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Bryant BD20/20

BRYANT BD20/20 Circuit Breaker User Manual

Model: BD20/20

1. Introduction

This manual provides essential information for the safe installation, operation, and maintenance of the BRYANT BD20/20 20A 120/240V 2P 10K Circuit Breaker. This device is designed to protect electrical circuits from overcurrent conditions, such as overloads and short circuits, by automatically interrupting the flow of electricity. Please read this manual thoroughly before installation or use to ensure proper function and safety.

2. SAFETY INFORMATION

WARNING: Electrical shock hazard. Installation and servicing of this circuit breaker must be performed by qualified personnel only. Always disconnect power at the main service panel before working on electrical circuits.

- Ensure all local and national electrical codes are followed during installation.
- Verify the voltage and current ratings of the circuit breaker match the requirements of the electrical system.
- Do not install or operate the circuit breaker if it appears damaged.
- Use appropriate personal protective equipment (PPE), including insulated gloves and safety glasses.
- Never bypass or tamper with the circuit breaker's protective mechanisms.

3. PRODUCT OVERVIEW

The BRYANT BD20/20 is a 2-pole, 20-amp circuit breaker designed for 120/240V applications. It features a 10,000 Ampere Interrupting Capacity (AIC), indicating its ability to safely interrupt high fault currents. The breaker is designed for plug-in mounting in compatible load centers.



Figure 3.1: Front View of BD20/20 Circuit Breaker

This image displays the front of the BRYANT BD20/20 circuit breaker. It clearly shows the two red toggle switches, labeled "ON" and "OFF" for each pole. The brand "BRYANT" and model "BD20-20" are visible, along with "CU-AL SWD" indicating compatibility with copper and aluminum wiring. The UL listing information is also present at the top.



Figure 3.2: Bottom View of BD20/20 Circuit Breaker

This image shows the bottom side of the BRYANT BD20/20 circuit breaker. Visible markings include "USE ONLY IN LISTED



Figure 3.3: Top View of BD20/20 Circuit Breaker

This image displays the top side of the BRYANT BD20/20 circuit breaker. Key information includes the "TORQUE" specifications for wire connections: 14-10 AWG 20 IN.LBS., 8 AWG 25 IN.LBS., and 6-4 AWG 27 IN.LBS. The "CURRENT INTERRUPTING RATING" is also shown as "MAX. RMS SYM. AMPERES 10,000 AT 120/240 VOLTS AC".

4. SETUP AND INSTALLATION

IMPORTANT: Ensure all power to the electrical panel is OFF before proceeding with installation. Use a voltage tester to confirm the absence of power.

- 1. **Power Disconnection:** Locate the main service panel and turn off the main breaker to completely de-energize the panel.
- 2. Panel Access: Carefully remove the cover of the electrical panel to expose the bus bar and wiring.
- 3. Breaker Placement: Identify an available slot on the bus bar that is compatible with the BD20/20's plug-in design.
- 4. **Installation:** Align the circuit breaker with the bus bar and firmly push it into place until it clicks securely. Ensure both poles are properly seated.
- 5. **Wiring:** Connect the circuit wires to the appropriate terminals on the circuit breaker. For the BD20/20, connect the two hot wires to the respective screw terminals. Refer to Figure 3.3 for recommended torque specifications for wire gauges (14-10 AWG: 20 in-lbs, 8 AWG: 25 in-lbs, 6-4 AWG: 27 in-lbs).
- 6. **Secure Connections:** Tighten the terminal screws to the specified torque to ensure a secure and safe electrical connection.
- 7. Panel Reassembly: Replace the electrical panel cover, ensuring all screws are tightened.
- 8. Power Restoration: Turn the main breaker back ON at the service panel.
- 9. **Testing:** Test the circuit protected by the newly installed breaker to confirm proper operation.

5. OPERATING INSTRUCTIONS

The BRYANT BD20/20 circuit breaker operates with simple ON/OFF toggles. When the circuit breaker trips due to an overload or short circuit, the toggle will move to a central or "tripped" position, typically between ON and OFF.

- To Turn ON: Push the red toggle(s) firmly to the "ON" position.
- To Turn OFF: Push the red toggle(s) firmly to the "OFF" position.
- To Reset a Tripped Breaker: First, push the toggle(s) completely to the "OFF" position. Then, push the toggle(s) firmly to the "ON" position. If the breaker immediately trips again, there may be a persistent fault in the circuit that requires professional attention.

