



**OPERATING MANUAL
AC POWER DISTRIBUTION UNITS
VIGILANT SERIES**

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Manual No. PDUAC1USM-2
pduac1us-man-rev2-0115.indd

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OPERATING MANUAL

VIGILANT SERIES

1.0 INTRODUCTION

The VIGILANT Series is a family of Internet ready Power Distribution Units (PDU) designed and is equipped with an intelligent current-meter (True RMS) that will indicate the total power consumption of the connected loads.

These PDUs offer easy to set up user-friendly communication software which provides the functions to assist network manager in remotely monitoring multiple PDU power consumption for the entire enterprise.

Features:

- Built-in web server, the network manager can monitor the current consumption of the PDU in real time.
- Build-in true RMS current meter.
- Easy setup, the meter can display the IP address directly.
- Homepage supports SSL.
- Provides an audible alarm when power consumption is in excess of preset warning and overload limits.
- Can send emails and SNMP Alarm Traps when the power consumption exceeds the above limits.
- The supplied software utility can monitor a large number of PDUs at the same time.
- SNMP support with provided MIB allows for the PDU to be monitored by a NMS.
- Real time to control of individual outlets.
- LED outlets status indication.
- Power on sequencing.

2.0 PDU PACKAGE

The standard package contains a VIGILANT Series PDU with supporting hardware and software. The components of the package are:

- Power Distribution Unit.
- Rack mount Brackets.
- CD-ROM containing:
 - User Manual.
 - PDU Software.
 - MIB: Management Information Base for Network. (PDUMIB.mib)
 - Adobe Acrobat Reader.

3.0 FUNCTION

Interface

True RMS Current
 Meter



Functions	Description
Ethernet	RJ45 port for network communication port.
Audible Alarm	Warning - 1 beep in 1 second. Overload - 3 beeps in 1 second. Note: The audible alarm will keep beeping until the current returns to normal and is also at least 0.5A lower than the alarm threshold.
Function Button	● Press and release to turn off the warning beep. The overload beep cannot be cancelled. ● Press and hold the key for 1 beep; the meter shows the total current. ● Press and hold the key for 2 beeps; the meter shows the IP address ● Press and hold the key for 4 beeps; sets DHCP ON or OFF. Note that VIGILANT Series PDUs are shipped with DHCP set to ON. ● Press and hold the key for 6 beeps; Resets the PDU back to it's default settings.
Meter	3 digits to display current or IP Address.

LED Indicator	SSL (yellow): Light on means web access is protected by SSL.
	DHCP (Green): Light on means the PDU gets its IP address through DHCP.
	A - H (Green): Indicates the status of each outlet.
Circuit Breaker	Overload power protection. Push to reset.

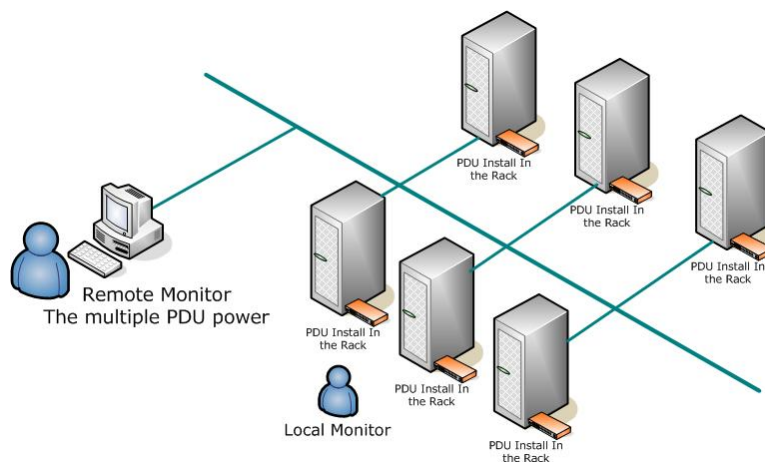
4.0 INSTALLATION

This section provides quick instructions to install the PDU.

Rack Mount Instructions

- A) Elevated Operating Ambient - If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature specified by the manufacturer.
- B) Reduced Air Flow - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.
- C) Mechanical Loading - Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.
- D) Circuit Overloading - Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on over current protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.
- E) Reliable Earthing - Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips).

Diagram



Hardware

1. Install mounting brackets.

The PDU comes with brackets for mounting in a rack. To mount the PDU into a rack perform the following procedure:

Attach the mounting brackets to the unit, using the four retaining screws provided for each of the brackets.

Choose a location for the brackets.

