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› A2ZWORLD PL8HM RCBO Residual Current Circuit Breaker with Overcurrent Protection, Type AC, Curve C, 1P+N, 6A C6 Instruction Manual

A2ZWORLD 6A C6

A2ZWORLD PL8HM RCBO Instruction Manual

Model: 6A C6

1. INTRODUCTION

This manual provides essential information for the installation, operation, and maintenance of the A2ZWORLD PL8HM Series Residual Current Circuit Breaker with Overcurrent Protection (RCBO), model 6A C6. This device is designed to protect electrical circuits from both overcurrents (overload and short-circuit) and earth leakage faults, ensuring safety in residential and commercial electrical installations.

2. SAFETY INFORMATION

WARNING: Electrical installation should only be performed by qualified personnel. Failure to follow these instructions can result in serious injury or death.

- Always disconnect power before installing or servicing the RCBO.
- Ensure the RCBO's specifications (current rating, breaking capacity, type) match the requirements of your electrical system.
- Do not use the device if it appears damaged.
- Adhere to all local and national electrical codes and regulations.
- The device is designed for DIN rail mounting.

3. PRODUCT OVERVIEW

The A2ZWORLD PL8HM RCBO combines the functions of a miniature circuit breaker (MCB) and a residual current device (RCD) into a single compact unit. It features a dual-lever design for clear fault diagnostics and electromagnetic technology for reliable operation.

Key Features:

- **Dual Lever Visual Diagnostics:** Separate levers for magnetothermic (overcurrent) and differential (earth leakage) faults allow for immediate identification of the fault type, simplifying maintenance and

reducing recovery times.

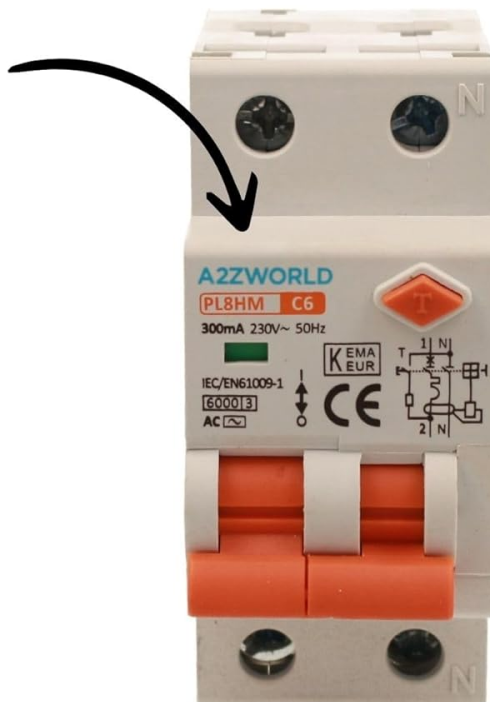
- **RCBO Type AC, Curve C:** Suitable for detecting sinusoidal alternating earth leakage currents. Curve C intervention characteristics (5 to 10 times nominal current) are ideal for circuits with mixed and inductive loads.
- **Electromagnetic Technology:** Operates on an electromagnetic principle, ensuring reliable performance even with unstable voltage or absence of neutral, making it suitable for demanding installations.
- **High Breaking Capacity:** Up to 6000 A, complying with IEC61009-1 standards, offering superior robustness for residential and commercial electrical panels.
- **Compact Design:** 2-module DIN rail compatible for efficient space utilization.



Interruttore Magnetotermico Differenziale (PL8HM)

Tipo AC - Curva C - 1P+N - 2 Moduli - 230V - Icn 6.000A

6A



SKU
GB55606

Figure 1: Front view of the A2ZWORLD PL8HM 6A C6 RCBO, showing the main switch and diagnostic levers.



Figure 2: Angled view of the A2ZWORLD PL8HM 6A C6 RCBO, highlighting its compact design.

4. INSTALLATION

The A2ZWORLD PL8HM RCBO is designed for quick and secure mounting on a standard DIN rail. Ensure all connections are tight and correctly polarized.

Installation Steps:

1. **Power Disconnection:** Before starting, ensure the main power supply to the electrical panel is completely disconnected.
2. **Mounting:** Hook the top edge of the RCBO onto the DIN rail. Press the bottom edge firmly until it clicks into place.
3. **Wiring:** Connect the incoming phase (L) and neutral (N) wires to the top terminals. Connect the outgoing phase (L') and neutral (N') wires to the bottom terminals. Ensure correct polarity as indicated on the device.
4. **Tighten Connections:** Securely tighten all terminal screws to prevent loose connections, which can cause overheating or arcing.
5. **Verification:** Double-check all wiring and connections before restoring power.

