30, 50, and 60 Amp PanView iQ™ (PViQ™) Switched with Per Outlet Monitoring and Environmental Power Outlet Units

PANDUIT®

SPECIFICATION SHEET

specifications

PViQ™ Power Outlet Units shall integrate with the Panduit® PIM™ Software Platform to enable intelligent management of the in-cabinet power usage. This system helps to quickly identify and resolve power issues, find and reclaim available or underutilized power capacity and automate collection of real-time and accurate power information. The units shall have the ability to power cycle individual outlets or a group of outlets on or off to reboot equipment. They shall have remote per outlet monitoring for power consumption and environmental capability to monitor temperature, airflow, humidity or dew point. The units are capable of mounting vertically to the Net-Access™ Cabinet, Net-SERV® Cabinet or Panduit 4 post racks. The vertical power outlet units shall have 30, 50, and 60 amp circuits, which have multiple outlet options with standard IEC compliant locking receptacles. Power outlet units shall have a black powder-coated finish, with a 10 foot cord utilizing NEMA, California and IEC style plugs. Installed units shall allow quick and easy firmware updates.

technical information

Dimensions:	QL1A1M2BM24C1: 70.0"H x 2.5"W x 2.3"D (1778mm x 64mm x 57mm) QL1B1L2BN24AA1: 70.0"H x 2.5"W x 2.3"D (1778mm x 64mm x 57mm) QL1B1N3BN2401: 72.0"H x 2.5"W x 2.3"D (1829mm x 64mm x 57mm) QL1B1P3BN2401: 72.0"H x 2.5"W x 2.3"D (1829mm x 64mm x 57mm) QL1B1P3BN2491: 72.0"H x 2.5"W x 2.3"D (1829mm x 64mm x 57mm) QL1D1Q3BN2401: 72.0"H x 2.5"W x 2.3"D (1829mm x 64mm x 57mm) QL1B2T6BN2491: 66.3"H x 4.0"W x 3.4"D (1829mm x 64mm x 57mm) QL1B2G6BN2491: 66.3"H x 4.0"W x 3.4"D (1829mm x 64mm x 57mm)
Power outlet unit mounting:	Vertical power strips provide multiple outlets and do not occupy any rack spaces
Power outlet unit packaging:	All power outlet units include 10' power cords, mounting brackets, screws, and tool-less button mounting

key features and benefits

Remote switching capability	Power cycle individual outlets or a group of outlets on or off to reboot equipment or power off individual outlets to stop unauthorized use
Per outlet monitoring	Provides data to determine if power allocations are accurate and the efficiency metric of any server in the data center allowing individual servers to be identified as candidates for additional capacity, redeployment or decommissioning, improving overall data center efficiency
Time delay sequencing	To avoid circuit overload due to high in rush current at equipment start up
Remote access to power consumption data	Web-based GUI provides global network access to real-time power information to improve data center energy efficiency and reduce operating costs through analysis of power usage and trends
Integrates with Panduit® PIM™ Software	Aggregates power and environmental information through a single web based GUI to facilitate easy analysis of data
Environmental monitoring	Measure in-cabinet temperature, humidity, airflow, and dew point remotely to prevent environmental factors that can cause equipment to overheat or malfunction
Alarm messaging capability	Provides user-defined alarm/messaging capabilities for specific events that exceeded thresholds to help minimize network downtime
Locking IEC receptacles	Support and retain any standard IEC power cords preventing unintentional power loss
Certification/agency approvals	Complies with UL and c-UL Listed 60950
Integrated power	On board display has 2 line x 8 character LCD providing real-time power consumption at the power strip
Outlet status	Each outlet has a green LED for indication if the outlet is on or off for easy visual identification

applications

Panduit® PViQ™ Switched Power Outlet Units can either be utilized standalone for smaller installations or seamlessly feed information directly into the Physical Infrastructure Manager™ (PIM™) Software Platform for larger data centers. The PViQ™ POUs provide continuous real-time power and environmental monitoring via the network for enhanced system management and reliability.

