IPGUI, IP Hardware GUI & SNMP User Manual

nVent
SCHROFF

RP2000 Switched

RP3000 Outlet Switched

FC CE RoHS REACH

LEGAL INFORMATION

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Information in this document has been carefully checked for accuracy; however, no guarantee is given to the correctness of the contents. The information in this document is subject to change without notice. We are not liable for any injury or loss that results from the use of this equipment.

SAFETY INSTRUCTIONS

Please read all of these instructions carefully before you use the device. Save this manual for future reference.
- Unplug equipment before cleaning. Don't use liquid or spray detergent; use a moist cloth.
- Keep equipment away from excessive humidity and heat. Preferably, keep it in an air-conditioned environment with temperatures not exceeding 40º Celsius (104º Fahrenheit).
- When installing, place the equipment on a sturdy, level surface, to prevent it from accidentally falling and causing damage to other equipment or injury to persons nearby.
- When the equipment is in an open position, do not cover, block or in any way obstruct the gap between it and the power supply. Proper air convection is necessary to keep it from overheating.
- Arrange the equipment's power cord in such a way that others won't trip or fall over it.
- If you are using a power cord that didn't ship with the equipment, ensure that it is rated for the voltage and current labelled on the equipment's electrical ratings label. The voltage rating on the cord should be higher than the one listed on the equipment's ratings label.
- Observe all precautions and warnings attached to the equipment.
- If you don't intend on using the equipment for a long time, disconnect it from the power outlet to prevent being damaged by transient over-voltage.
- Keep all liquids away from the equipment to minimize the risk of accidental spillage. Liquid spilled on to the power supply or on other hardware may cause electrocution, fires, or other damage.
- Only qualified service personnel should open the chassis. Opening it yourself could damage the equipment and invalid date its warranty.
- If any part of the equipment becomes damaged or stops functioning, have it checked by qualified service personnel.

What the warranty does not cover
- Any product, on which the serial number has been defaced, modified or removed.
- Damage, deterioration or malfunction resulting from:
  - Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
  - Repair or attempted repair by anyone not authorized by us.
  - Any damage of the product due to shipment.
  - Removal or installation of the product.
  - Causes external to the product, such as electric power fluctuation or failure.
  - Use of supplies or parts not meeting our specifications.
  - Normal wear and tear.
  - Any other causes which does not relate to a product defect.
- Removal, installation, and set-up service charges.

Regulatory Notices Federal Communications Commission (FCC)
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

Any changes or modifications made to this equipment may void the user's authority to operate this equipment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Re-position or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

CONTENT

1.1 IP HARDWARE GUI IPGUI KEY FEATURES

RackPower Manager IPGUI is a FREE built-in GUI of each IP Hardware (**NPDV** only) to remotely monitor the connected PDUs (max. up to 16 PDU levels)

RACKPOWER IPGUI

	Features	
Capacity	IP Hardware Group (Just 1 for 16 PDU levels)	1
	PDU number	16
	Concurrent Users	1
Enhanced Features	Outlet Level kWh & Amp Measurement	✔
	Outlet Scheduling	✔
	Energy Consumption (kWh) Monitoring	✔
	Apparent Power (kVA) Monitoring	✔
	Power Factor Measurement	✔
	Circuit Breaker (MCB) Monitoring	✔
Basic Features	Aggregate Current (Amp) Monitoring	✔
	Individual Outlet Switch ON/OFF	✔
	Temp-Humid Monitoring	✔
	Alarm Threshold Setting	✔
	Rising Alert Threshold Setting	✔
	Remote Access via Web	✔
	Graphic User Interface	✔
PDU Series Support	Single & 3 Phase **RP1000** Monitored PDU	✔
	Single & 3 Phase **RP1500** Monitored PDU (Outlet Measurement)	✔
	Single & 3 Phase **RP2000** Switched PDU	✔
	Single & 3 Phase **RP3000** Switched PDU (Outlet Measurement)	✔
	Single Phase Dual Feed **RP1000** Monitored PDU	✔
	Single Phase Dual Feed **RP1500** Monitored PDU (Outlet Measurement)	✔
	Single Phase Dual Feed **RP2000** Switched PDU	✔
	Single Phase Dual Feed **RP3000** Switched PDU (Outlet Measurement)	✔

1.2 IP HARDWARE INSTALLATION & METER (PDU) CASCADE

IP Hardware Access to 16 PDU Levels

Patented IP Hardware provides IP remote access to the PDUs by a true network IP address chain. Only 1 x IP Hardware allows access to max. 16 PDUs in daisy chain - which is a highly efficient application for saving not only the IP remote accessories cost, but also the true IP addresses required on the PDU management.

Hot-Pluggable design facilitates the IP Hardware installation. Simply integrate the IP Hardware to the 1st PDU, then the entire daisy chain group can be remote over IP. Hence, administrator can remotely access all PDUs in the daisy chain group by one single IP via the IP Hardware.

Part no.

NPDV

IP Hardware for vertical PDU
- SNMP capability v2 / v3

Vertical IP Hardware installation steps:

- Slide the IP Hardware on the plate above the meter
- Plug the RJ-45 connector of IP Hardware into the LINK port of the | 1st level PDU | meter
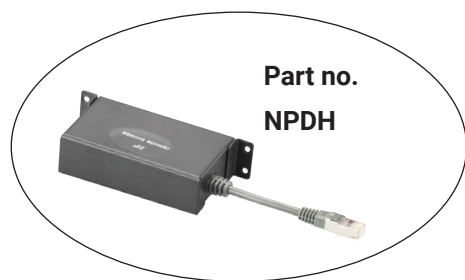- Use the CAT. 5 / 6 cable to connect IP Hardware to network device

