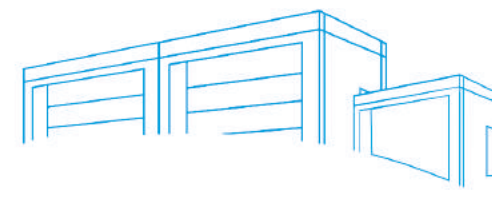RICHCOMM

DCIM

Power&Environment Monitoring Solution for Data Center

PRODUCT CATALOGUE

Pioneer of Data Center Power & Environment Management

COMPANY

>> PROFILE

RichComm System Technologies Co,.Ltd
Data Center Power & Environment System Monitoring Expert

RichComm System Technologies Co.,Ltd is a leading provider of data center monitoring products and services. Founded in 1999, with its focus on continuous innovation, Richcomm provides professional monitoring solutions for full serial of UPS and different data center for users.

As a professional provider, RichComm has cooperated with many UPS manufacturers, system integrators and UPS agents around the world. Richcomm UPS monitroing product can be compatible with most UPS brand like SANTAK, APC, MGE, POWERWARE, EMERSON, Kstar, KELONG, DELTA, Eaton, EAST, Jeidar, Invt, GE, etc .

Solutions and products have been widely applied to bank, transportation, power stations, telecommunication, government, etc. The system is quick in installation, simple in maintenance, flexible in expansion, stable in running.

With business expanding, RichComm is highly recognized and enjoys good reputation. We will continue to provide excellent products and perfect solutions for users.

CONTENTS >> >

SitePro II ⫸

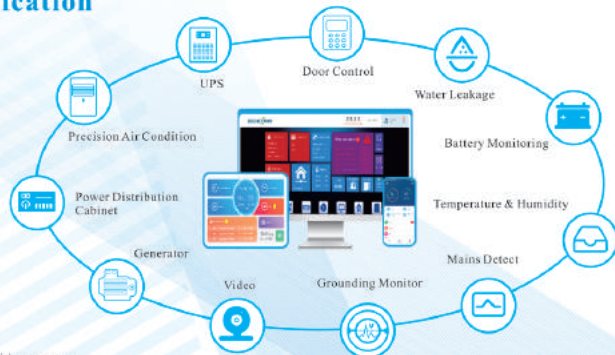## Integrated Host for Power & Environment Monitoring

▭ Brief Introduction

SitePro II is a highly integrated monitoring solution for medium-small type data center, it integrates 4 big infrastructure monitoring systems in 19 inch host, including power system(UPS, UPS battery, power distribution, generator, PDU, etc), precision/split air condition system, environment system(Temp, humid, smoke, leakage, gas, dust, etc), security system(door contact, access control, CCTV). SitePro II provides complete high level detect of data center infrastructure devices, when alarm happens, it will rapidly inform administrators to take efficient measures.

▭ Software Feature

- Highly integrated, one-stop management;
- Cloud technology, WEB access, build-in guide function;
- Embed in software, B/S structure, system safety and reliable;
- Support to monitor and control smart power devices like UPS, UPS battery, power distribution cabinet, PDU, generator, etc;
- Support complete environment detect like temp, humid, smoke, leakage, gas, dust, etc;
- Support monitor and control precision or split air conditioning;
- Provide security system integration like CCTV, access control;
- Support to detect neutral earth voltage, in time to find grounding danger;
- Provide map mode display;
- Excellent compatibility, plug and play;
- Support mobile APP monitoring;
- Provide multiform alarm notifications like email, SMS, telephone, sound light, broadcast, etc.

▭ Application

SitePro Plus ⫸

Integrated Host for Power & Environment Monitoring Customized

▭ Brief Introduction

SitePro Plus is based on SitePro II and add more customized function like 3D visual management, PUE management, property management, capacity management , IT equipment management.

▭ Software Feature

- Highly integrated, one-stop management;
- Cloud technology, WEB access, build-in guide function;
- Embed in software, B/S structure, system safety and reliable;
- Support to monitor and control smart power devices like UPS, UPS battery, power distribution cabinet, PDU, generator, etc;
- Support complete environment detect like temp, humid, smoke, leakage, gas, dust, etc;
- Support monitor and control precision or split air conditioning;
- Provide security system integration like CCTV, access control;
- Support to detect neutral earth voltage, in time to find grounding danger;
- Provide map mode display;
- Excellent compatibility, plug and play;
- Support mobile APP monitoring;
- Provide multiform alarm notifications like email, SMS, telephone, sound light, broadcast, etc;
- Support highly-customized like 3D visual, PUE, property management, capacity management , IT equipment management.

