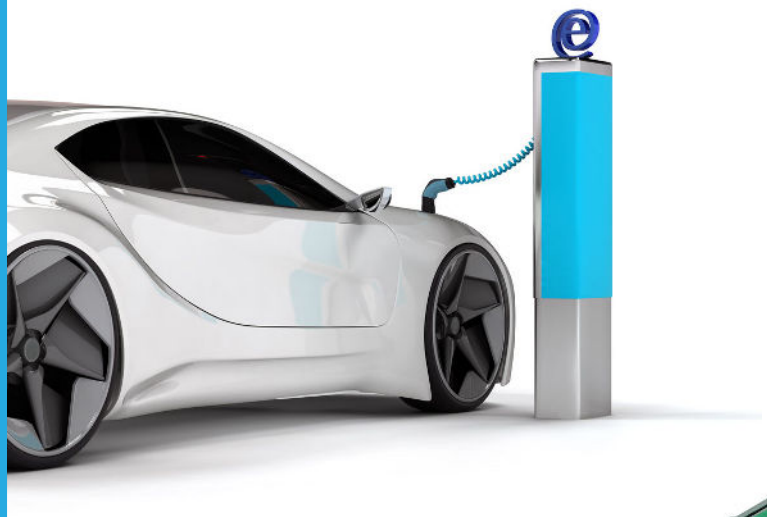
AUTOMOTIVE ISOLATED ONBOARD CHARGER FOR EV/HEV

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