

## User Manual IPM-04 PDU management software

### W series PDU : Dual Feed Intelligent - Single Phase



Designed and manufactured by Austin Hughes

FC CE  REACH

## Legal Information

First English printing, June 2023

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 40° Celsius (104° 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 damage, fire or electrical shock.
- Only qualified service personnel should open the chassis. Opening it yourself could damage the equipment and invalidate 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 A 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.

## Unpacking

The equipment comes with the standard parts shown on the package contents. Check and make sure they are included and in good condition. If anything is missing, or damage, contact the supplier immediately.



All electrical power and power control wiring must be installed by a qualified electrician and comply with local and national regulations.

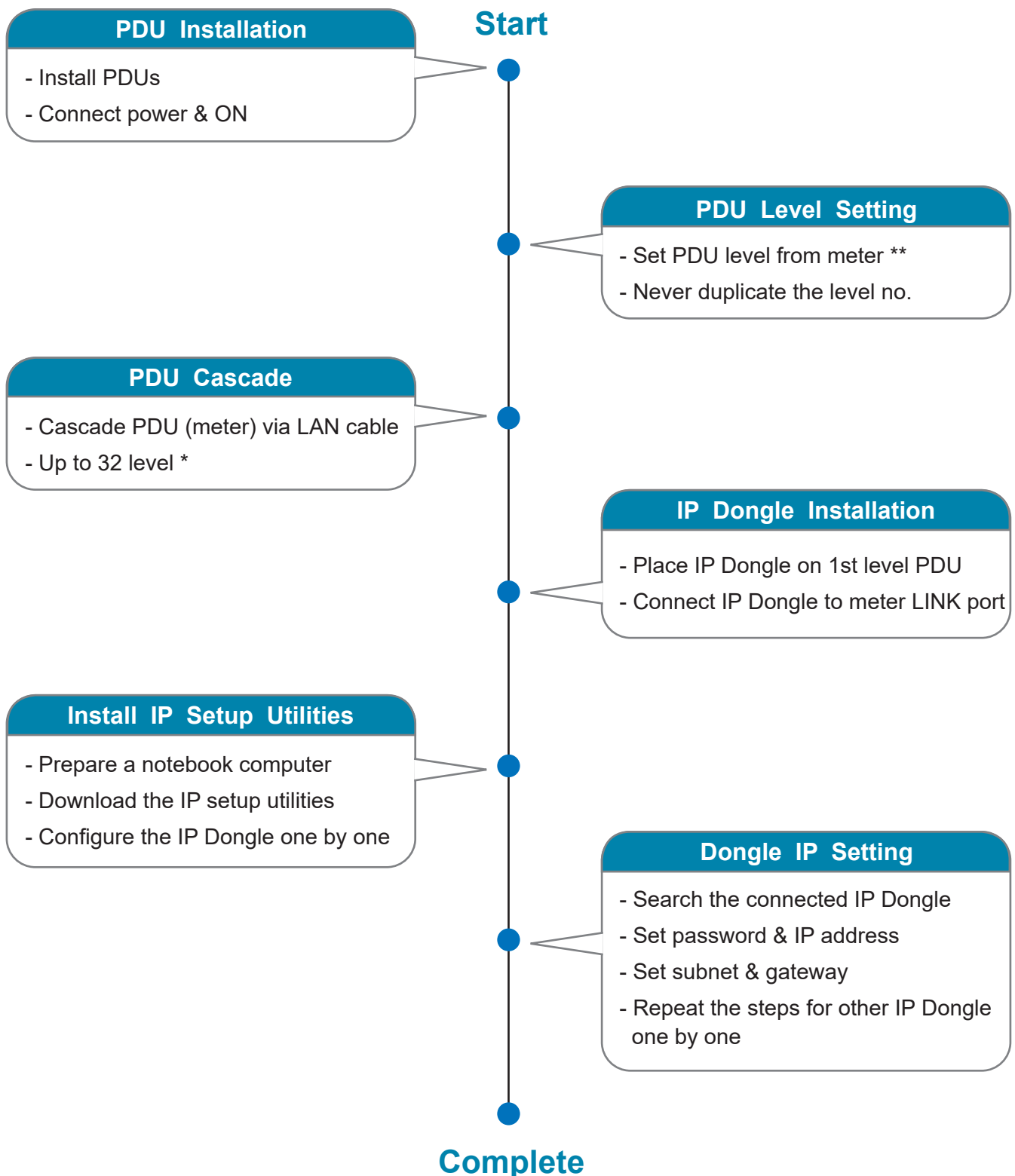


Don't exceed the outlet, branch or phase limitations

## Power ON

- Connect the PDU into an appropriately rated receptacle
- When the PDU is power on, the LED display will light up. That means all outlets are activated
- Keep the equipments in the power off position until it is plugged into the PDU

## Tips for hardware Installation



\* - Only IPD-03-S / IPD-H-03-S supports PDU level up to 32

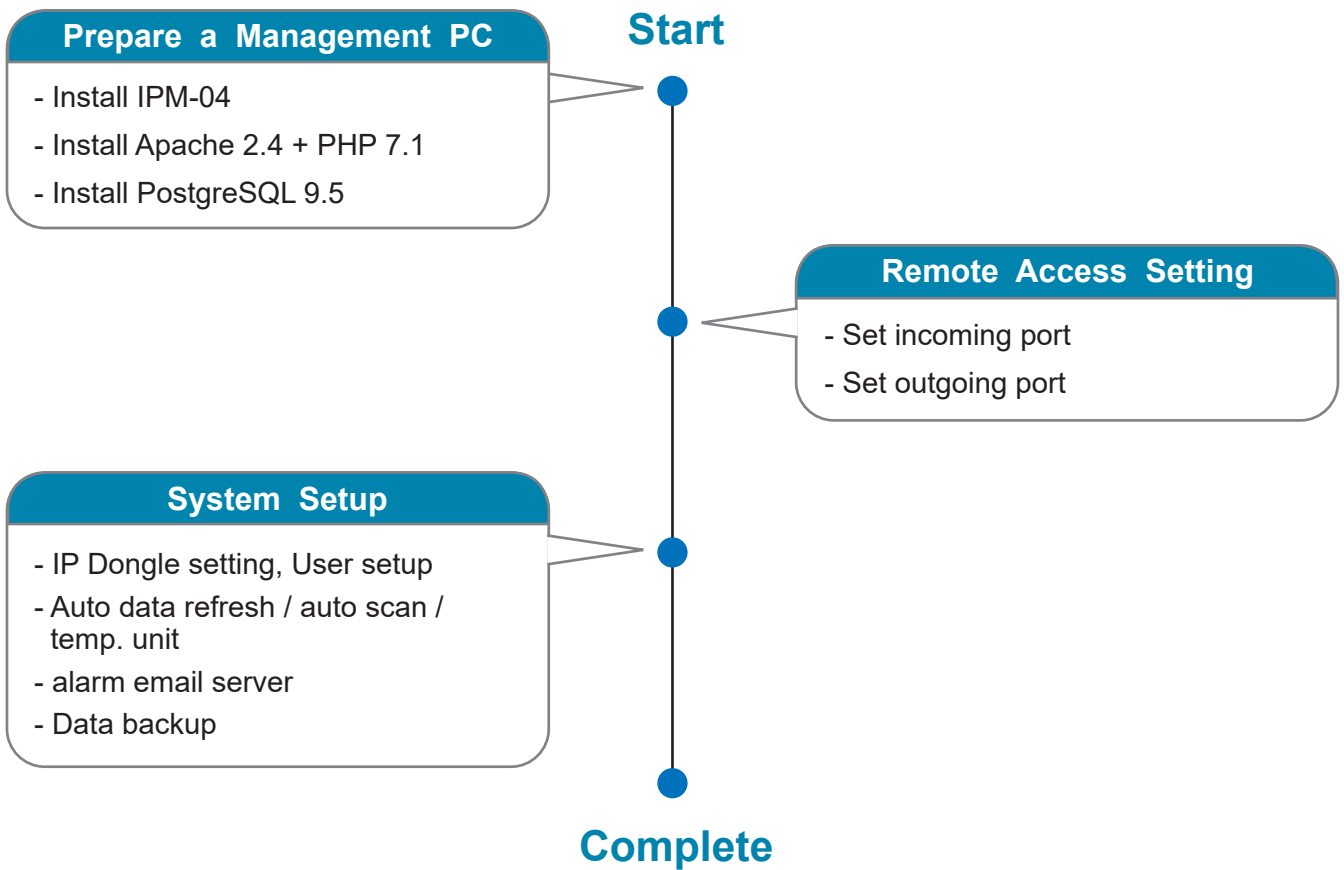
\*\* - PDU with touchscreen LCD meter ( firmware version V37 or above ) supports PDU level setting from 1 to 32

- PDU with touchscreen LCD meter ( firmware version V37 or above ) supports remote PDU level & ID setting via IPD-03-S WEBUI. Details refer to PPS-03-S user manual :

( [https://www.austin-hughes.com/resource\\_cat/product-resources/rack-power-resources](https://www.austin-hughes.com/resource_cat/product-resources/rack-power-resources) )



## Tips for System Setup



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## Part I. “ W “ Meter - Dual Feed

### < 1.1 > Meter Key Features

Dual Feed four intelligent PDU series covering single & three phase equipped with W Meter :

**Monitored PDU :** ① W PDU  
 ② Wi PDU - Outlet Measurement

**Switched PDU :** ③ WS PDU  
 ④ WSi PDU - Outlet Measurement

InfraPower®	Monitored PDU		Switched PDU	
	W	Wi	WS	WSi
Outlet Amp + kWh Measurement		✓		✓
Outlet Switch ON / OFF			✓	✓
Field Replaceable Meter	✓	✓	✓	✓
2.8” Color LCD ( featured w/ Touchscreen )	✓	✓	✓	✓
Circuit / Phase Amp + kWh Measurement	✓	✓	✓	✓
Support Single & Three Phase PDU	✓	✓	✓	✓
Phase Balance % ( 3 Phase PDU only )	✓	✓	✓	✓
Temp-Humid Sensor port x 2	✓	✓	✓	✓
32 Dual Feed PDU Levels in Single Daisy Chain	✓	✓	✓	✓
One IP Access up to 32 PDU Levels	✓	✓	✓	✓
Tool-less Mounting for Vertical PDU	✓	✓	✓	✓
SNMP Capability v2 / v3	✓	✓	✓	✓
Free Management Software ( via PDU IP Dongle, IPD-03-S )	IPM-04	IPM-04	IPM-04	IPM-04

## W series PDU is equipped with a highly advanced component - “ W “ Meter .

- Dual Feed Single & Dual Feed Three Phase PDU can be inter-cascaded in a single daisy chain.
- Simply connect 1 x IP Dongle to access up to 32 PDUs.
- SNMP Capability v2 / v3 via IP Dongle
- Built-in buzzer will sound when circuit or bank Amp over alarm setting.
- Field replaceable design allows meter replacement without PDU power interruption.

### 1 Cascade port .....

Up to 32 PDU Level

### 2 Sensor port x 2 .....

- Temp. Sensor
- Temp. + Humid. Sensor
- Door Sensor
- Smoke Sensor

### 3 2.8” color LCD .....

Featured w/ Touchscreen

### 4 Reset button .....

To re-power the meter if necessary but won't cause any change on settings and memories.

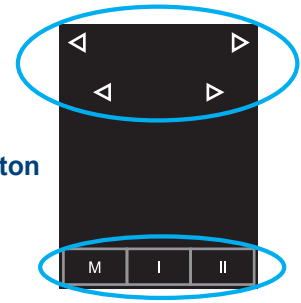


## < 1.2 > Meter Reading & Setting

### Reading

- Amp, Voltage & Power Factor
- kWh Energy Consumption
- Active & Apparent Power
- Temp. & Humidity

Touch Button



### Single Circuit

#### 1 - 2

**Main**

	Amp	Volt
PDU I	22.5	226.2
PDU II	13.8	219.2

T1 23.4 T2 24.5 °C

M I II

#### 3 - 4

**PDU I**

15.8 Amp

Peak Load Amp 16.2  
1 Jan 15 / 23:59:40

M I II

#### 5 - 6

**PDU II**

15.7 Amp

Peak Load Amp 16.2  
1 Jan 15 / 23:59:40

M I II

#### 7 - 9

**Sensor**

T1	23.4 °C
T2	24.5 °C
H1	63.4 %
H2	56.5 %

M

#### PDU Level

Group : 050

Level : 16

M I II

#### PDU I Power

Factor	0.50
Active	7.18 kW
Apparent	14.36 kVA

299,678.56 kWh  
1 Jan 15 / 23:59:40

M I II

#### PDU II Power

Factor	0.50
Active	7.18 kW
Apparent	14.36 kVA

299,678.56 kWh  
1 Jan 15 / 23:59:40

M I II

#### System

Time 23:59:40

Date 15 Jan 15

F/W WSi-400V-6B-V40

Serial no.  
20315150589-1120-P001

Model no.  
VP24C13/12C19  
-32A-WSI/CR\_EN/2B-1

M

#### Outlet

I

01

Amp 10.9

kW 1.24

I II

**Page no.7**  
Touch °C / °F to change temp. unit

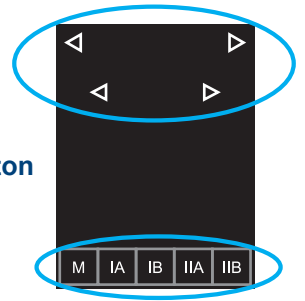
**Page no.9**  
Wi / WSi outlet measurement PDU only

## < 1.2 > Meter Reading & Setting

### Reading

- Amp, Voltage & Power Factor
- kWh Energy Consumption
- Active & Apparent Power
- Temp. & Humidity

Touch Button



### Dual Circuit

**1 - 2**

Main

	Amp	Volt
PDU I	22.5	226.2
PDU II	13.8	219.2

T1 23.4 T2 24.5 °C

**3 - 5**

PDU - I

Cir.A

15.8 Amp

Peak Load Amp 16.2  
1 Jan 18 / 23:59:40

**6 - 8**

PDU - II

Cir.A

14.6 Amp

Peak Load Amp 16.2  
1 Jan 18 / 23:59:40

**9 - 11**

Sensor

T1	23.4	°C
T2	24.5	
H1	63.4	%
H2	56.5	

PDU Level

Group : 050

Level : 16

PDU - I

Cir.B

15.7 Amp

Peak Load Amp 16.2  
1 Jan 18 / 23:59:40

PDU - II

Cir.B

16.9 Amp

Peak Load Amp 17.2  
1 Jan 18 / 23:59:40

System

Time 23:59:40

Date 15 Jan 15

F/W WSi-400V-6B-V40

Serial no. 20315150589-1120-P001

Model no. VP24C13/12C19-32A-WSI/CR\_EN/2B-1

PDU I Power

Factor	0.50
Active	7.18 kW
Apparent	14.36 kVA
Frequency	50.0 Hz
299,678.56 kWh	
1 Jan 18 / 23:59:40	

PDU II Power

Factor	0.50
Active	7.18 kW
Apparent	14.36 kVA
Frequency	50.0 Hz
299,678.56 kWh	
1 Jan 18 / 23:59:40	

Outlet

IA

01

Amp 10.9

kW 1.24

Page no.9

Touch °C / °F to change temp. unit

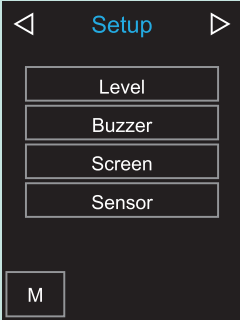
Page no.11

Wi / WSi outlet measurement PDU only

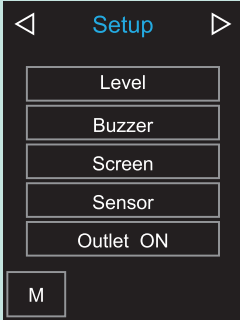


## < 1.2 > Meter Reading & Setting

### Setting

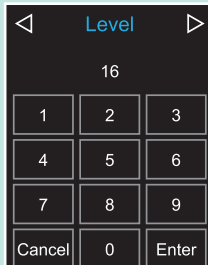


**Monitored PDU**



**Outlet Switched PDU**

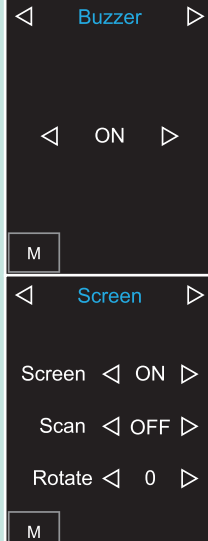
  



**PDU Level Setting**  
Default no. : 16

**Buzzer ON / OFF**  
Default : ON



**Default : Screen < ON > Scan < OFF >**

**\* OFF Screen :**  
- Screen OFF in 30 seconds  
- If want to turn on the screen just touch it  
- OFF in 30 seconds if no any further touch

**\* ON Scan :**  
- Scanning starts in 30 seconds  
- Then scan each page per 3 seconds

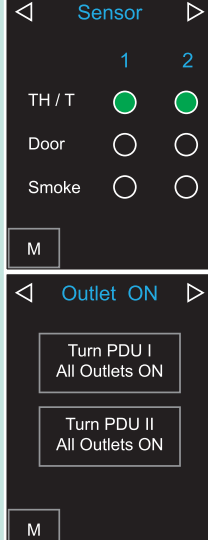
**Sensor**

TH / T

Door

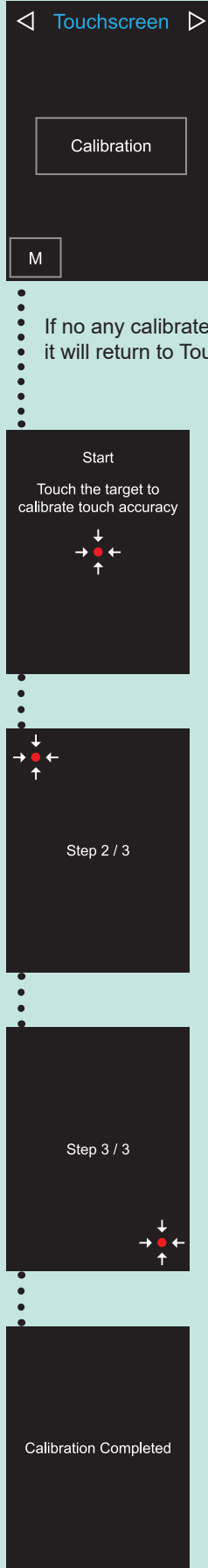
Smoke



**Outlet ON / OFF**  
Default : ON  
WS / WSi Outlet Switched PDU only

### Touchscreen Calibration



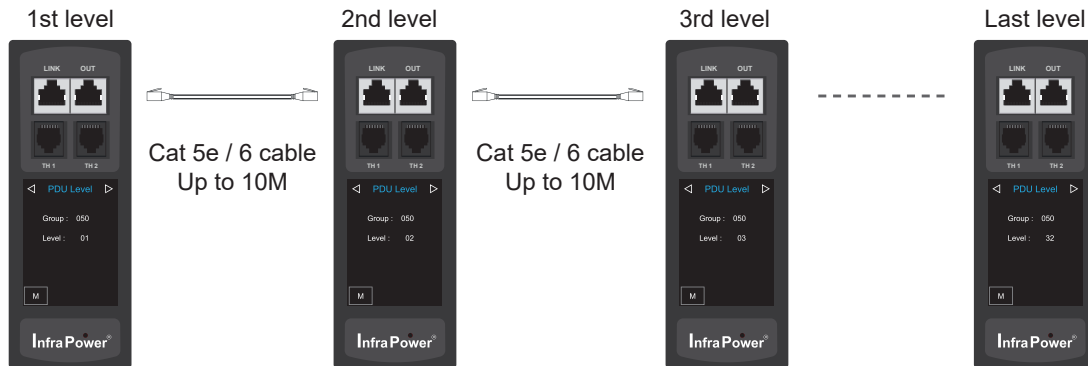
The calibration process consists of the following steps:

- Calibration** screen with a 'Calibration' button.
- Start** screen: "Touch the target to calibrate touch accuracy" with a target icon.
- Step 2 / 3** screen: Target icon.
- Step 3 / 3** screen: Target icon.
- Calibration Completed** screen.

If no any calibrate touch in 30 seconds, it will return to Touchscreen page

## < 1.3 > Meter ( PDU ) Cascade

- The PDU can be cascaded up to 32 levels
- For IP PDU access simply connect 1 x IP Dongle - IPD-03-S
- 1 x IP Dongle allows access to 32 levels
- Dual Feed Single & 3 Phase PDU can be inter-cascaded in the single daisy chain



To setup page for **PDU level setting** as below :



## < 1.4 > Dual Lan IP Dongle

Patented IP Dongle provides IP remote access to the PDUs by a true network IP address chain.

Only 1 x IP Dongle allows access to max. 32 PDUs in a single 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 Dongle installation. Simply integrate the IP Dongle to the 1st PDU, then the entire daisy chain group can be remote over IP.

- Press the reset button and release instantly to reboot IP dongle.
- Press and hold the reset button until Green LED off to reset IP dongle to factory default

### Installation steps :

- slide and fix the IP Dongle on the plate over the meter
- plug its RJ-45 connector into the LINK port of the 1st level PDU meter
- connect IP Dongle to network device via CAT. 5 / 6 cable

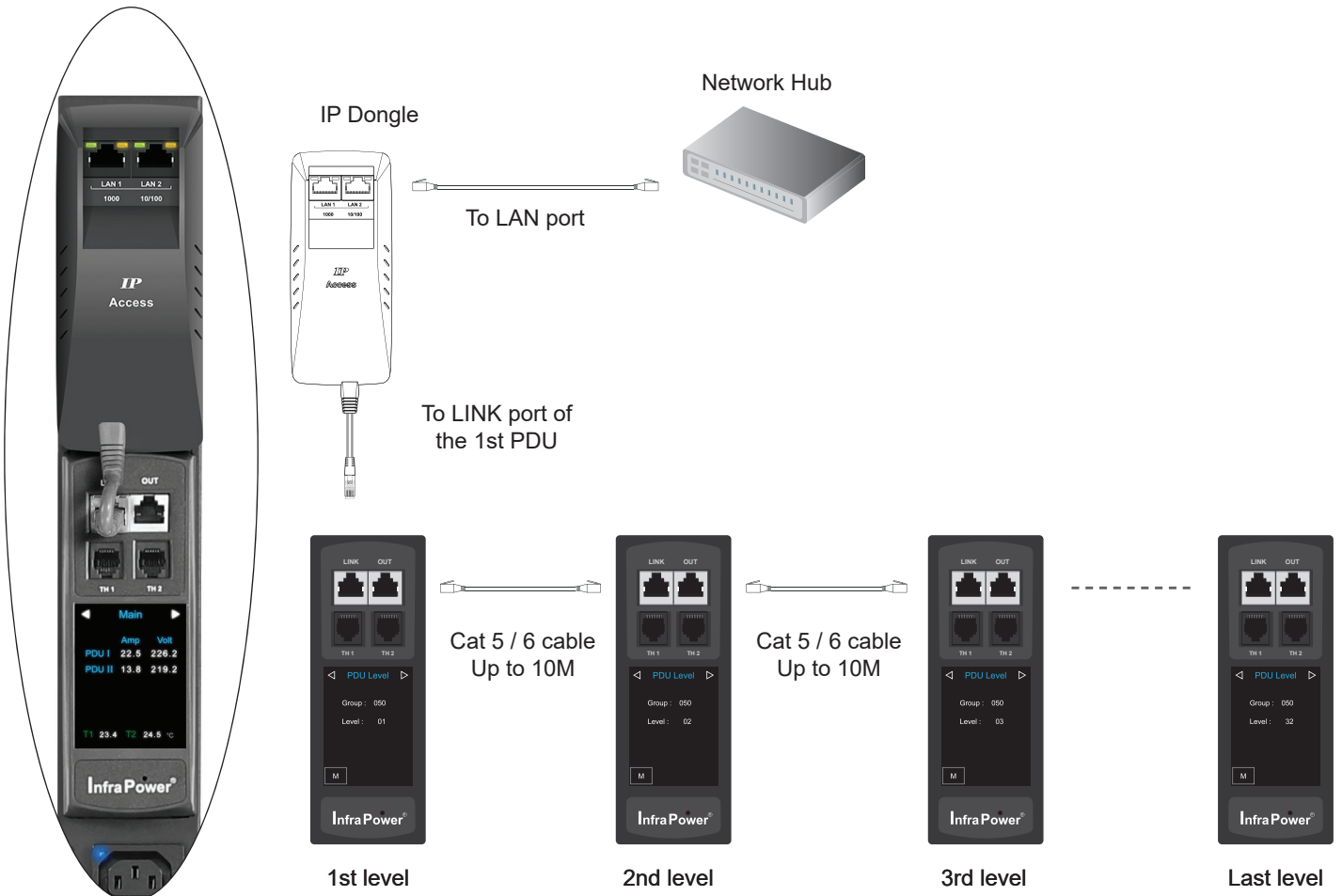
### IP Dongle for vertical PDU

- SNMP capability v2 / v3

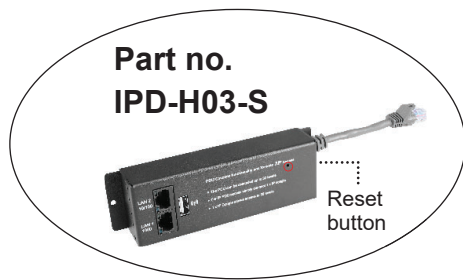


Part no.  
**IPD-03-S**

Reset  
button



## < 1.5 > IP Dongle Installation



### IP Dongle for rackmount PDU

- SNMP capability v2 / v3

- Press the reset button and release instantly to reboot IP dongle.
- Press and hold the reset button until Green LED off to reset IP dongle to factory default

### Installation steps :

- fix the IP Dongle 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 Dongle to network device via CAT. 5 / 6 cable



## < 1.6 > Meter System Timer

Each PDU comes with a system timer to show the current date & time.

It will be synchronized with the system time of the management PC under circumstances below:

- When the PDU connected to IPM-04 at the first time
- When the PDU is reconnected to IPM-04 after disconnection
- At 00:00:00 ( hh:mm:ss ) daily



The system timer will be frozen when the PDU is powered OFF.

## < 1.7 > Optional Accessory

### Temp. / Temp. + Humidity / Door / Smoke Sensor

W meter provides 2 sensor ports for Temp. / Temp. + Humidity / Door & Smoke sensor monitoring. The default sensor type for the 2 sensor ports is Temp. / TH sensor. You can select different sensor type you installed to the sensor port of W meter.



