

EcoStruxure™

Power Monitoring Expert 9.0

Operating Room Isolated Power Interface - User Guide

7EN02-0412-01

01/2019



Legal Information

The Schneider Electric brand and any registered trademarks of Schneider Electric Industries SAS referred to in this guide are the sole property of Schneider Electric SA and its subsidiaries. They may not be used for any purpose without the owner's permission, given in writing. This guide and its content are protected, within the meaning of the French intellectual property code (Code de la propriété intellectuelle français, referred to hereafter as "the Code"), under the laws of copyright covering texts, drawings and models, as well as by trademark law. You agree not to reproduce, other than for your own personal, noncommercial use as defined in the Code, all or part of this guide on any medium whatsoever without Schneider Electric's permission, given in writing. You also agree not to establish any hypertext links to this guide or its content. Schneider Electric does not grant any right or license for the personal and noncommercial use of the guide or its content, except for a non-exclusive license to consult it on an "as is" basis, at your own risk. All other rights are reserved.

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.

As standards, specifications and designs change from time to time, please ask for confirmation of the information given in this publication.

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 bulletin 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.

Contents

| | |
|---|-----------|
| Safety Precautions | 5 |
| Overview | 7 |
| Hospital room diagrams for ANSI | 8 |
| Opening the hospital diagrams | 8 |
| Power Monitoring Expert | 8 |
| Vista Client | 9 |
| Using the diagrams | 10 |
| Hospital Summary diagram | 10 |
| What to do if the status indicator is red | 12 |
| Summary of Rooms diagram | 12 |
| Room Details diagram | 13 |
| Indicators for Test Mode and Hazard condition | 16 |
| Indicators for capacitive faults | 17 |
| Data logs | 18 |
| Historical data log and graph | 18 |
| Event Log | 20 |
| Generating the Isolated Power Report | 22 |
| Isolated Power Report (ANSI) | 22 |
| Prerequisites | 22 |
| Report inputs | 22 |
| Example: | 24 |
| Hospital room diagrams for IEC | 25 |
| Opening the hospital diagrams | 25 |
| Power Monitoring Expert | 25 |
| Vista Client | 26 |
| Using the diagrams | 27 |
| Hospital Summary diagram | 27 |
| What to do if the status indicator is red | 29 |
| Summary of Building Rooms diagram | 29 |
| Room Details diagram | 30 |
| Data logs | 33 |
| Historical data log | 33 |
| Event Log | 34 |
| Generating the Isolated Power Report | 36 |
| Isolated Power Report (IEC) | 36 |
| Prerequisites | 36 |
| Report inputs | 36 |
| Example: | 37 |

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 or devices 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.
- Do not use the software to control remote equipment without proper access control and status feedback.

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

WARNING

INACCURATE DATA RESULTS

- Do not incorrectly configure the software or the devices.
- 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.

WARNING

POTENTIAL COMPROMISE OF SYSTEM AVAILABILITY, INTEGRITY, AND CONFIDENTIALITY

Use cybersecurity best practices to help prevent unauthorized access to the software.

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

Work with facility IT System Administrators to ensure that the system adheres to the site-specific cybersecurity policies.

Overview

This guide explains how to view the status of isolated power systems in hospital rooms, using information provided by Power Monitoring Expert configured with the Insulation Monitoring module.

The information provided by the monitoring system, can be used by qualified personnel to understand and resolve issues in critical rooms.

This guide contains information for systems deployed in the ANSI and IEC markets:

- [Hospital room diagrams for ANSI](#)
- [Hospital room diagrams for IEC](#)

Hospital room diagrams for ANSI

When your hospital is configured using Power Monitoring Expert's Operating Room Configuration Tool, several diagrams are produced that visually indicate the electrical status of the rooms and circuits being monitored.

This section describes each type of diagram and explains how to work with the diagrams in case a monitored room needs intervention.

See the following topics:

- [Opening the hospital diagrams](#)
- [Using the diagrams](#)
- [Data logs](#)
- [Generating the Isolated Power Report](#)
- [Isolated Power Report \(ANSI\)](#)

Opening the hospital diagrams

Diagrams for the rooms that are monitored by the solution can be viewed in the Diagrams Web application of Power Monitoring Expert or the Vista client.

Power Monitoring Expert

To view the rooms in Power Monitoring Expert:

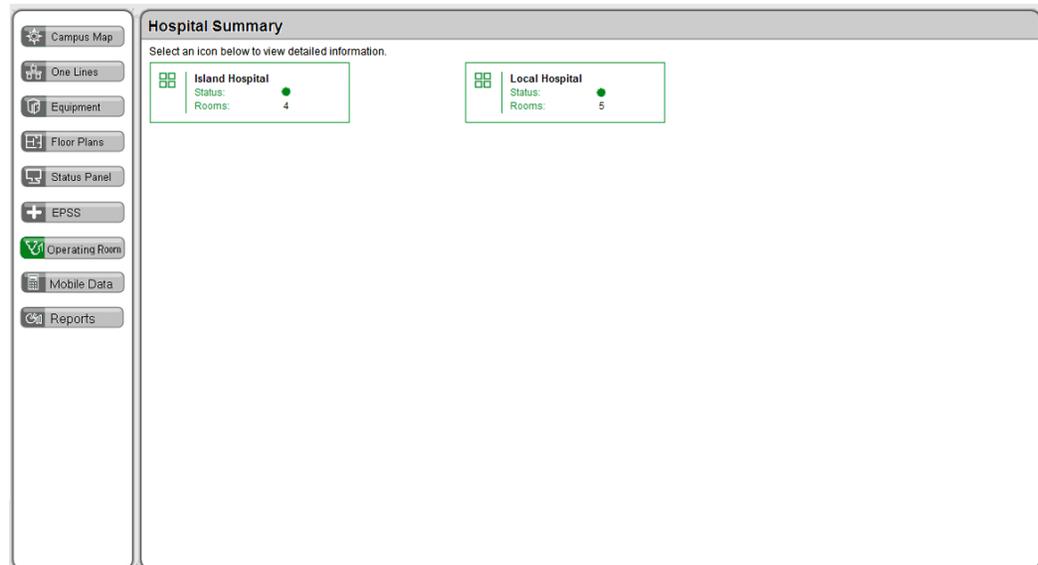
1. Log in to your Power Monitoring Expert web site. See the *Power Monitoring Expert System Guide* for more details, if necessary.
2. In the toolbar, click **Diagrams**. The installed diagram groups appear.

For example:



3. In the left pane, click **Operating Room**. The top-level diagram appears.

For example:



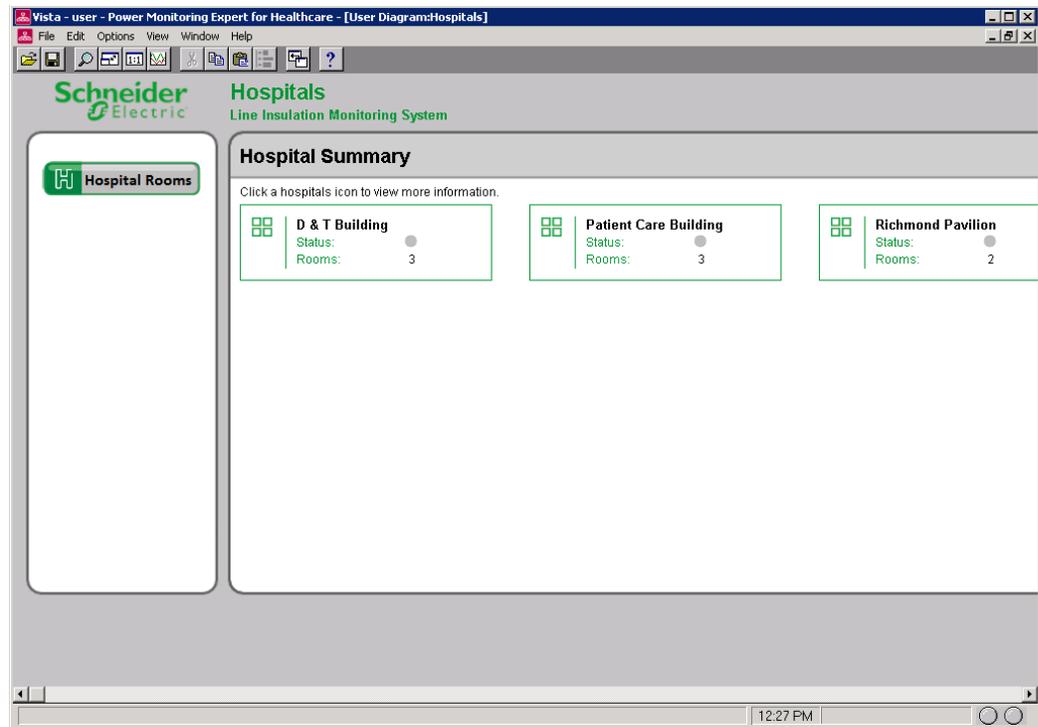
The top-level diagram shows the hospitals, facilities, or buildings that contain the rooms that are monitored for hazard current. You can navigate to all the room and circuit details from this drawing. See the next section for information about each diagram.

Vista Client

To view the hospital summary diagram in Vista:

1. Open the Power Monitoring Expert folder on your Windows desktop
2. Double-click the Vista shortcut and then enter your Vista login credentials.
3. Click **File > Open**.
4. Browse to C:\Program Files (x86)\Schneider Electric\Power Monitoring Expert\config\diagrams\ud\HealthCare\OperatingRooms
5. Select `Hospital.dgm` and click **Open**. The top-level diagram for your site appears, for

example:



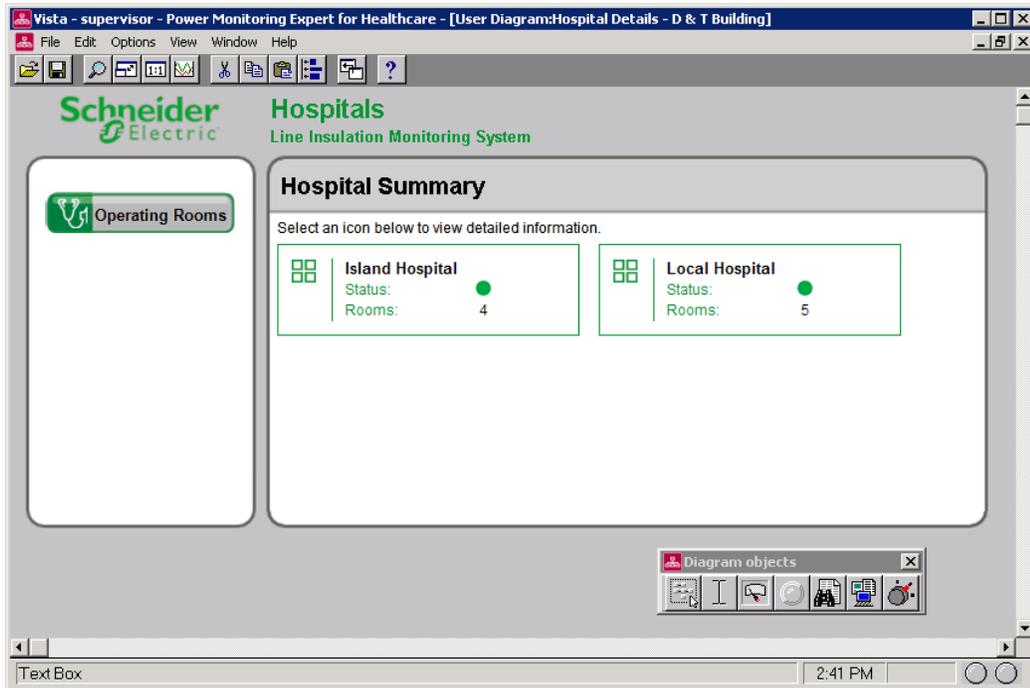
The top-level diagram shows the hospitals, facilities, or buildings that contain the rooms that are monitored for hazard current. You can navigate to all the room and circuit details from this drawing. See the next section for information about each diagram.