IP Hardware

To LAN port

Network Hub

To LINK port
of the 1st
PDU
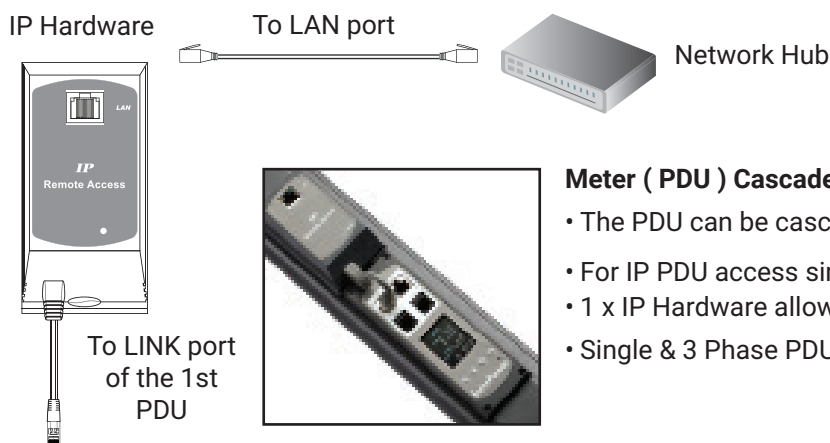
Meter (PDU) Cascade

• The PDU can be cascaded up to 16 levels

• For IP PDU access simply connect 1 x IP Hardware - **NPDV**

• 1 x IP Hardware allows access to 16 levels

• Single & 3 Phase PDU can be inter-cascaded in the single daisy chain

Cat 5 / 6
cable
Up to 20M

Cat 5 / 6
cable
Up to 20M

To LINK port
of next PDU
(Up to 16 levels)

1st level
PDU meter

2nd level
PDU meter

3rd level
PDU meter

1.2 IP HARDWARE INSTALLATION & METER (PDU) CASCADE

Part no.

NPDH

IP Hardware for rackmount PDU
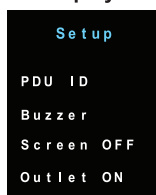- SNMP capability v2 / v3

Installation steps:

- Fix the IP Hardware on the rear side of rackmount PDU with 4 screws
- Plug its RJ-45 connector into the LINK port of the ⌜1st level PDU⌟ meter
- Connect IP Hardware to network device via CAT. 5 / 6 cable

Network Hub

To LAN port

To LINK port
of the 1st PDU
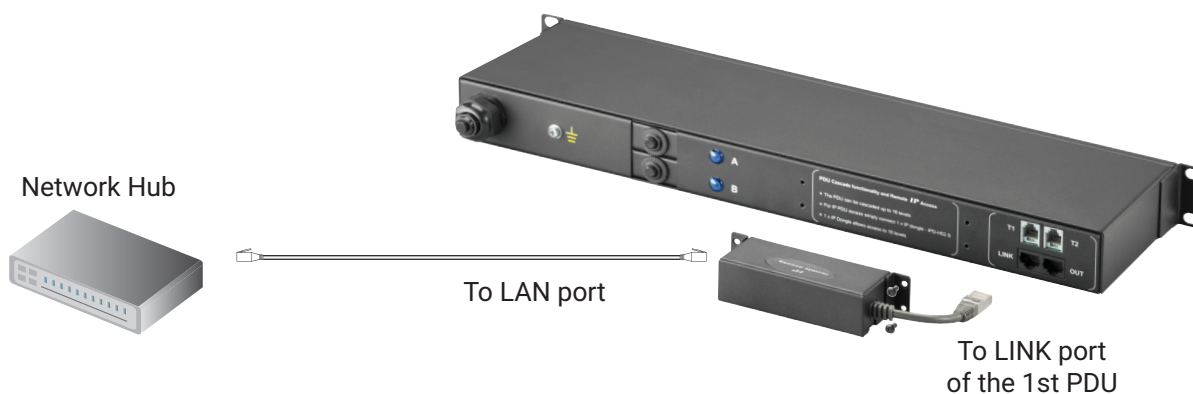
1.3 METER (PDU) LEVEL SETTING

(I) For 1.8" LCD Meter (No touchscreen function)

Display 9

Setup

PDU ID
Buzzer
Screen OFF
Outlet ON

Step 1 - Press the ⌃ & ⌄ button to ⌜display no.9⌟ and press Ⓜ to confirm

Step 2 - Press the ⌃ & ⌄ button to ⌜PDU ID⌟ and press Ⓜ to confirm
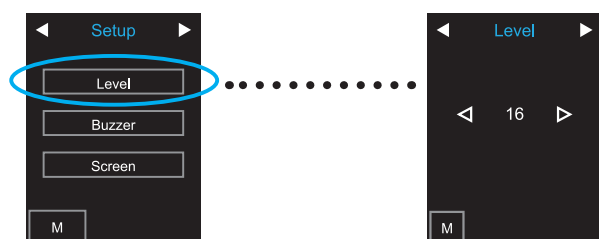
Display 9.1

PDU ID

Group: 240

Level: 16
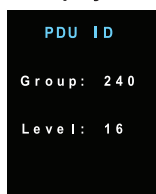
Step 3 - In display 9.1, Press the ⌃ & ⌄ button to select PDU level no. & press Ⓜ to confirm

Step 4 - Press ⏎ to exit

(II) For 2.8" LCD Meter (With touchscreen function)

