

# Vigilohm IM400 Driver for Power Monitoring Expert 2020/9.0/8.2 CU3 Release Notes

This document contains information about the EcoStruxure™ Power Monitoring Expert 2020/9.0/8.2 CU3 driver for the Vigilohm IM400 series devices.

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### **Additional Information**

- [Vigilohm IM400 device documentation](#)
- [Power Monitoring Expert documentation](#)

# Version History

The following table lists the version history of the Vigilohm IM400 device driver:

Version Number	Description of Changes
1.0.0.0	First release

# 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 manual or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of either 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.

### **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.

### **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, installation, and operation of electrical equipment and has received safety training to recognize and avoid the hazards involved.

# Safety Precautions

During installation or use of this software, pay attention to all safety messages that occur in the software and that are included in the documentation. The following safety messages apply to this software in its entirety.

## WARNING

### UNINTENDED EQUIPMENT OPERATION

- Do not use the software for critical control or protection applications where human or equipment safety relies on the operation of the control action.
- Do not use the software to control time-critical functions because communication delays can occur between the time a control is initiated and when that action is applied.
- Do not use the software to control remote equipment without securing it with an authorized access level, and without including a status object to provide feedback about the status of the control operation.

**Failure to follow these instructions can result in death or serious injury.**

## WARNING

### INACCURATE DATA RESULTS

- Do not incorrectly configure the software, as this can lead to inaccurate reports and/or data results.
- Do not base your maintenance or service actions solely on messages and information displayed by the software.
- Do not rely solely on software messages and reports to determine if the system is functioning correctly or meeting all applicable standards and requirements.
- Consider the implications of unanticipated transmission delays or failures of communications links.

**Failure to follow these instructions can result in death, serious injury, equipment damage, or permanent loss of data.**

# Vigilohm IM400 Driver

## Power Monitoring Expert Requirements

The device can be connected to Power Monitoring Expert 2020/9.0/8.2 CU3 through a translating gateway, such as an Link 150 device or some other method of connection that allows the device to use Modbus TCP.

## Driver Version

This release notes apply to the device driver version 1.0.0.0.

## Supported Models

This driver is tested with the following firmware version. All features might not work for other firmware revisions.

- 003.002.000

The supported device variants are:

- IM400
- IM400C
- IM400L
- IM400THR
- IM400LTHR
- IM400N
- IM400THRN

## Features

This device driver supports the following features:

- All real-time registers
- Alarm configuration
- On-board alarm logs
- PC based measurements logging
- Device time is automatically synchronized with server local time without DST at hourly intervals
- Real-time data transfer using OPC and EWS
- Default factory diagram to view real time data
- The following factory-provided default reports in the Web-based Reports application:
  - Trend
  - Tabular
  - Event History Report

# Installation

## Device Driver Installer

### **⚠ WARNING**

#### **LOSS OF CONTROL**

Do not ignore alerts during the driver installation/repair. If you choose to ignore such alerts, the driver will be installed but may operate incorrectly.

**Failure to follow this instruction can result in death or serious injury.**

The associated device driver installer is used to add this driver and all required supporting files to the target Power Monitoring Expert system.

The supporting files consist of:

- VigilohmIM400\_Plugin.dll
- Vista diagrams
- ion and xml files
- evt file

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**NOTE:** The device driver installation process restarts the ION Site Service of Power Monitoring Expert. This results in a brief disruption of communication between the Power Monitoring Expert server and the devices connected to it.

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## Uninstalling

Uninstalling by re-running the installer removes all the files that were added by the Device Driver Installer.

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**NOTE:** Uninstallation can only be performed when the device instance in management console is removed.

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## Repair

Repair by re-running the installer restores all device driver related modified files to the default files. All the modified files will be backed up in the customized folder (/config/translator/customizations).

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**NOTE:** Remove the translator files (ion and xml) from the folder config/translator after running the Repair.

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# Implementation Details

## Device Configuration and Upgrade

The device firmware upgrade and configuration can be done using ION setup.

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**NOTE:** Power Monitoring Expert cannot be used to configure this device or to upgrade the device firmware.

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## PC-based Logging

The device driver allows you to log data using PC-based logging feature. The following measurements are logged Channel-wise by default using PC-based logging:

Measurements	Vigilohm IM400N/IM400/IM400C/ IM400L	Vigilohm IM400THRN/IM400THR /IM400LTHR
Resistance	✓	✓
Capacitance	✓	✗

The Device Type Editor is used to change the list of measurements being logged which is accessed from the **Tools > System** menu in Management Console.

## Alarm Logs

The Vigilohm IM400 supports on-board alarm logging. The device driver polls the device and checks for new log entries at regular intervals. The default polling interval is 30 seconds.

## Time Synchronization

By default, the Power Monitoring Expert server synchronizes the device time with server local time without DST adjustment at hourly intervals.

