

Heschen HSB6C-DC

Heschen HSB6C-DC 4-Pole DC Miniature Circuit Breaker User Manual

Model: HSB6C-DC

1. INTRODUCTION

The Heschen HSB6C-DC series circuit breakers are specifically designed for photovoltaic (PV) systems. This 4-pole DC miniature circuit breaker, model HSB6C-DC, is rated for up to DC1000V and 40A. It incorporates a specialized extinguishing and current limiting system to rapidly switch off fault currents within DC distribution systems. This protection is crucial for photovoltaic modules, safeguarding them from high DC reverse currents and AC feedback currents that can result from inverter failures, thereby ensuring the reliable operation of your solar PV power generation system.

2. KEY FEATURES

- **Current Rating:** 40A
- **Rated Voltage:** DC1000V
- **Breaking Capacity:** 4.5KA
- **Pole Number:** 4P
- **Type:** C/Non-Polarized

3. SETUP AND INSTALLATION

This DC miniature circuit breaker is designed for 35mm DIN rail mounting. Proper installation is critical for safety and optimal performance. Always ensure power is disconnected before beginning any installation work.

3.1 Product Dimensions

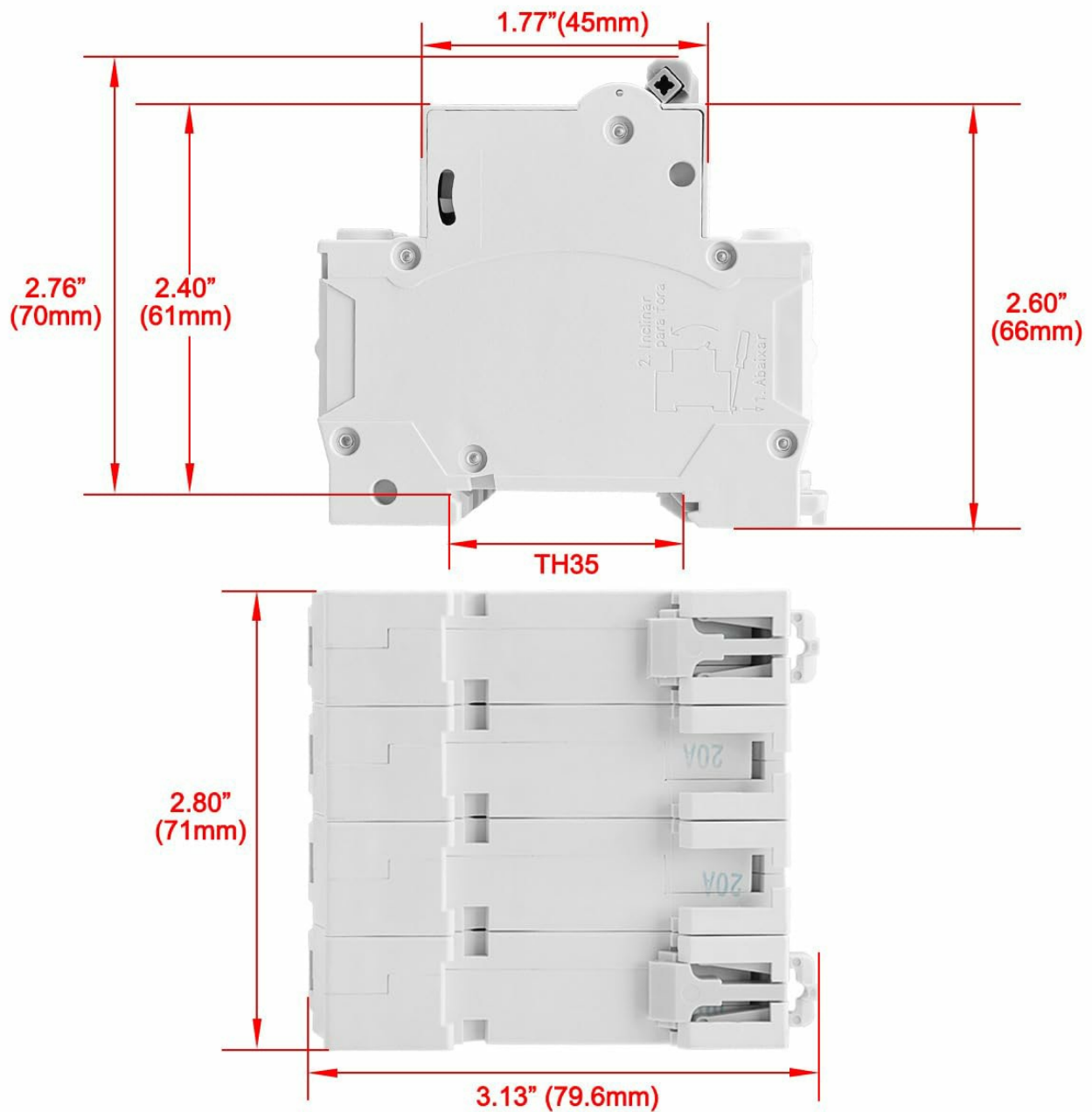


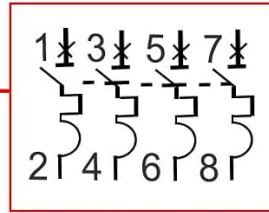
Figure 1: Dimensions of the Heschen HSB6C-DC 4-pole circuit breaker. Top view shows a width of 1.77 inches (45mm), length of 2.76 inches (70mm), and height of 2.60 inches (66mm). Side view shows a height of 2.80 inches (71mm) and length of 3.13 inches (79.6mm). Designed for TH35 DIN rail mounting.

3.2 Wiring Diagrams

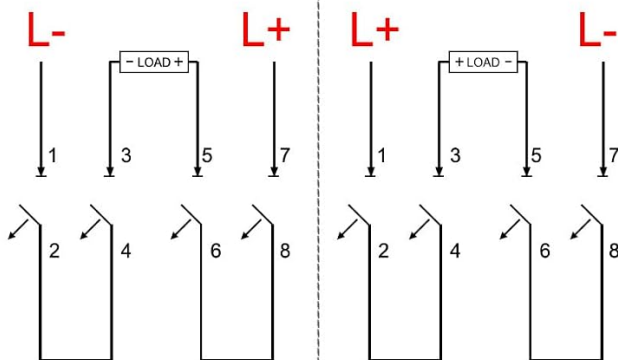
The HSB6C-DC is a non-polarized circuit breaker. Refer to the following diagrams for correct wiring based on your application:



The item is Non-Polarized
(Das Produkt hat keine Polarität)

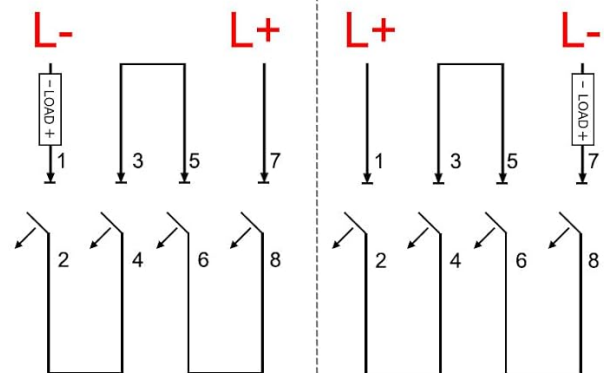


A



For DC Equipment Wiring Diagram

B



For Photovoltaic Box Wiring Diagram

Figure 2: Wiring diagrams for the Heschen HSB6C-DC circuit breaker. Diagram A illustrates wiring for DC equipment, while Diagram B shows wiring for photovoltaic box systems. Note the non-polarized nature of the breaker.

3.3 Recommended Tools

For secure and proper installation, use a screwdriver to tighten terminal screws. Avoid using power drills, as this may overtighten and damage the terminals.

