TO: All York Branches  
All York Regional Managers  
All York Service Managers  
All Field Service Supervisors

SUBJECT: 56 frame condenser fan motors. 024-32068-002, 024-32068-007, 024-32068-008  
Electrical Failure Due to Windings Shorting or Shunting. Fix on Fail Only.

UNITS: Packaged and Split Commercial Products Manufactured between June-2003 and April-2006. 460 vac and 575 vac units only. See Model listing below.  
Serial Numbers NFMNXXXXXX through N0D6XXXXXX  
Millennium Split Condensing units:  
HB180C00*4****, HB240C00*4****  
HA300C00*4****, HB300C00*5****  

HB360C00*4****, HB360C00*5****  
HB480C00*4****, HB480C00*5****  
HB600C00*4****, HB600C00*5****  

Millennium Packaged Units R22:  
Y23***4******, Y24***5*******  

DM180****4****, DM180****5****  
DH180****4****, DH180****5****  
BP180****4****, BP180****5****  
DM240****4****, DM240****5****  
DH240****4****, DH240****5****  
BQ240****4****, BQ240****5****  
DM300****4****, DM300****5****

An investigation was started into the above listed motors due to higher than normal failure rate. These 56 frame condenser fan motors are used in various 575 and 460 VAC commercial split and packaged units. The AO Smith motors were introduced in mid-year of 2003 to replace and standardize motor usage in several products.

Failed motors returned from the field were analyzed by both Norman Personnel and by AO Smith. Findings indicated that the internal wire crossover for the electrical fields were not sleeved with an insulator, but relied on the wire coating for insulation. When the motor was assembled, the process could press the internal wires together causing a partial breakdown in the insulation coating. This could eventually fail due to the high voltage. This would result in the electrical failure of the motor in the form of a shorted or shunted winding.
Some of the AO Smith condenser motors we used had a mylar sleeve covering the crossover wiring and also phase-to-phase separation sleeve. These motors were manufactured in a different AO Smith plant and were built to a different specification.

When the final analysis was issued, AO Smith agreed to sleeve the crossover wiring and install the phase-to-phase insulators on the (3) part numbers that did not have those insulators.

Source One inventory has been purged of the 3 motors listed with date codes prior to the change. These motors come from AO Smith manufacturing plants. Each plant uses a different date coding sequence for their motors. New design motors will be date coded CB06-14 (14th week of 2006) or 03I06 (3rd month of 2006).

If you have stock on the 3 part numbers listed, check to see if they are of current date codes. If they are older than the dates listed, contact your order services person for a RMO and exchange.

York International will provide 3-year warranty coverage on the condenser fan motors of the listed units in 460 VAC or 575 VAC from the date of unit installation. In addition, a 1 hr labor allowance per motor will be allowed to replace those motors that failed electrically. Motors that fail due to bearings or other issues are not covered. This is a fix on fail only. The failed motor must be the current part number AO Smith motor 024-32068-002 (sap 7189), 003 (sap 7190), or 007 (sap 7194).

Be sure to instruct your Dealer base to make sure all power to these units is disconnected prior to changing the motor. Some units may have two (2) power supplies. Use a trusted voltmeter to make sure all power is off prior to working on the unit. Make sure all ground wires are reconnected in the manner they were installed at the factory.

To receive credit, failed motors must be returned to York International UPG, 5005 York Drive North, Norman, OK 73069 to the attention of Mark Jenkins. File standard warranty claims and reference this service letter.

We apologize for any inconvenience this may have caused.

Len Renfro
Field Service Supervisor

Mark Jenkins
Senior Quality Engineer