The PViQ™ POUs safely and efficiently manage and distribute power to allow multiple pieces of equipment to share a single power connector to enhance scalability of network build outs. Mounting flexibility allows quick and easy installation and when used with Panduit® Net-Access™ and Net-SERV® Cabinets the user receives a complete networking solution that will satisfy data center requirements today and into the future.

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PIM™ Software Platform and Modules	
Base functionality module:	PIM-BASE
Power module:	PIM-POWER
PViQ™ C14 Power Cord Adapters	
US:	PVQ-C14ADPTR-S
Japan:	PVQ-C14ADPTR-J
Vertical Single Phase, 120V, 30A, 24 5-15 NEMA Receptacles	
Outlet monitoring:	QL1A1M2BM24C1
Vertical Single Phase, 208V, 30A, 20 IEC 13 and 4 IEC-19 Locking Receptacle	
Outlet monitoring:	QL1B1L2BN24AA1
Vertical 3~ 3 208V, 30A, 21 IEC-13\ and 3 IEC-19 Outlets	
Outlet monitoring:	QL1B1N3BN2401
Vertical 3~ WYE 208V, 30A, 21 IEC-13 and 3 IEC-19 Outlets	
Outlet monitoring:	QL1B1P3BN2401
Vertical 3~ WYE 208V, 30A,18 IEC-13 and 6 IEC-19 Outlets	
Outlet monitoring:	QL1B1P3BN2491
Vertical 3~ WYE 230/400V 30A, 21 IEC-13 and 3 IEC-19 Locking Receptacles	
Phase monitoring:	QL1D1Q3BN2401
Vertical 3~ Delta 208V, 50A, 18 IEC-13 and 6 IEC-19 Locking Outlets	
Phase monitoring (X, Y, Z):	QL1B2T6BN2491
Vertical 3~ Delta 208V, 60A, 18 IEC-13 and 6 IEC-19 Locking Outlets	
Phase monitoring (X, Y, Z):	QL1B2G6BN2491
PViQ™ Remote Display Monitor	
10' cord:	PVQ-RD
PViQ™ Environmental Sensors	
Temperature	
12' cord:	PVQ-EST-12
18' cord:	PVQ-EST-18
Temperature, humidity, airflow, dew point,	
12' cord:	PVQ-ESTAFHD-12
18' cord:	PVQ-ESTAFHD-18
Door position 30' cord:	PVQ-ESDPK
Water sensor 20' cord:	PVQ-ESWK
PViQ™ Environmental Splitter	
RJ12 five-way:	PVQ-ESP-5
Net-Access™ Server Cabinet	
32"W x 45 RU:	CS1, CS2 and CS3
Net-Access™ Switch Cabinet	
32"W x 45 RU:	CN1, CN2 and CN3
Net-SERV® High Density Server Cabinet with Solid Side Panels	
28"W x 42 RU:	S722C122H
28"W x 45 RU:	S752C122H
24"W x 42 RU:	S622C122H
24"W x 45 RU:	S652C122H
Net-SERV® Standard Density Server Cabinet with Solid Side Panels	
28"W x 42 RU:	S722C122F
28"W x 45 RU:	S752C122F
24"W x 42 RU:	S622C122F
24"W x 45 RU:	S652C122F
Net-SERV® Vertical Patch Panel Server Cabinet with Solid Side Panels	
28"W x 42 RU:	S722C122P
28"W x 45 RU:	S752C122P
Net-SERV® Vertical Exhaust Duct Server Cabinet with One Solid Side Panel	
28"W x 42 RU:	S722C131HV
28"W x 45 RU:	S752C131HV
24"W x 42 RU:	S622C131HV
24"W x 45 RU:	S652C131HV
Power Cord C13 – C14 End	
1.5 foot:	PC14C13BL1.5
2 foot:	PC14C13BL2
3 foot:	PC14C13BL3