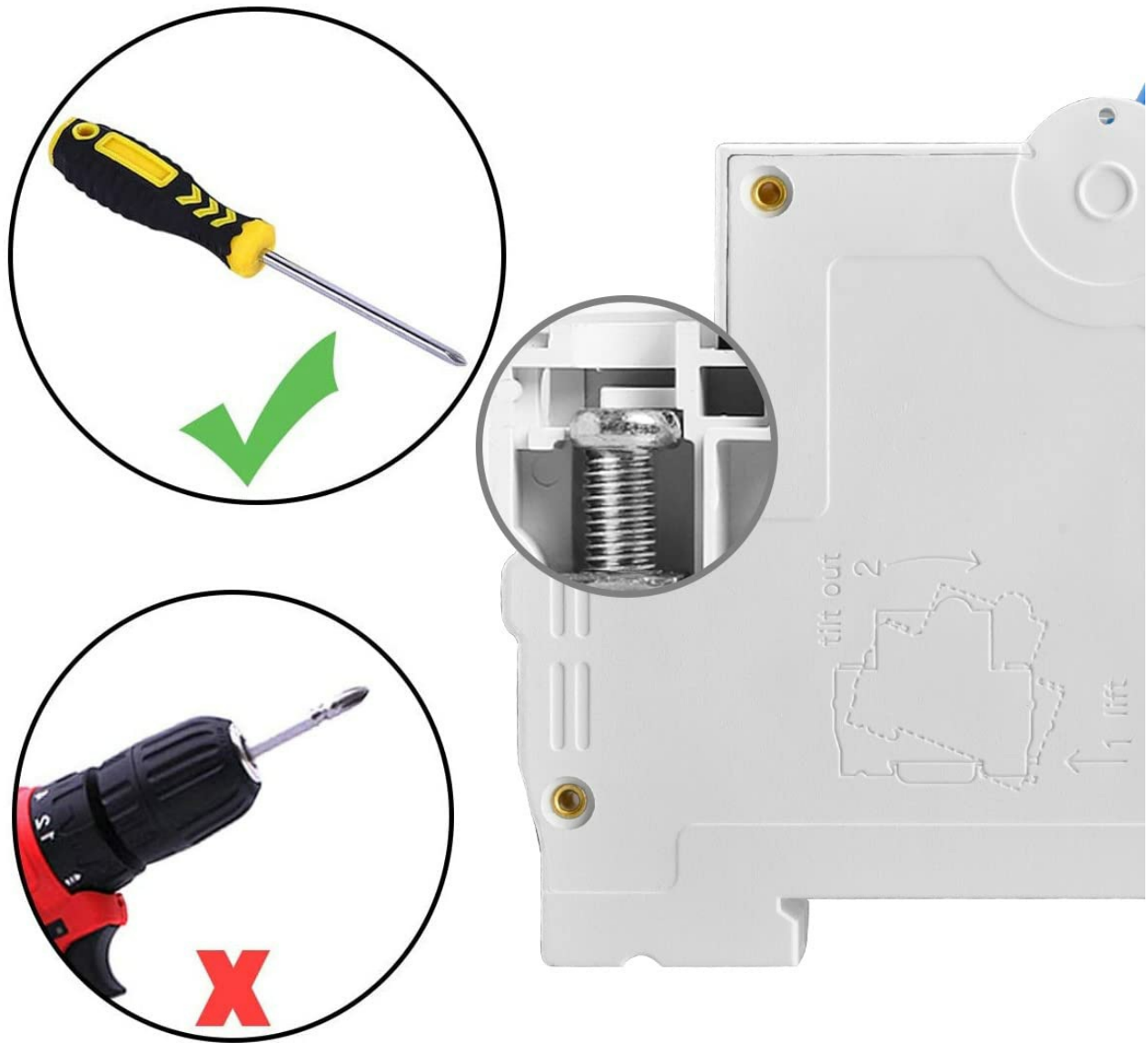


Figure 3: Illustration showing the correct tool (screwdriver) for tightening the circuit breaker terminals and an incorrect tool (power drill).

3.4 Installation Process Overview

The following video demonstrates the general installation of miniature circuit breakers into a distribution box, including the application of identification labels. While the specific model in the video may vary, the DIN rail mounting and labeling principles apply to the HSB6C-DC.

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Video 1: Demonstration of miniature circuit breaker installation into a distribution box and the process of applying circuit identification labels.

4. OPERATING INSTRUCTIONS

The Heschen HSB6C-DC circuit breaker features a simple ON/OFF toggle mechanism. The 'ON' position indicates the circuit is closed and power is flowing, while 'OFF' indicates the circuit is open and power is interrupted.

4.1 Switching the Circuit Breaker

To operate the circuit breaker, firmly move the toggle switch to the desired position. In the event of an overcurrent or short circuit, the breaker will automatically trip to the 'OFF' position to protect the system.

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Video 2: A brief demonstration of handling and manually switching the Heschen HSB6C-DC miniature circuit breaker between ON and OFF positions.

5. MAINTENANCE

Regular maintenance helps ensure the longevity and reliable operation of your circuit breaker. Always disconnect power to the circuit before performing any maintenance.

- **Visual Inspection:** Periodically check the circuit breaker for any signs of physical damage, discoloration, or loose connections.
- **Cleaning:** Keep the circuit breaker free from dust and debris. Use a dry, soft cloth for cleaning. Do not use liquids or abrasive cleaners.
- **Terminal Tightness:** Ensure all terminal connections remain tight. Loose connections can lead to overheating and potential hazards.

6. TROUBLESHOOTING

If your Heschen HSB6C-DC circuit breaker is not functioning as expected, consider the following common issues:

- **Breaker Trips Frequently:** This usually indicates an overload or a short circuit in the protected system. Investigate the connected load for faults or excessive current draw. Do not repeatedly reset a tripping breaker without identifying the cause.
- **No Power to Circuit:** If the breaker is in the 'ON' position but there is no power, check the wiring connections for continuity and ensure the main power supply to the breaker is active.
- **Breaker Does Not Reset:** If the breaker trips and cannot be reset, there might be a persistent fault in the circuit or internal damage to the breaker. Consult a qualified electrician.

Always consult a qualified electrician for any complex troubleshooting or repairs involving electrical systems.