#### Temp. & Humid. Sensor

Part no. :  
IG - TH01 - 2M ( 2M cord )  
IG - TH01 - 4M ( 4M cord )



#### Temp. Sensor

Part no. :  
IG - T01 - 2M ( 2M cord )  
IG - T01 - 4M ( 4M cord )



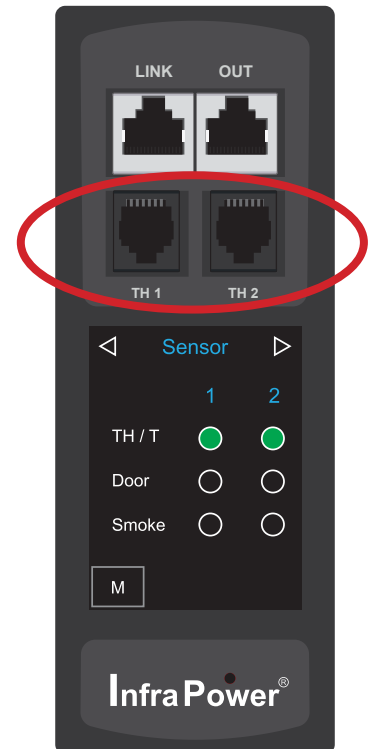
#### Door Sensor

Part no. :  
IP - DSW - 2M ( 2M cord )  
IP - DSW - 4M ( 4M cord )



#### Smoke Sensor

Part no. :  
IP - S01 - 1M ( 1M cord )  
IP - S01 - 3M ( 3M cord )



## < 1.7 > Optional Accessory

### Temp. / Temp. + Humidity Sensor



		<b>Temp. &amp; Humid. Sensor</b>	<b>Temp. Sensor</b>
<b>Part no.</b>		<b>IG - TH01</b>	<b>IG - T01</b>

<b>Temperature Sensitivity</b>	Range	0 to 80°C ( 32 to 176°F )	
	Accuracy	±1.0°C typical ( ±2°F )	±1.5°C ( ±3°F )
	Resolution	0.1°C ( 0.2°F )	
	Response Time	5 to 30 sec	

<b>Relative Humidity Sensitivity</b>	Range	0 to 100% R.H	/
	Accuracy	0 to 100, ±8.0% R.H 20 to 80, ±4.5% R.H.	/
	Resolution	1% R.H.	/
	Response Time	8 sec	/

<b>Power Requirement</b>	Voltage	3.3VDC, powered by PDU sensor port	
	Current Consumption	70mA	
	Power consumption	0.24 Watt	
	Power on indicator	Red LED	Green LED

<b>Housing</b>	Chassis & Cover	Plastic	
	Color	Dark gray	
	Installation	Magnetic base for unrestricted installation	

<b>Cable</b>	Cable Length	TH sensor w/ 2m cable ( standard ) TH sensor w/ 4m cable ( option )	T sensor w/ 2m cable ( standard ) T sensor w/ 4m cable ( option )
	Cable Specification	4-wired 3.5mm to RJ11	
	Cable Color	Black	Beige

<b>Environmental</b>	Operating	0 to 80°C Degree	
	Storage	-5 to 80°C Degree	
	Humidity	0~100%, non-condensing	

<b>Dimensions</b>	Product	30L x 25Wx 18H mm	
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<b>Weight</b>	Net	10g	
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<b>Compatibility</b>	InfraPower	Single & 3 Phase W / WS / Wi / WSi series PDU	
	InfraSolution	X-2000 series	
	InfraGuard	Rack sensor system	

<b>Safety Regulatory</b>	FCC & CE certified		
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<b>Environmental</b>	RoHS3 & REACH compliant		
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## < 1.7 > Optional Accessory

### Door Sensor



		<b>Door Sensor</b>
<b>Part no.</b>		<b>IP-DSW</b>
<b>Sensitivity</b>	Actuation	3.00 mm
	Travelling Distance	9.25 mm
	Operating Force	3.5±1 N
	Sensing distance	/
	Sensing object	/
<b>Power Requirement</b>	Voltage	/
	Current Consumption	/
<b>Housing</b>	Material	Plastic
	Color	Gray
<b>Connection</b>	Cable Length	2m / 4m ( option )
<b>Environmental</b>	Operating	-20 to 60°C Degree
	Storage	-30 to 70°C Degree
	Relative Humidity	5~90%, non-condensing
<b>Dimensions</b>	Product	52W x 22.5L mm ( with metal plate )
	Packing	/
<b>Weight</b>	Net / Gross	14g ( with metal plate )
<b>Supply includes</b>	1	Mechanical door sensor
	2	Metal plate
	3	4-wired 3.5mm to RJ-11 cable ( 2m )
<b>Compatibility</b>	InfraPower	Single & 3 Phase W / WS / Wi / WSi series PDU Dual feed Single & 3 Phase W / WS / Wi / WSi series PDU
<b>Safety Regulatory</b>		FCC & CE certified
<b>Environmental</b>		RoHS3 & REACH compliant by SGS



## < 1.7 > Optional Accessory

### Smoke Sensor

Smoke sensor comes with a RED LED. When smoke alarm triggers, the RED LED lights on with beep sound continuously.



<b>Part no.</b>		<b>Smoke Sensor IP-S01</b>
<b>Sensitivity</b>	Smoke sensitivity	0.15 ~ 0.3 dB/m
<b>Alarm Output</b>	Solid State Relay	24VDC@1A
	Alarm LED	Red
	Audio Alarm	80 dB
	Audio Alarm Pattern	Continuous beeps
<b>Power Requirement</b>	Voltage	3.3VDC, powered by PDU sensor port
	Current Consumption	720uA
	Power ON LED	Red LED flashes every 6 seconds
<b>Housing</b>	Chassis & Cover	ABS plastic
	Color	Ivory White
<b>Connection</b>	Cable Length	1m / 3m ( option )
<b>Environmental</b>	Operating	-5 to 50°C Degree
	Storage	-10 to 60°C Degree
	Humidity	5~90%, non-condensing
<b>Dimensions</b>	Product	103L x 103W x 55H mm
<b>Weight</b>	Net	165g
<b>Supply includes</b>	1	Smoke Sensor with 1m cable
<b>Compatibility:</b>	InfraPower	Single & 3 Phase W / WS / Wi / WSi series PDU Dual feed Single & 3 Phase W / WS / Wi / WSi series PDU
<b>Safety Regulatory</b>		FCC & CE certified
<b>Environmental</b>		RoHS3 & REACH compliant by SGS

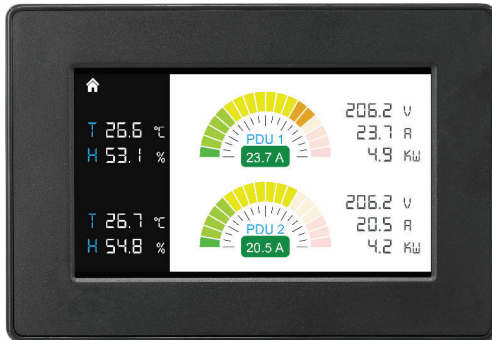
## < 1.7 > Optional Accessory

### 4.3" Door Mount PDU Panel

4.3" Door Mount PDU Panel ( IP-ED-01 ) provides RJ-11 port x 2 for PDU voltage, amp., power & sensor monitoring. Once connected, the data shows on the 4.3" door mount PDU panel.

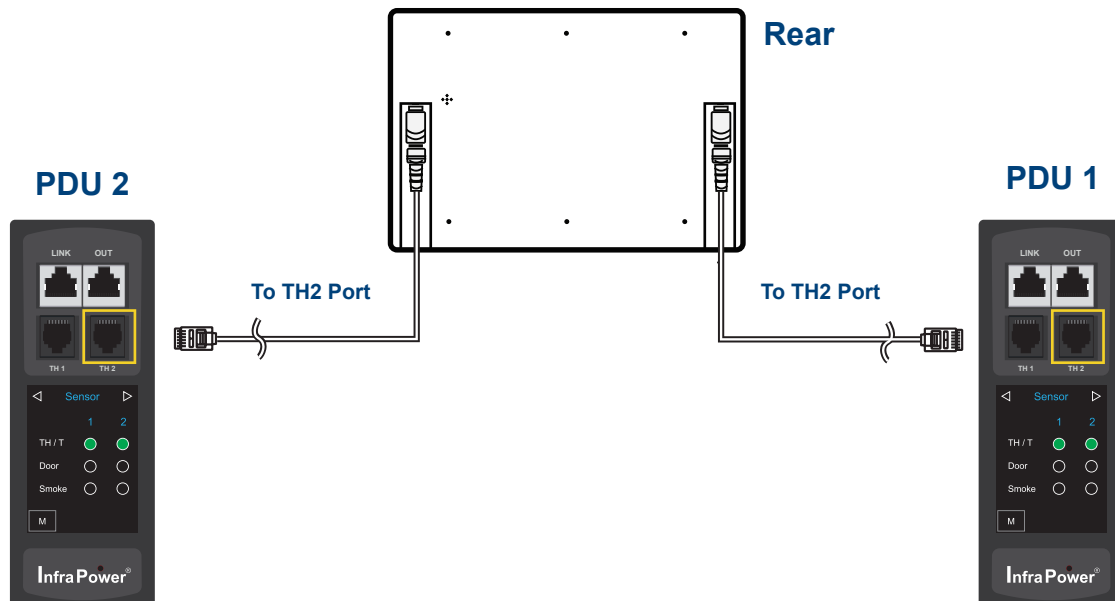
For details, please refer to user manual of 4.3" Door Mount PDU Panel :

[https://www.austin-hughes.com/resource\\_cat/product-resources/rack-power-resources/#tab-product-series-resources-table-manuals](https://www.austin-hughes.com/resource_cat/product-resources/rack-power-resources/#tab-product-series-resources-table-manuals)



#### IP-ED-01

#### 4.3" Door Mount PDU Panel



## Part II. Software

### < 2.1 > Key Features

InfraPower Manger IPM-04 is a free but powerful and user friendly PDU mangement software. The Windows based software consolidates management of max. 1600 Dual Feed single phase , single & 3 Phase PDUs via 50 IP dongles.

5 concurrent user access are bundled for achieving the demand of multi-user / multi-tasking in nowadays' time-sharing data center operation.

#### InfraPower IPM-04

Features		
<b>Capacity</b>	IP Dongle Group ( Just 1 for 32 PDU levels )	50
	PDU number	1600
	Concurrent Users	5
<b>Enhanced Features</b>	Outlet Level kWh & Amp Measurement	✓
	Outlet Scheduling	✓
	Energy Consumption ( kWh ) Monitoring	✓
	Apparent Power ( kVA ) Monitoring	✓
	Power Factor Measurement	✓
	Circuit Breaker ( MCB ) Monitoring	✓
<b>Basic Features</b>	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	✓
	Reporting	✓
<b>PDU Series Support</b>	Single & 3 Phase <b>W</b> Monitored PDU	✓
	Single & 3 Phase <b>Wi</b> Monitored PDU ( Outlet Measurement )	✓
	Single & 3 Phase <b>WS</b> Switched PDU	✓
	Single & 3 Phase <b>WSi</b> Switched PDU ( Outlet Measurement )	✓
	Single Phase Dual Feed <b>W</b> Monitored PDU	✓
	Single Phase Dual Feed <b>Wi</b> Monitored PDU ( Outlet Measurement )	✓
	Single Phase Dual Feed <b>WS</b> Switched PDU	✓
	Single Phase Dual Feed <b>WSi</b> Switched PDU ( Outlet Measurement )	✓

## < 2.2 > IP Dongle Configuration

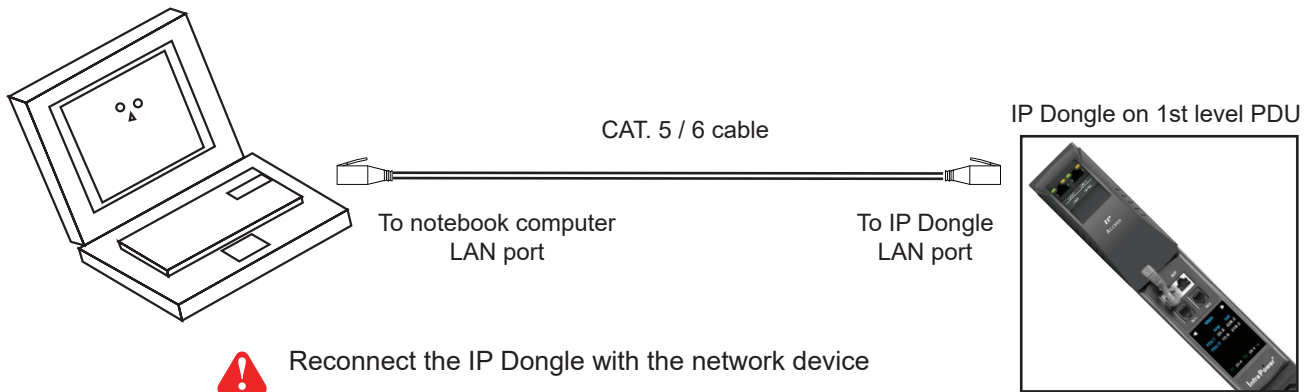
 The following steps show the static IP setting only. For DHCP setting, please refer to < 7.3 > DHCP Setting


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


**Step 1.** Prepare a notebook computer to download the IP setup utilities from the link :  
<http://www.austin-hughes.com/support/utilities/infrapower/IPdongleSetup.msi>

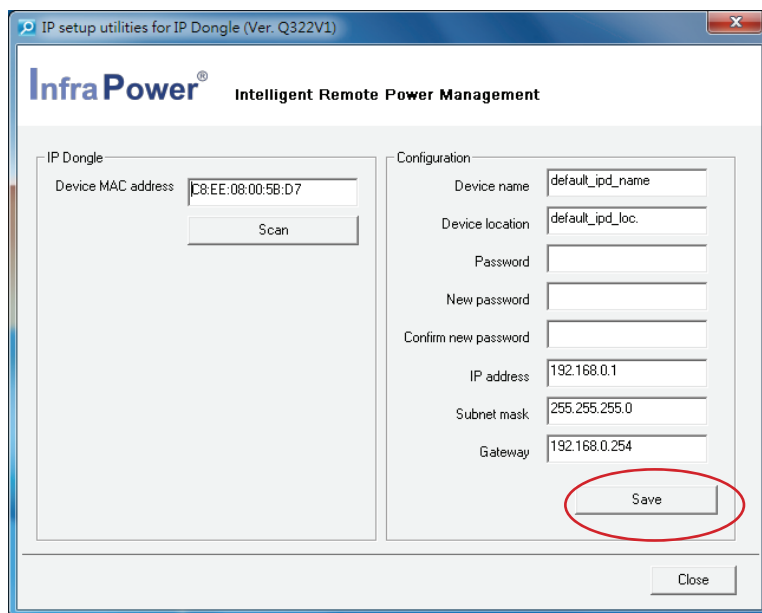
**Step 2.** Double Click the  and follow the instruction to complete the installation

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



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

 Ensure the PDU in power ON status



1. If the IP dongle is in factory default setting or the password is "00000000", you **MUST** change the password for security purpose .
2. The password **MUST** contain at least three of the following four character groups :
  - English uppercase characters ( A through Z )
  - English lowercase characters ( a through z )
  - Numerals ( 0 through 9 )
  - Non-alphabetic characters ( such as !, @, #, % ). [ ` ], [ \$ ], [ " ], [ \ ] are NOT supported.

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

**Step 5.** Enter device name in " Device name " ( min. 4 char. / max. 16 char. ). Default is " default\_ipd\_name "

**Step 6.** Enter device location in " Device location " ( min. 4 char. / max. 16 char. ). Default is " default\_ipd\_loc. "

**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

**Lan 1.** The default IP setting is as below:

IP address : 192.168.11.1  
Subnet mask : 255.255.255.0  
Gateway : 192.168.11.254

**Lan 2.** The default IP setting is as below:

IP address : 192.168.0.1  
Subnet mask : 255.255.255.0  
Gateway : 192.168.0.254

**Step 11.** Repeat **Step 4 & Step 10** for **Lan 2** Port of IP dongle if you will use LAN 2 as well. Otherwise, ignore this step.

## < 2.3 > Hardware Requirements of the Management PC

Please prepare a management PC with the hardware requirements as below for InfraPower Manager - IPM-04

### Recommended hardware requirements :

- Processor: Dual Core 2GHz or above
- Memory: 4GB RAM
- Available Disk Space: 500GB
- Display: For the best view, display resolution 1920 x 1080 recommended



- The default service port of web server is 80.
- A dedicated PC to run InfraPower Manager - IPM-04 is recommended.
- Make sure the management PC is POWER ON & IPM-04 is under operation.  
Otherwise, daily data backup will NOT be proceeded.

## < 2.4 > Supported OS Platform & Language

InfraPower Manager – IPM-04 supports the OS platforms & languages as below:

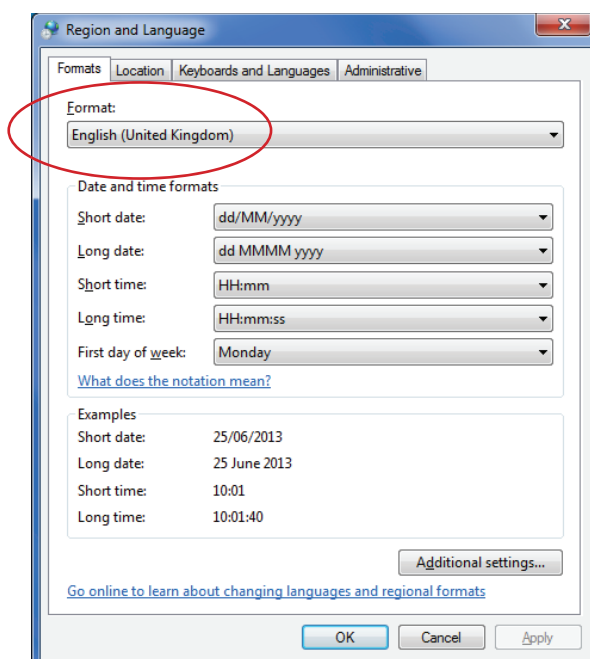
- MS Windows 10 Pro
- MS Windows 7 Professional with SP1
- MS Windows Server 2012 R2 Standard Edition
- MS Windows Server 2008 Standard Edition SP2
- MS Windows Server 2008 R2 Standard Edition SP1
- MS Windows Server 2003 R2 Standard Edition with SP2



**Ensure the user logs in in the management PC as a member of “Administrators” Group before IPM-04 Installation and execution.**

User can select the following languages under Control Panel > Region and Language in English Edition OS:

- 1) Arabic (Saudi Arabia)
- 2) Chinese (Traditional, Hong Kong S.A.R.)
- 3) Dutch (Netherlands)
- 4) English (Australia)
- 5) English (United Kingdom)
- 6) English (United States)
- 7) French (France)
- 8) German (Germany)
- 9) German (Switzerland)
- 10) Italian (Italy)
- 11) Japanese (Japan)
- 12) Korean (Korea)
- 13) Norwegian (Norway)
- 14) Portuguese (Portugal)
- 15) Russian (Russia)
- 16) Spanish (Spain)
- 17) Turkish (Turkey)



## < 2.5 > Software Download

InfraPower Manager, IPM-04, is a **PDU** management software to enhance the features and benefits of all Dual Feed single phase , single & 3 Phase PDUs by providing a centralized and remote management platform, and total reporting with detailed logs & event occurrences.

**IPM-04** supports max. 5 concurrent login users and manage multi- IP Dongle groups max. 50, hence the concurrent login users can access & remote PDUs max. 1600 ( 50 IP dongles x 32 level PDUs ).

### Software download

Please download the InfraPower Manager - IPM-04 to the management PC

from the link <http://www.austin-hughes.com/support/software/infrapower/IPM-04.msi>

 You must have the administrator right of the management PC to install the IPM-04 .

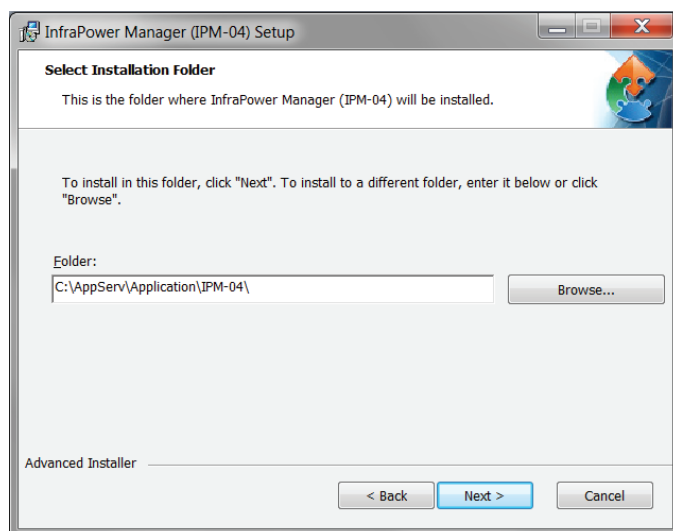
Double click the IPM-04.msi and follow the instruction to complete the installation.



IPM-04.msi

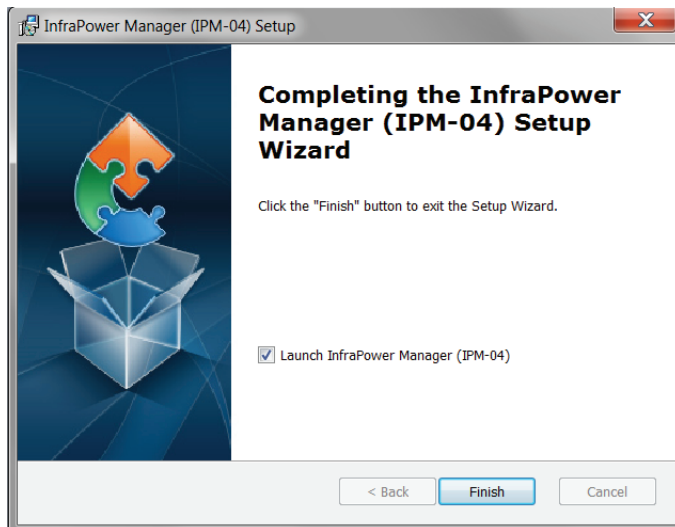


click "Next"



click "Install"

## < 2.5 > Software Download



click "Finish"

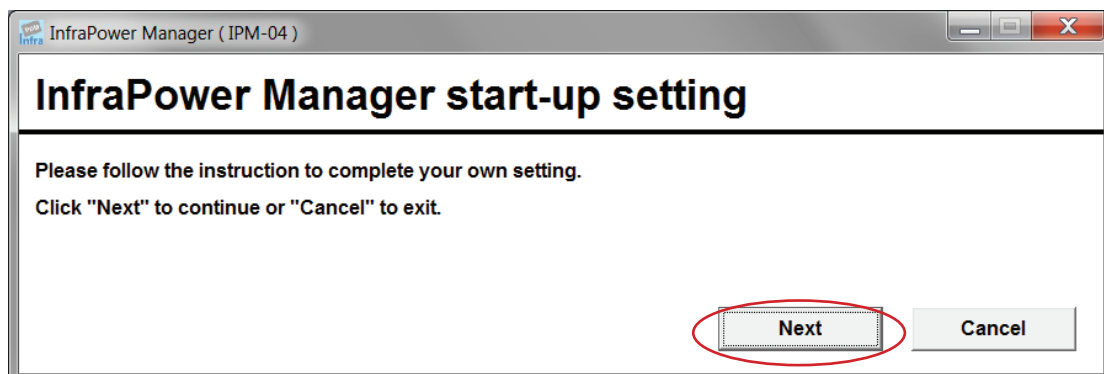
..... Complete

## < 2.6 > First Time Start-up Setting

**Step 1.** Double Click the InfraPower Manager - IPM-04  
and follow the instruction to complete start-up setting.



**Step 2.** Click "Next" in "InfraPower Manager start-up setting" box





## < 2.6 > First Time Start-up Setting


### Step 3. Apache 2.4 + PHP 7.1 installation

InfraPower Manager (IPM-04)

### Software component(s) configuration & installation


The following 2 software component(s) are required to run InfraPower Manager .

