PM3200 Series SE Driver for Power Monitoring Expert 8.0 Release Notes

This document contains information about the Power Monitoring Expert 8.0 SE (Standard Edition) driver for the PM3200 Series devices.

In This Document

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Additional Information

- PM3000 Series device documentation
- Power Monitoring Expert 8.0 documentation

Version History

The following table lists the version history of the PM3200 Series device driver:

Version Number	Description of Changes
8.0.15355.01	**What is New?** Supports new firmware version of 1.2.003 that supports simultaneous logging of Demand and Energy measurements in the Flex Log. **Issues Resolved** Alarms not being retrieved after alarm log roll-over.
PME 8.0	Available as native

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.

PM3200 Series SE Driver

Power Monitoring Expert 8.0 Requirements

The driver can only be installed on systems with Power Monitoring Expert 8.0.

NOTE: This driver upgrades the existing PM3200 Series driver.

The device can be connected to Power Monitoring Expert using one of the following methods:

- As a translating gateway, such as an EGX300 or through some other method of connection that allows the device to use Modbus™ TCP.
- As a Serial connection using a suitable RS-485 to RS-232 converter.

Driver Version

This release note applies to the device driver version 8.0.15355.01.

Supported Models

The supported device variants are:

- PM3250
- PM3255

The supported firmware versions are:

PM3250	PM3255
-	V1.2.003
-	V1.0.901
-	V1.0.800
-	V1.0.600
-	V1.0.500
V1.0.300	V1.0.300
-	V1.0.200

Some features may not work for the other firmware versions.

Features

The PM3200 device driver supports the following features:

- All real-time registers
- On-board alarm logs
- Digital output control
- On-board Demand/Flex Log and Daily Energy Log (PM3255 only)
- Device time synchronization to Server Local Time without DST at an interval of 15 minutes
- Real-time data transfer using OPC
- The following factory-provided default reports in the Web-based Reports application:
    - Energy Cost
    - Energy Period Over Period
    - Energy Usage by Shift
    - Hourly Usage
    - Load Profile
    - Multi Device Usage
    - Single Device Usage
    - Tabular
    - Trend
- The following factory-provided default reports in the Excel-based Reporter application:
    - Energy and Demand
    - Load Profile

Installation

Device Driver Installer

⚠ WARNING

LOSS OF CONTROL

Do not ignore alerts during the driver installation. 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 the required supporting files to the target Power Monitoring Expert system. The supporting files consist of:

- Device map and tree files
- Vista diagrams
- xlpm3250.dll

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.

Uninstalling

Uninstalling by Add/Remove programs removes all the files that were added by the Device Driver Installer. This method does not remove the files that have been modified.

Refer to *Known Issues* for an exception regarding the removal process.

Implementation Details

Device Configuration and Upgrade

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

The device configurations can be done using ION Setup tool. The device type name in ION Setup is **PowerLogic PM3000 Series Power Meter**.

Digital Output

⚠ WARNING

UNINTENDED EQUIPMENT OPERATION

- Do not use the control objects for time-critical functions because delays can occur between the time a control action is initiated and when that action is applied.
- Do not create a custom control object in a Vista diagram for remote equipment operation without configuring it with the appropriate access level, and without configuring a status object to indicate the status of the control operation.

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

The PM3255 device supports two digital outputs which can be operated remotely using Power Monitoring Expert. To operate the digital outputs, create custom Vista diagrams with the necessary control objects.

NOTE:

- Be aware that the time to complete an I/O command operation depends on many factors, most notably network traffic. Under the normal network traffic conditions, it takes approximately 10 seconds to complete the command sequence. In case of heavy network traffic, the command sequence may take longer to complete.
- It is important to realize that the system control paths contain communications links that may have unanticipated transmission delays or failures.

Alarm Configuration

The alarm configuration can be done using Vista.

NOTE: Use ION Setup to configure the device, including the configuration of alarms. Use Vista only for alarm configuration on the device.

Alarm Log

The PM3250 and PM3255 devices support 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.

The polling interval can be modified by changing the value of the attribute "EL1 Poll Period Seconds" in ext_pm3250.ion and ext_pm3255.ion in the …\system\translators folder. The lowest possible polling interval is 5 seconds.

On-Board Logging (PM3255 only)

The PM3255 Power Meter supports the following on-board data logs:

Data Log Name	Firmware Rev.	Logged Measurements
24 hr Energy Log	All	Active Energy Delivered Interval
Demand Log	<V1.0.600	Demand Real Power
Flex Log	>=V1.0.600 & <V1.2.003	Depending on the flex log settings: • Demand Real Power • Active Energy Delivered • Apparent Energy Delivered • Reactive Energy Delivered
Flex Log V2	>=V1.2.003	Following measurements or a combination of them depending upon the flex log settings: • Demand Real Power • Demand Apparent Power • Active Energy Delivered • Apparent Energy Delivered • Reactive Energy Delivered

The energy log interval is set to 24 hours. The demand log interval and the parameter can be modified from the front panel of the meter. Refer to the device documentation for more information about the on-board logging feature.

NOTE: While configuring the logs in the device (onboard data logging) and PME (PC logging), ensure that the same measurements are not logged in both the places."

PC-Based Logging

The PM3200 Series device driver allows users to log data using the PC-based logging feature.

The following measurements are logged by default using the PC-based logging feature:

Measurements	Logging Interval (in secs)	PM3250	PM3255
Current Phase A	900	✓	✓
Current Phase B	900	✓	✓
Current Phase C	900	✓	✓
Apparent Power Total	900	✓	✓
Real Power Total	900	✓	✓
Demand Real Power	900	✓	✓
WAGES External Input 1 Cumulative Usage	900	Not applicable	✓
WAGES External Input 2 Cumulative Usage	900	Not applicable	✓

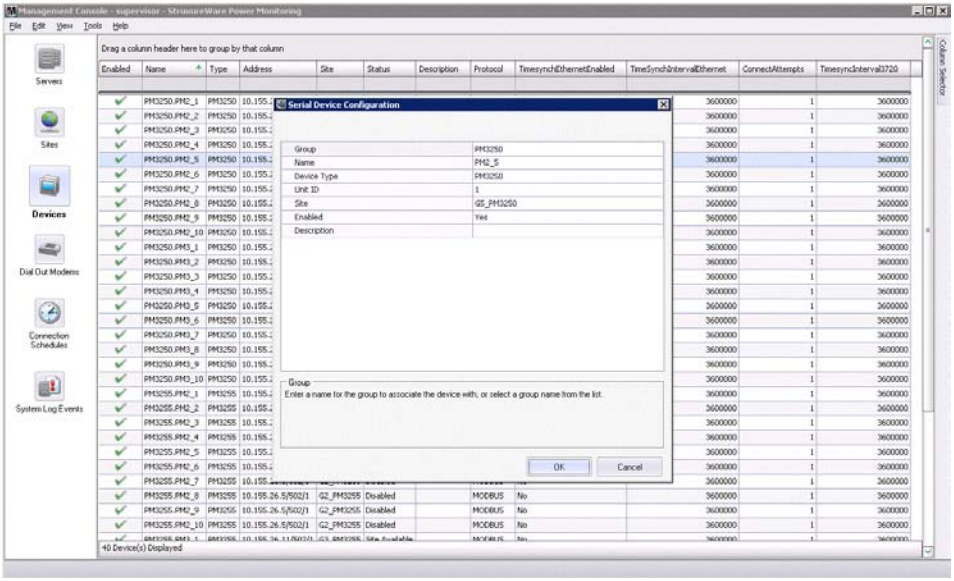
To change the list of measurements being logged, use the Modbus Device Importer, accessed from the **Tools** > **System** menu in Management Console.