Align the mounting holes of brackets with the notched hole on the vertical rail and attach with the retaining screws.

2. Connect input and output power.
3. Connect Ethernet cable to the PDU.
4. Switch on the PDU.

Note 1:

The default setting for obtaining an IP address is via DHCP. If a DHCP server is not available the IP address can be programmed as desired manually using a PC set to the same network segment and connected with a cross-over Ethernet cable. The default IP address is 192.168.0.216.

Note 2:

TO SETUP THE NETWORK SYSTEM FOR VIGILANT PDUs, IT IS STRONGLY RECOMMENDED TO BUILD UP THE POWER MONITORING NETWORK ISOLATED FROM ANY OTHERS.

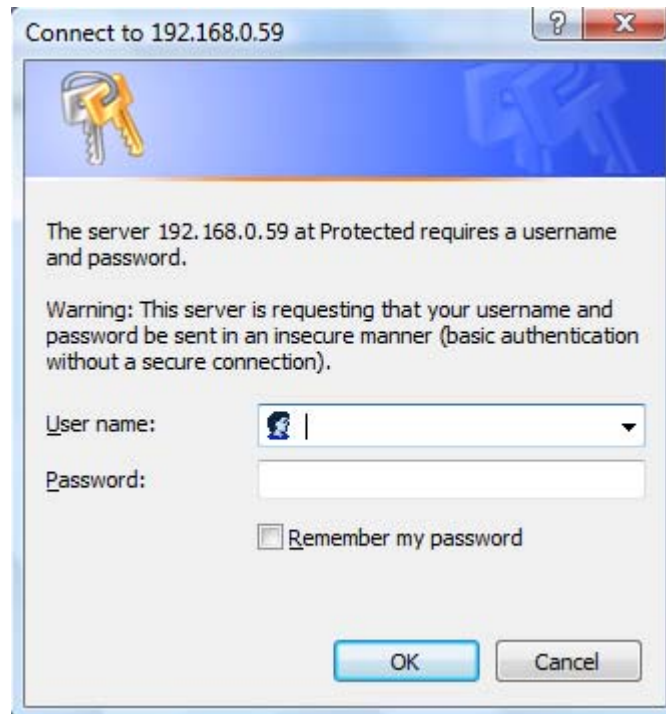
5.0 WEB INTERFACE

Login:

Enter the PDU IP address in a web browser in the format `http://192.168.0.216`

Default ID is snmp.

Password is 1234.



Information: PDU

Displays the total PDU load current as well as the WARNING and OVERLOAD threshold settings.

 PDU		
Total load: 0.0 A , Status: Normal		
Information	PDU	
PDU	PDU	0.0 A Normal
System		
Control	Threshold	
Outlet	Warning	8.0 A
Configuration	Overload	10.0 A
PDU		
Threshold		
User		
Network		
Mail		
SNMP		
SSL		

Information: System

Indicates PDU system information, including:

Model No.

Firmware Version

MAC Address

System Name

System Contact

Location

 PDU		
Total load: 0.0 A , Status: Normal		
Information	Model No.	XXXXXXXXXXXX
PDU	Firmware Version	s4.82-091012-1cb08s
System	MAC Address	00:16:18:77:04:51
Control	System Name	PDU
Outlet	System Contact	Admin
Configuration	Location	Office
PDU	Apply	
Threshold		
User		
Network		
Mail		
SNMP		
SSL		

Control: Outlet

Indicates PDU outlet on/off status and controls each outlet.

Select the outlet by checking the box and then click ON or OFF button to control the outlet.

ON: Press the icon to turn on the assigned outlets.

OFF: Press the icon to turn off the assigned outlets.

OFF / ON: Press the icon to reboot the assigned outlets.

 **PDU**

Total load: 0.0 A , Status: Normal

Information	Outlet Name	Status	
PDU	OutletA	ON	☐
System	OutletB	ON	☐
Control	OutletC	ON	☐
Outlet	OutletD	ON	☐
Configuration	OutletE	ON	☐
PDU	OutletF	ON	☐
Threshold	OutletG	ON	☐
User	OutletH	ON	☐
Network	ON OFF OFF/ON		
Mail			
SNMP			
SSL			

Configuration: PDU

Sets the outlet name and delay time.

Name: Rename the outlet.

ON: Set delay time for power on sequencing.

OFF: Set delay time for power off sequencing.

Click on the appropriate **APPLY** button to lock in the new settings.

Note: The maximum delay time is 255 seconds.

