

## TERMS & CONDITIONS

- This Limited Warranty is provided by Smarten Power Systems Pvt Ltd and covers defects in workmanship and materials for your product. The warranty period lasts for 6 or 12 months\* from the date of purchase at the point of sale. Proof of purchase is required to make warranty claims. This warranty is transferable to subsequent owners but only for the unexpired portion of the warranty period. Subsequent owners will also need proof of purchase.
  - Smarten will, at its option, repair or replace the defective product free of charge, if you notify Smarten of the product defect within the Warranty Period, and if Smarten through inspection establishes the existence of such a defect and that is covered by this Limited Warranty.
  - Smarten will, at its option, use new and/or reconditioned parts in performing warranty repair and building replacement products. Smarten reserves the right to use parts or products of original or improved design in the repair or replacement. If Smarten repairs or replaces a product, its warranty continues for the remaining portion of the original warranty period. All replaced products and all parts removed from repaired products become the property of Smarten.
  - In any warranty claim, dated proof of purchase must accompany the product and the product must not have been disassembled or modified without prior written authorization by Smarten.
  - Proof of purchase may be in any one of the following forms:
    - The dated purchase receipt from the original purchase of the product at point of sales.
    - The dated invoice or purchase receipt showing the product exchanged under warranty.
  - This Limited Warranty does not cover normal wear and tear of the product or costs related to the removal, installation, or troubleshooting of the customer's electrical systems. Additionally, this warranty does not apply to, and Smarten will not be responsible for, any defects in or damage to the product.
  - The either product if it has been misused, neglected, improperly installed, physically damaged or altered, internally or externally, or damaged from improper use or use in an unsuitable environment;
  - The product if it has been subjected to fire, water, generalized corrosion, biological infestations, or input voltage that creates operating conditions beyond the maximum or minimum limits listed in the Smarten product specifications including high input voltage from generators and lightning strikes;
  - The product if repairs have been done to it other than by Smarten;
  - The product if it is used as a component part of a product expressly warranted by another manufacturer;
  - The product if its original identification (trade-mark, serial number) markings have been defaced, altered, or removed.
- Out of Warranty Service:**
- If the warranty period for your product has expired.
  - If the unit was damaged by misuse or incorrect installation.
  - If other conditions of the warranty have not been met or if no dated proof of purchase is available, your product will be considered out of warranty and will be serviced only at the actual repair cost.

\*Conditions apply

## WARRANTY CARD

Product Barcode / Serial No. \_\_\_\_\_ Model \_\_\_\_\_ Date of purchase \_\_\_\_\_  
Customer name \_\_\_\_\_ Contact No. \_\_\_\_\_  
Address \_\_\_\_\_  
State \_\_\_\_\_ Pin \_\_\_\_\_ City \_\_\_\_\_

Manufactured by:  
**Smarten Power Systems Pvt. Ltd.**  
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Dealer Signature  
with stamp

## PRODUCT SPECIFICATION

|                                      |   |
|--------------------------------------|---|
| Doc Ref No.                          | RD/EV CHARGER/60V/4Amp/R.01   |
| Date                                 | 04-07-2024  |
| Product FG Code                      | SCD-EV-300-060-01   |
| Charger Rating                       | 60V, 4A   |
| Battery Pack                         | 28Ah, 60V Lead Acid Battery   |
| Nominal Input Voltage                | 230V  |
| Nominal Input Current (RMS)          | 2.55A ± 15%   |
| Input Operation Voltage              | 125-300V  |
| Input Power Factor                   | >0.50   |
| Max Input Power                      | 320W ± 10%  |
| Input Frequency Range                | 50-60Hz   |
| Battery Type                         | Lead Acid/VRLA  |
| Dc Output Voltage Range              | 52.5V to 72.5V  |
| Battery Quantity Required 12V (28Ah) | 5   |
| Float Charging Voltage               | 68.0V ± 0.5V  |
| Boost Charging Voltage               | 72.5V ± 0.5V  |
| Battery Charging Current             | 4A ± 0.3A   |
| <b>PROTECTIONS</b>                   |   |
| Short Circuit Protection             | Yes, Provided   |
| Over Temperature                     | Yes provided, if Mosfet heat sink temperature goes above 110°C System will decrease the charging current. |
| Reverse Battery                      | Red LED will glow   |
| <b>DISPLAY PARAMETERS</b>            |   |
| LED                                  | Charging LED, Charged LED, Reverse Battery LED, Battery Connected   |
| <b>SAFETY</b>                        |   |
| HV Test Input to Output              | Leakage current <5mA when 3.75kV applied for 1 min  |
| <b>ENVIRONMENT</b>                   |   |
| Operating Temperature                | 0°C to 50°C   |
| Storage Temperature                  | 0°C to 50°C   |
| Operating Relative Humidity          | 90% Non-Condensing  |

Note: Use only 5 lead acid batteries.