Using the diagrams

The Power Monitoring Expert diagrams display overview or detail information as well as status.

Hospital Summary diagram

The Hospital Summary diagram shows each hospital or facility that contains a group of rooms.



The Hospitals Summary diagram lists all the hospitals, facilities, or groups of rooms that were configured for the hospital. Each box in the main area represents a group of rooms. This diagram provides a status overview and links to rooms in the hospital, as shown next:



| | |
|----------|---|
| A | Hospital Icon – Click this icon to see the diagram of rooms in the hospital. |
| B | <p>Status Indicator – This indicator is green or red to show the general status of the hospital:</p> <ul style="list-style-type: none"> • Green – The hazard current monitor devices in all rooms do not detect any unsafe conditions. This applies to all of the monitoring devices included in the group of rooms. • Red – One or more rooms have a circuit with an insulation fault or a LIM-IG6 is in safety test mode. A LIM-IG6 test lasts 5 to 30 seconds. When the test is complete, the color changes back to green. If an insulation fault has occurred, the indicator remains red until the fault is corrected. In the hazard or test situation, the hospital box appears like this:  |
| C | Rooms. Total number of monitored rooms in this hospital. These are the rooms with LIM-IG6 monitors. |

What to do if the status indicator is red

1. Click the Hospital Icon to open the Summary of Rooms diagram. One or more room boxes will also have a red alarm indicator.
2. Click the specific room icon to open the Room Details diagram. One or more panel boxes will also have a red indicator. If the optional circuit fault locator devices are installed, the panel box also indicates each circuit that has a resistance fault.

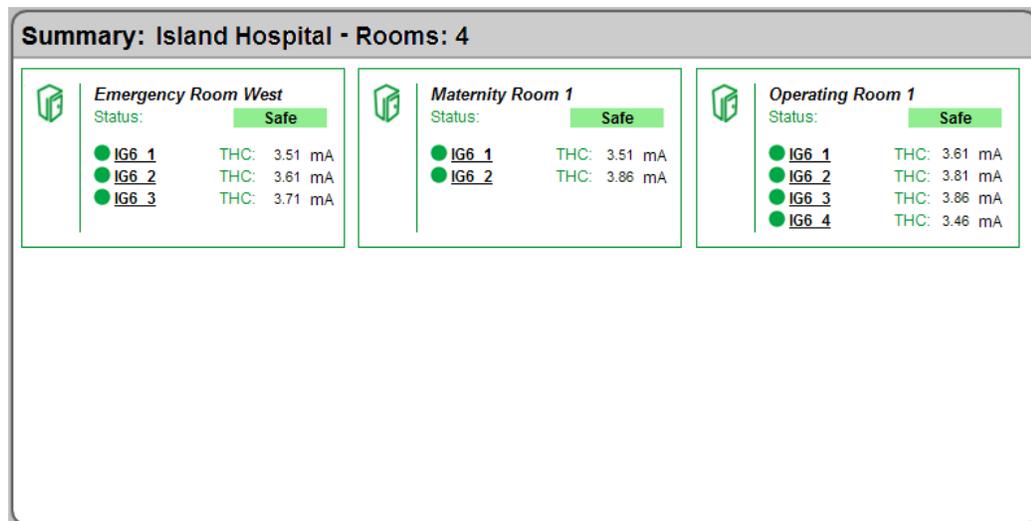
NOTE: Some types of electrical faults can occur and not be indicated by the individual circuit fault locators. Only the room status indicator turns red. See [Indicators for capacitive faults](#) for details.

3. Notify the responsible person that can address the condition for the room and specific circuits.

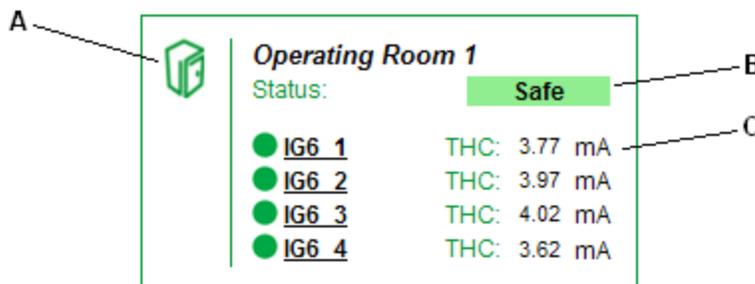
See the next sections for information about the other diagrams.

Summary of Rooms diagram

The Summary of Rooms diagram provides an overview of each room in the hospital, each box represents a single room. For example:



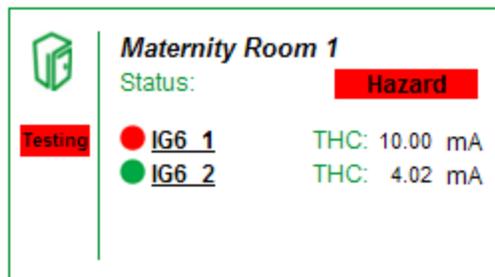
Each box represents a single room and contains the following room information:



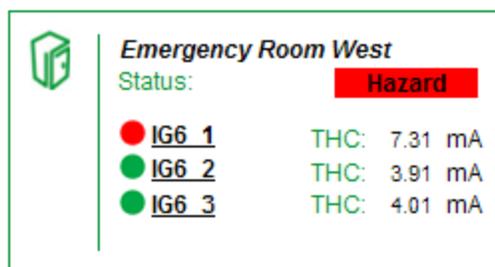
A Room Icon – Click the icon to see LIM-IG6 and circuit details for the room.

| | |
|----------|--|
| B | Room Status Indicator – Indicates the general conditions in the room. This indicator is either green "Safe" or red "Hazard." If the indicator is red, one or more IG6 monitors are in test mode or an insulation fault is detected. |
| C | IG6 Status Indicators – Displays the status and real-time total hazard current (THC, in mA) for each LIM-IG6 in the room. Up to six LIM-IG6 monitors can be installed in a room. The indicator changes to red if the LIM-IG6 is in safety test mode or if a circuit has a hazard current condition. When in test mode, the THC measurement changes to 10.0 mA and the red "Testing" label appears next to the LIM-IG6 name. The test lasts 5 to 30 seconds. When the test is complete, the color changes to green. If a LIM-IG6 detects an insulation fault, the THC measurement shows the real-time THC measurement. |

LIM-IG6 in test mode:



LIM-IG6 in hazard condition:



Room Details diagram

The Room Details diagram shows the details for each LIM-IG6 and connected devices in a room. The Room Details diagram can show up to 3 LIM-IG6 monitors. If more than 3 monitors are in the diagram, click the arrow in the upper right corner to see other monitors.

NOTE: For 208/240V systems, one LIM-IG6 can be shared between 2 rooms. In this case, the monitor appears on both room diagrams.

For example, the following image shows a diagram of the room and LIM-IG6 details:

Emergency Room West Wing Details - Page 1

| IG6_1: | | IG6_2: | | IG6_3: | |
|---|----------|---|----------|---|----------|
| No Test in Progress | | No Test in Progress | | No Test in Progress | |
| Status: | Safe | Status: | Safe | Status: | Safe |
| Total Hazard Current: | 3.5 mA | Total Hazard Current: | 3.4 mA | Total Hazard Current: | 3.6 mA |
| Load: | 10 % | Load: | 10 % | Load: | 10 % |
| Volts L1 - L2: | 120 V | Volts L1 - L2: | 120 V | Volts L1 - L2: | 120 V |
| Volts L1 - Ground: | 70 V | Volts L1 - Ground: | 68 V | Volts L1 - Ground: | 69 V |
| Volts L2 - Ground: | 70 V | Volts L2 - Ground: | 69 V | Volts L2 - Ground: | 70 V |
| Impedance: | 113 kOhm | Impedance: | 113 kOhm | Impedance: | 113 kOhm |
| Resistance: | 114 kOhm | Resistance: | 114 kOhm | Resistance: | 114 kOhm |
| Leakage Cap: | 3 nF | Leakage Cap: | 3 nF | Leakage Cap: | 3 nF |
| Temperature: | Normal | Temperature: | Normal | Temperature: | Normal |
| Circuit Fault Location EDS151_1 1 EDS151_1 2 EDS151_1 3 EDS151_1 4 EDS151_1 5 EDS151_1 6 EDS151_2 1 EDS151_2 2 EDS151_2 3 EDS151_2 4 EDS151_2 5 EDS151_2 6 | | Circuit Fault Location EDS151_1 1 EDS151_1 2 EDS151_1 3 EDS151_1 4 EDS151_1 5 EDS151_1 6 EDS151_2 1 EDS151_2 2 EDS151_2 3 EDS151_2 4 EDS151_2 5 EDS151_2 6 | | Circuit Fault Location EDS151_1 1 EDS151_1 2 EDS151_1 3 EDS151_1 4 EDS151_1 5 EDS151_1 6 EDS151_2 1 EDS151_2 2 EDS151_2 3 EDS151_2 4 EDS151_2 5 EDS151_2 6 | |
| | | | | | |

Each LIM-IG6 area contains these sections to provide specific information about the circuit conditions:

The screenshot shows the LIM-IG6 interface with the following sections:

- IG6 1:**
 - Status:** No Test In Progress (Grey bar)
 - Status:** Safe (Green bar)
 - Total Hazard Current:** 3.5 mA
- Measurements:**
 - Load:** 10 %
 - Volts L1 - L2:** 120 V
 - Volts L1 - Ground:** 70 V
 - Volts L2 - Ground:** 70 V
 - Impedance:** 113 kOhm
 - Resistance:** 114 kOhm
 - Leakage Cap:** 3 nF
 - Temperature:** Normal
- Circuit Fault Location:**
 - EDS151_1 1, EDS151_1 2, EDS151_1 3
 - EDS151_1 4, EDS151_1 5, EDS151_1 6
 - EDS151_2 1, EDS151_2 2, EDS151_2 3
 - EDS151_2 4, EDS151_2 5, EDS151_2 6
- Bottom Section:** Contains two icons representing a printer and a computer monitor.

