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> Dawnice 5KWH Hybrid Solar System Complete Kit with 6KW Inverter (Model DWPF-5501065H) - Instruction Manual

## Dawnice DWPF-5501065H

# Dawnice 5KWH Hybrid Solar System Complete Kit - Instruction Manual

Model: DWPF-5501065H

## 1. INTRODUCTION

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This manual provides essential information for the safe and efficient installation, operation, and maintenance of your Dawnice 5KWH Hybrid Solar System Complete Kit. This system is designed to provide reliable power by integrating solar panels, an inverter with an MPPT controller, and a lithium battery, offering both grid-tied and off-grid capabilities.

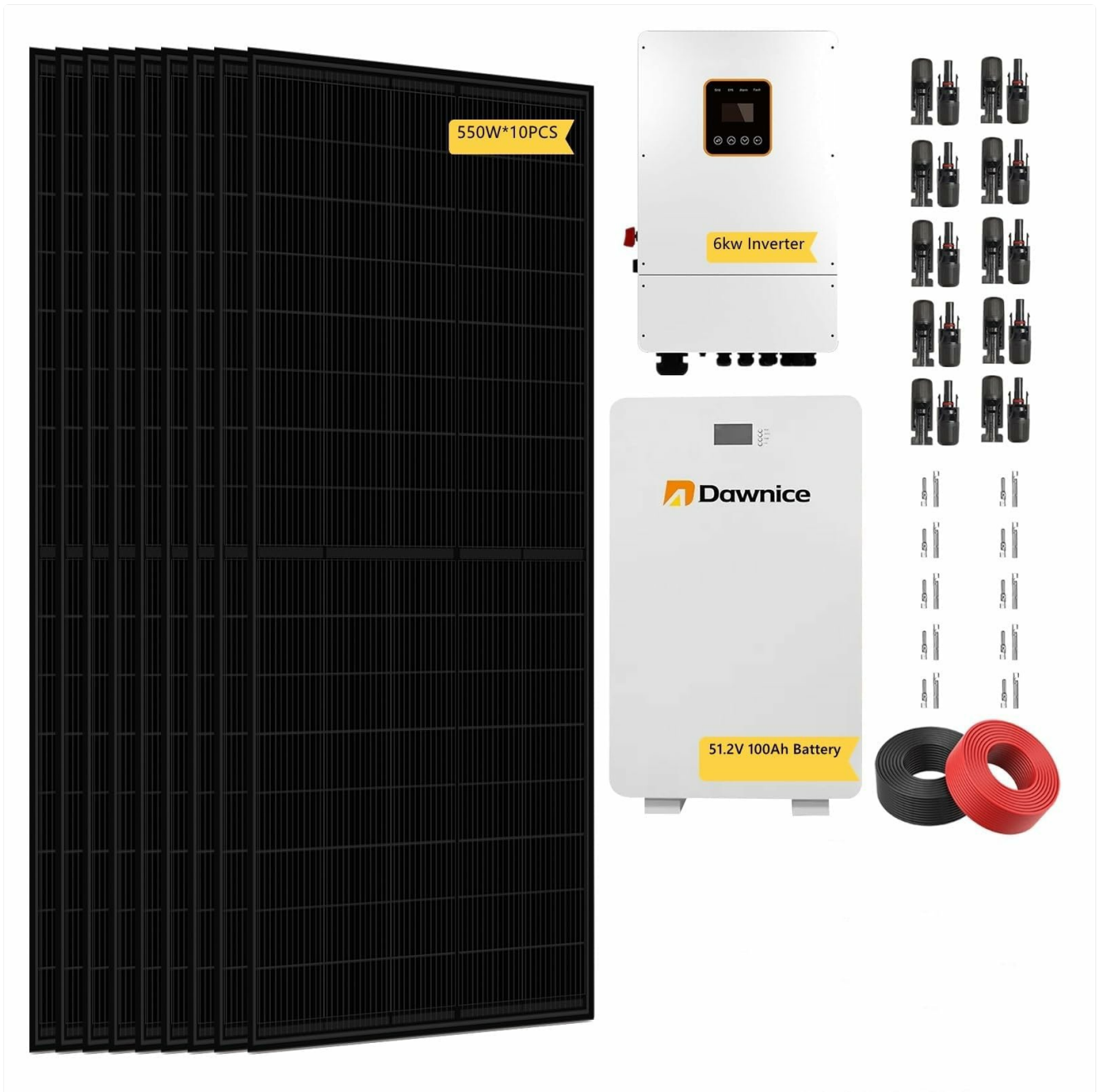


Figure 1: Overview of the Dawnice 5KWH Hybrid Solar System Complete Kit.

## 2. PRODUCT OVERVIEW

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The Dawnice 5KWH Hybrid Solar System is an all-in-one solution for energy independence. It combines solar power generation, energy storage, and intelligent power management. Key components include:

- **Solar Panels:** 10 units of 550W monocrystalline silicon panels (5500W total) for efficient solar energy conversion.
- **Hybrid Inverter:** A 48V 6KW Pure Sine Wave Inverter with a built-in MPPT controller, offering high tracking and conversion efficiency.
- **Lithium Battery:** A 51.2V 100Ah (5KWH) lithium battery for energy storage.
- **Accessories:** All necessary connectors and cables for a complete setup.

# 48V 200Ah

## LiFePo4 Battery



**10000 Wh**



Energy Capacity

**50A**



Max. Continuous  
Charge/Discharge Current

**2560W**



Max. Load Power

**-25°~60°C**



Wide Operation  
Temperature Range

**5 Years**



Maintenance

Figure 2: Dawnice 48V 200Ah LiFePo4 Battery, a key component for energy storage.