Time Synchronization

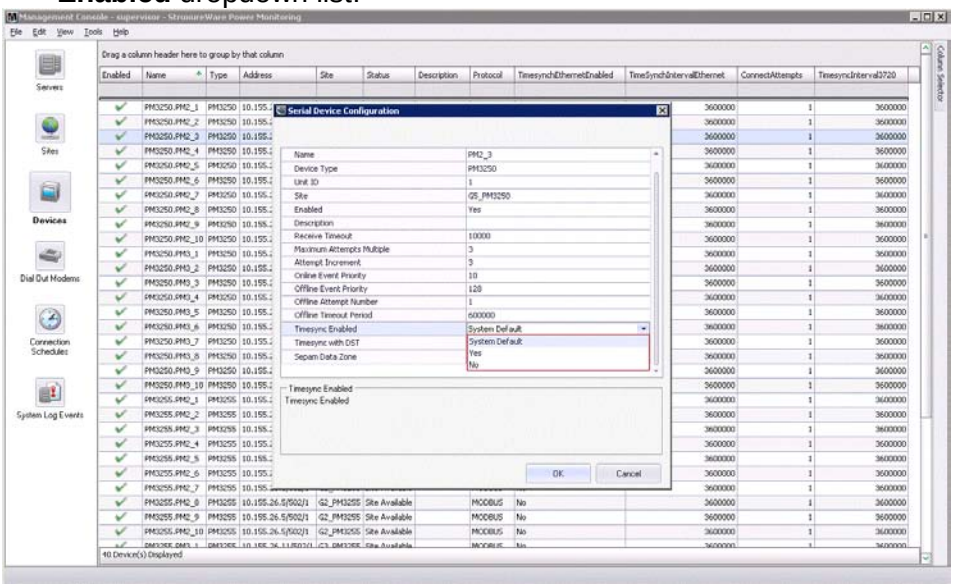
By default, the Power Monitoring Expert server synchronizes the device time with the server local time without DST adjustment at an interval of 15 minutes.

For a particular device instance, disable time synchronization through Management Console as follows:

1. Click the **Devices** icon, right-click the device instance and select **Configure Device**.
2. Right-click the grid area and select the **Advanced Properties** menu option.



3. To enable **Timesync**, select **Yes** from the **Timesync Enabled** dropdown list. To disable **Timesync**, select **No** from the **Timesync Enabled** dropdown list.



By default, the time synchronization interval is 900 seconds (15 minutes). The time synchronization interval can be modified by changing the **TimeSyncInterval** attribute in the pm3250.xml or pm3255.xml files.

NOTE: The minimum value for the **TimeSyncInterval** attribute is 300 seconds. The **TimeSyncInterval** attribute takes effect only if **Timesync Enabled** is set to **System Default** in Management Console. The time synchronization occurs at fixed hourly intervals if **Timesync Enabled** is set to **Yes**.

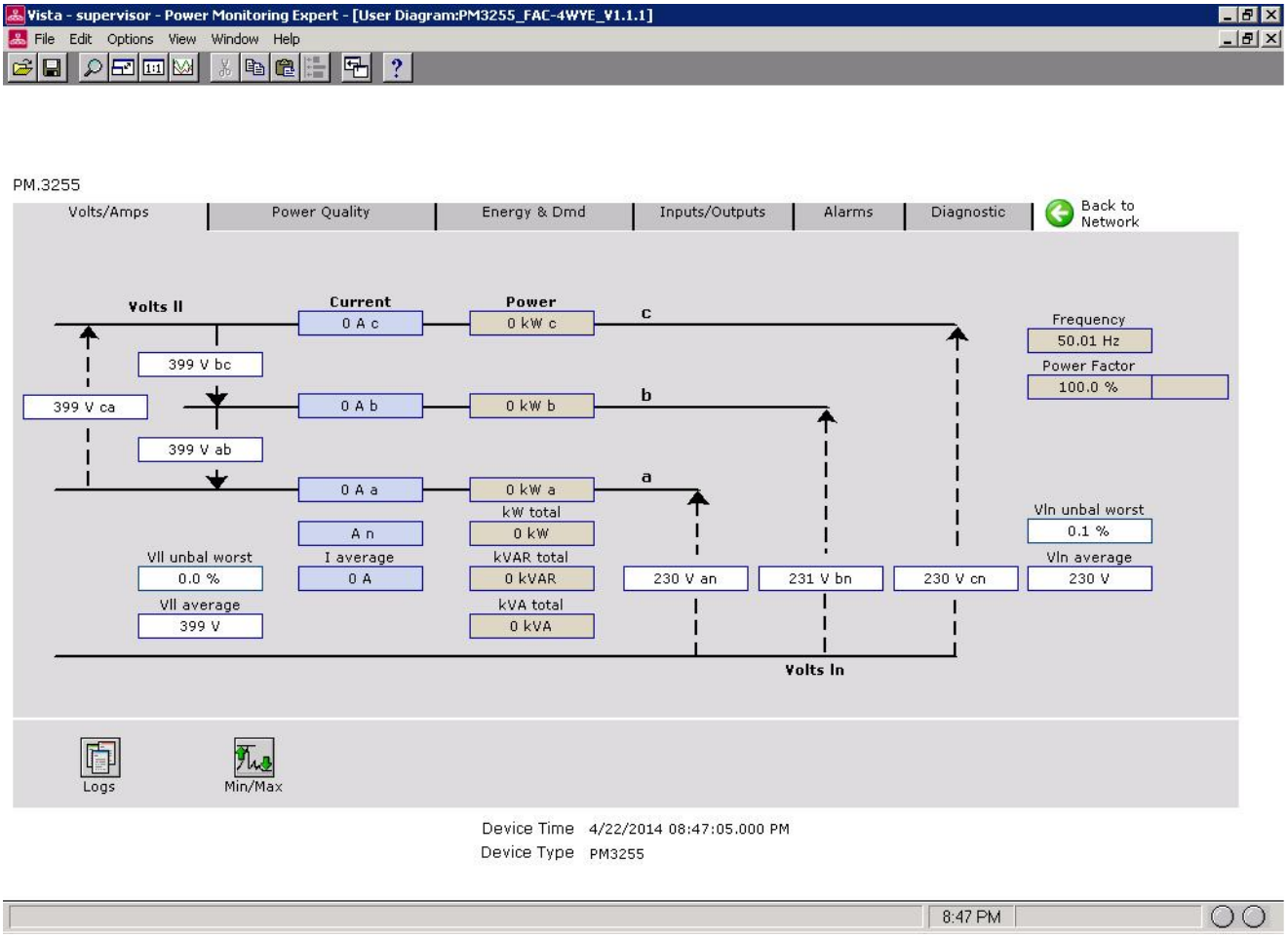
Known Issues

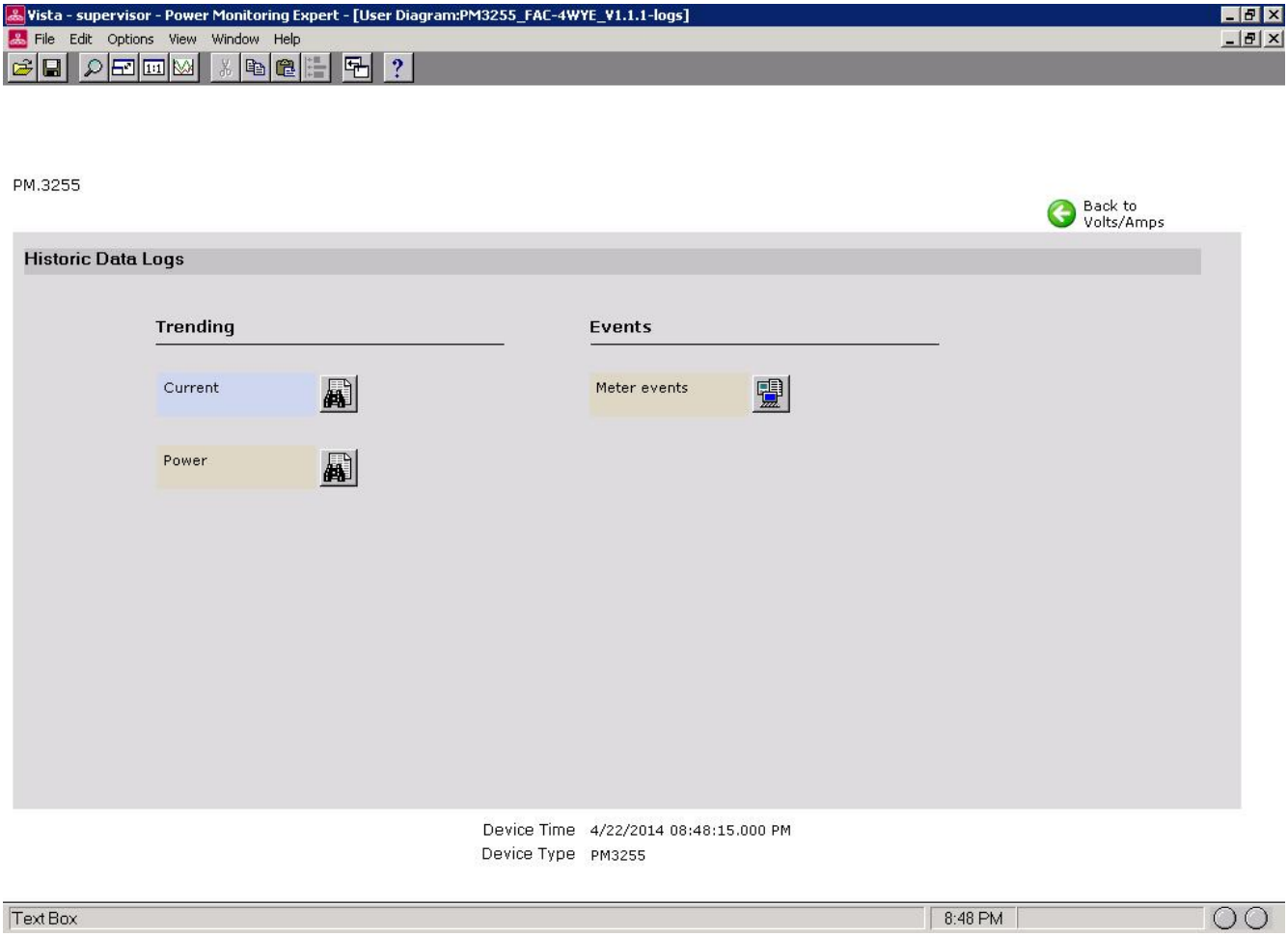
Following is the known issue as of the publication date of this document. This issue might be resolved in future release:

