McQuay Water Source Heat Pump Controllers Offer Easy Integration

McQuay offers three, unique unit controller options for its water source heat pumps. All are microprocessor based and each features direct, quick-connect wiring to all unit-controlled components for "clean" wiring inside the control box.

Units equipped with MicroTech™ 2000 controllers or with BACnet® controllers are designed to be linked with a building automation system (BAS) for centralized scheduling and management of multiple heat pumps. Units equipped with Mark IV/AC controllers are designed to operate as stand-alone units.

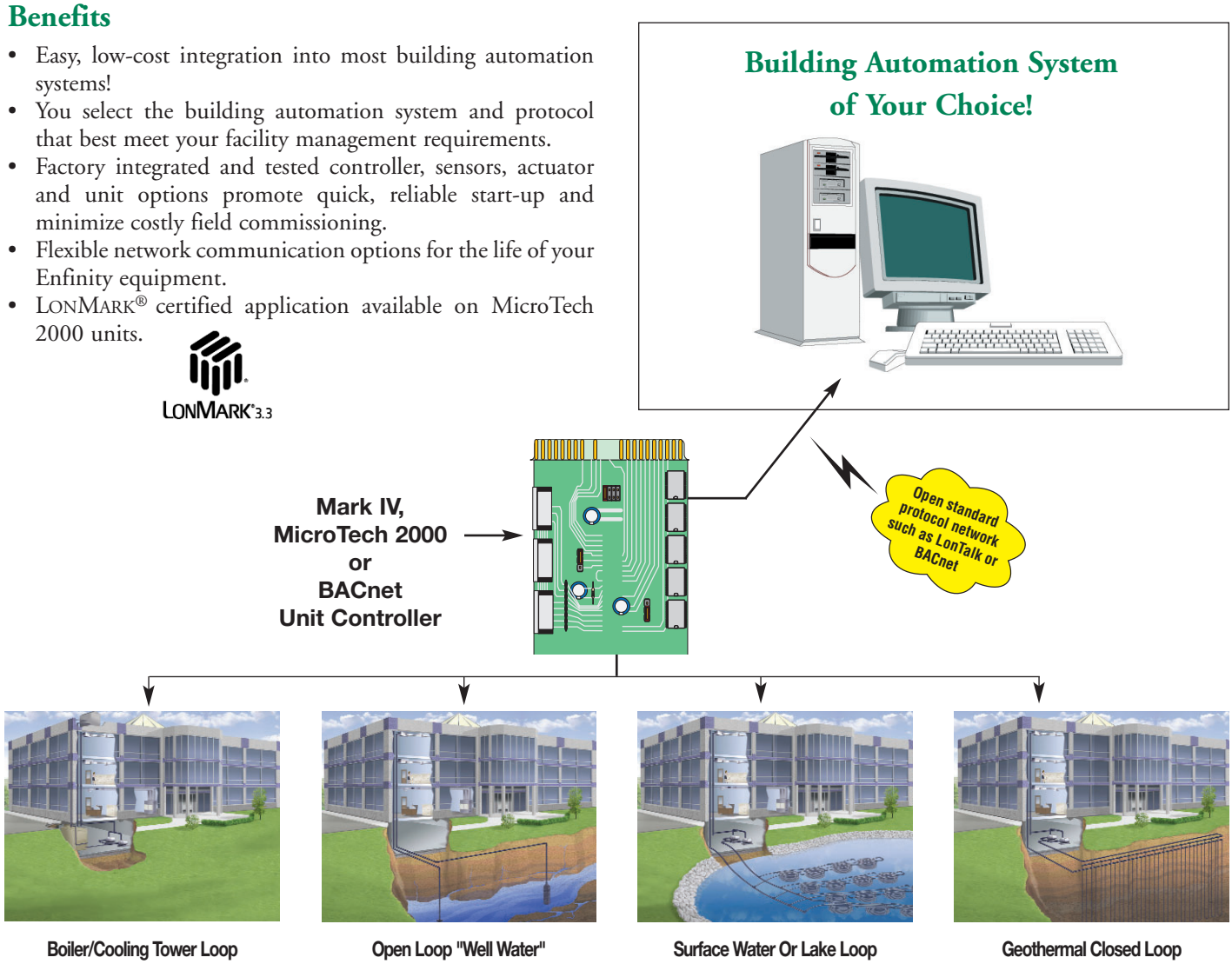
Benefits

- Easy, low-cost integration into most building automation systems!
- You select the building automation system and protocol that best meet your facility management requirements.
- Factory integrated and tested controller, sensors, actuator and unit options promote quick, reliable start-up and minimize costly field commissioning.
- Flexible network communication options for the life of your Enfinity equipment.
- LONMARK® certified application available on MicroTech 2000 units.