( 1 ) Apache 2.4 + PHP 7.1 ✘ Ver. ---

Folder :  

Listen port :

( 2 ) PostgreSQL 9.5 ✘ Ver. ---

Folder :  

PostgreSQL login :

PostgreSQL password :

PostgreSQL port :

Database initialization :  Create new  Use existing


IPM-04 database name :

IPM-04 database user :

IPM-04 database password :

Verifying PostgreSQL configuration ... failed

Ver. Q417V6 ( build 4.217.39 )

- Input the Apache 2.4 +PHP 7.1 installation path in “ **Folder** “ ( Default : **C:\AppServ\Apache2.4\** )
- Input the port no. in “ **Listen port** “ ( Default : **80** )
- Click  to install Apache 2.4 + PHP 7.1

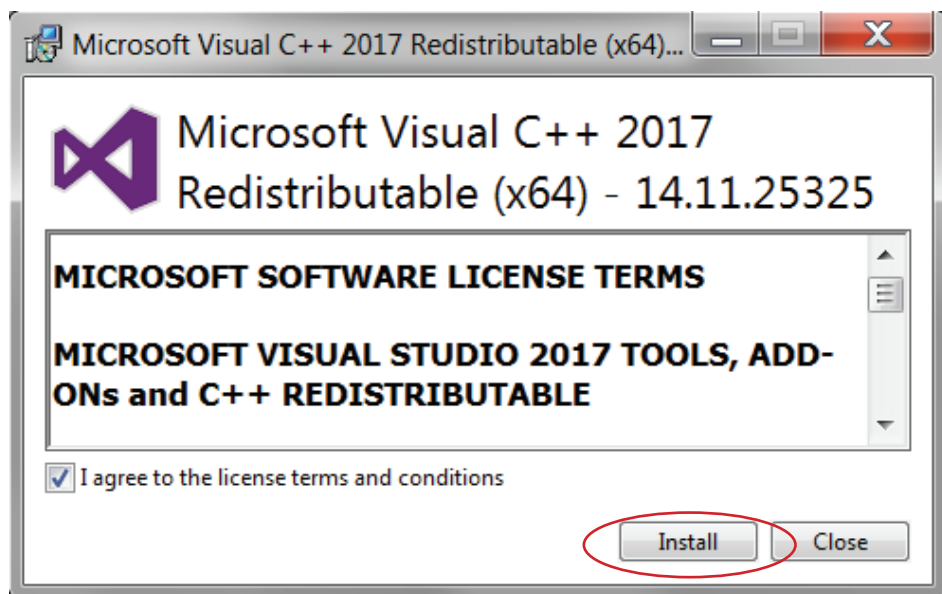
### Step 4. Click “ Yes “ to start the installation

Install Apache + PHP ✘

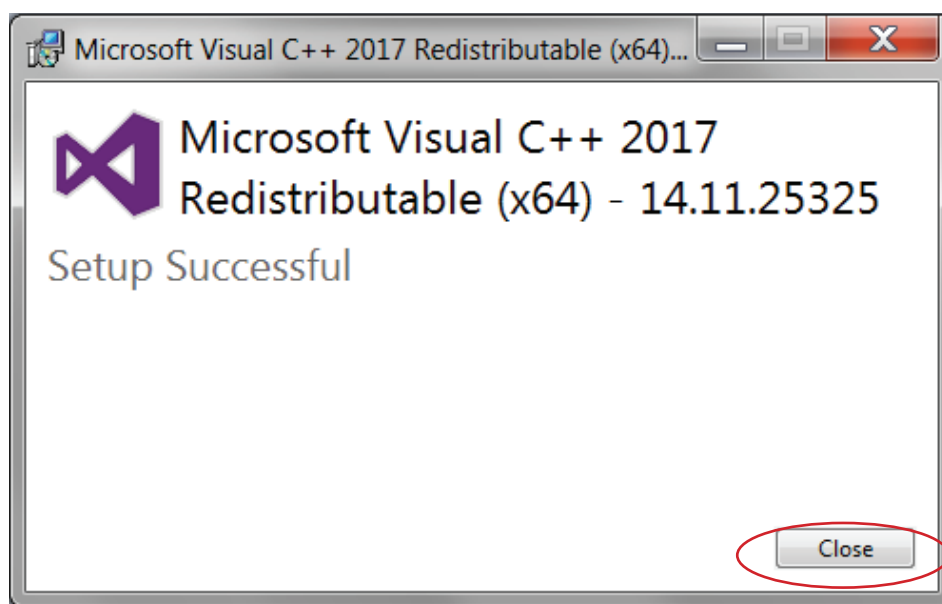
Are you sure to install Apache and PHP modules?

## < 2.6 > First Time Start-up Setting

**Step 5.** Click “ Install “ to install the Microsoft Visual C++ 2017 Redistributable package.



**Step 6.** Click “ Close “ to complete the installation.




## < 2.6 > First Time Start-up Setting

### Step 7. PostgreSQL 9.5 installation

InfraPower Manager (IPM-04)


### Software component(s) configuration & installation


The following 2 software component(s) are required to run InfraPower Manager .

( 1 ) Apache 2.4 + PHP 7.1  Running  
Ver. 2.4.29.0

Folder :

Listen port :

( 2 ) PostgreSQL 9.5  Ver. ---

Folder :  

PostgreSQL login :

PostgreSQL password :

PostgreSQL port :

Database initialization :  Create new  Use existing

IPM-04 database name :

IPM-04 database user :

IPM-04 database password :


Verifying PostgreSQL configuration ... failed

Ver. 0417V6 (build 4.217.39)

- Input the PostgreSQL 9.5 Installation path in “ **Folder** “ ( Default : **C:\AppServ\PostgreSQL9.5\** )
- Input the PostgreSQL login name in “ **PostgreSQL login** “ ( Default : **postgres** )
- Input the PostgreSQL password in “ **PostgreSQL password** “ ( Default : **1qaz2WSX** )
- Input the PostgreSQL port in “ **PostgreSQL port** “ ( Default : **5432** )
- Select “ Create new “ in “ **Database initialization** “ for first time installation
- Input IPM-04 database name in “ **IPM-04 database name** “ ( Default : **IPM-04** )
- Input IPM-04 database user in “ **IPM-04 database user** “ ( Default : **ipm-04** )
- Input IPM-04 database password in “ **IPM-04 database password** “ ( Default : **ipm-04** )



The password **MUST** contain at least three of the following four character groups:

- English uppercase characters ( A through Z )
  - English lowercase characters ( a through z )
  - Numerals ( 0 through 9 )
  - Non-alphabetic characters ( such as !, \$, #, % )
- Click  to install PostgreSQL 9.5

## < 2.6 > First Time Start-up Setting

Step 8. Click “Apply” to complete the first time start-up setting

InfraPower Manager (IPM-04)

### Software component(s) configuration & installation

The following 2 software component(s) are required to run InfraPower Manager .

( 1 ) Apache 2.4 + PHP 7.1 ✔ Running  
Ver. 2.4.29.0

Folder : C:\AppServ\Apache2.4\

Listen port : 80

( 2 ) PostgreSQL 9.5 ✔ Running  
Ver. 9.5.3.16130

Folder : C:\AppServ\PostgreSQL9.5\

PostgreSQL login : postgres

PostgreSQL password : 1qaz2WSX

PostgreSQL port : 5432

Database initialization :  Create new  Use existing

IPM-04 database name : db\_IPM-04

IPM-04 database user : ipm-04

IPM-04 database password : ipm-04

Verifying Apache configuration ... success

**Apply** Cancel

Ver. Q417V6 ( build 4.217.39 )

..... **Complete**

## < 2.7 > Web Server Port no. Change



### Web server port no. change

If users want to use another port no. instead of 80, please take the following steps after **InfraPower Manager IPM-04** “ **First time start-up setting** “ is completed.

**Step 1.** Go to the path of web server being installed. ( Default : **C:\AppServ\Apache2.4\conf\** )

**Step 2.** Open “ **httpd.conf** “ & change “ **Listen 80** “ to “ **Listen xx** “ where xx means that the port no. will be selected by the user

**Step 3.** Save the change of “ **httpd.conf** “

```
47 # (CFG_Apache_cqibin_PATH):
48 #
49 #       default=C:\AppServ\Apache24\cgi-bin
50 #-----
51 Define CFG_Apache_SrvName httpd
52
53 Define CFG_Apache_Listen 81
54 Define CFG_Apache_version_major 2
55 Define CFG_Apache_version_minor 4
56 Define CFG_Apache_php_version_major 7
57 Define CFG_Apache_ServerAdmin root
58 Define CFG_Apache_ServerAddress localhost
59 Define CFG_Apache_LogLevel error
60
61 Define CFG_Apache_ServerRoot C:\AppServ\Apache2.4
62 Define CFG_Apache_php_ServerRoot C:\AppServ\php7
63
64 Define CFG_Apache_php_module_name php${CFG_Apache_php_version_major}_module
65 Define CFG_Apache_php_module_dll ${CFG_Apache_php_ServerRoot}\php${CFG_Apache_php_version_major}\apache${CFG_Apache_version_major}_f${CFG_Apache_version_minor}.dll
66 Define CFG_Apache_php_PHPIniDir ${CFG_Apache_php_ServerRoot}
67
68 Define CFG_Apache_ServerName ${CFG_Apache_ServerAddress}:${CFG_Apache_Listen}
69 Define CFG_Apache_DocumentRoot ${CFG_Apache_SrvName}\www
70 Define CFG_Apache_ErrorLog ${CFG_Apache_ServerRoot}\logs\error.log
71 Define CFG_Apache_AccessLog ${CFG_Apache_ServerRoot}\logs\access.log
72 Define CFG_Apache_cqibin_PATH ${CFG_Apache_ServerRoot}\cgi-bin
73
74 #-----
75 #-----HTTPS-----
76 Define CFG_Apache_HTTPS_Listen 443
77 Define CFG_Apache_HTTPS_ServerRoot ${CFG_Apache_ServerRoot}
78 Define CFG_Apache_HTTPS_ServerAdmin ${CFG_Apache_ServerAdmin}
79 Define CFG_Apache_HTTPS_ServerAddress ${CFG_Apache_ServerAddress}
80 Define CFG_Apache_HTTPS_ServerName ${CFG_Apache_HTTPS_ServerAddress}:${CFG_Apache_HTTPS_Listen}
81 Define CFG_Apache_HTTPS_DocumentRoot ${CFG_Apache_SrvName}\www
82 Define CFG_Apache_HTTPS_ErrorLog ${CFG_Apache_HTTPS_ServerRoot}\logs\error.log
83 Define CFG_Apache_HTTPS_AccessLog ${CFG_Apache_HTTPS_ServerRoot}\logs\access.log
84 #-----
85 ServerRoot "${CFG_Apache_ServerRoot}"
86 Listen ${CFG_Apache_Listen}
87 LoadModule access_compat_module modules/mod_access_compat.so
88 LoadModule actions_module modules/mod_actions.so
89 LoadModule alias_module modules/mod_alias.so
90 LoadModule allowmethods_module modules/mod_allowmethods.so
```

**Step 4.** Open the config.ini of IPM-04 installation path.  
( Default : **C:\AppServ\Application\IPM-04\** )

**Step 5.** Change “ **service\_port=80** “ to “ **service\_port=xx** “ where xx must be the same as the one changed in httpd.conf

**Step 6.** Save the change of “ **config.ini** “

```
16 [DB]
17 host=localhost
18 port=5432
19 database=ipm-04
20 user=ipm-04
21 password=ipm-04
22 connectionstring=Server=${host};Port=${port};Database=${databaseName};UID=${username};PWD=${password};
23
24 [DATABASE]
25 AppServ=C:\AppServ\
26
27 [DATABASE_CFG]
28 module_name=PostgreSQL
29 version=ver=3.3.10
30 bin_file_full_path=C:\AppServ\postgresql9.5\bin\pg_ctl.exe
31 conf_file_full_path=C:\AppServ\postgresql9.5\data\postgresql.conf
32 service_name=PostgreSQL-3.3_x64
33 service_port=5432
34 admin_name=postgres
35 admin_pass=5773212345678910111213141516171819202122
36
37 [APACHE_CFG]
38 module_name=Apache
39 version=ver=2.4.29.0
40 bin_file_full_path=C:\AppServ\Apache2.4\bin\httpd.exe
41 conf_file_full_path=C:\AppServ\Apache2.4\conf\httpd.conf
42 service_port=80
43
44 www_root=C:\AppServ\www\
45 www_log_path=C:\AppServ\www\ipm-04\
46 ssl_module=mod_ssl
47 ssl_startap_openssl
48
49 [PHP_CFG]
50 module_name=PHP
51 version=ver=5.1.11.0
52 bin_file_full_path=C:\AppServ\php7\php.exe
53 conf_file_full_path=C:\AppServ\php7\php.ini
54
55 [APACHE_MODULES]
56 apache_install=installer_apache2.4_x64.msi
57 service_name=Apache 2.4_x64
58
59 [PHP_MODULES]
```

**Step 7.** Restart Apache services.

Go to **Control Panel > Administrative Tools > Services > Apache2.4** & Click “ **Restart** “

..... **Complete**


## Part III. System Setup & Remote Access

### < 3.1 > System Setup

Users can follow below step 1 - 3 to access the management PC and InfraPower Manager IPM-04

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

**Step 2.** Enter the URL of management PC into the address bar

 ( If fail to access, please ask MIS to check if the port for web server is enable.  
Default port : 80 )

e.g. <http://192.168.0.1/IPM-04/>

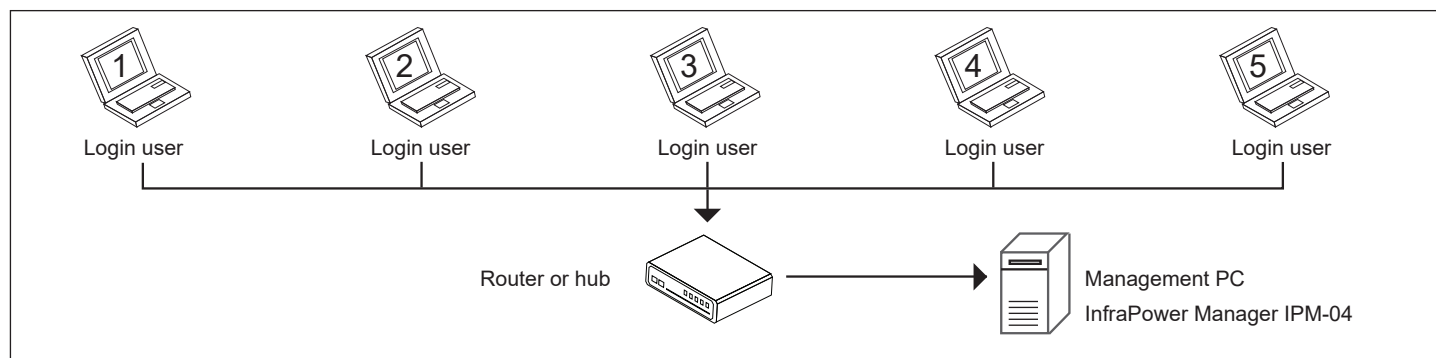
**Step 3.** Enter “ **User name** “. Default is “ **admin** “

Enter “ **Password** “. Default is “ **00000000** “

System authentication

User name

Password



Only one administrator among 5 concurrent users

Only Administrator is authorised to access :

< **User** >, < **Setup** >, < **Alarm** >, < **General** >, < **Backup** > & < **Global** >

## < 3.1 > System Setup

In < **User** >, administrator can create 4 more operators ( concurrent users ).

**Step 1.** Tick “ **Operator 1:** “

**Step 2.** Input “ **User name** “ & “ **User login password** “

**Step 3.** Input user login password in “ **Confirm password** “ again

**Step 4.** Repeat Step 1 to 3 for other operators

**Step 5.** Click “ **Apply** “ to finish the user setup

**User setup**

	Activate	User name	User login password	Confirm password
Administrator :	<input checked="" type="checkbox"/>	admin	*****	*****
<ul style="list-style-type: none"><li>• Only administrator is authorised to access SYSTEM SETTING.</li><li>• Only administrator is authorised to set and change all users' password.</li><li>• Min. 4 char. and max. 16 char. for user name.</li><li>• Min. 8 char. and max. 16 char. for user login password.</li><li>• If there is any change of user name, system will automatically delete the original operator and create a new one. A new user login password is required.</li></ul>				
Operator 01 :	<input checked="" type="checkbox"/>	Kenny.Wong	*****	*****
Operator 02 :	<input checked="" type="checkbox"/>	William.Wong	*****	*****
Operator 03 :	<input type="checkbox"/>			
Operator 04 :	<input type="checkbox"/>			



## < 3.1 > System Setup

In < Setup >, administrator can activate max. 50 IP Dongle groups & set the group command password

**Step 1.** “ Activate “ IP Dongle group 01

**Step 2.** Input “ IP address “ & “ password “ of the IP Dongle.

Please refer to Step. 10 & 7 of < 2.2 > IP dongle configuration respectively.

**Step 3.** “ Enable “ Command password

**Step 4.** Input “ New command password “. Default is “ 00000000 “

**Step 5.** Input new command password in “ Confirm new password “ again.

**Step 6.** Click “ Apply “ to finish the IP Dongle group setup

**Step 7.** Repeat step 1 to 6 for other IP Dongle groups

\* Initially, please setup the IP dongle one by one.

IP dongle group  :  Activate  Deactivate

- DO NOT activate the group if there is no any IP dongle and PDU connection.
- Each IP dongle group consists of one IP dongle and max. 32 PDUs.

IP dongle setting

IP dongle address :

IP dongle password :

- If the administrator wants to change IP dongle address and password, two steps are required.
- **Firstly**, enter the IP Setup utilities to make the change. ( ref. to User Manual < IP Dongle Configuration > )
- **Secondly**, return to this page to make the same change on IP address and password.

IP dongle group

Command password :  Enable  Disable

New command password :

Confirm new password :

- Administrator needs to set command password for IP dongle groups one by one.
- Command password is required for any PDU configuration and control.
- Administrator can either set different command password for different IP dongle group or all IP dongle groups share the same password.

## < 3.1 > System Setup

In < **Alarm** >, administrator can configure the alarm email server & max. 5 email recipients to receive alarm notifications from the software

Default is “**Disable**”.

**Step 1.** “ **Enable** “ alarm email

**Step 2.** Input “ **SMTP server** ” and “ **SMTP port** “

**Step 3.** Input “ **User email** “

**Step 4.** “ **Enable** “ or “ **Disable** “ the “ **SMTP authentication** “

**Step 5.** Input “ **User name** “ and “ **Password** “

**Step 6.** Select the “ **SMTP secure** “ ( None / SSL / TLS )

**Step 7.** Input the “ **Alarm interval** “

**Step 8.** Input the alarm recipient email account in “ **Alarm mail recipient 01** “

**Step 9.** Repeat step 8 for other alarm recipients

**Step 10.** Click “ **Apply** “ to finish the alarm email server setting

### Alarm email server setting

Alarm email :  Enable  Disable • This alarm setting is for all IP dongle PDU groups.

SMTP server :

SMTP port :

User email :

SMTP authentication :  Enable  Disable

User name :

Password :

SMTP secure :  ▼

Alarm interval :  ( Min. 10, Max. 60 minutes )

### Alarm email to

Alarm mail recipient 01 :  ×

Alarm mail recipient 02 :

Alarm mail recipient 03 :

Alarm mail recipient 04 :

Alarm mail recipient 05 :

## < 3.1 > System Setup

In < **General** >, administrator can change the “ **Refresh rate** “ , “ **Scan rate** “ & “ **Temperature unit** “ across all IP Dongle groups

### Auto data refresh

Refresh rate :  ( Min. 10, Max. 60 seconds )

- Auto data refresh rate on the page of **PDU STATUS**, **PDU DETAILS**, **OUTLET SCHEDULE OVERVIEW** and **TH STATUS**.

### IP dongle groups auto scan

Scan rate :  ( Min. 5, Max. 60 seconds )

- Auto scan rate on the page of **PDU STATUS**, **OUTLET SCHEDULE OVERVIEW** and **TH STATUS**.

### Temperature unit

Unit :  °C  °F

In < **Backup** >

Default is “ **Enable** “

Default Backup Path : “ **C:\AppServ\Application\IPM-04\** “

### Data backup setting

Daily backup :  Enable  Disable


Backup to :   
Example : C:\Program Files\IPM-04\

- Daily backup proceeded at 00:00 for last 24 hours data.
- The backup data for **PDU**, **Inline Meter**, **TH SENSOR LOG**, **EVENT** saved in CSV file format.
- Folder  will be automatically created under the path you entered.

## < 3.1 > System Setup

In < Global > , you can configure the settings of all the connected PDUs.

- Edit the PDU bank / circuit level Alarm amp. , rising alert amp. & low alert amp. Threshold
- Edit the PDU outlet level Alarm amp. , rising alert amp. & low alert amp. Threshold  
( Outlet Measurement PDU only )
- Activate / Deactivate the TH1 & TH2 sensor. When activated, you can edit the Temp. / Humid alarm & rising alert threshold.

 Before you do the PDU global setting , please search the connected PDUs of each IP dongle group first.

**PDU global setting**

**Bank amp. setting (Max. 6 banks)**

Alarm :

Rising alert :

Low alert :

**Outlet amp. setting (Max. 48 outlets)**

Alarm :

Rising alert :

Low alert :

**TH1 setting**

Activate  Deactivate

Temp. ( °C ) Humid. ( % )

Alarm :

Rising alert :

**TH2 setting**

Activate  Deactivate

Temp. ( °C ) Humid. ( % )

Alarm :

Rising alert :

## < 3.1 > System Setup

In < Sys log >, it provides past 2000 event records of :

- < User >

- < Setup >

- < Alarm >

- < General >

- < Backup >

First / Previous 1 2 3 4 5 6 7 8 9 10 Next / Last				Last 2000 log records.	
Date	Time	Event	Description		
2012/05/24	15:38:18	User	[ admin ] : Add operator - Operator 01 - Kenny.Wong		
2012/05/24	15:38:18	User	[ admin ] : Add operator - Operator 02 - William.Wong		
2012/05/17	17:43:18	Setup	[ admin ] : Disable command password - IP dongle group 01		
2012/05/17	17:36:23	Setup	[ admin ] : Enable command password - IP dongle group 01		

System setup events						
- User	(1)	Add / Delete operator		- General	(1)	Change refresh mode time rate
	(2)	Change user login password			(2)	Change scan mode time rate
- Setup	(1)	Activate / Deactivate IP dongle group [No.]			(3)	Change temperature unit
	(2)	Change IP dongle [No.] address or password		- Backup	(1)	Enable / Disable daily backup
	(3)	Enable / Disable IP dongle group [No.] command password			(2)	Change backup path
	(4)	Change IP dongle group [No.] command password				
- Alarm	(1)	Enable or Disable alarm				
	(2)	Change alarm email server setting				
	(3)	Add / Delete alarm mail recipient				

## < 3.2 > Remote Access

After the completion of < **System Setup** > administrator and 4 concurrent users can access the management PC remotely. All of them can follow the steps below to access management PC &

IPM-04

**Step 1.** Add the port of web server in the firewall settings of the management PC.

- Open “ **Control Panel** ”
- Select “ **Windows Firewall** ”
- Select “ **Advanced settings** ”
- Right Click “ **Inbound Rules** ” & select “ **New Rule...** ”
- Select “ **Port** ” & Click “ **Next>** ”
- Select “ **TCP** ” then “ **All local ports** ” & Click “ **Next>** ”
- Select “ **Allow the connection** ” & Click “ **Next>** ”
- Tick all three options & Click “ **Next>** ”
- Input the “ **Name** ” & “ **Description** ” of the port & Click “ **Finish** ”

**Step 2.** Open the web browser of remote client PC

**Step 3.** Input the URL of InfraPower Manager IPM-04 in the address bar

e.g. <http://192.168.0.1/IPM-04/>



If the port no. of web server is not 80, please enter the appropriate port no. follow the IP address e.g. <http://192.168.0.1:81/IPM-04/>

**Step 4.** System authentication page pops up automatically.

Input “ **User name** ”, “ **Password** ” & Click “ **Login** ”

System authentication

User name

Password

## Part IV. Software Usage & Operation

### < 4.1 > Status

< Status > provides

- **Search** function to search new installed PDUs in each IP Dongle group. \*\*

During searching process, the PDU system timer will be synchronized from the management PC

- **Scan** function to monitor the PDUs' status of each IP Dongle group **ONE by ONE**

- View latest loading on each PDU's banks / circuits

- View aggregate current & energy consumption on each PDU

- View status & reading of Temp. & Humid sensors connected to each PDU

- View status of Door / Smoke sensors connected to each PDU

\*\* Please search the new installed PDUs via PPS-03-S WEBUI before do the searching in IPM-04. Details please refer to PPS-03-S user manual < 1.5 >

**Status**

IP dongle name: default\_ipd\_name  
IP address: 192.168.1.216

Page: 1 2 3 4

Level	Name	Location	Amp			kWh	kVA	Amp			kWh	kVA	Total			Sensor 1		Sensor 2		Leakage mA
			Max.	Load	Alarm / R. alert / L. alert			Max.	Load	Alarm / R. alert / L. alert			Load	kWh	kVA	Type	Status	Type	Status	
01	default_pdu_name	default_pdu_loc.	A	16.0 / 0.0 / 6.0 / 0.0 / 0.0	0.00	0.00	B	16.0 / 0.0 / 6.1 / 3.1 / 1.1	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-	
02	default_pdu_name	default_pdu_loc.	A	16.0 / 0.0 / 12.8 / 0.0 / 0.0	0.00	0.00	-	- / - / - / - / -	-	-	-	-	0.00	0.00	0.00	-	-	-	-	
03	default_pdu_name	default_pdu_loc.	A	32.0 / 0.0 / 25.6 / 0.0 / 0.0	1.07	0.00	-	- / - / - / - / -	-	-	-	-	0.00	1.07	0.00	-	-	-	-	
04	default_pdu_name	default_pdu_loc.	L1 - B1	16.0 / 0.0 / 12.8 / 0.0 / 0.0	0.08	0.00	L1 - B2	16.0 / 0.0 / 12.8 / 0.0 / 0.0	0.12	0.00	0.00	0.48	0.00	-	-	-	-	-		
			L2 - B3	16.0 / 0.0 / 12.8 / 0.0 / 0.0	0.07	0.00	L2 - B4	16.0 / 0.0 / 12.8 / 0.0 / 0.0	0.05	0.00	0.00	0.00	0.00	-	-	-	-			
			L3 - B5	16.0 / 0.0 / 12.8 / 0.0 / 0.0	0.07	0.00	L3 - B6	16.0 / 0.0 / 3.0 / 0.0 / 0.0	0.09	0.00	0.00	0.00	0.00	-	-	-	-			
06	default_pdu_name	default_pdu_loc.	I - L1B1	16.0 / 0.0 / 12.8 / 0.0 / 0.0	0.00	0.00	I - L1B2	16.0 / 0.0 / 12.8 / 0.0 / 0.0	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-		
			I - L2B3	16.0 / 0.0 / 12.8 / 0.0 / 0.0	0.00	0.00	I - L2B4	16.0 / 0.0 / 12.8 / 0.0 / 0.0	0.00	0.00	0.00	0.00	0.00	-	-	-	-			
			I - L3B5	16.0 / 0.0 / 12.8 / 0.0 / 0.0	0.00	0.00	I - L3B6	16.0 / 0.0 / 12.8 / 0.0 / 0.0	0.00	0.00	0.00	0.00	0.00	-	-	-	-			
			II - L1B1	16.0 / 0.0 / 12.8 / 0.0 / 0.0	0.00	0.00	II - L1B2	16.0 / 0.0 / 12.8 / 0.0 / 0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	-		
			II - L2B3	16.0 / 0.0 / 12.8 / 0.0 / 0.0	0.00	0.00	II - L2B4	16.0 / 0.0 / 12.8 / 0.0 / 0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	-		
			II - L3B5	16.0 / 0.0 / 12.8 / 0.0 / 0.0	0.00	0.00	II - L3B6	16.0 / 0.0 / 12.8 / 0.0 / 0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	-		
07	default_pdu_name	default_pdu_loc.	Bank1	16.0 / 0.0 / 3.0 / 0.0 / 0.0	1.05	0.00	Bank2	16.0 / 0.0 / 3.5 / 0.0 / 0.0	0.00	0.00	0.00	1.05	0.00	-	-	-	-			
			Bank3	16.0 / 0.0 / 6.0 / 0.0 / 0.0	0.00	0.00	Bank4	16.0 / 0.0 / 6.5 / 0.0 / 0.0	0.00	0.00	0.00	0.00	0.00	-	-	-	-			
08	default_pdu_name	default_pdu_loc.	I - A	16.0 / 0.0 / 12.8 / 0.0 / 0.0	0.02	0.00	I - B	16.0 / 0.0 / 12.8 / 0.0 / 0.0	0.00	0.00	0.00	0.02	0.00	-	-	-	-			
			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	0.04	0.00	0.00	0.04	0.00	-	-	-	-			

Auto data refresh: [ ] Unlock during data input.