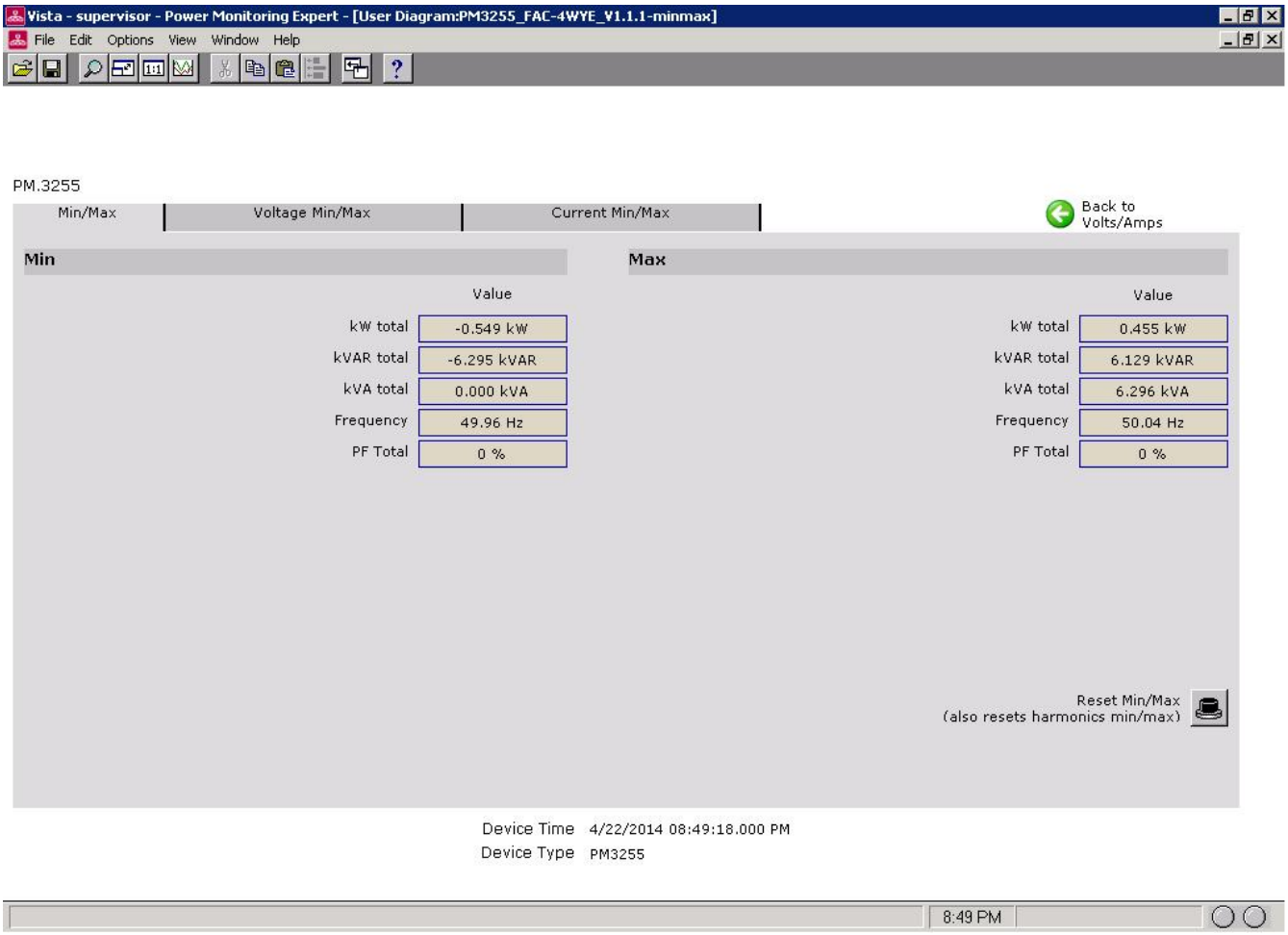
- When the driver is uninstalled, the device instances in the Management Console and the device type definition contained in the Device Type table in the ION_Network database are not removed.