Callouts A, B, C, and D point to the Status bar, Measurements section, Fault Location section, and Bottom Section respectively.

| | |
|-----------------|---|
| <p>A</p> | <p>LIM-IG6 Status – Displays the name and status of the monitor, real-time THC measurement, and test status. The THC measurement is taken directly from the LIM-IG6.</p> <p>This indicator is either green "Safe" or red "Hazard." If the indicator is red, one or more panels are in test mode or circuits in the room are in a hazard condition. The red "Test In Progress" label appears when someone starts a LIM-IG6 test. A test is started by pressing the test button on the LIM-IG6 or by pressing the test button on the remote test device. This label remains visible during the test.</p> <p>See Indicators for Test Mode and Hazard condition for details.</p> |
|-----------------|---|

| | |
|---|--|
| B | <p>Measurements – Displays the real-time measurements for the components connected to the LIM-IG6.</p> <ul style="list-style-type: none"> • Load – Optional. Displays the transformer load if the circuit transformer is connected to the LIM-IG6. The status indicator turns red if the overload percentage exceeds the threshold defined for the transformer. • Volts L1 - L2 – Voltage between L1 and L2, in V. • Volts L1 - Ground – Voltage between L1 and Ground, in V. • Volts L2 - Ground – Voltage between L2 and Ground, in V. • Impedance – Impedance Zf in kΩ. • Resistance – Resistance Rf in kΩ. • Leakage – Leakage capacitance in nF. • Temperature – Optional. The status of the transformer temperature, according to the over-temperature sensor. This appears only if the temperature sensor is installed with the transformer. The value changes to red "High" if the temperature exceeds the threshold. |
| C | <p>Circuit Status – Appears only if the optional circuit fault locator is connected to the LIM-IG6. This area shows the status for each circuit being monitored. If the LIM-IG6 detects a resistance fault, the circuit monitor identifies the specific circuit and the circuit indicator turns red. When any indicator turns red, the hazard status propagates up to the top-level Hospitals Summary diagram. If the LIM-IG6 is in test mode, all circuit indicators turn red. See examples below for indicators in test or hazard condition.</p> |
| D | <p>Event Log and Data Log – Contains links to the historical data log and event log for the panel measurements. See Data logs for more information.</p> |

Indicators for Test Mode and Hazard condition

LIM-IG6 in test mode, with circuit fault locators (left) and without circuit fault locators (right):

| | | | |
|-------------------------------|---------------|-------------------------|--|
| IG6_1: | | Test In Progress | |
| Status: | Hazard | | |
| Total Hazard Current: | 10.0 | mA | |
| Load: | 10 | % | |
| Volts L1 - L2: | 120 | V | |
| Volts L1 - Ground: | 70 | V | |
| Volts L2 - Ground: | 70 | V | |
| Impedance: | 113 | kOhm | |
| Resistance: | 114 | kOhm | |
| Leakage Cap: | 3 | nF | |
| Temperature:: | High | | |
| Circuit Fault Location | | | |
| EDS151_1 1 | EDS151_1 2 | EDS151_1 3 | |
| EDS151_1 4 | EDS151_1 5 | EDS151_1 6 | |
| EDS151_2 1 | EDS151_2 2 | EDS151_2 3 | |
| EDS151_2 4 | EDS151_2 5 | EDS151_2 6 | |

| | | | |
|-----------------------|---------------|-------------------------|--|
| IG6_1: | | Test In Progress | |
| Status: | Hazard | | |
| Total Hazard Current: | 10.0 | mA | |
| Load: | 10 | % | |
| Volts L1 - L2: | 120 | V | |
| Volts L1 - Ground: | 70 | V | |
| Volts L2 - Ground: | 70 | V | |
| Impedance: | 113 | kOhm | |
| Resistance: | 114 | kOhm | |
| Leakage Cap: | 3 | nF | |
| Temperature:: | High | | |

LIM-IG6 in hazard condition, with circuit fault locators (left) and without circuit fault locators (right):

| | | | |
|-------------------------------|---------------|----------------------------|--|
| IG6_1: | | No Test In Progress | |
| Status: | Hazard | | |
| Total Hazard Current: | 7.3 | mA | |
| Load: | 10 | % | |
| Volts L1 - L2: | 120 | V | |
| Volts L1 - Ground: | 70 | V | |
| Volts L2 - Ground: | 70 | V | |
| Impedance: | 30 | kOhm | |
| Resistance: | 31 | kOhm | |
| Leakage Cap: | 12 | nF | |
| Temperature:: | Normal | | |
| Circuit Fault Location | | | |
| EDS151_1 1 | EDS151_1 2 | EDS151_1 3 | |
| EDS151_1 4 | EDS151_1 5 | EDS151_1 6 | |
| EDS151_2 1 | EDS151_2 2 | EDS151_2 3 | |
| EDS151_2 4 | EDS151_2 5 | EDS151_2 6 | |

| | | | |
|-----------------------|---------------|----------------------------|--|
| IG6_1: | | No Test In Progress | |
| Status: | Hazard | | |
| Total Hazard Current: | 7.2 | mA | |
| Load: | 10 | % | |
| Volts L1 - L2: | 120 | V | |
| Volts L1 - Ground: | 70 | V | |
| Volts L2 - Ground: | 70 | V | |
| Impedance: | 30 | kOhm | |
| Resistance: | 31 | kOhm | |
| Leakage Cap: | 12 | nF | |
| Temperature:: | Normal | | |

Indicators for capacitive faults

⚠ DANGER

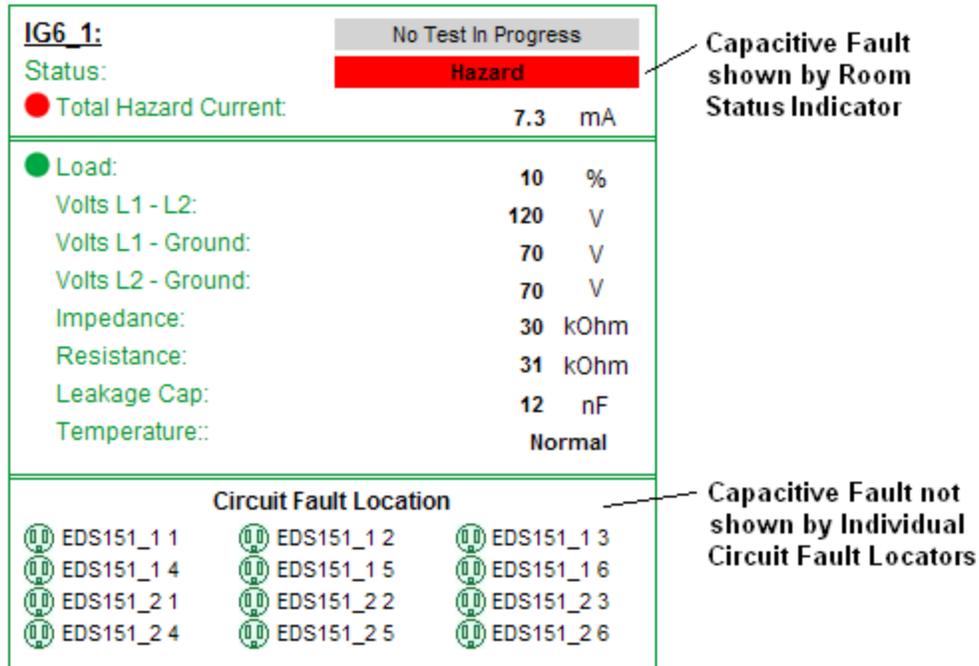
EQUIPMENT ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Do not ignore the main device hazard indicator when all circuit fault locator icons show green status.
- Determine and correct the cause of the fault if the main device hazard indicator shows a hazard.

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

In some cases, such as when too many equipment items are connected to circuits, the LIM-IG6 detects a capacitance fault that exceeds the total hazard current (THC). For this situation, the room

Status area shows the hazard, as shown next. However, if the optional circuit fault locators are installed, the circuit indicators do not indicate the capacitive fault, because they show only resistance faults, as shown next:



If all the circuit fault indicators are green, as above, and the room **Status** area shows a hazard, appropriate personnel must take action to determine and correct the cause of the fault.

Data logs

When you need details about circuit measurements and details, the Room Details diagram provides links to the historical data log and the event log. These logs provide measurement data for the 5-minute polling interval of the LIM-IG6. You can filter the data in the logs by date range.

When using the event log, you can also generate a graph that shows THC measurements plotted across time. If any THC measurement exceeds the hazard threshold, the graph includes a callout at the specific event point.

Historical data log and graph

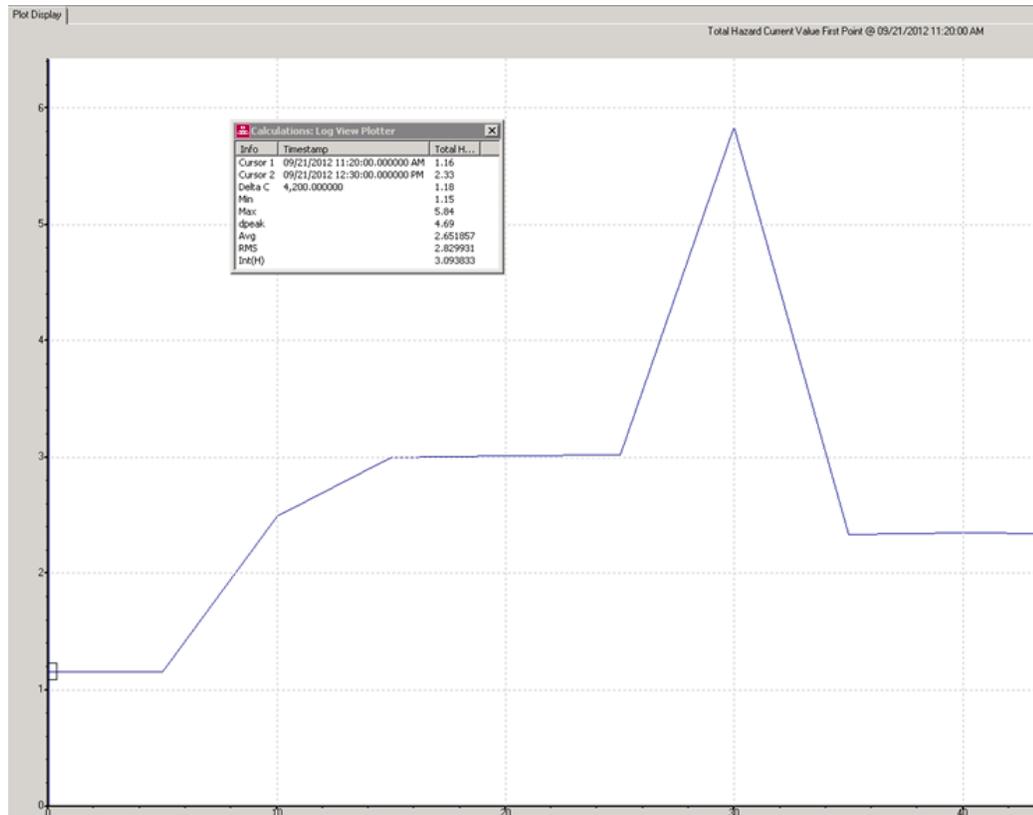
The following figure shows the historical log table.

