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.

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

Ultra high power density
Modular power scaling
High efficiency