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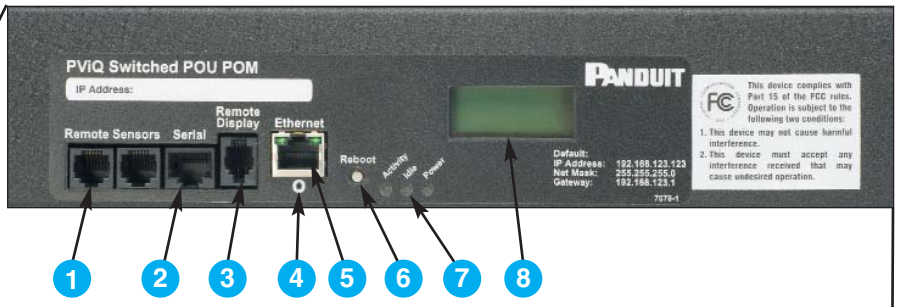

1 Remote Sensors
- Two RJ12 connector ports to monitor the environmental conditions
- Receive SNMP-based or email alert notifications when environmental conditions exceed defined thresholds

2 Serial Port
- You can use a local computer that connects to the POU or other device through the (serial port) to access the command line interface.

3 Remote Display 2 line x 8 character LCD (sold separately part number PVQ-RD)
- Based on checked sensor items selected on the Logging screen, the monitor will scroll through and display each measurement
- Can be mounted separate from the unit
- Provides real-time power consumption at the power strip, for improved power manageability and network reliability
- Scrolls through the most recent current measurement (in amps) for each circuit, one at a time
- Local audible alarm sounds when threshold limits have been reached

4 IP Reset
- Resets the IP address

5 Network Connection
- RJ45 connections for remote power monitoring

6 Reboot the POU
- If communication is lost, the processor may be manually rebooted without affecting power to the outlets.

7 POU Lights
- Activity and Idle lights will light up when the reset button is used to restore the default IP address. Power light indicates unit is on.

8 Local Display 2 line x 8 character LCD
- Based on checked sensor items selected on the Logging screen, the monitor will scroll through and display each measurement
- Provides real-time power consumption at the power strip, for improved power manageability and network reliability
- Scrolls through the most recent current measurement (in amps) for each circuit, one at a time

