# **Enerlin'X IFE Switchboard Server**

## **Firmware Release Notes**

DOCA0148EN-04 07/2022





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## **Safety Information**

#### **Important Information**

Read these instructions carefully, and look at the equipment to become familiar with the device before trying to install, operate, service, or maintain it. The following special messages may appear throughout this documentation or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of this symbol to a "Danger" or "Warning" safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

#### **A** DANGER

**DANGER** indicates a hazardous situation which, if not avoided, **will result in** death or serious injury.

#### **▲ WARNING**

**WARNING** indicates a hazardous situation which, if not avoided, **could result in** death or serious injury.

#### **A** CAUTION

**CAUTION** indicates a hazardous situation which, if not avoided, **could result** in minor or moderate injury.

#### NOTICE

NOTICE is used to address practices not related to physical injury.

#### **Please Note**

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

A qualified person is one who has skills and knowledge related to the construction and operation of electrical equipment and its installation, and has received safety training to recognize and avoid the hazards involved.

## **About the Book**

#### **Document Scope**

This document provides the firmware version history of IFE Ethernet switchboard server.

## **Validity Note**

This document is valid for IFE Ethernet switchboard server.

#### **Online Information**

The technical characteristics of the devices described in this guide also appear online. To access the information online, go to the Schneider Electric home page at www.se.com.

The information contained in this guide is likely to be updated at any time. Schneider Electric strongly recommends that you have the most recent and up-to-date version available on www.se.com/ww/en/download.

#### **Related Documents for IEC Devices**

The following table lists the documents valid for IEC devices that are compatible with an IFE Ethernet switchboard server with the latest firmware version:

Title of documentation	Publication date	Reference number
Enerlin'X IFE – Ethernet Switchboard Server/ Ethernet Interface for One Circuit Breaker – Instruction Sheet	03/2018	QGH13473-02
Enerlin'X IFE – Ethernet Switchboard Server – User Guide (IEC)	05/2021	DOCA0084EN-10
		DOCA0084ES-10
		DOCA0084FR-10
		DOCA0084ZH-10
ULP System (IEC Standard) - User Guide	03/2019	DOCA0093EN-04
		DOCA0093ES-04
		DOCA0093FR-04
		DOCA0093ZH-04
ComPacT NSX - Modbus Communication Guide	07/2022	DOCA0213EN-01
		DOCA0213ES-01
		DOCA0213FR-01
		DOCA0213ZH-01
ComPact NSX - Modbus Communication Guide	07/2022	DOCA0091EN-09
		DOCA0091ES-09
		DOCA0091FR-09
		DOCA0091ZH-09
ComPacT NS - Modbus Communication Guide	07/2022	DOCA0220EN-01
		DOCA0220ES-01
		DOCA0220FR-01
		DOCA0220ZH-01

Title of documentation	Publication date	Reference number
MasterPact NT/NW, ComPact NS - Modbus Communication Guide	07/2022	DOCA0054EN-10
		DOCA0054ES-10
		DOCA0054FR-10
		DOCA0054ZH-10
MasterPact MTZ – Modbus Communication Guide	07/2022	DOCA0105EN-09
		DOCA0105ES-09
		DOCA0105FR-09
		DOCA0105ZH-09

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

#### **Related Documents for UL/ANSI Devices**

The following table lists the documents valid for UL/ANSI devices that are compatible with an IFE Ethernet switchboard server with the latest firmware version:

