

Simple Solar Battery Charger

Specifications and Extra Features

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Simple Solar Battery Charger Specifications

1. Solar panel rating: 10 to 20 watts, 6 to 12 volts
2. Output Voltage: 5V to 12V
3. Battery Capacity: 1000mAh to 3000mAh
4. Charging Time: 4-6 hours (depending on sunlight strength and battery size)
5. Charging Current: 500mA per battery, Total Current: 2000mA for 4 batteries
6. Maximum power dissipation: 10W (includes power dissipation of all diode)
7. Typical drop out value: 2 to 2.75V (depends on load current)
8. Max current: 1A (internally it limited to 2 A)
9. Durability: Water-resistant and heat-resistant
10. Portability: Lightweight and simple compact device

Simple Solar Battery Charger Features

1. Simple circuit design with commonly available components
2. Reliable performance for long-lasting use
3. Low-cost solution for charging batteries
4. Voltage-controlled charging prevents overcharging
5. Prevents battery discharge when there is no sunlight
6. Auto battery charge indicator for easy maintenance
7. Easy procurement of components (LM317/338 ICs, BC547 transistors)
8. Solid-state design without relays
9. Limits charging current to prevent damage
10. Prevents reverse current flow for optimal performance
11. Additional Features: May Include USB ports