Enerlin'X IFE/EIFE Ethernet Interface

Firmware Release Notes

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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.

A 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 Document

Document Scope

This document provides the firmware version history of IFE Ethernet interface for one circuit breaker (IFE interface) and EIFE Embedded Ethernet interface for one MasterPacT MTZ drawout circuit breaker (EIFE interface).

Validity Note

This document is valid only for IFE and EIFE interfaces.

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 country website 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/.

General Cybersecurity Information

In recent years, the growing number of networked machines and production plants has seen a corresponding increase in the potential for cyber threats, such as unauthorized access, data breaches, and operational disruptions. You must, therefore, consider all possible cybersecurity measures to help protect assets and systems against such threats.

To help keep your Schneider Electric products secure and protected, it is in your best interest to implement the cybersecurity best practices as described in the Cybersecurity Best Practices document.

Schneider Electric provides additional information and assistance:

- Subscribe to the Schneider Electric security newsletter.
- Visit the Cybersecurity Support Portal web page to:
 - Find Security Notifications.
 - Report vulnerabilities and incidents.
- Visit the Schneider Electric Cybersecurity and Data Protection Posture web page to:
 - Access the cybersecurity posture.
 - Learn more about cybersecurity in the cybersecurity academy.
 - Explore the cybersecurity services from Schneider Electric.

Product Related Cybersecurity Information

AWARNING

POTENTIAL COMPROMISE OF SYSTEM AVAILABILITY, INTEGRITY, AND CONFIDENTIALITY

- Change default passwords at first use to help prevent unauthorized access to device settings, controls, and information.
- Disable unused ports/services and default accounts to help minimize pathways for malicious attackers.
- Place networked devices behind multiple layers of cyber defenses (such as firewalls, network segmentation, and network intrusion detection and protection).
- Use cybersecurity best practices (for example, least privilege, separation of duties) to help prevent unauthorized exposure, loss, modification of data and logs, or interruption of services.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

Environmental Data

For product compliance and environmental information, refer to the Schneider Electric Environmental Data Program.

Related Documents

The following table lists the documents valid for devices that are compatible with an IFE or EIFE interface with the latest firmware version:

Title of documentation	Reference number
Enerlin'X IFE - Ethernet Interface for One Circuit Breaker - User Guide	DOCA0142EN
	DOCA0142ES
	DOCA0142FR
	DOCA0142ZH
Enerlin'X EIFE - Embedded Ethernet Interface for One MasterPacT MTZ Drawout Circuit	DOCA0106EN
Breaker - User Guide	DOCA0106ES
	DOCA0106FR
	DOCA0106ZH
MasterPacT, ComPacT, PowerPacT Circuit Breakers - Modbus Communication - User Guide	DOCA0384EN
	DOCA0384ES
	DOCA0384FR
	DOCA0384ZH
ULP (Universal Logic Plug) System - User Guide	DOCA0093EN
	DOCA0093ES
	DOCA0093FR
	DOCA0093ZH
MicroLogic Trip Units and Control Units - Firmware History	DOCA0155EN

To find documents online, visit the Schneider Electric download center (www.se.com/ww/en/download/).

Information on Non-Inclusive or Insensitive Terminology

As a responsible, inclusive company, Schneider Electric is constantly updating its communications and products that contain non-inclusive or insensitive terminology. However, despite these efforts, our content may still contain terms that are deemed inappropriate by some customers.

Introduction

PacT Series Master Range

Future-proof your installation with Schneider Electric's low voltage and medium-voltage PacT Series. Built on legendary Schneider Electric innovation, the PacT Series comprises world-class circuit breakers, switches, residual current devices and fuses, for all standard and specific applications. Experience robust performance with PacT Series within the EcoStruxure-ready switchgear, from 16 to 6300 A in low-voltage and up to 40.5 kV in medium-voltage.

IFE Ethernet Interface for One Circuit Breaker

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

The IFE interface with part number LV434001 or LV434010 is an Ethernet interface for the circuit breaker in the IMU.

NOTE: The IFE interface with part number LV434001 completely replaces the IFE interface with part number LV434010. The part number LV434001 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 (LV434010 had a theoretical limitation of 5 m (16.4 ft) over the life of the IFE interface).

