BDPQKPDV GYM8 SP Circuit Breaker C Curve 10A

BDPQKPDV GYM8 SP Circuit Breaker C Curve 10A User Manual

Model: GYM8 SP Circuit Breaker C Curve 10A

1. Introduction

This manual provides essential information for the safe and effective installation, operation, and maintenance of the BDPQKPDV GYM8 Single Pole (SP) Miniature Circuit Breaker (MCB) with a C Curve characteristic and 10A rating. Please read this manual thoroughly before installation and retain it for future reference. This device is designed to protect electrical circuits from overcurrents, which can result from overload or short circuit.

Image 1.1: Front view of the GYM8 SP Circuit Breaker, showing the ON/OFF switch and rating labels.

2. Safety Information

WARNING: Electrical shock hazard. Installation and maintenance should only be performed by qualified personnel.

- Always disconnect power at the main supply before installing or servicing the circuit breaker.
- Ensure the circuit breaker rating (current and voltage) matches the requirements of the circuit it is protecting.
- Do not use the circuit breaker if it appears damaged.
- Follow all local and national electrical codes and regulations.
- Ensure proper grounding where required.
- The C Curve characteristic indicates that the breaker will trip between 5 and 10 times its rated current for short-circuit protection, suitable for general-purpose circuits with moderate inrush currents.

3. Product Overview

The BDPQKPDV GYM8 SP Circuit Breaker is a single-pole miniature circuit breaker designed for DIN rail mounting. It provides reliable protection against overloads and short circuits in AC electrical systems.

3.1 Key Features

- Single Pole (SP) configuration.
- C Curve tripping characteristic.
- Rated current: 10A.
- Rated voltage: 220V (AC).
- DIN rail mountable.
- Visual indicator for ON/OFF status.

Image 3.1: Angled front view of the circuit breaker, highlighting its compact design.

4. Specifications

Attribute	Value
Brand	BDPQKPDV
Model	GYM8 SP Circuit Breaker C Curve 10A
Rated Current	10A

Rated Voltage	220V (AC)
Poles	1 (Single Pole)
Tripping Curve	C Curve
Material	Copper (internal components)
Package Dimensions	1.18 x 0.79 x 0.39 inches
Item Weight	1.76 ounces
Mounting Type	DIN Rail