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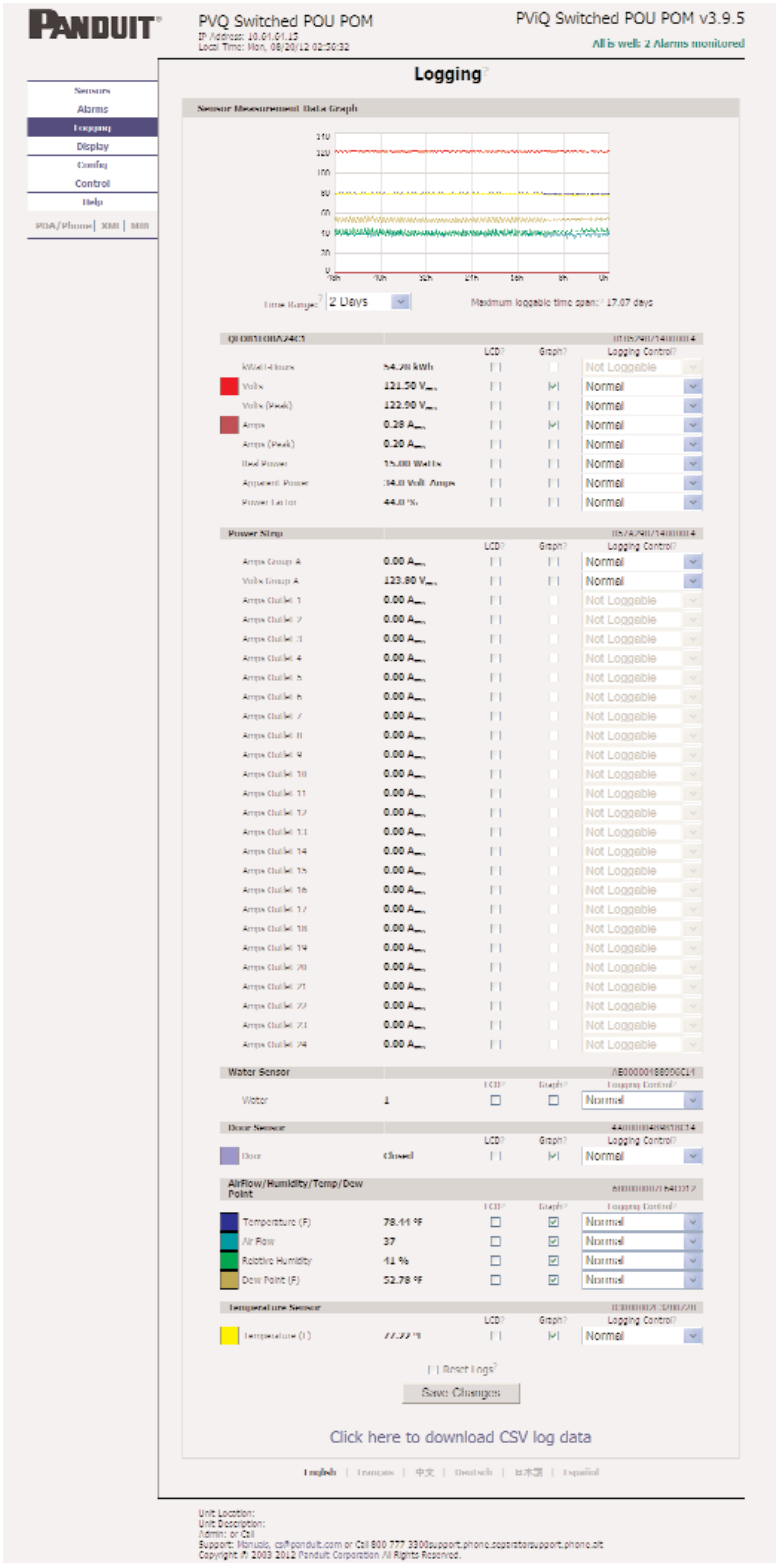
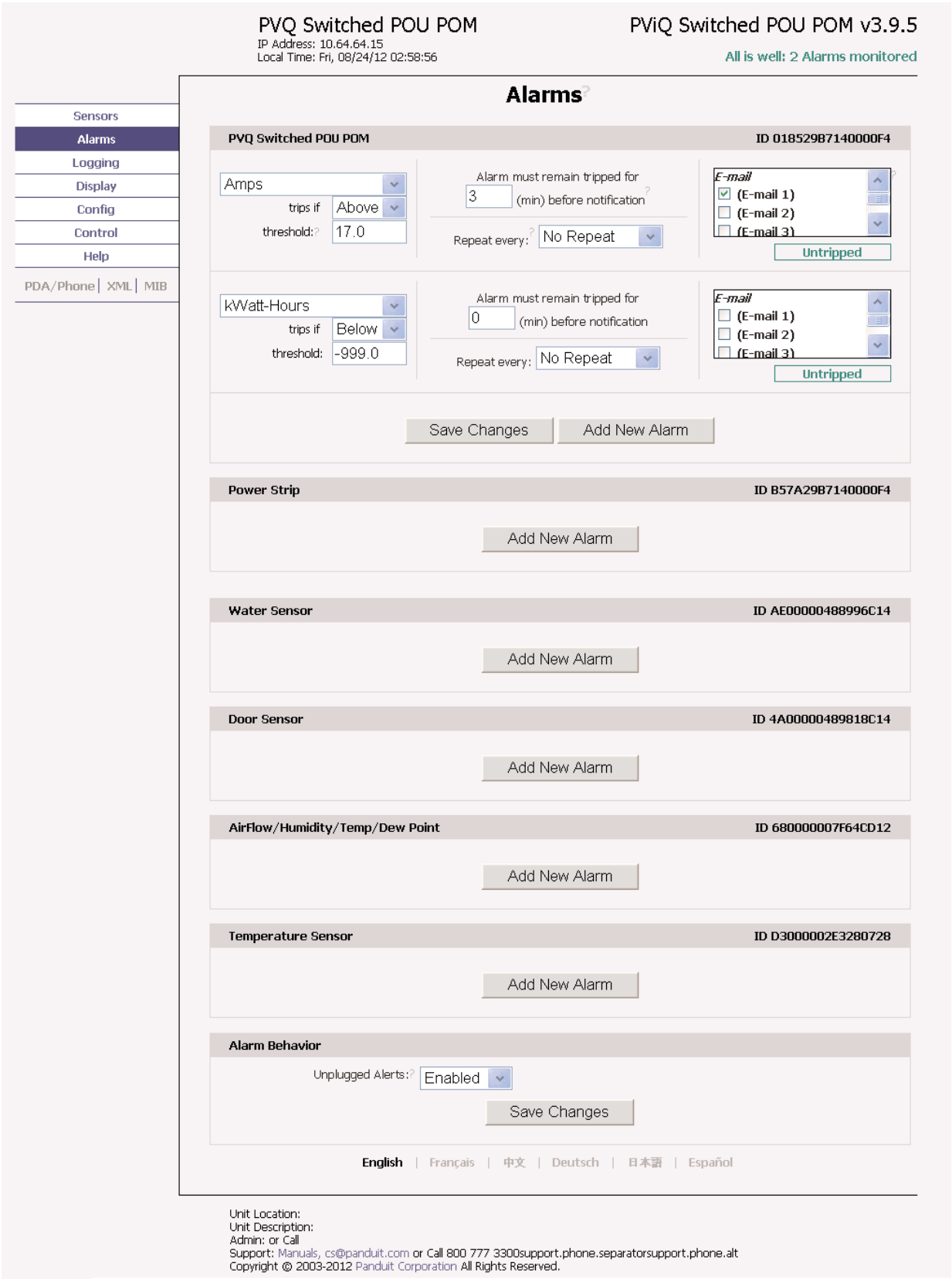
Sensors

