

A SERIES CHARGER

MODEL:STTL840A4815L



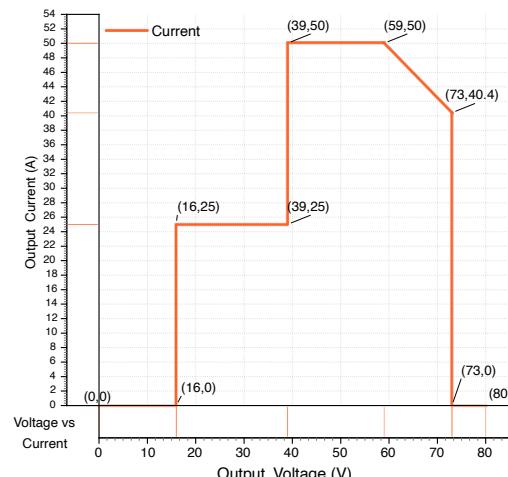
FEATURES

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|----------------------------|
| CAN, Optional |
| Auxiliary power, 12V/ 0.2A |
| Built-in indicator light |
| |
| |

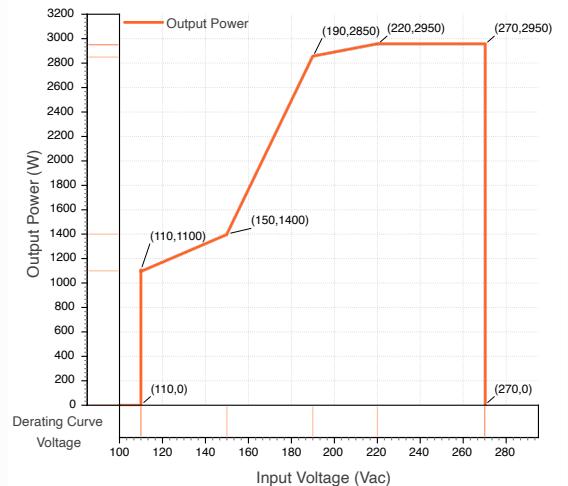
SAFETY

| | |
|-----------------------------------|---------------------------|
| Isolation Levels (Input - Output) | Basic insulation: 2000VAC |
| Isolation Levels (Input - Shell) | Basic insulation: 2000VAC |
| Isolation Levels (Output - Shell) | Basic insulation: 1000VAC |
| Insulation resistance | |
| Drop Resistance | |

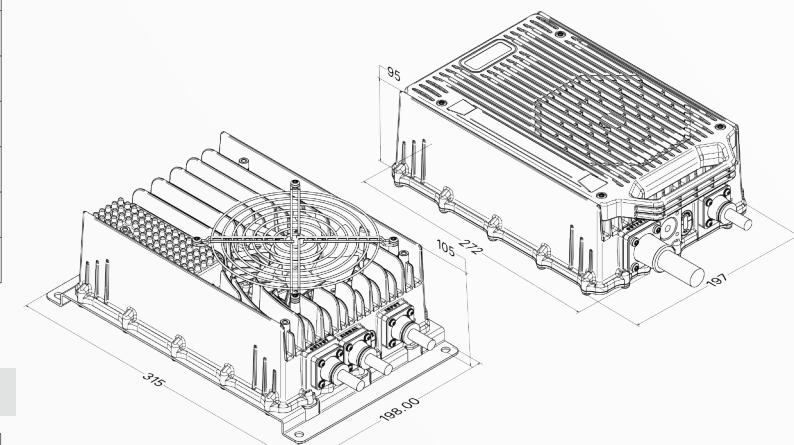
OUTPUT VOLTAGE VS CURRENT



UIN VS POWER



DIMENSIONS



MECHANICAL

| | |
|------------------|---|
| Dimensions (mm) | 152*126*62 mm |
| IP Rating | Charger body IP-67/ Charger with wire harness IP-65 |
| Weight | 1.5kg (3.3lb) |
| Cooling Method | Forced Air Cooling |
| Number of Ports | |
| Mounting Options | |
| Enclosure Type | |
| Connectors | |
| Encapsulant | |

ENVIRONMENTAL

| | |
|-----------------------|------------|
| Operating Temperature | -30°C~65°C |
| Storage Temperature | -40°C~95°C |
| Altitude | 2000m |
| Vibration & Shock | |
| Audible Noise | |
| Relative Humidity | |
| Design Life | |

REGULATORY

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|--|
| IEC 61000-3-2/-3-3, IEC 61000-4-2/-4-3/-4-4/-4-5/-4-6/-4-8/-4-11, IEC 61000-6-2/-6-3 |
| IEC 61851-21-2 (CISPR 11), ISO 10605, ISO 11452-2/-4, IEC 60335-1/-2-29 |

Solterra Technologies Private Limited designs and manufactures robust power electronics for electric mobility, traction and energy storage applications, offering on-board and off-board chargers, power modules, inverters, communication controllers and auxiliary DC-DC systems engineered for demanding environments. This 48V ultra-high-power charger delivers 840W with 15A CP mode output, providing the fastest charging available for premium commercial fleets where charging speed directly determines operational capacity. It offers advanced CP mode functionality enabling revolutionary multiple daily charge cycles, reducing charge times by 60-70% compared to standard solutions.

The premium design incorporates active PFC and digital LLC control with advanced multi-fan cooling for sustained ultra-high-power delivery. Reliable hardware with integrated prognostics and health monitoring is fully protected inside a robust IP65-rated aluminium enclosure that resists vibration, shock, dust and harsh commercial environments. It supports optional CAN bus integration for advanced fleet telematics and uses sophisticated adaptive charging algorithms to maximize both charging speed and battery longevity throughout the charge process.

MAIN ATTRIBUTES

| | |
|------------------------|---|
| Max Output Power | 840W |
| Peak Efficiency | 90%MAX @220VAC |
| Voltage Range | 39V ~ 60V |
| CP Mode Output Current | 15A |
| MTBF | |
| Voltage Regulation | |
| Current Regulation | |
| Topology | |
| Battery Type | Lead-acid and Lithium-ion (48V nominal) |

PROTECTIONS

| | |
|--|---|
| Input Under/Over Voltage | When the AC input voltage is lower than 150Vac, the charger stops working and an under-voltage alarm occurs; when the AC input voltage is higher than 280Vac, the charger stops working and an over-voltage alarm occurs; |
| Input Overcurrent | |
| Output Over Voltage | When the charger detects that the output voltage exceeds the software's internal output overvoltage protection setting, the test charger should immediately cut off the output relay and give an alarm signal; |
| Output Overcurrent | When the load current exceeds the output overcurrent protection value set inside the charger, the charger immediately cuts off the output relay and sends an alarm signal; |
| Output Short Circuit | When the charger output is short-circuited, the charger has no output and an alarm prompts; |
| Output Reverse Polarity & No Load Protection | If the battery is connected reversely, the charger will have no output and an alarm will appear. When the charger cannot detect the battery voltage or the battery voltage is lower than the internally set minimum threshold (1/3 of the rated voltage of the battery pack), the charger will alarm and indicate no output; |
| Automatic Shutdown | Yes |
| Over Temperature Protection | 1. When the internal temperature of the machine exceeds the internal set value, the charging current automatically decreases; the charger shuts down and alarms when the ambient temperature exceeds 65±2°C. When the ambient temperature drops to 55±2°C, the charger resumes charging; 2. Environment The charger will shut down and alarm when the temperature is lower than -40±2°C. When the ambient temperature returns to -35±2°C, the charger will resume charging. Note: If the external temperature probe is attached to the battery, it will detect abnormal battery temperature. |

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