85 Watt Electric Vehicle Li-Ion Charger Data Sheet

Description:

Green Watt Power's "Oasis-G" series 85W general-purpose Li-ion battery charger is designed with CoC V5, DoE Level VI efficiency standard, high reliability and long life time. This series of chargers cover the output voltage of 12~64V, suitable for a wide range of applications with 4~15 Li-ion battery cells in series, such as electric tools, e-scooters, e-bikes, Li-ion battery packs, etc..

Features:

- Comply with CoC V5 & DoE Level VI
- No-Load Consumption ≤0.21W
- Universal AC Input: 90~264Vac
- Output Voltage: 12~64V (4~15 Li-ion Cells in Series)
- 40°C Full Load Operation without Derating
- Constant Voltage / Constant Current Charging
- Optional Intelligent Output Control: Reverse Polarity Protection, Zero Leakage Current, etc.
- All-Around Protections: OVP, OCP, SCP, OTP
- Built-In LED Charging Status Indicator
- 5000m Altitude Operation
- Global Safety Certification: UL, CE, CCC, KC, PSE, CB, GS, SAA
- RoHS Compliant
- World-Wide Input/Output Connectors Available
- Fully potted to ensure high reliability in rugged environments

Model Number	Output Power	Output Voltage	Output Current	Suitable for Li-Ion Battery Cell In series
EVC-17-85 (PLD085G-1680400)	67W	12.0-16.8V	4.00A	4S
EVC-29-85 (PLD085G-2940289)	85W	18.9-29.4V	2.89A	7S
EVC-42-85 (PLD085G-4200200)	85W	27.0-42.0V	2.00A	10S
EVC-54-85 (PLD085G-5460156)	85W	35.5-54.6V	1.56A	13S
EVC-63-85	85W	40.5-63.0V	1.35A	15S

(PLD085G-6300135)				

Specifications:

Input Parameters				
	Min	Typ	Max	Units
Input Voltage Range* *Designed to optimum performance at 110 and 220 nominal lines	90		264	VAC
Input Frequency	47		63	Hz
Power Factor-230VAC			96	W
Input Current-230 VAC			1.1	A
Efficiency-100~240Vac, 25°C	88			%

Output Parameters					
Popular Model	EVC-63-85/PLD085G-6300135	EVC-54-85/PLD085G-5460156	EVC-42-85/PLD085G-4200200	EVC-29-85/PLD085G-2940289	EVC-17-85/PLD085G-1680400
Output Voltage	40.5-63V	35.5-54.6V	27-42V	18.9-29.4V	12-16.8V
Full Charging Voltage	63V	54.6V	42V	29.4V	16.8V
Constant Charging Current	1.35A	1.56A	2A	2.89A	4A
Current Accuracy	±5%				
Voltage Accuracy	±1%				
Output Power	85W	85W	85W	85W	67W

General Specifications			
Short Circuit Protection	When output is shorted, no components will be damaged. The power supply shall enter autorecovery mode during short circuit protection, and return to normal operation after the fault condition is removed.		
Over Voltage Protection	The output voltage that triggers over voltage protection is less than 100Vdc. The power supply shall enter auto-recovery mode during over voltage protection, and return to normal operation after the fault condition is removed.		
Over Temperature Protection	When the power supply enters overheating protection condition, no components will be damaged. The power supply shall enter auto-recovery mode during over temperature protection, and return to normal operation after the fault condition is removed.		
Open Circuit Protection	When output is being opened, no components will be damaged. The power supply shall enter auto-recovery mode during open circuit protection, and return to normal operation after the fault condition is removed		
MTBF: 25ºC, 230Vac input， Full Load	≥ 100,000 Hours		
Product Life 25ºC, 230Vac input	≥ 15,000 Hours		
Temperature - Operating	MIN MAX	-10 +40	ºC
Temperature - Storage	MIN MAX	-40 +85	ºC
Relative Humidity	Operating Humidity 10% - 90% Storage Humidity 10% - 100%		
Case Size	137x57.5x34.5mm		
Unit Weight	TBD kg		

Electromagnetic Compatibility EMI/EMC	
EMI, RFI	Comply with EN55022 Class B, EN55032 Class B
Immunity:	
EN61000-3-3	Voltage Fluctuations and Flicker
EN61000-4-2	ESD 8kV Air Discharge, 4kV Contact Discharge，Criteria A
EN61000-4-4	Electrical Fast Transient/ Burst-EFT 1KV
EN61000-4-5	Surge Immunity Test, AC Power line: Line to Line 1kV
EN61000-4-6	Conducted Radio Frequency Disturbance Test-Cs Level 3, Criteria A
EN61000-4-8	Power Frequency Magnetic Field Test 3A/m, Criteria A
EN61000-4-11	Voltage Dips Criteria B

Case Specifications: