

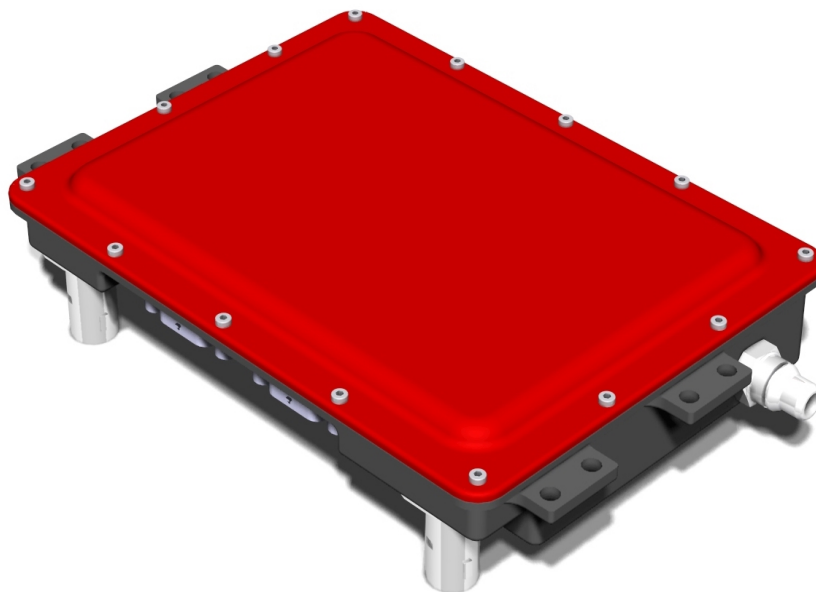
EVOC-614

Electric Vehicle On-Board Charger 3.7kW

Specification Version 1.1

Features

- Single Phase conductive EV charging
- Power Factor Correction (PFC) for maximum charging power
- Safety through galvanic isolation between mains and battery
- Compact and lightweight



Application and Benefits

The EVOC-614 is the 6th generation of BRUSA's compact onboard chargers for electric vehicles. It converts alternating current from widely used 230V/16A outlet to DC for charging the battery, thereby precisely controlling voltage and current flow to the battery. The charger is compatible to worldwide charging standards (like SAE-J1772) on the mains side and thus adapts to the given infrastructure. The unit is controlled by CAN messages from a control unit, and sends back its live data like battery voltage, current, available power etc. to the control unit.

Several built-in protective features prevent damage to charger or battery, while the galvanic isolation between mains and battery side is crucial for personal safety.

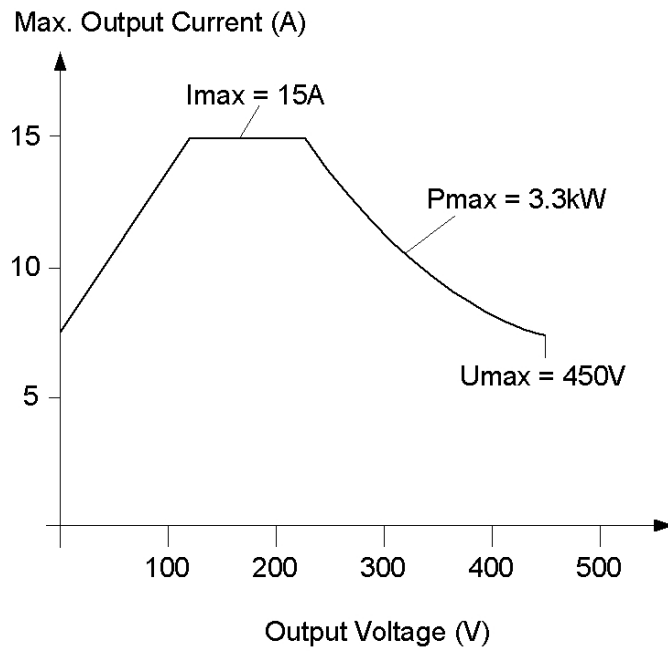
Its compact and lightweight design, robustness and IP protection, as well as the high conversion efficiency, low EMI, and CAN operation makes it the right choice for battery electric vehicles.

Optional

- Power Line Communication

Specification

	Value	Unit	Remarks
AC Input			
Input voltage range	90...305	V	
Maximum Input current	16	A	
Maximum Input Power	3680	W	
DC output			
Full power voltage range	225...450	V	
Derated output Power	0...225	V	See performance diagram below
Accuracy of commanded voltage	+/-1%	V	
Max. output current	15	A	
Accuracy of commanded current	+/- 2	%	
Thermal			
Coolant medium	water 60 ethanol 40	% %	
Co0lant temperature			
- full performance	-40...+ 65	°C	
- derated power	+65... +85	°C	
Cooling flow rate	6	l/min	
Pressure loss	<100	mbar	at 6l/min
Ambient temperature range (storing)	-40...+105	°C	
Ambient temperature range (operating)	-40...+85	°C	Coolant temperature in specified range
Mechanical			
Material	Aluminum		
Length	300	mm	including mounting flanges
Width	210	mm	including mounting flanges
Height	60	mm	
Weight	~ 4	kg	Without coolant
IP-protection	IP67		IP6K9K on request
Signal Interfaces			
To Vehicle		To Plug	
1	Bat+	1	Position sensor (Relay)
2	GND	2	Temperature sensor
3	CAN High Vehicle	3	Proximity detection resistor
4	CAN Low Vehicle	4	Reserve
5	Crash	5	LED output "green"
6	Interlock In	6	LED output "red"
7	Interlock Out	7	LED output "blue"
8	HW_WakeUp	8	Relay unlock vehicle plug
9	Prog_Enable	9	Relay lock vehicle plug
10	Klemme 30	10	Control pilot
11	CAN High Debug / TXD	11	Ground
12	CAN Low Debug / RXD	12	Reserve

Performance

Dimensions

