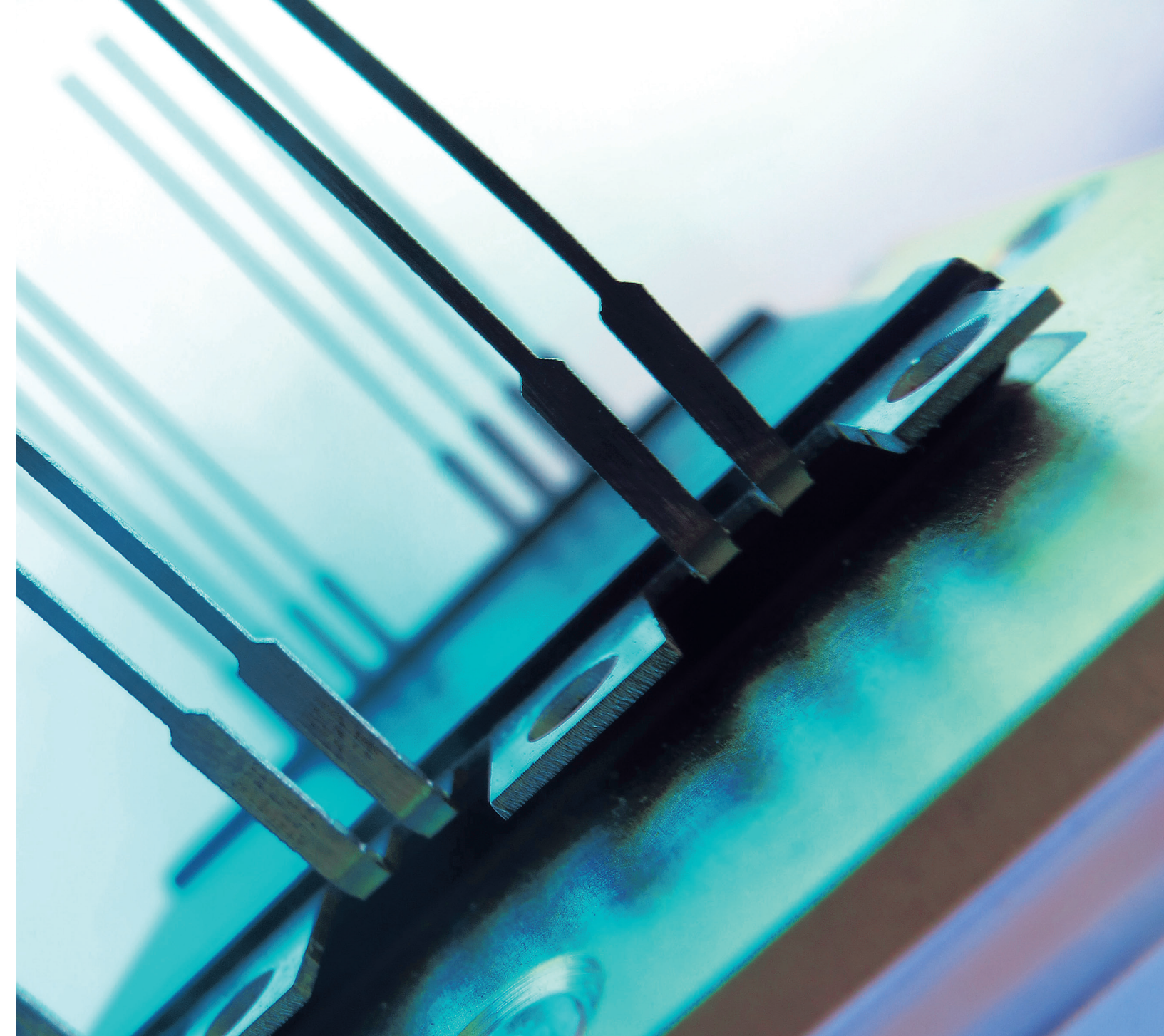
Driving innovation

New and challenging applications in future automobiles require innovative, reliable and cost effective solutions. Traction inverters, DCDC-converters, line chargers, integrated starter-alternators and auxiliary drives are gaining popularity.

Danfoss Silicon Power helps your company to offer best-in-class solutions that meet stringent reliability, design and cost targets. With its advanced bonding-and-joining technologies, Danfoss Silicon Power creates highly reliable power modules. Designed for excellent power dissipation and to survive elevated temperatures. Danfoss Silicon Power modules are custom-tailored to exactly fit into electric motors and converters. Here they live up to the mission profile of your very distinct application. Simply put: Danfoss power modules are compact with the smallest possible semiconductor surface area. Nevertheless, they are rugged and reliable for many years of fault-free operation.

How do we achieve this? From simple DBC-based design to advanced interfacing, direct cooling, lead-free soldering, pressure sintering and epoxy encapsulation, a broad portfolio of innovative packaging technologies is available to meet your specifications. Danfoss Silicon Power expert team talks the "language of power electronics". This enables us to understand your needs and help you find the optimum solution with lifetime expectancy, physical simulation modeling, reliability calculations, qualification and testing capabilities.





Trendsetting partner

More than 10 million cars from top tier manufacturers use our power management technologies. This has enabled Danfoss to build a strong reputation as a leading supplier of customer-specific solutions to the automotive industry.