- Provides real time current power information via a standard web browser
- Real time readings provide power and sensor data graphed
- Alternate formats for data can be downloaded in PDA, XML and SNMP formats



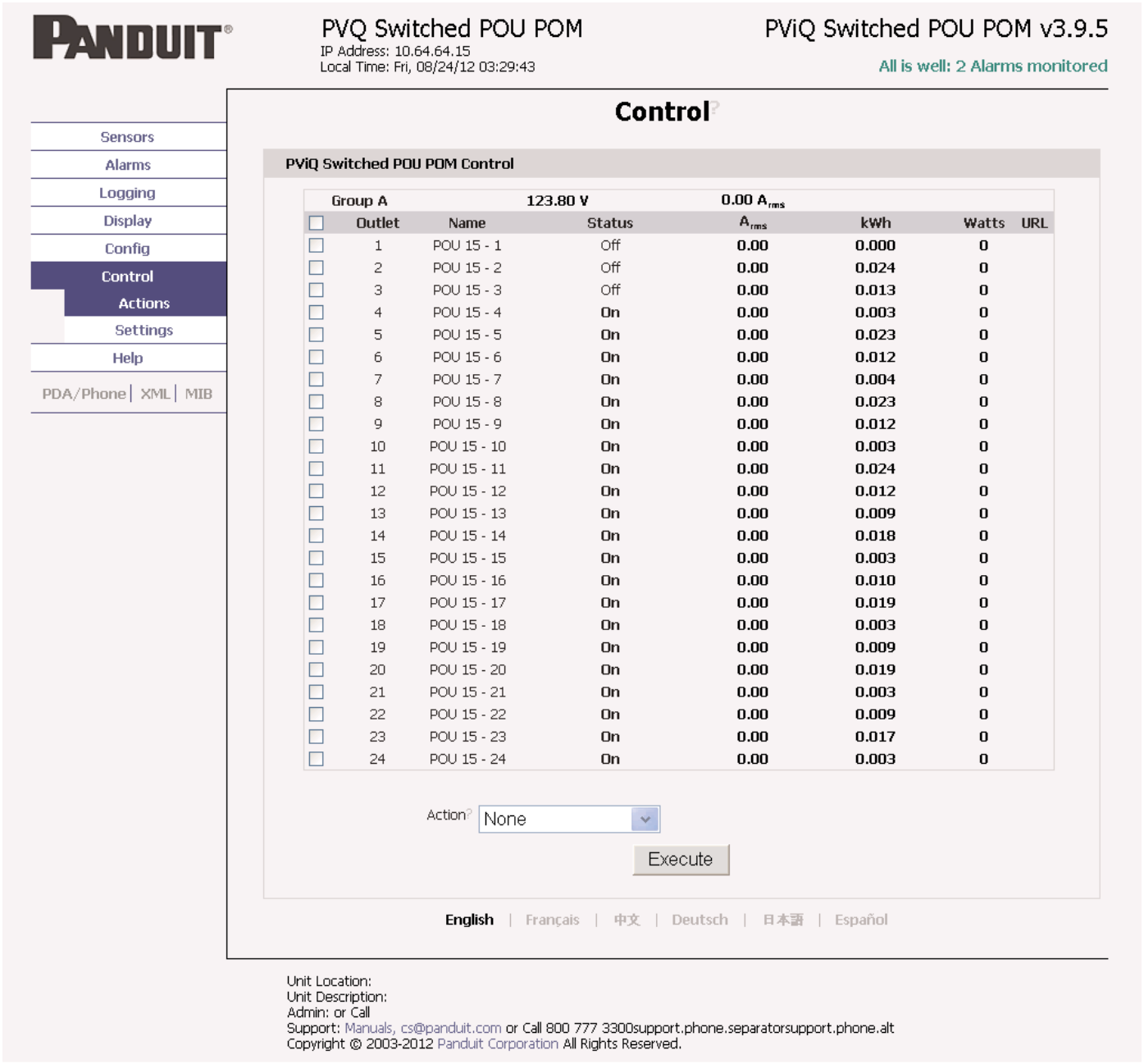
Logging

- Check boxes under the LCD or graph heading allow the user to select which readings are to be on the local meter
- Logging Control allows the user to select between different modes of logging data, data logged once per minute, high value logged each minute or low value logged each minute
- Provides historical data by selecting the desired sensors and time range to be graphed
- Checked readings in the Logged Measurements section are logged into the data file at a rate of one point per minute and will be available for graphing and display
- Recorded data is available for download in a comma-separated values (CSV) filed