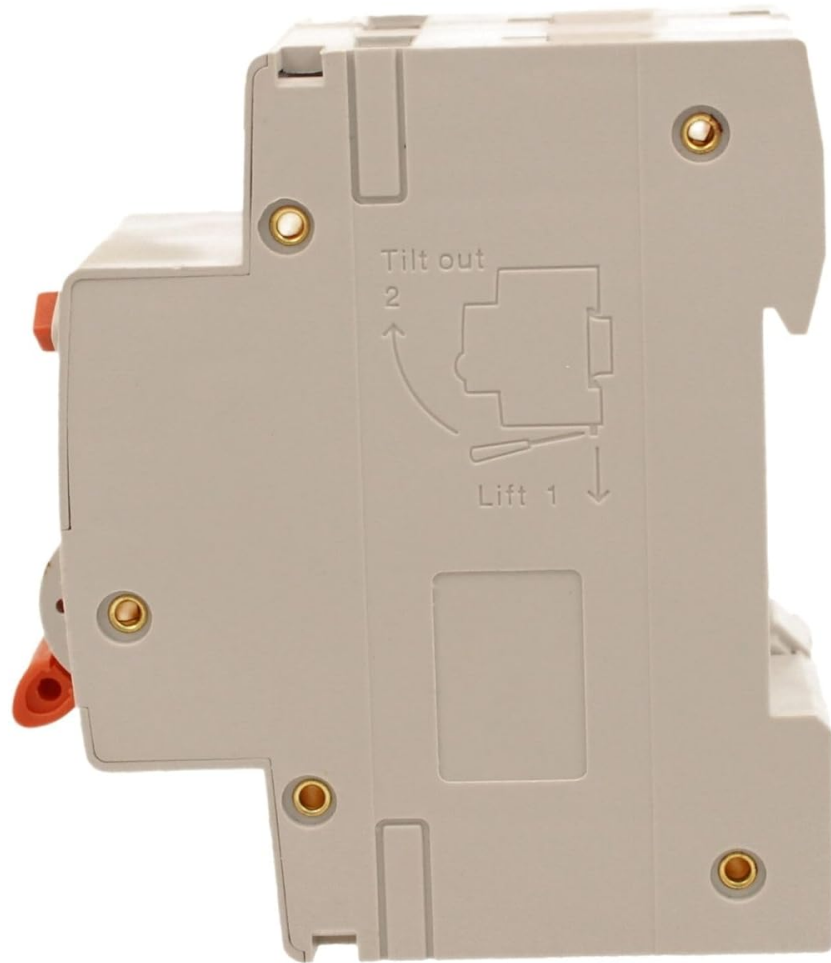


Figure 3: Side view illustrating the 'Tilt out' and 'Lift' mechanism for DIN rail installation and removal.

