

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.



**Phase Monitors**

**SPECIFICATIONS**

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

- 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

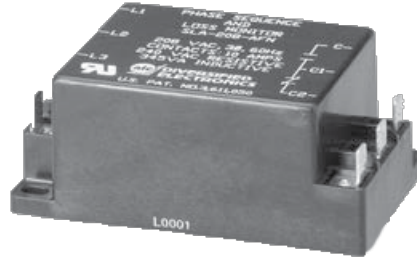
- Air Handlers
- Computer Power Protection
- Conveyor Drive
- Water Waste & Sewage Machinery
- Oil & Gas Pumps
- Sawmill & Woodpump Machinery
- Power Substation
- Automatic Transfer Switching for Monitoring Emergency Power Supplies
- Irrigation Pumps
- Lift Station Pumps
- Robotics Equipment
- Elevator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

**MODEL NUMBER**

<b>MODEL NUMBER</b>	SLA		A			
<b>OPERATING VOLTAGE</b>	See Ordering Information		XXX			
<b>TYPE OF OPERATION</b>	Fixed			F		
	Lock Shaft Adjusted			L		
	Screwdriver Adjusted			S		
<b>ENCLOSURE STYLE</b>	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	
<b>OPTIONS</b>	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"



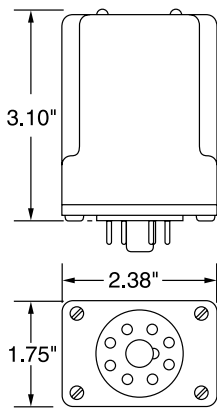
STYLE "N"



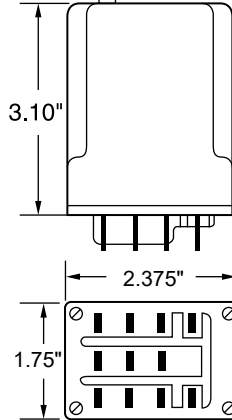
STYLE "E"

**DIMENSIONS (INCHES)**

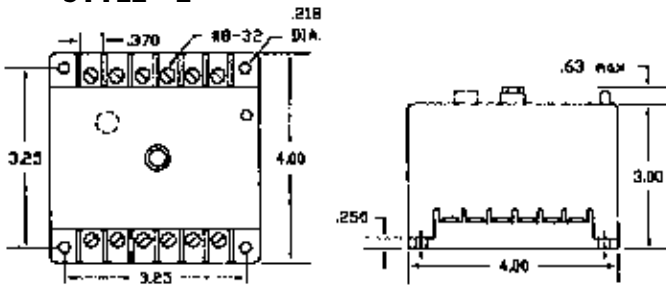
STYLE "A"



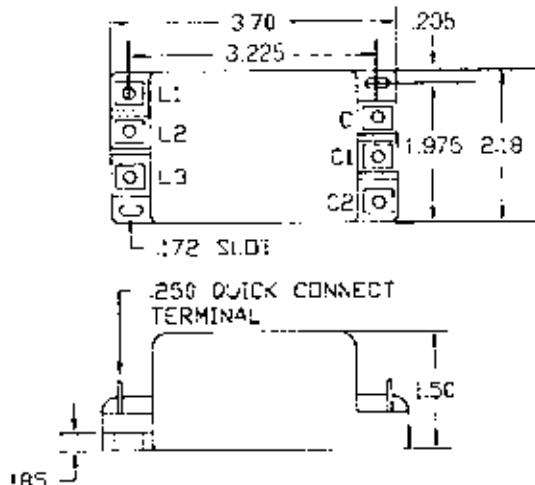
STYLE "B"



STYLE "E"



STYLE "N"



**WIRING**

STYLE "A"

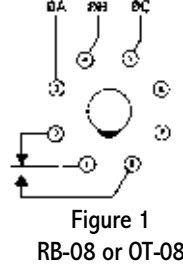


Figure 1  
RB-08 or OT-08

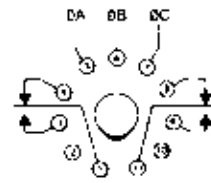


Figure 2  
RB-11

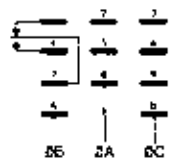


Figure 3  
70-463-1

STYLE "E"

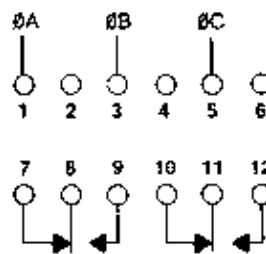


Figure 4

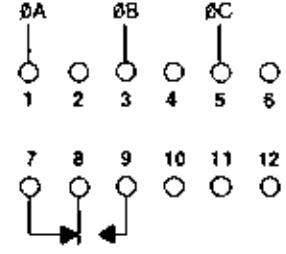
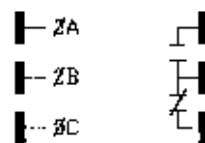










Figure 5

STYLE "N"












## ORDERING INFORMATION

### STYLE A PLUG-IN

MODEL NUMBER	OPERATING VOLTAGE	TYPE OF ADJUSTMENT	DROP-OUT VOLTAGE		AGENCY APPROVAL	OUTPUT RATINGS
			1 Ø LOW	3 Ø LOW		
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				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		DPDT, 345 VA Inductive; 10 Amps Resistive @ 240 VAC, Figure 2
SLA-230-ASA		Screwdriver				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.	Screwdriver	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	 CONT. EQ	SPDT, 345 VA Inductive; 10 Amps Resistive @ 240 VAC, Figure 1
SUA-120-ALAU*						
SUA-230-ALA	190-270 Adj.	Screwdriver	158-224	171-243	 CONT. EQ	
SUA-230-ALAU*						
SUA-380-ASA	350-440 Adj.	Screwdriver	290-365	315-396		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		RESET	AGENCY APPROVAL	OUTPUT RATINGS
		1 Ø LOW	3 Ø LOW			
SLA-120-ALE	95-130 Adj.	79-108	85-117	Automatic	 CONT. EQ	DPDT, 211 VA Inductive; 10 Amps Resistive @ 120 VAC, Figure 4
SLA-120-ALER				Manual		DPDT, 211 VA Inductive; 10 Amps Resistive @ 120 VAC, Figure 4
SLA-230-ALE	190-270 Adj.	158-224	171-243	Automatic	 CONT. EQ	DPDT, 345 VA Inductive; 5 Amps Resistive @ 240 VAC, Figure 4
SLA-230-ALER				Manual		DPDT, 345 VA Inductive; 5 Amps Resistive @ 240 VAC, Figure 4
SLA-380-ALE	350-440 Adj.	290-365	315-396	Automatic	 CONT. EQ	DPDT, 360 VA Inductive; 3 Amps Resistive @ 600 VAC, Figure 4
SLA-380-ALER				Manual		SPDT, 360 VA Inductive; 3 Amps Resistive @ 600 VAC, Figure 5
SLA-440-ALE	430-480 Adj.	357-398	387-432	Automatic	 CONT. EQ	DPDT, 360 VA Inductive; 3 Amps Resistive @ 600 VAC, Figure 4
SLA-440-ALER				Manual		SPDT, 360 VA Inductive; 3 Amps Resistive @ 600 VAC, Figure 5
SLA-575-ALE	525-625 Adj.	436-519	473-563	Automatic	 LISTED	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		AGENCY APPROVAL
			1 Ø LOW	3 Ø LOW	
SLA-120-AFN	120	Fixed	100	108	
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.