

[Manuals.plus](#) /

› [Square D](#) /

› Square D 8536 SD01 Size 2 Motor Starter Instruction Manual

Square D 8536 SD01

Instruction Manual: Square D Motor Starter

MODEL: 8536 SD01 SIZE 2

Brand: Square D

1. PRODUCT OVERVIEW

The Square D 8536 SD01 Size 2 Motor Starter is a robust industrial electrical component designed for controlling and protecting electric motors. It integrates a contactor for switching the motor's power and an overload relay for thermal protection against overcurrent conditions. This device is rated for 45 Amps and is suitable for 120V-AC coil voltage applications, capable of handling motors up to 25 HP.

This manual provides essential information for the safe and effective installation, operation, and maintenance of your Square D motor starter.



Figure 1.1: Square D 8536 SD01 Size 2 Motor Starter as packaged. This image shows the motor starter partially removed from its cardboard packaging, providing a general view of the unit.

2. SAFETY INFORMATION

WARNING: Electrical shock hazard. Only qualified personnel should install, operate, and maintain this equipment. Disconnect all power before working on the motor starter or connected equipment. Failure to follow these instructions can result in death or serious injury.

- Always follow local and national electrical codes.
- Ensure proper grounding.
- Do not operate the starter with damaged components.
- Verify correct voltage and current ratings before connection.

3. SETUP AND INSTALLATION

Proper installation is critical for the safe and reliable operation of the motor starter.

3.1 Mounting

The motor starter should be mounted vertically on a flat, stable surface within an appropriate enclosure to protect it from environmental factors and ensure safety. Use suitable fasteners through the designated mounting holes on the base plate.



Figure 3.1: Bottom view of the motor starter. This image highlights the sturdy metal base plate with pre-drilled holes, indicating points for secure mounting within an electrical panel or enclosure.

