

Enerlin'X

IFM Modbus-SL Interface for One Circuit Breaker

Firmware Release Notes

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Introduction

IFM Modbus-SL Interface for One Circuit Breaker

The IFM Modbus-SL interface for one circuit breaker (IFM interface) enables an intelligent modular unit (IMU) containing a circuit breaker equipped with a communicating MicroLogic trip unit to be connected to a two-wire Modbus-SL RS-485 serial line Modbus network.

Each circuit breaker has its own IFM interface and a corresponding Modbus address.

The IFM interface with part number LV434000 is compatible with the following ranges of circuit breaker:

- MasterPact MTZ circuit breakers
- MasterPact NT/NW circuit breakers
- ComPact NS circuit breakers
- ComPacT NSX circuit breakers
- PowerPact P- and R-frame circuit breakers
- PowerPacT H-, J-, and L- frame circuit breakers

NOTE: The information related to the new generation of ComPacT NSX and PowerPacT H-, J-, and L- frame circuit breakers in this document applies to ComPact NSX and PowerPact H-, J-, and L- frame circuit breakers also. The exceptions are mentioned wherever applicable.

Firmware Release History

The following table indicates the availability of each firmware version.

Date	Firmware version	Availability
April 2021	003.002.011	Release for manufacturing
December 2020	003.002.010	Obsolete
October 2020	003.002.009	Obsolete
December 2019	003.002.006	Obsolete
March 2019	003.001.012	Obsolete
September 2018	003.001.010	Obsolete
April 2018	003.001.006	Obsolete
July 2017	003.000.016	Obsolete
April 2017	003.000.012	Obsolete

Firmware Update Policy

Firmware update is recommended to benefit from the latest features and potential bug fixes. Do not update the firmware to the latest version, if the latest features are not required for your application and no bug fixes are provided.

Use this release note to determine whether an update to the latest version of the IFM firmware is relevant for your application.

For more information about the firmware update policy and the firmware compatibility between devices, refer to [DOCA0155EN MicroLogic Trip and Control Units - Firmware History](#).

Firmware Update with EcoStruxure Power Commission Software

Use the latest version of EcoStruxure Power Commission software to:

- Check the firmware compatibility of the devices in the IMU
- Update the devices with the latest firmware version available

After updating the firmware of one device, use EcoStruxure Power Commission software to check the firmware compatibility between IMU devices.

The Firmware Update table helps the user to diagnose and identify all discrepancy issues between IMU devices. This table also provides the recommended actions for each discrepancy issue.

The latest version of EcoStruxure Power Commission software is available at www.se.com.

For more information on the use of EcoStruxure Power Commission software, refer to *EcoStruxure Power Commission Online Help*.

Firmware Versions

Firmware Version 003.002.011

New Features

Added ComPacT NSX and PowerPacT H-, J-, and L- frame circuit breakers. These new ranges are the evolution of existing Compact NSX and PowerPacT H-, J-, and L-frame range of circuit breakers.

Bugs Fixed

- The manufacturing date and time register (11914–11917) showed incorrect seconds information.
- In IO1 module and M2C status register (32003), bits 9 and 10 showed incorrect M2C status.

Firmware Version 003.002.010

Bugs Fixed

- The time synchronization of IFM interface with IFE server did not happen when the IFE server was in **Daylight Saving** mode.

Firmware Version 003.002.009

New Features

- Added new events to monitor the internal Current Power Supply (CPS) sensors for MasterPact MTZ circuit breaker.
- Added the retry mechanism for optimizing data continuity (automatic bus resynchronization).

Bugs Fixed

- The values in the MasterPact MTZ circuit breaker dataset were not changed to **NA**, when MicroLogic was disconnected or IO module source address conflicted.
- Modbus communication failure with IFM interface was observed when there was unstable power supply.