▭ Application

Function and Connection

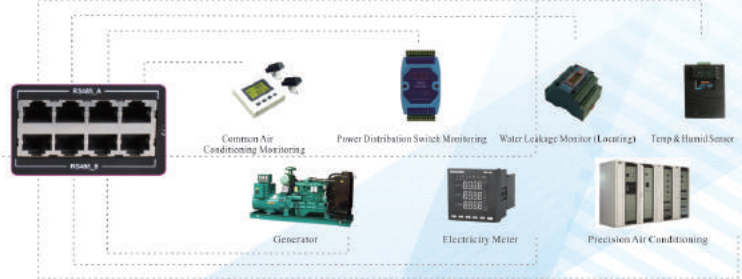**VRLA Battery**   **Door Access**   **Video**

Dual Power Supplies + Dual Network Ports, More Safe and More Reliable:

Support to be connected with two power supplies at the same time, helps to reduce the alarm failures when electricity is off; and designed of 2 Ethernet ports, enable to get physical isolation of LAN/WAN, for this redundancy configuration greatly guarantee the links reliability .
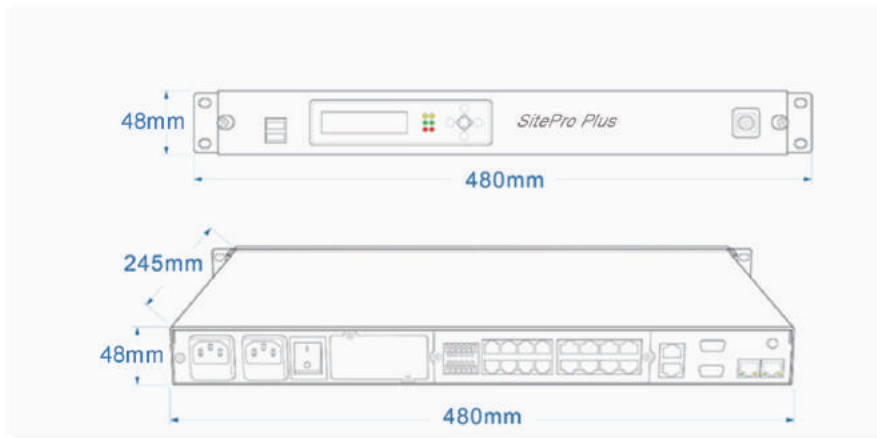
AC Input   AC Input

E-mail

Network   Router

Ethernet_2   Ethernet_1

N-G voltage monitoring module
Wipe out the grounding danger of server room

LCD display
Elegant and clear

Ultra long backup battery
Auto charge/discharge, recyclable use, 12-hours battery life

32G SD Card
Support 3-5 years history events and data records storage

USB Connection

Voice Dialing Alarm Module

SMS Notification

Multiple Alarm Notifications, Every Moments With Security

Able to choose a proper alarm notification, guarantee safety and reliable under 7*24 hours unattended operation.

Sound-Light Alarm

RS232/485_3   RS232_1
RS232/485_4   RS232_2

Precision Air Conditioning   UPS

Standardized Interface:

UPS monitoring normally is through DB9-type connection, Sitepro provides DB9-type communication port.

Precision air condition normally is through RS485 for communication, Sitepro provides optimized RJ45 type of RS485 communication.

Water Leakage (Non-locating)   Switch Monitoring   Surge Protect Switch

Dry-contact extending, RJ11 distinction, standardized interface:

Provides 8 dry contacts extending, able to connect water leakage(non-locating), surge protect switch detector, limited current switch detector, infrared intrusion detector, door contact, smoke sensor, etc, 360° comprehensive protect your data center.

Centralized network monitoring of video and access control, intuitive and clear;

Ultra long backup battery continuous working 12 hours if electricity power off;

Completely eliminate grounding hidden danger via N-G voltage monitoring;

Standardized interface, easy to connect, fast to install.

Smoke   Door Contact   Infrared Intrusion

Powerful extending function, provide 8 ports of RJ45 extending

Max support 24 Temperature & Humidity sensors, 2 water leakage monitoring (locating), 8 switch monitors of power distribution monitoring (each monitor support 8 switch monitoring, total 64 switch monitoring), 4 general air conditioning monitoring, 2 generator monitoring, 4 general power distribution monitoring or 2 general power distribution monitoring+2 precision power distribution monitoring.

