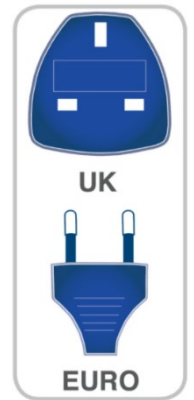


Features

- Universal input 100-240VAC
- Short Circuit Output Protected
- Approved to UKCA, CE
- LVD & EMC Class B Certified, RoHS & REACH compliant
- 36V Lead Acid 3 Stage Control (Fast/Normal/Float)
- OVP, OCP, OTP & Short Circuit
- LED Charge Indicators Included



Ideal Power's 31ACYY36A Range of 36V Lead Acid Battery Chargers Series are certified to UKCA, CE, RoHS, REACH & EN 62368-1 Standards and comply with the relevant Efficiency Regulations. These are primarily used in ITE, Audio & Video Industries and customised solutions are available upon request.

| Models | 31AC0136A | 31AC0236A | 31AC0336A | 31AC0436A |
|---------------------|---|-----------|-----------|-----------|
| Input Voltage | 90V / 264V Auto Switch - 100-240Vac +/- 10% | | | |
| Input Frequency | 47Hz ~ 63Hz / 50-60Hz +/- 5% | | | |
| Input Current | 1.8~3.6A - 115Vac / 230Vac | | | |
| Output Max Current | 1A | 2A | 3A | 4A |
| Output Power | 36W | 72W | 108W | 144W |
| Output Voltage | 41.1~43.8V DC | | | |
| Output Equalizer | 29.2V +/- 0.2V (Can be order specific) | | | |
| Output Float | 27.4V +/- 0.2V (Can by order specific) | | | |
| Isolation | Input isolate Chassis : 500M OHM | | | |
| Battery Application | Lead Acid Battery | | | |
| LED - Power | Red | | | |
| LED - Charging | Orange | | | |
| LED – Fully Charged | Green | | | |
| DC Cable | 1.2M Mount clips | | | |
| Dimensions | 180 x 88 x 47 (LxWxH) mm | | | |
| Weight | 0.8 (Kgs) | | | |

Specifications subject to change without notice.

Applications

| | | | |
|-------------------------|-----------------------------|-----------------------------|--------------------------|
| ⊙ Communication devices | ⊙ Power generators | ⊙ UPS | ⊙ Power Inverters |
| ⊙ Vacuums Pumps | ⊙ Sailing boats | ⊙ Fork-lift | ⊙ Ambulance |
| ⊙ Fire trucks | ⊙ Emergency vehicles | ⊙ Electrical car & bicycles | ⊙ Mobile command centres |
| ⊙ Household items | ⊙ Communication Equipment's | ⊙ Automobiles | |

Environmental Data

| | Minimum | Typical | Maximum | Units | Notes |
|-----------------------|---------|---------|---------|-------|-------|
| Operating Temperature | 0 | | 45 | °C | |
| Storage Temperature | 0 | | 70 | °C | |
| Operating Humidity | 20 | | 90 | °C | |
| Storage Humidity | 10 | | 95 | °C | |

EMC Emissions (2014/30/EU)

| | Standard | Test Level | Criteria | Notes |
|------------------|--------------|------------|----------|-------|
| Conducted | EN 55032 | Pass | B | |
| Radiated | EN 55032 | Pass | B | |
| Harmonic Current | EN 61000-3-2 | Pass | A | |
| Voltage Flicker | EN61000-3-2 | Pass | | |

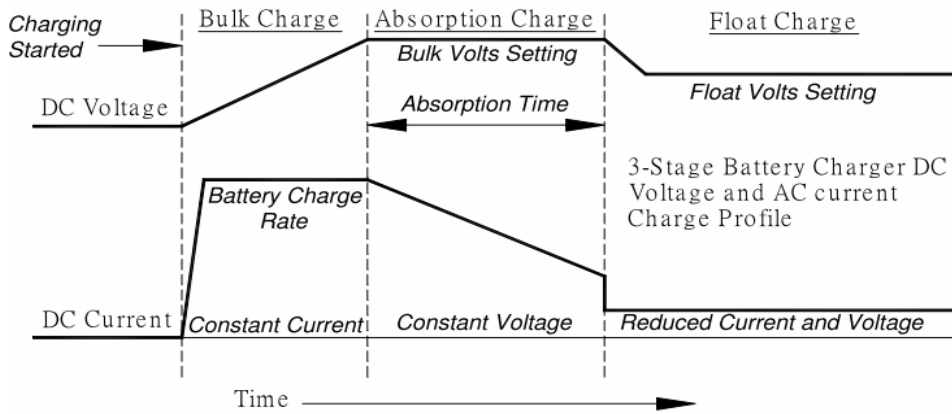
EMC Immunity (2014/30/EU)

