

# Solar Charge Controllers



Provides optimal performance from your PV Panels & Batteries

KISAE Solar Charge Controllers provide maintenance-free protection for your batteries and solar panels in off-grid applications. These controllers provide a regulated output to prevent batteries from overcharging. Load disconnect protects batteries from being over-discharged. KISAE Charge Controllers have LED status indicators to provide a quick reference to Charger, Battery and Load status.

#### Product Features:

**PWM Controller models capable up to 30 Amps of Array Current** or up to 720 Watts of solar power.

**MPPT Controller is capable to 50A/12V or 30A/24V charging current** or up to 720 Watts of solar power.

**Maintains batteries** in a fully charged state.

**Protects** battery life from overcharging and discharging.

**LED Digital Display** shows charging and load currents and battery voltage (SC1230D and MPPT models).

**2-Year Warranty**



## Solar Charge Controllers

Maintenance-free Battery Protection  
 SC1210LD, SC1220LD, SCD1230 - PWM Line  
 Commercial / Residential Off-Grid Use



| PWM Solar Charge Controllers | SC 1210LD | SC 1220LD | SCD 1230 |
|------------------------------|-----------|-----------|----------|
|------------------------------|-----------|-----------|----------|

| PV Input                          | SC 1210LD  | SC 1220LD  | SCD 1230             |
|-----------------------------------|------------|------------|----------------------|
| PV Input Voltage Range            | 14.5 - 24V | 14.5 - 24V | 14.5 - 48V           |
| Maximum PV Input Current          | 10A        | 20A        | 30A                  |
| PV Solar Panel Rating (reference) | 120W       | 240W       | 12V: 360W, 24V: 720W |

### Solar Controller Output (Battery)

| Battery Rating       | SC 1210LD        | SC 1220LD        | SCD 1230                            |
|----------------------|------------------|------------------|-------------------------------------|
| Battery Rating       | 12V              | 12V              | 12V / 24V (Auto Detect)             |
| Battery Type         | Sealed / Flooded | Sealed / Flooded | Gel, AGM, Flooded, Lithium, Program |
| Max. Charge Current  | 10A              | 20A              | 30A                                 |
| Charge Voltage Range | 14.2 - 14.6V     | 14.2 - 14.6V     | 13.9 - 14.6V / 27.8 - 29.2V         |
| Float Voltage Range  | 13.4 - 13.8V     | 13.4 - 13.8V     | 13.4 - 13.8V / 26.6 - 27.6V         |
| Parasitic Current    | < 10 mA          | < 15 mA          | < 25mA                              |

### DC Output to Load

| Load Current (Maximum) | SC 1210LD | SC 1220LD | SCD 1230 |
|------------------------|-----------|-----------|----------|
| Load Current (Maximum) | 10A       | 20A       | 30A      |

### Protection and Features

| Protection and Features     | SC 1210LD   | SC 1220LD   | SCD 1230  |
|-----------------------------|---|---|---|
| PV Reverse Polarity         | Protected   | Protected   | Protected   |
| Battery Overcharge          | Yes   | Yes   | Yes   |
| Load Over-Discharge Voltage | < 11.5V   | < 11.5V   | < 11.5V / 23.0V                                   |
| Load Reconnected Voltage    | 12.6V   | 12.6V   | 12.6V / 25.2V                                     |
| Built-in Temperature Sensor | Yes, temperature compensation on charging voltage | Yes, temperature compensation on charging voltage | Yes, temperature compensation on charging voltage |

### Indicator (SC Series) / Digital Display (SCD Series)

| Indicator (SC Series) / Digital Display (SCD Series) | SC 1210LD                                | SC 1220LD                                | SCD 1230                       |
|--|--|--|--------------------------------|
| Indicators   | Charging / Load Disconnect LED indicator | Charging / Load Disconnect LED indicator | Not Applicable                 |
| Battery Charging Status                              |  |  | Voltage / Current / Stage      |
| DC Load Status                                       | Not Applicable                           | Not Applicable                           | Load Current                   |
| DC Load Timer  |  |  | Built-in clock for load ON/OFF |

### Enclosure

| Enclosure             | SC 1210LD        | SC 1220LD        | SCD 1230         |
|-----------------------|------------------|------------------|------------------|
| Weight                | 0.65 lbs.        | 0.65 lbs.        | 1.0 lbs.         |
| Dimension (H x W x D) | 4.1 x 4.1 x 1.3" | 4.1 x 4.1 x 1.3" | 4.7 x 6.7 x 1.8" |