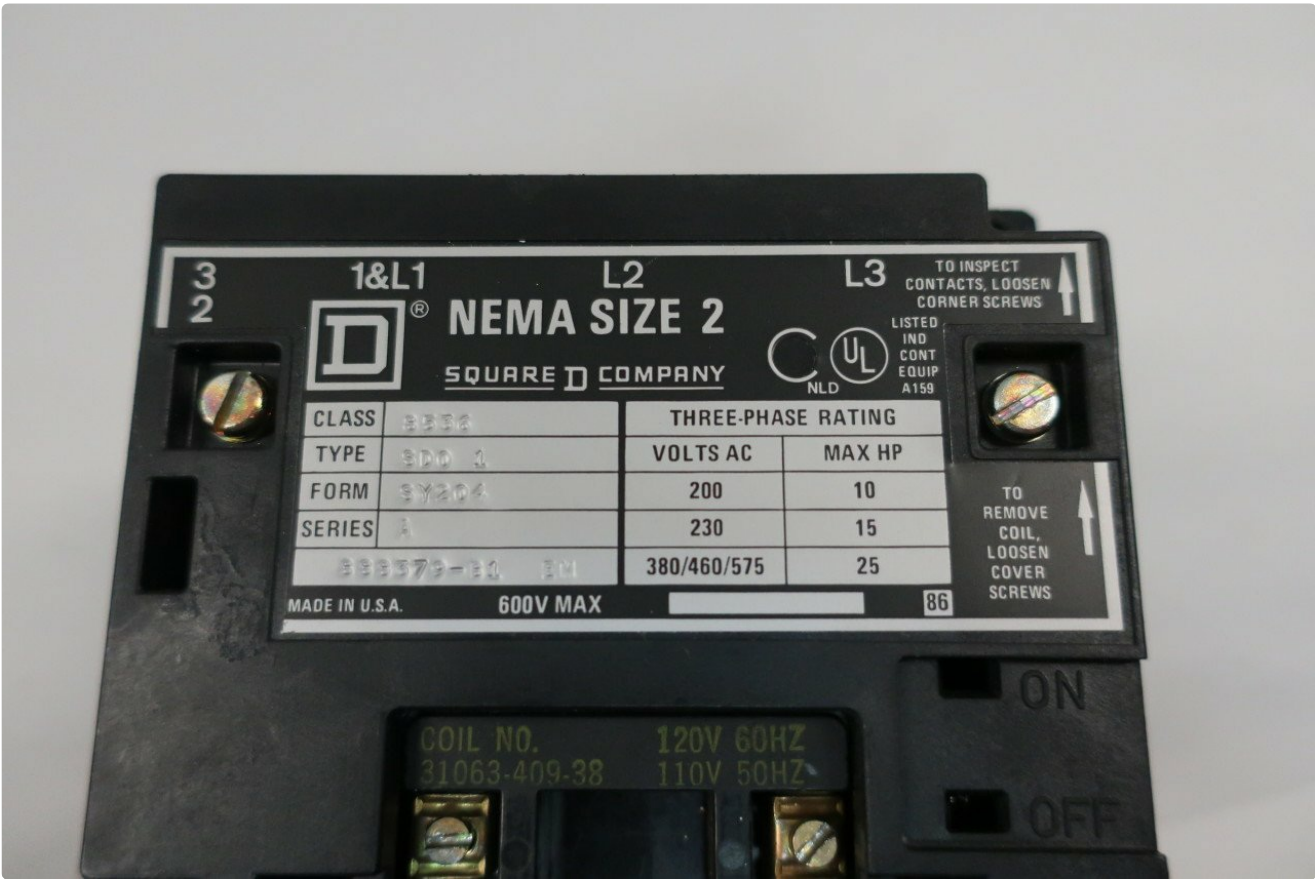


Figure 3.2: Underside view of the motor starter. This perspective further clarifies the mounting points and the overall robust construction of the unit's base.

3.2 Wiring Connections

Refer to the wiring diagram provided with your specific motor and application. Ensure all connections are tight and made with appropriately sized conductors. The main power terminals are labeled L1, L2, L3 (input) and T1, T2, T3 (output to motor). The control coil terminals are typically located near the front of the unit.

