



Rating (In HP)	20 - 25 HP	25 - 30 HP	30 - 35 HP	
Relay Range (In Amps.)	10 - 45	15 - 50	20 - 60	
Rating (In HP)	40 HP	50 HP	60 HP	75 HP
Relay Range (In Amps.)	30 - 65	40 - 80	50 - 95	65 - 120

SELFGUARD Automatic Star Delta Control Panel (SDP) is used to run Three Phase Motors.

This Panel is **Fully Automatic** and includes **Contactors and Digital Timers** to ensure a **smooth and safe transition from Star to Delta position**.

The details of the Panel are given below:

Features:

- Incorporates the latest Microcontroller Technology.
- Includes a Digital Voltmeter, Ammeter with inbuilt Overload Relay, and Short Circuit Protection.
- Safeguards the Motor from Reverse Phasing and running in Two Phases.
- Protects the Motor from Imbalance Voltage.
- Equipped with inbuilt delay timers for Three-Phase Sensing, Star, and Delta Positions.
- Provides distinct indications for Reverse Phase, Missing Phase, and the Presence of all Three Phases in the Correct Order.
- Offers separate indications for the Star and Delta Positions when the motor is operational.

Panel Working:

- To turn on the panel, the **Panel On** button is provided.
- **In Manual Mode**, pressing the Green (Start) button will initiate the panel in the star position. Subsequently, pressing the Yellow (Run) button will prompt the panel to run in the delta position. The panel can be stopped by pressing the Red (Stop) button. The Single Phasing Preventer/Auto Switch will not operate.
- **In Auto Mode**, the Single Phasing Preventer/Auto Switch will verify the presence of all three phases in the correct sequence. A green indicator will glow to indicate this verification, and the panel will start in the star position. After a preset delay, the panel will transition to the delta position.
- **In either Auto or Manual Mode**, the Star and Delta Indicators will illuminate in their respective positions, and the Overload relay will function.

- To check the Phase to Phase Voltage on the Voltage Indicator, a voltage selector switch is provided on the panel. Rotating the voltage selector switch allows the selection of voltage from RY/YB/BR.

Overload Relay Setup and Working:

- Every time the Panel On button is switched on, the Tripping set Amperes will be displayed on the overload relay screen for 2 seconds. The user can adjust the Tripping Amperes according to the motor rating (for relay range, please refer to the table at the top of the PDF) using the knob provided on the back of the Overload Relay.
- The Panel will stop the motor if the Amperes of the motor exceed the set Tripping Amperes of the Overload Relay, with a preset inbuilt time, and 'OL' will be displayed on the overload relay screen.

Single Phasing Preventer/Auto Switch Working:

- If all three phases are in the correct sequence, a Green Indicator will glow after a preset delay, and the Auto switch will start working.
- If the phases are not in the correct sequence, the Red Indicator will start blinking.
- If any of the three phases is missing, the Red Indicator will glow.

*Find the Connection Diagram here: [Selfguard SDP Connection Diagram](#)