



BY JOHNSON CONTROLS

Service Information

File In/With: 160.54-O1 & 160.54-M1

SI0224

New

410

Equipment Affected: YK Chillers

YK Centrifugal Chiller Software Enhancements (v.22)

General

Beginning April 2010, enhanced software will be supplied in new production YK Chillers and replacement microboard kit 331-02430-601. This software is backward compatible to all previous YK chillers equipped with microboard 031-02430-000 or 031-02430-001. The enhancements are listed below:

The version and Program Card Part number is: C.OPT.01.22.307 (031-02474-001)

MOTOR MONITORING

This software version supports the optional Motor Monitoring feature. This feature allows monitoring of the compressor motor windings temperatures, bearing temperatures, bearing vibration and motor cooling coil leak detection. Any combination of winding, bearing and leak monitoring can be selected based on the requirements of the job. Therefore, not all sensors may be present in all applications. Setpoints allow any combination of these items to be enabled or disabled based on the actual equipment applied.

The motor could be equipped with different types of sensors for this monitoring. Either RTD's or thermistors could be applied for winding and bearing temperature monitoring. Motor cooling coil leak detection could be performed with either an optical sensor or float sensor. Setpoints allow for the selection of the actual sensor type applied.

The hardware involved in this feature consists of motor temperature sensors, vibration sensors, a cooling coil leak detection sensor and a Motor Monitoring Board. This board resides in an enclosure that is mounted separately from the Optiview Control Center. The Motor Monitoring Board communicates with the microboard COM3 port via RS-485 Modbus serial communications. Whenever a monitored parameter exceeds a warning or safety threshold, a warning is displayed or a safety shutdown is performed as appropriate. The messages and actions are detailed in Operations Manual 160.54-O1.

The Motor Monitoring feature must be enabled. Once enabled, the MOTOR DETAILS Screen and MOTOR SETPOINTS Screen are available, where all information pertinent to the feature are displayed.

Refer to Operations Manual 160.54-O1 for display screens and messages. Refer to Service Manual 160.54-M1 for complete explanation of this feature.