| | Standard | Test Level | Criteria | Notes |
|------------------------|----------------|------------|----------|---|
| EMS | EN 55035 | Pass | A | |
| ESD | IEC 61000-4-2 | Pass | B | Contact: +/- 4KV; Air: +/- 8KV |
| RS | IEC 61000-4-3 | Pass | A | Frequency: 80-1000MHz; Field Strength: 3V/M ' 80% AM |
| EFT | IEC 61000-4-4 | Pass | B | 1.0KV on input AC power ports |
| Surges | IEC 61000-4-5 | Pass | B | Line to Line: +/- 1KV (peak); Line to F.G: +/- 2KV (peak) |
| Conducted | IEC 61000-4-6 | Pass | A | 150KHz to 80MHz 3Vms |
| PFMF | IEC 61000-4-8 | Pass | A | 50Hz, 60Hz, 1A/m |
| Dips and Interruptions | IEC 61000-4-11 | Pass | Complies | 0%, 70%, 0% of UT |

Safety Approvals

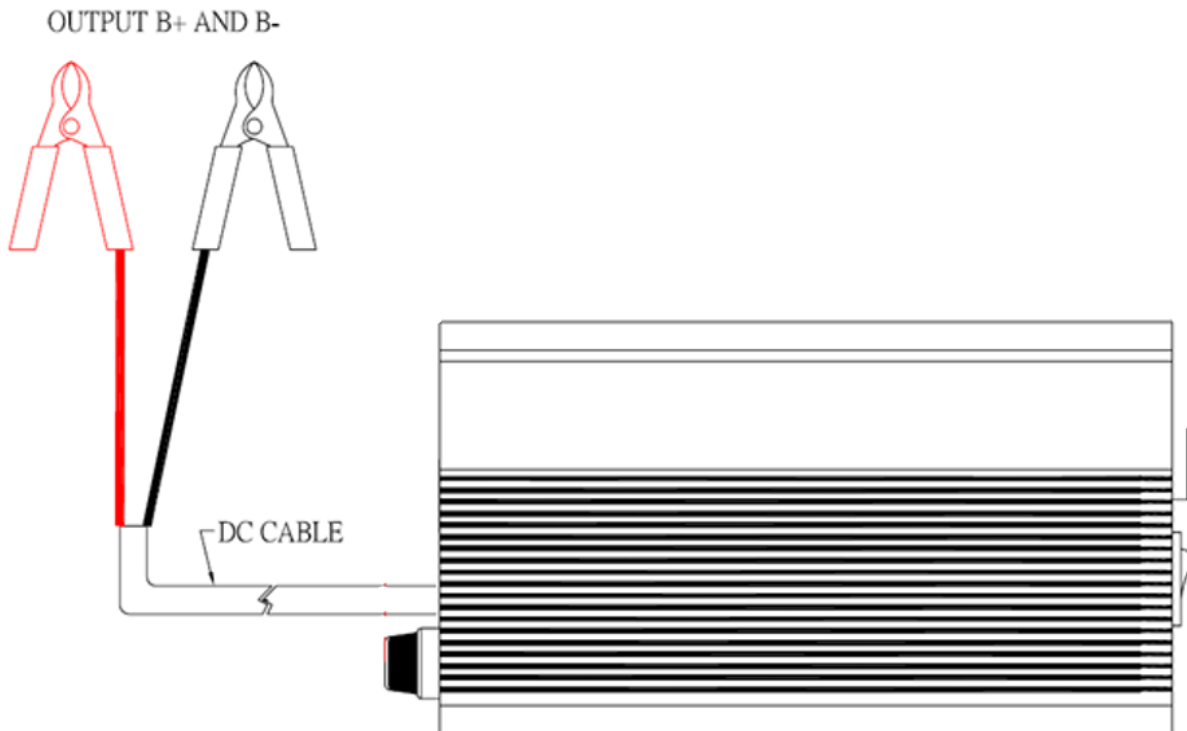
| | Safety standard |
|----|---|
| CE | EMC Directive 2014/30/EU, LVD Directive 2014/35/EU, RoHS Directive RoHS (EU) 2015/863 |