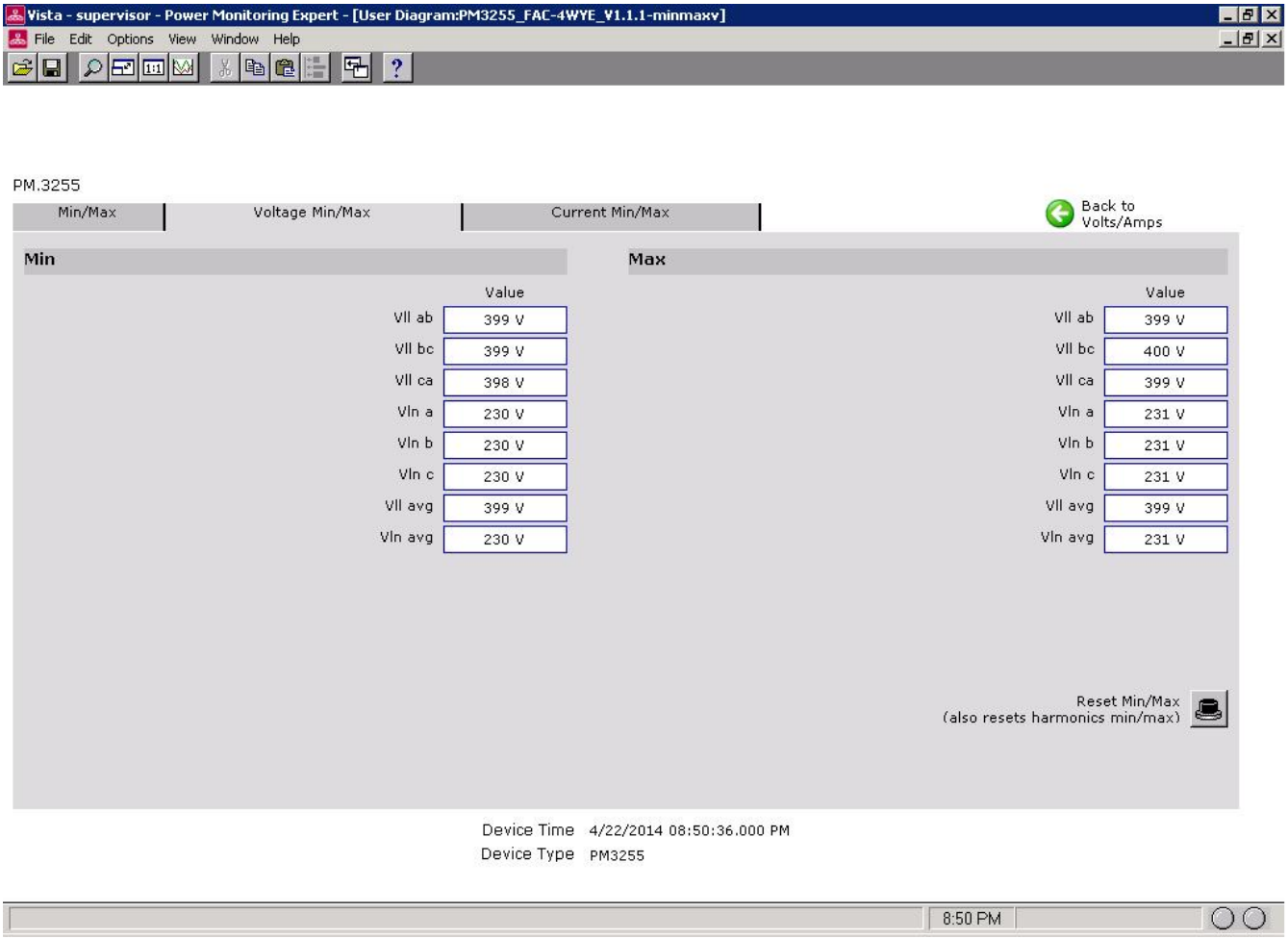
Vista Factory Diagrams

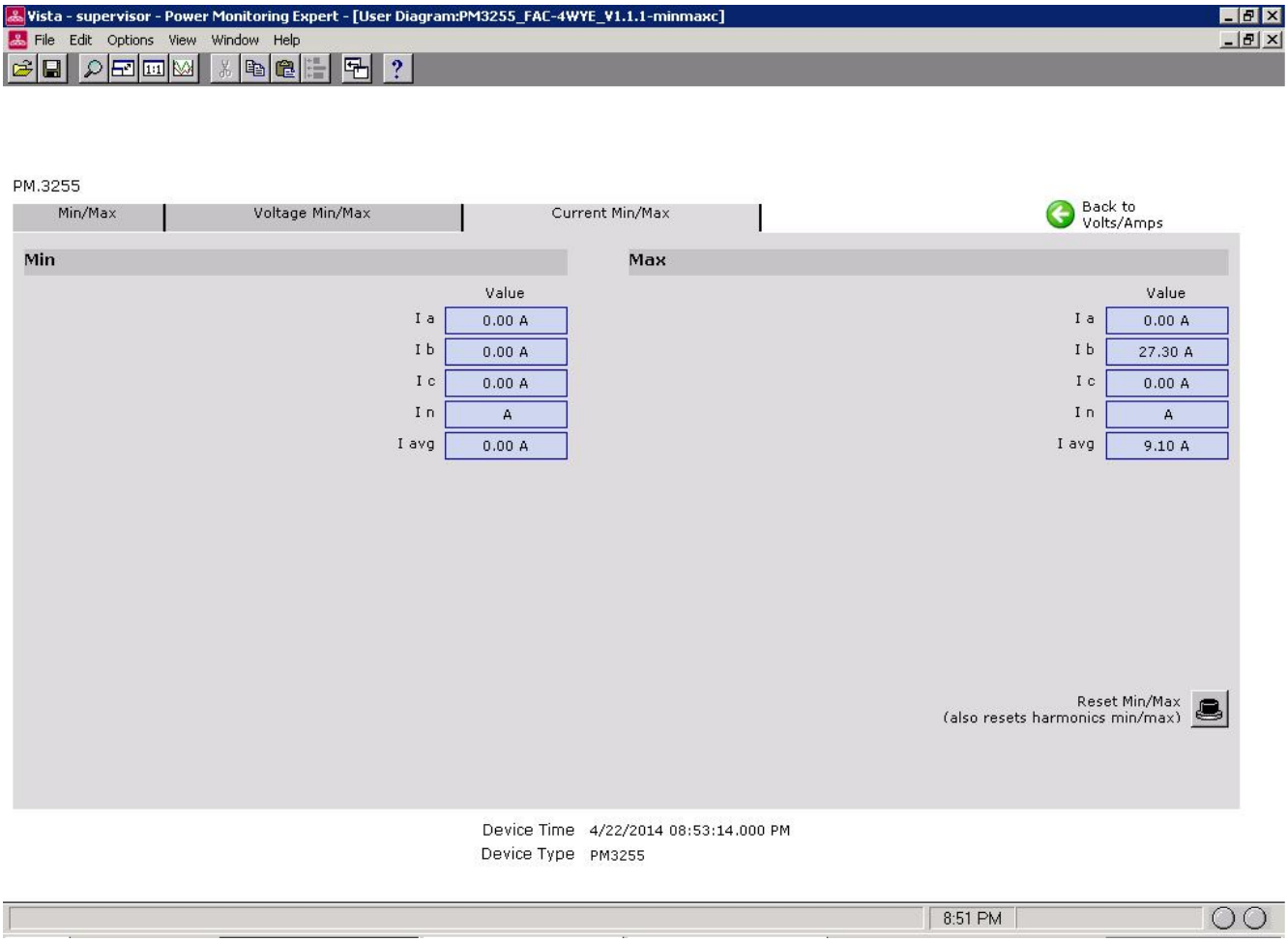
This section contains samples of the Vista factory diagrams for the device.

