



MCS-CENTRIFUGAL

Description & Specifications



Part # **MCS-CENTRIFUGAL**

Description

The **MCS-CENTRIFUGAL** enclosure is made of powder-coated aluminum for durability and longevity. A left hand swing door is mounted with three eight-inch hinges for strength. A key lock is provided for security on the door while still giving easy access of the Touch Screen.

The MCS-CENTRIFUGAL comes standard equipped with a MCS-MAGNUM-N controller board, 15.4" Touch Screen, two 15 amp, and one 20 amp circuit breaker. There is also a GFCI electrical outlet for laptop plug-in power at the box.

The MCS-CENTRIFUGAL has the following expansion boards installed:

Three (3) **MCS-SI16-AO4**, and two (2) **MCS-RO10**.

Standard configuration includes: isolation relays, BMS Network connectivity, (Field selectable hardware or network BMS), and BMS Terminal block for chiller relay.

The following warning lights and switches are included in the standard enclosure; MB-Alarm, MB-Warning, MB-Emer-SW, Hand/Off/Auto Switch and Ethernet Switch.

Option

-Centrifugal-VFD-MODBUS

Two (2) MCS-S116-A04, two MCS-RO10 expansion boards and a **MCS-MODBUS** (communicate to Modbus slave devices (such as Variable Frequency Drives, Compressors, etc.) to send and access parameters.

NOTE: One MCS-S116-A04 is removed from the standard MCS-Centrifugal and replaced with the MCS-MODBUS.

Other Options are available, call for more information.

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 – Large Box

Dimensions of Large Box 27" w x 34.75" h x 8.0" 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/m²
 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 w/5-wire resistive touch
 3 RS485 communication ports (max. baud rate 115k)

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