Search new installed devices

\* Press F11 to enlarge or diminish the screen



## < 4.2 > Details

In < **Details** > ,

- Change “ **Name** “ and “ **Location** “ of PDU & Click “ **Apply** “
- Change “ **Alarm amp.** “ . “ **Rising alert amp.** “ & “ **Low alert amp.** “ of PDU’s banks or circuits & Click “ **Apply** “
- Click “ **Reset** “ to reset peak amp. and kWh of PDU’s banks or circuits if necessary
- Click “ **ON / OFF** “ to switch ON / OFF outlet ( Switched PDU only )
- View On / OFF status of each PDU’s outlet
- View aggregated current on the PDU
- View latest loading & energy consumption of each PDU outlet ( Outlet Measurement PDU only )
- View latest Voltage of each PDU bank or circuit

### Dual Feed PDU Details

Level: 05 DV40C138C19-32A-WSI      Name: default\_pdu\_name  
 Status: Connected      Location: default\_pdu\_loc.

**I**      kWh: 0.02      Power factor: 0.00      Frequency: 50.0  
 Load amp: 0.0      kVA: 0.00

**I - A**      Voltage: 218.8      Alarm amp: 12.8  
 Max. amp: 16.0      Rising alert amp: 0.0  
 Load amp: 0.0      Low alert amp: 0.0  
 Peak amp: 4.3      2021/09/21 13:53:34      Reset  
 kWh: 0.02      2021/09/17 11:55:59      Reset

**I - B**      Voltage: 218.8      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
01	outlet_name_01	0.0	0.02	0.00	ON	<span style="border: 1px solid black; padding: 2px;">OFF</span>
03	outlet_name_03	0.0	0.00	0.00	ON	<span style="border: 1px solid black; padding: 2px;">OFF</span>
05	outlet_name_05	0.0	0.00	0.00	ON	<span style="border: 1px solid black; padding: 2px;">OFF</span>
07	outlet_name_07	0.0	0.00	0.00	ON	<span style="border: 1px solid black; padding: 2px;">OFF</span>
09	outlet_name_09	0.0	0.00	0.00	ON	<span style="border: 1px solid black; padding: 2px;">OFF</span>
11	outlet_name_11	0.0	0.00	0.00	ON	<span style="border: 1px solid black; padding: 2px;">OFF</span>
13	outlet_name_13	0.0	0.00	0.00	ON	<span style="border: 1px solid black; padding: 2px;">OFF</span>
15	outlet_name_15	0.0	0.00	0.00	ON	<span style="border: 1px solid black; padding: 2px;">OFF</span>
17	outlet_name_17	0.0	0.00	0.00	ON	<span style="border: 1px solid black; padding: 2px;">OFF</span>
19	outlet_name_19	0.0	0.00	0.00	ON	<span style="border: 1px solid black; padding: 2px;">OFF</span>
C01	outlet_name_21	0.0	0.00	0.00	ON	<span style="border: 1px solid black; padding: 2px;">OFF</span>
C03	outlet_name_23	0.0	0.00	0.00	ON	<span style="border: 1px solid black; padding: 2px;">OFF</span>

Click outlet icon for setting

**II**      kWh: 0.04      Power factor: 0.00      Frequency: 50.1  
 Load amp: 0.0      kVA: 0.00

**II - A**      Voltage: 216.7      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

**II - B**      Voltage: 216.7      Alarm amp: 12.8  
 Max. amp: 16.0      Rising alert amp: 0.0  
 Load amp: 0.0      Low alert amp: 0.0  
 Peak amp: 4.3      2021/09/21 14:01:21      Reset  
 kWh: 0.04      2021/09/17 11:56:16      Reset

Outlet	Name	Amp	kWh	kVA	Status	Switch
01	outlet_name_25	0.0	0.00	0.00	ON	<span style="border: 1px solid black; padding: 2px;">OFF</span>
03	outlet_name_27	0.0	0.00	0.00	ON	<span style="border: 1px solid black; padding: 2px;">OFF</span>
05	outlet_name_29	0.0	0.00	0.00	ON	<span style="border: 1px solid black; padding: 2px;">OFF</span>
07	outlet_name_31	0.0	0.00	0.00	ON	<span style="border: 1px solid black; padding: 2px;">OFF</span>
09	outlet_name_33	0.0	0.00	0.00	ON	<span style="border: 1px solid black; padding: 2px;">OFF</span>
11	outlet_name_35	0.0	0.00	0.00	ON	<span style="border: 1px solid black; padding: 2px;">OFF</span>
13	outlet_name_37	0.0	0.00	0.00	ON	<span style="border: 1px solid black; padding: 2px;">OFF</span>
15	outlet_name_39	0.0	0.00	0.00	ON	<span style="border: 1px solid black; padding: 2px;">OFF</span>
17	outlet_name_41	0.0	0.00	0.00	ON	<span style="border: 1px solid black; padding: 2px;">OFF</span>
19	outlet_name_43	0.0	0.00	0.00	ON	<span style="border: 1px solid black; padding: 2px;">OFF</span>
C01	outlet_name_45	0.0	0.00	0.00	ON	<span style="border: 1px solid black; padding: 2px;">OFF</span>
C03	outlet_name_47	0.0	0.00	0.00	ON	<span style="border: 1px solid black; padding: 2px;">OFF</span>

Click outlet icon for setting

Auto data refresh: ■■■■■■■■■■      Untick during data input  
Apply      Save new data

Set maintenance      All IPM communication to and from the PDU is stopped, notification to the user is stopped, and the PDU readings are '-'.  
Set PDU in Maintenance mode

Disable monitoring      Stop monitoring removed PDU

\* Press F11 to enlarge or diminish the screen



## < 4.3 > Outlet Setting

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

PDU level :  DV40C13/8C19-32A-WSI  
Stafts : Connected  
Name : default\_pdu\_name  
Location : default\_pdu\_loc.

**I - A**

Outlet :  

Name :

Status : ON

Power up sequence delay :  ( Min. 1, Max. 10 seconds )

Load amp :

Alarm amp :

Rising alert amp :

Low alert amp :

Peak amp : 4.2      2021/09/21 13:53:33     

kWh : 0.02      2021/09/17 12:07:58     


kVA : 0.00

---

## < 4.4 > Sensor Status

In < **Sensor status** > ,

- View status, location, latest reading & alarm setting of Temp. & Humid sensors
- View status & location of Door sensor & Smoke sensor

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

### Sensor Status

IP Dongle name : default\_name

LAN 1 IPv4 address : 192.168.1.62      LAN 2 IPv4 address : 192.168.0.2

LAN 1 IPv6 address : 2001:0:1:a2::ec11/64      LAN 2 IPv6 address : 2001:0:1:a2::ec01/64

---

Level Name	Setting	Sensor 1					Sensor 2				
		Location	Type	Status	Alarm	R.alert	Location	Type	Status	Alarm	R.alert
01	default_pdu_name	sensor_location	Temp. (°C)	33.0	35.0	0.0	sensor_location	Door	Close	-	-
02	default_pdu_name	sensor_location	Smoke	Normal	-	-	sensor_location	Temp. (°C)	34.7	45.0	0.0
03	default_pdu_name	-	-	-	-	-	-	-	-	-	-
04	default_pdu_name	-	-	-	-	-	-	-	-	-	-
05	default_pdu_name	-	-	-	-	-	-	-	-	-	-
06	default_pdu_name	-	-	-	-	-	-	-	-	-	-
07	default_pdu_name	-	-	-	-	-	-	-	-	-	-
08	default_pdu_name	-	-	-	-	-	-	-	-	-	-
09	default_pdu_name	-	-	-	-	-	-	-	-	-	-
10	default_pdu_name	-	-	-	-	-	-	-	-	-	-
11	default_pdu_name	-	-	-	-	-	-	-	-	-	-
12	default_pdu_name	-	-	-	-	-	-	-	-	-	-
13	default_pdu_name	-	-	-	-	-	-	-	-	-	-
14	default_pdu_name	-	-	-	-	-	-	-	-	-	-
15	default_pdu_name	-	-	-	-	-	-	-	-	-	-
16	default_pdu_name	-	-	-	-	-	-	-	-	-	-
17	default_pdu_name	-	-	-	-	-	-	-	-	-	-
18	default_pdu_name	-	-	-	-	-	-	-	-	-	-
19	default_pdu_name	-	-	-	-	-	-	-	-	-	-
20	default_pdu_name	-	-	-	-	-	-	-	-	-	-
21	default_pdu_name	-	-	-	-	-	-	-	-	-	-
22	default_pdu_name	-	-	-	-	-	-	-	-	-	-
23	default_pdu_name	-	-	-	-	-	-	-	-	-	-
24	default_pdu_name	-	-	-	-	-	-	-	-	-	-
25	default_pdu_name	-	-	-	-	-	-	-	-	-	-
26	default_pdu_name	-	-	-	-	-	-	-	-	-	-
27	default_pdu_name	-	-	-	-	-	-	-	-	-	-
28	default_pdu_name	-	-	-	-	-	-	-	-	-	-
29	default_pdu_name	-	-	-	-	-	-	-	-	-	-
30	default_pdu_name	-	-	-	-	-	-	-	-	-	-
31	default_pdu_name	-	-	-	-	-	-	-	-	-	-
32	default_pdu_name	-	-	-	-	-	-	-	-	-	-

---

Auto data refresh :  Untick during data input

## < 4.5 > Sensor Setting

In < **Sensor Setting** > ,

- Default Sensor setting :
- “ **Activate** ” sensors ONLY when they are connected
- Change “ **Location** ” , “ **Rising alert Setting** ” & “ **Alarm Setting** ” of Temp. & Humid sensors
- Change “ **Location** ” of Door sensor & Smoke sensor



If no any sensor connected, NEVER activate.

**Sensor Setting**

Level :  V48C13/24C19-32A-WSI  
Status : Connected  
Name : default\_pdu\_name  
Location : default\_pdu\_loc.

**Sensor 1**  Activate  Deactivate

Type Temp. sensor  
Location :

**Alarm** **Rising alert**

	Setting	Reading
Temp.(°C) :	<input type="text" value="35.0"/>	<input type="text" value="0.0"/> 33.0

**Sensor 2**  Activate  Deactivate

Type Door sensor  
Location :   
State Close

**DO NOT** activate T or TH sensor if no sensor installed.  
When install T or TH sensor, please tick activate.  
Otherwise, no readings display.

Save new data input  
 Discard new data input  
 Return to previous page

## < 4.6 > Outlet Schedule Overview









< **Outlet Schedule Overview** > provides an overview on outlet schedule setting of PDUs, and scan the page by IP Dongle group one by one.

**Outlet schedule overview**

IP dongle name : default\_ipd\_name  
IP address : 192.168.0.1

---

Page : 1 2

PDU Level	Name	Setting	Outlet Schedule # 1 - 2		Outlet Schedule # 3 - 4		Outlet Schedule # 5 - 6	
			Name	Action	Name	Action	Name	Action
01	3PWSi48-50A		-	Disabled	-	Disabled	-	Disabled
			-	Disabled	-	Disabled	-	Disabled
02	SPWSi24-32A		-	Disabled	-	Disabled	-	Disabled
			-	Disabled	-	Disabled	-	Disabled
03	SPWSi24-32A		ScheduleName_01	Daily - On	-	Disabled	-	Disabled
			-	Disabled	-	Disabled	-	Disabled
04	3PWSi36-32A		-	Disabled	-	Disabled	-	Disabled
			-	Disabled	-	Disabled	-	Disabled
05	SPW23-32A		-	Disabled	-	Disabled	-	Disabled
			-	Disabled	-	Disabled	-	Disabled
06	SPWSi12-32A		-	Disabled	-	Disabled	-	Disabled
			-	Disabled	-	Disabled	-	Disabled
07	SPW23-32A		-	Disabled	-	Disabled	-	Disabled
			-	Disabled	-	Disabled	-	Disabled
08	3PWS36-32A		-	Disabled	-	Disabled	-	Disabled
			-	Disabled	-	Disabled	-	Disabled

---

Auto data refresh : ■■■■■■■■ Untick during data input

Search new installed PDUs

\* Press F11 to enlarge or diminish the screen

## < 4.7 > Outlet Schedule Setting

In < **Outlet Schedule Setting** >, user can set max. 6 outlet On / Off schedules in each PDU. The outlet schedule can be set on one-time, daily or weekly basis. ( Switched PDU with 1.8" LCD meter only )

### Outlet schedule setting

PDU level :  H8C13-32A-WSi  
Status : Connected  
Name : SPWSI8-32A  
Location : Server\_Rack\_004R

Outlet schedule :   Disable  Enable

Name :

Action :  OFF  ON

Time :  Daily  Weekly  One-Time  
 /  ( MM / DD date format )  
  :  ( 24 hours format )

### Outlet schedule

#### PDU

#### A

- 01 Dell\_Server\_001
- 02 outlet\_name\_02
- 03 outlet\_name\_03
- 04 outlet\_name\_04

#### B

- 05 Dell\_Server\_002
- 06 outlet\_name\_06
- 07 outlet\_name\_07
- 08 outlet\_name\_08

---

## < 4.7 > Outlet Schedule Setting

PDU outlet schedule is a function allowing users to set a specific time to switch either ON or OFF the outlets on daily, weekly or one-time basis.









Each PDU provides **6 schedule tasks**. Users can follow the steps below to enable the PDU outlet schedule

**Step 1.** Go to < **Outlet Schedule Overview** > page, Click “ **Setting** ”

### Outlet schedule overview

IP dongle name : default\_ipd\_name  
IP address : 192.168.0.1

Page : 1 2

PDU Level	Name	Setting	Outlet Schedule # 1 - 2		Outlet Schedule # 3 - 4		Outlet Schedule # 5 - 6	
			Name	Action	Name	Action	Name	Action
01	3PWSi48-50A		-	Disabled	-	Disabled	-	Disabled
02	SPWSi24-32A		-	Disabled	-	Disabled	-	Disabled
03	SPWSi24-32A		ScheduleName_01	Daily - On	-	Disabled	-	Disabled
04	3PWSi36-32A		-	Disabled	-	Disabled	-	Disabled
05	SPW23-32A		-	Disabled	-	Disabled	-	Disabled
06	SPWSi12-32A		-	Disabled	-	Disabled	-	Disabled
07	SPW23-32A		-	Disabled	-	Disabled	-	Disabled
08	3PWS36-32A		-	Disabled	-	Disabled	-	Disabled

Auto data refresh : ■■■■■■■■ Untick during data input

Search new Installed PDUs

\* Press F11 to enlarge or diminish the screen

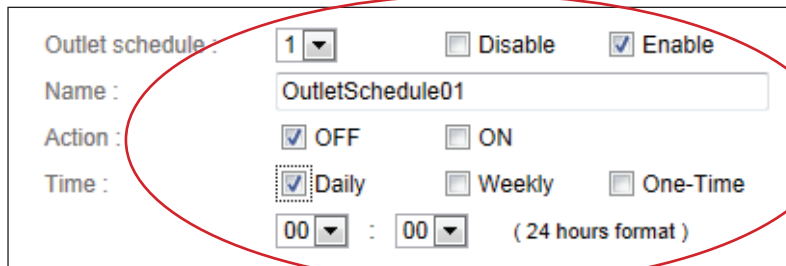
## < 4.7 > Outlet Schedule Setting

**Step 2.** In < Outlet Schedule Setting > page, Select “ Outlet schedule 1 “ & Tick “ Enable “

**Step 3.** Provide the name of the outlet schedule

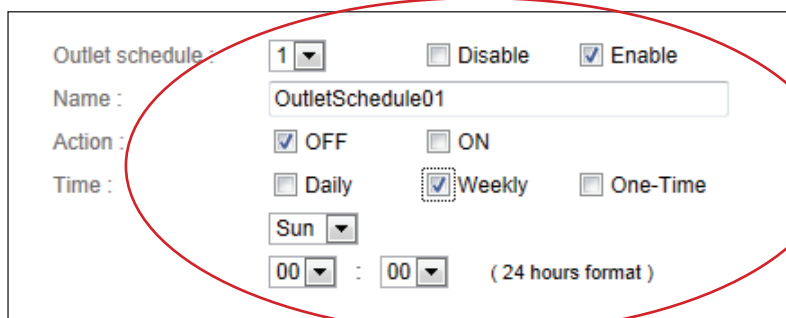
**Step 4.** Select the action ( either ON or OFF )

**Step 5.** Select the time for outlet schedule.



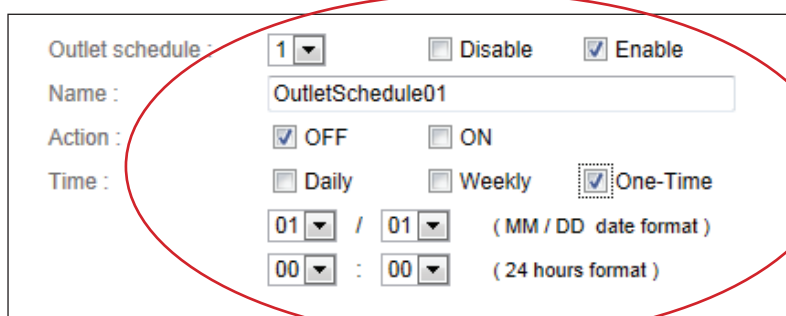
Outlet schedule : 1  Disable  Enable  
Name : OutletSchedule01  
Action :  OFF  ON  
Time :  Daily  Weekly  One-Time  
00 : 00 ( 24 hours format )

**Daily ON / OFF Schedule**



Outlet schedule : 1  Disable  Enable  
Name : OutletSchedule01  
Action :  OFF  ON  
Time :  Daily  Weekly  One-Time  
Sun  
00 : 00 ( 24 hours format )

**Weekly ON / OFF Schedule**



Outlet schedule : 1  Disable  Enable  
Name : OutletSchedule01  
Action :  OFF  ON  
Time :  Daily  Weekly  One-Time  
01 / 01 ( MM / DD date format )  
00 : 00 ( 24 hours format )

**One-time ON / OFF Schedule**

## < 4.7 > Outlet Schedule Setting

**Step 6.** Tick the outlets to switch ON / OFF

Outlet schedule

PDU

**A**

01 Dell\_Server\_001

02 outlet\_name\_02

03 outlet\_name\_03

04 outlet\_name\_04

**B**

05 Dell\_Server\_002

06 outlet\_name\_06

07 outlet\_name\_07

08 outlet\_name\_08

Apply Save new data Exit Return to OUTLET SCHEDULE

Cancel Cancel new data input

**Step 7.** Click “ **Apply** ” to save the settings

**Step 8.** Repeat step 2 to 7 for Outlet Schedule no.2 to 6 if necessary



If the outlet schedule task is “ **One-Time** “, the setting will return to “ **Disable** “ once the task is completed.

To cancel the outlet schedule, tick “ **Disable** “ & Click “ **Apply** “ to finish the change.



# Part V. Log & Events

## < 5.1 > Single Phase PDU / Outlet Log

### < Single Phase PDU Log >

provides past 2000 log records of each Single Phase PDU.

The software will generate a PDU log record every 10 mins.

Single Feed > Single Phase > PDU log

PDU level: 02

Date	Time	Model	Name	Location	Status	Circuit A			Circuit B			Total		
						Amp	kWh	kVA	Amp	kWh	kVA	Amp	kWh	kVA
2017/12/20	10:38:16	V1UK7C134C19-32A-WSI	SPWSI12-32A	Server_Rack_005L	Connected	16 / 0.2 / 10.0 / 0.0 / 0.0	257.27	0.04	16 / 0.0 / 10.0 / 0.0 / 0.0	0.31	0.00	0.2	257.58	0.05
2017/12/20	10:28:15	V1UK7C134C19-32A-WSI	SPWSI12-32A	Server_Rack_005L	Connected	16 / 0.2 / 10.0 / 0.0 / 0.0	257.27	0.04	16 / 0.0 / 10.0 / 0.0 / 0.0	0.31	0.00	0.2	257.58	0.05
2017/12/20	10:18:14	V1UK7C134C19-32A-WSI	SPWSI12-32A	Server_Rack_005L	Connected	16 / 0.2 / 10.0 / 0.0 / 0.0	257.28	0.04	16 / 0.0 / 10.0 / 0.0 / 0.0	0.31	0.00	0.2	257.57	0.05
2017/12/20	10:08:12	V1UK7C134C19-32A-WSI	SPWSI12-32A	Server_Rack_005L	Connected	16 / 0.2 / 10.0 / 0.0 / 0.0	257.28	0.05	16 / 0.0 / 10.0 / 0.0 / 0.0	0.31	0.00	0.2	257.57	0.05
2017/12/20	09:58:11	V1UK7C134C19-32A-WSI	SPWSI12-32A	Server_Rack_005L	Connected	16 / 0.2 / 10.0 / 0.0 / 0.0	257.28	0.05	16 / 0.0 / 10.0 / 0.0 / 0.0	0.31	0.00	0.2	257.57	0.05
2017/12/20	09:48:10	V1UK7C134C19-32A-WSI	SPWSI12-32A	Server_Rack_005L	Connected	16 / 0.2 / 10.0 / 0.0 / 0.0	257.28	0.05	16 / 0.0 / 10.0 / 0.0 / 0.0	0.31	0.00	0.2	257.57	0.05
2017/12/20	09:38:08	V1UK7C134C19-32A-WSI	SPWSI12-32A	Server_Rack_005L	Connected	16 / 0.2 / 10.0 / 0.0 / 0.0	257.28	0.05	16 / 0.0 / 10.0 / 0.0 / 0.0	0.31	0.00	0.2	257.57	0.05
2017/12/20	09:28:07	V1UK7C134C19-32A-WSI	SPWSI12-32A	Server_Rack_005L	Connected	16 / 0.2 / 10.0 / 0.0 / 0.0	257.28	0.05	16 / 0.0 / 10.0 / 0.0 / 0.0	0.31	0.00	0.2	257.57	0.05
2017/12/20	09:18:06	V1UK7C134C19-32A-WSI	SPWSI12-32A	Server_Rack_005L	Connected	16 / 0.2 / 10.0 / 0.0 / 0.0	257.28	0.05	16 / 0.0 / 10.0 / 0.0 / 0.0	0.31	0.00	0.2	257.57	0.05
2017/12/20	09:08:05	V1UK7C134C19-32A-WSI	SPWSI12-32A	Server_Rack_005L	Connected	16 / 0.2 / 10.0 / 0.0 / 0.0	257.28	0.05	16 / 0.0 / 10.0 / 0.0 / 0.0	0.31	0.00	0.2	257.57	0.05
2017/12/20	08:58:04	V1UK7C134C19-32A-WSI	SPWSI12-32A	Server_Rack_005L	Connected	16 / 0.2 / 10.0 / 0.0 / 0.0	257.28	0.05	16 / 0.0 / 10.0 / 0.0 / 0.0	0.31	0.00	0.2	257.57	0.05
2017/12/20	08:48:03	V1UK7C134C19-32A-WSI	SPWSI12-32A	Server_Rack_005L	Connected	16 / 0.2 / 10.0 / 0.0 / 0.0	257.28	0.05	16 / 0.0 / 10.0 / 0.0 / 0.0	0.31	0.00	0.2	257.57	0.05
2017/12/20	08:38:02	V1UK7C134C19-32A-WSI	SPWSI12-32A	Server_Rack_005L	Connected	16 / 0.2 / 10.0 / 0.0 / 0.0	257.28	0.05	16 / 0.0 / 10.0 / 0.0 / 0.0	0.31	0.00	0.2	257.56	0.05
2017/12/20	08:28:01	V1UK7C134C19-32A-WSI	SPWSI12-32A	Server_Rack_005L	Connected	16 / 0.2 / 10.0 / 0.0 / 0.0	257.28	0.05	16 / 0.0 / 10.0 / 0.0 / 0.0	0.31	0.00	0.2	257.56	0.05
2017/12/20	08:17:59	V1UK7C134C19-32A-WSI	SPWSI12-32A	Server_Rack_005L	Connected	16 / 0.2 / 10.0 / 0.0 / 0.0	257.28	0.05	16 / 0.0 / 10.0 / 0.0 / 0.0	0.31	0.00	0.2	257.56	0.05
2017/12/20	08:07:58	V1UK7C134C19-32A-WSI	SPWSI12-32A	Server_Rack_005L	Connected	16 / 0.2 / 10.0 / 0.0 / 0.0	257.28	0.05	16 / 0.0 / 10.0 / 0.0 / 0.0	0.31	0.00	0.2	257.56	0.05
2017/12/20	07:57:56	V1UK7C134C19-32A-WSI	SPWSI12-32A	Server_Rack_005L	Connected	16 / 0.2 / 10.0 / 0.0 / 0.0	257.28	0.05	16 / 0.0 / 10.0 / 0.0 / 0.0	0.31	0.00	0.2	257.56	0.05
2017/12/20	07:47:55	V1UK7C134C19-32A-WSI	SPWSI12-32A	Server_Rack_005L	Connected	16 / 0.2 / 10.0 / 0.0 / 0.0	257.24	0.05	16 / 0.0 / 10.0 / 0.0 / 0.0	0.31	0.00	0.2	257.55	0.05
2017/12/20	07:37:54	V1UK7C134C19-32A-WSI	SPWSI12-32A	Server_Rack_005L	Connected	16 / 0.2 / 10.0 / 0.0 / 0.0	257.24	0.05	16 / 0.0 / 10.0 / 0.0 / 0.0	0.31	0.00	0.2	257.55	0.05
2017/12/20	07:27:52	V1UK7C134C19-32A-WSI	SPWSI12-32A	Server_Rack_005L	Connected	16 / 0.2 / 10.0 / 0.0 / 0.0	257.24	0.05	16 / 0.0 / 10.0 / 0.0 / 0.0	0.31	0.00	0.2	257.55	0.05
2017/12/20	07:17:50	V1UK7C134C19-32A-WSI	SPWSI12-32A	Server_Rack_005L	Connected	16 / 0.2 / 10.0 / 0.0 / 0.0	257.24	0.05	16 / 0.0 / 10.0 / 0.0 / 0.0	0.31	0.00	0.2	257.55	0.05
2017/12/20	07:07:48	V1UK7C134C19-32A-WSI	SPWSI12-32A	Server_Rack_005L	Connected	16 / 0.2 / 10.0 / 0.0 / 0.0	257.24	0.05	16 / 0.0 / 10.0 / 0.0 / 0.0	0.31	0.00	0.2	257.55	0.05
2017/12/20	06:57:47	V1UK7C134C19-32A-WSI	SPWSI12-32A	Server_Rack_005L	Connected	16 / 0.2 / 10.0 / 0.0 / 0.0	257.24	0.05	16 / 0.0 / 10.0 / 0.0 / 0.0	0.31	0.00	0.2	257.55	0.05
2017/12/20	06:47:46	V1UK7C134C19-32A-WSI	SPWSI12-32A	Server_Rack_005L	Connected	16 / 0.2 / 10.0 / 0.0 / 0.0	257.24	0.05	16 / 0.0 / 10.0 / 0.0 / 0.0	0.31	0.00	0.2	257.55	0.05
2017/12/20	06:37:44	V1UK7C134C19-32A-WSI	SPWSI12-32A	Server_Rack_005L	Connected	16 / 0.2 / 10.0 / 0.0 / 0.0	257.24	0.05	16 / 0.0 / 10.0 / 0.0 / 0.0	0.31	0.00	0.2	257.55	0.05

First / Previous 1 2 3 4 5 6 7 8 9 10 Next / Last

Last 2000 log records.