| Node | Timestamp | Total Hazard Current Value | Load Percentage Value | Voltage L1-L2 Value | Voltage L1-Gnd Value | Voltage L2-Gnd Value | Impedance Value | Resistance Value | Capacitance Value |
|----------------|---------------------------|----------------------------|-----------------------|---------------------|----------------------|----------------------|-----------------|------------------|-------------------|
| Hospital.JGS_1 | 1/29/2013 10:55:00.000 AM | 3.800 | 10.000 | 127.000 | 10.000 | 122.000 | 113.000 | 114.000 | 3.000 |
| Hospital.JGS_1 | 1/29/2013 10:50:00.000 AM | 3.800 | 10.000 | 127.000 | 10.000 | 122.000 | 113.000 | 114.000 | 3.000 |
| Hospital.JGS_1 | 1/29/2013 10:45:00.000 AM | 3.800 | 10.000 | 127.000 | 10.000 | 122.000 | 113.000 | 114.000 | 3.000 |
| Hospital.JGS_1 | 1/29/2013 10:40:00.000 AM | 3.800 | 10.000 | 127.000 | 10.000 | 122.000 | 113.000 | 114.000 | 3.000 |
| Hospital.JGS_1 | 1/29/2013 10:35:00.000 AM | 3.800 | 10.000 | 127.000 | 10.000 | 122.000 | 113.000 | 114.000 | 3.000 |
| Hospital.JGS_1 | 1/29/2013 10:30:00.000 AM | 3.800 | 10.000 | 127.000 | 10.000 | 122.000 | 113.000 | 114.000 | 3.000 |
| Hospital.JGS_1 | 1/29/2013 10:25:00.000 AM | 3.800 | 10.000 | 127.000 | 10.000 | 122.000 | 113.000 | 114.000 | 3.000 |
| Hospital.JGS_1 | 1/29/2013 10:20:00.000 AM | 3.800 | 10.000 | 127.000 | 10.000 | 122.000 | 113.000 | 114.000 | 3.000 |
| Hospital.JGS_1 | 1/29/2013 10:15:00.000 AM | 3.800 | 10.000 | 127.000 | 10.000 | 122.000 | 113.000 | 114.000 | 3.000 |
| Hospital.JGS_1 | 1/29/2013 10:10:00.000 AM | 3.800 | 10.000 | 127.000 | 10.000 | 122.000 | 113.000 | 114.000 | 3.000 |
| Hospital.JGS_1 | 1/29/2013 10:05:00.000 AM | 3.800 | 10.000 | 127.000 | 10.000 | 122.000 | 113.000 | 114.000 | 3.000 |
| Hospital.JGS_1 | 1/29/2013 10:00:00.000 AM | 3.800 | 10.000 | 127.000 | 10.000 | 122.000 | 113.000 | 114.000 | 3.000 |
| Hospital.JGS_1 | 1/29/2013 9:55:00.000 AM | 3.800 | 10.000 | 127.000 | 10.000 | 122.000 | 113.000 | 114.000 | 3.000 |
| Hospital.JGS_1 | 1/29/2013 9:50:00.000 AM | 3.800 | 10.000 | 127.000 | 10.000 | 122.000 | 113.000 | 114.000 | 3.000 |
| Hospital.JGS_1 | 1/29/2013 9:45:00.000 AM | 3.800 | 10.000 | 127.000 | 10.000 | 122.000 | 113.000 | 114.000 | 3.000 |
| Hospital.JGS_1 | 1/29/2013 9:40:00.000 AM | 3.800 | 10.000 | 127.000 | 10.000 | 122.000 | 113.000 | 114.000 | 3.000 |
| Hospital.JGS_1 | 1/29/2013 9:35:00.000 AM | 3.800 | 10.000 | 127.000 | 10.000 | 122.000 | 113.000 | 114.000 | 3.000 |
| Hospital.JGS_1 | 1/29/2013 9:30:00.000 AM | 3.800 | 10.000 | 127.000 | 10.000 | 122.000 | 113.000 | 114.000 | 3.000 |
| Hospital.JGS_1 | 1/29/2013 9:25:00.000 AM | 3.800 | 10.000 | 127.000 | 10.000 | 122.000 | 113.000 | 114.000 | 3.000 |
| Hospital.JGS_1 | 1/29/2013 9:20:00.000 AM | 3.800 | 10.000 | 127.000 | 10.000 | 122.000 | 113.000 | 114.000 | 3.000 |
| Hospital.JGS_1 | 1/29/2013 9:15:00.000 AM | 3.800 | 10.000 | 127.000 | 10.000 | 122.000 | 113.000 | 114.000 | 3.000 |
| Hospital.JGS_1 | 1/29/2013 9:10:00.000 AM | 3.800 | 10.000 | 127.000 | 10.000 | 122.000 | 113.000 | 114.000 | 3.000 |
| Hospital.JGS_1 | 1/29/2013 9:05:00.000 AM | 3.800 | 10.000 | 127.000 | 10.000 | 122.000 | 113.000 | 114.000 | 3.000 |
| Hospital.JGS_1 | 1/29/2013 9:00:00.000 AM | 3.800 | 10.000 | 127.000 | 10.000 | 122.000 | 113.000 | 114.000 | 3.000 |
| Hospital.JGS_1 | 1/29/2013 8:55:00.000 AM | 3.800 | 10.000 | 127.000 | 10.000 | 122.000 | 113.000 | 114.000 | 3.000 |
| Hospital.JGS_1 | 1/29/2013 8:50:00.000 AM | 3.800 | 10.000 | 127.000 | 10.000 | 122.000 | 113.000 | 114.000 | 3.000 |

The buttons located at the top of the table are:

- **Device Diagram** – Click this to return to the diagram.
- **Change Date Range** – Click this to view data for different dates. See "Select Date Range" below for more information.
- **Show Graph** – Select one or more column headers in the table and click this to see a graph of the data. The graph shows the data at 5-minute intervals. For example, you can check the **Total Hazard Current** option in the table and see the values. Click a point on the data line to see details for that value, as shown next.

The following figure shows the historical log table from the Vista client view:



Event Log

The following figure shows the event log table:

Device Diagram Change Date Range

| Node | Log | Timestamp | Cause | Cause Value | Effect | Effect Value | Priority | Ack Time | User Name |
|----------------|---------------|---------------------------|----------------------------|-----------------|--------|--------------|----------|-----------------------|------------|
| Hospital.IG6_1 | EventLogCtl 1 | 12/6/2012 10:38:06.000 AM | Current I2 Alarm | No CT connected | - | | 100 | 1/28/2013 11:35:29 AM | supervisor |
| Hospital.IG6_1 | EventLogCtl 1 | 12/6/2012 10:38:05.000 AM | Current I3 Alarm | InActive | - | | 100 | - | - |
| Hospital.IG6_1 | EventLogCtl 1 | 12/6/2012 10:38:05.000 AM | Current I2 Alarm | InActive | - | | 100 | - | - |
| Hospital.IG6_1 | EventLogCtl 1 | 12/6/2012 9:38:06.000 AM | Current I3 Alarm | No CT connected | - | | 100 | 1/28/2013 11:35:29 AM | supervisor |
| Hospital.IG6_1 | EventLogCtl 1 | 12/5/2012 3:49:53.000 PM | Total Hazard Current Alarm | InActive | - | | 100 | - | - |
| Hospital.IG6_1 | EventLogCtl 1 | 12/5/2012 3:49:06.000 PM | Total Hazard Current Alarm | Active | - | | 100 | 1/28/2013 11:35:29 AM | supervisor |
| Hospital.IG6_1 | EventLogCtl 1 | 12/1/2012 1:12:46.000 PM | Current I3 Alarm | InActive | - | | 100 | - | - |
| Hospital.IG6_1 | EventLogCtl 1 | 12/1/2012 1:12:46.000 PM | Current I2 Alarm | InActive | - | | 100 | - | - |
| Hospital.IG6_1 | EventLogCtl 1 | 12/1/2012 1:12:07.000 PM | Current I3 Alarm | No CT connected | - | | 100 | 1/28/2013 11:35:29 AM | supervisor |
| Hospital.IG6_1 | EventLogCtl 1 | 12/1/2012 1:12:07.000 PM | Current I2 Alarm | No CT connected | - | | 100 | 1/28/2013 11:35:29 AM | supervisor |
| Hospital.IG6_1 | EventLogCtl 1 | 12/1/2012 12:17:30.000 PM | Current I3 Alarm | InActive | - | | 100 | - | - |
| Hospital.IG6_1 | EventLogCtl 1 | 12/1/2012 12:17:30.000 PM | Current I2 Alarm | InActive | - | | 100 | - | - |
| Hospital.IG6_1 | EventLogCtl 1 | 12/1/2012 12:17:06.000 PM | Current I3 Alarm | No CT connected | - | | 100 | 1/28/2013 11:35:29 AM | supervisor |
| Hospital.IG6_1 | EventLogCtl 1 | 12/1/2012 12:17:06.000 PM | Current I2 Alarm | No CT connected | - | | 100 | 1/28/2013 11:35:29 AM | supervisor |
| Hospital.IG6_1 | EventLogCtl 1 | 12/1/2012 12:15:45.000 PM | Total Hazard Current Alarm | InActive | - | | 100 | - | - |
| Hospital.IG6_1 | EventLogCtl 1 | 12/1/2012 12:15:39.000 PM | Total Hazard Current Alarm | Active | - | | 100 | 1/28/2013 11:35:29 AM | supervisor |
| Hospital.IG6_1 | EventLogCtl 1 | 12/1/2012 12:13:34.000 PM | Total Hazard Current Alarm | InActive | - | | 100 | - | - |
| Hospital.IG6_1 | EventLogCtl 1 | 12/1/2012 12:13:25.000 PM | Total Hazard Current Alarm | Active | - | | 100 | 1/28/2013 11:35:29 AM | supervisor |
| Hospital.IG6_1 | EventLogCtl 1 | 12/1/2012 12:12:41.000 PM | Total Hazard Current Alarm | InActive | - | | 100 | - | - |
| Hospital.IG6_1 | EventLogCtl 1 | 12/1/2012 12:12:13.000 PM | Total Hazard Current Alarm | Active | - | | 100 | 1/28/2013 11:35:29 AM | supervisor |
| Hospital.IG6_1 | EventLogCtl 1 | 12/1/2012 12:11:33.000 PM | Total Hazard Current Alarm | InActive | - | | 100 | - | - |
| Hospital.IG6_1 | EventLogCtl 1 | 12/1/2012 12:11:28.000 PM | Total Hazard Current Alarm | Active | - | | 100 | 1/28/2013 11:35:29 AM | supervisor |
| Hospital.IG6_1 | EventLogCtl 1 | 12/1/2012 11:13:14.000 AM | Current I3 Alarm | InActive | - | | 100 | - | - |
| Hospital.IG6_1 | EventLogCtl 1 | 12/1/2012 11:13:14.000 AM | Current I2 Alarm | InActive | - | | 100 | - | - |

The buttons located at the top of the table are:

- **Device Diagram** – Click this to return to the diagram.
- **Change Date Range** – Click this to view data for different dates. See "Select Date Range" below for more information.

Select date range:

For either type of log table, you can select the date range for data you want to see. The default date range is "Today".

1. Click **Select Date Range**.

Please select a date range

Today
 Yesterday
 This week
 Last week
 This month
 Last month

_____ OR _____

Between these dates:
 2013-Jan-31 00:00:00

 AND
 2013-Jan-31 23:59:59

Show Table

2. Select an available range or click **Between these dates** and select specific dates in the calendar.
3. Click **Show Table** to see the data.

If you select a date range of more than one week, a message appears to inform you that the table will be very long.

The new table appears.

Generating the Isolated Power Report

To generate a report:

1. In Reports, open the Report Library and navigate to the **Insulation Monitoring** folder
2. Click **Isolated Power Report (ANSI)** to display the report in the Reports Display pane.
3. Set the input parameters for the report and click **Generate Report**.

NOTE: If you chose a report, then the saved input parameters are set to their saved values. If you chose a report template, then all input parameters are unselected or have generic default values.

4. The report output is displayed in the Reports Display pane.

Isolated Power Report (ANSI)

NOTE: This report is part of the Insulation Monitoring Module. This Module requires a separate license.

For each LIM-IG6 in the room, the report shows:

- Total Hazard Current graph - Displays a comparison of THC measurements to the THC limit. The THC limit is a blue line and actual THC measurements are shown as a green line. The report can include up to six graphs at a time, one graph per LIM-IG6.
- Events table - Shows each event, cause, timestamp, and other data for events that occurred in the data range.
- Data log table (optional) - Contains THC measurements and other meter data in the selected date range. Red values indicate the THC measurement was over the limit.

