



FTMRS SOLAR

# High voltage dual silicon inverter





## Overview

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What is a silicon carbide inverter?

Our solution for this challenge?

The 800-Volt Silicon Carbide Inverter for Electrified Vehicles. Viper is the first 800-Volt inverter to use an innovative, double-side cooled silicon carbide (SiC)-based power switch that delivers the higher power densities and efficiencies needed to extend battery range and performance, and reduce costs.

What is a dual inverter?

Our Dual Inverter range combines different power electronic technologies into one compact package. A single unit can control and drive two electric motors - providing unrivalled functionality while delivering cost reductions and bringing flexible packaging solutions that are lighter, smaller and easier to install.

What is the difference between SiC vs IGBT inverter?

Hybrid switch configuration considered is 1:4 ratio (1 SiC + 3 IGBTs) Efficiency gain of full SiC Inverter and hybrid switch inverters vs IGBT inverter is from low load to medium load, generating advantages in power systems that operate most of the time below 40% load Hybrid switch inverter shows similar efficiency curve compared to SiC.

Which EV traction inverter is best?

For EV traction inverter, more efficiency and right performance are key. While IGBT is ideal for cost-optimized drive-train, SiC demonstrates higher efficiency under WLTP partial load scenario. Infineon offers the best scalability in market between IGBT and SiC, allowing customers to freely choose the technology for their needs,



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### Traction Inverter

The VE-Trac(TM) (Vehicle Electrification for Traction) Family is an automotive qualified line of power modules specifically designed for EV traction ...

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### Power Electronics

Power Electronics BorgWarner is a leading supplier of advanced electrification technologies for Electric and Hybrid vehicles. Our portfolio ...

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### BorgWarner agrees 800V SiC inverter supply ...

Jun 1, 2022 · BorgWarner has agreed to supply its new 800V silicon carbide (SiC) inverter to two performance car brands. The two electric SUVs ...

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### High-voltage GaN bidirectional switches

Learn more about monolithic bidirectional switches based on GaN technology 650V

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### Medien Tech Talk

Oct 13, 2021 · REFERENCE 400 V INVERTER (SI) CHEAPEST SOLUTION SiC price reducing in the last years 400 V SiC inverter remains expensive compared to Silicon (Si) due to large chip ...

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### High Voltage Thyristors (SCRs) and Their ...

Jul 21, 2020 · WeEn Semiconductors, as an industry leader in thyristors, has successfully introduced high voltage SCRs covering the 1200V - 1600V ...

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### High-voltage inverter , EV traction inverter

Feb 1, 2024 · Power electronics High-voltage traction inverter The high-voltage inverter converts direct current (DC) from the batteries or ...

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### Hybrid DC/AC inverter

Our 800-Volt Silicon Carbide Inverter for Electrified Vehicles uses an innovative, double-side cooled silicon carbide (SiC) based power switch ...

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### Silicon Carbide Inverter

Nov 27, 2025 · Silicon carbide inverter designed for commercial vehicle applications Delivers high voltage (HV) range of 450V - 850V Designed to provide a maximum power of up to 300 kW ...

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### high-power inverter based hybrid switch SiC+IGBT ...

Mar 19, 2024 · Hybrid switch configuration considfred is 1:4 ratio (1 SiC + 3 IGBTs) Efficiency gain of full SiC Inverter and hybrid switch inverters vs IGBT inverter is from low load to medium ...

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### SiC power modules for your electric vehicle designs



Jun 30, 2020 · High voltage DC-DC converter to boost battery voltage up, enabling operation of the traction motor within optimized voltage range. High voltage DC-DC converter for fast and ...

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#### Hybrid DC/AC inverter

Our 800-Volt Silicon Carbide Inverter for Electrified Vehicles uses an innovative, double-side cooled silicon carbide (SiC) based power switch that delivers the higher power densities and ...

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#### Automotive, High-Power, High-Performance SiC Traction ...

May 5, 2025 · Description This reference design is an 800V, 300kW silicon carbide (SiC) based traction inverter developed by Texas Instruments and Wolfspeed®. This design provides a ...

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#### Infineon high voltage Inverter Application Presentation

May 25, 2025 · Infineon high voltage Inverter Application Presentation Traction Inverter trends Semiconductors contribute to improved energy efficiency, but also to size and weight ...

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#### ROHM and Schaeffler Launch Mass ...

Sep 5, 2025 · ROHM Semiconductor, in collaboration with German automotive giant Schaeffler, has begun mass production of a next ...

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#### High Voltage Inverter 800V SiC Market

Apr 6, 2025 · Quick Q&A Table of Contents Infograph Methodology Customized Research Key Demand Drivers for High Voltage Inverter 800V SiC Adoption in EV and Industrial Sectors The ...

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#### 600 kW XM3 High Performance Dual Three-Phase Inverter

5 days ago · 600 kW high performance dual three-phase inverter; optimized for Wolfspeed's Silicon Carbide (SiC); low inductance; conduction optimized XM3 Power Modules.

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#### Silicon Carbide Inverter

Nov 27, 2025 · Silicon carbide inverter designed for commercial vehicle applications Delivers high voltage (HV) range of 450V - 850V Designed ...

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#### BorgWarner Expands Silicon Carbide Inverter Business with ...

Auburn Hills, Michigan, Feb. 9, 2023 - BorgWarner is building upon its current 400V inverter business with a major global OEM by now also supplying 800V silicon carbide-based (SiC) ...

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#### 300 kW 3-Phase SiC Inverter Based on SiC ...

May 8, 2019 · Wolfspeed presents a new high-performance, low-cost, compact 3-phase inverter based on next generation power modules ...

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#### Power Electronics

Power Electronics BorgWarner is a leading supplier of advanced electrification technologies for Electric and Hybrid vehicles. Our portfolio includes a full range of power electronics, inverters, ...

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#### High-voltage inverter , EV traction inverter , Eaton



Feb 1, 2024 · Power electronics High-voltage traction inverter The high-voltage inverter converts direct current (DC) from the batteries or generator to alternating current (AC) to power the ...

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600 kW XM3 High Performance Dual Three ...

5 days ago · 600 kW high performance dual three-phase inverter; optimized for Wolfspeed's Silicon Carbide (SiC); low inductance; conduction ...

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Schaeffler starts volume production of its ...

Sep 4, 2025 · First large-scale production of high voltage inverter brick for leading Chinese automotive manufacturer Production ramp-up in Tianjin, ...

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