7. SPECIFICATIONS

Detailed technical specifications for the Heschen HSB6C-DC 4-pole DC Miniature Circuit Breaker:

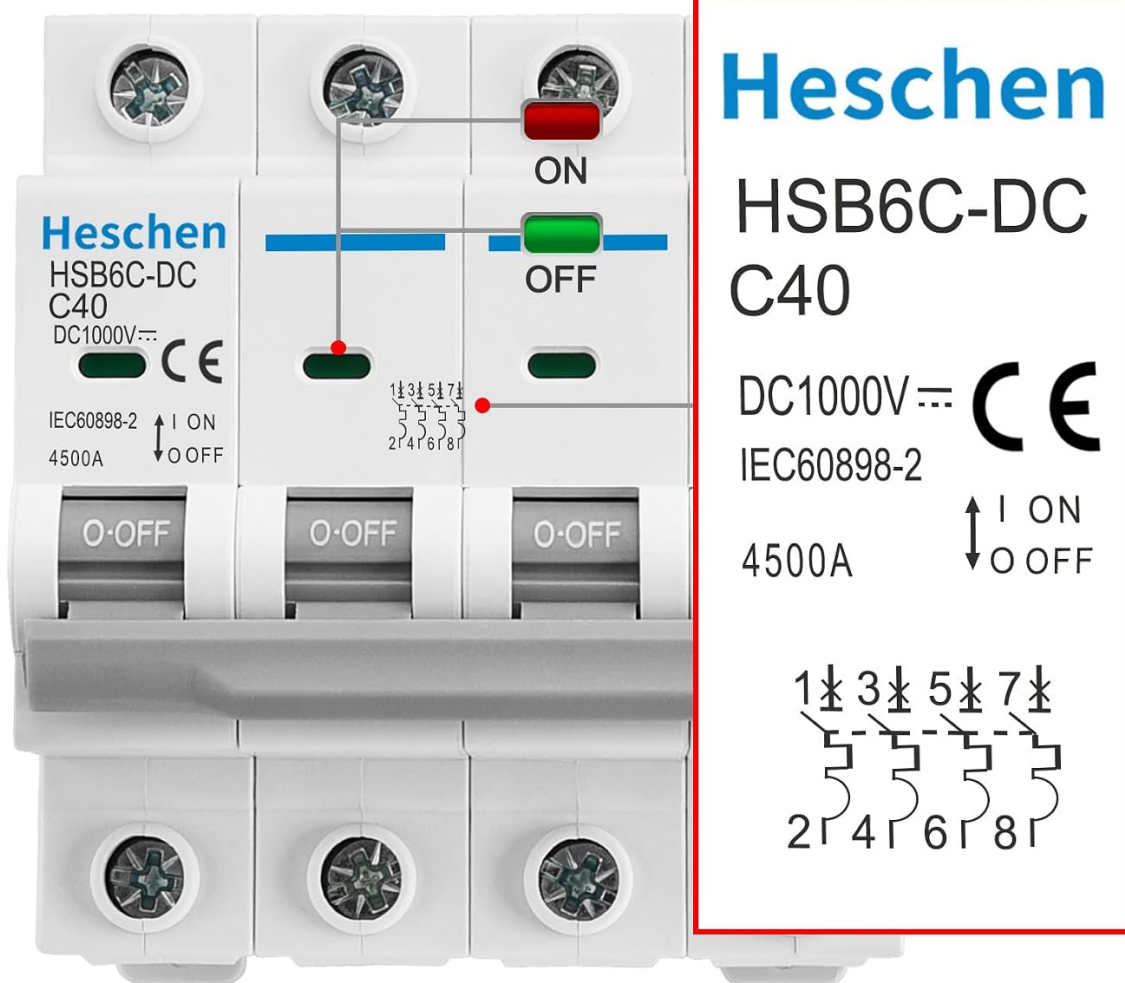


Figure 4: Product label displaying key specifications for the Heschen HSB6C-DC C40 circuit breaker.

Specification	Value
Model Number	HSB6C-DC
Current Rating	40 Amps
Rated Voltage	DC1000V
Number of Poles	4P
Breaking Capacity	4.5KA
Circuit Breaker Type	Standard
Mounting Type	DIN Rail Mount (35mm)
Manufacturer	Heschen
Parcel Dimensions	9.2 x 8.1 x 7.6 cm; 330 g

Specification	Value
Included Components	1 * DC Miniature Circuit Breaker

8. WARRANTY AND SUPPORT

For information regarding product warranty, technical support, or service, please refer to the documentation provided with your purchase or contact Heschen customer service directly. Ensure you have your product model number (HSB6C-DC) and purchase details available when seeking support.

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ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question