## AUTOMOTIVE ISOLATED ONBOARD CHARGER FOR EV/HEV

Our galvanically isolated on-board charger was designed for highest efficiency with an innovative bridgeless ZVS PFC stage followed by a resonant LLC converter. Combined with a water cooled housing this permits a power density of more than 1 kW / liter. Our modular software concept enables easy power scaling with three-phase charging by using one charger for each grid phase, while the current control scheme ensures minimum battery ripple current & trickle charging.



- **▼** Ultra high power density
- **▼** Modular power scaling
- **▼** High efficiency



## Main features

- High efficient ZVS interleaved PFC (98,5% @ 230Vac)
- High efficient LLC resonant converter (97% @ 330Vdc)
- Charging current control, very low output ripple current
- Full digital control by FPGA
- Ready for 3-phase operation with 3 devices (modular power scaling)
- Power density > 1 kw / ltr

## **Technical Data**

Input voltage range 85...264Vac

Nominal output power 3300 W

Output voltage range 200...420 Vdc

Maximum efficiency >95% (optimized)

Dimensions 280x200x100 mm

Cooling water cooled (-40...+75°C)

Communication CAN

Protection PE, IP6k9k