◄ Setup ►

Level

Buzzer

Screen

M

◄ Level ►

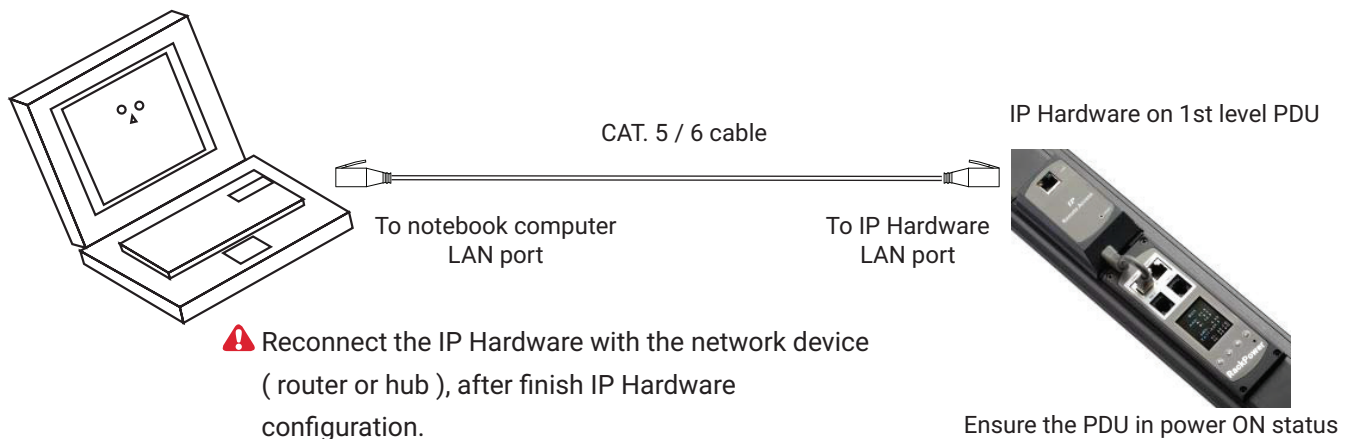◁ 16 ▷

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1.4 IP HARDWARE CONFIGURATION

⚠ The following steps show the static IP setting only. For DHCP setting, please refer to < **1.7** > DHCP Setting

After the completion of IP Hardware connection, please take the following steps to configure the IP Hardware:

Step 1. Prepare a notebook computer to download the IP setup utilities from the link:
https://lp.schroff.nvent.com/en/rackpower-support

Step 2. Double Click the ‖ IPHardwareSetup.msi ‖ and follow the instruction to complete the installation

Step 3. Go to each first level PDU with the notebook computer & a piece of CAT. 5 / 6 cable to configure the IP Hardware by IP setup utilities as below. Please take the procedure for all IP Hardwares **ONE BY ONE**

CAT. 5 / 6 cable

IP Hardware on 1st level PDU

To notebook computer
LAN port

To IP Hardware
LAN port

⚠ Reconnect the IP Hardware with the network device (router or hub), after finish IP Hardware configuration.

Ensure the PDU in power ON status

Step 4. Click " **Scan** " to search the connected IP Hardware

Step 5. Enter device name in " **Name** " (min. 4 char. / max. 16 char.). Default is " **Name** "

Step 6. Enter device location in " **Location** " (min. 4 char. / max. 16 char.). Default is " **Rack_001** "

Step 7. Enter password in " **Password** " for authentication (min. 8 char. / max. 16 char.) Default is " **00000000** "

Step 8. Enter new password in " **New password** " (min. 8 char. / max. 16 char.)

Step 9. Re-enter new password in " **Confirm new password** "

Step 10. Change the desired " **IP address** " / " **Subnet mask** " / " **Gateway** ", then Click " **Save** " to confirm the changes
The default IP setting is as below:

IP address: 192.168.0.1

Subnet mask : 255.255.255.0

Gateway: 192.168.0.254

1.5 IPGUI IP HARDWARE GUI

Each IP Hardware (**NPDV**) provides a **FREE** built-in GUI , IPGUI, which allows user, via a web browser, to see PDU's data and remotely manage the PDU over a TCP / IP Ethernet network.

⚠️ Each web browser window supports only one IP Hardware (**NPDV**). If user installs more IP Hardwares, multi windows will be required

⚠️ IPGUI is a management software with very limited features. User can use more advanced software, RackPower Manager RPM-04

Device	Master IP Fan Unit
Login name	
Password	

(Login) (Cancel)

Step 1. Open Internet Explorer (I.E.), version 11.0

Step 2. Enter the configured IP Hardware address into the I.E. address bar (Please refer to < 1.4 > IP Hardware configuration)

Step 3. Enter " **Login name** " , " **Password** " & Click " **Login** " (Please refer to < 1.4 > IP Hardware configuration)

In < **Status** >,

- Click " **Search** " to search all new installed PDUs (If search fails, please refer to < 1.6 > for IP Hardware firmware upgrade)
- View all installed PDUs' status
- View latest loading on each PDU's circuits
- View aggregate current & energy consumption on each PDU
- View status & lastest reading of Temp. & Humid sensors connected to each PDU
- Click " **Time Sync** " update all connected PDU's real time clock from the computer logged in the IP Hardware

