

Product note

RoadPak module

SiC performance

Hitachi Energy's SiC e-mobility module pushes the boundaries of power density and reduces stray inductance to new levels.

Hitachi Energy's power semiconductors provide unsurpassed reliability and outstanding quality. Failure is not an option when driving electrical motors, ensuring smooth acceleration of trains, or transmitting gigawatt power over long distances and underwater. RoadPak is the first module for e-mobility applications in our proven portfolio of power semiconductors that takes advantage of silicon carbide (SiC) technology.

RoadPak benefits

The key benefit is the high-current rating in a small package that is enabled by the use of SiC, combined with very small stray inductance and high reliability. The RoadPak will be certified according to IATF19646 and will be AQG 324 qualified.

Features SiC MOSFET transistors

- Compact design
- Half bridge configuration with two MOSFET switches
- in-Fin structure for lowest thermal resistance
- Lowest loss enabled by SiC chipset



- Lowest stray inductance
- Voltage ratings: 750 V, 1200 V
- Current up to 980 A

Typical applications

- Electric cars
Scalable current and power ratings in the RoadPak support inverter platforms of various e-cars
- Trucks
High power in a small package allows efficient inverter design
- Public transport
High reliability for the typical stop-and-go operation of e-buses and trams
- Aviation
Performance and reliability to meet the demands of a wide range of aviation applications
- Charging
Delivers performance to enable fast charging of trucks and buses



Available ratings

Voltage (V)	Current (A) Max. chip rating	Configurations
750	660	Half bridge
750	880	Half bridge
750	1100	Half bridge
1200	580	Half bridge
1200	780	Half bridge
1200	980	Half bridge

RoadPak

Our innovative solution for all e-mobility applications

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