 PDU			
Total load: 0.0 A , Status: Normal			
Information			
PDU			
System			
Control			
Outlet			
Configuration			
PDU			
Threshold			
User			
Network			
Mail			
SNMP			
SSL			
	OutletA	1	1
	OutletB	2	2
	OutletC	3	3
	OutletD	4	4
	OutletE	5	5
	OutletF	6	6
	OutletG	7	7
	OutletH	8	8
	Apply	Apply	Apply

Configuration: Threshold

Sets the warning and overload threshold.

Click on the **APPLY** button to lock in the new settings.

 **PDU**

Total load: 0.0 A , Status: Normal

Information	Name	Threshold (Amp)	
		Warning	Overload
PDU	PDU	8	10
System			
Control		Apply	
Outlet			
Configuration			
PDU			
Threshold			
User			
Network			
Mail			
SNMP			
SSL			

Configuration: User

Change ID and password.

Default ID is **snmp** and password is **1234**.

Click on the **APPLY** button to lock in the new settings.

 **PDU**

Total load: 0.0 A , Status: Normal

Information	Original
PDU	ID
System	Password
Control	New
Outlet	ID
Configuration	Password
PDU	Apply
Threshold	
User	
Network	
Mail	
SNMP	
SSL	

Configuration: Network

PDU network information

Enable DHCP: When checked the PDU will obtain it's IP from the server.

Click on the **APPLY** button to lock in the new settings.

 PDU	
Total load: 0.0 A , Status: Normal	
Information PDU System	IP Address Host Name DIGIBOARD IP Address 192.168.0.85 Subnet Mask 255.255.255.0 Gateway 192.168.0.254 ☒ Enable DHCP
Control Outlet	
Configuration PDU Threshold User Network Mail SNMP SSL	DNS Server IP Primary DNS IP 192.168.0.254 Secondary DNS IP 0.0.0.0 Apply

Configuration: Mail

When an event occurs, the PDU can send out an email message to a pre-defined account.

Email Server: Enter the Mail Server's Domain Name.

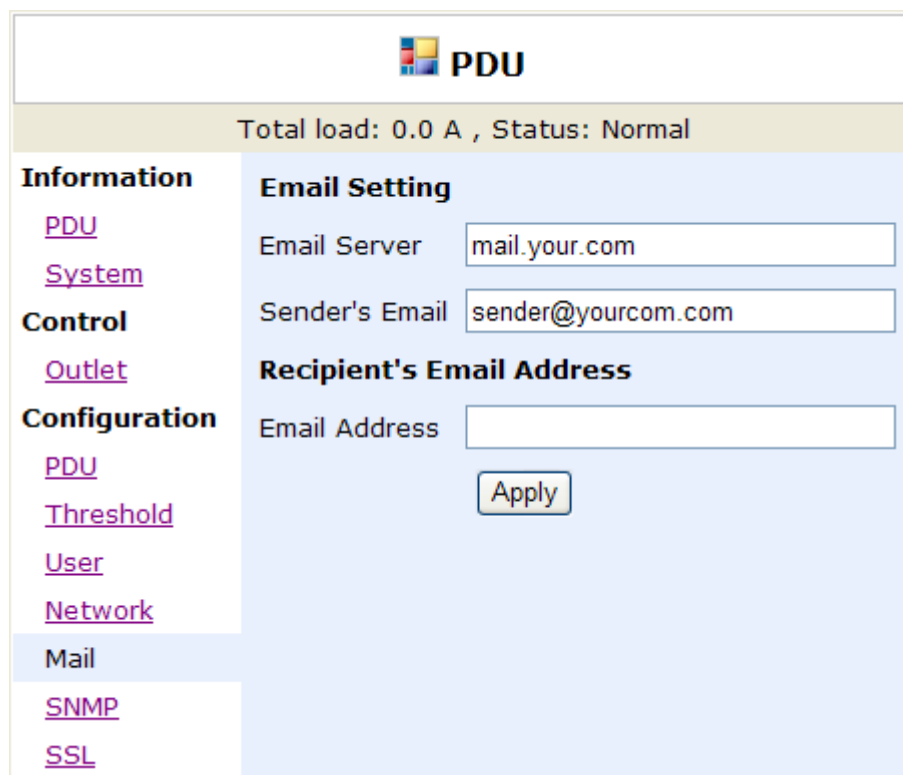
Sender's Email: Enter the sender email address.

Email Address: Enter the recipient email address.

Click on the **APPLY** button to lock in the new settings.