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

- MasterPacT MTZ circuit breakers with MicroLogic Active control unit
- MasterPacT MTZ circuit breakers with MicroLogic X control unit
- · MasterPacT NT/NW circuit breakers
- ComPacT NS circuit breakers
- PowerPacT P- and R-frame circuit breakers
- ComPacT NSX circuit breakers
- PowerPacT H-, J-, and L-frame circuit breakers

NOTE:

- The information related to the new generation of ComPacT NS and PowerPacT P- and R-frame circuit breakers in this document applies to the existing range ComPact NS and PowerPact P- and R-frame circuit breakers also. The exceptions are mentioned wherever applicable.
- The information related to the new generation of ComPacT NSX and PowerPacT H-, J-, and L-Frame circuit breakers in this document applies to the existing range ComPact NSX and PowerPact H-, J-, and L-frame circuit breakers also. The exceptions are mentioned wherever applicable.
- These new ranges are based on the same technical and dimensional architecture as that of the existing range of circuit breakers.

EIFE Embedded Ethernet Interface for One MasterPacT MTZ Drawout Circuit Breaker

The EIFE interface with part number LV851001 enables one MasterPacT MTZ drawout circuit breaker to be connected to an Ethernet network.

It provides:

- Digital access to all the data that is delivered by the MicroLogic Active or MicroLogic X control unit of the MasterPacT MTZ circuit breaker.
- Information about the IMU system.

It also monitors the three positions of the circuit breaker in the cradle:

- · Cradle connected
- · Cradle disconnected
- · Cradle test position

Firmware Release History

The following table indicates the availability of each firmware version for IFE or EIFE interface:

Date	Firmware version	Availability		
October 2025	005.003.000	Released for manufacturing (LV434001 and LV851001)		
February 2025	005.002.000	Obsolete		
May 2024	005.001.000	Obsolete		
July 2023	004.011.000	Obsolete		
May 2023	004.010.000	Obsolete		
February 2023	004.009.000	Obsolete		
November 2022	004.008.000	Obsolete		
July 2022	004.007.000	Obsolete		
July 2022	003.016.000	Obsolete		
February 2022	004.005.000	Obsolete		
	003.015.000	Obsolete		
July 2021	004.004.001	Obsolete		
	003.014.000	Obsolete		
April 2021	004.003.000	Obsolete		
April 2021	003.013.003	Obsolete		
January 2021	004.002.000	Obsolete		
January 2021	003.012.002	Obsolete		
	004.001.000	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.

NOTE: You can upgrade the firmware version from 003.nnn.nnn to 005.nnn. nnn and 004.nnn.nnn to 005.nnn.nnn but downgrade is not possible.

For more information on the firmware update policy and the firmware compatibility between devices, refer to *MicroLogic Trip Units and Control Units - Firmware History* – DOCA0155EN.

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.

Click here for the latest version of EcoStruxure Power Commission software.

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

Firmware Versions

Firmware Version 005.003.000

New Features

- Enabled ULP communication for the MasterPacT MTZ circuit breakers with MicroLogic Active control unit and BCIM module.
- Added IO MODULES page under MONITORING & CONTROL tab, where you
 can view input/output configuration of IO modules connected to the IFE or
 EIFE interface.

Firmware Version 005.002.000

Bug Fixed

Firmware upgrade of ComPacT NSX circuit breakers with MicroLogic 7.2 or 7.3 trip units through EcoStruxure Power Commission software and IFE or EIFE interface was unsuccessful.

Firmware Version 005.001.000

New Features

The following features are added:

- Read Device Registers feature for IFE or EIFE interface to read Modbus registers from the selected device.
- Integration of BSCM Modbus SL/ULP module which is compatible with IFE interface only.

Firmware Version 004.011.000

New Features

The following events are added with email notification:

- Events from the IDMTG ground-fault protection.
- · Events indicating the change of passwords.

Firmware Version 004.010.000

Security Updates

Enhanced cybersecurity features.

New Features

The following features are added:

- Device Specific Settings (DSS) feature that enables the IFE or EIFE interface configurations to be tailored for each individual device.
- Signature verification feature to validate the security configuration files received from EcoStruxure Cybersecurity Admin Expert software.

Firmware Version 004.009.000

Security Updates

Restored compatibility with EcoStruxure Cybersecurity Admin Expert software version 2.4.3 and later.