RS485_A
RS485_B

Common Air Conditioning Monitoring   Power Distribution Switch Monitoring   Water Leakage Monitor (Locating)   Temp & Humid Sensor

Generator   Electricity Meter   Precision Air Conditioning

Dimension

User Interface

Main Interface

3D Display

Three-phase UPS Monitoring

Single-phase UPS Monitoring

Power Distribution Monitoring
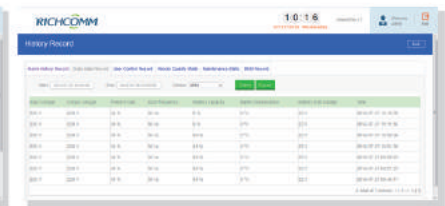

Air Condition Monitoring

Environmental Monitoring

Security Monitoring

Alarm History Record

Daily Data Record

Power Usage Analysis

Capacity Management

Technical Parameters

CPU	32-bit ARM RISC-based 800 MHz high-speed center processor		
RAM	512M byte SDRAM	**Flash ROM**	1G byte Flash
Network	10/100Mbps High-speed Ethernet network self-adaptive		
Device Port	2 RS232 ports(DB9 type)	UPS	
	2 RS232/RS485 composite ports	UPS, precision A/C, power distribution	
	2 RS485 bus	Temp&Humid, general A/C	
	8 DIGIT INPUTS(RJ11 type)	Smoke, leakage, door contact, motion, new fan detect, etc	
	4 DIGIT OUTPUTS (terminals)	Sound light	
Browser Supported	Access to SNMP MIB directly through Internet Explorer, Netscape or compatible browser; Support RFC1213, RFC1628 , PPC MIB		
Network Protocol	TCP/IP, UDP, SNMP, Telnet, SNTP, HTTP, SMTP, DHCP, DNS, TFTP, ARP, ICMP, HTTPS, PPP,etc Modbus-RTU, Modbus.		
Encrypted Protocol	HTTPS, SSL, SSH, SNMPv3, IPV6		
Running Environment	Temperature: 0°C ~ 70°C Humidity: 10 ~ 85%	**Input Power**	110V-240V (60HZ/50HZ)
Other Configuration	Real time system clock synchronization		
System Security	Provide filtering mechanism based on IP, and system operation, control and management of the user ID and password protection		
System Upgrade	Network upgrade	**Languages**	Chinese/English, support OEM other languages
Safety Certificate	CE/FOC		

Accessories

SN	Name	M.N	Function	Connection
System Alarm				
1	Telephone Alarm Module	RC77423	Provide telephone alarm notification	USB
2	Sound Light Alarm Sensor	RC77412	Provide sound light notification	Digit out
Environment System				
3	Temp&Humid Sensor	RC77015 OLED Display / RC77012 Digital Type	Detect data center indoor temperature and humidity parameters, every 20 M² need to install 1pc	RS485-A
4	Smoke Sensor	RC77150	Detect indoor data center monitor status, every 20 M²-30M² need to install 1pc	DI(RJ11)
5	Infrared Sensor	RC77149	Detect data center intrusion,motion status	DI(RJ11)
6	Door contact	RC77435	Detect door or windowon/off status	DI(RJ11)
7	Switching Value Transmitter	RC77755	Detect on-off status of air condition/ new fan	DI(RJ11)
8	Sound Light Sensor	RC77412	Give sound light alarm notification when alarm happens	DI(RJ11)
9	Water Leakage Sensor	RC77151 (Non-Locating)	Detect data center water leakage status, work with water leakage cable	DI(RJ11)
10	Water Leakage Sensor	RC91245 (Locating)	Detect data center water leakage status with details location, work with water leakage cable	RS485-B
11	Switching Value Transmitter	RC77755	Detect on-off status of air condition/ new fan	DI(RJ11)
Air Condition System				
12	AirCon Infrared Component	RC77404	Remotely control air condition on-off,with auto reboot when AC recover	RS485-A
Power Distribution System				
13	Three Phase Energy Meter	RC77207	Digital display, support to capture the power distribution cabinet of voltage, current, active power, reactive power, etc	RS485-A
14	Single Phase Energy Meter	RC77208	Digital display, support to capture the power distribution cabinet of voltage, current, active power, reactive power, etc	RS485-A
15	Mains Branch-switch Monitor	RC77305	Support to monitor 8 eletricity switch signal at a same time, output 485 singal to sitepro host, it most works with electricity meter.	RS485-B

Sitemate II ≫

## Integrated Host for UPS & Environment Monitoring

Brief Introduction

Sitemate II is specially developed and researched for small data center. Sitemate II is based on IP network technology and supports UPS monitoring and environment system detection(temperature, humidity, smoke, leakage, motion, door contact, gas, etc). SitemateII provides fast interface visiting and user settings via web browser, once alarm happens, it will rapidly give alarm notifications with email, SMS, sound light, etc.