The message in the email:
Indicates OutletA~H-XXXXXXXX status in order
X=0 : means power off.
X=1 : means power on.

Note: Make sure DNS server can resolve the Email Server's domain name.



The screenshot shows a web-based configuration interface for a PDU. At the top, there is a header with a logo and the text "PDU". Below the header, a status bar displays "Total load: 0.0 A , Status: Normal". The main content area is divided into two columns. The left column contains a navigation menu with links for "Information", "System", "Control", "Outlet", "Configuration", "Mail", "SNMP", and "SSL". The "Mail" link is currently selected. The right column displays the "Email Setting" configuration page. It includes three input fields: "Email Server" with the value "mail.your.com", "Sender's Email" with the value "sender@yourcom.com", and "Recipient's Email Address" which is empty. Below these fields is an "Apply" button.

Configuration: SNMP

When event occurs, PDU can send out trap message to pre-defined IP address.

Trap Notification: Sets receiver IP for alarm traps.

Community: Sets the SNMP community.

Read Community is “public” and “fixed”.

Default Write Community is “public” and can be modified by the user.

Click on the appropriate **APPLY** button to lock in the new settings.

 **PDU**

Total load: 0.0 A , Status: Normal

Information PDU System	Trap Notification Receiver IP 192.168.0.1 Apply
Control Outlet	Community Read public Write public Apply
Configuration PDU Threshold User Network Mail SNMP SSL	

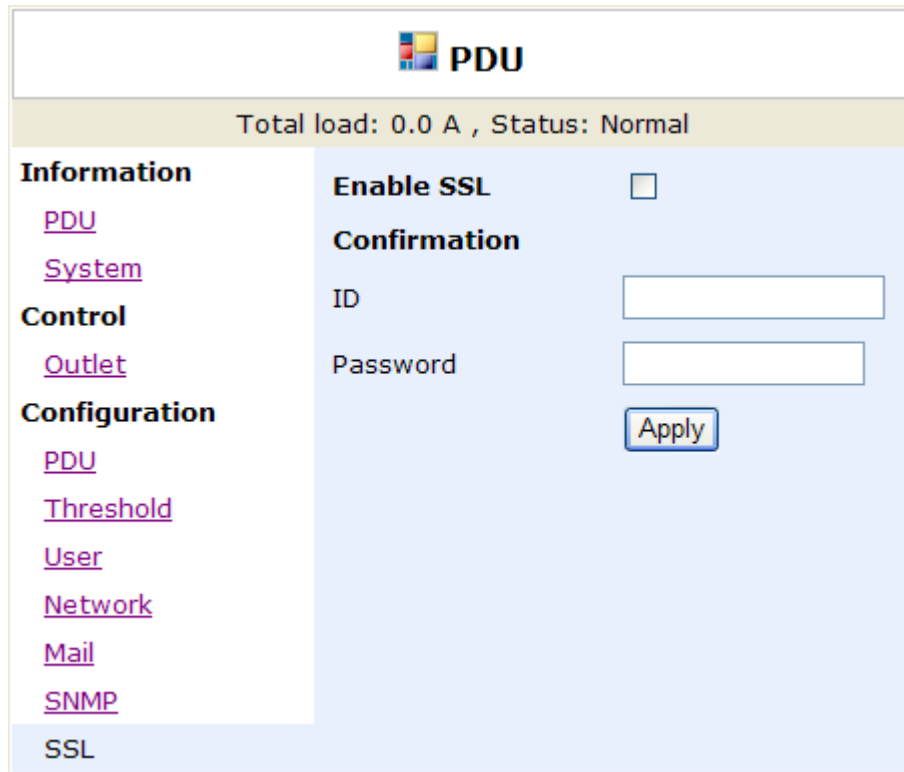
Configuration: SSL

Enables SSL for web communication.

User must enter the correct ID and password to enable SSL function.

These must be the same as the settings in “User”.

Click on the **APPLY** button to lock in the new settings.



The screenshot shows a web interface for a PDU. At the top, there is a header with a small icon and the text "PDU". Below this, a status bar indicates "Total load: 0.0 A , Status: Normal". The main content area is divided into two columns. The left column contains a sidebar with navigation links: "Information", "PDU", "System", "Control", "Outlet", "Configuration", "PDU", "Threshold", "User", "Network", "Mail", "SNMP", and "SSL" (which is highlighted). The right column displays the "Enable SSL" configuration page. It features a checkbox for "Enable SSL", a "Confirmation" section with input fields for "ID" and "Password", and an "Apply" button.

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