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**NOTE:**

- Time sync Enable/Disable by device instance is possible only if device is configured as Serial Device on Ethernet Gateway Site in Management Console.
  - When device is rebooted, the time sync happens immediately.
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For a device instance, the time synchronization is enabled or disabled through the Management Console as follows:

1. Click the **Devices** icon, right-click the device instance and select the **Configure Device** option.
2. Right-click the grid area and select the **Advanced Properties** menu option.
3. To enable the Timesync, select **Yes** from the **Timesync Enabled** drop-down list. To disable Timesync, select **No** from the **Timesync Enabled** drop-down list.

Time synchronization interval can be modified by changing the **TimeSyncIntervallInMinutes** attribute in the VigilohmIM400.xml map file, which determines the time synchronization interval in minutes.

To disable the time synchronization for the entire device type, set the **TimeSyncIntervallInMinutes** attribute in VigilohmIM400.xml file to 0.

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**NOTE:** The minimum value for the **TimeSyncIntervallInMinutes** attribute is 5 minutes. The **TimeSyncIntervallInMinutes** attribute takes effect only if **Timesync Enabled** is set to System Default. The time synchronization occurs at fixed hourly intervals if **Timesync Enabled** is set to **Yes**.

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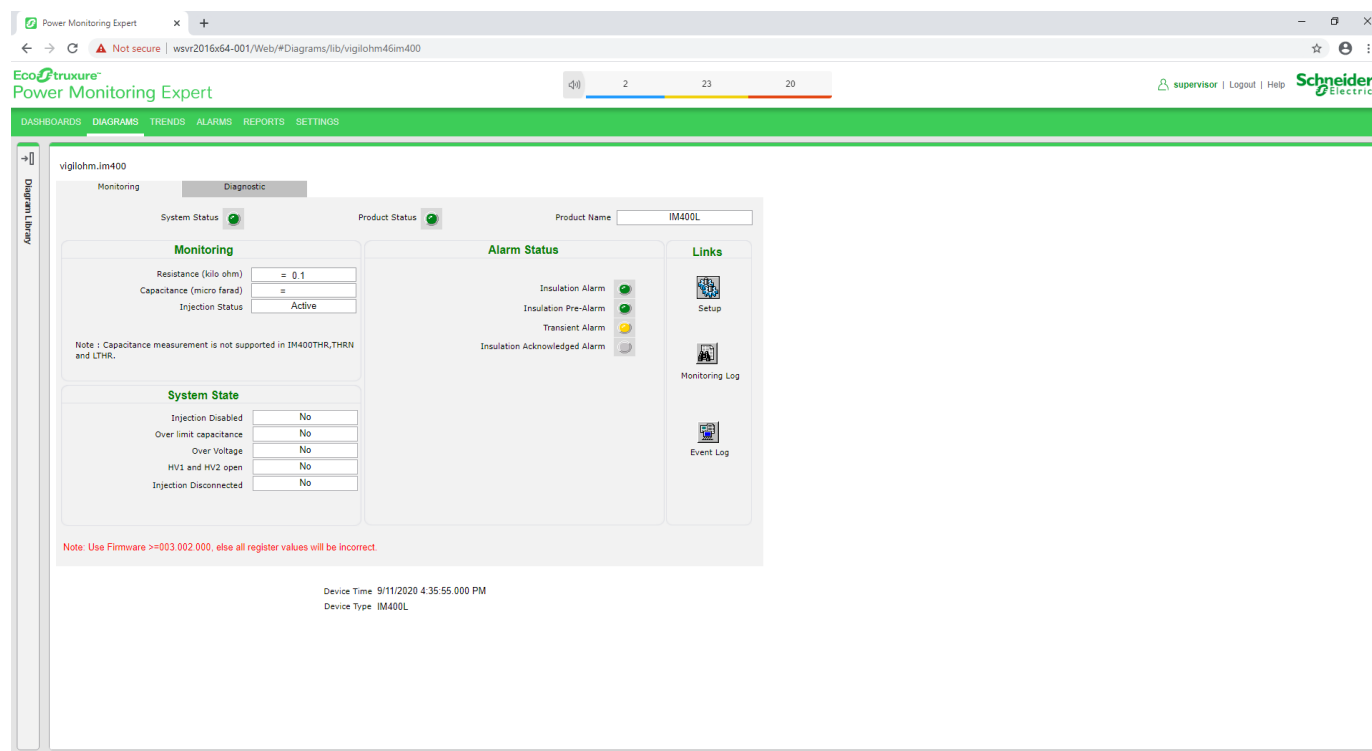
## Known Issues