Title of documentation	Publication date	Reference number
Enerlin'X IFE – Ethernet Switchboard Server/ Ethernet Interface for One Circuit Breaker – Instruction Sheet	03/2018	QGH13473-02
Enerlin'X IFE – Ethernet Switchboard Server – User Guide (UL)	05/2021	1040IB1401-10 (EN)
		1040IB1402-10 (ES)
		1040IB1403-10 (FR)
		1040IB1404-10 (ZH)
ULP System (UL Standard) – User Guide	03/2019	0602IB1503-02 (EN)
		<u>0602IB1504-02 (ES)</u>
		0602IB1505-02 (FR)
		<u>0602IB1506-02 (ZH)</u>
PowerPact H-, J-, and L-Frame Circuit Breakers – Modbus	07/2022	0611IB1302-08 (EN)
Communication Guide		0611IB1303-08 (ES)
		0611IB1304-08 (FR)
		<u>0611IB1305-08 (ZH)</u>
MasterPact NT/NW and PowerPact P- and R-Frame – Modbus	07/2022	<u>0613IB1313-10 (EN)</u>
Communication Guide		<u>0613IB1314-10 (ES)</u>
		<u>0613IB1315-10 (FR)</u>
		<u>0613IB1316-10 (ZH)</u>
MasterPact MTZ – Modbus Communication Guide	07/2022	DOCA0105EN-09
		DOCA0105ES-09
		DOCA0105FR-09
		DOCA0105ZH-09

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

## Introduction

#### IFE Switchboard Server

When an intelligent modular unit (IMU) contains a circuit breaker equipped with a communicating MicroLogic trip unit, the IFE Ethernet switchboard server (IFE server) enables the IMU to be connected to an Ethernet network. Each circuit breaker has its own IFE server and a corresponding IP address.

The IFE server with part number LV434002 or LV434011 is an Ethernet interface for the circuit breaker in the IMU and a server for Modbus-SL (serial line) connected devices.

**NOTE:** The IFE server with part number LV434002 completely replaces the IFE server with part number LV434011. The part number LV434002 comes with the real time clock (RTC) feature and allows ULP connections up to 20 m (65.6 ft) with the MasterPact MTZ circuit breakers (LV434011 had a theoretical limitation of 5 m (16.4 ft) over the life of the IFE server).

The IFE server is compatible with the following ranges of circuit breakers:

- · 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
July 2022	003.016.000	Release for manufacturing
February 2022	003.015.000	Obsolete
July 2021	003.014.000	Obsolete
April 2021	003.013.003	Obsolete
January 2021	003.012.002	Obsolete
October 2020	003.011.003	Obsolete
December 2019	003.010.005	Obsolete
March 2019	003.009.010	Obsolete
April 2018	003.007.024	Obsolete
July 2017	003.006.011	Obsolete
December 2016	003.005.003	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 confirm if an update to the latest version of the firmware is relevant for your application.

For more information on the firmware update policy and the firmware compatibility between devices, refer to <a href="DOCA0155EN">DOCA0155EN</a> MicroLogic Trip and Control Units - Firmware History.

## Firmware Update with EcoStruxure Power Commission Software

Use the latest version of EcoStruxure Power Commission software to update the device with the latest firmware version available.

The latest version of EcoStruxure Power Commission software is available on 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 003.016.000

#### **New Features**

Freshness timeout for ULP communication is configurable.

## Firmware Version 003.015.000

#### **New Features**

Enhanced firmware upgrade feature for ComPacT NSX and PowerPacT H-, J-, and L-frame circuit breakers.

#### Firmware Version 003.014.000

## **Security Updates**

Included the patch for IPv6 vulnerabilities.

## Firmware Version 003.013.003

#### **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**

New administrators were able to perform the control operations without the acceptance of the disclaimer message.

## Firmware Version 003.012.002

#### **New Features**

Added MicroLogic Xi control units. A MicroLogic Xi is a control unit without Bluetooth Low Energy (BLE) communication.

## **Bugs Fixed**

Time synchronization of IFM interface with IFE server did not happen when the IFE server was in Daylight Saving mode.

## Firmware Version 003.011.003

#### **New Features**

 Added the events for internal Current Power Supply (CPS) sensors, available with the MicroLogic X control unit for firmware version 004.105.000 or higher.