Status

IP dongle name : default_ipd_name
IP address : 192.168.1.42

Level	Name	Location		Amp Max. / Load / Alarm / R. alert / L. alert	kWh	kVA		Amp Max. / Load / Alarm / R. alert / L. alert	kWh	kVA	Total Amp Load	Total kWh	Total kVA	TH 1 °C	TH 1 %	TH 2 °C	TH 2 %
01	DSPWSi40-32A	Server_Rack_001R	I - A	16.0 / 0.0 / 12.8 / 0.0 / 0.0	0.00	0.00	I - B	16.0 / 0.0 / 12.8 / 0.0 / 0.0	0.00	0.00	0.0	0.00	0.00	26.5	49.0	-	-
			II - A	16.0 / 0.0 / 12.8 / 0.0 / 0.0	0.00	0.00	II - B	16.0 / 0.0 / 12.8 / 0.0 / 0.0	0.00	0.00	0.0	0.00	0.00				
02	DSPWSi40-16A	Server_Rack_002R	I - A	16.0 / 0.0 / 12.8 / 0.0 / 0.0	0.00	0.00	- / - / - / - / -	-	-	0.0	0.00	0.00	23.9	55.5	-	-
			II - A	16.0 / 0.0 / 12.8 / 0.0 / 0.0	0.00	0.00	- / - / - / - / -	-	-	0.0	0.00	0.00				
03	SPW48-32A	Server_Rack_003R	A	16.0 / 0.2 / 13.0 / 0.0 / 0.0	0.09	0.03	B	16.0 / 0.0 / 13.0 / 0.0 / 0.0	0.00	0.00	0.2	0.09	0.03	-	-	-	-
05	SPW48-32A	Server_Rack_005R	A	16.0 / 0.1 / 13.0 / 0.0 / 0.0	0.09	0.02	B	16.0 / 0.0 / 13.0 / 0.0 / 0.0	0.00	0.00	0.1	0.09	0.03	-	-	-	-
06	SPW8-16A	Server_Rack_006R	A	16.0 / 0.1 / 13.0 / 0.0 / 0.0	0.09	0.02	- / - / - / - / -	-	-	0.1	0.09	0.02	-	-	-	-
07	SPW8-16A	Server_Rack_006L	A	16.0 / 0.2 / 13.0 / 0.0 / 0.0	0.09	0.03	- / - / - / - / -	-	-	0.2	0.09	0.03	-	-	-	-
08	SPWSi6-32A	Server_Rack_004R	A	16.0 / 0.0 / 13.0 / 0.0 / 0.0	0.73	0.00	B	16.0 / 0.0 / 13.0 / 0.0 / 0.0	0.85	0.00	0.0	1.58	0.00	-	-	-	-
09	SPW28-32A	Server_Rack_002R	A	32.0 / 0.1 / 19.9 / 0.0 / 0.1	0.09	0.03	- / - / - / - / -	-	-	0.1	0.09	0.03	-	-	-	-
10	SPINLINE-32A	Server_Rack_001L	A	16.0 / 0.0 / 13.0 / 0.0 / 0.0	0.06	0.00	- / - / - / - / -	-	-	0.0	0.06	0.00	-	-	-	-
11	default_pdu_name	default_pdu_loc.	A	16.0 / 0.0 / 13.0 / 0.0 / 0.0	0.00	0.00	B	16.0 / 0.0 / 13.0 / 0.0 / 0.0	0.00	0.00	0.0	0.00	0.00	-	-	-	-
14	default_pdu_name	default_pdu_loc.	L1 - B1	16.0 / 0.0 / 13.0 / 0.0 / 0.0	0.66	0.00	L1 - B2	16.0 / 0.0 / 13.0 / 0.0 / 0.0	0.49	0.00	0.4	12.53	0.09	-	-	-	-
			L2 - B3	16.0 / 0.0 / 13.0 / 0.0 / 0.0	0.10	0.00	L2 - B4	16.0 / 0.0 / 13.0 / 0.0 / 0.0	0.17	0.00							
			L3 - B5	16.0 / 0.0 / 13.0 / 0.0 / 0.0	1.83	0.00	L3 - B6	16.0 / 0.4 / 13.0 / 0.0 / 0.0	9.28	0.09							
16	default_pdu_name	default_pdu_loc.	L1 - B1	16.0 / 0.0 / 13.0 / 0.0 / 0.0	0.04	0.00	- / - / - / - / -	-	-	0.5	17.61	0.10	-	-	-	-
			L2 - B2	16.0 / 0.0 / 13.0 / 0.0 / 0.0	0.18	0.00	- / - / - / - / -	-	-							
			L3 - B3	16.0 / 0.5 / 13.0 / 0.0 / 0.0	17.39	0.10	- / - / - / - / -	-	-							

☑ Auto data refresh : ▮▮▮▮▮▮▮ Untick during data input
(Search) Search new installed devices   (Time Sync) Synchronize all connected devices' time with computer

1.5 IPGUI IP HARDWARE GUI

In < **Details** >,

- Change " **Name** " and " **Location** " of PDU & Click " **Apply** "
- Change " **Alarm amp.** " & " **Low alert amp.** " of PDU's circuits & Click " **Apply** "
- Click " **Reset** " to reset peak amp. or kWh of PDU's circuits
- Click " **ON** / **OFF** " to swich ON / OFF outlet (Switched PDU only)
- View On / Off status of each PDU's outlet
- View aggregated current on the PDU
- View lastest loading & energy consumption of each PDU's outlet
  (Outlet Measurement PDU only)
- Click " **Time Sync** " update PDU's real time clock from the computer logged in the IP Hardware

Dual Feed PDU Details

| Level : | 01 ▾ DV32C13/8C19-32A-RB3000 | Name : | DSPRP3000-32A |
| Status : | Connected | Location : | Server_Rack_001R |

I   kWh : 0.00   Power factor : 0.00   Frequency : 50.0
Load amp : 0.0   kVA : 0.00

I - A

Voltage :	199.7	Alarm amp :		12.8
Max. amp :	16.0	Rising alert amp :		0.0
Load amp :	0.0	Low alert amp :		0.0
Peak amp :	0.0	2015/01/01 00:11:48		Reset
kWh :	0.00	2015/01/01 00:00:00		Reset

I - B

Voltage :	199.7	Alarm amp :		12.8
Max. amp :	16.0	Rising alert amp :		0.0
Load amp :	0.0	Low alert amp :		0.0
Peak amp :	0.0	2015/01/01 00:00:00		Reset
kWh :	0.00	2015/01/01 00:00:00		Reset