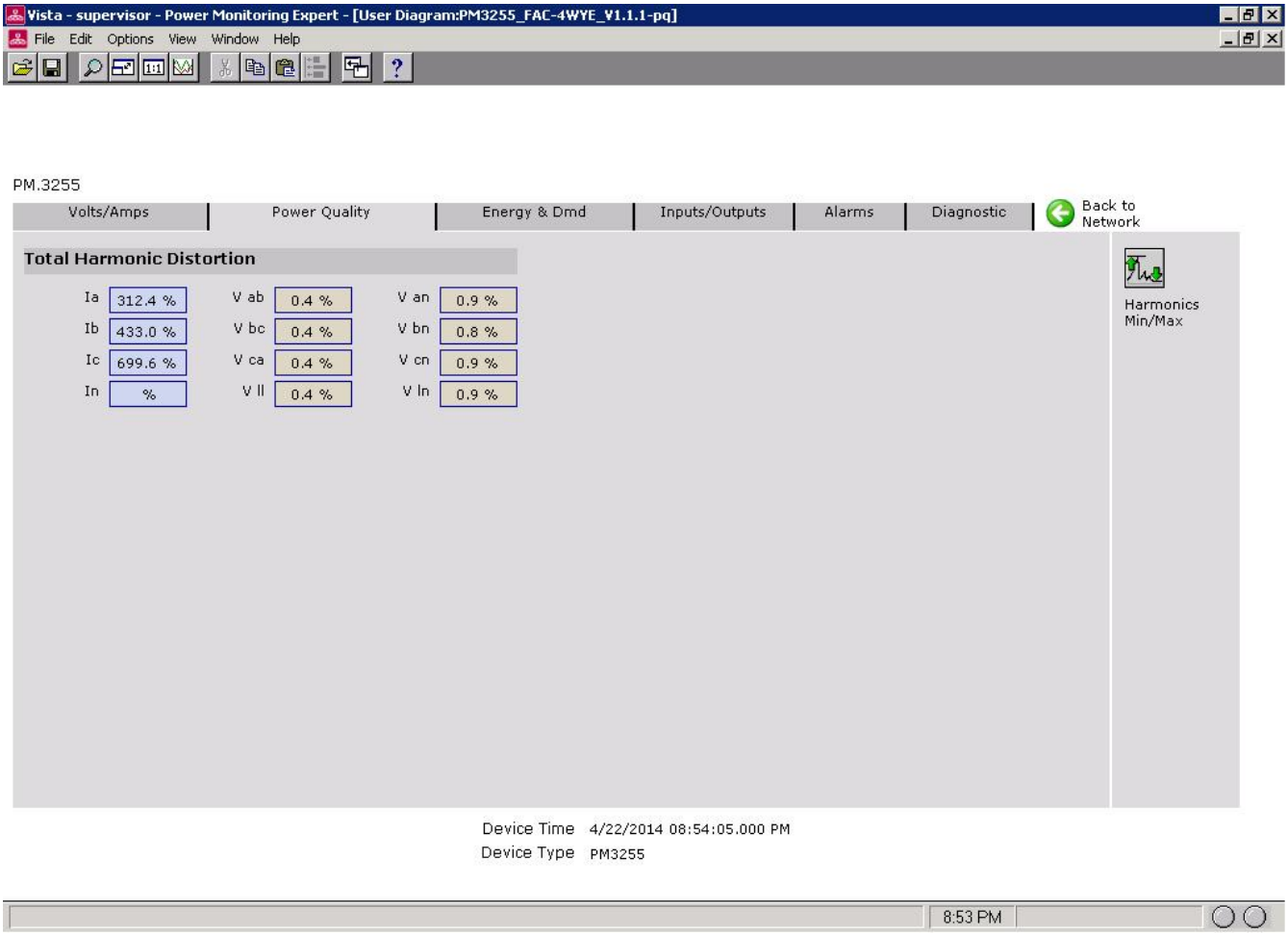


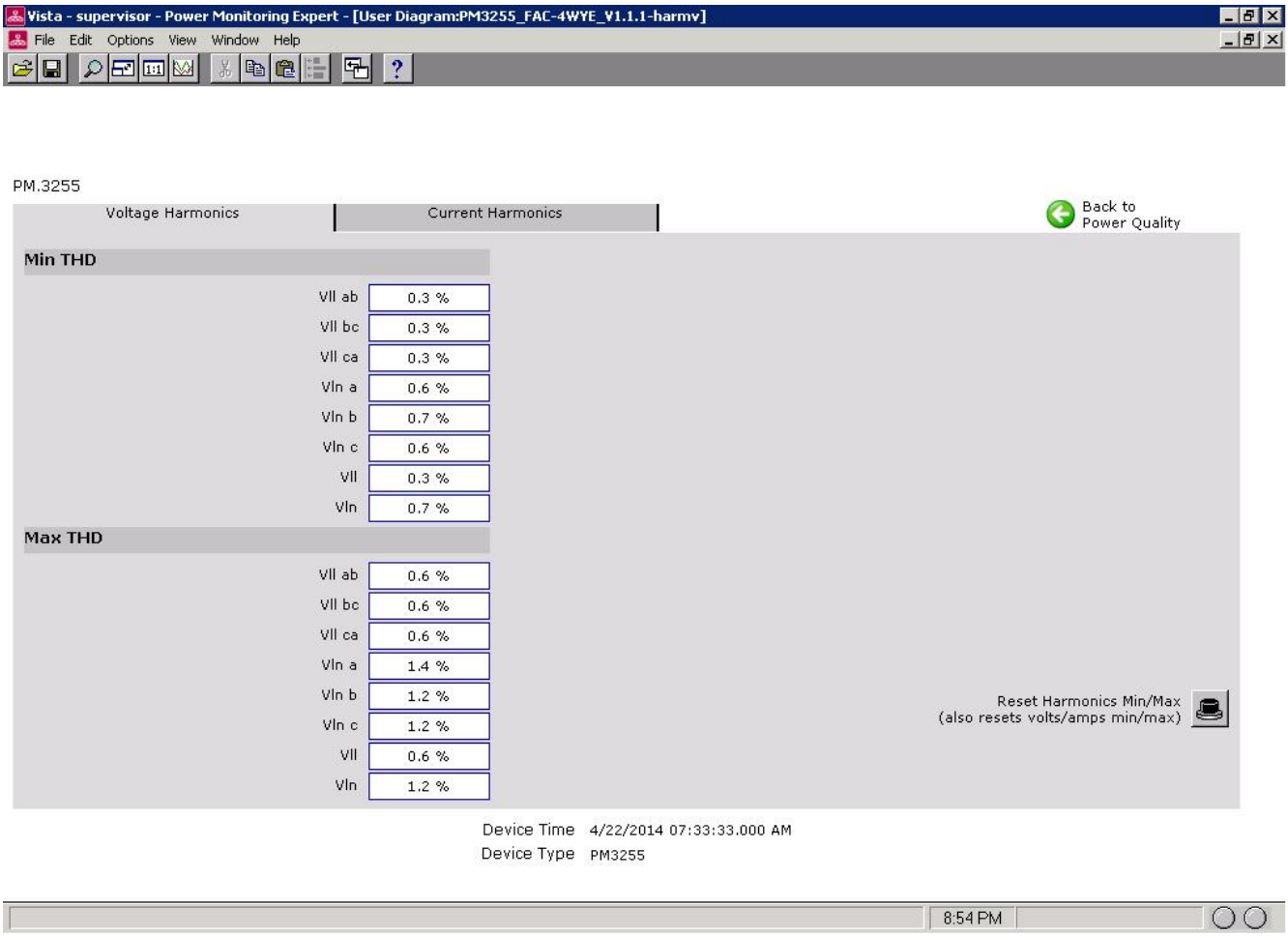


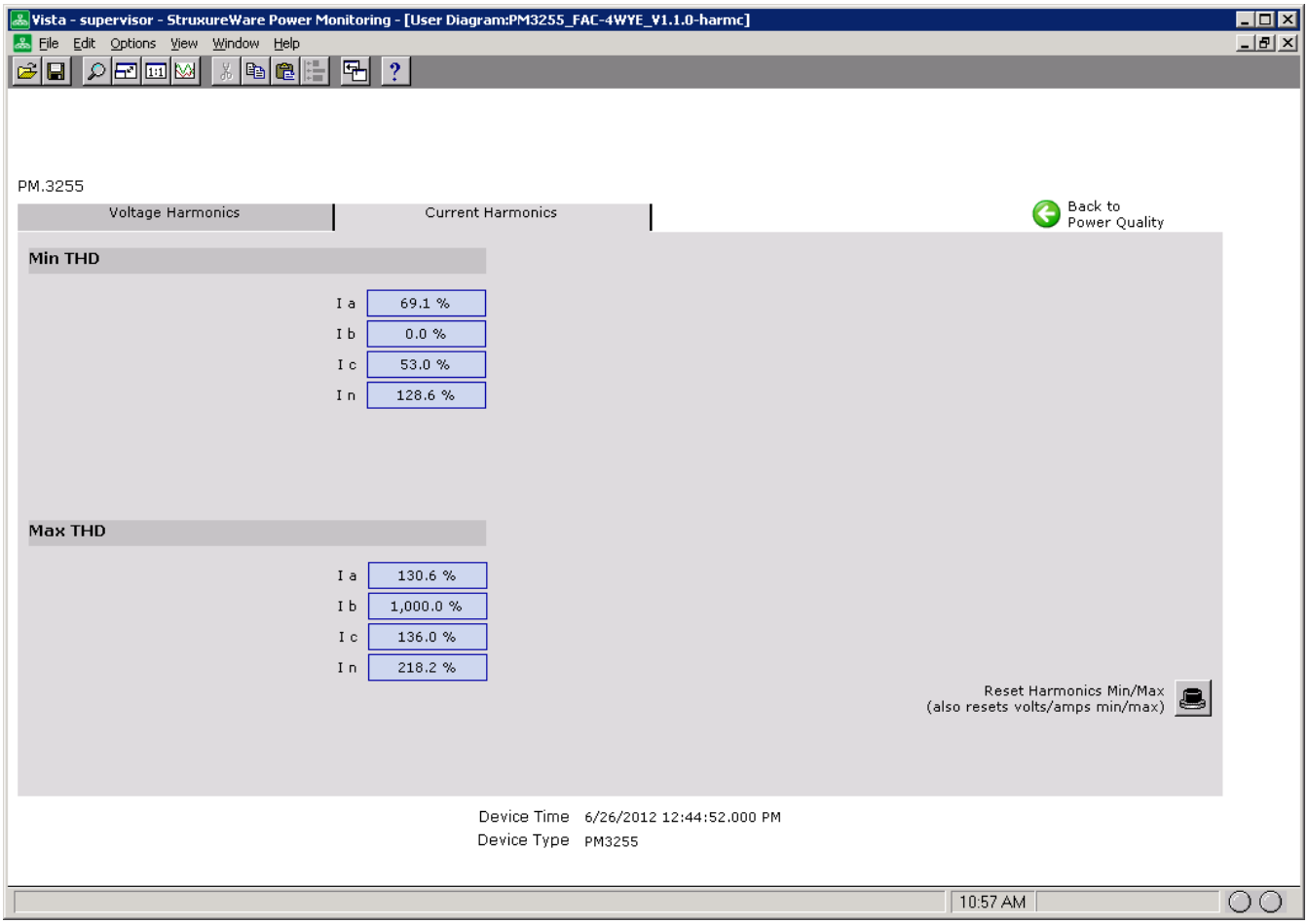


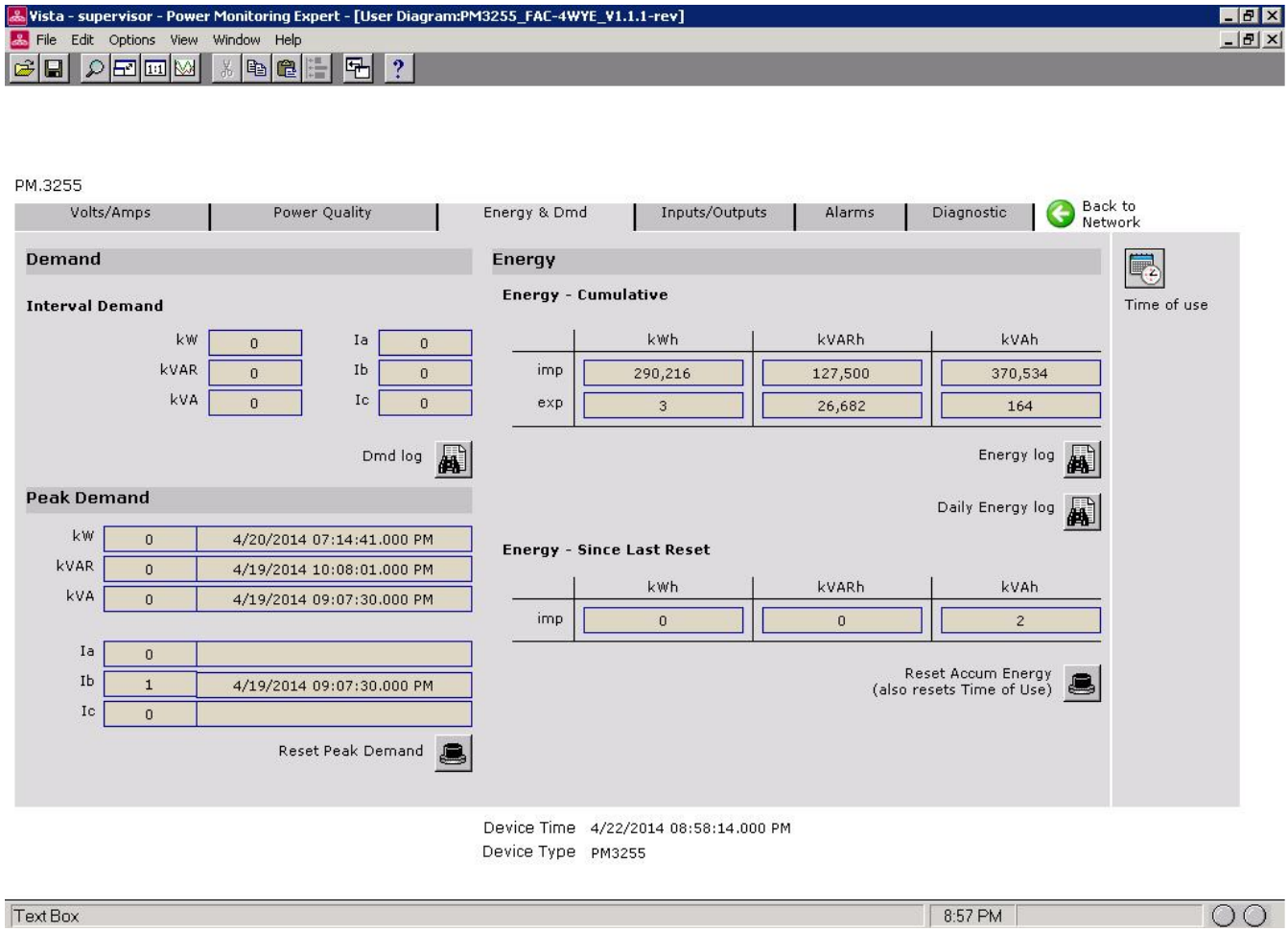


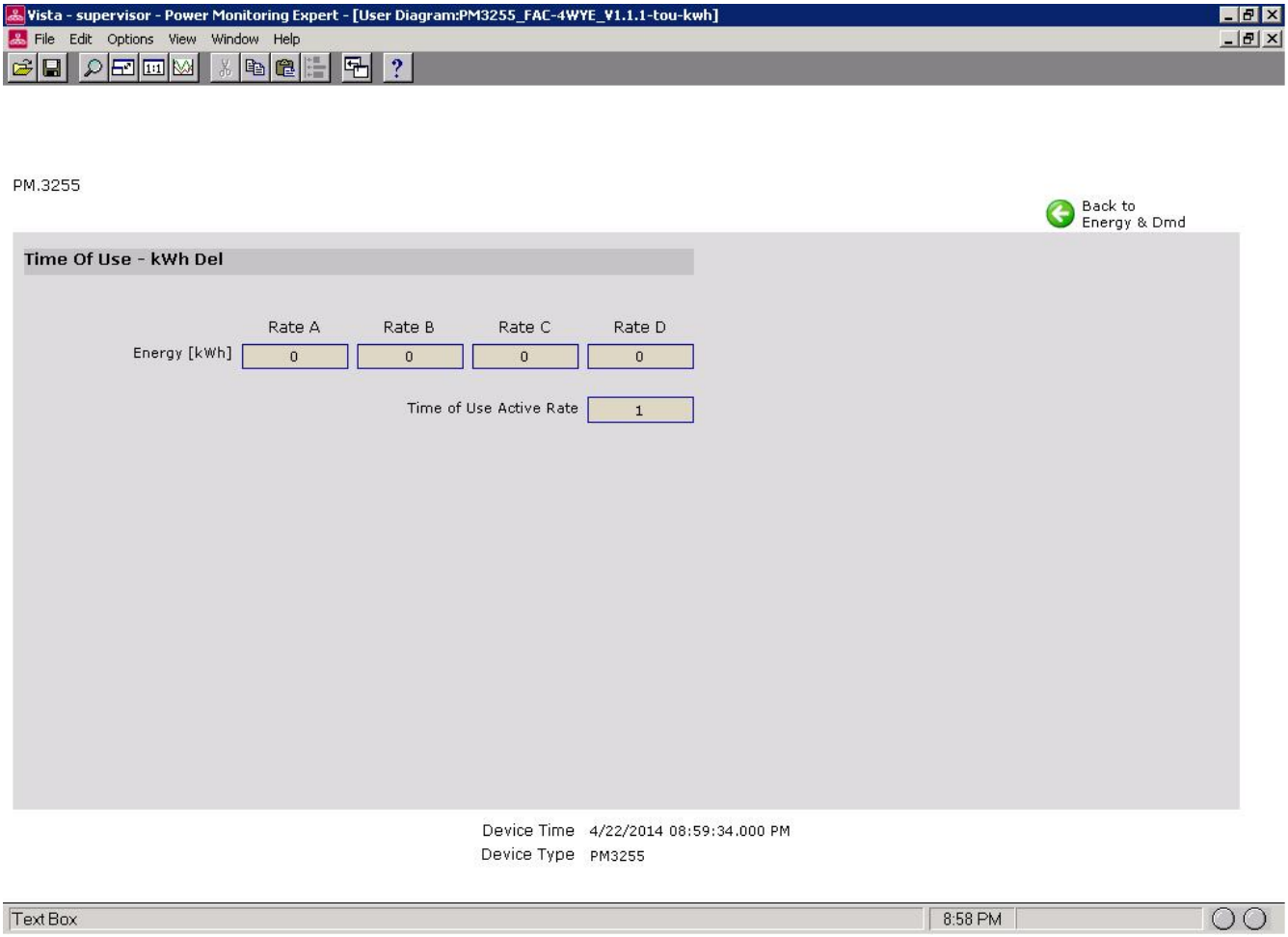


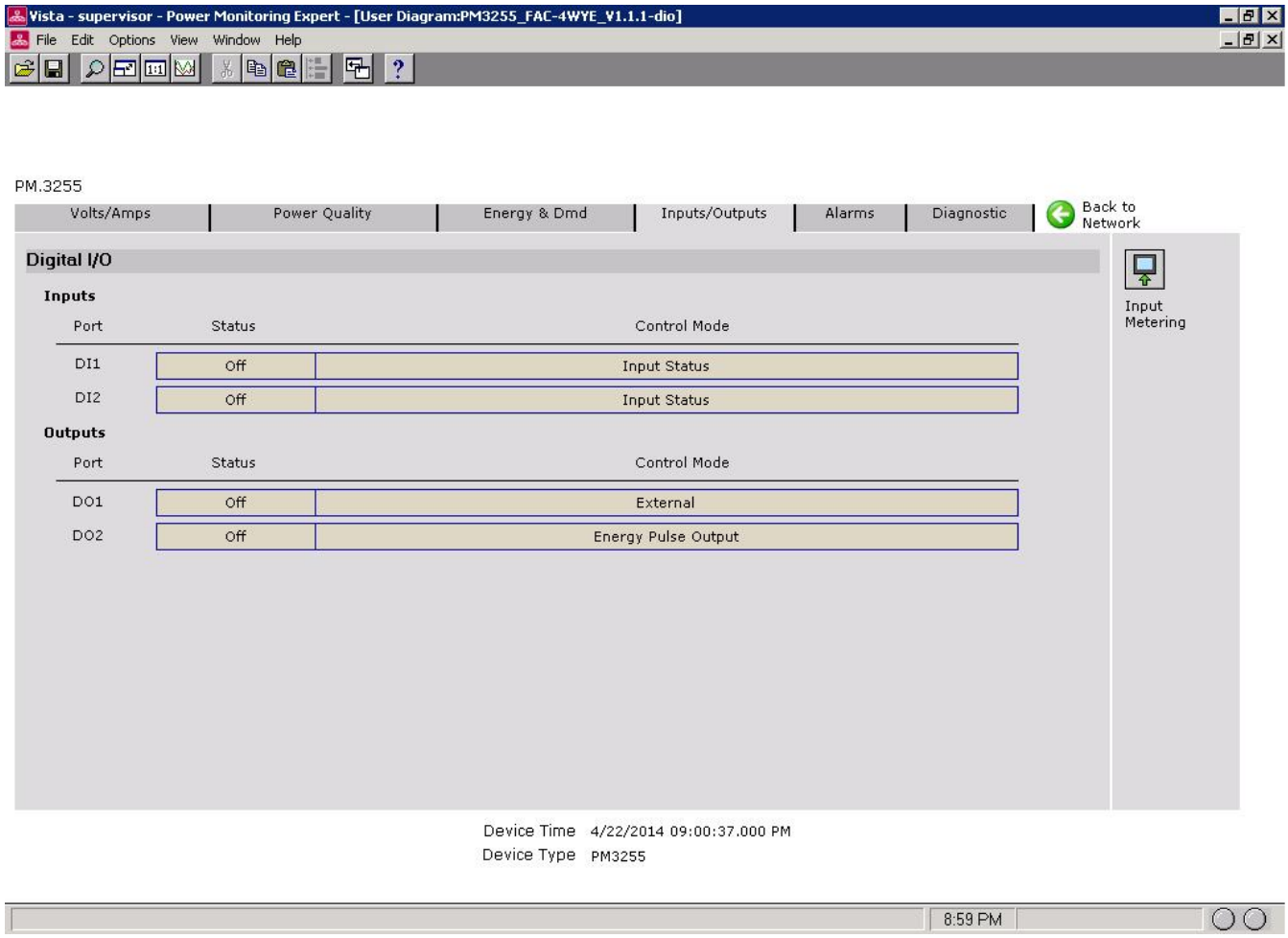


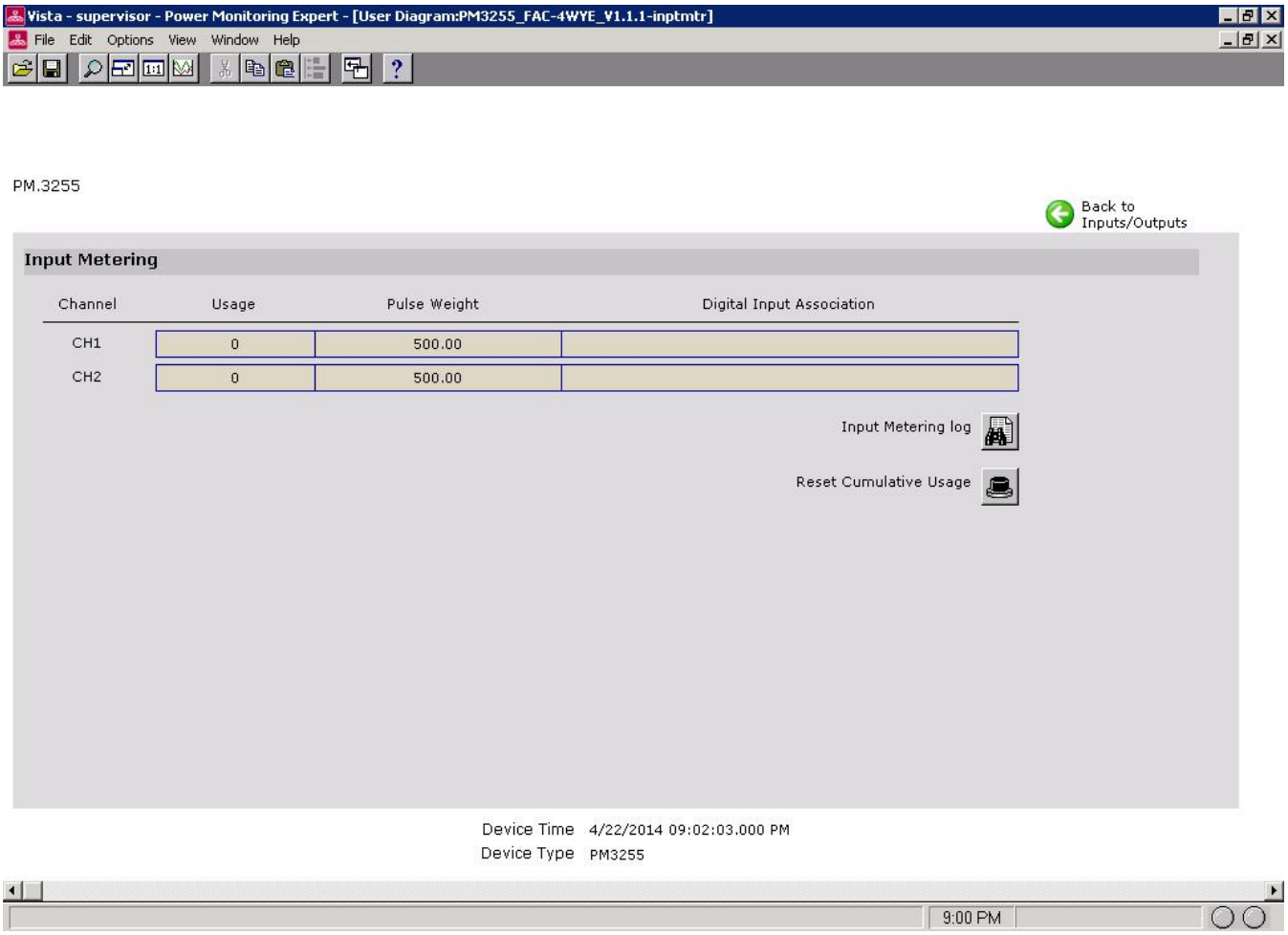


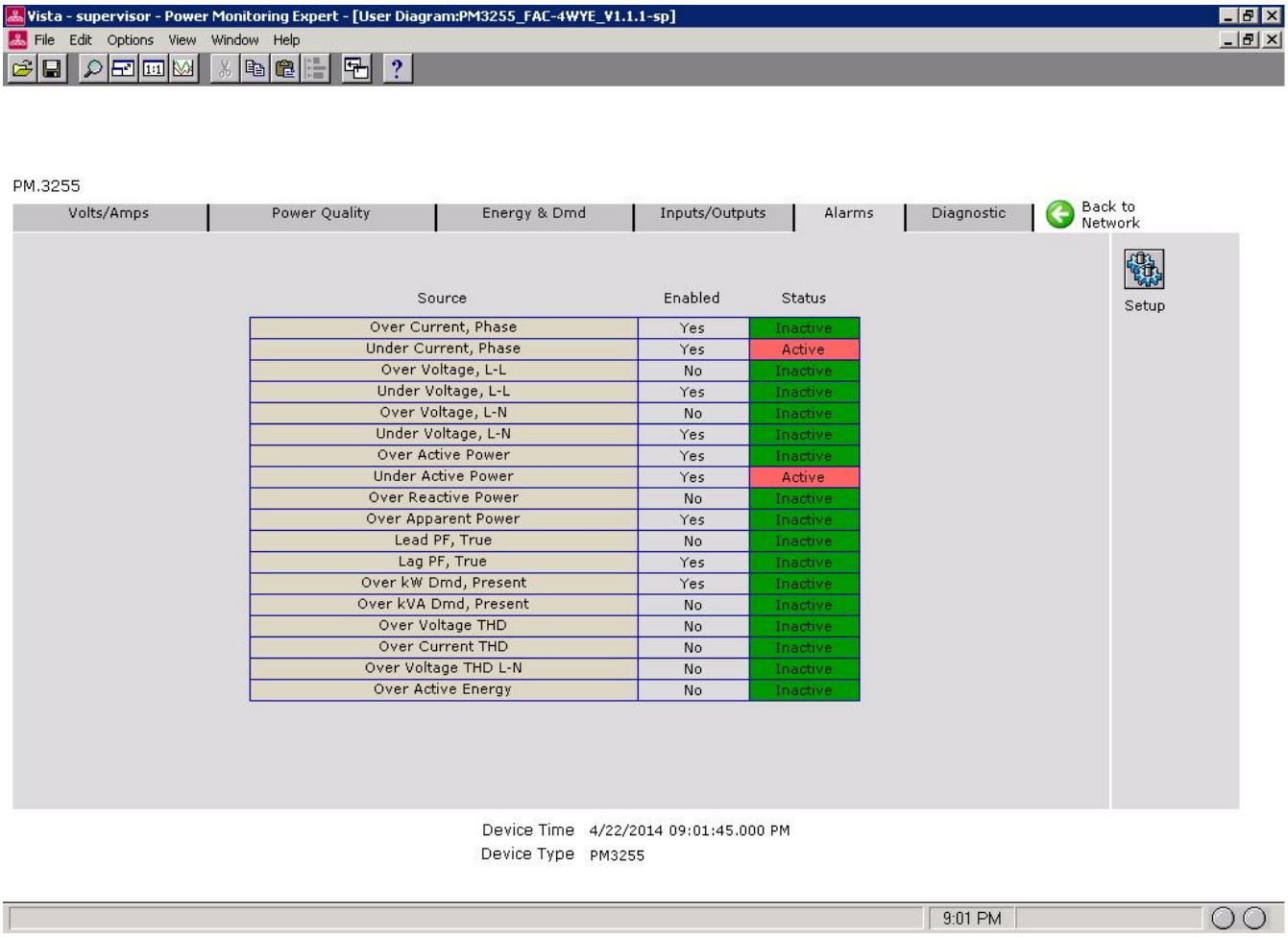