Function & Feature

- Support advanced encryption protocol such as HTTP, HTTPS, SSL, SSH, SNMPV1\V2c\V3;
- Support telnet, supper terminal, WEB page configuration;
- Compatible with multi-brand and multi-type of UPS;
- Support to add on 20 Temp&Humid sensors via RS422/RS485 ports;
- With 16 digital input terminals, support to add on dry contact type detectors;
- With 5 digital output terminals, support to add on relay output control;
- Support 8 analog input signal detection;
- Support SNMP trap, E-mail alarm notifications;
- Built-in optional GSM Modem, support SMS query or alarm notification;
- Support scheduled task(regular self-testing, switch on/off);
- Support history events and data record storage;
- Comprehensive event handle(including event record and notification);
- Comprehensive managing function(data logs, SNTP and task schedule);
- Support IPV4/IPV6;
- Available to work with centralized software;
- Support Android APP monitoring;
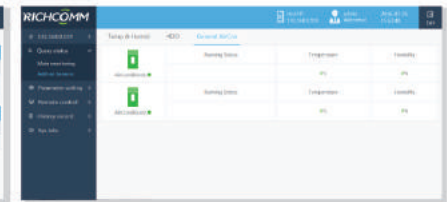- Support Precision air condition monitoring.

User Interface
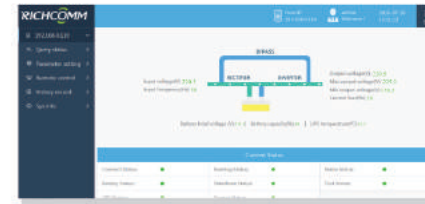
UPS Monitoring

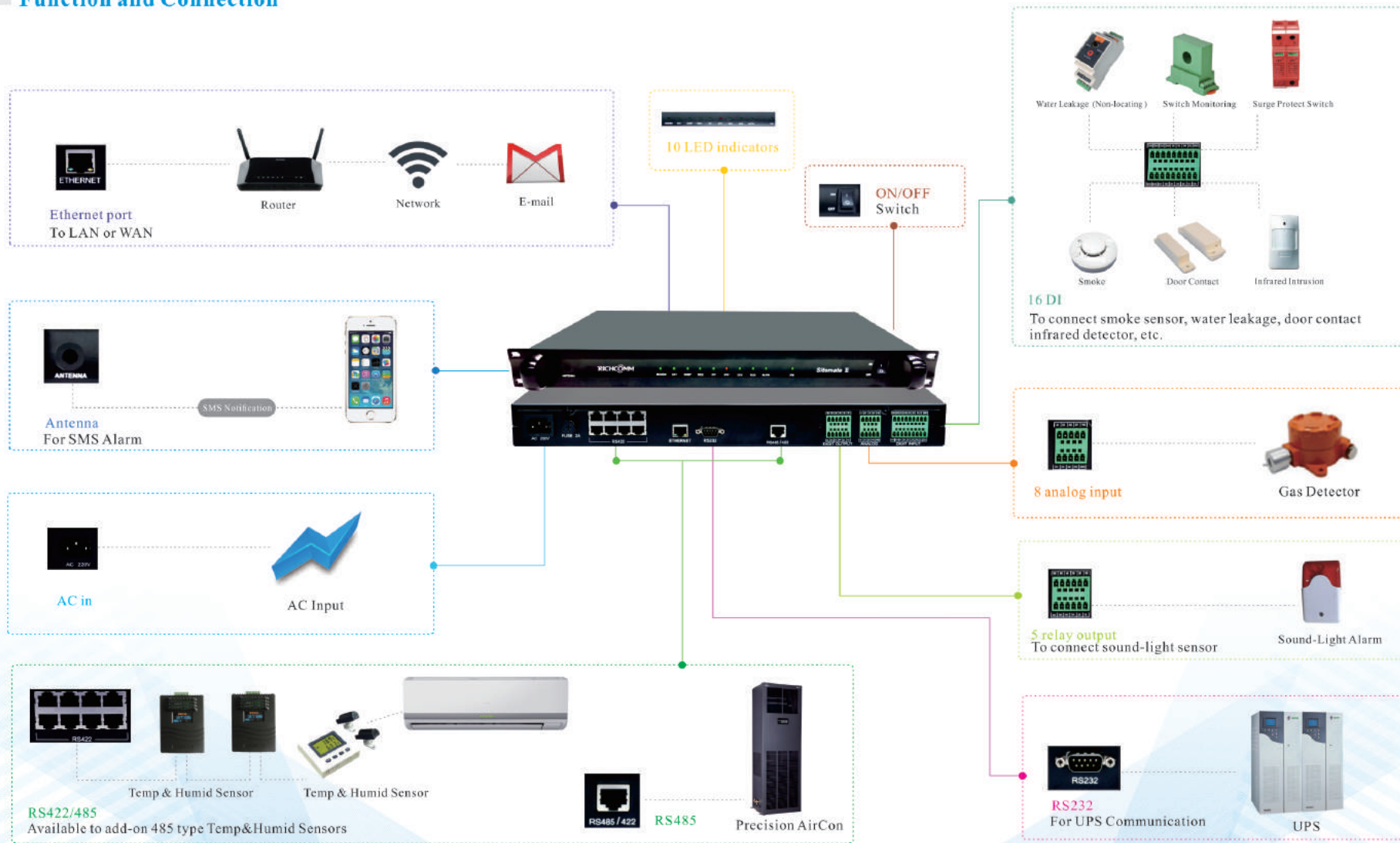Temp & Humid Monitoring

DI/DO Monitoring

Air Condition Monitoring


SMS Alarm

Remote Control

Function and Connection

Ethernet port
To LAN or WAN

Router · Network · E-mail

10 LED indicators

ON/OFF Switch

Water Leakage (Non-locating) · Switch Monitoring · Surge Protect Switch

Smoke · Door Contact · Infrared Intrusion

16 DI
To connect smoke sensor, water leakage, door contact infrared detector, etc.

Antenna
For SMS Alarm

SMS Notification

8 analog input · Gas Detector

AC in
AC Input

5 relay output
To connect sound-light sensor · Sound-Light Alarm

RS422/485
Available to add-on 485 type Temp&Humid Sensors

Temp & Humid Sensor · Temp & Humid Sensor

RS485 · Precision AirCon

RS232
For UPS Communication · UPS

Technical Parameters

CPU	32-bit ARM926EJ-S core 300 MHz high-speed center processor (CPU)		
RAM	64M byte SDRAM	**Flash ROM**	128M byte NAND Flash
Network	10/100Mbps High-speed Ethernet network self-adaptive		
Device Port	1 RS232 asynchronous serial port; 1 RS422/485 add on port 16 Digit input terminals (0-5V TTL level); 8 Analog input terminals (0 ~ 5V linear level); 5 Digit output terminals (12VDC / 1A).		
Browser Supported	Internet Explore, Netscape or compatible browsers.		