Prerequisites

- The Insulation Monitoring Module must be configured.
- The measurement data must be available as historical data logs in the database.

Report inputs

Title

Type a title for the report in the box.

Operating Room

The hospital rooms whose panels you want to include in the report.

Reporting Period

Use this input to select the timeframe for the data you want to view in the report.

Select the reporting period from the dropdown list. The timeframe options in the timeframe dropdown are relative to the date the report is run. To run a report that starts and ends in the past, select the fixed date option. Type a start and end date in the date boxes or click the arrows beside the dates to display a pop-up calendar and select a date. Type a time in the time boxes or click the up and down arrows beside the time to adjust the hours or minutes up or down.

Select whether you want to view timestamps in either Server Local Time, UTC (Universal Coordinated Time), or in the timezone of the source.

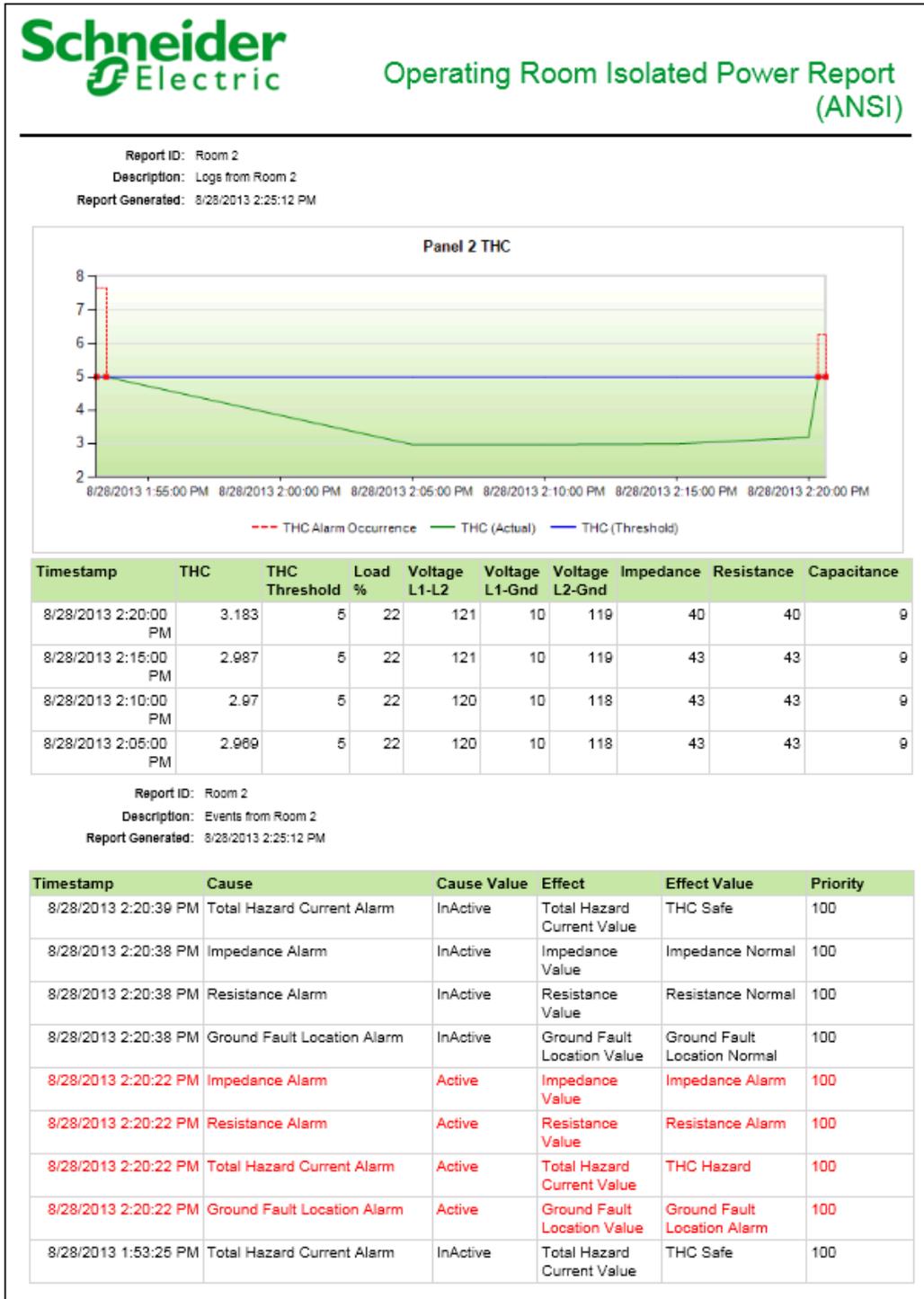
Include Data Table

Select whether or not to show the data table in the generated report. The default is **No**.

Include Data Warnings

Click **Yes** to include data warnings in the report. If there are none, the section is not included. Click **No** to exclude this section.

Example:



NOTE: This example only shows selected pages from the report, it does not show the entire report.

Hospital room diagrams for IEC

When your hospital is configured using Power Monitoring Expert's Operating Room Configuration Tool, several diagrams are produced that visually indicate the electrical status of the rooms and circuits being monitored.

This section describes each type of diagram and explains how to work with the diagrams in case a monitored room needs intervention.

See the following topics:

- [Opening the hospital diagrams](#)
- [Using the diagrams](#)
- [Data logs](#)
- [Generating the Isolated Power Report](#)
- [Isolated Power Report \(IEC\)](#)

Opening the hospital diagrams

Diagrams for the rooms that are monitored by the solution can be viewed in the Diagrams Web application of Power Monitoring Expert or the Vista client.

Power Monitoring Expert

To view the rooms in Power Monitoring Expert:

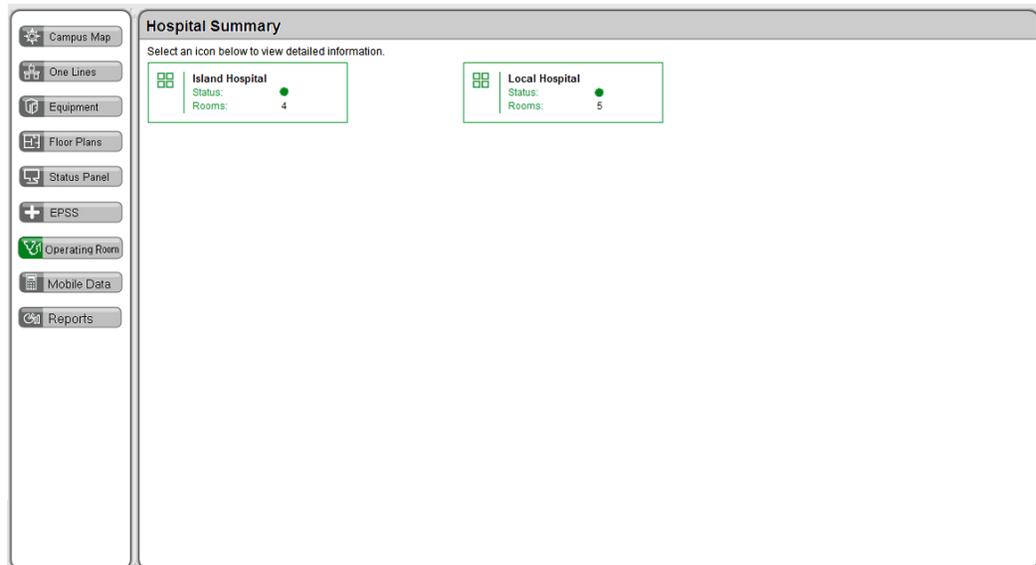
1. Log in to your Power Monitoring Expert web site. See the *Power Monitoring Expert System Guide* for more details, if necessary.
2. In the toolbar, click **Diagrams**. The installed diagram groups appear.

For example:



Your initial view will be different based on your facility.

3. In the left pane, click **Operating Room**. The top-level diagram appears.



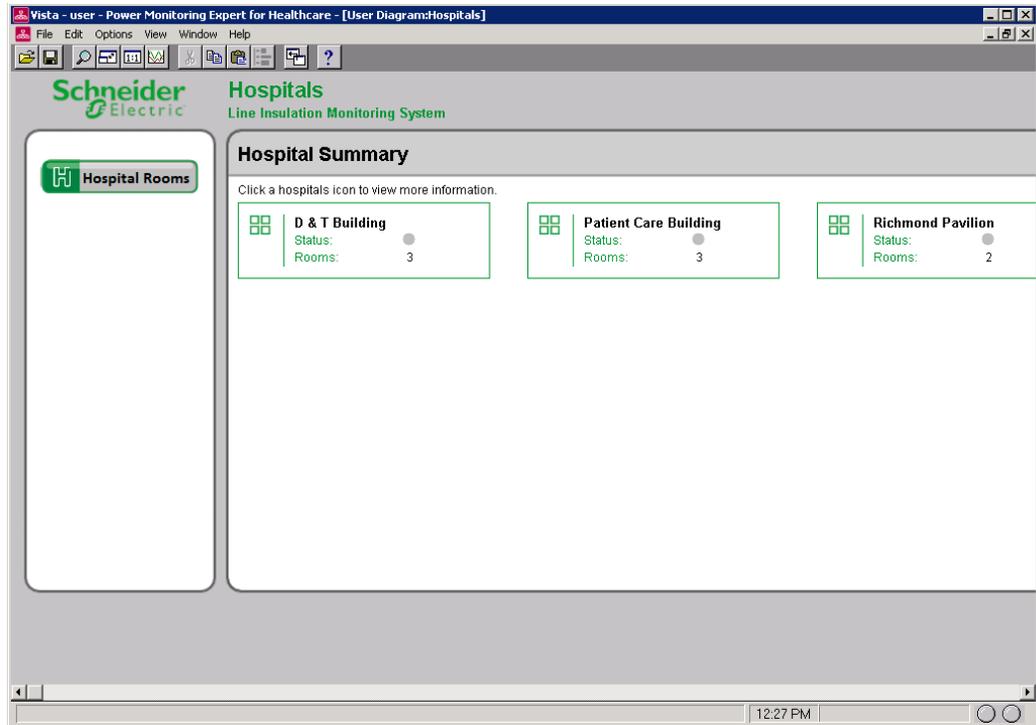
The top-level diagram shows the hospitals, facilities, or buildings that contain the rooms that are monitored for hazard current. You can navigate to all the room and circuit details from this drawing. See the next section for information about each diagram.

