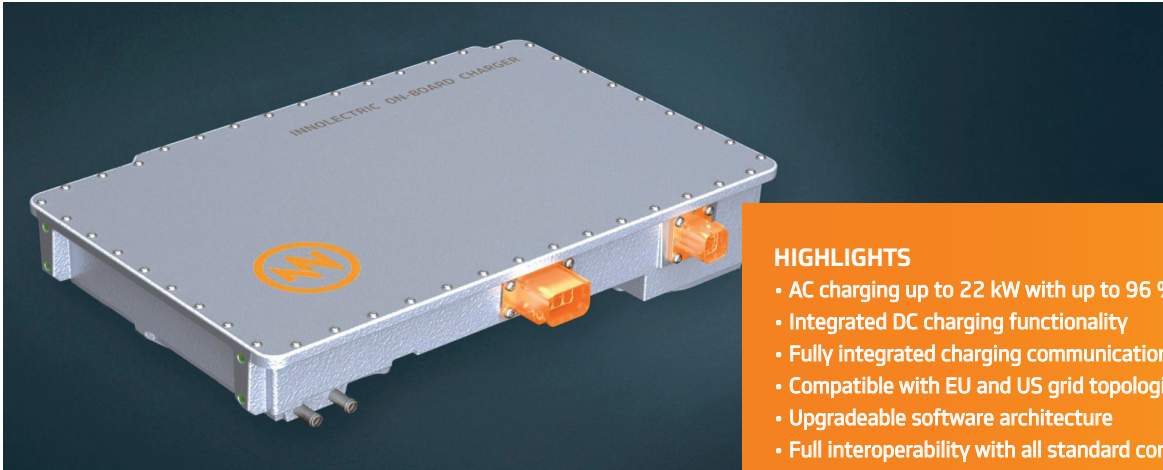


MKI_OBC platform

AC and DC charging with efficient power electronics



HIGHLIGHTS

- AC charging up to 22 kW with up to 96 % efficiency
- Integrated DC charging functionality
- Fully integrated charging communication for AC and DC charging
- Compatible with EU and US grid topologies
- Upgradeable software architecture
- Full interoperability with all standard compliant charging stations according to IEC 61851, DIN SPEC 70121 and ISO 15118

The innoelectric On-Board Charger combines power electronics and charging communication and can be easily integrated into the vehicle as a system solution. The MKI_OBC platform is available in two variants. Both products can charge with a power of up to 22 kW (AC charging) and also support high power fast charging (DC charging).

High efficiency of the MKI_OBC

The highly efficient architecture of the innoelectric On-Board Charger results in a compact product size, low charging losses and minimal load on the cooling system within the application. Especially users in the commercial sector benefit from the highly efficient results leading to a better TCO.

The innoelectric On-Board Charger combines the power electronics and the D3C communication controller to enable AC and DC charging without the need for additional devices. In addition to the AC charging function via PWM communication with up to 22 kW, the MKI_OBC supports the DC charging standard PLC (DIN SPEC 70121 and ISO 15118) with an output power depending on the maximum charging capability of the respective EV.

Technical data of the On-Board Charger

Product name	MKI_OBC22400	MKI_OBC22800
Component design	400 V	800 V
Input power	22 kW	
Input voltage (3~ AC)	400 V (+/- 10 %)	
Input voltage (1~ AC)	120 - 240 V (+ 10 / - 14 %)	
Input current (AC)	32 A (per phase)	
Frequency	50 - 60 Hz (+ / - 1 %)	
Efficiency (2-22 kW)	> 94 %	
Efficiency (2-10 kW)	> 96 %	
Output voltage (DC)	220 - 510 V	400 - 850 V
Output current (DC)	up to 65 A	up to 45 A
AC charging communication	PWM (IEC 61851)	
DC charging communication	PLC (DIN SPEC 70121, ISO 15118)	
Interfaces	1 x CAN J1939 / 1 x Service CAN	
Protection class	IP 6K9K	
Dimensions (L x W x H)	610 x 391 x 120 mm	
Weight	< 30 kg	
Operating temperature	-40 - +65 °C	

All provided information without guarantee.