SNMP MIB	Support MIBII (RFC1213, RFC1315, RFC1316)RFC1628, PPC MIB		
Network Protocol	TCP/IP, UDP, SNMP, Telnet, SNTP, HTTP, SMTP, DHCP, DNS, TFTP, ARP, ICMP, PPP,etc.		
Encrypted Protocol	HTTPS, SSL, SSH, SNMPV3, IPV6		
LED Indicators	PW, M-PW, RUN, DEV, PPP, IPP, WEBS, SNMP, EXT, MODEM, LAN 10/ 1 00M Link/Active		
Input Power	110V-240V		
Frequency	50Hz/60Hz	Power Consumption	≤ 12W
Running Environment	Temperature:0℃~70℃ Humidity:10~85%	Software Upgrade	Network upgrade
Other Configuration	Real time system clock synchronization		
Languages	Chinese/English, support OEM other languages.		
System Security	Provided filtering mechanism based on IP , and system operation, control and management of the user ID and password protection.		
Safety Certificate	CE,FCC		

Accessories

SN	Name	M.N	Function	Connection
1	Temp&Humid Sensor	RC77015 OLED Display RC77012 Digital Type	Detect data center indoor temperature and humidity parameters, every 20 M² need to install 1pc	RS422
2	AirCon Infrared Component	RC77404	Remotely control air condition on-off, with auto reboot when AC recover	RS422
3	Smoke Sensor	RC77146	Detect indoor data center monitorstatus, every 20 M²-30M²need to install 1pc	DI(terminals)
4	Infrared Sensor	RC77147	Detect data center intrusion, motion status	DI(terminals)
5	Door Contact	RC77424	Detect door or window on/off status	DI(terminals)
6	Switching Value Transmitter	RC77754	Detect on-off status of air condition/ new fan	DI(terminals)
7	Water Leakage Sensor	RC77106 (Non-Locating)	Detect data center water leakage status, work with water leakage cable	DI(terminals)
8	Sound Light Sensor	RC77412	Give sound light alarm notification	DO(terminals)
9	Dust Sensor	/	Detect dust capacity	Analog
10	Flammable Gas Sensor	/	Detect flammable gas	Analog
11	Smart Electricty Switch Monitor	RC77305	Detect the power on/off status	D8H
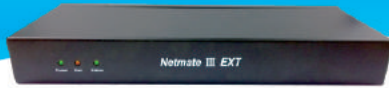
Netmate III EXT »»

Micro Host for UPS & Environment Monitoring

Brief Introduction

NetmateIII EXT is a mini-type monitor for UPS & environment parameters system. NetmateIII EXT supports multi-brand and multi-type of UPS and at the same time can easily add on environment parameters detect like temperature, humidity, smoke, leakage, motion, door contact, etc.When alarm happens, it will rapidly give email, sound light alarm notification.

