

HybridPACK™ 1 Module

FS400R07A1E3_S7

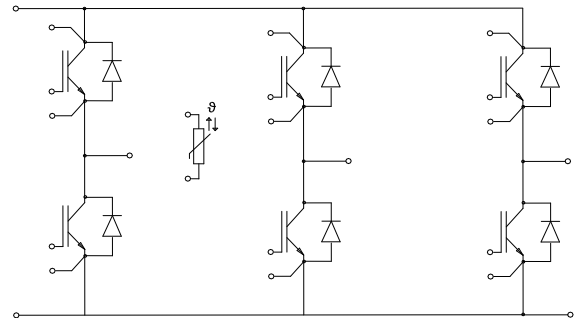
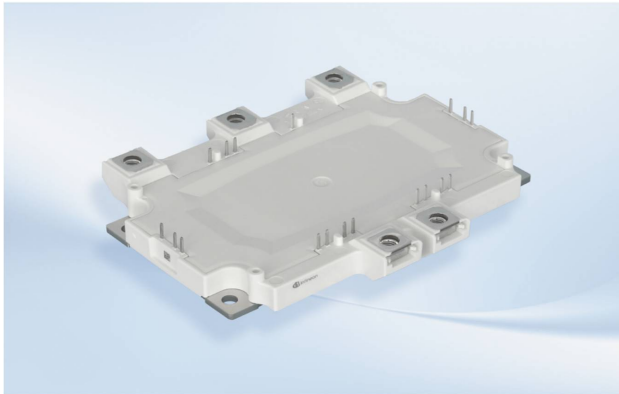
Final Data Sheet

V3.2, 2017-09-28

Automotive High Power

1 Features / Description

HybridPACK™ 1 module with Trench/Fieldstop IGBT3 and Emitter Controlled 3 diode and NTC



$V_{CES} = 700V$
 $I_{C\ nom} = 400A$

Typical Applications

- Hybrid Electrical Vehicles (H)EV
- Motor Drives
- Optimized for automotive applications with DC link voltages up to 420 V

Electrical Features

- Increased blocking voltage capability to 705V
- V_{CESat} with positive Temperature Coefficient
- Low V_{CESat}
- Low Switching Losses
- $T_{vj\ op} = 150^{\circ}C$
- Short-time extended Operation Temperature
 $T_{vj\ op} = 175^{\circ}C$

Mechanical Features

- 2.5kV AC 1min Insulation
- Al_2O_3 Substrate with Low Thermal Resistance
- Copper Base Plate
- Integrated NTC temperature sensor
- High mechanical robustness
- RoHS compliant

Description

Infineon®'s HybridPACK™ 1 is an automotive qualified power module designed for electric vehicle applications for a power range up to 20–30kW. Designed for a 150°C junction operation temperature, the module accommodates a 3-phase Six-Pack configuration of Trench-Field-Stop IGBT3 and matching emitter controlled diodes.

The HybridPACK™ 1 power module is built on Infineon's long time experience in the development of IGBT power modules, intense research efforts of new material combinations and assembly technologies. HybridPACK™ 1 is suitable for air or liquid cooling. The copper base plate combined with high-performance ceramic substrate and Infineon's enhanced wire-bonding process provides unparalleled thermal and power cycling capability and highest reliability for mild hybrid inverter or generator applications. For a compact design the driver stage PCB can easily be soldered on top of the module. All power connections are realized with screw terminals.

Product Name	Ordering Code
FS400R07A1E3_S7	SP001290884