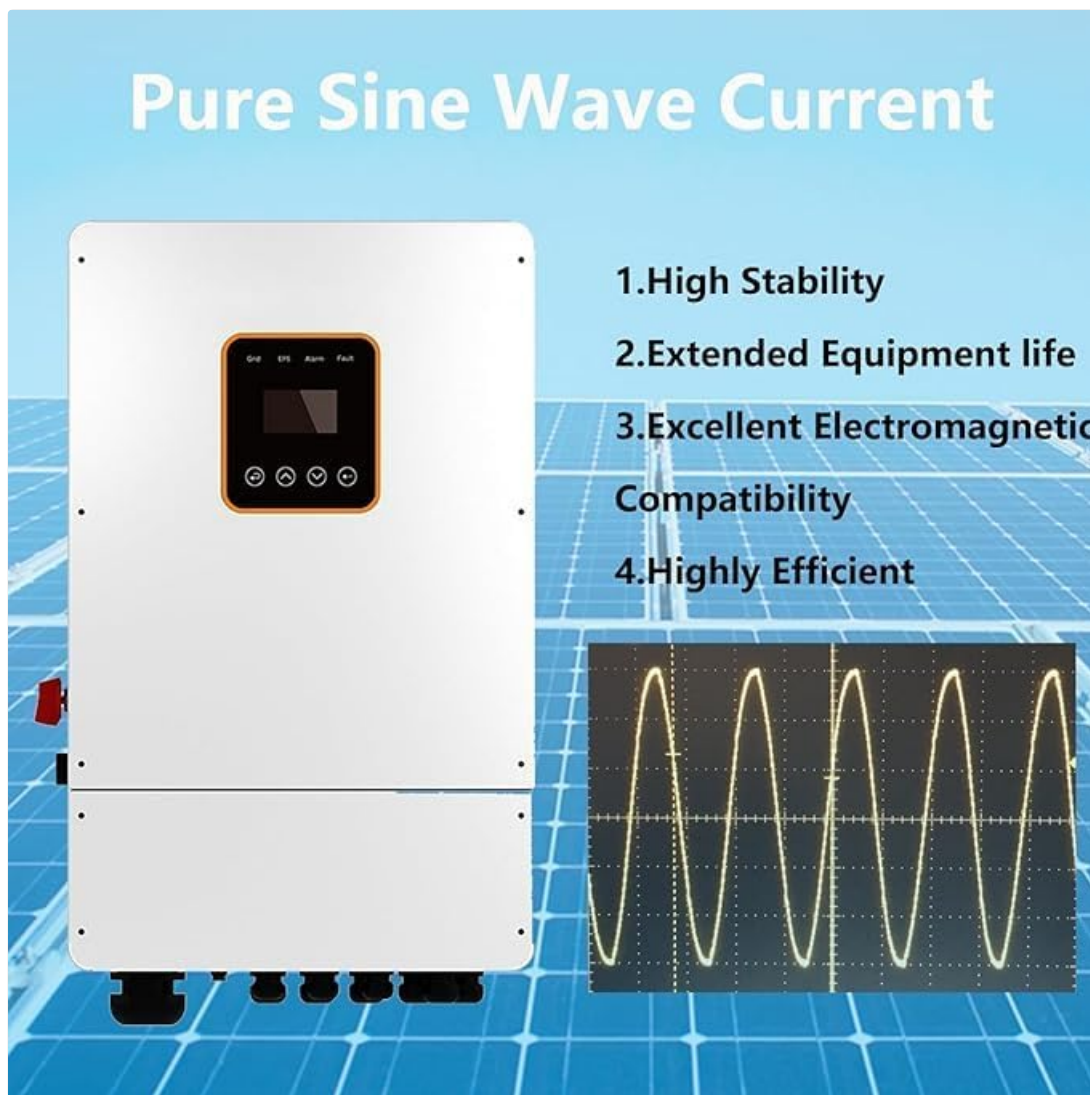


Figure 3: Dawnice 48V 6KW Pure Sine Wave Inverter, featuring high stability and efficiency.

### 3. SAFETY INFORMATION

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Please read and understand all safety instructions before installing or operating the system. Failure to follow these instructions may result in electric shock, fire, serious injury, or death.

- **Professional Installation:** Installation should only be performed by qualified and certified electricians or solar technicians.
- **Electrical Hazard:** The system generates high voltage and current. Do not attempt to open or service components unless specifically instructed.
- **Battery Safety:** Lithium batteries can be dangerous if mishandled. Avoid short-circuiting, puncturing, or exposing to extreme temperatures.
- **Grounding:** Ensure all components are properly grounded according to local electrical codes.
- **Environmental Conditions:** Install components in well-ventilated areas, away from flammable materials and direct moisture. The inverter has an IP65 waterproof rating, but proper placement is still crucial.

### 4. WHAT'S INCLUDED

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Your Dawnice 5KWH Hybrid Solar System Complete Kit includes the following components:

- 10 x 550W Solar Panels

- 1 x 48V-6KW Power Inverter (with built-in MPPT controller)
- 1 x 51.2V 100Ah Lithium Battery
- Necessary connectors and other accessories



Figure 4: Visual representation of the main components included in the complete kit.

## 5. SETUP

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The installation of a hybrid solar system is complex and requires adherence to local building and electrical codes. It is strongly recommended that a certified professional handles the installation.

### 5.1. Site Assessment and Planning

Before installation, a thorough site assessment is necessary to determine optimal solar panel placement, cable routing, and inverter/battery location. Consider sunlight exposure, structural integrity of mounting surfaces, and proximity to the electrical panel.

### 5.2. Component Placement

- **Solar Panels:** Mount panels securely on a roof or ground array, ensuring proper tilt and orientation for maximum sun exposure.
- **Inverter:** The inverter should be installed in a cool, dry, well-ventilated area. Its IP65 rating provides protection against dust and water jets, but it should still be protected from direct harsh weather if possible.
- **Battery:** The lithium battery should be installed in a secure, temperature-controlled environment, away from direct sunlight and heat sources.

### 5.3. Wiring Connections

Follow the wiring diagram provided with your specific inverter model. General connection steps include:

1. Connect solar panels to the inverter's PV input using MC4 connectors.

2. Connect the battery to the inverter's battery terminals.
3. Connect the inverter's AC output to your home's electrical load.
4. Connect the inverter to the utility grid (if applicable) via a meter.