Outlet		Name	Amp	kWh	kVA	Status	Switch		Outlet		Name	Amp	kWh	kVA	Status	Switch
01		outlet_name_01	0.0	0.00	0.0	ON	OFF		02		outlet_name_02	0.0	0.00	0.0	ON	OFF
03		outlet_name_03	0.0	0.00	0.0	ON	OFF		04		outlet_name_04	0.0	0.00	0.0	ON	OFF
05		outlet_name_05	0.0	0.00	0.0	ON	OFF		06		outlet_name_06	0.0	0.00	0.0	ON	OFF
07		outlet_name_07	0.0	0.00	0.0	ON	OFF		08		outlet_name_08	0.0	0.00	0.0	ON	OFF
09		outlet_name_09	0.0	0.00	0.0	ON	OFF		10		outlet_name_10	0.0	0.00	0.0	ON	OFF
11		outlet_name_11	0.0	0.00	0.0	ON	OFF		12		outlet_name_12	0.0	0.00	0.0	ON	OFF
13		outlet_name_13	0.0	0.00	0.0	ON	OFF		14		outlet_name_14	0.0	0.00	0.0	ON	OFF
15		outlet_name_15	0.0	0.00	0.0	ON	OFF		16		outlet_name_16	0.0	0.00	0.0	ON	OFF
C01		outlet_name_17	0.0	0.00	0.0	ON	OFF		C02		outlet_name_18	0.0	0.00	0.0	ON	OFF
C03		outlet_name_19	0.0	0.00	0.0	ON	OFF		C04		outlet_name_20	0.0	0.00	0.0	ON	OFF

Click outlet icon for setting

II   kWh : 0.00   Power factor : 0.00   Frequency : 50.0
Load amp : 0.0   kVA : 0.00

II - A

Voltage :	214.5	Alarm amp :		12.8
Max. amp :	16.0	Rising alert amp :		0.0
Load amp :	0.0	Low alert amp :		0.0
Peak amp :	0.0	2015/01/01 00:13:23		Reset
kWh :	0.00	2015/01/01 00:00:00		Reset

II - B

Voltage :	214.5	Alarm amp :		12.8
Max. amp :	16.0	Rising alert amp :		0.0
Load amp :	0.0	Low alert amp :		0.0
Peak amp :	0.0	2015/01/01 00:00:00		Reset
kWh :	0.00	2015/01/01 00:00:00		Reset

Outlet		Name	Amp	kWh	kVA	Status	Switch		Outlet		Name	Amp	kWh	kVA	Status	Switch
01		outlet_name_21	0.0	0.00	0.0	ON	OFF		02		outlet_name_22	0.0	0.00	0.0	ON	OFF
03		outlet_name_23	0.0	0.00	0.0	ON	OFF		04		outlet_name_24	0.0	0.00	0.0	ON	OFF
05		outlet_name_25	0.0	0.00	0.0	ON	OFF		06		outlet_name_26	0.0	0.00	0.0	ON	OFF
07		outlet_name_27	0.0	0.00	0.0	ON	OFF		08		outlet_name_28	0.0	0.00	0.0	ON	OFF
09		outlet_name_29	0.0	0.00	0.0	ON	OFF		10		outlet_name_30	0.0	0.00	0.0	ON	OFF
11		outlet_name_31	0.0	0.00	0.0	ON	OFF		12		outlet_name_32	0.0	0.00	0.0	ON	OFF
13		outlet_name_33	0.0	0.00	0.0	ON	OFF		14		outlet_name_34	0.0	0.00	0.0	ON	OFF
15		outlet_name_35	0.0	0.00	0.0	ON	OFF		16		outlet_name_36	0.0	0.00	0.0	ON	OFF
C01		outlet_name_37	0.0	0.00	0.0	ON	OFF		C02		outlet_name_38	0.0	0.00	0.0	ON	OFF
C03		outlet_name_39	0.0	0.00	0.0	ON	OFF		C04		outlet_name_40	0.0	0.00	0.0	ON	OFF

Click outlet icon for setting

☑ Auto data refresh : ▮▮▮▮▮▮▯▯▯ Untick during data input

| Apply | Save new data | | Time Sync | Synchronize this device time with computer |
| Cancel | Cancel new data input |

* Press F11 to enlarge or diminish the screen

1.5 IPGUI IP HARDWARE GUI

In < **Outlet setting** >,

- Change PDU's outlet name
- Change " **Power up sequence delay** " of PDU's outlet (Switched PDU only)
- Change " **Alarm amp.** ", " **Rising Alert amp.**" & " **Low alert amp.** " of PDU's outlet
  (Outlet Measurement PDU only)
- ⚠ Click " **Apply** " to finish the above settings
- Click " **Reset** " to reset peak amp. or kWh of PDU's outlet (Outlet Measurement PDU only)

Outlet Setting

Level :	01 DV32C13/8C19-32A-RP3000
Status :	Connected
Name :	DSPRP300040-32A
Location :	Server_Rack_001R

I - A

Outlet :	01 ▼ 🔌
Name :	outlet_name_01
Status :	ON
Power up sequence delay :	1 (Min. 1s , Max. 10s)
Load amp :	0.0
Alarm amp :	10.0
R. alert amp :	0.0
L. alert amp :	0.0
Peak amp :	4.2 2015/01/01 00:01:37 Reset
kWh :	0.00 2015/01/01 00:00:00 Reset

Apply	Save new data	Exit Return to Details
Cancel	Cancel new data input	

1.5 > IPGUI IP HARDWARE GUI

In < **TH status** >,

- View status, location, lastest reading & alarm setting of Temp. & Humid sensors connected to each PDU

⚠ The GUI will not show the readings if the TH sensors are **NOT** installed & activated.

TH Status

IP Hardware name : default_ipd_name
IP address : 192.168.1.42

				TH 1						TH 2					
				°C			%				°C			%		
PDU				Temp. / Alarm / R.alert			Humid. / Alarm / R.alert				Temp. / Alarm / R.alert			Humid. / Alarm / R.alert		
Level	Name	Setting	Location							Location						
01	DSPRP300040-32A	▤	Front_Top	27.3 / 35.0 / 0.0			46.6 / 65.0 / 0.0			sensor_location	22.6 / 35.0 / 0.0			66.8 / 65.0 / 0.0		
02	DSPRP300040-16A	▤	Front_Top	24.3 / 35.0 / 0.0			54.7 / 65.0 / 0.0			-	- / - / -			- / - / -		
03	SPW48-32A	▤	-	- / - / -			- / - / -			-	- / - / -			- / - / -		
05	SPW48-32A	▤	-	- / - / -			- / - / -			-	- / - / -			- / - / -		
06	SPW8-16A	▤	-	- / - / -			- / - / -			-	- / - / -			- / - / -		
07	SPW8-16A	▤	-	- / - / -			- / - / -			-	- / - / -			- / - / -		
08	SPRP30008-32A	▤	-	- / - / -			- / - / -			-	- / - / -			- / - / -		
09	SPW28-32A	▤	-	- / - / -			- / - / -			-	- / - / -			- / - / -		
10	SPINLINE-32A	▤	-	- / - / -			- / - / -			-	- / - / -			- / - / -		
11	default_pdu_name	▤	-	- / - / -			- / - / -			-	- / - / -			- / - / -		
14	default_pdu_name	▤	-	- / - / -			- / - / -			-	- / - / -			- / - / -		
16	default_pdu_name	▤	-	- / - / -			- / - / -			-	- / - / -			- / - / -		

