



MCS-Magnum Megnetic Bearing Centrifugal Controller-MLB-15.4

Part # MCS-MAGNUM
MAGNETIC BEARING
CENTRIFUGAL CONTROLLER
MLB-15.4



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 28.50”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
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 wi/5-wire resistive touch
3 RS485 communication ports (max. baud rate 115k)

Description

MCS-MAGNUM Magnetic Centrifugal Controller run advanced software for the new Magnetic Centrifugal Compressors saving energy through optimizing with MCS-EXV Drivers and MCS-MODBUS I/O control.

The MAGNUM is capable of controlling four Magnetic Bearing Compressors in the enclosure.

The MCS-Magnum Magnetic Centrifugal enclosure are 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 display. This box is intended for use in an environment protected from the weather.

MCS-MAGNUM Magnetic Centrifugal Controller enclosure consists of a MCS-MAGNUM, and a Touchscreen 15.4” display.

The MCS-TOUCH-15.4 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 MCS-MAGNUM Magnetic Centrifugal Controller are shown on a 15.4” 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. Additional options are available as shown below.

Options

- MB-WIRELESS-MODEMCellular Modem with 1 yr subscription
- MB-RO10-(24/115/230) 10 relay output 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-ETHERNETIndustrial rated RS-232/Ethernet device
- MB-ETHERNET-SW.....Ethernet switch and power supply
- MB-BMS-GATEWAYBacNet IP to MSTP/Lontalk

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