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agc SC350M

Instruction Manual for agc SC350M SunControl 2 Solar Charge Controller

Model: SC350M | Brand: agc

1. PRODUCT OVERVIEW

The SunControl 2 is an advanced and innovative charge controller designed for NDS photovoltaic modules. Utilizing MPPT (Maximum Power Point Tracking) technology, it efficiently maximizes energy harvest from any solar panel. It incorporates the latest charging curves to ensure batteries are always optimally charged and maintained over time. Featuring a professional terminal block and updated LIN-BUS/CI-BUS communication protocols, the SunControl 2 is engineered for reliable and permanent installation.



Image: The agc SC350M SunControl 2 solar charge controller, a compact black unit with red accents and various connection ports.

2. KEY FEATURES

- Latest generation LIN-BUS and CI-BUS communication protocols.
- Integrated temperature sensor for optimized charging.
- Professional terminal block for secure connections.
- Supports engine battery charging.
- Advanced 5-phase charging curves for battery longevity.

- Built-in desulfation system to maintain battery health.
- Charge status LED indicator for easy monitoring.
- Separate input for solar panels.
- Model SC 350M supports up to 350W of solar panel power.

3. SETUP AND INSTALLATION

Before installation, ensure all power sources are disconnected. Mount the SunControl 2 in a dry, well-ventilated area, away from direct sunlight and heat sources. Use appropriate gauge wiring for all connections to prevent overheating and ensure optimal performance.

3.1 Wiring Connections

1. **Battery Connection:** Connect the battery cables to the designated battery terminals on the controller. Ensure correct polarity (positive to positive, negative to negative). It is recommended to connect the battery first.
2. **Solar Panel Connection:** Connect the solar panel cables to the solar input terminals. Verify correct polarity.
3. **Load Connection (Optional):** If using the controller's load output, connect your DC loads to the load terminals. Do not exceed the maximum rated current for the load output.

After all connections are made, double-check polarity and ensure all terminals are securely fastened. Power on the system by connecting the battery, then the solar panels.

4. OPERATING INSTRUCTIONS

The SunControl 2 operates automatically once properly installed. The integrated LED indicator provides visual feedback on the charge status and system operation. Refer to the specific LED patterns in the detailed product manual for comprehensive status interpretation.

4.1 Charge Status Indicator

The LED on the controller indicates the current charging phase and battery status. A steady green light typically indicates a full charge or float mode, while blinking patterns or different colors may indicate bulk charging, absorption, or fault conditions. Consult the full manual for a detailed legend of LED indicators.

5. MAINTENANCE

The SunControl 2 is designed for low maintenance. Regular checks can help ensure optimal performance and longevity:

- **Cleaning:** Periodically clean the exterior of the controller with a dry, soft cloth to remove dust and debris. Do not use liquid cleaners.
- **Connections:** Annually inspect all wiring connections to ensure they are tight and free from corrosion. Loose connections can lead to power loss or overheating.
- **Ventilation:** Ensure the area around the controller remains clear to allow for proper airflow and heat dissipation.

6. TROUBLESHOOTING

If you encounter issues with your SunControl 2, consider the following common troubleshooting steps:

- **No Charging:** Check solar panel connections and ensure they are receiving adequate sunlight. Verify battery voltage and connections.
- **Low Voltage:** Ensure solar panels are clean and not shaded. Check battery health and capacity.
- **LED Error Codes:** If the LED displays an unusual pattern, consult the comprehensive manual for specific error code interpretations and solutions.

For persistent issues, contact customer support.

7. TECHNICAL SPECIFICATIONS

REGOLATORI DI CARICA

NDS SUNCONTROL 2
SunControl 2 è l'ultimo ed innovativo regolatore di carica per moduli fotovoltaici NDS. La tecnologia MPPT consente di ottimizzare al massimo l'energia da qualsiasi pannello solare, eseguendo le più moderne curve di ricarica, per batterie sempre cariche ed efficienti nel tempo. Solido e funzionale grazie alla morsettiera professionale e dotato di protocolli di comunicazione aggiornati LIN-BUS/CI-BUS, SunControl 2 è l'ideale per un'installazione destinata a durare nel tempo. Disponibile in due versioni: SC 320M con due moduli in ingresso per un massimo di 320W (senza ventola di raffreddamento) e SC 350M che supporta invece fino a 350W.

Caratteristiche:

- ✓ Sensore di temperatura
- ✓ Comunicazioni di ultima generazione LIN-BUS, CI-BUS
- ✓ Morsettiera professionale
- ✓ Ricarica batteria motore
- ✓ Curve di carica a 5 fasi
- ✓ Sistema di desolfatazione
- ✓ Led stato di carica
- ✓ Ingresso pannelli separato

CARATTERISTICHE TECNICHE

MODELLO	SC 320M	SC 350M
TENSIONE NOMINALE	12 V	12 V
POTENZA MAX MODULI	320 W	350 W
POTENZA MAX DI CARICA	20 A	24 A
SISTEMA MPPT	SI	SI
FUSIBILE DI PROTEZIONE	25 A	30 A
CARICA BATTERIA	SI	SI
MOTORE	SI	SI
VENTOLA	No	SI
DIMENSIONE	151x90x48 mm	151x90x48 mm



Image: This image displays the technical specifications table for the NDS SunControl 2, comparing SC 320M and SC 350M models, along with a list of key features and an image of the controller.

SunControl 2 SC350M Specifications

Parameter	Value (SC350M)
Model	SC350M
Nominal Voltage	12V
Max Module Power	350W
Max Charge Current	24A
MPPT System	Yes
Protection Fuse	30A
Battery Charging	Yes
Engine Battery Charging	Yes

Parameter	Value (SC350M)
Fan	Yes
Dimensions (LxWxH)	151x90x48 mm
ASIN	B099NHY8BP
Manufacturer Reference	93426
First Available Date	July 19, 2021

8. WARRANTY AND SUPPORT

This product comes with a standard manufacturer's warranty. For detailed warranty terms and conditions, please refer to the documentation included with your purchase or visit the official agc website.

For technical support, troubleshooting assistance, or warranty claims, please contact agc customer service through their official channels. Ensure you have your product model (SC350M) and purchase details ready when contacting support.