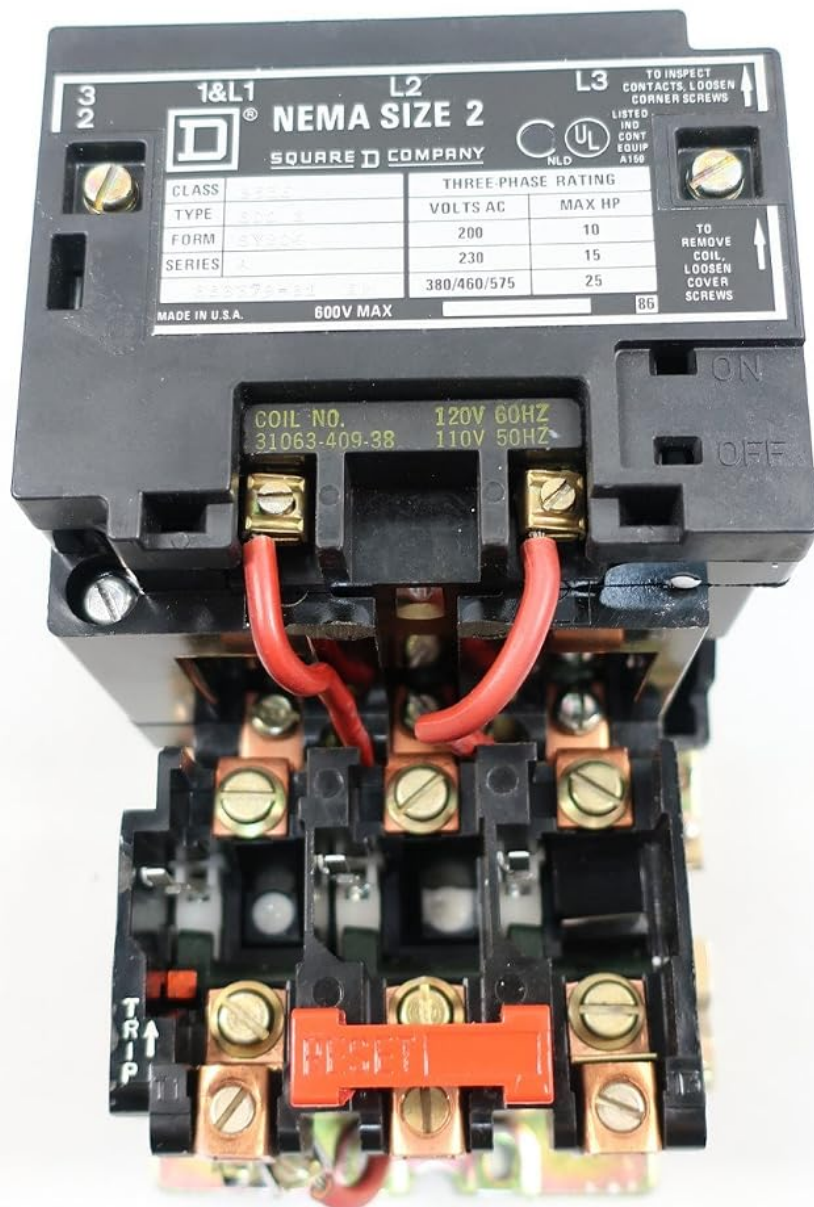


Figure 3.3: Top view of the motor starter. This image clearly displays the main power terminals (L1, L2, L3, T1, T2, T3) and the control coil connections, along with the product's rating label.

