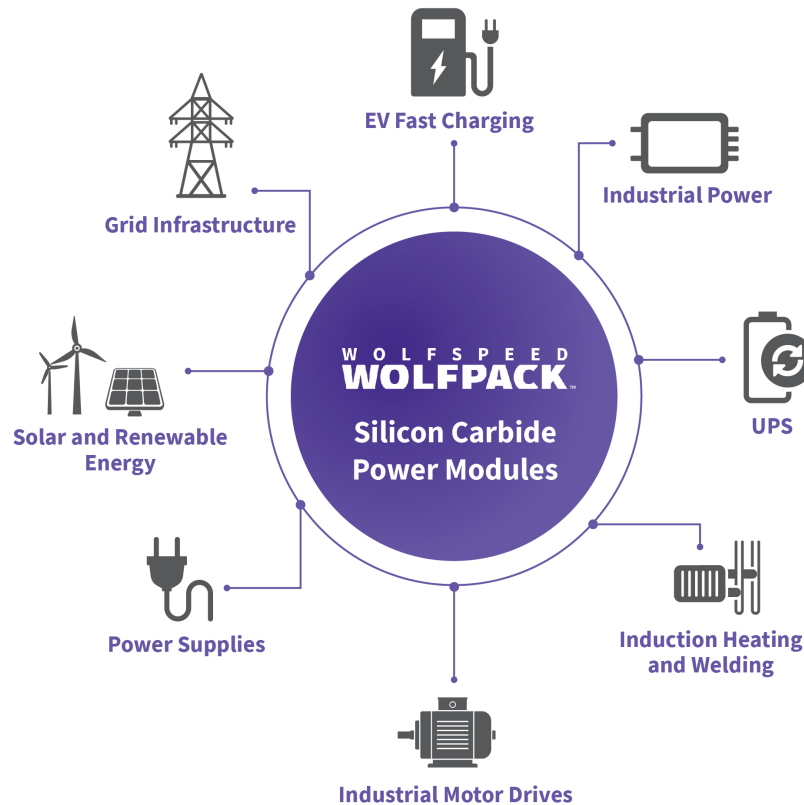


# Wolfspeed WolfPACK Silicon Carbide Power Modules

Delivering the industry’s highest power density in its class for unsurpassed efficiency, brought to you by the leaders in silicon carbide

Wolfspeed’s latest power modules enable multiple configurations across power levels for electric vehicle fast charging, industrial power, UPS, induction heating and welding, industrial motor drive, power supply, solar and renewable energy and grid infrastructure applications.



## KEY BENEFITS

- » Maximum power density
- » Ease of layout and assembly
- » System scalability and reliability
- » Simpler cooling systems and smaller systems

## KEY FEATURES

- » Leading silicon carbide MOSFET technology in an industry standard form factor
- » Highest current rated topologies commercially available
- » Built in NTC
- » Press fit connections



