

# SiC INVERTER STARTER BUNDLE



CISSOIDs SiC Inverter Starter Bundle consists of all the major hardware and software elements needed to make testing and evaluating our SiC Inverter Platform as easy as possible.

This bundle is available as separate ordering references, as there are too many choices of power rating for the switching module and values of the DC-link capacitor. The bundle offers an opportunity to find all the related parts at one glance.

## Orderable references:

- The SiC Inverter Control Module (CXT-PLA11xx)
- SiC Intelligent Power Module (CXT-PLA3Sx12xxx)
- Low ESR DC-link capacitor (through distributor)
- 3D-printed liquid cooler (ACC-PLA10xxx)
- OLEA® APP INVERTER software (LIC-OLEA-APP)

The SiC Inverter Platform is built up by the careful design of several components.

The basis is the SiC Intelligent Power Module (IPM), which combines the power module itself and the gate driver board.

The power module is a half-bridge configuration of six Silicon Carbide (SiC) MOSFET arrays, while the gate driver board is built up around CISSOIDs HADES2 gate driver chipset.

The heart of the platform is the SiC Inverter Control Module (ICM). This module adds the processor board to the stack of the power module plus the gate driver board (IPM).

To make the hardware complete, a custom designed low ESR DC-link capacitor is available, as well as a 3D-printed liquid cooler.

To this hardware stack, Silicon Mobility's OLEA® APP - T222 INVERTER software can be added to make a complete e-motor traction inverter.

## Key features:

- 3-Phase 1200V/340-550A SiC IPM
- 3-Phase protected Gate Driver Board (Ta +125°C)
- SiC Inverter Control Board (OLEA® T222 FPCU based)
- OLEA® APP INVERTER software
- Low ESR DC-link capacitor (500-900V/500-135µF)
- 3D-printed liquid cooler (PA12 material, up 70°C liquid temp.)
- ISO-26262 ASIL-D design-ready (not yet standalone compliant)