Firmware Version 003.002.006

New Features

- Added access through Modbus registers to the following data for MasterPact MTZ circuit breaker:
 - IDMTL protection trip
 - Over/Under frequency trip
 - Directional overcurrent trip
 - Discrepancy between display and MicroLogic
 - Neutral protection setting

Firmware Version 003.001.012

New Features

- New user profiles are added
- Reliability improvement of firmware update when IFM interface is stacked with IFE server

Firmware Version 003.001.010

New Features

Added access through Modbus registers to the following data for MasterPact MTZ circuit breakers:

- Average peak current demand
- Minimum and maximum values of real-time measurements
- Energy per phase values
- Main settings of the active setting group of current protection functions

Firmware Version 003.001.006

New Features

- Added access to the legacy dataset for MasterPact MTZ circuit breakers with the Legacy Dataset Digital Module installed on the MicroLogic X control unit
- Added new signature revocation mechanism to enhance cybersecurity

Bugs Fixed

- Modbus communication parameters of the IFM interface were reset to factory settings after an interruption of the IFM power supply

Firmware Version 003.000.016

New Features

- Added access through Modbus registers to the trip cause data for MasterPact MTZ circuit breakers
- Aligned display of weekday with MasterPact MTZ circuit breakers

Firmware Version 003.000.012

New Features

Launched new IFM interface (part number LV434000)

- With backward compatibility with existing IFM interfaces (part numbers TRV00210 and STRV00210)
- With the following new features:
 - Compatible with MasterPact MTZ circuit breakers
 - Supports discovery and firmware update with EcoStruxure Power Commission software
 - Improved logic in updating frequency metering values based on quality
 - Improved logic in managing broadcast commands sent through command interface

Related Documents

Related Documents for IEC Devices

The following table lists documents valid for IEC devices that are compatible with an IFM interface with the latest firmware version:

Title of documentation	Publication date	Reference number
<i>ULP System (IEC Standard) - User Guide</i>	03/2019	DOCA0093EN-04 DOCA0093ES-04 DOCA0093FR-04 DOCA0093ZH-04
<i>MasterPact MTZ - Modbus Communication Guide</i>	10/2020	DOCA0105EN-07 DOCA0105ES-07 DOCA0105FR-07 DOCA0105ZH-07
<i>MasterPact NT/NW, ComPact NS - Modbus Communication Guide</i>	01/2021	DOCA0054EN-09 DOCA0054ES-09 DOCA0054FR-09 DOCA0054ZH-09
<i>ComPacT NSX - Modbus Communication Guide</i>	04/2021	DOCA0213EN-00 DOCA0213ES-00 DOCA0213FR-00 DOCA0213ZH-00
<i>ComPact NSX - Modbus Communication Guide</i>	01/2021	DOCA0091EN-08 DOCA0091ES-08 DOCA0091FR-08 DOCA0091ZH-08

You can download these technical publications and other technical information from our website at <https://www.se.com/en/download>.

Related Documents for UL/ANSI Devices

The following table lists documents valid for UL/ANSI devices that are compatible with an IFM interface with the latest firmware version:

Title of documentation	Publication date	Reference number
<i>ULP System (UL Standard) - User Guide</i>	03/2019	0602IB1503-02 (EN) 0602IB1504-02 (ES) 0602IB1505-02 (FR) 0602IB1506-02 (ZH)
<i>MasterPact MTZ - Modbus Communication Guide</i>	10/2020	DOCA0105EN-07 DOCA0105ES-07 DOCA0105FR-07 DOCA0105ZH-07
<i>MasterPact NT/NW, PowerPact P-, and R-Frame - Modbus Communication Guide</i>	01/2021	0613IB1313-09 (EN) 0613IB1314-09 (ES) 0613IB1315-09 (FR) 0613IB1316-09 (ZH)
<i>PowerPact H-, J-, and L- Frame Circuit Breakers - Modbus Communication Guide</i>	01/2021	0611IB1302-07 (EN) 0611IB1303-07 (ES) 0611IB1304-07 (FR) 0611IB1305-07 (ZH)

You can download these technical publications and other technical information from our website at <https://www.se.com/en/download>.

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