



# MCS-MAGNUM-MLB-7

## Description & Specifications



Part # MCS-MAGNUM-MLB-7

### Description

The MCS-MAGNUM-MBL-7 enclosure is made of powder coated aluminum for durability and longevity. A left hand swing door is mounted with three seven-inch hinges for strength. A key lock is provided for security on the door while still giving easy access of the display. This box is intended for use in an environment protected from the weather.

The MCS-MAGNUM-MLB-7 consists of a MCS-MAGNUM, a MCS-SI116-A04, a 20 amp circuit breaker, an electrical outlet for plug-in power at the box along with a Touchscreen 7" display.

The MCS-TOUCH-7 is a new touchscreen interface designed to simplify user access with the MCS-MAGNUM utilizing MCS-CONNECT to provide both graphics and service mode access to technicians. Information and graphics on the TOUCH-7 are shown on a 7" high resolution (1280x800) LCD display with LED backlighting, which will guarantee long-life operation.

The following warning lights and switches are included in the standard enclosure; MB-Alarm, MB-Warning, Run-SW, and MB-Emer-SW.

For information on the MCS-MAGNUM, see specifications on our web site. Complementing the MCS-MAGNUM micro controller are a variety of MCS expansion boards that allow for system expansion to a maximum of 112 inputs and 80 outputs. Communication to these units occur at 38,400 baud over the MCS-I/O port which is dedicated for this purpose.

### Options

- MB-WIRELESS-MODEM ..... Cellular Modem with 1 yr subscription
- MB-RO10-(24/115/230) ..... 10 relay output expansion board
- MB-SI116-A04-(24/115/230)..... 16 sensor input expansion board
- MB-24VOLT-(115/230) ..... 115(230) to 24vac transformer
- MB-RUN-LT#(1/2/3/4) ..... Green run indicator
- MB-COMP#(1/2/3/4)..... Single compressor on/off switch
- MB-BYPASS..... Momentary bypass push button
- MB-ETHERNET ..... Industrial rated RS-232/Ethernet device
- MB-ETHERNET-SW..... Ethernet switch and power supply
- MB-BMS-GATEWAY ..... BacNet IP to MSTP/Lontalk
- MB-EXV-DRIVER-xx ..... Control board for EXVs

### Specifications

#### NEMA Rating – Type 1 Enclosure - IP20 Rating

Enclosure is intended for indoor use primarily to provide a degree of protection against contact with the enclosed equipment and is not protected from liquids.

#### Enclosure – Medium Large Box

Dimensions..... 22" w x 28.75" h x 8" d  
 Mounting Holes..... Mounts with four pre drilled 15/32" holes

#### Temp. Range for Enclosure & Touch Screen

Operating Temperature..... -4°F to 158°F (-20°C to 70°C)  
 Operating Humidity..... 0-95% Non-Condensing  
 Storage Temperature..... -4°F to 158°F (-20°C to 70°C)

#### Controller Specification

Microprocessor ..... Zilog eZ80 Acclaim! @ 50mhz  
 Sensor Inputs (SI)..... 12 inputs 0-5vdc (10-bit A/D)  
 Digital Inputs..... 4 inputs 0 or 5vdc only  
 Relay Outputs (RO)..... 10 outputs 6.3amps @ 230vac  
 Analog Outputs (AO) ..... 4 outputs 0-10vdc  
 Printed Circuit Board ..... Six layer with separate power and ground planes  
 Input Power (Standard)..... 115 or 230vac ±10% 50/60Hz @77°F (25°C) ambient, 20VA max (Voltage is field selectable)  
 MCS-I/O Comm Port ..... 1 @ 38,400 baud  
 RS-485 Comm Port ..... 1 @ 19,200 baud  
 Ethernet..... 10/100 Mbps Ethernet  
 Real Time Clock ..... Battery backup  
 Power Detection ..... Automatic power fail reset

#### Touch Screen 15.4 - Specification

Dimensions..... 17"L x 12.11"W x 3.228"H  
 Gasket Material HT-800  
 Medium Cellular Silicone  
 NEMA 4 rating  
 LCD Screen..... 15.4" (16:10 Diagonal)  
 16.2 Million Colors  
 1280x800 Resolution  
 View Angle 70°x70°x70°x 70°  
 (Up, Down, Left, Right)  
 5-Wire resistive touch w/Stylus pen  
 White LED Backlight  
 (Min Life 50,000 Hrs)  
 Luminance Min. 300 cd/m<sup>2</sup>  
 Surface Treatment..... Glare/Anti-Reflection ≤1.5%  
 Hard Coating (3H)  
 Power Input ..... 12Vdc 2 amps  
 Motherboard. .... Freescale i.MX6 Dual Core 800mhz  
 1Gb of 512mhz DDR3 RAM Mem.  
 4Gb of eMMC Flash memory  
 1Gb Ethernet (100Mb/10Mb comp.)  
 1 Micro-SD Slots;  
 1 USB On-The-Go (OTG)  
 2 USB Host 2.0; Real Time Clock (RTC) w/ Battery  
 LVDS for 15.4" LCD wi/5-wire resistive touch  
 3 RS485 communication ports (max. baud rate 115k)

Revision - 2017-05-04