The ATC Diversified **SLA Series** is designed to protect 3-phase equipment against PHASE LOSS, UNDER VOLTAGE, and PHASE REVERSAL conditions.

With normal operating voltages applied in the proper ABC sequence, the internal relay will energize (PICK-UP). When incorrect phase sequence or phase loss occurs or the three-phase voltages fall below the drop out voltages, the relay will de-energize (DROP-OUT). On models featuring indicators, the LED glows when all line conditions are normal.

Both Delta and Wye systems may be monitored. In Wye systems, connections to neutral are NOT required.

For UL Listed units, with field wiring terminals, copper wire with 60°/75°C rating must be used for control circuitry connections.

NOTE: When a phase is lost while the motor is running, a condition known as regeneration occurs where a voltage is induced into the open phase nearly equal in magnitude to the normal phase-to-phase voltage. However, with the exception of lightly loaded motors, enough change is detected by the SLA to provide the required protection when properly adjusted. The SLA Series is UL Listed under file Number E55826.




c UL us
LISTED
IND. CONT. EQ.
496Y

## *Phase Monitors*

- Available up to 480 VAC (625 VAC with "E" style)
- Delta or Wye Systems
- Fixed, Lock Shaft, or Screwdriver Adjustments
- Several Enclosure Styles

PROTECTS 3-PHASE EQUIPMENT AGAINST:

- Phase Loss
- Under Voltage
- Phase Reversal

TYPICAL APPLICATIONS

- Air Handlers
- Computer Power Protection
- Conveyor Drive
- Water Waste & Sewage Machinery
- Oil & Gas Pumps
- Sawmill & Woodpump Machinery
- Power Substation
- Automatic Transfer Switching for Monitoring Emergency Power Supplies
- Irrigation Pumps
- Lift Station Pumps
- Robotics Equipment
- Elevator Drives
- Commercial/Industrial Air Conditioning & Refrigeration Compressors

## SPECIFICATIONS

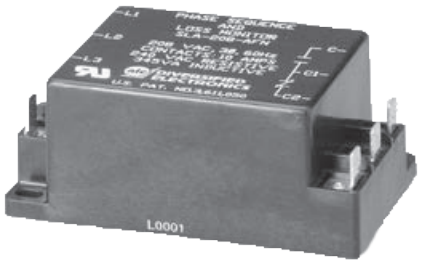
| | | |
|---|---|---|
| **DROP OUT VOLTAGE** | 1 Ø Low | 83% of Nominal |
| | 3 Ø Low | 90% of Nominal |
| **RESPONSE TIMES** | Models Up to 300 VAC | |
| **STYLE "A" & "E"** | Operate | 250 mSEC |
| | Release | 0.5 SEC |
| | Models Over 300 VAC | |
| | Operate | 1.0 SEC |
| | Release | 2.0 SEC |
| **RESPONSE TIMES STYLE "N"** | Operate | 60 mSEC |
| | Release | 0.5 SEC |
| **POWER REQUIRED** | Style "A" | 3 VA (approximately) |
| | Style "E" | Models up to 300 VAC: 3 VA (max.)<br>Models over 300 VAC: 7 VA (max.)<br>Models up to 500 VAC: 3 VA (max.) |
| | Style "N" | 3 VA (max.) |
| **OPERATING VOLTAGE** | See Ordering Information | |
| **RESET** | Automatic (Manual Optional) | |
| **INDICATOR LED** | Glows when all conditions are Normal (On Applicable Models) | |
| **OUTPUT RATING** | SPDT (Style "A" and "N")<br>DPDT (Style "E") | |
| **PHASE SEQUENCE** | ABC (Will not Operate CBA) | |
| **TEMPERATURE RATING** | Operate | 32 to +131 F (0 to +55C) |
| | Storage | -49 to 185 F (-45 to +85 C) |
| **U.S. PATENT NUMBER** | 3,611,050 | |
| **WEIGHT** | Style "A" | NET:2.24 oz Shipping: 2.56 oz |
| | Style "N" | NET:4.8 oz Shipping: 5.76 oz. |
| | Style "E" | NET:5.3 oz Shipping: 5.6 oz |

## MODEL NUMBER

| **MODEL NUMBER** | SLA | | A | | | |
|---|---|---|---|---|---|---|
| **OPERATING VOLTAGE** See Ordering Information | | XXX | | | | |
| **TYPE OF OPERATION** | | | | | | |
| Fixed | | | | F | | |
| Lock Shaft Adjusted | | | | L | | |
| Screwdriver Adjusted | | | | S | | |
| **ENCLOSURE STYLE** | | | | | | |
| Octal Plug-In Dust Cover | | | | | A | |
| Blad Plug-In, Dust Cover | | | | | B | |
| Surface Mounted, #8 Screw Terminals | | | | | E | |
| Surface Mounted, 1/4" Quick Disconnect Terminals | | | | | N | |
| **OPTIONS** | | | | | | |
| Add R Suffix when manual reset is required, (Available only in Style "E" Enclosure) | | | | | | R |
| Plug-In models are UL Listed only when used with RB-08 socket. | | | | | | U |