Vista Client

To view the hospital summary diagram in Vista:

1. Open the Power Monitoring Expert folder on your Windows desktop
2. Double-click the Vista shortcut and then enter your Vista login credentials.
3. Click **File > Open**.
4. Browse to C:\Program Files (x86)\Schneider Electric\Power Monitoring Expert\config\diagrams\ud\HealthCare\OperatingRooms
5. Select `Hospital.dgm` and click **Open**. The top-level diagram for your site appears, for

example:



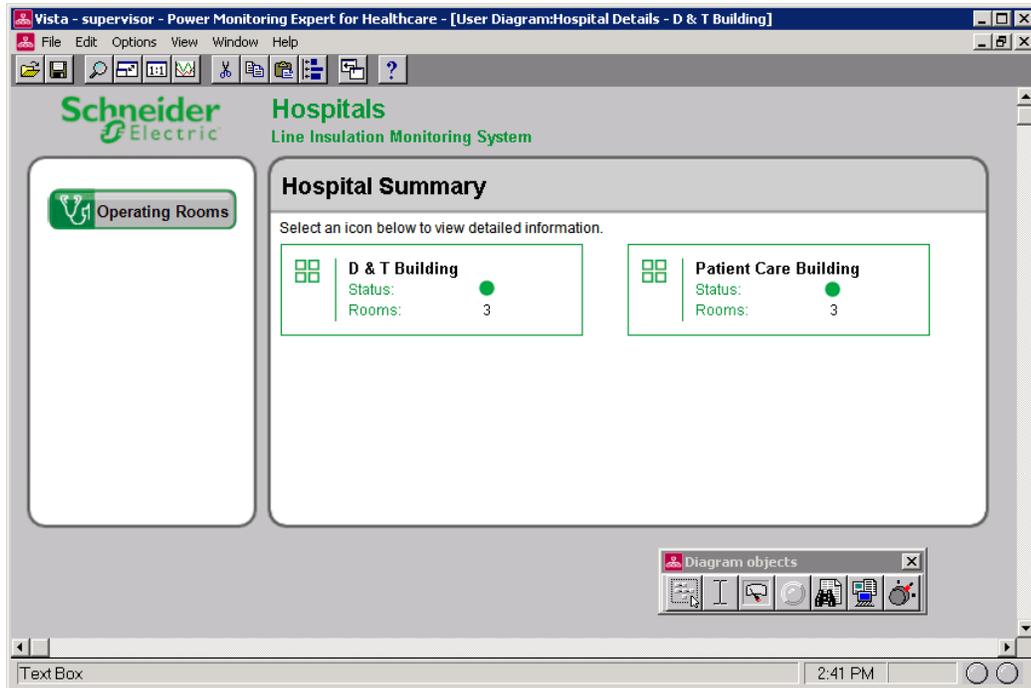
The top-level diagram shows the hospitals, facilities, or buildings that contain the rooms that are monitored for hazard current. You can navigate to all the room and circuit details from this drawing. See the next section for information about each diagram.

Using the diagrams

The Power Monitoring Expert diagrams display overview or detail information as well as status.

Hospital Summary diagram

The Hospital Summary diagram shows each hospital or facility that contains a group of rooms.



The Hospitals Summary diagram lists all the hospitals, facilities, or groups of rooms that were configured for the hospital. Each box in the main area represents a group of rooms. This diagram provides a status overview and links to rooms in the hospital, as shown next:



| | |
|----------|---|
| A | Hospital Icon – Click this icon to see the diagram of rooms in the hospital. |
| B | <p>Status Indicator – This indicator is green or red to show the general status of the hospital:</p> <ul style="list-style-type: none"> • Green – The hazard current monitor devices in all theatres do not detect any unsafe conditions. This applies to all of the monitoring devices included in the group of theatres. • Red – One or more rooms have a circuit with an insulation fault. If an insulation fault has occurred, the indicator remains red until the fault is corrected. In the hazard situation, the hospital box appears like this:  |
| C | Rooms – Total number of monitored rooms in this hospital. These are the rooms with insulation monitoring devices. |

What to do if the status indicator is red

1. Click the Hospital Icon to open the Summary of Rooms diagram. One or more room boxes will also have a red alarm indicator.
2. Click the specific room icon to open the Room Details diagram. One or more panel boxes will also have a red indicator.
3. Notify the responsible person that can address the condition for the room and specific circuits.

See the next sections for information about the other diagrams.

Summary of Building Rooms diagram

The Summary of Building Rooms diagram provides an overview of each room in the building. For example:

Summary: D&T Building - Rooms: 2

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|------------|-------|------------|------------|-------|-------|------------|-----|-------|------------|-----|-------|------------|-----|-------|------------|-----|-------|------------|-----|-------|------------|-----|-------|------------|-----|-------|------------|-----|-------|------------|-----|-------|------------|-----|-------|---|------------|-----|-------|------------|-----|-------|------------|-----|-------|------------|-----|-------|------------|-----|-------|------------|-----|-------|------------|-----|-------|------------|-----|-------|------------|-----|-------|------------|-----|-------|------------|-----|-------|------------|-----|-------|
| <div style="border: 1px solid green; padding: 5px;"> <p>Intensive Care Room Status: Safe</p> <p>IM.ICU</p> <p> <u>Insulation Status</u></p> <p> <u>Electrical Status</u></p> <p> <u>Wiring Status</u></p> <hr/> <p>IFL.ICU</p> <table style="width: 100%; font-size: small;"> <tr><td> Circuit 01</td><td>200</td><td>kohms</td><td> Circuit 02</td><td>200</td><td>kohms</td></tr> <tr><td> Circuit 03</td><td>200</td><td>kohms</td><td> Circuit 04</td><td>200</td><td>kohms</td></tr> <tr><td> Circuit 05</td><td>200</td><td>kohms</td><td> Circuit 06</td><td>200</td><td>kohms</td></tr> <tr><td> Circuit 07</td><td>200</td><td>kohms</td><td> Circuit 08</td><td>200</td><td>kohms</td></tr> <tr><td> Circuit 09</td><td>200</td><td>kohms</td><td> Circuit 10</td><td>200</td><td>kohms</td></tr> <tr><td> Circuit 11</td><td>200</td><td>kohms</td><td> Circuit 12</td><td>200</td><td>kohms</td></tr> </table> </div> | Circuit 01 | 200 | kohms | Circuit 02 | 200 | kohms | Circuit 03 | 200 | kohms | Circuit 04 | 200 | kohms | Circuit 05 | 200 | kohms | Circuit 06 | 200 | kohms | Circuit 07 | 200 | kohms | Circuit 08 | 200 | kohms | Circuit 09 | 200 | kohms | Circuit 10 | 200 | kohms | Circuit 11 | 200 | kohms | Circuit 12 | 200 | kohms | <div style="border: 1px solid green; padding: 5px;"> <p>Maternity Room Status: Safe</p> <p>IM.MR</p> <p> <u>Insulation Status</u></p> <p> <u>Electrical Status</u></p> <p> <u>Wiring Status</u></p> <hr/> <p>IFL.MR</p> <table style="width: 100%; font-size: small;"> <tr><td> Circuit 01</td><td>210</td><td>kohms</td><td> Circuit 02</td><td>210</td><td>kohms</td></tr> <tr><td> Circuit 03</td><td>210</td><td>kohms</td><td> Circuit 04</td><td>210</td><td>kohms</td></tr> <tr><td> Circuit 05</td><td>210</td><td>kohms</td><td> Circuit 06</td><td>210</td><td>kohms</td></tr> <tr><td> Circuit 07</td><td>210</td><td>kohms</td><td> Circuit 08</td><td>210</td><td>kohms</td></tr> <tr><td> Circuit 09</td><td>210</td><td>kohms</td><td> Circuit 10</td><td>210</td><td>kohms</td></tr> <tr><td> Circuit 11</td><td>210</td><td>kohms</td><td> Circuit 12</td><td>210</td><td>kohms</td></tr> </table> </div> | Circuit 01 | 210 | kohms | Circuit 02 | 210 | kohms | Circuit 03 | 210 | kohms | Circuit 04 | 210 | kohms | Circuit 05 | 210 | kohms | Circuit 06 | 210 | kohms | Circuit 07 | 210 | kohms | Circuit 08 | 210 | kohms | Circuit 09 | 210 | kohms | Circuit 10 | 210 | kohms | Circuit 11 | 210 | kohms | Circuit 12 | 210 | kohms |
| Circuit 01 | 200 | kohms | Circuit 02 | 200 | kohms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Circuit 03 | 200 | kohms | Circuit 04 | 200 | kohms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Circuit 05 | 200 | kohms | Circuit 06 | 200 | kohms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Circuit 07 | 200 | kohms | Circuit 08 | 200 | kohms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Circuit 09 | 200 | kohms | Circuit 10 | 200 | kohms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Circuit 11 | 200 | kohms | Circuit 12 | 200 | kohms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Circuit 01 | 210 | kohms | Circuit 02 | 210 | kohms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Circuit 03 | 210 | kohms | Circuit 04 | 210 | kohms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Circuit 05 | 210 | kohms | Circuit 06 | 210 | kohms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Circuit 07 | 210 | kohms | Circuit 08 | 210 | kohms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Circuit 09 | 210 | kohms | Circuit 10 | 210 | kohms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Circuit 11 | 210 | kohms | Circuit 12 | 210 | kohms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Each box represents a single room and contains the following room information:

A

Intensive Care Room
Status: Safe

IM.ICU

Insulation Status

Electrical Status

Wiring Status

B

C

IFL.ICU

| | | | | | |
|------------|-----|-------|------------|-----|-------|
| Circuit 01 | 200 | kohms | Circuit 02 | 200 | kohms |
| Circuit 03 | 200 | kohms | Circuit 04 | 200 | kohms |
| Circuit 05 | 200 | kohms | Circuit 06 | 200 | kohms |
| Circuit 07 | 200 | kohms | Circuit 08 | 200 | kohms |
| Circuit 09 | 200 | kohms | Circuit 10 | 200 | kohms |
| Circuit 11 | 200 | kohms | Circuit 12 | 200 | kohms |

D

| | |
|----------|---|
| A | Room Icon – Click this icon to see the details for the insulation monitoring device measurements in the room. |
| B | Room Status Indicator – Indicates the general conditions in the room. This indicator is either green "Safe" or red "Hazard." If the indicator is red, one or more insulation monitoring devices detected a fault. |
| C | <p>Room Information and Status Indicators – Displays the room name, the insulation monitoring device in the room and the status indicators. If a fault occurs in the room, these indicators show the specific type of fault.</p> <ul style="list-style-type: none"> • Insulation Status – Normal condition is green. If the impedance is lower than the threshold, the indicator turns orange. The impedance threshold is set on the insulation monitoring device. • Electrical Status – Normal condition is green. If the current transformer load or temperature exceed the threshold set on the insulation monitoring device, this indicator turns red. • Wiring Status – Normal condition is green. This indicator turns red if the device cannot monitor the isolation transformer. |
| D | Circuit Status – Appears only if the optional Insulation Fault Locator (IFL) device is installed. This area shows the status for each circuit being monitored. If the IFL detects a resistance fault, the circuit monitor identifies the specific circuit and the circuit indicator turns red. When any indicator turns red, the hazard status propagates up to the top-level Hospitals Summary diagram. |

Example of status indicators in an alarm condition:



Intensive Care Room

Status: Hazard

IM.ICU

 Insulation Status

 Electrical Status

 Wiring Status

IFL.ICU

| | | | | | |
|--|-----|-------|--|-----|-------|
|  Circuit 01 | 200 | kohms |  Circuit 02 | 200 | kohms |
|  Circuit 03 | 200 | kohms |  Circuit 04 | 200 | kohms |
|  Circuit 05 | 200 | kohms |  Circuit 06 | 200 | kohms |
|  Circuit 07 | 200 | kohms |  Circuit 08 | 200 | kohms |
|  Circuit 09 | 200 | kohms |  Circuit 10 | 200 | kohms |
|  Circuit 11 | 200 | kohms |  Circuit 12 | 200 | kohms |

Room Details diagram

The Room Details diagram shows the details for the insulation monitoring and fault locator devices. For example:

