# imall

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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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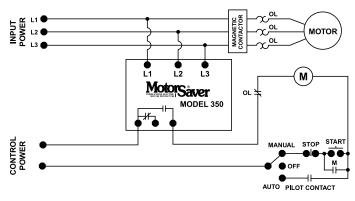
### 350 SERIES

### 3-phase voltage/phase monitor

### ⊕ C ∈



### Wiring Diagram



### Description

The 350 Series is a heavy-duty voltage monitor. This product should be used when high current relays or dual contacts are required, or 480V controls are used. Since the 350 Series uses heavy-duty relays, it comes in fixed voltage range models rather than a dual auto-ranging version like the Model 250.

The 350200 has a 15A general purpose contact. The 350400 provides a SPDT (Form C) relay rated to switch up to 600V, allowing the use of 480V controls, eliminating the need for a control power transformer to step the voltage down to 120-240V. Several DPDT (two Form C contacts) relay models are also available.

The 350 microcontroller-based family of products are low cost yet highly advanced solutions to heavy-duty problems. The 350 includes advanced single LED diagnostics. Five different light patterns distinguish faults and normal operating conditions. Other options such as high voltage trip and adjustable restart delay are available.

### Features & Benefits

FEATURES	BENEFITS
Proprietary microcontroller based circuitry	Constantly monitors 3 phase voltage to protect against harmful line conditions, even before the motor is started
Advanced LED indication	Provides diagnostics which can be used for troubleshooting and to determine relay status
Adjustable restart delay (-2 models) settings	Allows staggered start up of multiple motors, after a fault, to prevent a low voltage condition
600V rated relay contacts available on some models	Eliminates the need for a control transformer to step voltage down to 120 - 240V for a control circuit

### **Ordering Information**

MODEL	LINE VOTAGE	DESCRIPTION	
350200	190-240VAC	SPDT, fixed trip and restart delay	
3502002	190-240VAC	SPDT, fixed trip and variable restart delay (manual, 2-300s)	
35020026	190-240VAC	DPDT, 2 relays (1)10a. (1) 15A; fixed trip and variable restart delay (manual, 2-300s)	
35020028**	190-240VAC	DPDT, 2 relays 15A; variable restart delay (no manual reset)	
35020029	190-240VAC	SPDT, fixed trip and variable restart delay (manual, 2-300s), plus high voltage detection	
350400	380-480VAC	SPDT, fixed trip and restart delay	
3504002	380-480VAC	SPDT, fixed trip and variable restart delay (manual, 2-300s)	
35040025	380-480VAC	DPDT, fixed trip and variable restart delay (manual, 2-300s)	

MODEL LINE VOTAGE DESCRIPTION DPDT, 2 relays (1)10a. (1) 15A; fixed trip and 380-480VAC 35040026 variable restart delay (manual, 2-300s) DPDT, 2 relays 15A; variable restart delay 35040028\*\* 380-480VAC (no manual reset) SPDT, fixed trip and variable restart delay 35040029 380-480VAC (manual, 2-300s), plus high voltage detection 350600 475-600VAC SPDT, fixed trip and restart delay SPDT, fixed trip and restart delay 475-600VAC 3506002 (manual, 2-300s) DPDT, 2 relays (1)10a. (1) 15A; fixed trip and 35060026 475-600VAC variable restart delay (manual, 2-300s) DPDT, 2 relays 15A; variable restart delay 35060028\*\* 475-600VAC (no manual reset) SPDT, fixed trip and variable restart delay 475-600VAC 35060029 (manual, 2-300s), plus high voltage detection

\*\* These units are not equipped with Manual Reset.

### **350 SERIES**



### **Specifications**

### **Input Characteristics**

#### **Line Voltage** 350200 350400 350600 Frequency

### **Functional Characteristics**

Low Voltage (% of setpoint) Trip Reset Voltage Unbalance (NEMA) Trip Reset Trip Delay Time: Low Voltage Unbalance & Phasing Faults **Restart Delay Time** After a Fault After a Complete Power Loss 2 seconds **Output Characteristics Output Contact Rating** SPDT (350200) **Pilot Duty General Purpose** SPDT (350-400, 350-600)

DPDT (-6 Option)

**DPDT** (-8 Option)

190-240VAC 380-480VAC 475-600VAC

50\*/60Hz 90% 93%

4.5% 4 seconds 2 seconds

6%

2 seconds

480VA @ 240VAC 15A 470VA @ 600VAC 1-10A General Purpose 480VA @ 240VAC Pilot Duty 1-15A General Purpose 480VA @ 240VAC Pilot Duty 1hp @ 240VAC 2-15A General Purpose 480VA @ 240VAC Pilot Duty 1hp @ 240VAC

### **General Characteristics**

#### **Ambient Temperature Range** Operating -40° to 70°C (-40° to 158°F) Storage -40° to 80°C (-40° to 176°F) Trip & Reset Accuracy ±1% Maximum Input Power 5 W Terminal Torque 7 in.-lbs. Wire Size 12-18AWG **Transient Protection** (Internal) IEC 61000-4-5;1995 ±6kV **Safety Marks** UL UL508 (File #E68520) CSA 22.2 No. 14 (File #46510) CE IEC 60947-6-2 Dimensions **H** 74.42 mm (2.93"); **W** 133.86 mm (5.27"); **D** 74.93 mm (2.95") Weight 1.05 lbs. (16.8 oz., 476.27 g) **Mounting Method** #8 screws **Special Options** Opt. 2: Variable Restart Delay Manual, 2-300 seconds adj. Opt. 5: DPDT Relay Opt. 6: 2 Relays (1) 10A, (1) 15A Opt. 8: 2 Relays (2) 15A Opt. 9: High Voltage (% of setpoint) Trip 110% Reset 107%

\*Note: 50Hz will increase all delay timers by 20%

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