



SOFTWARE RELEASE NOTES

MCS-MAGNUM

Version 8.05Z

08/16/2011

Updates from previous versions:

New Features:

1. Added new sensor: TurboCor Fault. This sensor is used to determine a specific fault of the TurboCor Compressor and will be treated as a Digital Input (previously the compressor proof sensor was the fault indicator for a TurboCor compressor). Its Modbus fault register is 40026 (requires use of MCS-MODBUS-TC board).
2. Added support for TurboCor alarms.
3. Added new function to unload running TurboCor compressors to minimum speed before bringing next compressor ON.

Bug Fixes:

1. Changed EXV adjustment logic for TurboCor compressors on common suction groups. The value in the 'SEC to Ignore Safety' field in setpoint #215 "COMP SPD FLT" is the delay before adjusting the EXV on TurboCor compressors on a common suction group, allowing the system to stabilize before making an adjustment. (The original code was adjusting the valve when the comp was transitioning from OFF to ON).
2. Changed Low Oil Flow and Compressor Speed safeties to not lockout all compressors in the same suction group when tripped.
3. Corrected issue with the load and unload pulse logic. Now using the 'SEC to Ignore Safety' field in setpoint #37 "LOAD PULSE" to bypass the time delay between pulses. If the 'SEC to Ignore Safety' field is zero, then use delay between pulses. If non-zero, then no delay between pulses when far away from the target.
(The 'Time(sec)' field in setpoint #56's "PULSE DELAY" was being used as an indicator to bypass the delay between pulses. This is a problem because the setpoint #56 safety safety time is always being used for how long to stay in the FAST UNLOADING state.)
4. Changed the Fully Loaded Screw Compressor logic to turn on the load solenoid every 5 min for 5 second when the 'SEC to Ignore Safety' field of setpoint #30 "MAX FLA%" is non-zero. If zero, then do not turn on solenoid for 5 seconds every 5 minutes.
5. Changed the Holding Screw Compressor logic to turn on the load solenoid every 5 min for 5 second when the 'SEC to Ignore Safety' field of setpoint #30 "MAX FLA%" is non-zero. If zero, then do not turn on solenoid for 5 seconds every 5 minutes.

Any questions regarding this release, contact:

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6. Corrected Heat pump units not defrosting issue (the common reverse valve relay output would not turn on when the lead compressor went into defrost when a lag compressor was locked out or disabled).
7. Changed refrigerant names R717 to R717(Am) and R134A to R134a.
8. For Screw Compressors Only: Changed the load and unload pulse logic for screw compressors so that the amps have to be 3 times the value of the respective amp deadband setpoint away from the wanted amps before doubling the pulse time.

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