

## EV On-Board Charger

The on-board charger (OBC) in electric vehicles converts alternating current from the grid into direct current to charge the vehicle's traction battery. At the same time, it features an inverter function that allows for energy transfer from the battery back to the alternating current grid.



- Up to 40 kW
- For both PHEV and BEV
- High-voltage versions available
- Platform design adaptable for various products
- Bidirectional power flow (V2X) versions available
- For worldwide usage with a wide input range, 1 phase and 3 phase



| Our offerings                         |                |  |                      |                              |
|---------------------------------------|----------------|--|----------------------|------------------------------|
| Power                                 | Rated input    | Input voltage range                                  | Output voltage range | Cooling method               |
| 6.6 kW (Low voltage)                  | 220 VAC / 32 A | 90 - 265 VAC   | 0 - 95 VDC           | Air cooling                  |
| 6.6 kW (Mid - high voltage)           | 220 VAC / 32 A | 90 - 265 VAC   | 0 - 850 VDC          | Air cooling / Liquid cooling |
| 20 kW (1-phase)                       | 220 VAC / 96 A | 90 - 265 VAC   | 0 - 850 VDC          | Liquid cooling               |
| 20 kW (3-phase)                       | 380 VAC / 96 A | 152 - 456 VAC  | 0 - 850 VDC          | Liquid cooling               |
| 40 kW @ 3 $\phi$<br>6.6 kW @ 1 $\phi$ | /              | 267 - 456 VAC @ 3 $\phi$<br>154 - 265 VAC @ 1 $\phi$ | 200 - 715 VDC        | Liquid cooling               |
| 1.2 kW                                | 220 VAC / 6 A  | 90 - 265 VAC   | 0 - 140 VDC          | Air cooling                  |
| 2.0 kW                                | 220 VAC / 10 A | 90 - 265 VAC   | 0 - 450 VDC          | Air cooling                  |
| 3.3 kW                                | 220 VAC / 16 A | 90 - 265 VAC   | 0 - 500 VDC          | Air cooling                  |
| 4.0 kW                                | 220 VAC / 20 A | 90 - 265 VAC   | 0 - 450 VDC          | Air cooling                  |
| 6.0 kW (1-phase)                      | 220 VAC / 30 A | 90 - 265 VAC   | 0 - 450 VDC          | Air cooling                  |
| 6.0 kW (3-phase)                      | 380 VAC / 30 A | 152 - 456 VAC  | 0 - 450 VDC          | Air cooling                  |

Please be aware that the input and output voltage ranges provided below represent the general range for this power category. For specific product details, kindly reach out to us.

## • Enhanced Safety

Features comprehensive protection mechanisms during charging, including input/output overvoltage and undervoltage protection, short circuit protection, over-temperature protection, etc., ensuring reliable and safe operation.

## • Excellent Heat Dissipation

The housing is precision die-cast as a single unit and incorporates a 3D water channel design for efficient heat dissipation.

## • Versatile Configuration

Offers multiple low-voltage signal ports and a wide voltage output range. Customizable and adjustable charging strategies are available to suit the requirements of various vehicle systems.

## • High Power Density

Employs advanced high-frequency digital control technology, achieving high power density and facilitating seamless integration into the vehicle's overall system.