New Features

Role Base Access Control (RBAC) has been added for ComPacT NSX with MicroLogic 5, 6, and 7 trip units.

Bugs Fixed

The IFE or EIFE webpage did not load on certain versions of Google Chrome.

NOTE: The above bug was observed in Google Chrome version 107.0.5304.63 (official build) (64 bit).

Firmware Version 004.008.000

Security Updates

Enhanced cybersecurity features.

Firmware Version 004.007.000

Security Updates

Enhanced cybersecurity features.

New Features

The following features are added:

- Syslog logging service feature.
- Machine-to-Machine (M2M) communication for Modbus communication.
- Role Base Access Control (RBAC) for MasterPacT MTZ with MicroLogic X control unit.
- · Reset security administrator password.

Known Issues

The **Diagnostics** page for RSTP goes blank when the RSTP service is disabled.

Firmware Version 003.016.000

New Features

Freshness timeout for ULP communication is configurable.

Firmware Version 004.005.000

Security Updates

Enhanced cybersecurity features.

New Features

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

Known Issues

Lost compatibility with EcoStruxure Cybersecurity Admin Expert software.

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 004.004.001

Security Updates

The following security updates are done:

- Enhanced cybersecurity features.
- Included the patch for IPv6 vulnerabilities.

New Features

The new range of ComPacT NSX and PowerPacT H-, J-, and L-frame circuit breakers are introduced with the evolution of existing ComPact NSX and PowerPact H-, J-, and L-frame range of circuit breakers.

Bugs Fixed

The measurement values were inconsistent with the real time values after the IMU system recovered from critical discrepancy.

Firmware Version 003.014.000

Security Updates

Included the patch for IPv6 vulnerabilities.

Firmware Version 004.003.000

New Features

The new range of ComPacT NSX and PowerPacT H-, J-, and L-frame circuit breakers are introduced with the evolution of existing ComPact NSX and PowerPact H-, J-, and L-frame range of circuit breakers.

Bugs Fixed

The following bugs are fixed:

- Language and phone number was not updated while creating a user account.
- Location field was removed from the user account pages.
- After the firmware was upgraded from 003.xxx.xxx to 004.002.000, the HTTPS protocol was not enabled by default.
- After the firmware was upgraded from 003.xxx.xxx to 004.002.000, the FTP protocol was disabled.
- The register 12395 for freshness timeout setting was not always accessible without the installation of the Modbus Legacy Dataset Digital Module.

Firmware Version 003.013.003

New Features

The new range of ComPacT NSX and PowerPacT H-, J-, and L-frame circuit breakers are introduced with 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 004.002.000

New Features

- Added MicroLogic Xi control units. A MicroLogic Xi is a control unit without Bluetooth Low Energy (BLE) communication.
- Enhanced the following cybersecurity features:
 - Enabled the FTPS mode for file import.
 - Enabled automatic export of datalog file.

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 or EIFE interface did not happen when the IFE or EIFE interface was in Daylight Saving mode.

Firmware Version 004.001.000

New Features

The following features are added:

- Improved design for the webpages interface.
- IEC 61850 communication protocol compatible with CET850 configuration software.
- Rapid Spanning Tree Protocol (RSTP).
- Enhanced the Simple Network Time Protocol (SNTP) with the Network Time Protocol (NTP).
- Enhanced the following Cybersecurity features:
 - Revised the user management configuration rules according to the Role Base Access Control (RBAC) strategy (Refer to User Management Reconfiguration after Firmware Update, page 17).
 - Strengthened the policies of password security.
 - Enabled the HTTPS mode for the web interface.
 - Harmonized the users list of FTP server with the webpage.
 - Enabled compatibility with EcoStruxure Cybersecurity Admin Expert software.

Events for internal Current Power Supply (CPS) sensors, available with a MicroLogic X control unit with firmware version 004.105.000 or later.

User Management Reconfiguration after Firmware Update

AWARNING

POTENTIAL COMPROMISE OF SYSTEM AVAILABILITY, INTEGRITY, AND CONFIDENTIALITY

Change default passwords at first use to help prevent unauthorized access to device settings, controls, and information.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

NOTICE

LOSS OF DATA

- Ensure that you take backup of the data log files before updating the firmware. The data log entries of the IFE or EIFE interface may be lost when the firmware is updated.
- Ensure that you take backup of data present in User Accounts and Email Events sections of IFE or EIFE webpages.
- Ensure that after firmware upgrade, you restore the User Accounts and Email Events configuration on IFE or EIFE webpages.