LONMARK 3.3

Controller Options

- MicroTech 2000 Controller – Choose this controller to link multiple heat pumps to a centralized building automation system via a LONWORKS® communication network.
- BACnet Controller – Choose this controller to link multiple heat pumps to an Alerton BACtalk® building automation system via a BACnet communication network.
- Mark IV Controller – Choose this controller for stand-alone heat pump operation..
- Loop Water Controller – Use this controller in conjunction with Mark IV unit controllers to provide control of the heat rejection/heat addition stages and the water circulating pumps for a water source heat pump system.



McQuay® Air Conditioning

Easy Integration Into Your Building Automation System Of Choice

Unit Controller Communication Options

· LonTalk (FTT-10A)
· BACnet (MS/TP) for Alerton BACtalk

Comprehensive Data Available Regardless of Your Protocol Choice

The data available from McQuay water source heat pumps equipped with either LONMARK certified MicroTech 2000 or BACnet for Alerton BACtalk unit controllers provides a clear picture of just what's happening in each conditioned space. In addition, equipment alarm conditions are communicated to your building automation system of choice regardless of the protocol you select.

The following is a listing of points and alarms available from the MicroTech 2000 unit controller for integration in a LONWORKS network. Similar points are available from the BACnet unit controller for integration with an Alerton BACtalk system.

Typical Data Points (R=Read, W=Write) *
Application Mode (R/W)
Clear Fault (R/W)
Compressor Run Hours (per compressor) (R/W)[1]
Compressor Starts (per compressor) (R/W)[1]
Change Filter Timer (R/W)
Fan Run Hours (R/W)
Optional Output 1 (R/W) [2]
Optional Output 2 (R/W)[3]
Optional Output 3 (R/W)[3]
Occupancy Input (R/W)
Space Temperature (R/W)
Temperature Setpoint (R/W)
Active Cooling Setpoint (R)
Active Heating Setpoint (R)
Discharge Air Temperature (R)
Lead Compressor (R)
Leaving Water Temperature (R)
Remote Room Setpoint Adjustment (R)
Software Identification (R)
Space Temperature Output (R)
Tenant Override Countdown Timer (R)
Unit Status (R)
Brownout Differential Setpoint (R/W)
Brownout Recover Setpoint (R/W)
Brownout Trip Setpoint (R/W)
Change Filter Warning Setpoint (R/W)
Condensate Overflow Fault Setpoint (R/W)
High Space Temperature Warning Setpoint (R/W)
Initial Delay Setpoint (R/W) (Staggered start after power loss.)
Leaving Water Temperature Sensor Present (R/W)
Low Space Temperature Warning Setpoint (R/W)
Occupied Fan Operating Mode Setpoint (R/W)
Remote Room Setpoint Adjustment Enable/Disable (R/W)
Room Temperature Differential Setpoint (R/W)
Send Heartbeat (R/W)
Skin Heat Temp. Diff. Setpoint - Optional Output 1 (R/W)
Skin Heat Temp.Diff. Setpoint - Optional Output 2 (R/W)[3]
Skin Heat Temp. Diff. Setpoint - Optional Output 3 (R/W)[3]
Active Temperature Setpoints (R/W)
Tenant Override First Press Setpoint (R/W)
Tenant Override Second Press Setpoint (R/W)
Unit Type (R/W)
Unoccupied Fan Operating Mode Setpoint (R/W)

Typical Alarms*
Compressor Fault (per compressor)[1]
Hi Pressure
Low Pressure
Low Temperature
Current Unit Fault
Hi Pressure
Low Pressure
Low Temperature
Room Sensor Fail
Previous Unit Fault
Hi Pressure
Low Pressure
Low Temperature
Room Sensor Fail
Warning Information
Bad Discharge Air Temperature Sensor
Bad Leaving Water Temperature Sensor
Change Filter
Room Too Cool
Room Too Warm

[1] Dual compressor units not available with BACnet unit controllers.
[2] For motorized water valve, fresh air damper and/or auxiliary heat control.
[3] For motorized water valve, fresh air damper and/or auxiliary heat control. May require auxiliary board. Not available with BACnet unit controllers.
* Not all data points or alarms are available in all unit configurations depending on unit options and unit controller.

McQuay® International

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