6. MAINTENANCE

Circuit breakers like the BRYANT BD20/20 are generally maintenance-free. However, periodic visual inspection is recommended.

- **Annual Inspection:** Annually, or as required by local codes, have a qualified electrician inspect the circuit breaker and its connections for any signs of wear, corrosion, or overheating (discoloration).
- Cleaning: Ensure the area around the circuit breaker within the panel is free from dust and debris. Do not use liquids for cleaning inside the electrical panel.
- **Testing:** While not typically required for residential breakers, some commercial or industrial applications may require periodic testing by a qualified professional.

7. TROUBLESHOOTING

| Problem | Possible Cause | Solution |
|---------|------------------|----------|
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| Problem | Possible Cause | Solution |
|---|---|--|
| Breaker trips frequently. | Overloaded circuit, short circuit, or ground fault. | Reduce load on the circuit. Unplug appliances. Inspect wiring for damage. If problem persists, consult a qualified electrician. |
| Breaker does not reset. | Persistent fault (short circuit/ground fault) or internal breaker damage. | Ensure the toggle is pushed fully to "OFF" before attempting to reset to "ON". If it still won't reset, do not force it. Call a qualified electrician. |
| No power to circuit after installation. | Breaker not fully seated, loose wiring connections, or main power off. | Verify main breaker is ON. Ensure the BD20/20 is fully seated on the bus bar. Check wire connections for tightness (with power OFF). |

If you are unable to resolve an issue, or if you suspect a serious electrical problem, always contact a qualified and licensed electrician.

8. SPECIFICATIONS

| Attribute | Value |
|-----------------------------|------------------|
| Model Number | BD20/20 |
| Brand | Bryant |
| Current Rating | 20 Amps |
| Voltage Rating | 120/240V AC |
| Number of Poles | 2 |
| Interrupting Capacity (AIC) | 10,000 Amperes |
| Mounting Type | Plug-In Mount |
| Circuit Breaker Type | Standard |
| Product Dimensions | 3 x 1 x 3 inches |
| Weight | 5.86 ounces |

9. WARRANTY AND SUPPORT

Specific warranty information for the BRYANT BD20/20 circuit breaker is typically provided by the manufacturer or the point of purchase. Please refer to the documentation included with your purchase or contact Bryant customer support for details regarding warranty coverage and terms.

For technical support or inquiries, please contact Bryant customer service or a certified electrician.

Related Documents - BD20/20



Instructions d'installation du thermostat Bryant® Housewise™ T6-WEM01-A

Guide complet pour l'installation du thermostat intelligent Bryant® Housewise™ modèle T6-WEM01-A. Inclut les consignes de sécurité, les étapes d'installation, le dépannge et les spécifications techniques.



Bryant BA13NA Series Single-Stage Air Conditioner Product Data

Explore the Bryant BA13NA Series single-stage air conditioner, featuring Puron refrigerant, high SEER ratings, and durable construction. This product data sheet provides detailed specifications, features, benefits, and performance data for efficient cooling solutions.



Bryant Smart Thermostat: Features, Installation, and Benefits | Bryant Heating & Cooling

Discover the Bryant Smart Thermostat, offering connected comfort, easy installation, and advanced features for homeowners and dealers. Learn about its benefits, setup, and support.



Bryant® Electrical Solutions Catalog: Devices, Controls, and Motor Controls

Explore the comprehensive Bryant® catalog featuring a wide range of electrical devices including straight blade devices, GFCI products, surge protection, switches, occupancy sensors, lighting controls, and motor control products for residential, commercial, and industrial applications.



38MGR Multi-zone Ductless System: Outdoor Unit Installation Guide

Installation instructions for the 38MGR multi-zone outdoor unit ductless system, covering safety, system requirements, piping, wiring, dimensions, clearances, electrical data, connection diagrams, vacuum and charge procedures, start-up, and troubleshooting.



Bryant Limited Warranty for Air Conditioner & Heat Pump Condensing Units (R-410A)

This document outlines the limited warranty terms and conditions for Bryant Air Conditioner and Heat Pump Condensing Units with Puron® (R-410A) Refrigerant, covering residential and other applications, including warranty service steps, registration, coverage details, limitations, and exclusions.