**STYLE "A"**



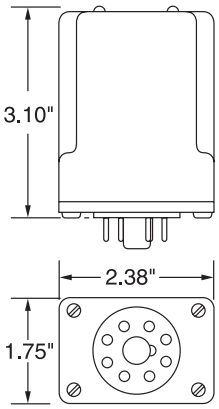

**STYLE "N"**



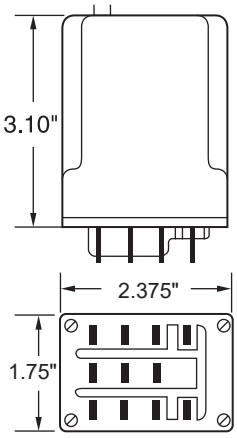
**STYLE "E"**

## DIMENSIONS (INCHES)

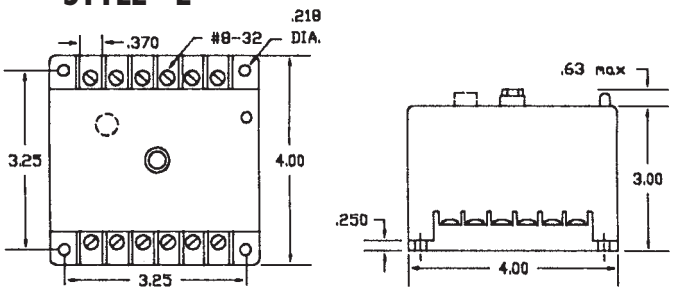
### STYLE "A"



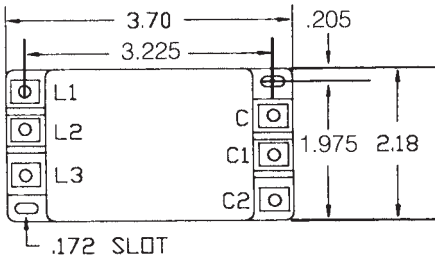

### STYLE "B"

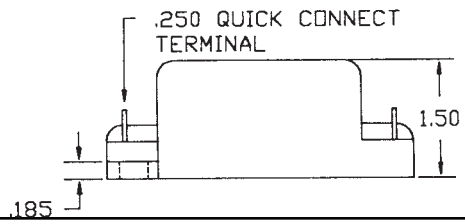



### STYLE "E"




### STYLE "N"




## WIRING

### STYLE "A"

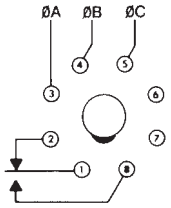



Figure 1
RB-08 or OT-08

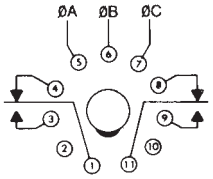



Figure 2
RB-11

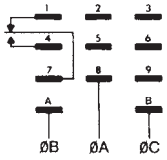



Figure 3
70-463-1

### STYLE "E"

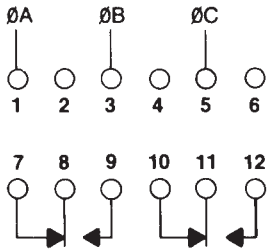



Figure 4

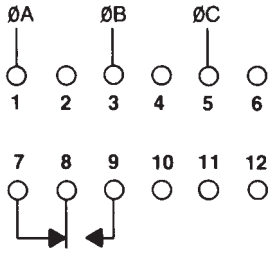
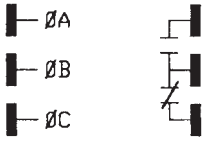



