The MCS-8-XX-CH Control Cabinets Specifications & Description

Physical Characteristics

Package Specifications
Medium Box Dimensions.....20"w, 24"h, 6"d (MB)
Large Box Dimensions ....27"w, 32"h, 6"d (LB)
Mounting Holes ....10 holes plus cutout
Color ....Textured 'Profile Gray'
Material ....0.062" aluminum
Display ....16 character x 2 lines, large
                                            character, backlit display
Keypad Size……………….. 8.50"w x 6.00"h recessed
Keypad Layout ....8 status & 8 entry keys
Operating Temperature.......-4°F to +158°F (-20°C to +70°C)
Storage Temperature..........-22°F to +158°F (-30°C to +70°C)
Environment........................Indoor - Not Rain Proof

Control Specifications
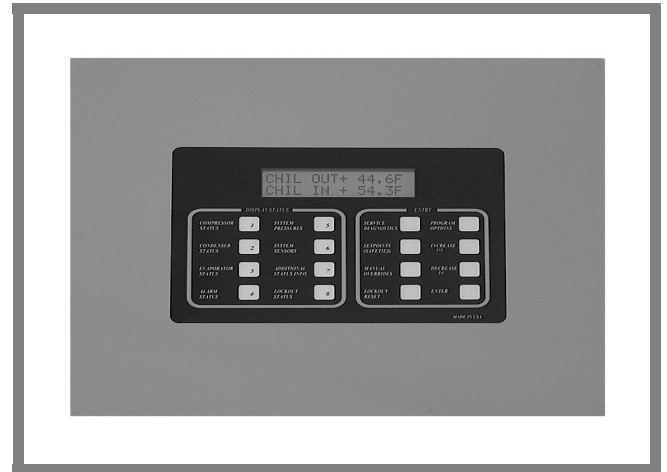Microprocessor....................Intel 80C196 @ 12mhz
Sensor Inputs (SI) ....8 inputs 0-5vdc (10-bit A/D)
Relay Outputs (RO).............8 outputs 10amps @ 115vac
Analog Output (AO).............(1) 0-10vdc or 4-20mA
System Total ....48 inputs and 48 outputs
Printed Circuit Board ....Four layer with separate power
                                            and ground planes
Input Power (Standard) ....115vac ±10% 50/60Hz @ 77°F
                                            (25°C) ambient, 20VA max
MCS-I/O Comm Port ....1 @ 38,400 baud
RS-485 Comm Port ....1 @ 19,200 baud
RS-232 Comm Port.............1 @ 19,200 baud
Real Time Clock..................Battery backup
Power Detection..................Automatic power fail reset
Authorization ....Multiple levels
Primary Control ....Built in safeties

Part # **MCS-8-XX-CH**
XX– MB (Medium Box); LB (Large Box)

Options - Factory Installed at MCS.

-**MB-485-GATEWAY**...........RS-232 to RS-485 Communication Bridge
-**MB-I/O-N**............................MCS-I/O-N Board
-**MB-SI16**............................MCS-SI16 (16 Addition Sensor Inputs)
-**MB-RO8**............................MCS-RO8 (8 Addition Relay @ 5 Amp)
-**MB-ETHERNET**................RS-232 Ethernet Device server with 100-
                                            240vac power adapter
-**MB-MCS-24-VOLT** ....120vac to 24vac Stepdown Transformer
-**MB-MCS-SE-IB6**...............Expansion Valve Interface Board
-**MB-MODEM** ....Modem
-**MB-RUN-SW** ....Run/Stop Switch
-**MB-EMERG-SW** ....Emergency Stop Switch
-**MB-ALARM** ....120v Red Light Pre-Wire 10 Alarm Output

Product Description

The MCS-8 is a rugged microprocessor based controller designed for the hostile environment of the HVAC/R industry. It is designed to be the primary manager of the package it is controlling.

The MCS-8 provides flexibility with setpoints and control options that can be selected prior to commissioning a system or when the unit is live and functioning. Displays, alarms and other interfaces are accomplished in a clear and simple language that informs the user as to the status of the controller.

Complementing the MCS-8 micro controller are MCS-I/O, MCS-RO8, MCS-SI8/16 and MCS-AO8 units. This allows for system expansion to a maximum of 48 inputs and 48 outputs.

The MCS-8-CH contains a MCS-8-N micro controller along with a keypad and display. It is the managing controller co-ordinating the other input-output units. All communication to these units occur at 38,400 baud over the MCS-I/O port which is dedicated for this purpose.

A RS-485 port is also provided for communication with other manufacturers systems. A portal is available that allows communication via BACnet, Modbus, Johnson N2, Automated Logic, LonWorks or the data format is available to allow the user to communicate directly.

A complete software support package is available for your PC allowing for system configuration, dynamic on-line display screens, remote communication, graphing and more. An optional system development package is also available for the development of proprietary software. *Continued...*

Product Highlights

- Great for Retro Fit Application plus OEM Head-Starter

- Pre-Wire Control Cabinets for Chillers & Condensing Units

- Standard Features:
    - ▶ All MCS boards are mounted in the enclosure
    - ▶ Incoming terminal block provided with 10a circuit breaker
    - ▶ All MCS boards input power wired to output of circuit breaker
    - ▶ 120v outlet for caption
    - ▶ MCS I/O communication network pre wired.

- Option to Customize to User Requirements