Three Steps of Charging & Charge Curve



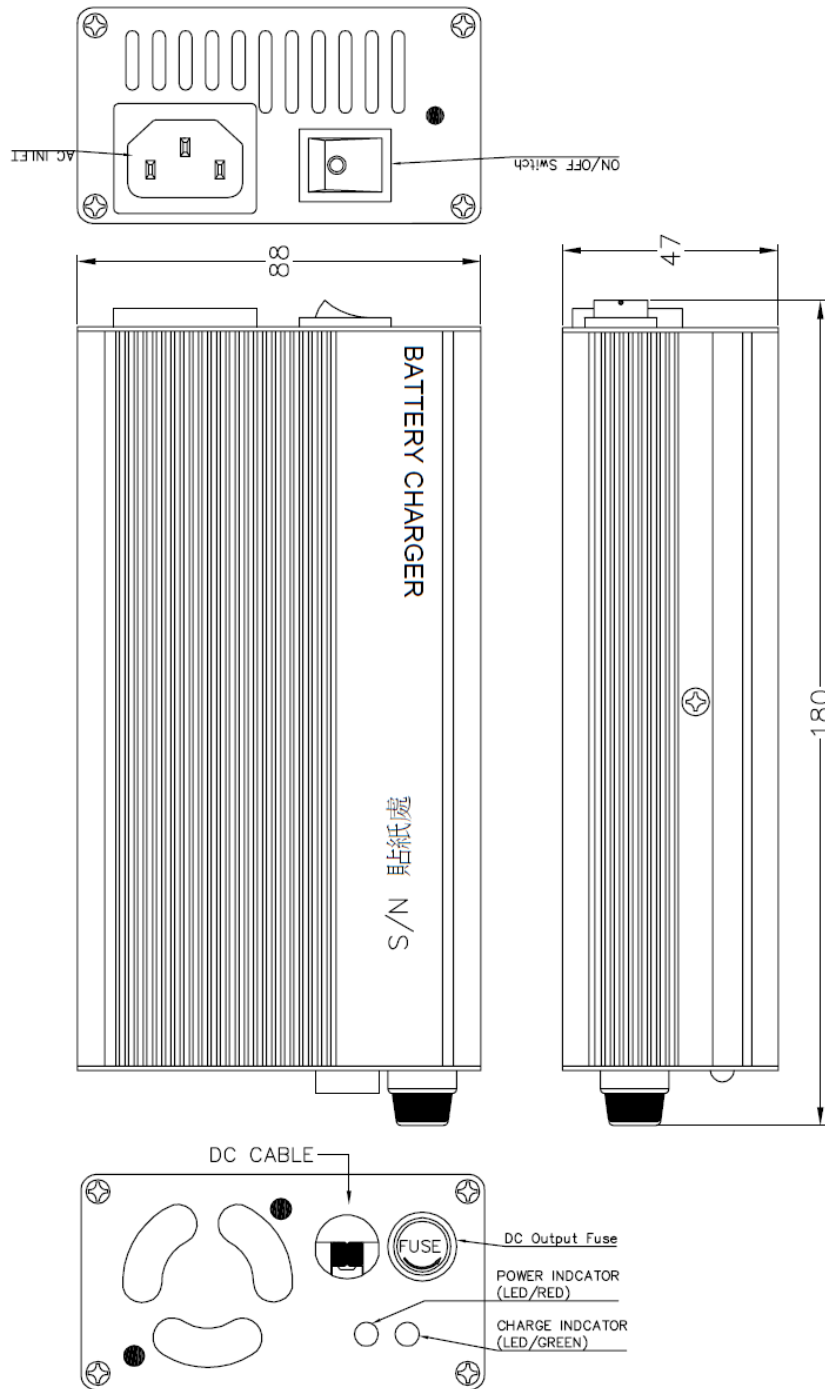
| | |
|---------|---|
| Step 1 | Bulk charge – bring batteries to 75% capacity fast. During this stage charging occurs at full power, which means maximum current, until the battery voltage reached the set limit. |
| Step 2: | Absorption Charge, boost – slow the current flow, adjusting for maximum efficiency and gently topping off batteries. During absorption charging the current decreases as the battery approached full charge. |
| Step 3 | Trickle Charge – for longer period, maintains fully charged batteries without harmful effects of overcharging and cooking. Trickle charge is intended to keep the battery in a fully charged state and compensates for self-discharge. When the current reaches setting point the battery switches to a maintenance charge at a constant voltage. Should the battery be in use and the charge current Subsequently exceed setting point the charger will automatically return to the beginning of the three-step charge characteristic. |

Case Drawing



AC – DC

Case Drawing (continued)



AC – DC