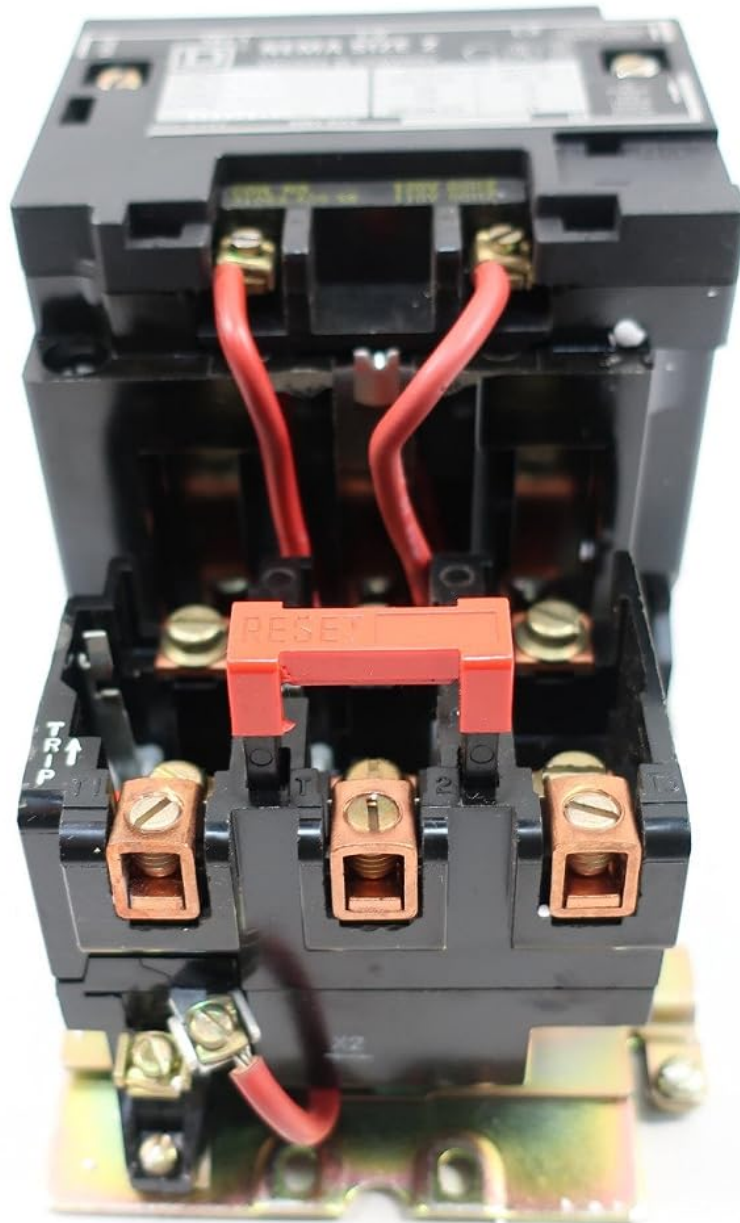


Figure 3.4: Front view of the motor starter. This view provides a closer look at the accessible wiring terminals, indicating where power and motor leads should be connected.