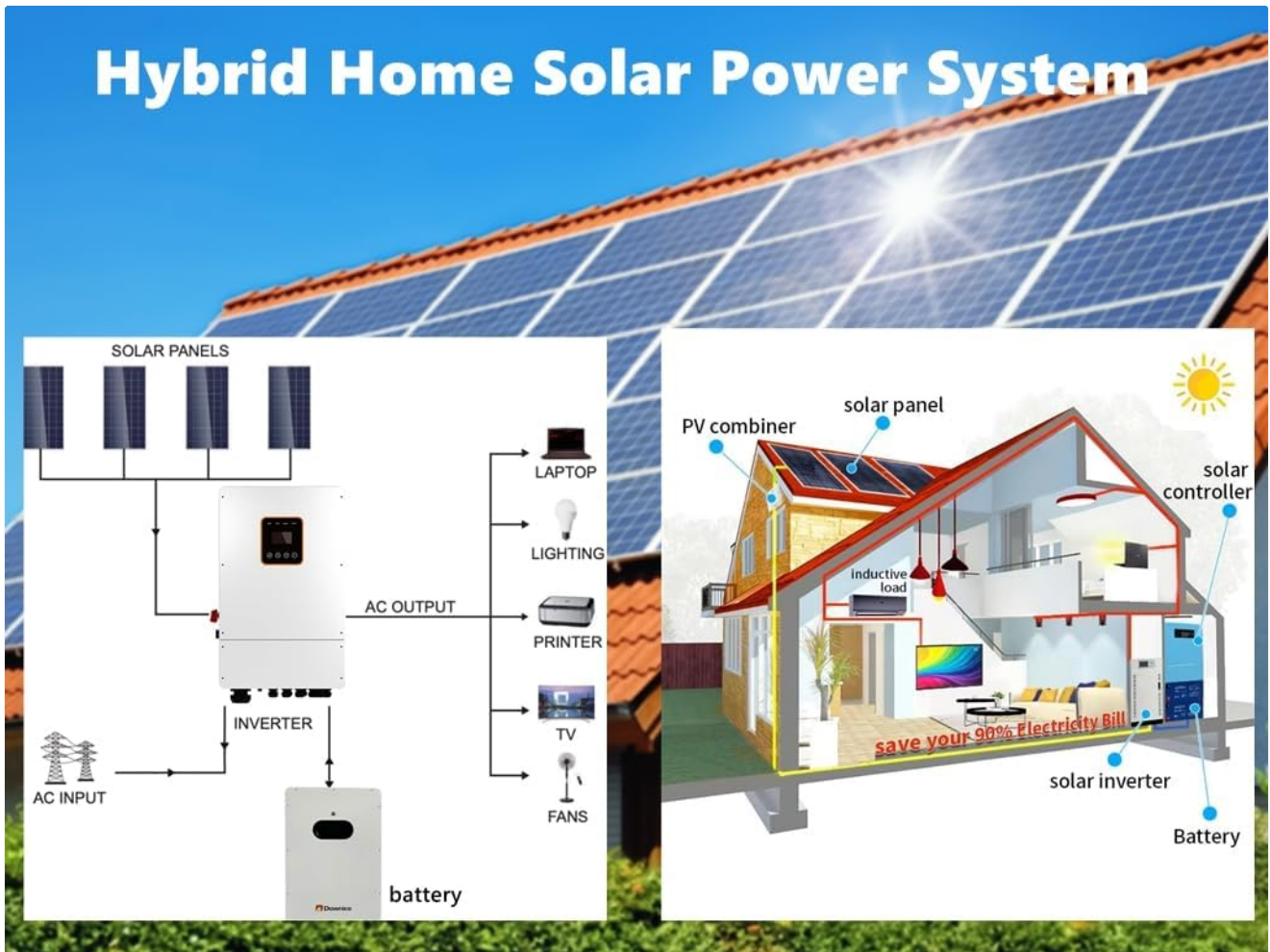


Figure 5: Simplified diagram illustrating the connections within a hybrid home solar power system.