Figure 5

### STYLE "N"



## ORDERING INFORMATION

### STYLE A PLUG-IN

| MODEL NUMBER | OPERATING VOLTAGE | TYPE OF ADJUSTMENT | DROP-OUT VOLTAGE 1 Ø LOW | DROP-OUT VOLTAGE 3 Ø LOW | AGENCY APPROVAL | OUTPUT RATINGS |
|---|---|---|---|---|---|---|
| SLA-120-ALA | 95-130 Adj | Lock Shaft | 79-108 | 85-117 | — | DPDT, 345 VA Inductive; 10 Amps Resistive @ 240 VAC. Figure 2 |
| SLA-120-ASA | | Screwdriver | | | c UL us, CSA | SPDT, 345 VA Inductive; 10 Amps Resistive @ 240 VAC, Figure 1 |
| SLA-120-ASB | | | | | — | SPDT, 345 VA Inductive; 10 Amps Resistive @ 240 VAC, Figure 3 |
| SLA-230-ALA | 190-270 Adj. | Lock Shaft | 158-224 | 171-243 | c UL us | DPDT, 345 VA Inductive; 10 Amps Resistive @ 240 VAC, Figure 2 |
| SLA-230-ASA | | Screwdriver | | | c UL us, CSA | SPDT, 345 VA Inductive; 10 Amps Resistive @ 240 VAC, Figure 1 |
| SLA-230-ASB | | | | | — | SPDT, 345 VA Inductive; 10 Amps Resistive @ 240 VAC, Figure 3 |
| SLA-380-ASA | 350-440 Adj. | | 290-365 | 315-396 | — | SPDT, 360 VA Inductive; 10 Amps Resistive @ 240 VAC, Figure 1 |
| SLA-440-ASA | 430-480 Adj. | | 357-398 | 387-432 | | |
| SUA-120-ALA | 95-130 Adj. | Lock Shaft | 79-108 | 85-117 | c UL us IND. CONT. EQ 49GY, CSA | SPDT, 345 VA Inductive; 10 Amps Resistive @ 240 VAC, Figure 1 |
| SUA-120-ALAU* | | | | | c UL us IND. CONT. EQ 49GY, CSA | |
| SUA-230-ALA | 190-270 Adj. | | 158-224 | 171-243 | c UL us IND. CONT. EQ 49GY, CSA | |
| SUA-230-ALAU* | | | | | c UL us IND. CONT. EQ 49GY, CSA | |
| SUA-380-ASA | 350-440 Adj. | Screwdriver | 290-365 | 315-396 | c UL us, CSA | SPDT, 10 Amps Resistive @ 240 VAC, Figure 1 |
| SUA-440-ASA | 430-480 Adj. | | 357-398 | 387-432 | | |

*UL Listed only when used with RB-08 relay socket; 5 Amps Resistive @ 240 VAC. All voltages referenced on this page are phase-to-phase.
Models also available with fixed operating voltages. Consult factory.

### STYLE E SURFACE MOUNTED ENCLOSURE

| MODEL NUMBER | OPERATING VOLTAGE | DROP-OUT VOLTAGE 1 Ø LOW | DROP-OUT VOLTAGE 3 Ø LOW | RESET | AGENCY APPROVAL | OUTPUT RATINGS |
|---|---|---|---|---|---|---|
| SLA-120-ALE | 95-130 Adj. | 79-108 | 85-117 | Automatic | c UL us IND. CONT. EQ 49GY, CSA | DPDT, 211 VA Inductive; 10 Amps Resistive @ 120 VAC. Figure 4 |
| SLA-120-ALER | | | | Manual | c UL us IND. CONT. EQ 49GY, CSA | DPDT, 211 VA Inductive; 10 Amps Resistive @ 120 VAC. Figure 4 |
| SLA-230-ALE | 190-270 Adj. | 158-224 | 171-243 | Automatic | c UL us IND. CONT. EQ 49GY, CSA | DPDT, 345 VA Inductive; 5 Amps Resistive @ 240 VAC. Figure 4 |
| SLA-230-ALER | | | | Manual | c UL us IND. CONT. EQ 49GY, CSA | DPDT, 345 VA Inductive; 5 Amps Resistive @ 240 VAC. Figure 4 |
| SLA-380-ALE | 350-440 Adj. | 290-365 | 315-396 | Automatic | c UL us IND. CONT. EQ 49GY, CSA | DPDT, 360 VA Inductive; 3 Amps Resistive @ 600 VAC. Figure 4 |
| SLA-380-ALER | | | | Manual | c UL us IND. CONT. EQ 49GY, CSA | SPDT, 360 VA Inductive; 3 Amps Resistive @ 600 VAC. Figure 5 |
| SLA-440-ALE | 430-480 Adj. | 357-398 | 387-432 | Automatic | c UL us IND. CONT. EQ 49GY, CSA | DPDT, 360 VA Inductive; 3 Amps Resistive @ 600 VAC. Figure 4 |
| SLA-440-ALER | | | | Manual | c UL us IND. CONT. EQ 49GY, CSA | SPDT, 360 VA Inductive; 3 Amps Resistive @ 600 VAC. Figure 5 |
| SLA-575-ALE | 525-625 Adj. | 436-519 | 473-563 | Automatic | c UL us IND. CONT. EQ 49GY LISTED, CSA | DPDT, 360 VA Inductive; 3 Amps Resistive @ 600 VAC. Figure 4 |

All voltage referenced are phase-to-phase.—Models also available with fixed operating voltages. Consult factory.

### STYLE N EPOXY ENCAPSULATED

| MODEL NUMBER | OPERATING VOLTAGE | TYPE OF OPERATION | DROP-OUT VOLTAGE 1 Ø LOW | DROP-OUT VOLTAGE 3 Ø LOW | AGENCY APPROVAL |
|---|---|---|---|---|---|
| SLA-120-AFN | 120 | Fixed | 100 | 108 | c UL us |
| SLA-208-AFN | 208 | Fixed | 173 | 187 | |
| SLA-220-AFN | 220 | Fixed | 183 | 198 | |
| SLA-240-AFN | 240 | Fixed | 199 | 216 | |

SPDT 180VA @ 120VAC; 72VA @ 24VAC; All voltage referenced are phase-to-phase.
SPDT 180 va @ 120 vac, 72 va @ 24 vac.