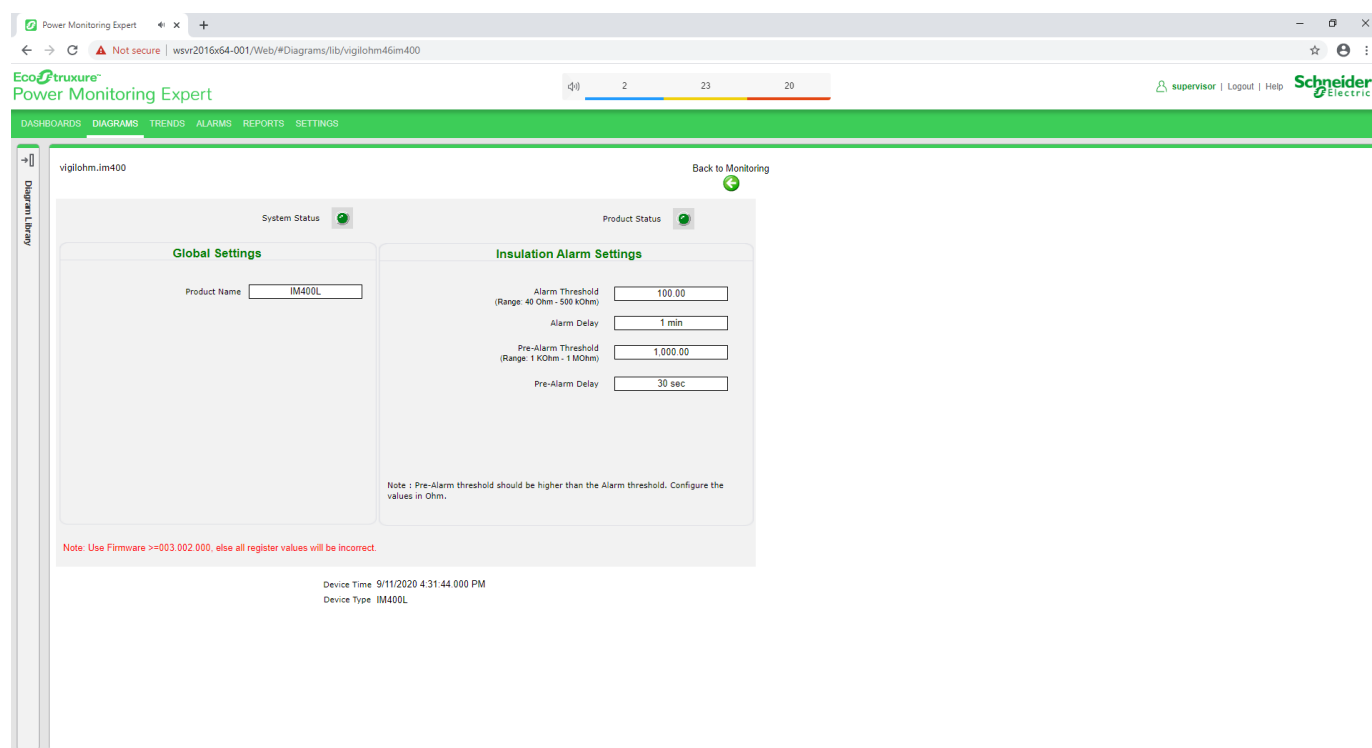
Following are the known issues as of the publication date of this document. These issues might be resolved in future releases:

Insulation Monitoring optional PME module is dedicated for Healthcare insulation monitoring and does not support Vigilohm IM400 in PME 2020/9.0/8.2 CU3 for the display of data in dashboard and reports. Insulation Monitoring optional module only supports Vigilohm IM20H and IFL12H. However, Insulation Monitoring module Configuration Tool allows to configure Vigilohm IM400.

# Vista Factory Diagrams

This section contains samples of the Vista factory diagrams for the device.





Power Monitoring Expert

Not secure | www2016x64-001/Web/#Diagrams/lib/vigilohm46im400



Ecostruxure Power Monitoring Expert

supervisor | Logout | Help Schneider Electric

DASHBOARDS DIAGRAMS TRENDS ALARMS REPORTS SETTINGS

vigilohm.im400

Monitoring Diagnostic

System Status  Product Status  Product Name IM400L

**Device Configuration**

Network Filter	Medium
Network Frequency	50 Hz
Transformer Primary DC Resistance (kOhm)	
Number of Transformer	ON
Open Circuit Detection	Alarm
Fault Locating	11.0
High Resistance Grounding (kOhm)	None
High Voltage Plate	Enabled
Alarm Relay Acknowledge	ON
Self test with Relay	Failsafe
Insulation Alarm Relay	Failsafe
Insulation Pre-Alarm Relay	Failsafe

**Product State**

Self test	No
First measurement	No

**Diagnostic Indication**

Product Model	IMDIM400L
Power Cycle Count	6

Serial Number QZ15470019 F/W Rev 003.002.001

Note: Use Firmware >=003.002.000, else all register values will be incorrect.

Device Time 9/11/2020 4:32:30.000 PM  
Device Type IM400L