



Three Phase Line Under Voltage and Phase Loss Monitor/Short Cycle Protectors

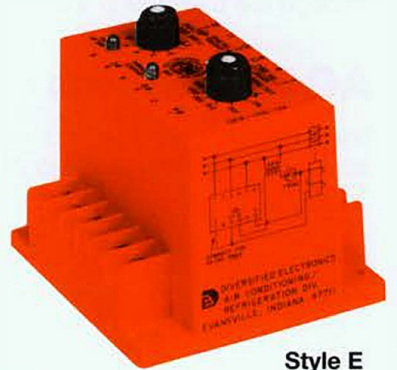
The AC-301 and AC-302 continuously monitors the three phase lines for adverse conditions such as **Phase Loss** (single phasing), **Under Voltage** (brown outs), and **Phase Reversal** (improper sequence). They will also detect a **Power Failure** or **Thermostat Interruption**. When any of the mentioned occur, the control relay drops out.

AC-301 - When the fault has been corrected, the delay-on-make delay period begins. This delay is field adjustable from 0.2 to 8 minutes. It is incorporated to allow the head pressure to equalize before restart. It provides random restart in multiple equipment installations.

AC-302 - When the control relay drops out the delay-on-break time delay begins. This delay is field adjustable from 0.2 to 5 minutes. It is incorporated to allow the head pressure to equalize before restart. Subsequent interruption will not lengthen the delay period. Upon completion of the delay, the control relay will pick-up provided all three phase line conditions are correct and the thermostat is closed. If the thermostat is open at the end of the delay period, the control relay will remain dropped out until the thermostat closes.

The **Universal Output** of the AC-301 and AC-302 is capable of operation on control voltages of 24, 120, or 208/240 VAC and employs a built in bypass circuit for allowing continuous current flow through the thermostat's compensating resistor while the timer output is off. The bypass circuitry is required only when the system control voltage is 24 VAC.

MODEL NUMBER	OPERATING VOLTAGE	DROP OUT		PICK UP	DELAY ON DROP OUT
		1 Ø LOW	3 Ø LOW		
AC-301-230	190-270	158-224	171-243	1 Volt	0.5 Seconds
AC-301-380	350-440	290-365	315-396		2.0 Seconds
AC-301-440	430-480	357-398	387-432	Above	2.0 Seconds
AC -302-230	190-270	158-224	171-243		0.5 Seconds
AC-302-380	350-440	290-365	315-396	Drop Out	2.0 Seconds
AC-302-440	430-480	357-398	387-432		2.0 Seconds



Style E

All Voltages Referenced Are 50/60 Hz

DROP OUT RANGE

- 1 Ø Low: 83% of Adjustment Setting
- 3 Ø Low: 90% of Adjustment Setting

TEMPERATURES

- Operate: -40°F to +150°F
- Storage: -40°F to +190°F

PHASE SEQUENCE: ABC (Will Not Operate CBA)

TIME DELAY

- AC-301 Series: 0.2 to 8 Minutes, Adjustable; Delay-on-Make
- AC-302 Series: 0.2 to 5 Minutes, Adjustable; Delay-on-Break

RELAY OUTPUT: 10 Amps @ 120 VAC

INDICATORS

- Green LED: Glows When Voltages Are Normal
- Red LED: Glows When Relay Picks Up

RESET: Automatic (After Delay)

POWER CONSUMPTION: 3 Watts (Approximately)

ENCLOSURE: Style "E", 4" x 4" x 3.6"H

TERMINATIONS: #8-32 Screw Terminals

TRANSIENT PROTECTION: 1000 Volts for 8 Milliseconds

