

6.6kW Electric Vehicle Li-Ion Charger Data Sheet



Description:

Green Watt Power's 6.6kW Li-ion battery chargers are designed with ultra high power density, as well as with a full metal case enclosure. The excellent power conversion efficiency and thermal management provides the on-board standard chargers high reliability and long life time. This series of chargers offer solid and safe power conversion for applications such as e-vehicles, e-bus, e-boat, etc.

Features:

- Universal AC Input: 90~264Vac
- Output Power: 6.6kW
- High Reliability On-Board Design
- Compatible with Liquid Cooling and Air Cooling
- High Efficiency: Up to 96%
- All-Around Protections: OVP, OCP, SCP, OTP, UVLO
- Low Temperature Start Up @ -40°C
- High Temperature Full Load Operation @ 60°C
- IP67 Ingress Grade
- Communication via CAN Bus



Model Number	Output Power	Output Voltage	Output Current	Output Current Range
EVC-420-6600 (PLD6600-EVCS15-420)	6600W	200-420V	20A	0-20A

General Specifications	
Model Number	EVC-420-6600 (PLD6600-EVCS02-420)
Input Voltage	90-264v
Input Frequency	45-65Hz
Max. Input Current	44A
Max. Input Power	8000W
Output Voltage	200-420V
Output Current	20A
Current Accuracy	<±1% @ above 4A
Voltage Accuracy	<±0.5%
Output Power	6600W
Efficiency	96%

Protections			
Short Circuit Protection	When output is being shorted, no components will be damaged. The charger shall enter into latch mode during short circuit protection		
Over Voltage Protection	Over voltage protection will activate when output voltage goes to 430±4V. The charger shall enter into latch mode during over voltage protection.		
Over Temperature Protection	When the charger enters overheating protection condition, no components will be damaged. The charger shall enter into auto-recovery mode during over temperature protection, and return to normal operation after the fault condition is removed.		
Anti Reverse Polarity Protection	When the battery polarity is reversely connected to the charger, the charger will not output.		
Under Voltage Protection	Under voltage protection will activate when output voltage goes to 180±4V. The charger shall enter into latch mode during under voltage protection.		
Communication Fault Protection	When there is communication fault between charger and BMS, the charger will not output.		
MTBF: 25°C, 230Vac input, and full load output.	≥ 500,000 Hours		
Product Life:25°C, 230Vac input, and full load output.	≥ 15,000 Hours		
Temperature - Operating	MIN	-40	°C
	MAX	+60	
Temperature - Storage	MIN	-40	°C
	MAX	+85	
Relative Humidity	10% - 100%		
Case Size	230mm x 180mm x 62mm		
Unit Weight	TBD kg		

Electromagnetic Compatibility EMI/EMC	
EMI, RFI	Comply with EN55002 Class A, shall have a minimum if 6dB margin.
Immunity:	
EN61000-3-2	Harmonic Current Emission
EN61000-3-3	Voltage Fluctuations and Flicker
EN61000-4-2	ESD 8kV Air Discharge, 4kV Contact Discharge
EN61000-4-3	Radio-Frequency Electromagnetic Field Susceptibility Test-Rs
EN61000-4-4	Electrical Fast Transient/Burst – EFD
EN61000-4-5	Surge Immunity Test, AC power line: line to line 2kV, line to each 4kV
EN61000-4-6	Conducted Radio Frequency Disturbance Test-Cs
EN61000-4-8	Power Frequency Magnetic Field Test
EN61000-4-1-1	Voltage Dips

Notes:

(1) Specification is subject to change without notice.