\* Press F11 to enlarge or diminish the screen

### < Single Phase PDU Outlet Log >

provides past 2000 log records of each Single Phase PDU's **Outlet**.

The software will generate an outlet log record every 10 mins.

Single Feed > Single Phase > Outlet Log - PDU

PDU level: 06

Outlet: 02

Date	Time	PDU Model	PDU Name	Outlet Name	Status	Amp			kWh	kVA
						Load	Alarm	R. alert / L. alert		
2017/12/20	10:48:19	V1UK7C134C19-32A-WSI	SPWSI12-32A	outlet_name__02	ON	0.2	3.0	0.0 / 0.0	300.01	-
2017/12/20	10:38:17	V1UK7C134C19-32A-WSI	SPWSI12-32A	outlet_name__02	ON	0.2	3.0	0.0 / 0.0	300.00	-
2017/12/20	10:28:16	V1UK7C134C19-32A-WSI	SPWSI12-32A	outlet_name__02	ON	0.2	3.0	0.0 / 0.0	300.00	-
2017/12/20	10:18:14	V1UK7C134C19-32A-WSI	SPWSI12-32A	outlet_name__02	ON	0.2	3.0	0.0 / 0.0	300.00	-
2017/12/20	10:08:12	V1UK7C134C19-32A-WSI	SPWSI12-32A	outlet_name__02	ON	0.2	3.0	0.0 / 0.0	300.00	-
2017/12/20	09:58:11	V1UK7C134C19-32A-WSI	SPWSI12-32A	outlet_name__02	ON	0.2	3.0	0.0 / 0.0	300.00	-
2017/12/20	09:48:10	V1UK7C134C19-32A-WSI	SPWSI12-32A	outlet_name__02	ON	0.2	3.0	0.0 / 0.0	300.00	-
2017/12/20	09:38:08	V1UK7C134C19-32A-WSI	SPWSI12-32A	outlet_name__02	ON	0.2	3.0	0.0 / 0.0	299.99	-
2017/12/20	09:28:07	V1UK7C134C19-32A-WSI	SPWSI12-32A	outlet_name__02	ON	0.2	3.0	0.0 / 0.0	299.99	-
2017/12/20	09:18:06	V1UK7C134C19-32A-WSI	SPWSI12-32A	outlet_name__02	ON	0.2	3.0	0.0 / 0.0	299.99	-
2017/12/20	09:08:05	V1UK7C134C19-32A-WSI	SPWSI12-32A	outlet_name__02	ON	0.2	3.0	0.0 / 0.0	299.99	-
2017/12/20	08:58:04	V1UK7C134C19-32A-WSI	SPWSI12-32A	outlet_name__02	ON	0.2	3.0	0.0 / 0.0	299.99	-
2017/12/20	08:48:03	V1UK7C134C19-32A-WSI	SPWSI12-32A	outlet_name__02	ON	0.2	3.0	0.0 / 0.0	299.98	-
2017/12/20	08:38:02	V1UK7C134C19-32A-WSI	SPWSI12-32A	outlet_name__02	ON	0.2	3.0	0.0 / 0.0	299.98	-
2017/12/20	08:28:01	V1UK7C134C19-32A-WSI	SPWSI12-32A	outlet_name__02	ON	0.2	3.0	0.0 / 0.0	299.98	-
2017/12/20	08:17:59	V1UK7C134C19-32A-WSI	SPWSI12-32A	outlet_name__02	ON	0.2	3.0	0.0 / 0.0	299.98	-
2017/12/20	08:07:58	V1UK7C134C19-32A-WSI	SPWSI12-32A	outlet_name__02	ON	0.2	3.0	0.0 / 0.0	299.98	-
2017/12/20	07:57:57	V1UK7C134C19-32A-WSI	SPWSI12-32A	outlet_name__02	ON	0.2	3.0	0.0 / 0.0	299.98	-
2017/12/20	07:47:56	V1UK7C134C19-32A-WSI	SPWSI12-32A	outlet_name__02	ON	0.2	3.0	0.0 / 0.0	299.97	-
2017/12/20	07:37:54	V1UK7C134C19-32A-WSI	SPWSI12-32A	outlet_name__02	ON	0.2	3.0	0.0 / 0.0	299.97	-
2017/12/20	07:27:53	V1UK7C134C19-32A-WSI	SPWSI12-32A	outlet_name__02	ON	0.2	3.0	0.0 / 0.0	299.97	-
2017/12/20	07:17:51	V1UK7C134C19-32A-WSI	SPWSI12-32A	outlet_name__02	ON	0.2	3.0	0.0 / 0.0	299.97	-
2017/12/20	07:07:50	V1UK7C134C19-32A-WSI	SPWSI12-32A	outlet_name__02	ON	0.2	3.0	0.0 / 0.0	299.97	-
2017/12/20	06:57:48	V1UK7C134C19-32A-WSI	SPWSI12-32A	outlet_name__02	ON	0.2	3.0	0.0 / 0.0	299.96	-
2017/12/20	06:47:47	V1UK7C134C19-32A-WSI	SPWSI12-32A	outlet_name__02	ON	0.2	3.0	0.0 / 0.0	299.96	-

First / Previous 1 2 3 4 5 6 7 8 9 10 Next / Last

Last 2000 log records.

\* Press F11 to enlarge or diminish the screen

## < 5.1 > Single Phase PDU / Outlet Log

### < Single Phase Daily kWh Log - PDU >

provides past 2000 daily energy consumption log records of each Single Phase PDU.  
The record is logged at 00:00 everyday ( +/- 5 mins. )

Single Feed > Single Phase > kWh Log - PDU

PDU level : 06 ▾

Date	Time	Model	Status	Circuit A kWh	Circuit B kWh	Total kWh
2017/12/20	00:00:00	V1UK7C13/4C19-32A-WSi	Connected	0.23	0.00	0.23
2017/12/19	00:00:01	V1UK7C13/4C19-32A-WSi	Connected	0.22	0.00	0.22
2017/12/18	00:00:00	V1UK7C13/4C19-32A-WSi	Connected	0.22	0.00	0.22
2017/12/17	00:00:00	V1UK7C13/4C19-32A-WSi	Connected	0.22	0.00	0.22
2017/12/16	00:00:01	V1UK7C13/4C19-32A-WSi	Connected	0.22	0.00	0.22
2017/12/15	00:00:01	V1UK7C13/4C19-32A-WSi	Connected	0.23	0.00	0.23
2017/12/14	00:00:00	V1UK7C13/4C19-32A-WSi	Connected	0.22	0.00	0.22
2017/12/13	00:00:00	V1UK7C13/4C19-32A-WSi	Connected	0.22	0.00	0.22
2017/12/12	00:00:00	V1UK7C13/4C19-32A-WSi	Connected	0.25	0.00	0.25
2017/12/11	00:00:00	V1UK7C13/4C19-32A-WSi	Connected	0.22	0.00	0.22
2017/12/10	00:00:00	V1UK7C13/4C19-32A-WSi	Connected	0.22	0.00	0.22
2017/12/09	00:00:00	V1UK7C13/4C19-32A-WSi	Connected	0.12	0.00	0.12

First / Previous 1 2 3 4 5 6 7 8 9 10 Next / Last

Last 2000 log records.

\* Press F11 to enlarge or diminish the screen

### < Single Phase Daily kWh Log - Outlet >

provides past 2000 daily energy consumption log records of each Single Phase PDU's Outlet .  
The record is logged at 00:00 everyday ( +/- 5 mins. ) .

( Single Phase Outlet Measurement PDU only )

Single Feed > Single Phase > kWh Log - Outlet

PDU level : 06 ▾

Outlet : 02 ▾

Date	Time	Model	Status	Outlet Name	Outlet kWh
2017/12/20	00:00:00	V1UK7C13/4C19-32A-WSi	Connected	outlet_name_02	0.23
2017/12/19	00:00:01	V1UK7C13/4C19-32A-WSi	Connected	outlet_name_02	0.24
2017/12/18	00:00:00	V1UK7C13/4C19-32A-WSi	Connected	outlet_name_02	0.22
2017/12/17	00:00:00	V1UK7C13/4C19-32A-WSi	Connected	outlet_name_02	0.22
2017/12/16	00:00:01	V1UK7C13/4C19-32A-WSi	Connected	outlet_name_02	0.23
2017/12/15	00:00:01	V1UK7C13/4C19-32A-WSi	Connected	outlet_name_02	0.22
2017/12/14	00:00:00	V1UK7C13/4C19-32A-WSi	Connected	outlet_name_02	0.23
2017/12/13	00:00:00	V1UK7C13/4C19-32A-WSi	Connected	outlet_name_02	0.22
2017/12/12	00:00:00	V1UK7C13/4C19-32A-WSi	Connected	outlet_name_02	0.24
2017/12/11	00:00:00	V1UK7C13/4C19-32A-WSi	Connected	outlet_name_02	0.23
2017/12/10	00:00:00	V1UK7C13/4C19-32A-WSi	Connected	outlet_name_02	0.22
2017/12/09	00:00:00	V1UK7C13/4C19-32A-WSi	Connected	outlet_name_02	0.13

First / Previous 1 2 3 4 5 6 7 8 9 10 Next / Last

Last 2000 log records.

\* Press F11 to enlarge or diminish the screen

## < 5.1 > Single Phase PDU / Outlet Log

### < Single Phase Dual Feed PDU Log >

provides past 2000 log records of each Single Phase PDU.  
The software will generate a PDU log record every 10 mins.

Date	Time	Model	Name	Location	Status	I - A			II - B			II - Total			
						Amp	kWh	kVA	Amp	kWh	kVA	Amp	kWh	kVA	
2017/12/19	01:50:05	DV32C138C19-32A-WSI	default_pdu_name	default_pdu_loc.	Connected	16 / 0.0 / 10.0 / 0.0 / 0.0	0.18	0.00	16	0.0 / 0.0 / 0.0	31.67	0.00	0.4	41.10	0.09
2017/12/19	21:49:37	DV32C138C19-32A-WSI	default_pdu_name	default_pdu_loc.	Connected	16 / 0.0 / 10.0 / 0.0 / 0.0	0.18	0.00	16	0.0 / 0.0 / 0.0	31.67	0.00	0.4	41.10	0.09

First / Previous 1 2 3 4 5 6 7 8 9 10 Next / Last

Last 2000 log records.

\* Press F11 to enlarge or diminish the screen

### < Single Phase Dual Feed PDU Outlet Log >

provides past 2000 log records of each Single Phase PDU's Outlet.  
The software will generate an outlet log record every 10 mins.

Date	Time	Model	Name	Outlet Name	Status	Amp	kWh	kVA
						Load / Alarm / R. alert / L. alert		
2017/12/20	11:25:46	DV32C138C19-16A-WSI	DSPWSI40-16A	outlet_name_39	ON	0.4 / 16.0 / 0.0 / 0.0	2.04	0.09
2017/12/20	07:25:09	DV32C138C19-16A-WSI	DSPWSI40-16A	outlet_name_39	ON	0.4 / 16.0 / 0.0 / 0.0	1.69	0.09

First / Previous 1 2 3 4 5 6 7 8 9 10 Next / Last

Last 2000 log records.

\* Press F11 to enlarge or diminish the screen

## < 5.1 > Single Phase PDU / Outlet Log

### < Single Phase Dual Feed Daily kWh Log - PDU >

provides past 2000 daily energy consumption log records of each Single Phase PDU.  
The record is logged at 00:00 everyday ( +/- 5 mins. )

Dual Feed > Single Phase > kWh Log - PDU

PDU Level : 10

Date	Time	Model	Status	I-A kWh	I-B kWh	I-Total kWh	II-A kWh	II-B kWh	II-Total kWh
2017/12/20	00:00:00	DV32C13/8C19-32A-WSi	Connected	0.00	0.00	0.00	0.00	0.00	0.00
2017/12/19	00:00:00	DV32C13/8C19-32A-WSi	Connected	0.00	0.00	0.00	1.60	0.00	1.60
2017/12/18	00:00:00	DV32C13/8C19-32A-WSi	Connected	0.00	0.00	0.00	2.18	0.00	2.18
2017/12/17	00:00:00	DV32C13/8C19-32A-WSi	Connected	0.00	0.00	0.00	2.16	0.00	2.16
2017/12/16	00:00:00	DV32C13/8C19-32A-WSi	Connected	0.00	0.00	0.00	0.51	0.00	0.51

First / Previous 1 2 3 4 5 6 7 8 9 10 Next / Last

Last 2000 log records.

\* Press F11 to enlarge or diminish the screen

### < Single Phase Dual Feed Daily kWh Log - Outlet >

provides past 2000 daily energy consumption log records of each Single Phase PDU's **Outlet** .  
The record is logged at 00:00 everyday ( +/- 5 mins. ) .

( Single Phase Outlet Measurement PDU only )

Dual Feed > Single Phase > kWh Log - Outlet

PDU Level : 09

Outlet : 39

Date	Time	Model	Status	Outlet Name	Outlet kWh
2017/12/20	00:00:00	DV32C13/8C19-16A-WSi	Connected	outlet_name_39	0.75
2017/12/19	00:00:00	DV32C13/8C19-16A-WSi	Connected	outlet_name_39	0.00
2017/12/18	00:00:00	DV32C13/8C19-16A-WSi	Connected	outlet_name_39	0.00
2017/12/17	00:00:00	DV32C13/8C19-16A-WSi	Connected	outlet_name_39	0.00
2017/12/16	00:00:00	DV32C13/8C19-16A-WSi	Connected	outlet_name_39	0.00

First / Previous 1 2 3 4 5 6 7 8 9 10 Next / Last

Last 2000 log records.

\* Press F11 to enlarge or diminish the screen



## < 5.1 > Single Phase PDU / Outlet Log

### < 63A PDU Log >

provides past 2000 log records of each 63A PDU.

The software will generate a PDU log record every 10 mins.

Single Feed > 63A > PDU Log

PDU level: 13

Date	Time	Model	Name	Location	Status	Bank1		Bank4			Total			
						Amp	kWh	Amp	kWh	kVA	Amp Load	kWh	kVA	
2017/12/21	10:42:48	V24C13/8C19-83A-WSI	default_pdu_name	default_pdu_loc.	Connected	15 / 0.4 / 10.0 / 3.0 / 0.0	29.82	0.0	0.0	0.0	0.0	0.4	104.52	0.10
2017/12/21	10:32:47	V24C13/8C19-83A-WSI	default_pdu_name	default_pdu_loc.	Connected	15 / 0.4 / 10.0 / 3.0 / 0.0	29.82	0.0	0.0	0.0	0.0	0.4	104.50	0.10
2017/12/21	10:32:45	V24C13/8C19-83A-WSI	default_pdu_name	default_pdu_loc.	Connected	15 / 0.4 / 10.0 / 3.0 / 0.0	29.82	0.0	0.0	0.0	0.0	0.4	104.49	0.10
2017/12/21	10:12:43	V24C13/8C19-83A-WSI	default_pdu_name	default_pdu_loc.	Connected	15 / 0.4 / 10.0 / 3.0 / 0.0	29.82	0.0	0.0	0.0	0.0	0.4	104.47	0.10
2017/12/21	10:02:42	V24C13/8C19-83A-WSI	default_pdu_name	default_pdu_loc.	Connected	15 / 0.4 / 10.0 / 3.0 / 0.0	29.82	0.0	0.0	0.0	0.0	0.4	104.45	0.10
2017/12/21	09:52:40	V24C13/8C19-83A-WSI	default_pdu_name	default_pdu_loc.	Connected	15 / 0.4 / 10.0 / 3.0 / 0.0	29.82	0.0	0.0	0.0	0.0	0.4	104.44	0.10
2017/12/21	09:42:39	V24C13/8C19-83A-WSI	default_pdu_name	default_pdu_loc.	Connected	15 / 0.4 / 10.0 / 3.0 / 0.0	29.82	0.0	0.0	0.0	0.0	0.4	104.42	0.10
2017/12/21	09:32:38	V24C13/8C19-83A-WSI	default_pdu_name	default_pdu_loc.	Connected	15 / 0.4 / 10.0 / 3.0 / 0.0	29.82	0.0	0.0	0.0	0.0	0.4	104.40	0.10
2017/12/21	09:22:38	V24C13/8C19-83A-WSI	default_pdu_name	default_pdu_loc.	Connected	15 / 0.4 / 10.0 / 3.0 / 0.0	29.82	0.0	0.0	0.0	0.0	0.4	104.39	0.10
2017/12/21	09:12:34	V24C13/8C19-83A-WSI	default_pdu_name	default_pdu_loc.	Connected	15 / 0.4 / 10.0 / 3.0 / 0.0	29.82	0.0	0.0	0.0	0.0	0.4	104.37	0.10
2017/12/21	09:02:33	V24C13/8C19-83A-WSI	default_pdu_name	default_pdu_loc.	Connected	15 / 0.4 / 10.0 / 3.0 / 0.0	29.82	0.0	0.0	0.0	0.0	0.4	104.35	0.10
2017/12/21	08:52:32	V24C13/8C19-83A-WSI	default_pdu_name	default_pdu_loc.	Connected	15 / 0.4 / 10.0 / 3.0 / 0.0	29.82	0.0	0.0	0.0	0.0	0.4	104.34	0.10
2017/12/21	08:42:31	V24C13/8C19-83A-WSI	default_pdu_name	default_pdu_loc.	Connected	15 / 0.4 / 10.0 / 3.0 / 0.0	29.82	0.0	0.0	0.0	0.0	0.4	104.32	0.10
2017/12/21	08:32:29	V24C13/8C19-83A-WSI	default_pdu_name	default_pdu_loc.	Connected	15 / 0.4 / 10.0 / 3.0 / 0.0	29.82	0.0	0.0	0.0	0.0	0.4	104.31	0.10
2017/12/21	08:22:27	V24C13/8C19-83A-WSI	default_pdu_name	default_pdu_loc.	Connected	15 / 0.4 / 10.0 / 3.0 / 0.0	29.82	0.0	0.0	0.0	0.0	0.4	104.29	0.10
2017/12/21	08:12:28	V24C13/8C19-83A-WSI	default_pdu_name	default_pdu_loc.	Connected	15 / 0.4 / 10.0 / 3.0 / 0.0	29.82	0.0	0.0	0.0	0.0	0.4	104.27	0.10
2017/12/21	08:02:24	V24C13/8C19-83A-WSI	default_pdu_name	default_pdu_loc.	Connected	15 / 0.4 / 10.0 / 3.0 / 0.0	29.82	0.0	0.0	0.0	0.0	0.4	104.26	0.10
2017/12/21	07:52:23	V24C13/8C19-83A-WSI	default_pdu_name	default_pdu_loc.	Connected	15 / 0.4 / 10.0 / 3.0 / 0.0	29.82	0.0	0.0	0.0	0.0	0.4	104.24	0.10
2017/12/21	07:42:22	V24C13/8C19-83A-WSI	default_pdu_name	default_pdu_loc.	Connected	15 / 0.4 / 10.0 / 3.0 / 0.0	29.82	0.0	0.0	0.0	0.0	0.4	104.22	0.10
2017/12/21	07:32:20	V24C13/8C19-83A-WSI	default_pdu_name	default_pdu_loc.	Connected	15 / 0.4 / 10.0 / 3.0 / 0.0	29.82	0.0	0.0	0.0	0.0	0.4	104.21	0.10
2017/12/21	07:22:19	V24C13/8C19-83A-WSI	default_pdu_name	default_pdu_loc.	Connected	15 / 0.4 / 10.0 / 3.0 / 0.0	29.82	0.0	0.0	0.0	0.0	0.4	104.19	0.10
2017/12/21	07:12:18	V24C13/8C19-83A-WSI	default_pdu_name	default_pdu_loc.	Connected	15 / 0.4 / 10.0 / 3.0 / 0.0	29.82	0.0	0.0	0.0	0.0	0.4	104.17	0.10
2017/12/21	07:02:18	V24C13/8C19-83A-WSI	default_pdu_name	default_pdu_loc.	Connected	15 / 0.4 / 10.0 / 3.0 / 0.0	29.82	0.0	0.0	0.0	0.0	0.4	104.15	0.10
2017/12/21	06:52:14	V24C13/8C19-83A-WSI	default_pdu_name	default_pdu_loc.	Connected	15 / 0.4 / 10.0 / 3.0 / 0.0	29.82	0.0	0.0	0.0	0.0	0.4	104.14	0.10
2017/12/21	06:42:13	V24C13/8C19-83A-WSI	default_pdu_name	default_pdu_loc.	Connected	15 / 0.4 / 10.0 / 3.0 / 0.0	29.82	0.0	0.0	0.0	0.0	0.4	104.12	0.10

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Last 2000 log records.

\* Press F11 to enlarge or diminish the screen

### < 63A PDU Outlet Log >

provides past 2000 log records of each Single Phase PDU's Outlet.

The software will generate an outlet log record every 10 mins.

Single Feed > 63A > Outlet Log - PDU

PDU level: 13

Outlet: 05

Date	Time	Model	Name	Outlet Name	Status	Amp		kWh	kVA
						Load / Alarm / R. alert / L. alert	Load / Alarm / R. alert / L. alert		
2017/12/21	10:53:07	V24C13/8C19-83A-WSI	default_pdu_name	outlet_name_05	ON	0.0 / 3.0 / 0.0 / 0.0	0.0 / 3.0 / 0.0 / 0.0	0.00	0.00
2017/12/21	10:43:06	V24C13/8C19-83A-WSI	default_pdu_name	outlet_name_05	ON	0.0 / 3.0 / 0.0 / 0.0	0.0 / 3.0 / 0.0 / 0.0	0.00	0.00
2017/12/21	10:33:05	V24C13/8C19-83A-WSI	default_pdu_name	outlet_name_05	ON	0.0 / 3.0 / 0.0 / 0.0	0.0 / 3.0 / 0.0 / 0.0	0.00	0.00
2017/12/21	10:23:04	V24C13/8C19-83A-WSI	default_pdu_name	outlet_name_05	ON	0.0 / 3.0 / 0.0 / 0.0	0.0 / 3.0 / 0.0 / 0.0	0.00	0.00
2017/12/21	10:13:03	V24C13/8C19-83A-WSI	default_pdu_name	outlet_name_05	ON	0.0 / 3.0 / 0.0 / 0.0	0.0 / 3.0 / 0.0 / 0.0	0.00	0.00
2017/12/21	10:03:02	V24C13/8C19-83A-WSI	default_pdu_name	outlet_name_05	ON	0.0 / 3.0 / 0.0 / 0.0	0.0 / 3.0 / 0.0 / 0.0	0.00	0.00
2017/12/21	09:53:01	V24C13/8C19-83A-WSI	default_pdu_name	outlet_name_05	ON	0.0 / 3.0 / 0.0 / 0.0	0.0 / 3.0 / 0.0 / 0.0	0.00	0.00
2017/12/21	09:43:00	V24C13/8C19-83A-WSI	default_pdu_name	outlet_name_05	ON	0.0 / 3.0 / 0.0 / 0.0	0.0 / 3.0 / 0.0 / 0.0	0.00	0.00
2017/12/21	09:32:59	V24C13/8C19-83A-WSI	default_pdu_name	outlet_name_05	ON	0.0 / 3.0 / 0.0 / 0.0	0.0 / 3.0 / 0.0 / 0.0	0.00	0.00
2017/12/21	09:22:58	V24C13/8C19-83A-WSI	default_pdu_name	outlet_name_05	ON	0.0 / 3.0 / 0.0 / 0.0	0.0 / 3.0 / 0.0 / 0.0	0.00	0.00
2017/12/21	09:12:57	V24C13/8C19-83A-WSI	default_pdu_name	outlet_name_05	ON	0.0 / 3.0 / 0.0 / 0.0	0.0 / 3.0 / 0.0 / 0.0	0.00	0.00
2017/12/21	07:32:47	V24C13/8C19-83A-WSI	default_pdu_name	outlet_name_05	ON	0.0 / 3.0 / 0.0 / 0.0	0.0 / 3.0 / 0.0 / 0.0	0.00	0.00
2017/12/21	07:22:46	V24C13/8C19-83A-WSI	default_pdu_name	outlet_name_05	ON	0.0 / 3.0 / 0.0 / 0.0	0.0 / 3.0 / 0.0 / 0.0	0.00	0.00
2017/12/21	07:12:45	V24C13/8C19-83A-WSI	default_pdu_name	outlet_name_05	ON	0.0 / 3.0 / 0.0 / 0.0	0.0 / 3.0 / 0.0 / 0.0	0.00	0.00
2017/12/21	07:02:44	V24C13/8C19-83A-WSI	default_pdu_name	outlet_name_05	ON	0.0 / 3.0 / 0.0 / 0.0	0.0 / 3.0 / 0.0 / 0.0	0.00	0.00
2017/12/21	06:52:43	V24C13/8C19-83A-WSI	default_pdu_name	outlet_name_05	ON	0.0 / 3.0 / 0.0 / 0.0	0.0 / 3.0 / 0.0 / 0.0	0.00	0.00

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Last 2000 log records.

