To Eliminate motor failure on part winding start using ICM phase monitors, American Hermetics has revised a typical control schematic, with the addition of auxiliary switches and or relays added to your system to lock out both contactors in the event of either contactor failing to pull in due to faulty coil or armature. Although this is rare it does happen. Time delay and or aux contacts do fail. ICM monitor does not know until voltage is present to monitor the load side of contactor or even when wired in series will not protect the motor from overheating that will occur and will eventually lead to motor failure.

A simple and speedy solution is available. Install 2 control relays or one relay and auxiliary per contactor. 1st relay is normally closed and wired in series with L1, L2, L3 to ICM monitor. When contactor coil voltage is applied relay will open and aux contact (on) or normally open relay will close. A slight adjustment to the fault interrogation delay on ICM may be necessary 1-2 seconds.

In the event of contactor failure, the relays will break the line side of one leg to the ICM and should lockout on front phase loss. Control circuit between ICM's and contactors has to be in series as drawn for this to work. See schematic attached.

If you have any questions call John (Skip) Johnson @ American Hermetics 1-800-240-9200 or cell 615-347-0114

PART WINDING START