Function & Feature

- Support advanced encryption protocol such as HTTP, HTTPS, SSL, SSH, SNMPV1\V2c\V3;
- Support telnet, supper terminal, WEB page configuration;
- Compatible with multi-brand and multi-type of UPS;
- Support to add on 2 Temp&Humid sensors via RS422/RS485 ports;
- With 4 digital input terminals, support to add on dry contact type detectors;
- With 2 digital output terminals, support to add on relay output control;
- Support SNMP trap, E-mail alarm notification;
- Support scheduled task(regular self-testing, switch on/off);
- Support history events and data record storage;
- Comprehensive event handle(including event record and notification);
- Comprehensive managing function(data logs, SNTP and task schedule);
- Support IPV4/IPV6;
- Available to work with centralized software.

Ports Introduction

1 3 LED indicators
2 4 DI/2 DO Terminals
3 Ethernet port
4 Device port
5 RS 232
6 RS 422
7 DC input

Technical Parameters

UPS Monitoring

Dry Contact Monitoring

General AirCon Monitoring

System Info

Network Diagram

Technical Parameters

CPU	32-bit ARM926EJ-S core 300 MHz high-speed center processor（CPU)		
RAM	16M byte SDRAM	**Flash ROM**	4M byte NAND Flash
Ethernet	10/100Mbps High-speed Ethernet network self-adaptive		
Serial Ports	2 RS232 ports; Left RS232 port(connect UPS); Right RS232 port(configure parameters); 1 RS422 port(Temp& Humid/General air condition infrared component)		
DI/DO Terminals	4 Digit input terminals (0-5V TTL level); 2 Digit output terminals (12VDC / 1A)		
Browser Supported	Internet Explorer、Netscape, Google Chrome		
SNMP MIB	Support MIBII (RFC1213, RFC1315, RFC1316)RFC1628, PPC MIB		
Network Protocol	TCP/IP, UDP, SNMP, Telnet, SNTP, HTTP, SMTP, DHCP, DNS, TFTP, ARP, ICMP, PPP, etc		
Encrypted protocol	HTTPS, SSL, SSH, SNMPV3, IPV6		
LED Indicators	Power, Status, Ready, LAN 10/100MLink/Active		
DC Input	8-15V	**Power Consumption**	≤5W
Running Environment	Temperature: 0°C ~ 70°C Humidity: 10 ~ 85%		
Other Configuration	Real time system clock synchronization		
Languages	Chinese/English, support OEM other languages□		
System Security	Provided filtering mechanism based on IP , and system operation, control and management of the user ID and password protection.		
Safety Certificate	CE,FCC		

Accessories

SN	Name	M.N	Function	Connection
1	Temp&Humid Sensor	RC77015 OLED Display / RC77012 Digital Type	Detect data center indoor temperature and humidity parameters, every 20 M² need to install 1pc	RS422
2	AirCon Infrared Component	RC77404	Remotely control air condition on-off, with auto reboot when AC recover	RS422
3	Smoke Sensor	RC77146	Detect indoor data center monitorstatus, every 20 M²-30M²need to install 1pc	DI(terminals)
4	Infrared Sensor	RC77147	Detect data center intrusion, motion status	DI(terminals)
5	Door contact	RC77424	Detect door or window on/off status	DI(terminals)
6	Switching Value Transmitter	RC77754	Detect on-off status of air condition/ new fan	DI(terminals)
7	Sound Light Sensor	RC77412	Give sound light alarm notification	DO(terminals)
8	Water Leakage Sensor	RC77106 (Non-Locating)	Detect data center water leakage status, work with water leakage cable	DI(terminals)

Mobilemate II >>>

Micro SMS Host for UPS & Environment Monitoring

Brief Introduction

With an elegant and compact design, Mobilemate SMS monitor has been widely applied to the suburbs small data centers, unattended stations, which provides UPS monitoring and environment monitoring parameters query and alarm by SMS and network method.

Function & Feature

- Support advanced encrypted protocol such as HTTPS, SSL, SSH, SNMP Verion V1/V2c/V3;
- Support IPV4/IPV6 network protocol;
- Provide single/three phase UPS monitoring; support remotely control UPS of self-testing, shutdown, reboot , task schedule(need UPS support);
- Support to add on 2 Temp&Humid sensors via RS422;
- Support second add on dry contact type sensors via Temp&Humid sensor;
- Support E-mail, SNMP trap alarm notification;
- Support SMS query and alarm notification;
- Multi-user authority management;
- Support history event and history data record;
- With time synchronization function;
- Available to work with centralized software.