■ ■ ■ ■ **Intensive Care Room**

IM.ICU

Status: Safe

Impedance (kohms) 300 kohms

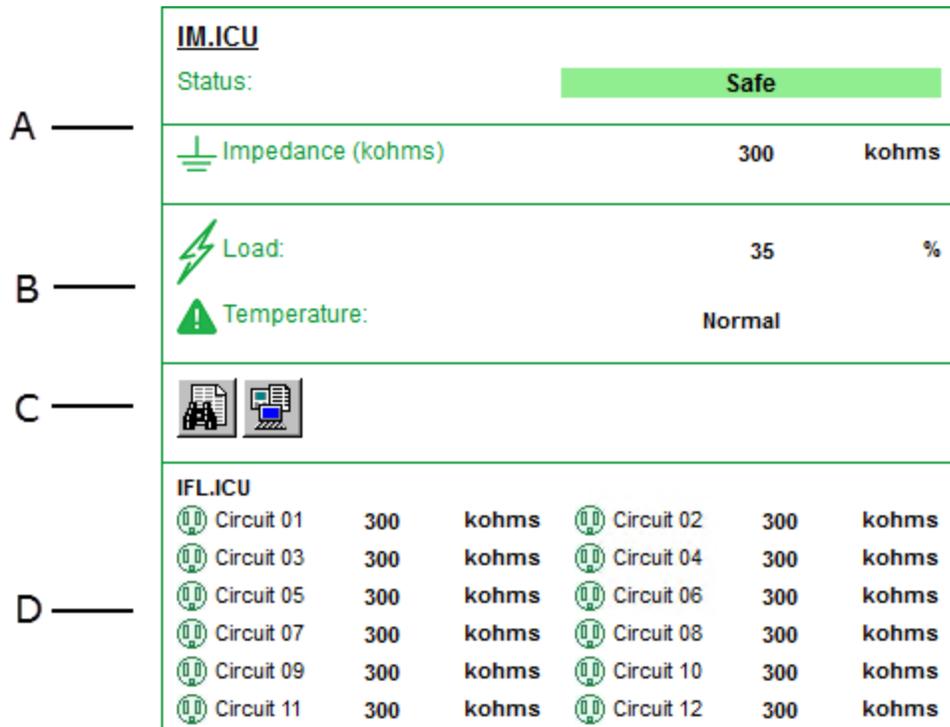
Load: 35 %

Temperature: Normal

IFL.ICU

| | | | |
|------------|-----------|------------|-----------|
| Circuit 01 | 300 kohms | Circuit 02 | 300 kohms |
| Circuit 03 | 300 kohms | Circuit 04 | 300 kohms |
| Circuit 05 | 300 kohms | Circuit 06 | 300 kohms |
| Circuit 07 | 300 kohms | Circuit 08 | 300 kohms |
| Circuit 09 | 300 kohms | Circuit 10 | 300 kohms |
| Circuit 11 | 300 kohms | Circuit 12 | 300 kohms |

The diagram shows the following details:



| | |
|----------|---|
| A | <p>Device Name – The group and name of the device in the room.</p> <p>Insulation Monitoring Device Status – The name and status of the insulation monitoring device. This indicator is either green "Safe" or red "Hazard."</p> <p>Impedance – The real-time measurement of the impedance to ground, in kilohms. If the impedance is lower than the threshold, the indicator turns orange. The impedance limit is set on the insulation monitoring device.</p> |
| B | <p>Transformer Indicators – The load and temperature status for the current transfer</p> <ul style="list-style-type: none"> • Load – If the current transformer load exceeds the threshold, this indicator turns red and displays the real-time load percentage value. • Temperature – If the current transformer temperature rises above the safe threshold, this indicator turns red and the status changes to "High." |
| C | <p>Event Log and Data Log – Contains links to the historical data log and event log for the panel measurements. See Data logs for more information.</p> |
| D | <p>Circuit Status – Appears only if the optional Insulation Fault Locator (IFL) device is installed. This area shows the status for each circuit being monitored. If the IFL detects a resistance fault, the circuit monitor identifies the specific circuit and the circuit indicator turns red. When any indicator turns red, the hazard status propagates up to the top-level Hospitals Summary diagram.</p> |

Example of status indicators in an alarm condition:

IM.ICU

Status: Hazard

 Impedance (kohms) 300 kohms

 Load: 90 %

 Temperature: High




IFL.ICU

| | | | |
|--|-----------|--|-----------|
|  Circuit 01 | 300 kohms |  Circuit 02 | 300 kohms |
|  Circuit 03 | 300 kohms |  Circuit 04 | 300 kohms |
|  Circuit 05 | 300 kohms |  Circuit 06 | 300 kohms |
|  Circuit 07 | 300 kohms |  Circuit 08 | 300 kohms |
|  Circuit 09 | 300 kohms |  Circuit 10 | 300 kohms |
|  Circuit 11 | 300 kohms |  Circuit 12 | 300 kohms |

Data logs

When you need details about circuit measurements and details, the Room Details diagram provides links to the historical data log and the event log. These logs provide measurement data for the 15-minute polling interval of the Vigilohm IM20-H. You can filter the data in the logs by date range.

Historical data log

The following image shows the historical log table from the Power Monitoring Expert view:

Device Diagram
Change Date Range
Show Graph

| Node | Timestamp | Resistance Maximum kohms | Resistance Mean kohms | Transformer Load Current % Mean | Transformer Load Current % Maximum |
|-------------------|--------------------------|--------------------------|-----------------------|---------------------------------|------------------------------------|
| OT_Group.IM20H_01 | 4/3/2013 12:15:00.000 PM | 500.000 | 500.000 | 37.904 | 38.355 |
| OT_Group.IM20H_01 | 4/3/2013 12:00:00.000 PM | 500.000 | 500.000 | 37.863 | 38.256 |
| OT_Group.IM20H_01 | 4/3/2013 11:45:00.000 AM | 500.000 | 500.000 | 37.732 | 38.455 |
| OT_Group.IM20H_01 | 4/3/2013 11:30:00.000 AM | 500.000 | 500.000 | 37.909 | 38.660 |
| OT_Group.IM20H_01 | 4/3/2013 11:15:00.000 AM | 500.000 | 500.000 | 37.849 | 38.320 |
| OT_Group.IM20H_01 | 4/3/2013 11:00:00.000 AM | 500.000 | 500.000 | 37.705 | 38.560 |
| OT_Group.IM20H_01 | 4/3/2013 10:45:00.000 AM | 500.000 | 500.000 | 37.687 | 37.997 |
| OT_Group.IM20H_01 | 4/3/2013 10:30:00.000 AM | 500.000 | 500.000 | 37.658 | 38.092 |
| OT_Group.IM20H_01 | 4/3/2013 10:15:00.000 AM | 500.000 | 500.000 | 38.089 | 38.405 |
| OT_Group.IM20H_01 | 4/3/2013 10:00:00.000 AM | 500.000 | 500.000 | 37.837 | 38.286 |
| OT_Group.IM20H_01 | 4/3/2013 9:45:00.000 AM | 500.000 | 500.000 | 37.931 | 38.329 |
| OT_Group.IM20H_01 | 4/3/2013 9:30:00.000 AM | 500.000 | 500.000 | 38.065 | 38.491 |
| OT_Group.IM20H_01 | 4/3/2013 9:15:00.000 AM | 500.000 | 500.000 | 37.799 | 38.106 |
| OT_Group.IM20H_01 | 4/3/2013 9:00:00.000 AM | 500.000 | 500.000 | 37.363 | 38.120 |
| OT_Group.IM20H_01 | 4/3/2013 8:45:00.000 AM | 500.000 | 500.000 | 36.773 | 37.036 |
| OT_Group.IM20H_01 | 4/3/2013 8:30:00.000 AM | 500.000 | 500.000 | 36.563 | 37.142 |
| OT_Group.IM20H_01 | 4/3/2013 8:15:00.000 AM | 500.000 | 500.000 | 36.367 | 36.661 |
| OT_Group.IM20H_01 | 4/3/2013 8:00:00.000 AM | 500.000 | 500.000 | 36.406 | 36.854 |

The buttons located at the top of the table are:

- **Device Diagram** – Click this to return to the diagram.
- **Change Date Range** – Click this to view data for different dates. See "Select Date Range" below for more information.
- **Show Graph** – Select one or more column headers in the table and then click **Show Graph** to see a graph of the data. The graph shows the data at 5-minute intervals.

The following figure shows the historical log table from the Vista client view:

| [User Diagram:Room Details - Room_01] | | | | | | |
|---------------------------------------|--------------|----------------------------|--------------------------|-----------------------|---------------------------------|------------------------------------|
| | Node | Timestamp | Resistance Maximum kohms | Resistance Mean kohms | Transformer Load Current % Mean | Transformer Load Current % Maximum |
| 1 | IEC.IM20H_01 | 03/12/2013 08:45:00.000 AM | 500 | 500 | 32.354 | 33.002 |
| 2 | IEC.IM20H_01 | 03/12/2013 08:30:00.000 AM | 500 | 500 | 32.255 | 32.884 |
| 3 | IEC.IM20H_01 | 03/12/2013 08:15:00.000 AM | 500 | 500 | 32.175 | 32.936 |
| 4 | IEC.IM20H_01 | 03/12/2013 08:00:00.000 AM | 500 | 500 | 32.15 | 32.967 |
| 5 | IEC.IM20H_01 | 03/12/2013 07:45:00.000 AM | 500 | 500 | 32.118 | 32.871 |
| 6 | IEC.IM20H_01 | 03/12/2013 07:30:00.000 AM | 500 | 500 | 32.14 | 32.882 |
| 7 | IEC.IM20H_01 | 03/12/2013 07:15:00.000 AM | 500 | 500 | 32.153 | 32.796 |
| 8 | IEC.IM20H_01 | 03/12/2013 07:00:00.000 AM | 500 | 500 | 32.065 | 32.676 |
| 9 | IEC.IM20H_01 | 03/12/2013 06:45:00.000 AM | 500 | 500 | 31.995 | 32.823 |
| 10 | IEC.IM20H_01 | 03/12/2013 06:30:00.000 AM | 500 | 500 | 32.26 | 32.821 |
| 11 | IEC.IM20H_01 | 03/12/2013 06:15:00.000 AM | 500 | 500 | 32.278 | 32.899 |
| 12 | IEC.IM20H_01 | 03/12/2013 06:00:00.000 AM | 500 | 500 | 32.22 | 33.067 |
| 13 | IEC.IM20H_01 | 03/12/2013 05:45:00.000 AM | 500 | 500 | 32.132 | 32.812 |
| 14 | IEC.IM20H_01 | 03/12/2013 05:30:00.000 AM | 500 | 500 | 32.058 | 32.55 |
| 15 | IEC.IM20H_01 | 03/12/2013 05:15:00.000 AM | 500 | 500 | 31.992 | 32.972 |
| 16 | IEC.IM20H_01 | 03/12/2013 05:00:00.000 AM | 500 | 500 | 31.901 | 32.672 |
| 17 | IEC.IM20H_01 | 03/12/2013 04:45:00.000 AM | 500 | 500 | 31.926 | 32.558 |
| 18 | IEC.IM20H_01 | 03/12/2013 04:30:00.000 AM | 500 | 500 | 31.893 | 32.644 |
| 19 | IEC.IM20H_01 | 03/12/2013 04:15:00.000 AM | 500 | 500 | 31.871 | 32.479 |
| 20 | IEC.IM20H_01 | 03/12/2013 04:00:00.000 AM | 500 | 500 | 31.897 | 32.789 |
| 21 | IEC.IM20H_01 | 03/12/2013 03:45:00.000 AM | 500 | 500 | 31.885 | 32.413 |
| 22 | IEC.IM20H_01 | 03/12/2013 03:30:00.000 AM | 500 | 500 | 31.886 | 32.977 |
| 23 | IEC.IM20H_01 | 03/12/2013 03:15:00.000 AM | 500 | 500 | 31.968 | 33.343 |

