



MicroTech® III Controllers for Open Choices™ Integration For Daikin McQuay Water Source Heat Pump Products

Daikin McQuay SmartSource™ and Enfinity™ water source heat pumps are equipped with factory-mounted MicroTech® III unit controls for optimized performance. Optional Open Choices communication modules provide easy integration with your building automation system using BACnet® or LONWORKS® networks.

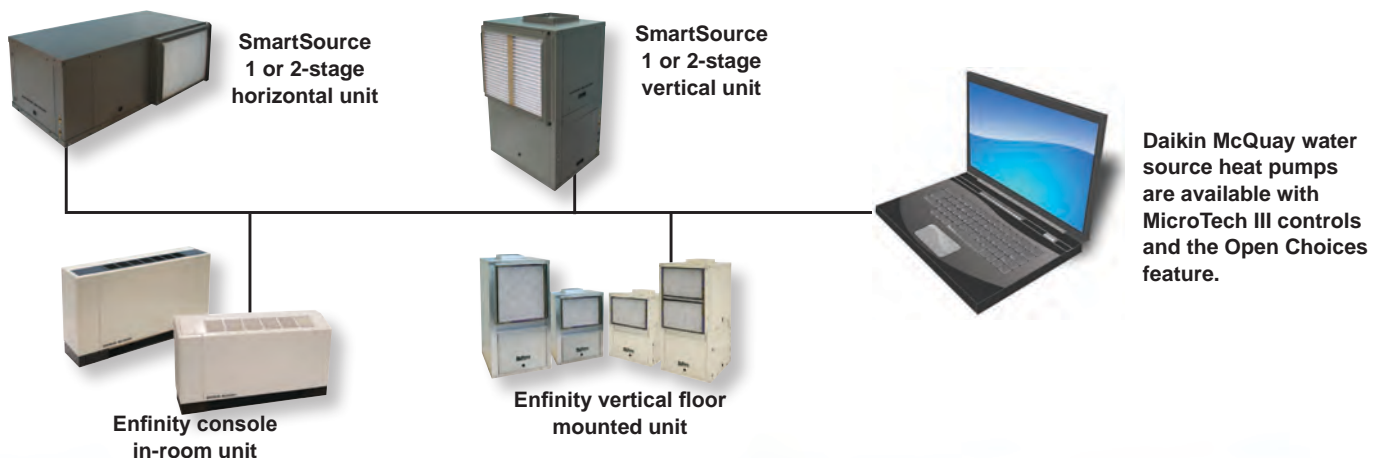
Open Choices Advantages

- Easy, low cost integration into building automation systems without expensive gateway panels
- Comprehensive unit control and status information available with either BACnet or LONWORKS. See typical points list on reverse
- Easy configuration and simplified addressing to reduce installation time

Advanced Control Strategies and Troubleshooting for Optimized Performance

The MicroTech III unit controller with a LONWORKS or BACnet communication module coordinates the following operations for advanced control and easy troubleshooting.

- Enable heating and cooling to maintain setpoint
- Monitor discharge air temperature
- Space temperature control
- Monitor leaving water temperature
- Enable fan cycling and compressor operation
- Relay status of all vital unit functions
- Monitor all equipment protection controls
- On-board status LEDs aid in diagnostics by indicating the water source heat pump communication conditions
- Remotely reset alarms and adjust setpoints



Comprehensive Data Available

The MicroTech III unit controller provides water source heat pump unit status information and notifies your BAS of alarm conditions, regardless of the communication protocol.

- BACnet MS/TP
- LONTALK SCC (FTT-10A) designed in accordance with the LONMARK® Space Comfort Control (SCC) Functional Profile

Units are LONMARK 3.4 certified with the appropriate communications module for LONWORKS® networks.

Open Choices Feature Components

The BACnet or LONWORKS communication module can be factory or field installed and is tested with all logic required to monitor and control the water source heat pump unit.