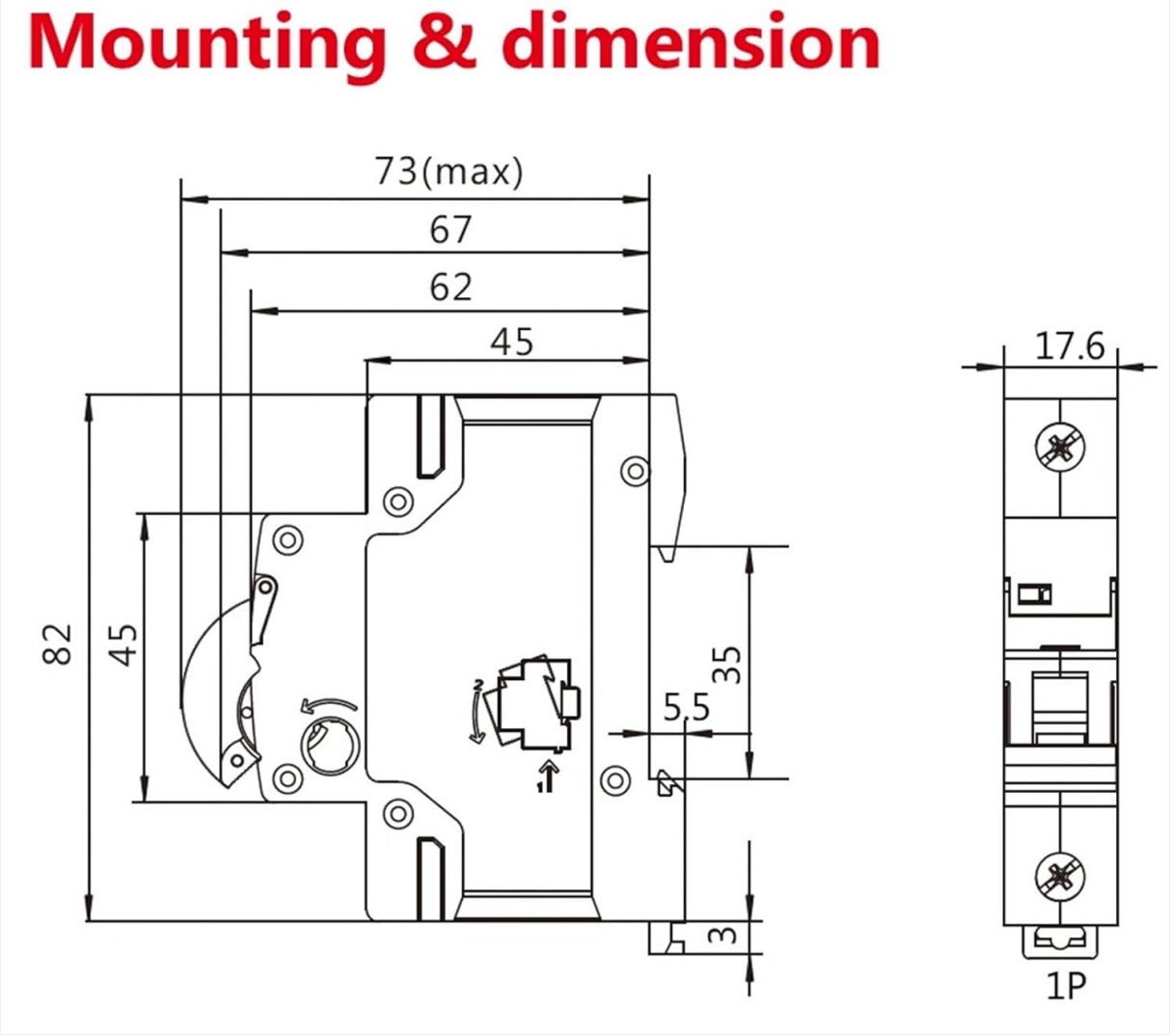

Image 4.1: Detailed mounting and dimension diagram, showing measurements in millimeters.

5. Setup and Installation

Proper installation is critical for the safe and reliable operation of the circuit breaker. Ensure all power is OFF before proceeding.

5.1 Tools Required

- Screwdriver (appropriate size for terminal screws)
- Wire strippers
- Multimeter (for verification)

- Personal protective equipment (PPE) such as insulated gloves and safety glasses.

5.2 Installation Steps

1. **Power Disconnection:** Locate the main electrical panel and turn off the main power supply to the circuit where the breaker will be installed. Verify with a multimeter that the power is off.
2. **DIN Rail Mounting:**
    - Position the circuit breaker on the DIN rail.
    - Engage the top clip of the breaker onto the top edge of the DIN rail.
    - Press the bottom of the breaker firmly until it clicks into place on the DIN rail. Refer to Image 5.1 for visual guidance on the mounting mechanism.
3. **Wiring Connections:**
    - Strip approximately 10-12mm of insulation from the circuit wires.
    - Connect the incoming live wire to the top terminal of the circuit breaker.
    - Connect the outgoing live wire (to the load) to the bottom terminal of the circuit breaker.
    - Ensure all terminal screws are tightened securely to prevent loose connections, which can cause overheating.
4. **Verification:** Double-check all connections for tightness and correct polarity. Ensure no bare wires are exposed.
5. **Restore Power:** Once installation is complete and verified, restore power at the main supply.

Image 5.1: Back view of the circuit breaker, illustrating the DIN rail mounting clips and release mechanism.

6. Operating Instructions

The GYM8 SP Circuit Breaker is designed for simple operation.

6.1 Turning ON the Circuit Breaker

- Ensure the circuit is safe to energize.
- Push the red lever upwards to the "ON" position. The indicator window should show green.

6.2 Turning OFF the Circuit Breaker

- To de-energize the circuit, push the red lever downwards to the "OFF" position. The indicator window should show red.

6.3 Automatic Tripping

In the event of an overload or short circuit, the circuit breaker will automatically trip to the "OFF" position, protecting the circuit. The lever will typically rest in a middle or fully down position, indicating a trip. Before resetting, identify and rectify the cause of the trip.

7. Maintenance

The GYM8 SP Circuit Breaker requires minimal maintenance. Regular inspections are recommended to ensure continued safe operation.

- **Visual Inspection:** Periodically check the circuit breaker for any signs of physical damage, discoloration, or loose connections.
- **Cleaning:** If necessary, gently clean the exterior of the circuit breaker with a dry, lint-free cloth. Do not use liquids or abrasive cleaners.
- **Testing:** It is recommended to periodically test the circuit breaker's tripping mechanism by using a dedicated circuit breaker tester, performed by a qualified electrician. Do not repeatedly trip the breaker manually as a test.

8. Troubleshooting

Problem	Possible Cause	Solution
Circuit breaker trips frequently.	Overload on the circuit, short circuit, faulty appliance, or incorrect breaker rating.	Reduce load on the circuit, inspect appliances for faults, check wiring for short circuits, or verify breaker rating is appropriate for the load. Consult a qualified electrician.
Circuit breaker does not reset.	Persistent fault (overload or short circuit) still present, or internal damage to the breaker.	Ensure the fault has been cleared. If the breaker still does not reset, it may be damaged and require replacement. Do not force the lever.
Circuit breaker feels hot to the touch.	Loose connections, excessive current draw, or internal fault.	Immediately disconnect power. Check all wiring connections for tightness. Reduce load. If the issue persists, replace the breaker. Consult a qualified electrician.

9. Warranty and Support

For warranty information and technical support regarding your BDPQKPDV GYM8 SP Circuit Breaker, please refer to the documentation provided at the point of purchase or contact your retailer. Keep your purchase receipt as proof of purchase.
For additional assistance, you may visit the manufacturer's website or contact their customer service department. Contact details are typically found on the product packaging or the retailer's website.