Ports Introduction

1. Ethernet port
2. RS 422
3. 3 LED indicators
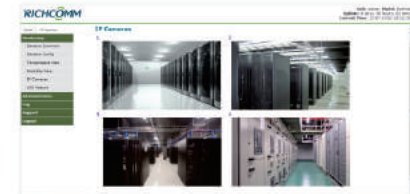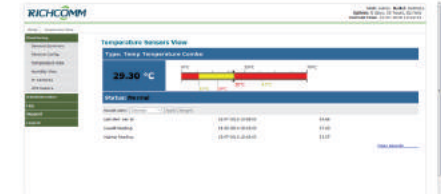4. DC input
5. RS 232
6. Antenna

User Interface

Environmental DI Monitoring

UPS Monitoring
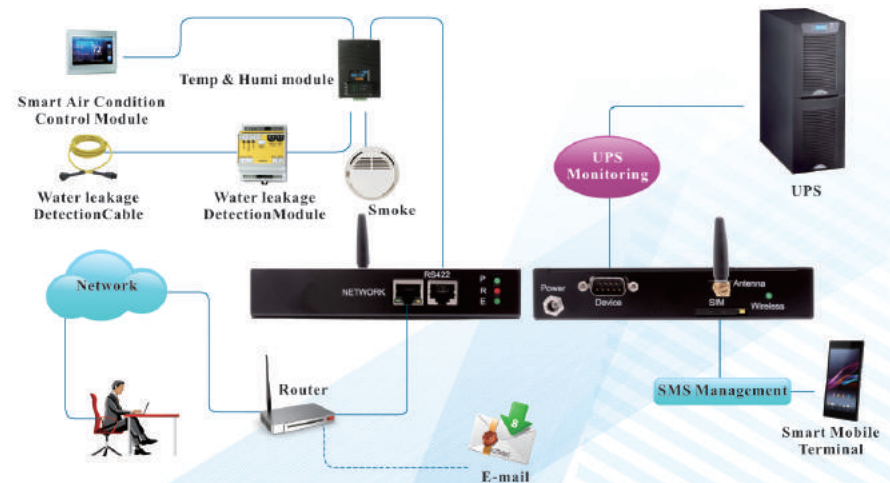
CCTV Monitoring

Temperature Monitoring

Network Diagram

Temp & Humi module

Smart Air Condition Control Module

Water leakage DetectionCable

Water leakage DetectionModule

Smoke

UPS Monitoring

UPS

Network

Router

E-mail

SMS Management

Smart Mobile Terminal

Technical Parameters

CPU	32-bit ARM926EJ-S core 300 MHZ CPU		
RAM	64M byte SDRAM	**Flash ROM**	128M byte NAND Flash
Browser Supported	Internet Explorer、Netscape, Google Chrome		
Network Port	10/100Mbpshigh-speed Ethernet self-adaptive		
Serial Ports	1RS232 port(DB9 type): connect with UPS 1RS422 port(RJ45 type): connect with Temp&Humid/ aircon infrared component		
SNMP MIB	Support RFC1213, RFC1628, PPC MIB		
Network Protocol	TCP/IP, UDP, SNMP, Telnet, SNTP, HTTP, SMTP, DHCP, DNS, TFTP, ARP, ICMP, PPP, etc.		
Encrypted protocol	HTTPS, SSL, SSH, SNMPV3, IPV6		
Input (DC)	8-15V	**Power Consumption**	≤5W
Running Environment	Temperature: 0°C ~ 70°C Humidity: 10 ~ 85%	**LED Indicators**	Power, Status, Ready, LAN 10/100M Link/Active
Other Configuration	Real-time system clock	**Firmware Upgrade**	Network upgrade
System Security	Provided filtering mechanism based on IP , and system operation, control and management of the user ID and password protection.		
GSM Modem	Frequency :800/900/1800/1900		
Standard	Industry standard RS232/485 port ; adopts GSM Phase2/2+ standard		
Others	Highest circuit exchange rate 14.4kbpst		
Safety Certificate	CE,FCC		

Accessories

SN	Name	M.N	Function	Connection
1	Temp&Humid Sensor	RC77015 OLED Display RC77012 Digital Type	Detect data center indoor temperature and humidity parameters, every 20 M² need to install 1pc	RS422 (Modbus-RTU)
2	AirCon Infrared Component	RC77404	Remotely control air condition on-off, with auto reboot when AC recover	RS422 (Modbus-RTU)
3	Smoke Sensor	RC77146	Detect indoor data center monitorstatus, every 20 M²-30M²need to install 1pc	Temp&Humid (Digit in terminal)
4	Infrared Sensor	RC77147	Detect data center intrusion, motion status	Temp&Humid (Digit in terminal)
5	Door Contact	RC77424	Detect door or window on/off status	Temp&Humid (Digit in terminal)
6	Switching Value Transmitter	RC77754	Detect on-off status of air condition/ new fan	Temp&Humid (Digit in terminal)
7	Water Leakage Sensor	RC77106 (Non-Locating)	Detect data center water leakage status, work with water leakage cable	Temp&Humid (Digit in terminal)

Netmate III Mini
(internal)

Netmate III Mini
(external)

Netmate III
(external)