## 5.4. Initial Power-Up

After all connections are verified, follow the inverter's specific power-up sequence. Typically, this involves turning on the battery breaker, then the solar PV breaker, and finally the AC grid breaker.

Video 1: This video provides an overview of the Dawnice Hybrid Solar System, showcasing its industrial applications and 24-hour power supply capability.

## 6. OPERATING INSTRUCTIONS

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The Dawnice Hybrid Solar System operates automatically to optimize energy flow based on solar availability, battery charge, and grid connection.

### 6.1. Daytime Operation

During daylight hours, solar panels convert sunlight into direct current (DC) electricity. The inverter then converts this DC into alternating current (AC) to power your home's loads. Any excess solar energy will charge the battery. Once the battery is fully charged, surplus energy can be fed back into the utility grid, potentially generating economic benefits.

### 6.2. Nighttime Operation

At night or during periods of low solar production, the stored energy in the battery is discharged to power your home's loads. If the battery charge drops below a predefined protection level, or if the load demand exceeds the battery's output, the system will automatically draw power from the utility grid to ensure continuous supply.

### 6.3. Mobile Control and Monitoring

The system supports mobile control and monitoring via Bluetooth, WiFi, and a dedicated application. This allows you to easily view current data, system status, and manage settings remotely. The integrated Intelligent BMS (Battery Management System) provides multi-protection for the battery, ensuring its longevity and safe operation.

Video 2: This video illustrates the operational flow of the Dawnice Residential Energy Storage System, detailing how solar energy is converted, stored, and supplied to the home and grid.

## 7. MAINTENANCE

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Regular maintenance ensures the optimal performance and longevity of your solar system. Always disconnect power before performing any maintenance.

### 7.1. Solar Panels

- **Cleaning:** Periodically clean solar panels to remove dust, dirt, leaves, or snow that may reduce efficiency. Use soft brushes and water; avoid abrasive materials.
- **Inspection:** Annually inspect panels for any physical damage, loose connections, or signs of corrosion.

# Double-sided solar panels



Maximum Module Efficiency

21.5%



Anti-UV



Can withstand snow, water, dust and other inclement weather to a certain extent.