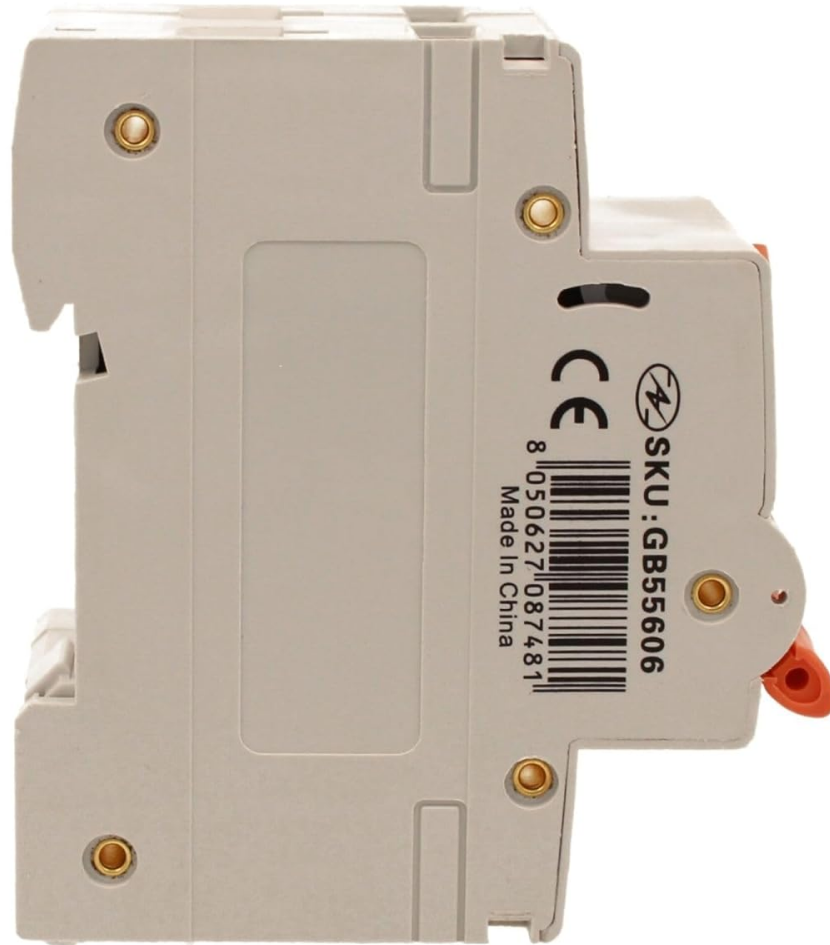


Figure 4: Side view showing product identification details, including SKU GB55606 and barcode 8050627087481.

5. OPERATION

Switching On/Off:

- To switch the RCBO ON, push the main lever upwards.
- To switch the RCBO OFF, pull the main lever downwards.

Dual Lever Visual Diagnostics:

The PL8HM series features two distinct levers for fault indication:

- If only the **magneto-thermic lever** (typically the larger, main lever) trips, it indicates an overcurrent fault (overload or short-circuit).
- If **both levers** trip, it indicates an earth leakage fault.

This visual distinction allows for rapid identification of the fault type, aiding in quicker troubleshooting and restoration of power.

Test Button:

The RCBO is equipped with a 'T' (Test) button. Pressing this button simulates an earth leakage fault and should cause the RCBO to trip. This function verifies the proper operation of the residual current protection mechanism.

6. MAINTENANCE

The A2ZWORLD PL8HM RCBO requires minimal maintenance. Regular checks ensure continued safe operation.

- **Monthly Test:** Press the 'T' (Test) button at least once a month to ensure the earth leakage protection is functioning correctly. The RCBO should trip immediately. If it does not, the device may be faulty and should be replaced.
- **Visual Inspection:** Periodically inspect the RCBO for any signs of physical damage, discoloration, or loose connections.
- **Cleaning:** If necessary, gently clean the exterior of the RCBO with a dry, soft cloth. Do not use abrasive cleaners or solvents.

7. TROUBLESHOOTING

If the RCBO trips, follow these steps to identify and resolve the issue:

- **Identify Fault Type:** Observe which lever(s) have tripped (refer to Section 5: Dual Lever Visual Diagnostics).
- **Overcurrent Fault (Magnetothermic lever tripped):**
 - **Overload:** Disconnect some appliances from the circuit to reduce the load.
 - **Short-circuit:** Unplug all appliances from the affected circuit. If the RCBO still trips upon reset, there may be a wiring fault.
- **Earth Leakage Fault (Both levers tripped):**
 - Unplug all appliances from the affected circuit. Reset the RCBO. If it holds, plug in appliances one by one to identify the faulty appliance.
 - If the RCBO trips even with no appliances connected, there may be an insulation fault in the wiring.
- **Resetting:** After identifying and rectifying the fault, push the RCBO lever fully down to the OFF position, then push it up to the ON position.
- **Persistent Tripping:** If the RCBO continues to trip without an apparent cause, or if you cannot identify the fault, contact a qualified electrician.

8. TECHNICAL SPECIFICATIONS

Manufacturer	A2ZWORLD
Model Number	6A C6
Rated Current	6 Amperes
Rated Residual Operating Current	300 mA
Poles	1P+N (Single Pole + Neutral)

Breaking Capacity (Icn)	6 kA
Tripping Curve	C (5-10 In)
Type of Residual Current	AC (Alternating Current)
Mounting Type	DIN Rail
Number of Modules	2
Material	Plastic
Dimensions	9 x 7.5 x 3.5 cm
Weight	215 g

9. WARRANTY AND SUPPORT

A2ZWORLD products are manufactured to high-quality standards. For warranty information, technical support, or service inquiries, please refer to the contact details provided on the product packaging or visit the official A2ZWORLD website.



Figure 5: Product packaging with QR code. Scan the QR code for additional product information and support:
<https://uqr.to/1memp>



Figure 6: Product packaging indicating CE and RoHS compliance, ensuring adherence to European safety and environmental standards.