\* Press F11 to enlarge or diminish the screen

## < 5.1 > Single Phase PDU / Outlet Log

### < 63A Daily kWh Log - PDU >

provides past 2000 daily energy consumption log records of each 63A PDU. The record is logged at 00:00 everyday ( +/- 5 mins. )

Single Feed > 63A > kWh Log - PDU

PDU level :

Date	Time	Model	Status	Bank1 kWh	Bank2 kWh	Bank3 kWh	Bank4 kWh	Total kWh
2017/12/21	00:00:00	V24C13/8C19-63A-WSi	Connected	2.39	0.00	0.00	0.00	2.39
2017/12/20	00:00:00	V24C13/8C19-63A-WSi	Connected	2.40	0.00	0.00	0.00	2.40
2017/12/19	00:00:01	V24C13/8C19-63A-WSi	Connected	2.38	0.00	0.00	0.00	2.38
2017/12/18	00:00:00	V24C13/8C19-63A-WSi	Connected	2.42	0.00	0.00	0.00	2.42
2017/12/17	00:00:01	V24C13/8C19-63A-WSi	Connected	2.42	0.00	0.00	0.00	2.42
2017/12/16	00:00:01	V24C13/8C19-63A-WSi	Connected	2.39	0.00	0.00	0.00	2.39
2017/12/15	00:00:01	V24C13/8C19-63A-WSi	Connected	2.40	0.00	0.00	0.00	2.40
2017/12/14	00:00:00	V24C13/8C19-63A-WSi	Connected	2.38	0.00	0.00	0.00	2.38
2017/12/13	00:00:00	V24C13/8C19-63A-WSi	Connected	2.40	0.00	0.00	0.00	2.40
2017/12/12	00:00:00	V24C13/8C19-63A-WSi	Connected	2.40	0.00	0.00	0.00	2.40
2017/12/11	00:00:00	V24C13/8C19-63A-WSi	Connected	2.43	0.00	0.00	0.00	2.43
2017/12/10	00:00:00	V24C13/8C19-63A-WSi	Connected	2.43	0.00	0.00	0.00	2.43
2017/12/09	00:00:00	V24C13/8C19-63A-WSi	Connected	1.32	0.00	0.00	0.00	1.32

First / Previous           Next / Last

Last 2000 log records.

\* Press F11 to enlarge or diminish the screen

### < 63A Daily kWh log - Outlet >

provides past 2000 daily energy consumption log records of each 63A PDU's .

The record is logged at 00:00 everyday ( +/- 5 mins. ).

( 63A Outlet measurement PDU only )

Single Feed > 63A > kWh Log - Outlet

PDU level :

Outlet :

Date	Time	Model	Status	Outlet Name	Outlet kWh
2017/12/21	00:00:00	V24C13/8C19-63A-WSi	Connected	outlet_name_05	0.00
2017/12/20	00:00:00	V24C13/8C19-63A-WSi	Connected	outlet_name_05	0.00
2017/12/19	00:00:01	V24C13/8C19-63A-WSi	Connected	outlet_name_05	0.00
2017/12/18	00:00:00	V24C13/8C19-63A-WSi	Connected	outlet_name_05	0.00
2017/12/17	00:00:01	V24C13/8C19-63A-WSi	Connected	outlet_name_05	0.00
2017/12/16	00:00:01	V24C13/8C19-63A-WSi	Connected	outlet_name_05	0.00
2017/12/15	00:00:01	V24C13/8C19-63A-WSi	Connected	outlet_name_05	0.00
2017/12/14	00:00:00	V24C13/8C19-63A-WSi	Connected	outlet_name_05	0.00
2017/12/13	00:00:00	V24C13/8C19-63A-WSi	Connected	outlet_name_05	0.00
2017/12/12	00:00:00	V24C13/8C19-63A-WSi	Connected	outlet_name_05	0.00
2017/12/11	00:00:00	V24C13/8C19-63A-WSi	Connected	outlet_name_05	0.00
2017/12/10	00:00:00	V24C13/8C19-63A-WSi	Connected	outlet_name_05	0.00
2017/12/09	00:00:00	V24C13/8C19-63A-WSi	Connected	outlet_name_05	0.00

First / Previous           Next / Last

Last 2000 log records.

\* Press F11 to enlarge or diminish the screen



## < 5.2 > Three Phase PDU / Outlet Log

< Three Phase PDU Log > provides past 2000 log records of each Three Phase PDU. The software will generate a log every 10 mins.

Three Phase PDU log

PDU level:

Date	Time	Model	Name	Location	Status	Amp			kWh	Amp			kWh	kVA	Total				
						Max.	Load	Alarm / R. alert / L. alert		Max.	Load	Alarm / R. alert / L. alert			Amp Load	kWh	kVA		
2017/12/20	11:01:57	VP24C13/12C19-32A-WSI	Box_06_PDU1	Box_06_PDU1_loc	Connected	L1 - B1	16	0.8	13.0	0.0	0.0	16.90					0.8	79.34	0.17
2017/12/20	10:51:55	VP24C13/12C19-32A-WSI	Box_06_PDU1	Box_06_PDU1_loc	Connected	L1 - B1	16	0.8	13.0	0.0	0.0	16.90					0.8	79.31	0.17
2017/12/20	10:41:54	VP24C13/12C19-32A-WSI	Box_06_PDU1	Box_06_PDU1_loc	Connected	L1 - B1	16	0.8	13.0	0.0	0.0	16.90	0.0				0.8	79.28	0.17
2017/12/20	10:31:53	VP24C13/12C19-32A-WSI	Box_06_PDU1	Box_06_PDU1_loc	Connected	L1 - B1	16	0.8	13.0	0.0	0.0	16.90	0.0				0.8	79.25	0.17
2017/12/20	10:21:52	VP24C13/12C19-32A-WSI	Box_06_PDU1	Box_06_PDU1_loc	Connected	L1 - B1	16	0.8	13.0	0.0	0.0	16.90	0.0				0.8	79.23	0.17
2017/12/20	10:11:51	VP24C13/12C19-32A-WSI	Box_06_PDU1	Box_06_PDU1_loc	Connected	L1 - B1	16	0.8	13.0	0.0	0.0	16.90	0.0				0.8	79.20	0.17
2017/12/20	10:01:50	VP24C13/12C19-32A-WSI	Box_06_PDU1	Box_06_PDU1_loc	Connected	L1 - B1	16	0.8	13.0	0.0	0.0	16.90	0.0				0.8	79.17	0.17
2017/12/20	09:51:49	VP24C13/12C19-32A-WSI	Box_06_PDU1	Box_06_PDU1_loc	Connected	L1 - B1	16	0.8	13.0	0.0	0.0	16.90	0.0				0.8	79.14	0.17
2017/12/20	09:41:48	VP24C13/12C19-32A-WSI	Box_06_PDU1	Box_06_PDU1_loc	Connected	L1 - B1	16	0.7	13.0	0.0	0.0	16.90	0.0				0.7	79.11	0.17
2017/12/20	09:31:47	VP24C13/12C19-32A-WSI	Box_06_PDU1	Box_06_PDU1_loc	Connected	L1 - B1	16	0.8	13.0	0.0	0.0	16.90	0.0				0.8	79.08	0.17
2017/12/20	09:21:46	VP24C13/12C19-32A-WSI	Box_06_PDU1	Box_06_PDU1_loc	Connected	L1 - B1	16	0.8	13.0	0.0	0.0	16.90	0.0				0.8	79.06	0.17
2017/12/20	09:11:45	VP24C13/12C19-32A-WSI	Box_06_PDU1	Box_06_PDU1_loc	Connected	L1 - B1	16	0.7	13.0	0.0	0.0	16.90	0.0				0.7	79.03	0.17
2017/12/20	09:01:44	VP24C13/12C19-32A-WSI	Box_06_PDU1	Box_06_PDU1_loc	Connected	L1 - B1	16	0.7	13.0	0.0	0.0	16.90	0.0				0.7	79.00	0.17
2017/12/20	08:51:43	VP24C13/12C19-32A-WSI	Box_06_PDU1	Box_06_PDU1_loc	Connected	L1 - B1	16	0.7	13.0	0.0	0.0	16.90	0.0				0.7	78.97	0.17
2017/12/20	08:41:42	VP24C13/12C19-32A-WSI	Box_06_PDU1	Box_06_PDU1_loc	Connected	L1 - B1	16	0.7	13.0	0.0	0.0	16.90	0.0				0.7	78.95	0.17
2017/12/20	08:31:41	VP24C13/12C19-32A-WSI	Box_06_PDU1	Box_06_PDU1_loc	Connected	L1 - B1	16	0.7	13.0	0.0	0.0	16.90	0.0				0.7	78.92	0.17
2017/12/20	08:21:40	VP24C13/12C19-32A-WSI	Box_06_PDU1	Box_06_PDU1_loc	Connected	L1 - B1	16	0.7	13.0	0.0	0.0	16.90	0.0				0.7	78.89	0.17
2017/12/20	08:11:39	VP24C13/12C19-32A-WSI	Box_06_PDU1	Box_06_PDU1_loc	Connected	L1 - B1	16	0.7	13.0	0.0	0.0	16.90	0.0				0.7	78.86	0.17
2017/12/20	08:01:38	VP24C13/12C19-32A-WSI	Box_06_PDU1	Box_06_PDU1_loc	Connected	L1 - B1	16	0.7	13.0	0.0	0.0	16.90	0.0				0.7	78.83	0.17
2017/12/20	07:51:37	VP24C13/12C19-32A-WSI	Box_06_PDU1	Box_06_PDU1_loc	Connected	L1 - B1	16	0.7	13.0	0.0	0.0	16.90	0.0				0.7	78.81	0.17
2017/12/20	07:41:36	VP24C13/12C19-32A-WSI	Box_06_PDU1	Box_06_PDU1_loc	Connected	L1 - B1	16	0.7	13.0	0.0	0.0	16.90	0.0				0.7	78.78	0.17
2017/12/20	07:31:35	VP24C13/12C19-32A-WSI	Box_06_PDU1	Box_06_PDU1_loc	Connected	L1 - B1	16	0.7	13.0	0.0	0.0	16.90	0.0				0.7	78.75	0.17
2017/12/20	07:21:34	VP24C13/12C19-32A-WSI	Box_06_PDU1	Box_06_PDU1_loc	Connected	L1 - B1	16	0.7	13.0	0.0	0.0	16.90	0.0				0.7	78.72	0.17
2017/12/20	07:11:33	VP24C13/12C19-32A-WSI	Box_06_PDU1	Box_06_PDU1_loc	Connected	L1 - B1	16	0.7	13.0	0.0	0.0	16.90	0.0				0.7	78.70	0.17
2017/12/20	07:01:32	VP24C13/12C19-32A-WSI	Box_06_PDU1	Box_06_PDU1_loc	Connected	L1 - B1	16	0.7	13.0	0.0	0.0	16.90	0.0				0.7	78.67	0.17

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Last 2000 log records.

\* Press F11 to enlarge or diminish the screen

< Three Phase PDU Outlet Log > provides past 2000 log records of each Three Phase PDU's Outlet. The software will generate a log every 10 mins.

Single Feed > Three Phase > Outlet Log - PDU

PDU level:

Outlet:

Date	Time	PDU Model	PDU Name	Outlet Name	Status	Amp			kWh	kVA	
						Load	Alarm / R. alert / L. alert				
2017/12/20	11:02:04	VP24C13/12C19-32A-WSI	Box_06_PDU1	outlet_name_05	ON	1.7	3.0	0.0	0.0	6.51	0.37
2017/12/20	10:52:03	VP24C13/12C19-32A-WSI	Box_06_PDU1	outlet_name_05	ON	1.7	3.0	0.0	0.0	6.45	0.37
2017/12/20	10:42:02	VP24C13/12C19-32A-WSI	Box_06_PDU1	outlet_name_05	ON	1.7	3.0	0.0	0.0	6.38	0.36
2017/12/20	10:32:01	VP24C13/12C19-32A-WSI	Box_06_PDU1	outlet_name_05	ON	1.7	3.0	0.0	0.0	6.32	0.37
2017/12/20	10:22:00	VP24C13/12C19-32A-WSI	Box_06_PDU1	outlet_name_05	ON	1.7	3.0	0.0	0.0	6.27	0.37
2017/12/20	10:11:59	VP24C13/12C19-32A-WSI	Box_06_PDU1	outlet_name_05	ON	1.7	3.0	0.0	0.0	6.20	0.37
2017/12/20	10:01:58	VP24C13/12C19-32A-WSI	Box_06_PDU1	outlet_name_05	ON	1.6	3.0	0.0	0.0	6.14	0.37
2017/12/20	09:51:57	VP24C13/12C19-32A-WSI	Box_06_PDU1	outlet_name_05	ON	1.6	3.0	0.0	0.0	6.08	0.37
2017/12/20	09:41:56	VP24C13/12C19-32A-WSI	Box_06_PDU1	outlet_name_05	ON	1.6	3.0	0.0	0.0	6.02	0.37
2017/12/20	09:31:55	VP24C13/12C19-32A-WSI	Box_06_PDU1	outlet_name_05	ON	1.6	3.0	0.0	0.0	5.96	0.37
2017/12/20	09:21:54	VP24C13/12C19-32A-WSI	Box_06_PDU1	outlet_name_05	ON	1.6	3.0	0.0	0.0	5.90	0.37
2017/12/20	09:11:53	VP24C13/12C19-32A-WSI	Box_06_PDU1	outlet_name_05	ON	1.6	3.0	0.0	0.0	5.84	0.37
2017/12/20	09:01:52	VP24C13/12C19-32A-WSI	Box_06_PDU1	outlet_name_05	ON	1.6	3.0	0.0	0.0	5.77	0.37
2017/12/20	08:51:51	VP24C13/12C19-32A-WSI	Box_06_PDU1	outlet_name_05	ON	1.6	3.0	0.0	0.0	5.71	0.37
2017/12/20	08:41:50	VP24C13/12C19-32A-WSI	Box_06_PDU1	outlet_name_05	ON	1.6	3.0	0.0	0.0	5.65	0.37
2017/12/20	08:31:49	VP24C13/12C19-32A-WSI	Box_06_PDU1	outlet_name_05	ON	1.6	3.0	0.0	0.0	5.59	0.37
2017/12/20	08:21:48	VP24C13/12C19-32A-WSI	Box_06_PDU1	outlet_name_05	ON	1.6	3.0	0.0	0.0	5.53	0.37
2017/12/20	08:11:46	VP24C13/12C19-32A-WSI	Box_06_PDU1	outlet_name_05	ON	1.6	3.0	0.0	0.0	5.47	0.37
2017/12/20	08:01:45	VP24C13/12C19-32A-WSI	Box_06_PDU1	outlet_name_05	ON	1.6	3.0	0.0	0.0	5.40	0.37
2017/12/20	07:51:43	VP24C13/12C19-32A-WSI	Box_06_PDU1	outlet_name_05	ON	1.6	3.0	0.0	0.0	5.34	0.37
2017/12/20	07:41:41	VP24C13/12C19-32A-WSI	Box_06_PDU1	outlet_name_05	ON	1.6	3.0	0.0	0.0	5.29	0.37
2017/12/20	07:31:40	VP24C13/12C19-32A-WSI	Box_06_PDU1	outlet_name_05	ON	1.6	3.0	0.0	0.0	5.22	0.37
2017/12/20	07:21:39	VP24C13/12C19-32A-WSI	Box_06_PDU1	outlet_name_05	ON	1.6	3.0	0.0	0.0	5.18	0.37
2017/12/20	07:11:38	VP24C13/12C19-32A-WSI	Box_06_PDU1	outlet_name_05	ON	1.6	3.0	0.0	0.0	5.10	0.37
2017/12/20	07:01:37	VP24C13/12C19-32A-WSI	Box_06_PDU1	outlet_name_05	ON	1.6	3.0	0.0	0.0	5.03	0.37

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Last 2000 log records.

\* Press F11 to enlarge or diminish the screen

## < 5.2 > Three Phase PDU / Outlet Log

### < Three Phase Daily kWh Log - PDU >

provides past 2000 daily energy consumption log records of each Three Phase PDU. The record is logged at 00:00 everyday ( +/- 5 mins. )

Single Feed > Three Phase > kWh Log - PDU

PDU level:

Date	Time	Model	Status	kWh		kWh		kWh		kWh		kWh		Total kWh
				L1 - B1	L1 - B2	L1 - B2	L2 - B3	L2 - B3	L2 - B4	L3 - B5	L3 - B5	L3 - B6	L3 - B6	
2017/12/20	00:00:00	VP24C13/12C19-32A-WSi	Connected	1.12	2.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.72
2017/12/19	00:00:01	VP24C13/12C19-32A-WSi	Connected	0.00	3.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.59
2017/12/18	00:00:00	VP24C13/12C19-32A-WSi	Connected	0.00	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.80
2017/12/17	00:00:01	VP24C13/12C19-32A-WSi	Connected	0.00	3.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.59
2017/12/16	00:00:01	VP24C13/12C19-32A-WSi	Connected	0.00	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.80
2017/12/15	00:00:01	VP24C13/12C19-32A-WSi	Connected	0.00	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.80
2017/12/14	00:00:00	VP24C13/12C19-32A-WSi	Connected	0.00	3.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.59
2017/12/13	00:00:00	VP24C13/12C19-32A-WSi	Connected	0.00	3.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.59
2017/12/12	00:00:00	VP24C13/12C19-32A-WSi	Connected	0.00	3.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.58
2017/12/11	00:00:00	VP24C13/12C19-32A-WSi	Connected	0.00	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.80
2017/12/10	00:00:00	VP24C13/12C19-32A-WSi	Connected	0.00	3.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.59
2017/12/09	00:00:00	VP24C13/12C19-32A-WSi	Connected	0.00	1.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.35

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Last 2000 log records.

\* Press F11 to enlarge or diminish the screen

### < Three Phase Daily kWh Log - Outlet >

provides past 2000 daily energy consumption log records of each Three Phase PDU's Outlet.

The record is logged at 00:00 everyday ( +/- 5 mins. ).

( 3 Phase Outlet measurement PDU only )

Single Feed > Three Phase > kWh Log - Outlet

PDU level:

Outlet:

Date	Time	Model	Status	Outlet Name	Outlet kWh
2017/12/20	00:00:00	VP24C13/12C19-32A-WSi	Connected	outlet_name_05	2.46
2017/12/19	00:00:01	VP24C13/12C19-32A-WSi	Connected	outlet_name_05	0.00
2017/12/18	00:00:00	VP24C13/12C19-32A-WSi	Connected	outlet_name_05	0.00
2017/12/17	00:00:01	VP24C13/12C19-32A-WSi	Connected	outlet_name_05	0.00
2017/12/16	00:00:01	VP24C13/12C19-32A-WSi	Connected	outlet_name_05	0.00
2017/12/15	00:00:01	VP24C13/12C19-32A-WSi	Connected	outlet_name_05	0.00
2017/12/14	00:00:00	VP24C13/12C19-32A-WSi	Connected	outlet_name_05	0.00
2017/12/13	00:00:00	VP24C13/12C19-32A-WSi	Connected	outlet_name_05	0.00
2017/12/12	00:00:00	VP24C13/12C19-32A-WSi	Connected	outlet_name_05	0.00
2017/12/11	00:00:00	VP24C13/12C19-32A-WSi	Connected	outlet_name_05	0.00
2017/12/10	00:00:00	VP24C13/12C19-32A-WSi	Connected	outlet_name_05	0.00
2017/12/09	00:00:00	VP24C13/12C19-32A-WSi	Connected	outlet_name_05	0.00

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Last 2000 log records.

\* Press F11 to enlarge or diminish the screen



## < 5.3 > Sensor Log

< TH log > provides past 2000 TH log records of each PDU.

The software will generate a TH log record every 10 mins.

**TH log**

PDU level:

Date	Time	Model	Status	Location	TH 1		TH 2					
					°C		%		°C		%	
					Temp. / Alarm / R. Alert	Humid. / Alarm / R. Alert	Temp. / Alarm / R. Alert	Humid. / Alarm / R. Alert	Temp. / Alarm / R. Alert	Humid. / Alarm / R. Alert		
2018/04/25	10:11:19	VP24C13/12C19-32A-WSI	Connected	Front_Top	29.5 / 35.0 / 0.0	52.8 / 65.0 / 0.0	Rear_Top	30.3 / 35.0 / 0.0	49.5 / 65.0 / 0.0			
2018/04/25	10:01:18	VP24C13/12C19-32A-WSI	Connected	Front_Top	29.7 / 35.0 / 0.0	55.0 / 65.0 / 0.0	Rear_Top	30.5 / 35.0 / 0.0	51.6 / 65.0 / 0.0			
2018/04/25	09:51:17	VP24C13/12C19-32A-WSI	Connected	Front_Top	29.8 / 35.0 / 0.0	57.9 / 65.0 / 0.0	Rear_Top	30.7 / 35.0 / 0.0	53.8 / 65.0 / 0.0			
2018/04/25	09:41:16	VP24C13/12C19-32A-WSI	Connected	Front_Top	29.8 / 35.0 / 0.0	58.1 / 65.0 / 0.0	Rear_Top	30.7 / 35.0 / 0.0	53.9 / 65.0 / 0.0			
2018/04/25	09:31:15	VP24C13/12C19-32A-WSI	Connected	Front_Top	29.8 / 35.0 / 0.0	58.6 / 65.0 / 0.0	Rear_Top	30.7 / 35.0 / 0.0	54.6 / 65.0 / 0.0			
2018/04/25	09:21:14	VP24C13/12C19-32A-WSI	Connected	Front_Top	29.8 / 35.0 / 0.0	59.2 / 65.0 / 0.0	Rear_Top	30.6 / 35.0 / 0.0	55.3 / 65.0 / 0.0			
2018/04/25	09:11:13	VP24C13/12C19-32A-WSI	Connected	Front_Top	29.8 / 35.0 / 0.0	59.8 / 65.0 / 0.0	Rear_Top	30.6 / 35.0 / 0.0	55.9 / 65.0 / 0.0			
2018/04/25	09:01:12	VP24C13/12C19-32A-WSI	Connected	Front_Top	29.8 / 35.0 / 0.0	59.7 / 65.0 / 0.0	Rear_Top	30.6 / 35.0 / 0.0	56.0 / 65.0 / 0.0			
2018/04/25	08:51:11	VP24C13/12C19-32A-WSI	Connected	Front_Top	29.8 / 35.0 / 0.0	59.6 / 65.0 / 0.0	Rear_Top	30.6 / 35.0 / 0.0	55.9 / 65.0 / 0.0			
2018/04/25	08:41:10	VP24C13/12C19-32A-WSI	Connected	Front_Top	29.8 / 35.0 / 0.0	59.5 / 65.0 / 0.0	Rear_Top	30.5 / 35.0 / 0.0	55.9 / 65.0 / 0.0			
2018/04/25	08:31:09	VP24C13/12C19-32A-WSI	Connected	Front_Top	29.7 / 35.0 / 0.0	59.6 / 65.0 / 0.0	Rear_Top	30.5 / 35.0 / 0.0	56.0 / 65.0 / 0.0			
2018/04/25	08:21:08	VP24C13/12C19-32A-WSI	Connected	Front_Top	29.7 / 35.0 / 0.0	59.7 / 65.0 / 0.0	Rear_Top	30.5 / 35.0 / 0.0	56.0 / 65.0 / 0.0			
2018/04/25	08:11:07	VP24C13/12C19-32A-WSI	Connected	Front_Top	29.7 / 35.0 / 0.0	59.7 / 65.0 / 0.0	Rear_Top	30.5 / 35.0 / 0.0	56.1 / 65.0 / 0.0			
2018/04/25	08:01:06	VP24C13/12C19-32A-WSI	Connected	Front_Top	29.7 / 35.0 / 0.0	59.6 / 65.0 / 0.0	Rear_Top	30.5 / 35.0 / 0.0	56.1 / 65.0 / 0.0			
2018/04/25	07:51:05	VP24C13/12C19-32A-WSI	Connected	Front_Top	29.7 / 35.0 / 0.0	59.6 / 65.0 / 0.0	Rear_Top	30.5 / 35.0 / 0.0	56.1 / 65.0 / 0.0			
2018/04/25	07:41:04	VP24C13/12C19-32A-WSI	Connected	Front_Top	29.7 / 35.0 / 0.0	59.7 / 65.0 / 0.0	Rear_Top	30.3 / 35.0 / 0.0	56.3 / 65.0 / 0.0			
2018/04/25	07:31:03	VP24C13/12C19-32A-WSI	Connected	Front_Top	29.7 / 35.0 / 0.0	59.6 / 65.0 / 0.0	Rear_Top	30.3 / 35.0 / 0.0	56.3 / 65.0 / 0.0			
2018/04/25	07:21:02	VP24C13/12C19-32A-WSI	Connected	Front_Top	29.7 / 35.0 / 0.0	59.6 / 65.0 / 0.0	Rear_Top	30.4 / 35.0 / 0.0	56.2 / 65.0 / 0.0			
2018/04/25	07:11:01	VP24C13/12C19-32A-WSI	Connected	Front_Top	29.7 / 35.0 / 0.0	59.7 / 65.0 / 0.0	Rear_Top	30.4 / 35.0 / 0.0	56.3 / 65.0 / 0.0			
2018/04/25	07:01:00	VP24C13/12C19-32A-WSI	Connected	Front_Top	29.7 / 35.0 / 0.0	59.7 / 65.0 / 0.0	Rear_Top	30.4 / 35.0 / 0.0	56.2 / 65.0 / 0.0			
2018/04/25	06:50:59	VP24C13/12C19-32A-WSI	Connected	Front_Top	29.7 / 35.0 / 0.0	59.7 / 65.0 / 0.0	Rear_Top	30.4 / 35.0 / 0.0	56.1 / 65.0 / 0.0			
2018/04/25	06:40:58	VP24C13/12C19-32A-WSI	Connected	Front_Top	29.7 / 35.0 / 0.0	59.7 / 65.0 / 0.0	Rear_Top	30.4 / 35.0 / 0.0	56.2 / 65.0 / 0.0			
2018/04/25	06:30:57	VP24C13/12C19-32A-WSI	Connected	Front_Top	29.7 / 35.0 / 0.0	59.6 / 65.0 / 0.0	Rear_Top	30.4 / 35.0 / 0.0	56.2 / 65.0 / 0.0			
2018/04/25	06:20:56	VP24C13/12C19-32A-WSI	Connected	Front_Top	29.7 / 35.0 / 0.0	59.6 / 65.0 / 0.0	Rear_Top	30.3 / 35.0 / 0.0	56.2 / 65.0 / 0.0			
2018/04/25	06:10:55	VP24C13/12C19-32A-WSI	Connected	Front_Top	29.7 / 35.0 / 0.0	59.6 / 65.0 / 0.0	Rear_Top	30.3 / 35.0 / 0.0	56.2 / 65.0 / 0.0			

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Last 2000 log records.