Failure to follow these instructions can result in permanent loss of data.

To take advantage of new security features, the reconfiguration of the IFE or EIFE webpage users is required when an IFE or EIFE interface firmware is updated from a version 003.010.005 or earlier to 004.001.000 or later.

The management of the users of the IFE or EIFE webpages for firmware version 004.001.000 or later is based on Role Base Access Control (RBAC). It is not compatible with the user management of the IFE or EIFE webpages for firmware version 003.010.005 or earlier.

After the firmware update of an IFE or EIFE interface from a version 003.010.005 or earlier to 004.001.000 or later:

- The Guest account is removed.
- The Administrator account is removed and replaced by a SecurityAdmin user:
 - With the default password: AAAAAAA.
 - With the email address of the Administrator account.
- The first 11 configurable user accounts are maintained:
 - With the same user names. If a user name was shorter than four characters, then 0 are added to complete it to four characters.
 - With the same email addresses.
 - With the default password: Admin@123
 - With Viewer role.
- The last three configurable accounts are removed.
- The export of logging data by email is disabled.
- The notification of email events is reset to default values.
- · The email addresses for notifications are removed.

Once the IFE or EIFE interface firmware is updated from a version 003.010.005 or earlier to 004.001.000 or later, the Security Administrator must edit and review the user accounts configuration on the **USER MANAGEMENT** webpage.

Firmware Version 003.011.003

New Features

The events are added for internal Current Power Supply (CPS) sensors, available with the MicroLogic X control unit for firmware version 004.105.000 or later.

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

Access has been added 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 control unit

Bug Fixed

When IP Filtering was enabled as Read only, the Modbus function *Scattered read* was blocked.

Firmware Version 003.009.010

New Features

The following maintenance features are added and are available with a MicroLogic X control unit with firmware version 003.011.000 or later:

- New events for contact wear ratio.
- New events for type of preventive maintenance to be performed.

Access has been added 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 software is not available now. You can use Enerlin'X COM'X energy servers to configure the connection to EcoStruxure Facility Expert software.

Bugs Fixed

The following bugs are fixed:

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

Firmware Version 003.007.024

New Features

The following features are added for IFE or EIFE interface and are available with a MicroLogic X control unit with firmware version 002.000.003 or later:

- · 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 or 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.

The following features are added for IFE interface:

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

Bugs Fixed

The following bug is fixed for IFE interface:

 LV434001: ULP LED was blinking green instead of yellow when IFE interface was in Boot mode.

Firmware Version 003.006.011

New Features

The following features are added for IFE or EIFE interface:

- Access has been added through Modbus registers to the trip cause data for MasterPacT MTZ circuit breakers.
- · Support of alpha-numeric passwords for IFE webpages.

The following features are added for IFE interface:

- Support for the internal battery that maintains the date and time settings of the real-time clock (RTC) during a power loss (reference LV434001).
- Compatibility with ULP cables up to 20 m (65 ft) in length.
- Alarm support for the MicroLogic P and H advanced protection settings, allowing an alarm email to be sent.
- Discovery from IFE webpages of devices equipped with non-communicating trip units, through BCM or BSCM module (e.g. NSX non-communicating MicroLogic with BSCM module), for device status display only.
- Compatibility with new MicroLogic 7 trip units for ComPacT NSX circuit breakers.

Bugs Fixed

The following bug is fixed for IFE or EIFE interface:

FTP server could not be enabled in Italian language.

The following bug is fixed for IFE interface:

 BCM firmware update was not performed when IFE interface closed connection in DHCP mode.

Firmware Version 003.005.003

New Features

The following features are added:

- The MasterPacT MTZ circuit breakers are now discoverable devices.
- · Integration of secure email.

Bugs Fixed

The following bugs are fixed:

- IFE interface time and date were not well synchronized with the SNTP server.
- Refresh of data on IFE interface stopped after a few hours of use.
- IP filtering was disabled after a firmware update of IFE interface.
- IFE interface 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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As standards, specifications, and design change from time to time, please ask for confirmation of the information given in this publication.

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