☑ Auto data refresh : ▮▮▮▮▮▯▯▯ Untick during data input

In < **TH setting** >,

- Default TH setting: | Deactivate |

- " **Activate** " Temp. & Humid sensors ONLY when they are connected

- Change " **Location** " , " **Rising alert Setting** " & " **Alarm Setting** " of Temp. & Humid sensors

- Click " **Apply** " to finish the above settings

⚠ If no any TH sensor connected, NEVER activate.

TH Setting

PDU : | 01 | DV32C13/8C19-32A-RP3000
Status : Connected
Name : DSPRP3000400-32A
Location : Server_Rack_001R

TH 1	☑ Activate	☐ Deactivate		**TH 2**	☑ Activate	☐ Deactivate
Location :	Front_Top			Location :	sensor_location	

DO NOT activate T or TH sensor if no sensor installed.

When install T or TH sensor, please tick activate.

Otherwise, no readings display.

	Alarm	Rising alert			Alarm	Rising alert	
	Setting		Reading		Setting		Reading
Temp. (°C) :	35.0	0.0	27.3	Temp. (°C) :	35	0.0	21.9
Humid. (%) :	65.0	0.0	46.6	Humid. (%) :	65	0.0	68.8

Apply	Save new data		Exit	Return to Details
Cancel	Cancel new data input			

1.5 IPGUI IP HARDWARE GUI

In < **System** >,

- Change IP Hardware name & location
- Change temperature unit displayed in UI
- Change IP Hardware's IP address, subnet mask & gateway. (For static IP setting only)
- Select " **ON** " in " **DHCP** " to enable DHCP setting.
- Tick **" Force HTTPS "** to provide data transmission security.
- Click " **Apply** " to finish the above settings

In < **Login** >,

- Change " **Login name** " OR " **Password** "
- Re-enter password in " **Confirm password** "
- Click " **Apply** " and " **OK** " on the pop up window to make changes effective

The IP Hardware can manage the connected single & three phase intelligent PDUs in a single daisy-chain up to 16 levels via SNMP v1/v2 or v3 (Simple Network Management Protocol)

⚠ Only IP Hardware model: **NPDV** or **NPDH** can support SNMP

(I).   Accessing MIB Files

Step 1. Click the following link to go to the mangement software download page:
https://lp.schroff.nvent.com/en-rackpower-support

Step 2. Select the appropriate MIB file of the PDU series

(II).   Enabling SNMP Support

i.   The following steps summarize how to enable the IP Hardware for SNMP v1 / v2 support.

Step 1. Connect the IP Hardware to a computer. (Please refer to < 1.4 > IP Hardware configuration)

Step 2. Open the Internet Explorer (I.E.) version 11.0

Step 3. Enter the configured IP Hardware address into the I.E. address bar.

Default IP address is " **192.168.0.1** "

Step 4. Enter " **Login name** " & " **Password** ". Default login name & password are " **00000000** "

Login name	
Password	

[Login]   [Cancel]

Step 5. Select the SNMP from the left navigation pane

Step 6. The SNMP Settings window appears as below:

Step 7. Click " **Enable** " in " **SNMP agent** " to start the SNMP agent service

Step 8. Select " **v1/v2** " in " **SNMP version** "

Step 9. Input " **SNMP port** ". Default is 161.

Step 10. Input " **sysContact** ". Default is human.being<nobody@but.you>

Step 11. Input " **sysLocation** ". Default is Earth.

Step 12. Inpu**t** " **Read Community** ". Default is " public "

Step 13. Input " **Write Community** ". Default is " private "

Step 14. Click " **Activate** " in Station 1 to enable the trap service

Step 15. Input " **Trap Station IP** " , " **Trap Port** " & " **Trap Community** " of Station 1

Step 16. Repeat Step 14 & 15 for Station 2 & 3.

Step 17. Click " **Apply** " to finish the SNMP v1 / v2 settings

ii.   The following steps summarize how to enable the IP Hardware for SNMP v3 support.

Step 1. Connect the IP Hardware to a computer. (Please refer to < 1.4 > IP Hardware configuration)