Empower your next generation vehicle with pressure-sintered semiconductors, Danfoss Bond Buffer, long-life copper wire bonding and advanced ShowerPower® direct cooling. Find the key to utilize advantages of new wide band gap material and safely operate at elevated temperatures.

Proprietary technologies just for you

We work closely with our customers to create outstanding products and ultimately a comfortable driving experience for car owners.

Technologically independent of any specific semiconductor supplier, we are free to choose the optimum solution regardless of application. Any proprietary technology developed during a project stays in your hands, so you keep that special edge over your competitors.

Fast and flexible

Take advantage of our fast and flexible project management process and receive prototypes in just a few weeks. Design engineers with deep insight in automotive applications can help you to find the proper component rating and layout.

Following development and qualification, high volume production can be started in one of the world's most advanced and impressive manufacturing facilities. We integrate seamlessly into your supply chain, enabling you to bring the best experience to vehicle owners worldwide.

Danfoss Silicon Power

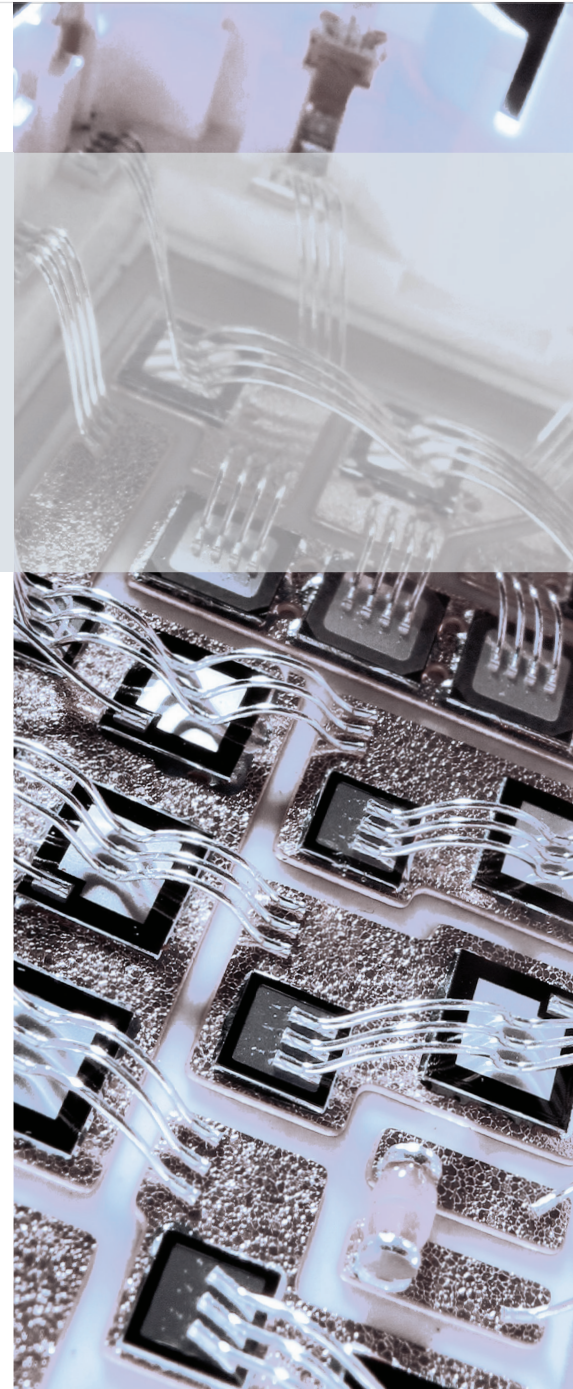
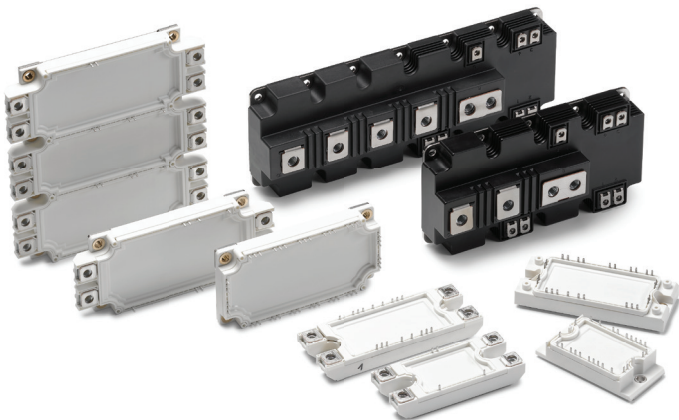
Based in Flensburg, Germany, Danfoss Silicon Power is a leading developer of customer specific IGBT and MOSFET modules and power stacks for power intensive applications.

Our power modules and power stacks are a preferred choice in demanding automotive and wind power applications and a wide variety of industrial applications.

Our 35,000 m² research, development and production facility is certified according ISO 9001, ISO/TS 16949, ISO 14001, ISO 50001 and OHSAS 18001. This enables us to quickly transfer

development projects to high volume production that can be integrated seamlessly into our customers' supply chain with full focus on quality.

Danfoss Silicon Power is a subsidiary of the Danfoss Group, the largest industrial company in Denmark. Danfoss employs more than 24,000 people in 100 countries within development, production, sales and support.



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