The MicroTech III controller with communication module includes unit-mounted return air, discharge air and leaving water temperature sensors. Options include a tenant setpoint adjustment knob and tenant override button and the ability to substitute the return air sensor with wall-mounted room sensor.

Typical Data Points¹ ■ LONWORKS only ■ BACnet only ■ SmartSource models only ■ Enfinity models only

Inputs (read/write only)

Application Mode
 Auxiliary Heat Enable
 Clear Alarm
 Compressor Enable
 Energy Hold Off
 Fan On/Auto Remote Input ■
 Humidistat Remote Input ■
 Occupancy Override
 Occupancy Scheduler
 Occupancy Sensor
 Space Temperature

Configuration Properties²

Brownout Reference Setpoint
 Occupied differential
 Cooling Interstage Timer Setpoint ■
 Cooling Setpoint High/Low Limit ■
 Heating Interstage Timer Setpoint ■
 Heating Setpoint High/Low Limit ■
 HVAC Unit-Type Identifier ■
 Hydronic Cooling On Setpoint ■
 Hydronic Heating On Setpoint ■
 Hydronic Setpoint Differential ■
 Interstage Off Timer Setpoint ■
 Interstage On Timer Setpoint ■
 Local Bypass Time Setpoint
 Location Label
 Long Range Setpoint Adjust Min/Max ■
 Low Entering Water Temp for Glycol ■
 Low Entering Water Temp for Water ■
 Low Leaving Water Temp Differential ■
 Low Pressure Alarm Delay
 Low Temperature Protection Setpoint
 Low Temp Protection Setpoint for Glycol
 Low Temperature Protection Differential
 Minimum Compressor Off Timer Setpoint
 Minimum Compressor On Timer Setpoint
 Minimum Send Time ■
 Occupancy Temperature Setpoints
 Receive Heartbeat
 Room Sensor Setpoint Enable/Disable
 Send Heartbeat
 Setpoint Control Adjustment
 Software Identification
 Unit Application
 Unoccupied Differential
 2nd – 4th Stage Setpoint Differential ■

Outputs (read only)

Binary Input Status
 Binary Output Status
 Brownout (Shutdown)
 Condensate Overflow
 Current Alarm
 Previous Alarm
 Discharge Air Temperature
 Effective Occupancy
 Effective Setpoint
 Entering Water Temperature
 Fan On/Auto Status
 Fan Running Output ■
 Fan Speed
 Heat/Cool/Auto Status
 Humidistat Status ■
 Leaving Water Temperature
 Local Setpoint
 Local Setpoint Shift
 Local Space Temperature
 Daikin McQuay WSHP Status
 Pump Request
 Space Temperature
 Status ■
 Suction Temperature Compressor #1
 Suction Temperature Compressor #2 ■
 Unit Status ■

Alarms

Condensate Overflow
 Entering Water Temp Sensor Fail
 Low Voltage Brownout
 Room Temp Sensor Fail
 Serial EEPROM Corrupted
 Comp #1 High Pressure ■
 Comp #2 High Pressure ■
 Comp #1 Low Pressure ■
 Comp #2 Low Pressure ■
 Comp #1 Low Suction Temp Sensor Fail ■
 Comp #2 Low Suction Temp Sensor Fail ■
 Comp #1 Low Suction Temp ■
 Comp #2 Low Suction Temp ■
 Invalid Jumper Configuration ■
 Comp High Pressure ■
 Comp Low Pressure ■
 Comp Suction Temp Sensor Fail ■
 Comp Low Suction Temp ■
 Freeze Fault Detect ■
 IO Exp Communication Fail ■
 Invalid Configuration ■
 Leaving Water Temp Sensor Fail ■
 Low Entering Water Temp ■
 WSE Low Temp Cutout ■



- NOTE:**
1. Due to our policy of continuous product improvement, data points may change. For the most current information, refer to publication ED 15103 available on www.DaikinMcQuay.com.
 2. Configuration properties reside in EEPROM that has a write cycle limit of approximately 10000 writes. Do not unnecessarily write to configuration properties as this can limit the life of the device.

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