Step 2. Open Internet Explorer (I.E.) version 11.0

Step 3. Enter the configured IP Hardware address into the I.E. address bar
        Default IP address is " **192.168.0.1** "
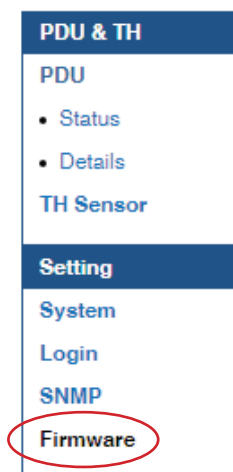
Step 4. Enter " **Login name** " & " **Password** ". Default login name & password are " **00000000** "
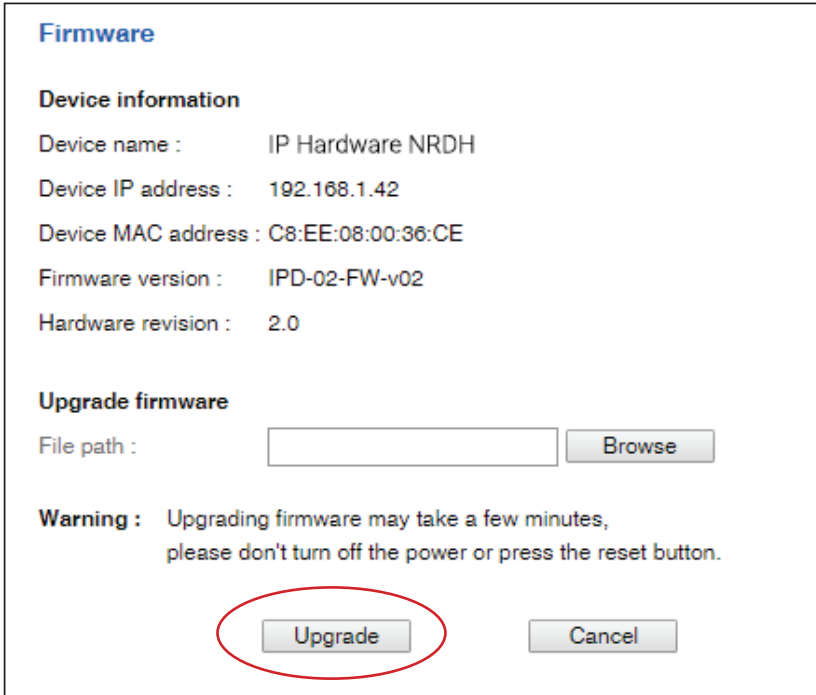
Step 5. Select SNMP from the left navigation pane

Step 6. The SNMP Settings window appears as below:

Step 7. Click " **Enable** " in " **SNMP agent** " to start the SNMP agent service

Step 8. Select " **v3** " in " **SNMP version** " & the SNMP v3 settings window appears as below:

Step 9. Input " **SNMP port** ". Default is 161.

Step 10. Input " **sysContact** ". Default is human.being<nobody@but.you>

Step 11. Input " **sysLocation** ". Default is Earth.

Step 12. Click " **Activate** " in User 1.

Step 13. Select " **Read Only** " or " **Read & Write** " in User role:

Step 14. Input the name of " **USM user** " . Default is usm_user1

Step 15. Select " **None / MD5 / SHA** " in " **Auth algorithm** ".
If you select " **Read & Write** " in " **User role:** " ,
you MUST select " **MD5 / SHA** " in " **Auth algorithm** "

Step 16. Input the " **Auth password:** " Default is " 00000000 '

Step 17. Select " **None / DES / AES** " in " **Privacy algorithm** ".
If the Auth algorithm is " **NONE** " , NO privacy algorithm can be selected.

Step 18. Input the " **Privacy password** "

Step 19. If you want to receive trap message, select " **Enable** " in SNMP trap

Step 20. Input the " **Trap Station IP** " & " **Trap port** "

Step 21. Repeat step 12 to 20 for User 2 & 3.

Step 22. Click " **Apply** " to finish the SNMP v3 settings.

< Firmware Upgrade >

For function enhancement of IP Hardware WEB UI or fail to search the PDU, please take the following steps to remotely upgrade the IP Hardware firmware:

Step 1. Click the following link to go to the mangement software download page:
https://lp.schroff.nvent.com/en/rackpower-support
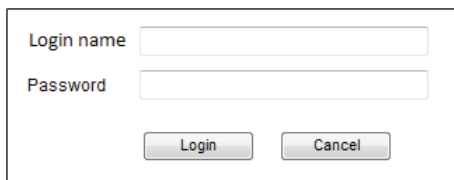
Step 2. Select the appropriate IP Hardware firmware file of the PDU series

Step 3. Connect the IP Hardware to the computer. (Please refer to < 1.4 > IP Hardware configuration)

Step 4. Open the Internet Explorer (I.E.) version 11.0

Step 5. Enter the configured IP Hardware address into the I.E. address bar.
Default IP address is " **192.168.0.1** "

Step 6. Enter " **Login name** " & " **Password** ". Default login name & password are " **00000000** "

Step 7. Select the Firmware from the left navigation pane

Step 8. The firmware upgrade window appears as below:

Step 9. Click " **Browse** " and select the firmware file (xxx.img) from the specific path in the pop up window and Click " **Open** "

Step 10. Click " **Upgrade** " to start the upgrade process. It takes a few minutes to complete.

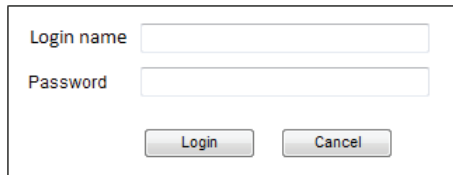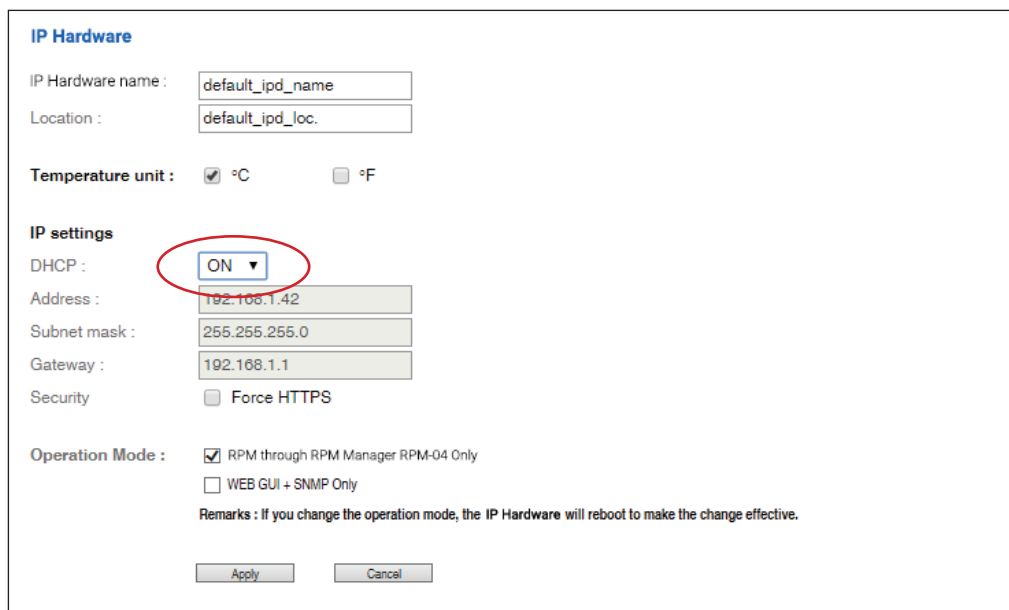**Step 11.** Once complete, UI will return to the login page.

