## Description

The **MCS-MAGNUM-7** consists of a MCS-MAGNUM controller along with a Touchscreen 7in 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 MCS-TOUCH-7 can connect up to 60 MCS controllers and supports RS485 or Ethernet networking. The MCS-TOUCH-7 makes it easy for the user to manage more complex installation diagrams, without losing the overall view of the installation, as well as ensuring that the pages can be browsed in a fast and straightforward manner.

The MCS-MAGNUM-N is a durable microprocessor based controller designed for the hostile environments in the HVAC/R industry. It is designed to be the primary manager of the package it is controlling. The Magnum 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.

The MCS-MAGNUM-N is a UL Recognized Component under UL File #169780 and also ROHS compliant. Complementing the Magnum micro controller are a variety of MCS expansion boards.

### Parts Included

- 30W Single Output Power Supply
- 115-230 VAC input (+-15%)
- 12 volt protections: Short circuit/ Overload/ Over voltage Cooling by free air convection
- 10m CAT 5e Crossover Patch Cord, Orange
- Fuse Internal - non-field changeable
- Operating temperature up to 70°C

MCS-MAGNUM-TOUCH 7 also ships with MCS-MOUNT KIT which includes 8 #6 sheet metal screws, 5 Standoffs and 1 Lexan Cover.

## Specifications

### Controller

- **Dimensions**: 12.0”w, 8.0”h, 2.0”d
- **Mounting Holes**: Mounts on a backplane utilizing 8 through-hole studs
- **Operating Temperature**: -40°F to +158°F (-40°C to +70°C)
- **Operating Humidity**: 0-95% Non-Condensing
- **Storage Temperature**: -40°F to +158°F (-40°C to +70°C)
- **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
- **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

### Magnum Controller Option

- 24vac input power ±10% 50/60Hz @ 77°F (25°C) ambient

### MCS-Touch 7 Touchscreen

- **LCD Screen**: 7.0” Diagonal (Aspect Ratio 16:9)
- **5-Wire resistive touch w/Stylus pen**
- **Gasket**: HT800 Cellular Silicone
- **NEMA 4 IP66 rated**
- **Surface Treatment**: Glare/Anti-Reflection ≤1.5%
- **Operating Temperature**: -20°C to +65°C
- **Operating Humidity**: 0-95% Non-Condensing
- **Storage Temperature**: -25°C to +70°C
- **Motherboard-Rev 4.0**: Freescale i.MX6 Dual Core 800mhz
- **2Gb of 512mhz DDR3 RAM memory**
- **16Gb of eMMC Flash memory**
- **10m/100m/1G Ethernet**
- **1 Micro-SD Slots**
- **2 USB Host 2.0**
- **Real Time Clock (RTC) w/Battery**
- **3 RS485 communication ports**