## PRODUCT PORTFOLIO

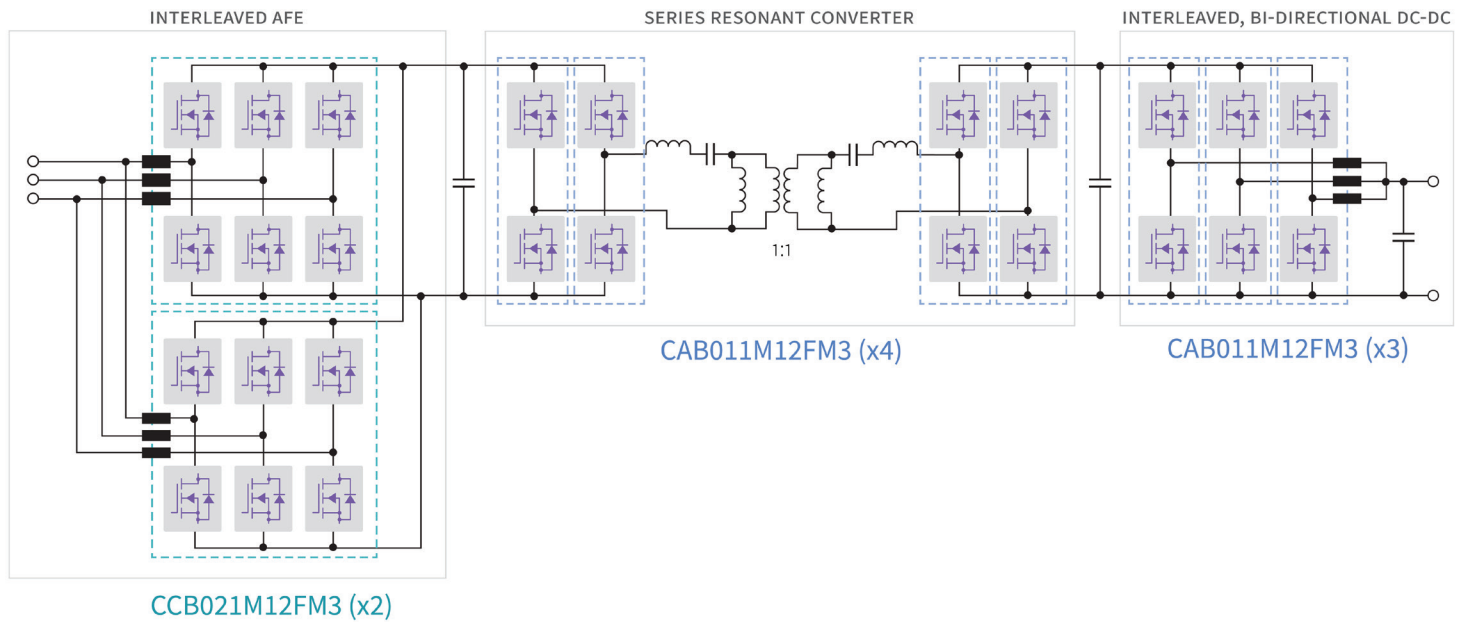
R <sub>DS(on)</sub> at 25°C	Product SKU	Configuration	Package	Blocking Voltage	Release Date
11mΩ	CAB011M12FM3	Half-Bridge	FM3	1200V	Released
16mΩ	CAB016M12FM3	Half-Bridge	FM3	1200V	Released
21mΩ	CCB021M12FM3	6-pack	FM3	1200V	Released
32mΩ	CCB032M12FM3	6-pack	FM3	1200V	Released
6mΩ	CAB006M12GM3	Half-Bridge	GM3	1200V	Mar-2021
8mΩ	CAB008M12GM3	Half-Bridge	GM3	1200V	Mar-2021

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## WOLFSPED WOLFPACK REFERENCE DESIGN: 50 KW BI-DIRECTIONAL CHARGER

- » Three stage power bidirectional architecture focuses on simplification of control while maintaining high system efficiency using interleaving, resonant conversion, and zero-voltage switching/zero-current switching (ZVS/ZCS)
- » Interleaved front end enables high switching frequency (100 kHz) to reduce filter size
- » Isolated Series-Resonant Converter simplifies control and enables full ZVS/ZCS over the entire operating range. Elimination of switching loss enables >98% efficiency with very simple control
- » Interleaved bi-directional Buck/Boost converter utilizes boundary conduction mode (BCM) to eliminate turn-on and reverse recover loss. This allows >99% efficiency at 100 kHz switching frequency enabling minimization of inductor and capacitor size



Why Wolfspeed SiC?	We provide SiC Solutions
<ul style="list-style-type: none"> <li>» <b>Wolfspeed invented the SiC MOSFET in 2011</b> 30+ years of SiC power with 7+ trillion installed field hours</li> <li>» <b>Wolfspeed is Investing for the Future</b> #1 market share in SiC technology, 30X capacity by 2024</li> <li>» <b>17+ Years of Diode and MOSFET Production</b> Thousands of customers with millions of MOSFETs, diodes and modules</li> <li>» <b>Focused Development and Customer Support</b> ALL resources dedicated to developing SiC capacity, devices, packages, and to providing superior applications support</li> </ul>	<ul style="list-style-type: none"> <li>» <b>SiC power devices</b></li> <li>» <b>SiC expertise—this is all we do</b></li> <li>» <b>Application reference designs</b></li> <li>» <b>Expert systems engineering support</b></li> <li>» <b>Online simulation platform</b></li> </ul>