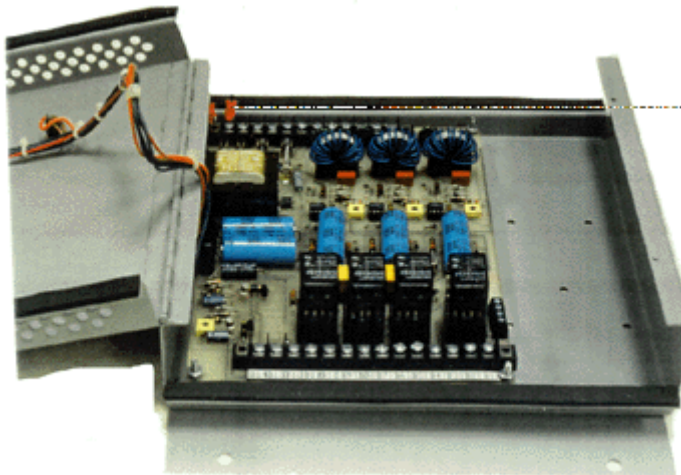


PC-075 LOSS OF PHASE DETECTOR

Three Phase 6000 Series



Surface Mounted Detector



Interior

- *Detects loss of phase in those circuits having a continuous current flow as little as transformer magnetizing amps.*
 - *Withstands short circuit amps for short periods of time.*
 - *Not sensitive to system voltage. No voltage transformer needed.*
 - *Detects:*
 - *Blown Fuses*
 - *Open Power Supply*
 - *Open Load Phase*
- Time Delay Adjustable Feature*
- Indication Features*
- *Can Send Signal on Open Phase to:*
 - *Trip Breaker*
 - *Annunciate*
 - *Other Auxiliary Operations*
 - *Can be used as Anti-Single*
 - *Phase Device for Fused*
 - *Disconnect Switches*
 - *IEEE Standard 37.90 Relays*
 - *ANSI 3 7.90. 1 SWC Test*

OPERATION

It will detect loss of phase whether such loss is caused by blown fuses, open power supply phases or open load phases. It is a truly loss of phase circuit and does not depend upon voltage transformer performance.

The loss of phase device monitors the output of current transformers on each phase of the system. If one or two of the fuses in the monitored system have blown, or single phasing occurs, the primary current in the effected phases(s) drops to zero and the corresponding secondary current drops to a low value. The device indicates the loss of phase current by the green light turning off and begins timed delay of relay operation. At the end of the timing period, the red light is illuminated, a latching relay (AD), a trip relay (AF), and a trip relay (AG) operate.

The PC-6017 monitors the output from each phase current transformer. During normal operation each phase will be carrying balanced or unbalanced phase current from transformer magnetizing current to the rated load currents of the system. Currents less than preset magnetizing current on the defective phase(s) causes the relay to operate.

When the control supply circuit is energized and if the output of the system current transformers is insufficient for proper operation of the loss of phase device, the yellow light is illuminated. As the load currents increase to the degree where outputs of the current transformers exceed the preset sensitivity level of the device, the yellow light turns off and the green light will illuminate to indicate normal circuit operation.

Loss of phase device does not operate on loss of all 3 phase currents although the yellow light will be illuminated with loss of all 3 phases (currents below sensing level). Sensitivity to loss of all 3 phase is available on certain other models.

If the loss of phase device has sensed a loss phase current, but the phase current is re-established before timing is complete then the timer is immediately reset and the device returns to normal operation.

To return the loss of phase device to normal operation after a blown fuse is replaced or a single phase condition is corrected, depress the reset push-button. The device must be reset prior to normal operation.

Current Rating	Continuous 5A	Overload 10A			Short Circuit 150A - 10 Second	
Ambient Temperature Range - Per ANSI C37.90		Humidity 95% Without Condensation				
Control Power (60 Hz/50 Hz)		120V	220V (60/50)	125 VDC	48 VDC	24 VDC
Pick Up Current CT Output* -MA		30 MA	13/16 MA	33 MA	98 MA	200 MA
D.O. Current CT Output** - MA		58 MA	25/35 MA	63 MA	170 MA	360 MA
Voltage Current Operating Range - Min/Max		120V/132	187/242	108/140	42/56	21/28
Contact Ratings:						
Carry Latch		3A	3A	3A	3A	3A
Trip		5A	5A	5A	5A	5A
Break		3A	1A	0.1A	0.2A	0.2A
Case Dimensions:		Surface Mounting			Flush Mounting	
Height		14 Inches			12-1/2 Inches	
Width		10-1/2 Inches			12-1/4 Inches	
Depth		2-3/4 Inches			3-3/8 Inches	
Weight		10 Pounds			11 Pounds	
Burdens (Input Current Circuits)		5mA - 0.1A			<0.25 Ohms at 60Hz	
		0.5A - 5.0A			<0.07 Ohms at 60Hz	
		VA at 5.0 Amperes - 0.90				
* Declining Current From CT Causes Relay Contacts to Close						
** Increasing Current From CT Causes Contact to Open						
# DC Max Ripple 5% Peak						