\* Press F11 to enlarge or diminish the screen

< Door Sensor log > provides past 2000 door sensor log records of each PDU.

The software will generate a door sensor log record every 10 mins.

**Door sensor log**

Level:

Date	Time	Model	Status	Door 1		Door 2	
				Location	Status	Location	Status
2021/07/02	13:39:21	V16C13-16A-W	Connected	sensor_location	Open	sensor_location	Open
2021/07/02	13:29:20	V16C13-16A-W	Connected	sensor_location	Open	sensor_location	Open
2021/07/02	13:19:19	V16C13-16A-W	Connected	sensor_location	Open	sensor_location	Open
2021/07/02	13:09:18	V16C13-16A-W	Connected	sensor_location	Open	sensor_location	Open
2021/07/02	12:59:17	V16C13-16A-W	Connected	sensor_location	Open	sensor_location	Open
2021/07/02	12:49:16	V16C13-16A-W	Connected	sensor_location	Open	sensor_location	Open
2021/07/02	12:39:15	V16C13-16A-W	Connected	sensor_location	Open	sensor_location	Open
2021/07/02	12:29:14	V16C13-16A-W	Connected	sensor_location	Open	sensor_location	Open
2021/07/02	12:19:12	V16C13-16A-W	Connected	sensor_location	Open	sensor_location	Open
2021/07/02	12:09:11	V16C13-16A-W	Connected	sensor_location	Open	sensor_location	Open
2021/07/02	11:59:10	V16C13-16A-W	Connected	sensor_location	Open	sensor_location	Open
2021/07/02	11:49:09	V16C13-16A-W	Connected	sensor_location	Open	sensor_location	Open

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Last 2000 log records.

\* Press F11 to enlarge or diminish the screen

## < 5.3 > Sensor Log

< **Smoke Sensor Log** > provides past 2000 smoke sensor log records of each PDU. The software will generate a smoke sensor log record every 10 mins.

Smoke sensor log							
Level : <input type="text" value="02"/>							
Date	Time	Model	Status	Smoke 1		Smoke 2	
				Location	Status	Location	Status
2021/07/02	11:39:08	V16C13-16A-W	Connected	sensor_location	Normal	sensor_location	Normal
2021/07/02	11:29:07	V16C13-16A-W	Connected	sensor_location	Normal	sensor_location	Normal
2021/07/02	11:19:06	V16C13-16A-W	Connected	sensor_location	Normal	sensor_location	Normal
2021/07/02	11:09:05	V16C13-16A-W	Connected	sensor_location	Normal	sensor_location	Normal
2021/07/02	10:59:04	V16C13-16A-W	Connected	sensor_location	Normal	sensor_location	Normal
2021/07/02	10:49:03	V16C13-16A-W	Connected	sensor_location	Normal	sensor_location	Normal
2021/07/02	10:39:02	V16C13-16A-W	Connected	sensor_location	Normal	sensor_location	Normal
2021/07/02	10:29:01	V16C13-16A-W	Connected	sensor_location	Normal	sensor_location	Normal
2021/07/02	10:19:00	V16C13-16A-W	Connected	sensor_location	Normal	sensor_location	Normal
2021/07/02	10:08:59	V16C13-16A-W	Connected	sensor_location	Normal	sensor_location	Normal
2021/07/02	09:58:58	V16C13-16A-W	Connected	sensor_location	Normal	sensor_location	Normal
2021/07/02	09:48:57	V16C13-16A-W	Connected	sensor_location	Normal	sensor_location	Normal
2021/07/02	09:38:56	V16C13-16A-W	Connected	sensor_location	Normal	sensor_location	Normal
2021/07/02	09:28:55	V16C13-16A-W	Connected	sensor_location	Normal	sensor_location	Normal
2021/07/02	09:18:54	V16C13-16A-W	Connected	sensor_location	Normal	sensor_location	Normal
2021/07/02	09:08:53	V16C13-16A-W	Connected	sensor_location	Normal	sensor_location	Normal
2021/07/02	08:58:52	V16C13-16A-W	Connected	sensor_location	Normal	sensor_location	Normal
2021/07/02	08:48:51	V16C13-16A-W	Connected	sensor_location	Normal	sensor_location	Normal
2021/07/02	08:38:50	V16C13-16A-W	Connected	sensor_location	Normal	sensor_location	Normal
2021/07/02	08:28:49	V16C13-16A-W	Connected	sensor_location	Normal	sensor_location	Normal
2021/07/02	08:18:48	V16C13-16A-W	Connected	sensor_location	Normal	sensor_location	Normal
2021/07/02	08:08:47	V16C13-16A-W	Connected	sensor_location	Normal	sensor_location	Normal
2021/07/02	07:58:46	V16C13-16A-W	Connected	sensor_location	Normal	sensor_location	Normal
2021/07/02	07:48:45	V16C13-16A-W	Connected	sensor_location	Normal	sensor_location	Normal
2021/07/02	07:38:44	V16C13-16A-W	Connected	sensor_location	Normal	sensor_location	Normal

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Last 2000 log records.

\* Press F11 to enlarge or diminish the screen

## < 5.4 > Event Log

< **Event** > based on IP Dongle group one by one to provide past 2000 event records of :

- IP Dongle connection
- PDU connection
- TH sensor connection
  
- PDU configuration
- Outlet configuration
- TH sensor configuration
- Scheduling configuration

2014/09/16	18:48:09	IP dongle connection	[ - ] : IP dongle disconnection
2014/09/16	18:34:02	IP dongle connection	[ - ] : IP dongle disconnection
2014/09/12	09:52:40	IP dongle connection	[ - ] : IP dongle disconnection
2014/09/12	02:06:07	PDU configuration	[ - ] : PDU amp. normal - PDU level 03 - Circuit 01
2014/09/12	02:06:07	PDU configuration	[ - ] : PDU amp. normal - PDU level 03 - Circuit 02
2014/09/12	02:05:54	PDU configuration	[ - ] : PDU amp. rising alert - PDU level 03 - Circuit 02
<hr/>			
<b>Events</b>			
- IP dongle connection	( 1 ) Disconnection ( 2 ) Reconnection	- Outlet configuration	( 1 ) Switch outlet on / off ( 2 ) Change outlet name ( 3 ) Change power up sequence delay ( 4 ) Change alarm amp. ( 5 ) Change rising alert amp. ( 6 ) Change low alert amp. ( 7 ) Reset peak amp /w date and time ( 8 ) Reset kWh /w date and time ( 9 ) Amp. alarm ( 10 ) Amp. rising alert ( 11 ) Amp. low alert ( 12 ) Amp. normal
- PDU connection	( 1 ) Disconnection ( 2 ) Reconnection		
- TH connection	( 1 ) Disconnection ( 2 ) Reconnection		
- PDU configuration	( 1 ) Change alarm amp. ( 2 ) Change rising alert amp. ( 3 ) Change low alert amp. ( 4 ) Reset peak amp /w date and time ( 5 ) Reset kWh /w date and time ( 6 ) Change PDU name ( 7 ) Change PDU location ( 8 ) Amp. alarm ( 9 ) Amp. rising alert ( 10 ) Amp. low alert ( 11 ) Amp. normal ( 12 ) Circuit Breaker tripped / return to normal ( 13 ) Set PDU to maintenance ( 14 ) Remove PDU from maintenance ( 15 ) Disable monitoring	- TH configuration	( 1 ) Activate / Deactivate TH Sensor ( 2 ) Change temp. alarm ( 3 ) Change temp. alert ( 4 ) Change humid. alarm ( 5 ) Change humid. alert ( 6 ) Change TH location ( 7 ) Temp. alarm ( 8 ) Temp. alert ( 9 ) Humid. alarm ( 10 ) Humid. alert
- Scheduling configuration	( 1 ) Enable / Disable outlet schedule ( 2 ) Change outlet schedule conf. ( 3 ) Change outlet schedule name		

## Part VI. Report

< Report > provides monthly report for **PDU log** , **Inline meter log** , **outlet log** , **Sensor log** , **Daily kWh log** & **Event log** which can be exported in CSV format.

Please follow the steps below to export the log category you want :

**Step 1.** Select “ Report Category ” , “ Period “ & “ Target “

The screenshot shows a web interface for configuring a report. It has three main sections: 'Report Category', 'Period', and 'Target'.  
- **Report Category:** A list of checkboxes for different log types. 'PDU' is checked. Under 'Single Feed', 'Dual Feed' is unchecked. Under 'Three phase PDU log', 'Three phase PDU log' is checked. Other categories like '63A PDU log' are unchecked.  
- **Period:** A section for selecting the time range. 'From' is set to 2021 / 01 and 'To' is set to 2021 / 12.  
- **Target:** A grid of checkboxes for IP dongle groups (01-32) and a checkbox for 'all'.  
At the bottom left, there are 'Apply' and 'Cancel' buttons.

**Step 2.** Click “ Apply ” & Click “ OK “ from the pop up window

**Step 3.** Right Click the file name below & Select “ Save link as “ to download the log file

This screenshot shows the 'Report Category' window with a right-click context menu open over a file link. The 'Save link as' option is circled in red.  
- **Report Category:** The 'PDU' checkbox is selected. 'Apply' and 'Cancel' buttons are visible.  
- **Instructions:** A red warning icon is followed by the text: 'To download the file, please: (1) Right click the file link below (2) Select Save link as to download the file'.  
- **File Link:** A blue link is shown: [-3PHPDULog\\_IPDongleGroup01.csv](#).  
- **Context Menu:** A menu is open with options: 'Open link in new tab', 'Open link in new window', 'Open link in InPrivate window', 'Save link as' (highlighted), 'Copy link', 'Add to Collections', 'Web capture' (with keyboard shortcut Ctrl+Shift+S), and 'Inspect' (with keyboard shortcut Ctrl+Shift+I).

**Step 4.** Click “ Close “ to complete or “ Open “ to view the content of log file

..... **Complete**

## Part VII. SNMP & IP Dongle

### < 7.1 > SNMP Setup

The IP dongle can manage the connected single & three phase intelligent PDUs in a single daisy-chain up to 32 levels via SNMP v1/v2 or v3 ( Simple Network Management Protocol )

#### ( I ). Accessing MIB Files

**Step 1.** Click the following link to go to the mangement software download page :

<http://www.austin-hughes.com/resources/infrapower/software>

**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 Dongle for SNMP v1 / v2 support.

**Step 1.** Connect the IP Dongle to a computer. ( Please refer to < 2.2 > IP dongle configuration )

**Step 2.** Open the MS Edge

**Step 3.** Enter the configured IP Dongle address into the address bar.

Default IP address of LAN 1 is “ **192.168.11.1** “


Default IP address of LAN 2 is “ **192.168.0.1** “

**Step 4.** Enter “ **Login name** “ & “ **Password** “ .

Default Login name : 00000000.

To change Login name of IP dongle WEBUI ( PPS-03-S ), please refer to PPS-03-S user manual 1.10 < Login > for details.

Password: the one you set in Step 7 of < 2.2 > IP Dongle Configuration.

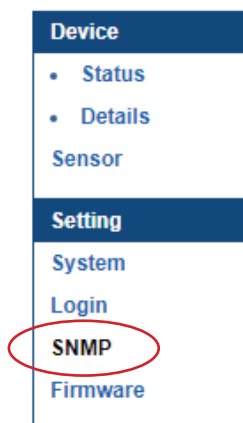


The image shows a login form with the following elements:

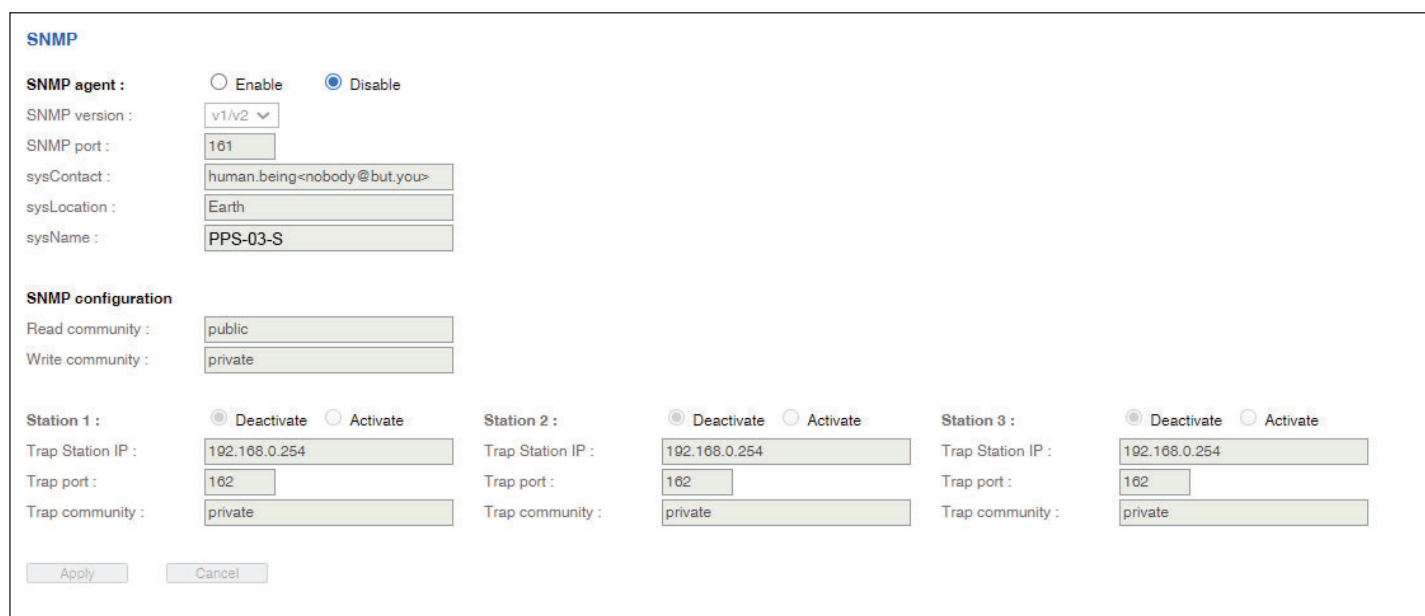
- A text label "Login name" followed by a text input field.
- A text label "Password" followed by a text input field.
- Two buttons: "Login" and "Cancel", positioned below the input fields.

## < 7.1 > SNMP Setup

**Step 5.** Select the **SNMP** from the left navigation pane



**Step 6.** The **SNMP** Settings window appears as below:

A screenshot of the 'SNMP' settings configuration window. The window has a title bar 'SNMP'. Under 'SNMP agent', there are radio buttons for 'Enable' and 'Disable', with 'Disable' selected. Below are fields for 'SNMP version' (v1/v2), 'SNMP port' (161), 'sysContact' (human.being<nobody@but.you>), 'sysLocation' (Earth), and 'sysName' (PPS-03-S). Under 'SNMP configuration', there are fields for 'Read community' (public) and 'Write community' (private). At the bottom, there are three sections for 'Station 1', 'Station 2', and 'Station 3'. Each station has radio buttons for 'Deactivate' and 'Activate', and fields for 'Trap Station IP' (192.168.0.254), 'Trap port' (162), and 'Trap community' (private). 'Apply' and 'Cancel' buttons are at the bottom left.

**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.** Input “ **sysName** “. Default is A320D

**Step 13.** Input “ **Read Community** “. Default is public

**Step 14.** Input “ **Write Community** “. Default is private

**Step 15.** Click “ **Activate** “ in Station 1 to enable the trap service

**Step 16.** Input “ **Trap Station IP** “ , “ **Trap Port** “ & “ **Trap Community** “ of Station 1

**Step 17.** Repeat Step 14 & 15 for Station 2 & 3

**Step 18.** Click “ **Apply** “ to finish the SNMP v1 / v2 settings

## < 7.1 > SNMP Setup

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

**Step 1.** Connect the IP dongle to a computer. ( Please refer to < 2.2 > IP dongle configuration )

**Step 2.** Open MS Edge

**Step 3.** Enter the configured IP Dongle address into the address bar.

Default IP address of LAN 1 is “ 192.168.11.1 “

Default IP address of LAN 2 is “ 192.168.0.1 “

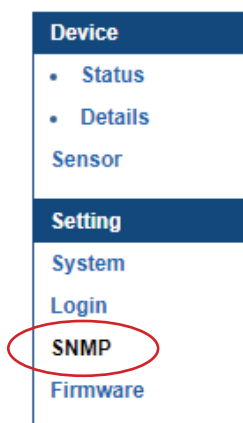
**Step 4.** Enter “ **Login name** “ & “ **Password** “.

Default Login name : 00000000.

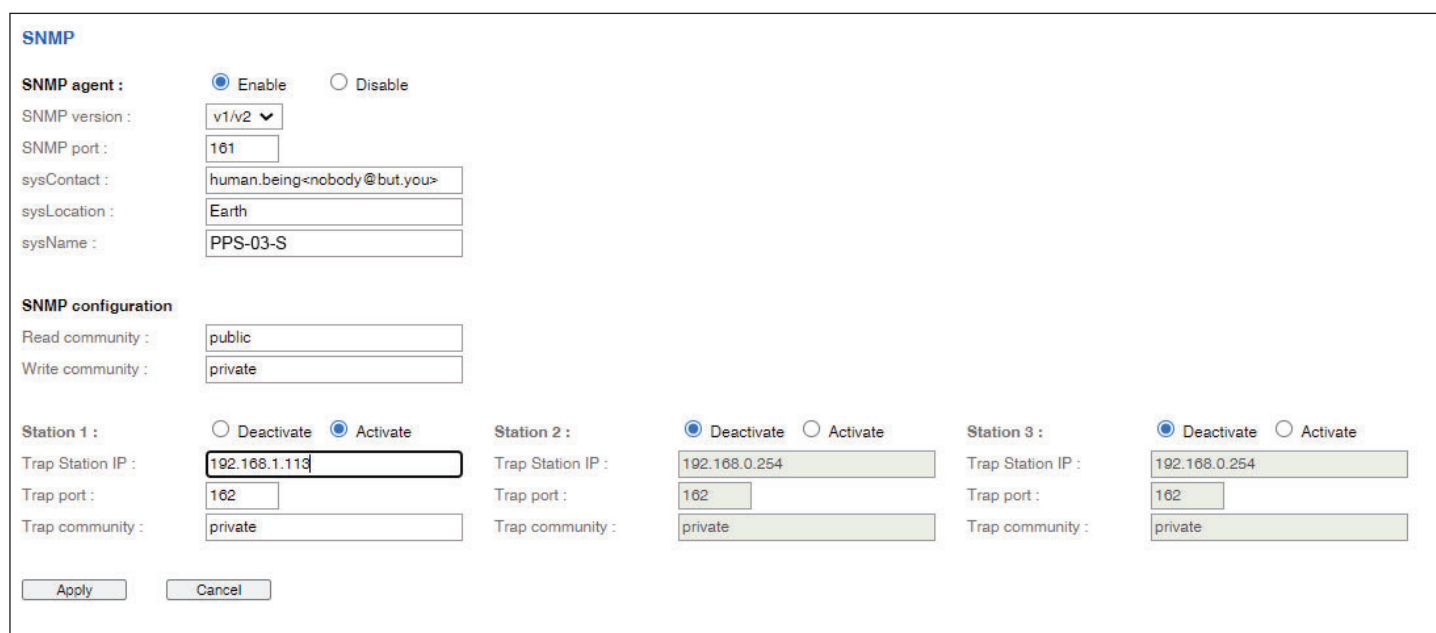
To change Login name of IP dongle WEBUI ( PPS-03-S ),  
please refer to PPS-03-S user manual 1.10 < Login > for details.

Password: the one you set in Step 7 of < 2.2 > IP Dongle Configuration.

**Step 5.** Select SNMP from the left navigation pane



**Step 6.** The **SNMP** Settings window appears as below:

A screenshot of the 'SNMP' settings window. The window is titled 'SNMP' and contains several configuration sections. The 'SNMP agent' section has radio buttons for 'Enable' (selected) and 'Disable'. Below it are fields for 'SNMP version' (v1/v2), 'SNMP port' (161), 'sysContact' (human.being<nobody@but.you>), 'sysLocation' (Earth), and 'sysName' (PPS-03-S). The 'SNMP configuration' section has fields for 'Read community' (public) and 'Write community' (private). The 'Station 1' section has radio buttons for 'Deactivate' and 'Activate' (selected), and fields for 'Trap Station IP' (192.168.1.113), 'Trap port' (162), and 'Trap community' (private). The 'Station 2' section has radio buttons for 'Deactivate' (selected) and 'Activate', and fields for 'Trap Station IP' (192.168.0.254), 'Trap port' (162), and 'Trap community' (private). The 'Station 3' section has radio buttons for 'Deactivate' (selected) and 'Activate', and fields for 'Trap Station IP' (192.168.0.254), 'Trap port' (162), and 'Trap community' (private). At the bottom, there are 'Apply' and 'Cancel' buttons.



## < 7.1 > SNMP Setup

**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 :

The screenshot shows the SNMP v3 configuration interface. It is divided into two main sections: 'SNMP agent' and 'SNMP configuration'.  
**SNMP agent:** Includes radio buttons for 'Enable' (selected) and 'Disable'. Below are fields for 'SNMP version' (v3), 'SNMP port' (161), 'sysContact' (human.being<nobody@but.you>), 'sysLocation' (Earth), and 'sysName' (PPS-03-S).  
**SNMP configuration:** Contains three columns for User 1, User 2, and User 3. Each column has radio buttons for 'Deactivate' and 'Activate'. Below are fields for 'User role' (read only), 'USM user', 'Auth algorithm' (None), 'Auth password', 'Privacy algorithm' (None), 'Privacy password', 'SNMP trap' (Disabled), 'Trap Station IP', and 'Trap port' (162).  
At the bottom are 'Apply' and 'Cancel' buttons.

**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.** Input “ **sysName** “. Default is A320D

**Step 13.** Click “ **Activate** “ in User 1

**Step 14.** Select “ **Read Only** “ or “ **Read & Write** “ in User role :

**Step 15.** Input the name of “ **USM user** “. Default is usm\_user1

**Step 16.** Select “ **None / MD5 / SHA** “ in “ **Auth algorithm** “.  
If you select “ **Read & Write** “ in “ **User role:** “ ,  
you **MUST** select “ **MD5 / SHA** “ in “ **Auth algorithm** “

**Step 17.** Input the “ **Auth password:** “ Default is “ 00000000 “

**Step 18.** Select “ **None / DES / AES / AES192 / AES256** “ in “ **Privacy algorithm** “.  
If the Auth algorithm is “ **NONE** “ , NO privacy algorithm can be selected.

**Step 19.** Input the “ **Privacy password** “

**Step 20.** If you want to receive trap message, select “ **Enable** “ in **SNMP trap**

**Step 21.** Input the “ **Trap Station IP** “ & “ **Trap port** “

**Step 22.** Repeat step 12 to 20 for User 2 & 3

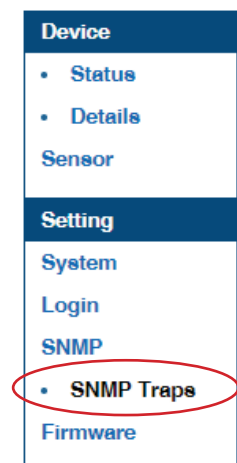
**Step 23.** Click “ **Apply** “ to finish the SNMP v3 settings.



## < 7.1 > SNMP Setup

### ( III ). SNMP Traps Setting

After enable SNMP, you can click “ SNMP Traps “ to go to the “ SNMP Traps Setting “ page



Below is the default setting for each PDU SNMP trap.

You can set the SNMP trap option and Click “ Apply “ to finish the settings.

### SNMP Traps Setting

pduConnectionLost :	<input type="radio"/> Disable	<input checked="" type="radio"/> Once	<input type="radio"/> Cyclic
pduConnectionRecovered :	<input type="radio"/> Disable	<input checked="" type="radio"/> Enable	
circuitLoadEventTriggered :	<input type="radio"/> Disable	<input checked="" type="radio"/> Once	<input type="radio"/> Cyclic
circuitLoadEventCleared :	<input type="radio"/> Disable	<input checked="" type="radio"/> Enable	
circuitBreakerTripped :	<input type="radio"/> Disable	<input checked="" type="radio"/> Once	<input type="radio"/> Cyclic
circuitBreakerRecovered :	<input type="radio"/> Disable	<input checked="" type="radio"/> Enable	
sensorConnectionLost :	<input type="radio"/> Disable	<input checked="" type="radio"/> Once	<input type="radio"/> Cyclic
sensorConnectionRecovered :	<input type="radio"/> Disable	<input checked="" type="radio"/> Enable	
tempSensorEventTriggered :	<input type="radio"/> Disable	<input checked="" type="radio"/> Once	<input type="radio"/> Cyclic
tempSensorEventCleared :	<input type="radio"/> Disable	<input checked="" type="radio"/> Enable	
humiSensorEventTriggered :	<input type="radio"/> Disable	<input checked="" type="radio"/> Once	<input type="radio"/> Cyclic
humiSensorEventCleared :	<input type="radio"/> Disable	<input checked="" type="radio"/> Enable	
rcmSensorConnectionLost :	<input type="radio"/> Disable	<input checked="" type="radio"/> Once	<input type="radio"/> Cyclic
rcmSensorConnectionRecovered :	<input type="radio"/> Disable	<input checked="" type="radio"/> Enable	
rcmSensorEventTriggered :	<input type="radio"/> Disable	<input checked="" type="radio"/> Once	<input type="radio"/> Cyclic
rcmSensorEventCleared :	<input type="radio"/> Disable	<input checked="" type="radio"/> Enable	
smokeSensorEventTriggered :	<input type="radio"/> Disable	<input checked="" type="radio"/> Once	<input type="radio"/> Cyclic
smokeSensorEventCleared :	<input type="radio"/> Disable	<input checked="" type="radio"/> Enable	
doorSensorEventTriggered :	<input type="radio"/> Disable	<input checked="" type="radio"/> Once	<input type="radio"/> Cyclic
doorSensorEventCleared :	<input type="radio"/> Disable	<input checked="" type="radio"/> Enable	

## < 7.2 > IP Dongle Firmware Upgrade

### < Firmware Upgrade >

For function enhancement of IP dongle WEBUI, please take the following steps to remotely upgrade the IP Dongle firmware :

**Step 1.** Click the following link to go to the mangement software download page :

<http://www.austin-hughes.com/resources/infrapower/software>

**Step 2.** Select the appropriate IP Dongle firmware file of the PDU series

**Step 3.** Connect the IP Dongle to the computer. ( Please refer to < 2.2 > IP dongle configuration )

**Step 4.** Open the MS Edge

**Step 5.** Enter the configured IP Dongle address into the Address bar.

Default IP address of LAN 1 is “ **192.168.11.1** “

Default IP address of LAN 2 is “ **192.168.0.1** “


**Step 6.** Enter “ **Login name** “ & “ **Password** “ .

Default Login name : 00000000.