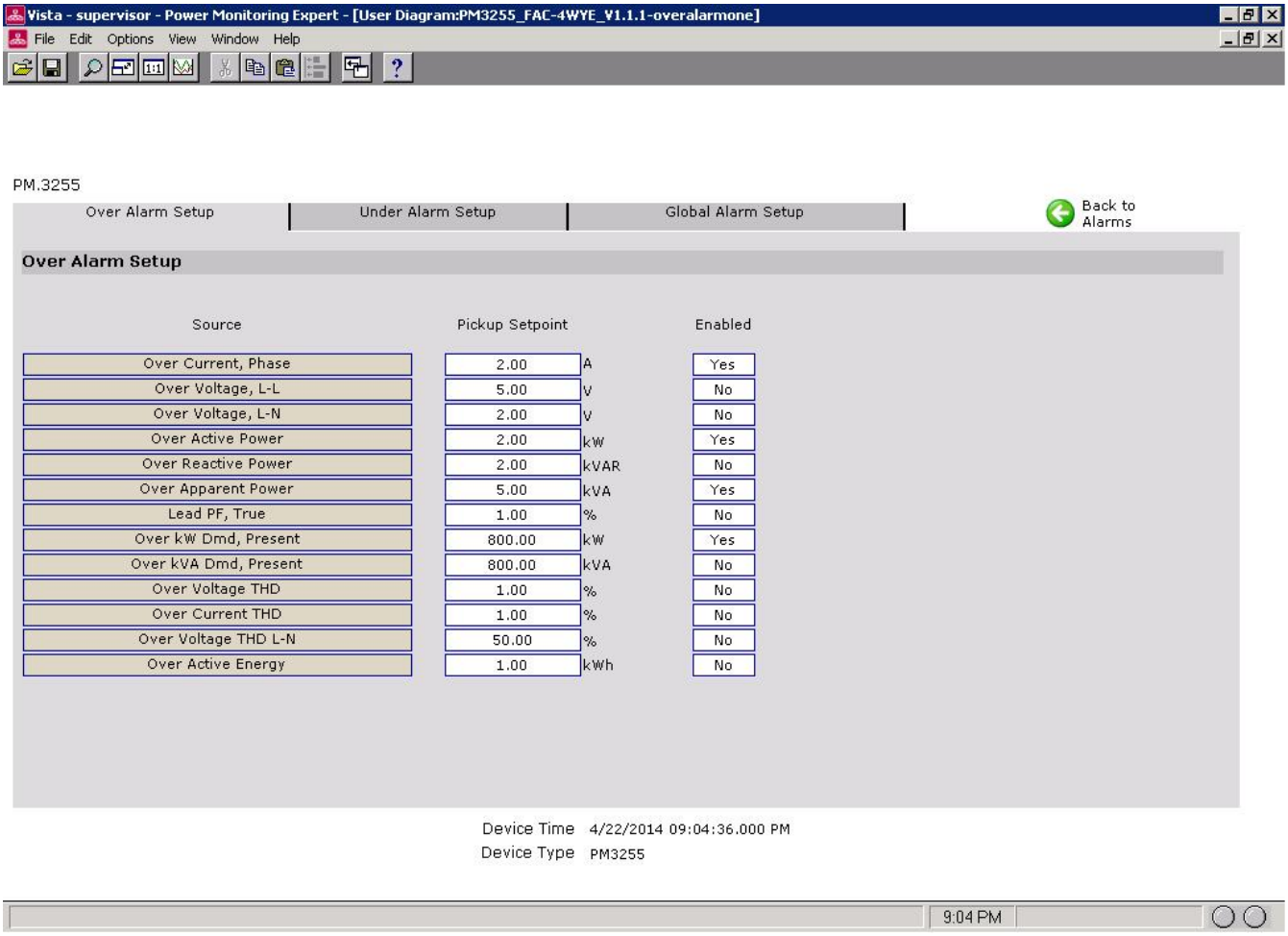



Vista - supervisor - Power Monitoring Expert - [User Diagram:PM3255_FAC-4WYE_V1.1.1-tou-kwh]
File Edit Options View Window Help
PM.3255
Back to Energy & Dmd
Time Of Use - kWh Del
Rate A
Rate B
Rate C
Rate D
Energy [kWh]
0
0
0
0
Time of Use Active Rate
1
Device Time 4/22/2014 08:59:34.000 PM
Device Type PM3255
Text Box
8:58 PM








Vista - supervisor - Power Monitoring Expert - [User Diagram:PM3255_FAC-4WYE_V1.1.1-overalarmone]
File Edit Options View Window Help
PM.3255
Over Alarm Setup
Under Alarm Setup
Global Alarm Setup
Back to Alarms
Over Alarm Setup
Source
Pickup Setpoint
Enabled
Over Current, Phase 2.00 A Yes
Over Voltage, L-L 5.00 V No
Over Voltage, L-N 2.00 V No
Over Active Power 2.00 kW Yes
Over Reactive Power 2.00 kVAR No
Over Apparent Power 5.00 kVA Yes
Lead PF, True 1.00 % No
Over kW Dmd, Present 800.00 kW Yes
Over kVA Dmd, Present 800.00 kVA No
Over Voltage THD 1.00 % No
Over Current THD 1.00 % No
Over Voltage THD L-N 50.00 % No
Over Active Energy 1.00 kWh No
Device Time 4/22/2014 09:04:36.000 PM
Device Type PM3255
9:04 PM