Event Log

The following figure shows the event log table from the Power Monitoring Expert view:

| Device Diagram | | Change Date Range | | | | | | | | |
|-------------------|---------------|---------------------------|-------------------------|----------------------------------|-------------------------|-------------------------|----------|----------|-----------|--|
| Node | Log | Timestamp | Cause | Cause Value | Effect | Effect Value | Priority | Ack Time | User Name | |
| OT_Group.IM20H_01 | EventLogChl 1 | 4/2/2013 10:27:21.000 AM | Insulation Status Alarm | Insulation Status Alarm Inactive | Insulation Status Alarm | Insulation Status Alarm | 200 | - | - | |
| OT_Group.IM20H_01 | EventLogChl 1 | 4/2/2013 10:27:17.000 AM | Resistance kohms | Resistance Register Active | Insulation Status Alarm | Resistance reached 190 | 200 | - | - | |
| OT_Group.IM20H_01 | EventLogChl 1 | 3/25/2013 2:33:11.000 PM | Insulation Status Alarm | Insulation Status Alarm Inactive | Insulation Status Alarm | Insulation Status Alarm | 200 | - | - | |
| OT_Group.IM20H_01 | EventLogChl 1 | 3/25/2013 2:32:57.000 PM | Resistance kohms | Resistance Register Active | Insulation Status Alarm | Resistance reached 150 | 200 | - | - | |
| OT_Group.IM20H_01 | EventLogChl 1 | 3/25/2013 2:32:55.000 PM | Insulation Status Alarm | Insulation Status Alarm Inactive | Insulation Status Alarm | Insulation Status Alarm | 200 | - | - | |
| OT_Group.IM20H_01 | EventLogChl 1 | 3/25/2013 2:32:49.000 PM | Resistance kohms | Resistance Register Active | Insulation Status Alarm | Resistance reached 300 | 200 | - | - | |
| OT_Group.IM20H_01 | EventLogChl 1 | 3/25/2013 12:09:37.000 PM | Insulation Status Alarm | Insulation Status Alarm Inactive | Insulation Status Alarm | Insulation Status Alarm | 200 | - | - | |
| OT_Group.IM20H_01 | EventLogChl 1 | 3/25/2013 11:35:27.000 AM | Resistance kohms | Resistance Register Active | Insulation Status Alarm | Resistance reached 140 | 200 | - | - | |
| OT_Group.IM20H_01 | EventLogChl 1 | 3/25/2013 9:12:00.000 AM | Insulation Status Alarm | Insulation Status Alarm Inactive | Insulation Status Alarm | Insulation Status Alarm | 200 | - | - | |
| OT_Group.IM20H_01 | EventLogChl 1 | 3/25/2013 9:11:49.000 AM | Resistance kohms | Resistance Register Active | Insulation Status Alarm | Resistance reached 160 | 200 | - | - | |
| OT_Group.IM20H_01 | EventLogChl 1 | 3/25/2013 8:05:57.000 AM | Insulation Status Alarm | Insulation Status Alarm Inactive | Insulation Status Alarm | Insulation Status Alarm | 200 | - | - | |
| OT_Group.IM20H_01 | EventLogChl 1 | 3/25/2013 8:05:54.000 AM | Resistance kohms | Resistance Register Active | Insulation Status Alarm | Resistance reached 270 | 200 | - | - | |
| OT_Group.IM20H_01 | EventLogChl 1 | 3/25/2013 8:05:51.000 AM | Insulation Status Alarm | Insulation Status Alarm Inactive | Insulation Status Alarm | Insulation Status Alarm | 200 | - | - | |
| OT_Group.IM20H_01 | EventLogChl 1 | 3/25/2013 8:05:17.000 AM | Resistance kohms | Resistance Register Active | Insulation Status Alarm | Resistance reached 230 | 200 | - | - | |
| OT_Group.IM20H_01 | EventLogChl 1 | 3/22/2013 3:52:23.000 PM | Insulation Status Alarm | Insulation Status Alarm Inactive | Insulation Status Alarm | Insulation Status Alarm | 200 | - | - | |
| OT_Group.IM20H_01 | EventLogChl 1 | 3/22/2013 3:51:30.000 PM | Resistance kohms | Resistance Register Active | Insulation Status Alarm | Resistance reached 250 | 200 | - | - | |

The buttons located at the top of the table are:

- **Device Diagram** – Click this to return to the diagram.
- **Change Date Range** – Click this to view data for different dates. See "Select Date Range" below for more information.

Select date range:

For either type of log table, you can select the date range for data you want to see. The default date range is "Today".

1. Click **Select Date Range**.

Please select a date range

Today
 Yesterday
 This week
 Last week
 This month
 Last month

_____ OR _____

Between these dates:
 2013-Jan-31 00:00:00

 AND
 2013-Jan-31 23:59:59

Show Table

2. Select an available range or click **Between these dates** and select specific dates in the calendar.
3. Click **Show Table** to see the data.

If you select a date range of more than one week, a message appears to inform you that the table will be very long.

The new table appears.

Generating the Isolated Power Report

To generate a report:

1. In Reports, open the Report Library and navigate to the **Insulation Monitoring** folder
2. Click **Isolated Power Report (IEC)** to display the report in the Reports Display pane.
3. Set the input parameters for the report and click **Generate Report**.

NOTE: If you chose a report, then the saved input parameters are set to their saved values. If you chose a report template, then all input parameters are unselected or have generic default values.

4. The report output is displayed in the Reports Display pane.

Isolated Power Report (IEC)

NOTE: This report is part of the Insulation Monitoring Module. This Module requires a separate license.

The report shows the following information for the room:

- Impedance graph - Displays a comparison of impedance measurements to the impedance threshold. The impedance threshold is a blue line and actual measurements are shown as a green line. A red line shows the time when the impedance dropped below the threshold.
- Transformer load graph - Displays a comparison of transformer load measurements to the load threshold. The threshold is a blue line and actual measurements are shown with a green line. A red line shows the time when the load rose above the threshold.
- Events table - Shows information for each event that occurred in the date range.
- Data log table (optional) - Contains measurements for impedance, load, and temperature in the selected date range. Red values indicate measurements over the limit.

Prerequisites

- The Insulation Monitoring Module must be configured.
- The measurement data must be available as historical data logs in the database.

Report inputs

Title

Type a title for the report in the box.

Operating Room

The hospital rooms whose panels you want to include in the report.

Reporting Period

Use this input to select the timeframe for the data you want to view in the report.

Select the reporting period from the dropdown list. The timeframe options in the timeframe dropdown are relative to the date the report is run. To run a report that starts and ends in the past, select the fixed date option. Type a start and end date in the date boxes or click the arrows beside the dates to display a pop-up calendar and select a date. Type a time in the time boxes or click the up and down arrows beside the time to adjust the hours or minutes up or down.

Select whether you want to view timestamps in either Server Local Time, UTC (Universal Coordinated Time), or in the timezone of the source.

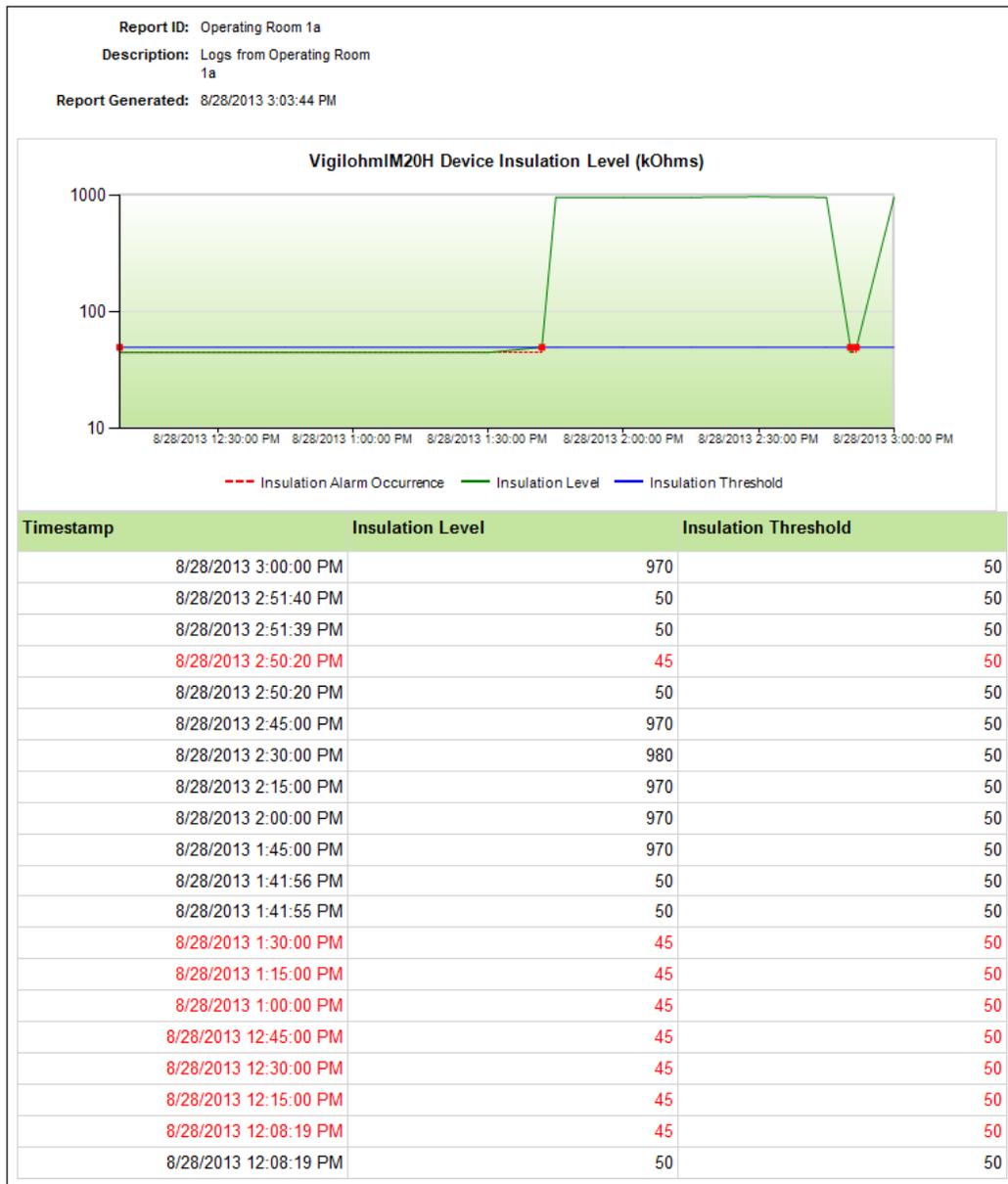
Include Data Table

Select whether or not to show the data table in the generated report. The default is **No**.

Include Data Warnings

Click **Yes** to include data warnings in the report. If there are none, the section is not included. Click **No** to exclude this section.

Example:



NOTE: This example only shows selected pages from the report, it does not show the entire report.

Schneider Electric
35 rue Joseph Monier
92500 Rueil Malmaison – France

Phone: +33 (0) 1 41 70 00
www.schneider-electric.com

As standards, specifications, and designs change from time to time, please
ask for confirmation of the information given in this publication.

© 2019 Schneider Electric. All Rights Reserved.

7EN02-0412-01 01/2019