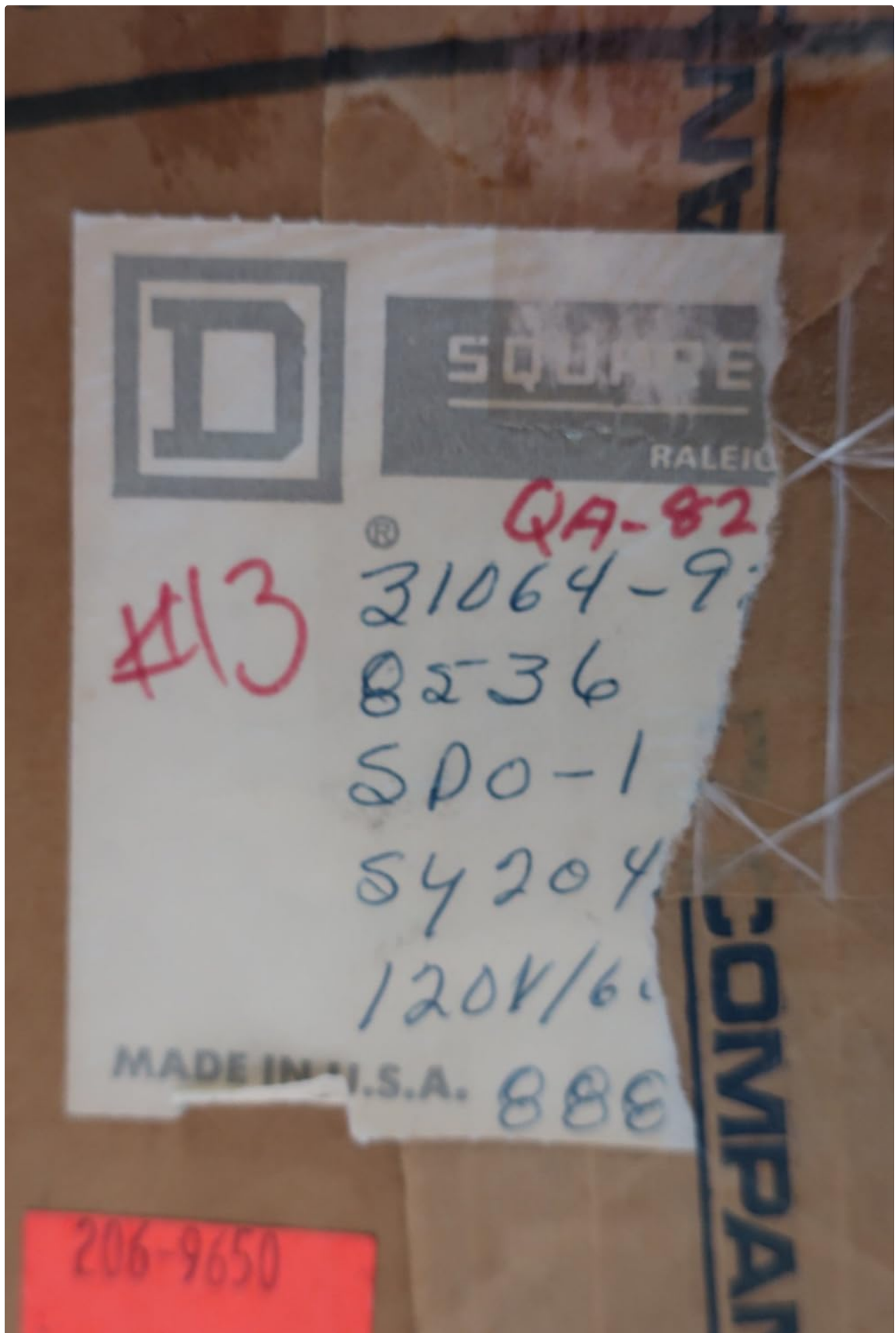


Figure 3.5: Close-up of the motor starter's nameplate. This detailed image shows critical electrical specifications including NEMA size, three-phase ratings (Volts AC, Max HP), and coil voltage (120V 60Hz / 110V 50Hz).

4. OPERATING INSTRUCTIONS

Once properly installed and wired, the motor starter is operated by energizing its control coil. This typically involves a start/stop push-button station or an automated control system.

- **Starting:** Apply control voltage to the coil terminals. The contactor will close, applying power to the motor.
- **Stopping:** Remove control voltage from the coil terminals. The contactor will open, disconnecting power from the motor.
- **Overload Protection:** The integrated overload relay will trip and open the control circuit if the motor draws excessive current for a prolonged period, protecting the motor from damage. A 'TRIP' indicator may be visible on the overload relay.

5. MAINTENANCE

Regular maintenance ensures the longevity and reliable operation of your motor starter.

- **Visual Inspection:** Periodically inspect the starter for signs of overheating, discoloration, loose connections, or physical damage.
- **Cleaning:** Keep the starter clean and free of dust and debris. Use a dry, non-conductive brush or vacuum.
- **Connection Tightness:** Check and re-tighten all electrical connections as necessary. Loose connections can cause overheating and arcing.
- **Coil Replacement:** If the control coil fails, it can be replaced. Refer to the nameplate for the correct coil number (e.g., COIL NO. 31063-409-38 for 120V 60Hz).

6. TROUBLESHOOTING

This section outlines common issues and their potential solutions.

- **Motor Does Not Start:**
 - Check control circuit power.
 - Verify control coil voltage.
 - Check for tripped overload relay (reset if tripped).
 - Inspect start/stop buttons and wiring.
- **Motor Trips Overload Frequently:**
 - Check motor for mechanical issues or excessive load.
 - Verify motor current against overload relay settings.
 - Check for unbalanced voltages.
 - Ensure proper ventilation around the motor and starter.
- **Contactor Hums Loudly:**
 - Check for loose connections or foreign material on the magnet faces.
 - Verify correct coil voltage.

7. SPECIFICATIONS

Key technical specifications for the Square D 8536 SD01 Size 2 Motor Starter:

Attribute	Value
Model Number	8536 SD01
NEMA Size	Size 2
Amperage	45 A
Coil Voltage (AC)	120 V-AC (60Hz) / 110 V-AC (50Hz)
Max Horsepower (200V AC)	10 HP
Max Horsepower (230V AC)	15 HP
Max Horsepower (380/460/575V AC)	25 HP
Material	Copper (contacts)
Product Dimensions (L x W x H)	9 x 7 x 6.5 inches
Item Weight	6.9 Pounds
Manufacturer	Square D
Date First Available	May 16, 2018

8. WARRANTY AND SUPPORT

For specific warranty information and technical support, please refer to the official Square D documentation that accompanied your purchase or visit the Square D website. It is recommended to register your product upon receipt to ensure access to all support services.

For further assistance, contact Square D customer service or a certified electrical professional.