

# On-Board Charger Grid

## AC charging in direct grid connection

The innoelectric On-Board Charger is available in two versions, OBC and OBC|G (Grid), each in 400 V and 800 V design.

With the OBC|G, users get a power electronic version for AC charging that can be applied in direct grid connection. The OBC|G can be used without any automotive charging communication and is particularly suitable for the industrial environment. Thanks to the parallel charging mode, a flexible increase of the charging power is possible.

### Fields of application

The OBC|G can be used in a wide variety of applications with different requirements. Possible fields of application are:



Heavy Duty and  
Construction



Municipal  
vehicles



Transport and  
delivery vehicles



New mobility  
concepts

### OBC and OBC|G in comparison

	OBC42	OBC42 G	OBC82	OBC82 G
Automotive	x		x	
Direct grid connection		x		x
AC charging function	x	x	x	x
DC charging function	x		x	
integrated charging communication	x		x	
Parallel charging mode		x		x
Compatibility with EU and US network topologies	x	x	x	x

### Customer benefits in the use of the OBC|G

- Upgradeable software architecture in all OBC|G variants
- Intrinsic safety with relation to voltage, current, temperature and discharge
- LV wide range input (9 V and 32 V)
- Parallel charging mode for flexible increase of charging power
- Tested according to specifications of LV123 / LV124, ECE R100 and ECE R10 to ensure reliable long-term operation

### Technical data of the On-Board Charger Grid \*

Product name	OBC42 G	OBC82 G
Component design	400 V	800 V
Input power	22 kW	
Input voltage (3~ AC)	380 - 480 V (+ 10 / - 14 %)	
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 %	
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	
Operation temperature	-40 - +65 °C	

### HIGHLIGHTS

- AC charging up to 22 kW with 96 % efficiency
- Compatible with EU and US grid topologies
- Full interoperability of the OBC|G with all standard compliant charging stations according to IEC 61851, DIN SPEC 70121 and ISO 15118
- OBC|G for AC charging in direct grid connection as well as parallel charging mode to increase charging performance

innoelectric AG

+49 234 60 14 36 70 · sales@innoelectric.ag

\* Minimal deviations are possible.