550W

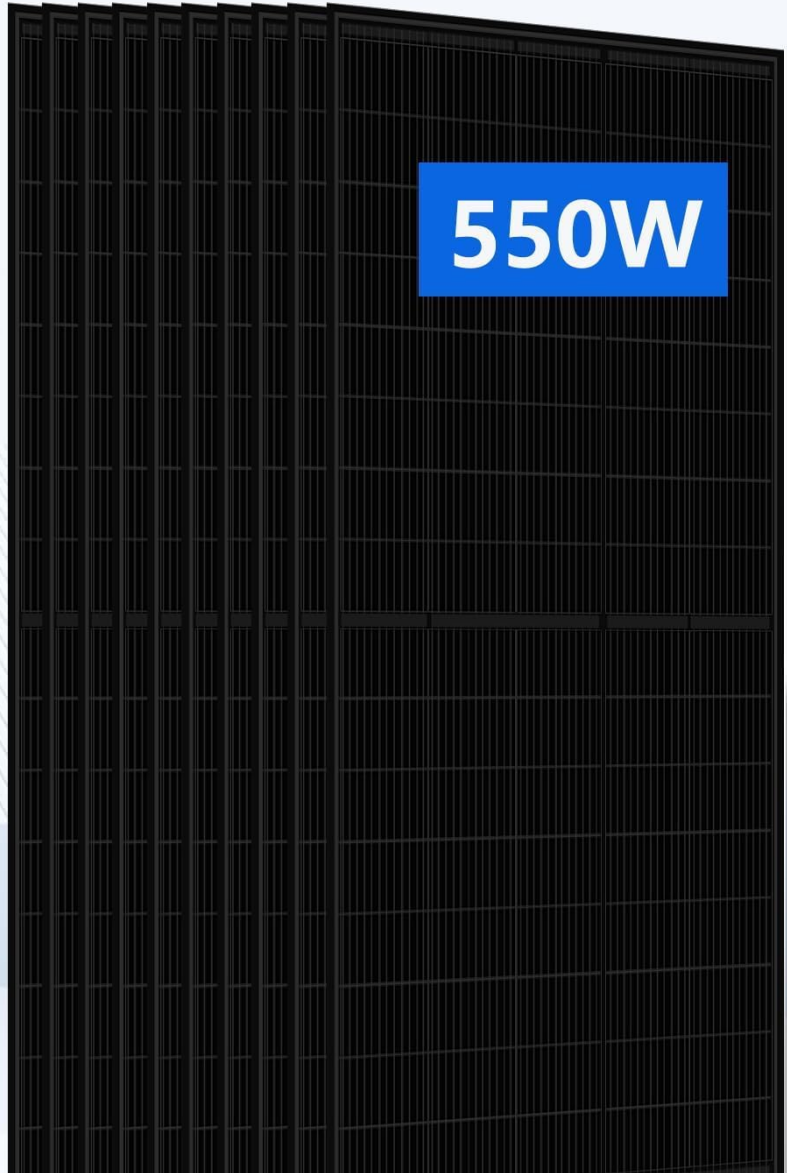


Figure 7: Dawnice 550W Double-Sided Solar Panels, designed for high efficiency and durability against weather.

## 7.2. Inverter

- **Ventilation:** Ensure the inverter's ventilation openings are clear and free from obstructions to prevent overheating.
- **Visual Check:** Regularly check for any unusual noises, smells, or error messages on the display.



Figure 8: Dawnice Inverter with IP65 waterproof rating, indicating its suitability for outdoor installation.

### 7.3. Battery

- **Temperature:** Maintain the battery within its recommended operating temperature range.
- **Connections:** Periodically check battery terminals for tightness and corrosion.

## 8. TROUBLESHOOTING

This section provides basic troubleshooting steps for common issues. For complex problems, contact customer support.

Problem	Possible Cause	Solution
No Power Output	Inverter off, breakers tripped, loose connections, low battery.	Check inverter status, reset breakers, inspect wiring, check battery charge.
Low Power Production	Dirty panels, shading, faulty panel/inverter.	Clean panels, remove shading, contact support for component testing.
Battery Not Charging	PV input issue, inverter fault, battery connection issue.	Verify PV input, check inverter error codes, inspect battery wiring.

Problem	Possible Cause	Solution
Inverter Error Code	Specific system fault.	Refer to the inverter's specific manual for error code definitions and solutions.

## 9. SPECIFICATIONS

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Key technical specifications for the Dawnice 5KWH Hybrid Solar System (Model DWPF-5501065H):

Feature	Specification
Brand	Dawnice
Model Number	DWPF-5501065H
Solar Panel Material	Monocrystalline Silicon
Maximum Power (per panel)	550 Watts
Inverter Voltage	48 Volts
Inverter Power	6KW
Battery Capacity	5KWH (51.2V 100Ah Lithium)
Inverter Efficiency	High Efficiency (MPPT tracking up to 99%, peak conversion 98%)
Inverter Dimensions (L x W x H)	15.75"L x 6.3"W x 27.56"H
Item Weight	55 Kilograms (Inverter)
Connector Type	MC4

## 10. WARRANTY AND SUPPORT

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### 10.1. Warranty Information

The 5KWH Lithium Battery included in this kit comes with a **5-year warranty**. For detailed warranty terms and conditions for all components, please refer to the documentation provided with your purchase.

### 10.2. Customer Support

Should you have any questions, require technical assistance, or need to report an issue, please contact Dawnice US Store customer support. You can send a message via Amazon, and we aim to reply within 24 hours. Additionally, a **4-Year Protection Plan** may be available for purchase to extend coverage beyond the standard warranty.