

MM3 Intelligent MCC Controller

Firmware Revision 1.24 Release Notes

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Overview

Summary

GE Multilin releases version 1.24 of MM3 firmware that introduces new features and enhancements to the MM3 Intelligent MCC Controller. Highlights of this release include:

Protection & Control

- A new Start Inhibit feature that will allow Operators to lock-out (Block) the motor from starting
- Enhancements to blocking of protection and control elements using Inhibit Inputs
- Enhancements to the blocking of protection elements during the MM3's powering up sequence.

Communications

- Modbus User Map correctly reporting all configured data

This document contains the release notes for the Firmware Revision 1.24 for the MM3 Intelligent MCC Controller.

- Affected product: MM3 Intelligent MCC Controller
- Date of release: September 17, 2007
- Firmware revision: 1.24

Hardware / Software Compatibility

The new 1.24 firmware that is a part of this release is compatible with MM3 hardware version D and higher.

The use of the new 1.24 firmware requires the EnerVista MM3 Setup software to be version 1.2x and higher.

If users have existing MM3 Intelligent MMC Controllers installed with older versions of firmware, they can download and install this new firmware to benefit from the enhancements described in this release note. If the user does not require these new features and enhancements, no upgrading of the relays is required.

Release details

In the following change descriptions, a revision category letter is placed to the left of the description. Refer to the Appendix at the end of this document for additional details.

MM3 Intelligent MCC Controller Enhancements

N

Start Inhibit for locking-out motor start commands

The Start Inhibit function has been added to the MM3 to lock-out and block users from starting the motor for occasions such as the motor being out of service, the process not being available, or for safety reasons. When the MM3 receives a Start Inhibit command from operations through the RS485 communications port, the MM3 will block motor starting commands that are received from the front panel interface, hardware switch inputs or through communications. The MM3 will block motor starting commands until it receives a second command through communications to remove the Start Inhibit and unblock the starting of the motor.

F

Under-voltage, Under-power, Under-current trip if motor started immediately after the MM3 is powered ON

The MM3 has been enhanced to ensure that protection elements will not falsely operate if the motor was started immediately after the MM3 was energized. In the previous version of the firmware, if the Under-voltage, Under-power, or Under-current elements were configured with Trip delay timers less than 3 seconds and the motor was started within 3 seconds of the MM3 being energize, these elements would falsely operate and cause the motor to be tripped Off-Line.

E

Inhibit inputs not blocking Aux1 Relay or Undervoltage Auto-restart Inhibit from operating

The MM3 has been enhanced to ensure that the Aux-1 Relay and the Undervoltage Auto-restart Inhibit function are blocked when they are assigned to the Interlock Inputs. In the previous version of firmware, if either of these elements were configured to be blocked by an Interlock input, these elements were not blocked and still able to operate when the Interlock Input turned ON,

C

User Memory Map properly reporting all configured values

The User Memory Map feature has been enhanced to ensure that the parameters configured within it will be reported properly to the Modbus master. In the previous version of the firmware, the data points that were added to the Modbus User map would report a zero value rather than their expected value when the data was retrieved by a Modbus master. The values reporting incorrect data was always showing a zero value and would have been detected immediately by users trying to integrate the data from the Modbus user map.

Change categories

This document uses the following categories to classify the changes.

Table 1: Revision categories

Code	Category	Comments
N	New feature	A separate feature added to the relay. Changes to existing features even if they significantly expand the functionality are not in this category
G	Change	A neutral change that does not bring any new value and is not correcting any known problem
E	Enhancement	Modification of an existing feature bringing extra value to the application
D	Changed, incomplete or false faceplate indications	Changes to, or problems with text messages, LEDs and user pushbuttons
R	Changed, incomplete or false relay records	Changes to, or problems with relay records (oscillography, demand, fault reports, etc.)
C	Protocols and communications	Changes to, or problems with protocols or communication features
M	Metering	Metering out of specification or other metering problems
P	Protection out of specification	Protection operates correctly but does not meet published specifications (example: delayed trip)
U	Unavailability of protection	Protection not available in a self-demonstrating way so that corrective actions could be taken immediately
H	Hidden failure to trip	Protection may not operate when it should
F	False trip	Protection may operate when it should not
B	Unexpected restart	Relay restarts unexpectedly

The revision category letter is placed to the left of the change description.

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