Step 1. Connect the IP Hardware to the computer (Please refer to < 1.4 > IP Hardware configuration)

Step 2. Open the Internet Explorer (I.E.) version 11.0

Step 3. Enter the default IP address of the IP Hardware into the I.E. address bar. Default IP address is " **192.168.0.1** "

Step 4. Enter the " **Login name** " & " **Password** " . Default login name & password are " **00000000** "

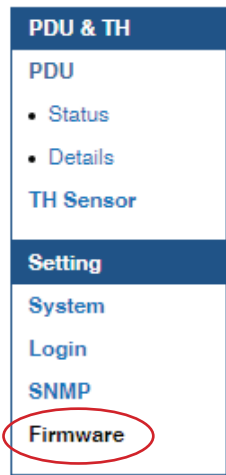**Step 5.** Select " **System** " from the left navigation pane
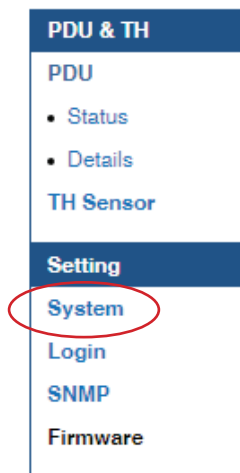
Step 6. Select " **ON** " from " **DHCP** " & click " **Apply** " to save the settings
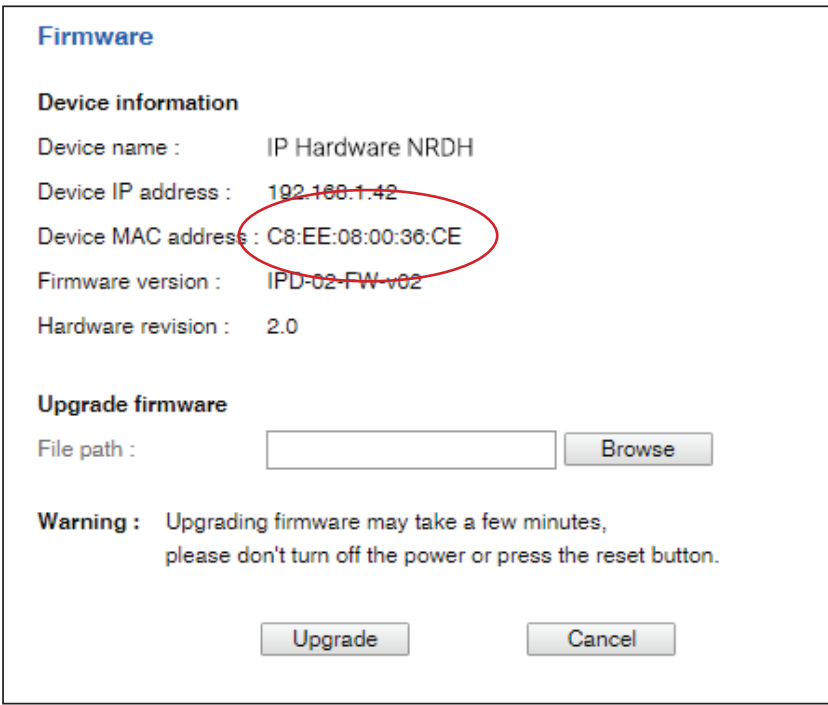
Step 7. Select " **Firmware** " from the left navigation pane

Step 8. Record the " **Device MAC address** "

Step 9. Assign an IP address to the IP Hardware from your DHCP server.

• **Complete**

1.9 COMMAND LINE INTERFACE (CLI) ACCESS

Command Line Interface (CLI) allows you access the IP Hardware via Telnet or Secure Shell (SSH) to configure the system settings and login settings.

By default, CLI access via Telnet and SSH are both enabled whereas Telnet can be disabled.

Telnet provides the basic security of authentication by user name and password, but not the high-security benefits of encryption.

If you want high security access, you can use SSH for access to the command line interface. SSH encrypts user name, password and transmitted data.
If you use SSH to access the command line interface, DISABLE Telnet.

CLI and IP Hardware WEBUI shares the same login name & password (default login name & password are " 00000000 ")

You can change the following settings via CLI access:
i.   System settings
   -   Change temperature display unit: change the temp unit to be displayed in the WEBUI
   -   Change system RTC date time : set the system time of the IP Hardware
   -   Change network settings: change the IP settings of the IP Hardware
   -   Change features & services
      a. Enable / disable management software support
      b. Enable / disable SNMP agent (ONLY shown when management software support is disabled)
      c. Enable / disable WEBUI
      d. Enable / disable FTP (Default is disable and it is for engineering service ONLY)
      e. Enable / disable UDP (When disabled, IP Hardware CANNOT be found by IP setup utilities)
      f. Enable / disable Telnet
      ⚠ If you are using WEBUI + SNMP operation mode, please go to the IP Hardware WEBUI to search the connected PDU & configure the SNMP settings before you disable WEBUI via command line interface.

ii.   Login settings
   - Change login name
   - Change login password
   - Reset to default login name & password

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