To change Login name of IP dongle WEBUI ( PPS-03-S ),

please refer to PPS-03-S user manual 1.10 < Login > for details.

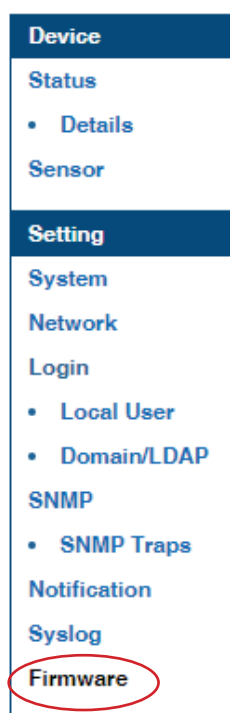
Password: the one you set in Step 7 of < 2.2 > IP Dongle Configuration.



Login name

Password

**Step 7.** Select the Firmware from the left navigation pane



## < 7.2 > IP Dongle Firmware Upgrade

**Step 8.** The firmware upgrade window appears as below :

The screenshot shows a 'Firmware' upgrade window. It is divided into several sections:

- Device information:** Device name: IP Dongle PPS-03s, Firmware version: IPD-03-FW-v1, Hardware revision: 2.0
- LAN 1 information:** IPv4 address: 192.168.1.62, IPv6 address: 2001:0:1:a2::ec11/64, MAC address: 20:0A:0D:FF:FF:02
- LAN 2 information:** IPv4 address: 192.168.0.2, IPv6 address: 2001:0:1:a2::ec01/64, MAC address: 20:0A:0D:FF:FF:01
- Upgrade firmware:** A 'File path' field with a 'Browse' button next to it.
- Warning:** 'Warning : Upgrading firmware may take a few minutes, please don't turn off the power or press the reset button.'
- Buttons:** 'Upgrade' and 'Cancel' buttons at the bottom. The 'Upgrade' button is circled in red.

**Step 9.** Click “ **Browse** ” and select the firmware file ( xxx.zip for firmware version IPD-03-FW-v1 / xxx.enc for firmware version IPD-03-FW-V1.1 or above ) 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.

## < 7.3 > DHCP Setting

**Step 1.** Connect the IP dongle to the computer ( Please refer to < 2.2 > IP dongle configuration )

**Step 2.** Open the MS Edge

**Step 3.** Enter the configured IP Dongle address into the address bar.

Default IP address of LAN 1 is “ **192.168.11.1** ”

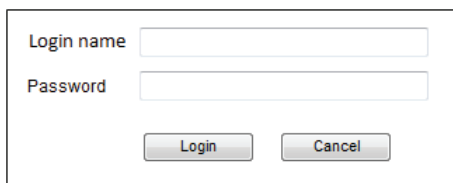
Default IP address of LAN 2 is “ **192.168.0.1** ”

**Step 4.** Enter “ **Login name** ” & “ **Password** ”.

Default Login name : 00000000.

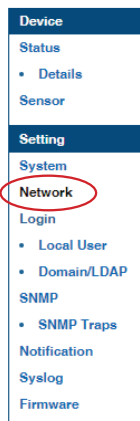
To change Login name of IP dongle WEBUI ( PPS-03-S ), please refer to PPS-03-S user manual 1.10 < Login > for details.

Password: the one you set in Step 7 of < 2.2 > IP Dongle Configuration.

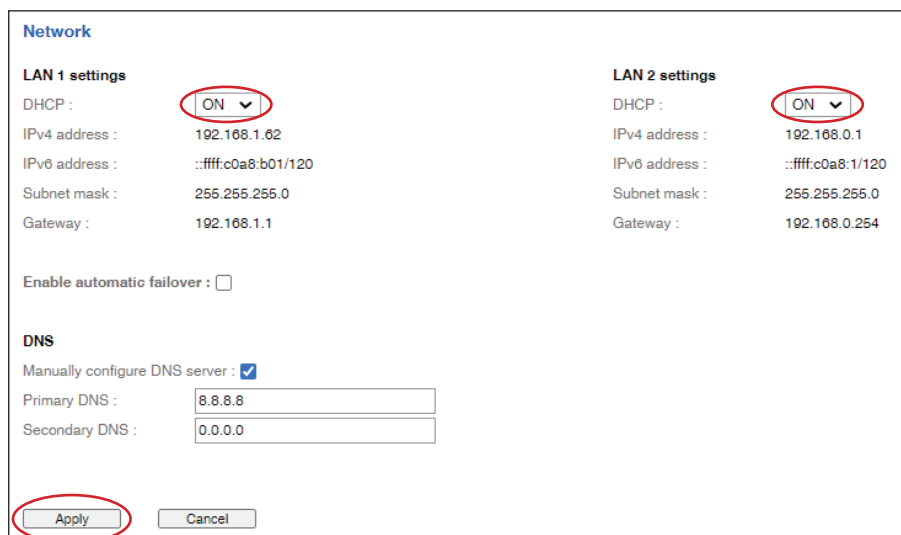


A screenshot of a login form. It contains two input fields: "Login name" and "Password". Below the fields are two buttons: "Login" and "Cancel".

**Step 5.** Select “ **Network** ” from the left navigation pane



**Step 6.** Dual Lan Mode: Select “ **ON** ” from “ **DHCP** ” of LAN 1 & LAN 2  
Click “ **Apply** ” to save the settings



A screenshot of the Network configuration page. It shows settings for LAN 1 and LAN 2. The DHCP dropdowns for both LAN 1 and LAN 2 are circled in red. The "Apply" button at the bottom is also circled in red.

LAN 1 settings	LAN 2 settings
DHCP : ON	DHCP : ON
IPv4 address : 192.168.1.62	IPv4 address : 192.168.0.1
IPv6 address : ::ffff:c0a8:b01/120	IPv6 address : ::ffff:c0a8:1/120
Subnet mask : 255.255.255.0	Subnet mask : 255.255.255.0
Gateway : 192.168.1.1	Gateway : 192.168.0.254

Enable automatic failover :

**DNS**

Manually configure DNS server :

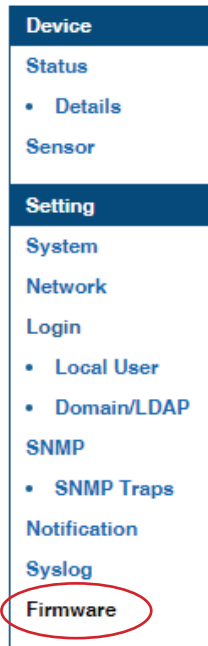
Primary DNS : 8.8.8.8

Secondary DNS : 0.0.0.0

Apply Cancel

## < 7.3 > DHCP Setting

Step 7. Select “ Firmware “ from the left navigation pane



Step 8. Record the “ MAC address “ of LAN 1 & LAN 2.

### Firmware

**Device information**

Device name : IP Dongle PPS-03s  
Firmware version : IPD-03-FW-v1  
Hardware revision : 2.0

---

**LAN 1 information**

IPv4 address : 192.168.1.62  
IPv6 address : 2001:0:1:a2::ec11/64  
MAC address : 20:0A:0D:FF:FF:02

---

**LAN 2 information**

IPv4 address : 192.168.0.2  
IPv6 address : 2001:0:1:a2::ec01/64  
MAC address : 20:0A:0D:FF:FF:01

---

**Upgrade firmware**

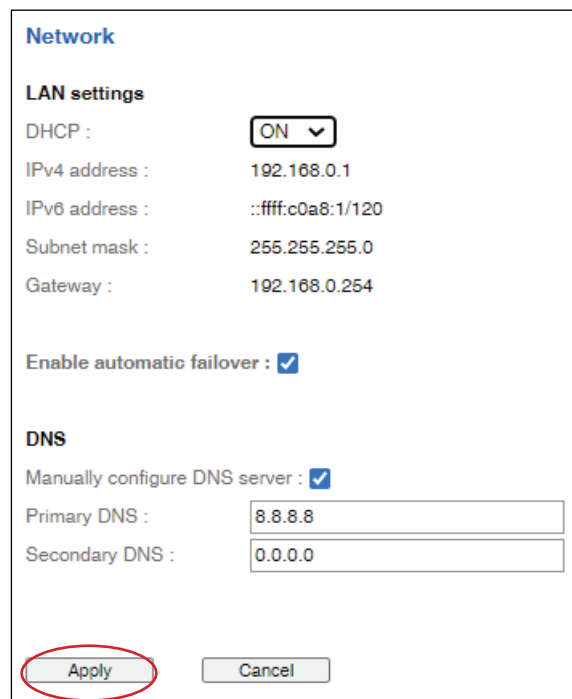
File path :

**Warning :** Upgrading firmware may take a few minutes,  
please don't turn off the power or press the reset button.

Step 9. Assign an IP address of LAN 1 & LAN 2 of to the IP Dongle from your DHCP server.

## < 7.3 > DHCP Setting

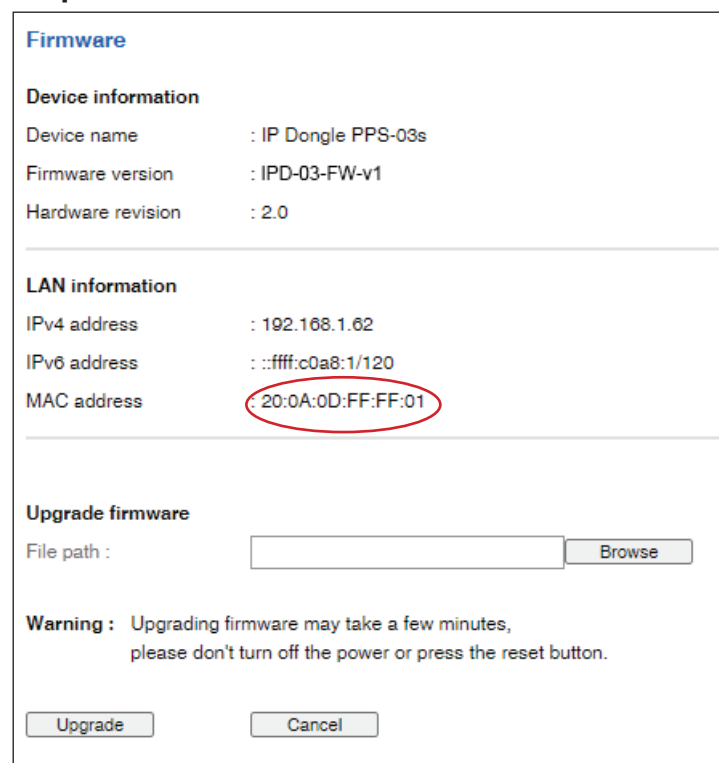
**Step 10.** Failover Mode: Select “ **ON** ” from “ **DHCP** ” & Click “ **Apply** ” to save the settings



The screenshot shows the 'Network' configuration page. Under 'LAN settings', the 'DHCP' dropdown menu is set to 'ON'. Other settings include IPv4 address (192.168.0.1), IPv6 address (::ffff:c0a8:1/120), Subnet mask (255.255.255.0), and Gateway (192.168.0.254). The 'Enable automatic failover' checkbox is checked. Under 'DNS', the 'Manually configure DNS server' checkbox is checked, with Primary DNS set to 8.8.8.8 and Secondary DNS set to 0.0.0.0. The 'Apply' button is circled in red.

**Step 11.** Select “ **Firmware** ” from the left navigation pane

**Step 12.** Record the “ **MAC address** ”



The screenshot shows the 'Firmware' configuration page. Under 'Device information', the device name is 'IP Dongle PPS-03s', the firmware version is 'IPD-03-FW-v1', and the hardware revision is '2.0'. Under 'LAN information', the IPv4 address is 192.168.1.62, the IPv6 address is ::ffff:c0a8:1/120, and the MAC address is 20:0A:0D:FF:FF:01, which is circled in red. Under 'Upgrade firmware', there is a 'File path' input field and a 'Browse' button. A warning message states: 'Warning : Upgrading firmware may take a few minutes, please don't turn off the power or press the reset button.' The 'Upgrade' and 'Cancel' buttons are at the bottom.

**Step 13.** Assign an IP address to the IP Dongle from your DHCP server.

..... • **Complete**

## Part VIII. FAQ

### < 8.1 > Management Software



**1. Is IPM-04 management software free of charge ?**

Yes.

**2. What is InfraPower Manager ?**

The InfraPower Manager IPM-04 is a Windows based system to consolidate management of max. **1600 PDUs** via **50 IP dongles**, using a simple web interface which monitors and controls dual feed single phase , single & 3 Phase W series PDUs.

- SNMP Capability v2 / v3 via IP Dongle
- Outlet switch On/Off and scheduling
- Outlet level kWh & amp measurement
- Temp-Humid monitoring
- Graphic user interface
- PDU & outlet reporting ( kWh / Amp / Event / Temp & Humid )

**3. Which OS platform does IPM-04 support ?**

- MS Windows 10 Pro
- MS Windows 7 Professional with SP1
- MS Windows Server 2012 R2 Standard Edition
- MS Windows Server 2008 Standard Edition SP2
- MS Windows Server 2008 R2 Standard Edition SP1
- MS Windows Server 2003 R2 Standard Edition with SP2



**Ensure the user logs in as a member of “Administrators” Group before IPM-04 Installation and execution.**

**4. What are the default ports used in the IPM-04 ?**

- UTP port : 8890 for searching IP Dongle
- TCP port : 4000 for IP Dongle communication
- TCP port : 80 for HTTP
- TCP port : 25 for email alarm service ( can be changed by user )

**5. Why can't I access the login page ?**

- If the web service is started & the port of web server is open in firewall setting

**6. Why can't I login remotely ?**

- If the login name & password is correct

**7. Which database does the IPM-04 support ?**

PostgreSQL

**8. What is the PostgreSQL default password for IPM-04 ?**

1qaz2WSX

**9. How can I receive alarm email and get full log report ?**

Ensure that IPM-04 is executed and the alarm server is configured properly and being enabled.

**10. What is the default user name & login password of IPM-04 ?**

Default user name “ **admin** ” / Default login password “ **00000000** ”



## < 8.1 > Management Software

### 11. What is the command password of IPM-04 ?

- Each IP Dongle group has its command password ( Default “ 00000000” ).
- For security, it will be requested for any PDU configuration and control.
- Only administrator can set command password.
- The passwords are disabled or enabled, same or different subject to the administrator’s management.

### 12. Is it possible to increase PDU from 1600 & IP Dongle group from 50 ?

Yes, but custom management software & service charges required.

### 13. Is it possible to increase the concurrent user from 5 ?

Yes, but custom management software & service charges required.

### 14. Can I manage W series PDUs from different workstations ?

Yes, max. 5 concurrent login users from different workstations.

### 15. Why UI shows PDU / PDUs disconnection ?

- the PDU is power OFF or
- duplicate the PDU level no. or
- cable loose / defective

- the IP Dongle fails  
Refer to < 8.2 > IP Dongle

- the W Meter fails  
Refer to < 8.3 > W Meter

- the power module fails  
Refer to < 8.4 > Power Module

### 16. Why UI shows Temp. / Temp. + Humid sensor disconnection ?

- Temp. / Temp. + humid sensor is NOT connected
- Temp. / Temp. + humid sensor in BAD contact
- Temp. / Temp. + humid sensor is defective

## < 8.2 > IP Dongle

### 1. What is the IP Dongle ?

The IP Dongle, with patented hot-plug & field replaceable design and SNMP function, provides a simple and economical way to consolidate management of max. 32 pcs of Dual Feed single phase , single & 3 Phase PDUs via a single network IP address to save IP address cost.



### 2. Does IP Dongle have a built-in UI ?

Yes, a built-in UI provides a general remote monitoring & control for cascaded PDUs. However, this built-in UI can only manage up to 32 PDUs in a daisy chain, no any reporting, event & log. If need a complete monitoring & control AND a log & reporting for some hundred PDUs, the free IPM-04 PDU management software is absolutely required.

### 3. How to reset IP dongle to factory default ?

Press and hold the reset button until Green LED off to reset IP dongle to factory default.



### 4. Can I use the built-in dongle UI and IPM-04 management software simultaneously?

Yes.

### 5. Is the IP Dongle essential to IPM-04 management software ?

Yes, the software can't run without IP Dongle

### 6. Is the IP Dongle essential to SNMP function ?

Yes, absolutely.

### 7. Does the IP Dongle support SNMP v2 and v3 ?

Yes.

### 8. What is default setting of IP Dongle ?

The default IP setting is as below :

LAN 1

IP address : 192.168.11.1

Subnet Mask : 255.255.255.0

Gateway : 192.168.11.254

LAN 2

IP address : 192.168.0.1

Subnet Mask : 255.255.255.0

Gateway : 192.168.0.254

## < 8.2 > IP Dongle

### 9. What is the IP setup utilities?

This is a windows application used to assign the IP address of IP Dongle.

Please find the link below :

<http://www.austin-hughes.com/support/utilities/infrapower/IPdongleSetup.msi>

### 10. What are the default ports used in IP setup utilities ?

- UTP port : 8880, 8881, 8882, 8883, 8884, 8888, 8889, 8890 & 8891

### 11. Does the IP Dongle support DHCP (Dynamic Host Configuration Protocol)?

Yes.

### 12. Will the reset of IP Dongle affect the power to the outlets ?

No, the IP Dongle operates on a separate circuit, so the power to the outlets will remain unchanged.

### 13. What are the symptoms if the IP Dongle fails ?

- UI shows IP Dongle disconnection and users fail to access the whole cascaded PDUs.
- Orange LED off of IP Dongle

### 14. Why the IP Dongle fails to work ?

- the IP Dongle itself fails or
- the 1st level W Meter fails or
- the 1st level Power Module fails or
- cable loose or defective between IP Dongle and the network device

### 15. How can I replace a failed IP Dongle ?

Download the guide below to replace the IP Dongle :

<http://www.austin-hughes.com/support/replacementguide/infrapower/RG-IP-W-IP-Dongle.pdf>

### 16. Does the IP dongle have firmware built-in ?

Yes

### 17. How can I get the updated IP dongle firmware ?

Please find the link below :

<http://www.austin-hughes.com/resources/software/infrapower>

### 18. Can I remotely update the IP dongle firmware ?

Yes.

Download the guide below to update the firmware accordingly :

<http://www.austin-hughes.com/support/upgradeguide/infrapower/UG-IP-W-IPdongle-Firmware.pdf>

## < 8.3 > W Meter

### 1. What are features of the W Meter ?

- Support Dual Feed single phase , single & 3 Phase PDU and they can be inter-cascaded in a single daisy chain
- Support switched PDU and outlet amp + kWh measurement
- Simply connect 1 x IP Dongle to access up to 32 PDUs to save IP network address
- SNMP Capability v2 / v3 via IP Dongle
- Sensor port x 2
- 2.8" color LCD featured w/ touchscreen
- Built-in buzzer will sound when circuit or bank Amp over alarm setting
- Field replaceable design allows meter replacement without PDU power interruption



### 2. What is the default PDU level ?

Level 16

### 3. What is the default outlet status of Switched PDU ?

ON

### 4. If one of the cascaded PDU W Meter fails, will it affect the data transmission among PDUs in the same daisy chain ?

No , the meter design prevents this from happening.

### 5. If one of the cascaded W series PDU ( meter ) loses power, will it affect the data transmission among PDUs in the same daisy chain ?

Yes, if the 1st level PDU loses power.

No , if NOT the 1st level PDU loses power.

### 6. What is the maximum cabling distance between two cascaded W series PDUs ?

Up to 10 meter (33 feet) via CAT. 5 / 6 cable.

### 7. What are the symptoms if the W Meter fails ?

- if the W Meter PDU is one of that among the 2nd to last level, UI shows PDU disconnection and users fail to access this PDU
- if the W Meter PDU is the 1st level, UI shows IP Dongle disconnection and users fail to access the whole cascaded PDUs
- W Meter no display

### 8. Why the W Meter fails to work ?

- the W Meter itself fails or
- the Power Module fails and can't supply power to W Meter so the W Meter fails to work or
- the Power Module IC defective and causes W Meter has no data return or
- the LAN cable loose or defective

### 9. How can I replace a failed W Meter ?

Download the guide below to replace the W Meter :

<http://www.austin-hughes.com/support/replacementguide/infrapower/RG-IP-W3-Meter.pdf>

## < 8.3 > W Meter

### 10. How accurate is the energy measurement on W Meter ?

The W Meter have an accuracy of +/- 1% of reading across the entire power and outlets energy measurement compliant with IEC 62053/ANSI C12.20 Standards



- Ampere - squelched to 0A under 0.3A
- Accuracy is not defined below 0.3A.

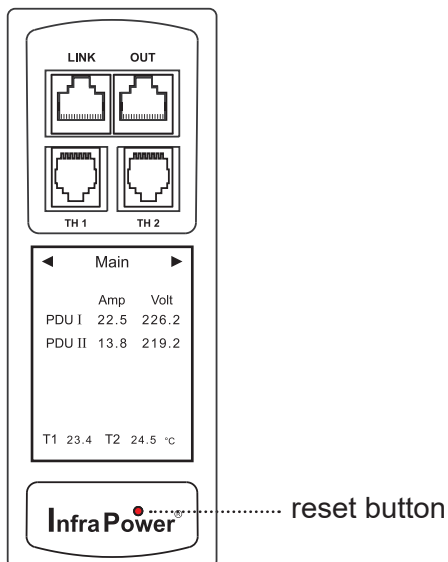
Functional Specifications - Metering	
Input Metering Range	0.3 to Rated Input Current
Outlet Metering Range	0.3 to 16.0A
Ampere Accuracy (A)	+/- 1%
Voltage Accuracy (V)	+/- 1%
Power Accuracy (kW)	+/- 1%
Energy Accuracy (kWh)	+/- (1%)*hours

### 11. Does the W meter have firmware built-in ?

Yes

### 12. What can I do if the W Meter turns white ?

- Use a pin to press the reset button
- If the symptom still persists, call your dealer for support



## < 8.4 > Power Module

### 1. What is feature of the Power Module ?

- convert AC to DC for W Meter, IP Dongle & outlet control module
- field replaceable design allows quick replacement

### 2. How affect the W Meter if the Power Module fails ?

It will cause the meter fails to work as below :

- if the W Meter PDU is one of level among the 2nd to the last, UI shows PDU disconnection and users fail to access this PDU
- if the W Meter PDU is the 1st level, UI shows IP Dongle disconnection and users fail to access the whole cascaded PDUs
- W Meter no display and / or no data return

### 3. How affect the switched & measurement WS / WSi / Wi PDU if the Power Module fails ?

- lose outlet On/Off control and outlet amp & kWh measurement
- but outlet can still supply power to device

### 4. Why the Power Module fails to work ?

- the power module itself fails

### 5. How can I replace a failed Power Module ?

For safety, please follow the Power Module replacement guide.

Download the guide below to replace the Power Module :

<http://www.austin-hughes.com/support/replacementguide/infrapower/RG-IP-W3-Power-Module.pdf>



## < 8.5 > Outlet Control Module

### 1. How many types of Outlet Control Module ?

The outlet control module is a built-in PCB and NOT a hot-swapped & field replaceable design.

- switched & measurement module for WSi switched & outlet level measurement PDU
- outlet measurement module for Wi outlet level measurement PDU
- switched module for WS switched PDU

### 2. How affect the switched & measurement WS / WSi / Wi PDU if the Outlet Module fails ?

- lose outlet On/Off control and outlet level measurement
- but outlet can still supply power to device

### 3. Why the outlet control module fails to work ?

- the outlet control module itself fails

### 4. How can I replace a failed Outlet Control Module ?

No, not like W Meter & Power Module, Outlet Control Module is NOT hot-swapped & field replaceable design. You have to replace the whole PDU.

### 5. How can I replace a failed PDU ?

Download the guide below to replace the PDU :

<http://www.austin-hughes.com/support/replacementguide/infrapower/RG-IP-W3-PDU.pdf>

## < 8.5 > Outlet Control Module

### 6. What status the outlet LED means for WS / WSi switched PDU ?

LED in Solid Blue : Outlet ON

LED Not lit : Outlet OFF

### 7. How the outlets react when the user power up the WS / WSi switched PDU ?

First, all outlets will return to power OFF status within 5 seconds.

Then, all outlets power ON sequentially.

### 8. Why the outlet LED Not lit but the outlets still ON power status ?

The outlet LED is defective.

## < 8.6 > TH Sensors & Others

### TH sensors

#### 1. How accurate is the Temp. & Humid. sensor ?

$\pm 1^{\circ}\text{C}$  ( typical ) &  $\pm 4.5\%$  RH ( typical )

#### 2. How accurate is the Temp. sensor ?

$\pm 1.5^{\circ}\text{C}$  ( typical )

#### 3. What is the default TH setting ?

Default : Deactivate

#### 4. Is the TH sensor plug-n-play ?

Yes, but only for the local meter display.

No, for management software UI. You have to activate the sensor in < TH Sensor >.

Note : never activate if no sensor connection



## < 8.6 > TH Sensors & Others

### Others

- 1. Will the PDU settings remain unchanged after power OFF ?**  
Yes, the settings will remain unchanged such as PDU & Outlet Name, Location, Alarm amp., Low alert amp. ....
- 2. Does the InfraPower PDU has the over ampere protection ?**  
Yes, the optional resettable fuse and circuit breaker available.
- 3. What is the standard inlet cable length of InfraPower PDU ?**  
3 meter ( 9.9 feet )
- 4. Where can I find the Catalogue / User manual / Model list / Wire diagram of InfraPower PDUs ?**  
Please visit the [www.austin-hughes.com](http://www.austin-hughes.com)
- 5. How can we get a further support?**  
Please send the email to [support@austin-hughes.com](mailto:support@austin-hughes.com) or [sales@austin-hughes.com](mailto:sales@austin-hughes.com)

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