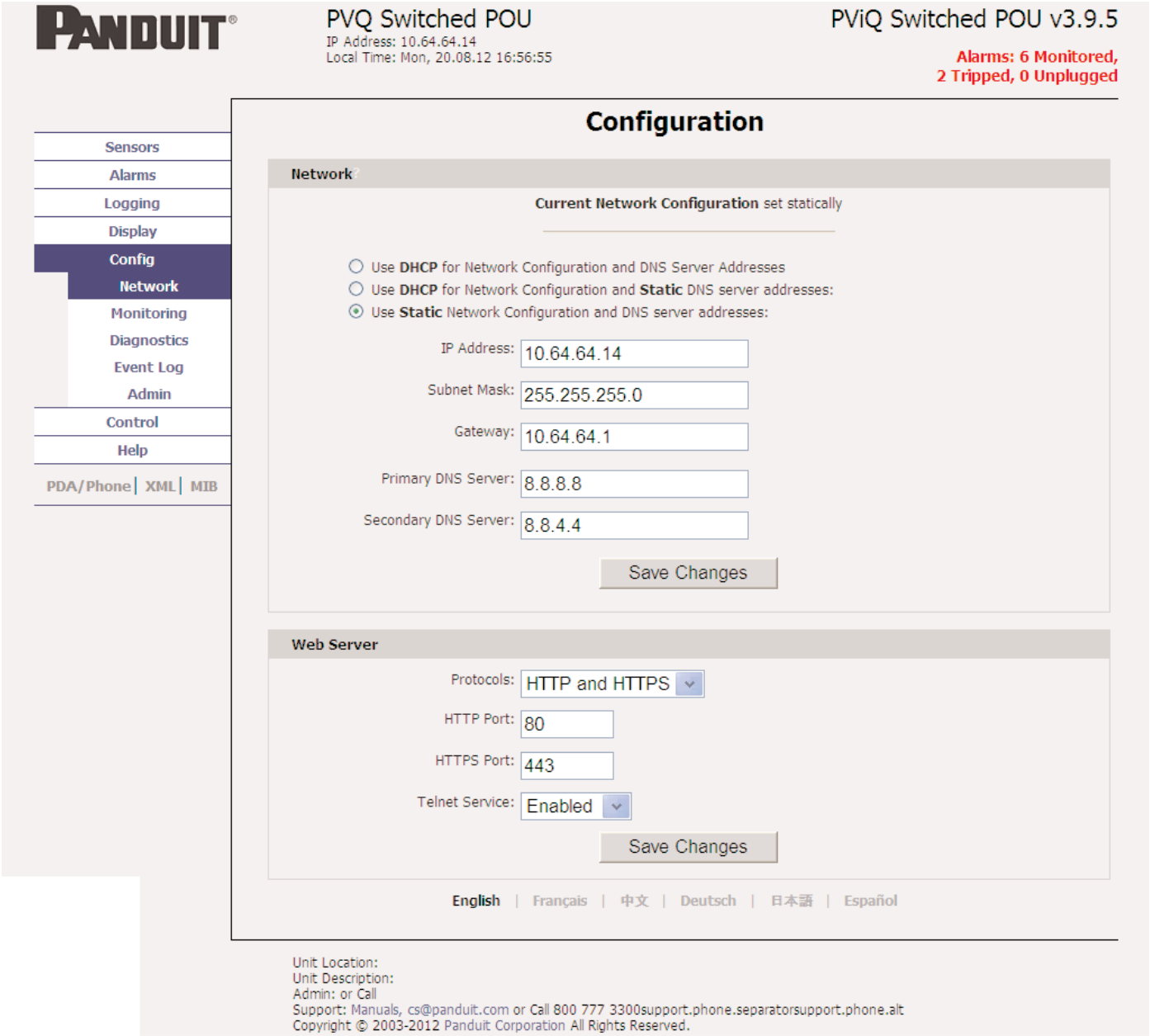
Alarms

- Alarm status provided if defined thresholds are greater than entered
- Allows the user to establish alarm conditions for each sensor reading
- Alarm conditions can be established with either high or low trip thresholds



Control

- The Actions tab on the Control page gives the user control of the outlets
- Outlets can be rebooted or turned on/off with or without pre-programmed delays



Configuration

- Simple network configuration for easy setup

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PVQ-EST-12 and PVQ-EST-18

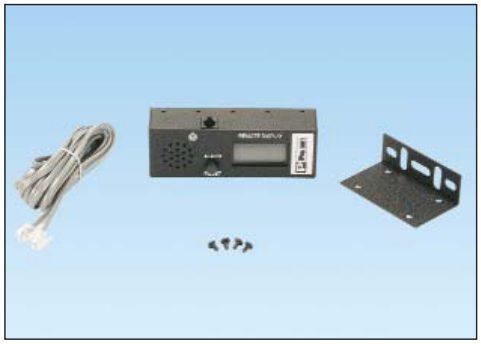
Temperature range: -40°F to 254°F
Accuracy: +/- 1.8°F from 40°F to 122°F
Monitor “hot spots” throughout your installation.
Available in 12 and 18 foot lengths.

PVQ-ESTAFHD-12 and PVQ-ESTAFHD-18

Temperature range: -40°F to 254°F
Accuracy: +/- 9°F from 50°F to 185°F
Airflow: 0-99 – relative
Humidity: RH Accuracy +/- 2% RH
Range: 0 to 100% RH, non-condensing
Single cord monitors four environmental conditions.
Available in 12 and 18 foot lengths.

PVQ-ESP-5

Expand the number of sensors connected to your unit with RJ12 sensor ports.



PVQ-RD

The local display can be mounted outside the cabinet for ease of viewing power/environmental data without opening the cabinet.

PVQ-ESWK

Environmental water sensor, 20' cord. Acts as a conductivity bridge to detect the presence of moisture or water in your facility.

PVQ-ESDPK

Door position sensor, 30' cord. Monitor cabinet door position open or closed. Set alarms to alert when a cabinet has been accessed.

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