## USER MANUAL

# EV SCOOTER CHARGER

## 60V / 4A



5 Stage FLC Charging Technology  
Compatible for Lead Acid Battery  
Reliable Charging  
Compact Size Charger



**USER MANUAL**

**EV SCOOTER CHARGER**  
**72V / 3.3A**



5 Stage FLC Charging Technology  
Compatible for Lead Acid Battery  
Reliable Charging  
Compact Size Charger



**PRODUCT SPECIFICATION**

|                                      |   |
|--------------------------------------|---|
| Doc Ref No.                          | RD/EV CHARGER/72V/3.3Amp./R.01  |
| Date                                 | 04-07-2024  |
| Product FG Code                      | SCD-EV-300-072-01   |
| Charger Rating                       | 72V, 3.3A   |
| Battery Pack                         | 28Ah, 72V Lead Acid Battery   |
| Nominal Input Voltage                | 230V  |
| Nominal Input Current (RMS)          | 2.55A ± 15%   |
| Input Operation Voltage              | 125-300V  |
| Input Power Factor                   | >0.50   |
| Max Input Power                      | 320W ± 10%  |
| Input Frequency Range                | 50-60Hz   |
| Battery Type                         | Lead Acid/VRLA  |
| Dc Output Voltage Range              | 63V to 87V  |
| Battery Quantity Required 12V (28Ah) | 6   |
| Float Charging Voltage               | 81.6V ± 0.5V  |
| Boost Charging Voltage               | 87.0V ± 0.5V  |
| Battery Charging Current             | 3A ± 0.3A   |
| <b>PROTECTIONS</b>                   |   |
| Short Circuit Protection             | Yes, Provided   |
| Over Temperature                     | Yes provided, if Mosfet heat sink temperature goes above 110°C System will decrease the charging current. |
| Reverse Battery                      | Red LED will glow   |
| <b>DISPLAY PARAMETERS</b>            |   |
| LED                                  | Charging LED, Charged LED, Reverse Battery LED, Battery Connected   |
| <b>SAFETY</b>                        |   |
| HV Test Input to Output              | Leakage current <5mA when 3.75kV applied for 1 min  |
| <b>ENVIRONMENT</b>                   |   |
| Operating Temperature                | 0°C to 50°C   |
| Storage Temperature                  | 0°C to 50°C   |
| Operating Relative Humidity          | 90% Non-Condensing  |

Note: Use only 6 lead acid batteries.

**MATTERS NEEDING ATTENTION**

1. Please read the instruction before use
2. This charger is only suitable for lead-acid battery charging
3. For indoor use, beware of rain
4. Do not charge non-rechargeable batteries
5. Not to be open by non-professionals
6. If the power cord is damaged, it must be replaced by professionals to avoid danger
7. During charging the charger is prohibited to be covered
8. Must be placed in a well-ventilated place, is strictly prohibited to put the charger in the electric car or electric car charging. Beware of flames, sparks and explosive gases in case of fire



— **USER MANUAL** —

**EV SCOOTER CHARGER**  
**48V / 5A**



5 Stage FLC Charging Technology  
Compatible for Lead Acid Battery  
Reliable Charging  
Compact Size Charger



**PRODUCT SPECIFICATION**

|                                      |   |
|--------------------------------------|---|
| Doc Ref No.                          | RD/EV CHARGER/48V/5Amp./R.01  |
| Date                                 | 25-11-2024  |
| Product FG Code                      | SCD-EV-300-048-01   |
| Charger Rating                       | 48V, 5A   |
| Battery Pack                         | 28Ah, 48V Lead Acid Battery   |
| Nominal Input Voltage                | 230V  |
| Nominal Input Current (RMS)          | 2.55A ± 15%   |
| Input Operation Voltage              | 125-300V  |
| Input Power Factor                   | >0.50   |
| Max Input Power                      | 320W ± 10%  |
| Input Frequency Range                | 50-60Hz   |
| Battery Type                         | Lead Acid/VRLA  |
| Dc Output Voltage Range              | 36V to 58V  |
| Battery Quantity Required 12V (28Ah) | 4   |
| Float Charging Voltage               | 54.0V ± 0.5V  |
| Boost Charging Voltage               | 58.0V ± 0.5V  |
| Battery Charging Current             | 5A ± 0.3A   |
| <b>PROTECTIONS</b>                   |   |
| Short Circuit Protection             | Yes, Provided   |
| Over Temperature                     | Yes provided, if Mosfet heat sink temperature goes above 110°C System will decrease the charging current. |
| Reverse Battery                      | Red LED will glow   |
| <b>DISPLAY PARAMETERS</b>            |   |
| LED                                  | Charging LED, Charged LED, Reverse Battery LED, Battery Connected   |
| <b>SAFETY</b>                        |   |
| HV Test Input to Output              | Leakage current <5mA when 3.75kV applied for 1 min  |
| <b>ENVIRONMENT</b>                   |   |
| Operating Temperature                | 0°C to 50°C   |
| Storage Temperature                  | 0°C to 50°C   |
| Operating Relative Humidity          | 90% Non-Condensing  |

Note: Use only 4 lead acid batteries.

**MATTERS NEEDING ATTENTION**

1. Please read the instruction before use
2. This charger is only suitable for lead-acid battery charging
3. For indoor use, beware of rain
4. Do not charge non-rechargeable batteries
5. Not to be open by non-professionals
6. If the power cord is damaged, it must be replaced by professionals to avoid danger
7. During charging the charger is prohibited to be covered
8. Must be placed in a well-ventilated place, is strictly prohibited to put the charger in the electric car or electric car charging. Beware of flames, sparks and explosive gases in case of fire

