



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



| 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 | 45 |
| EVC-29-85 (PLD085G-2940289) | 85W | 18.9-29.4V | 2.89A | 75 |
| 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 | 135 |
| EVC-63-85 (PLD085G-6300135) | 85W | 40.5-63.0V | 1.35A | 15\$ |





Specifications:

| Input Parameters | | | | |
|--|-----|-----|-----|-------|
| | Min | Тур | 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 | А |
| Efficiency-100~240Vac, 25°C | 88 | | | % |

| Output Paramete | rs | | | | |
|------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| 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 |





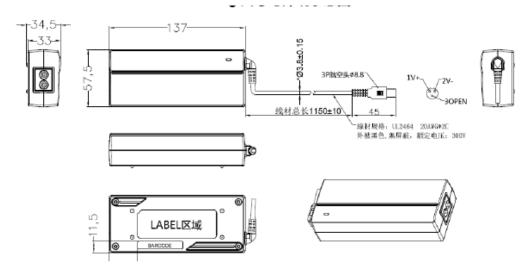
| General Specifications | | | | |
|--|--|------------------------|-----------------------|--|
| Short Circuit Protection | | shorted, no comp | | |
| | | | Il enter autorecovery | |
| | | ort circuit protection | | |
| | | | ondition is removed. | |
| Over Voltage Protection | The output voltage that triggers over voltage protection is less than 100Vdc. The power supply | | | |
| | | | | |
| | | | uring over voltage | |
| | F | | peration after the | |
| | fault condition is | | | |
| Over Temperature Protection | | mponents will be | verheating protection | |
| | | | o-recovery mode | |
| | | perature protection | | |
| | | | | |
| | normal operation after the fault condition is removed. | | | |
| Open Circuit Protection | When output is being opened, no components will be | | | |
| Open Circuit i Totection | 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: 25°C, 230Vac input, Full Load | ≥ 100,000 Hours | | | |
| Product Life 25°C, 230Vac input | ≥ 15,000 Hours | | | |
| Temperature - Operating | MIN | -10 | 00 | |
| | MAX | +40 | °C | |
| Temperature - Storage | MIN | -40 | °C | |
| | MAX | +85 | , °C | |
| 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:



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