## **Bugs Fixed**

Treck TCP/IP Vulnerabilities (Ripple20)
For more information, refer to <u>SEVD-2020-175-01</u> Schneider Electric Security Notification.

## Firmware Version 003.010.005

#### **New Features**

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

## **Bugs Fixed**

- Modbus TCP communication was lost due to serial driver issue.
- When IP Filtering was enabled as Read only, the Modbus function Scattered read was blocked.

## Firmware Version 003.009.010

#### **New Features**

- Added the following maintenance features, available with a MicroLogic X control unit with firmware version 003.011.000 or higher:
  - New events for contact wear ratio
  - New events for type of preventive maintenance to be performed

- 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

**NOTE:** The configuration of the connection to EcoStruxure Facility Expert is not available now. You can use Enerlin'X COM'X energy servers to configure the connection to EcoStruxure Facility Expert.

## **Bugs Fixed**

- IFE server lost its clock master status when SNTP server did not answer.
- IFE server restarted when discovery packet from Satchwell Sigma BMS platform was received.

#### Firmware Version 003.007.024

#### **New Features**

Added the following features, available with a MicroLogic X control unit with firmware version 002.000.003 or higher:

- Monitoring of current and power demand values
- · Reset of peak demand values
- New events for notification by email:
  - Presence of 24 Vdc power supply
  - Ground-fault alarm/ Earth-leakage alarm (available when Ground-fault Digital Module is installed on MicroLogic X control unit)
- · Update of standard dataset with current and power demand values
- Availability of legacy dataset when Modbus Legacy Dataset Digital Module is installed on the MicroLogic X control unit
- Availability of individual harmonics and currents up to rank 40 when Individual Harmonics Analysis Digital Module is installed on the MicroLogic X control unit
- Introduction of new mechanism for activating Digital Modules across Enerlin'X devices
- Modification to management of multiple requests through command interface: reception of new command aborts previous command still in progress.

Added ComPacT NSX circuit breaker with MicroLogic 7 trip unit as discoverable device that can be connected to ULP port of IFE server.

Added Vigirex RHU and Vigirex RMH relays as discoverable devices that can be connected as Modbus slaves on an IFM interface stacked to the IFE server.

## **Bugs Fixed**

 LV434002: ULP LED was blinking green instead of yellow when IFE server was in Boot mode.

#### Firmware Version 003.006.011

#### **New Features**

- Added access through Modbus registers to the trip cause data for MasterPact MTZ circuit breakers
- · Added support of alpha-numeric passwords for IFE webpages
- LV434002: Added support for the internal battery that maintains the date and time settings of the real-time clock (RTC) during a power loss
- · Added compatibility with ULP cables up to 20 m (65 ft) in length
- Added alarm support for the MicroLogic P and H advanced protection settings, allowing an alarm email to be sent
- Added discovery from IFE webpages of devices equipped with noncommunicating trip units, through BCM or BSCM module (For example, NSX non-communicating MicroLogic with BSCM module), for device status display only
- Added compatibility with new MicroLogic 7 trip units for ComPacT NSX circuit breakers
- Added Integration of Acti9 Smartlink SI D as a remote device
- Updated Modbus end-of-line termination default value in webpage for easier default configuration

**NOTE:** The Schneider Electric automatic email profile is not available now. You have to use your own SMTP server.

## **Bugs Fixed**

- · FTP server could not be enabled in Italian language
- BCM firmware update was not performed when IFE device closed connection in DHCP mode.

## Firmware Version 003.005.003

#### **New Features**

- Added the MasterPact MTZ circuit breakers as discoverable devices.
- Added the integration of secure email.

## **Bugs Fixed**

- IFE time and date were not well synchronized with the SNTP server.
- Refresh of data on IFE device stopped after a few hours of use.
- IP filtering was disabled after a firmware update of IFE devices.
- IFE device and IO module ULP communication did not share the correct cradle status when powered up with a device in disconnected position.

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