Netmate III SE
(internal)
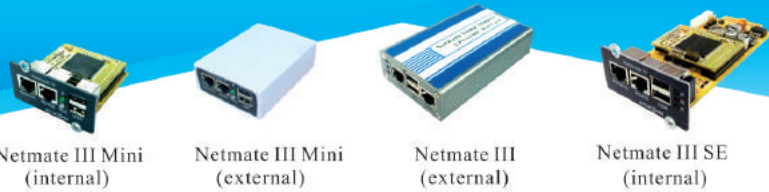
Netmate III ≫

## Advanced Web-based SNMP Cards for UPS

Brief Introduction

Netmate III/Netmate III mini series bring a high security monitoring level for uninterrupted power supply(UPS). With design of a powerful CPU, Netmate III supports USB add-on devices, RS485 add-on(Temp & Humid) and advanced encrypted protocols such as HTTP, HTTPS, SSH, SSL, IPV6, SNMP V3, etc.

Function & Feature

- Support advanced encryption protocol such as HTTP, HTTPS, SSL, SSH, SNMPV1\V2c\V3;
- Support telnet, supper terminal, WEB page configuration;
- Compatible with multi-brand and multi-type of UPS;
- Support to add on 2 Temp&Humid sensors via RS422/RS485 ports;
- Support SNMP trap, E-mail alarm notification;
- Support IPV4/IPV6
- Support scheduled task, remote control UPS self-testing, switch on/off, battery regular charge/discharge);
- Support 50000 history events and 5000 data record;
- Comprehensive event handle(including event record and notification);
- Comprehensive managing function(data logs, SNTP and task schedule);
- Support IPV4/IPV6;
- Available to work with centralized software.
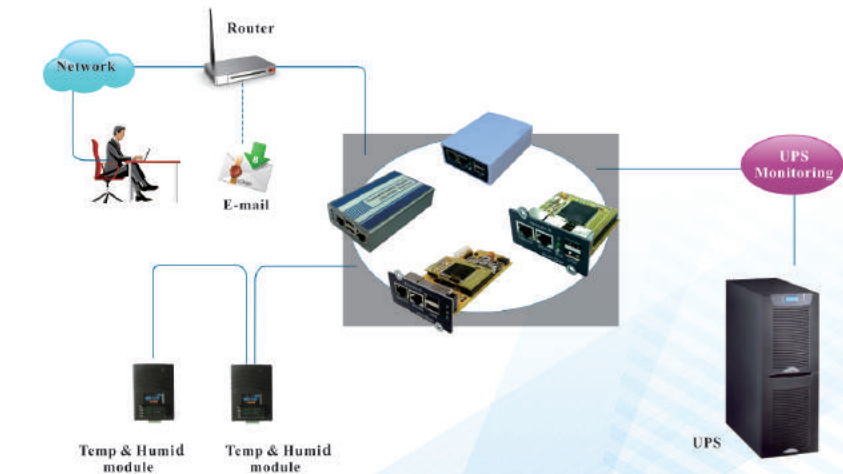
Ports Introduction
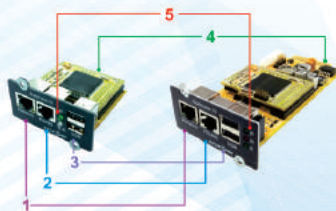
1 RS 485
2 Ethernet port
3 USB
4 Gold Finger
5 LED indicators

1 LED indicators
2 Ethernet port
3 USB
4 RS 485
5 DC input
6 RS 232

Network Diagram

Router

Network

E-mail

UPS
Monitoring

Temp & Humid
module

Temp & Humid
module

UPS

User Interface

UPS Monitoring

Temperature & Humidity Monitoring

SNMP Settings

Upgrade Settings

Email Settings

Instant Control

Task Schedule

System Info

Technical Parameters

CPU	32-bit ARM926EJ-S core 300 MHz high speed processor(CPU)		
RAM	64M byte SDRAM	Flash ROM	128M byte NAND Flash
Network Port	10/100Mbpshigh-speed Ethernet self-adaptive		
USB	2 USB 2.0(connect USB add on device)		
Serial Ports	1RS232 port(DB9 type): connect with UPS 1RS422 port(RJ45 type): connect with Temp&Humid/ aircon infrared component		
SNMP MIB	Support RFC1213, RFC1628, PPC MIB		
Network Protocol	TCP/IP, UDP, SNMP, Telnet, SNTP, HTTP, SMTP, DHCP, DNS, TFTP, ARP, ICMP, PPP, etc.		
Encrypted protocol	HTTPS, SSH, SSL, IPV6, SNMP V3		
LED Indicators	Power, Status, Ready, LAN 10/100M Link/Active		
Input (DC)	8volt - 15volt	Running Environment	Temp : 0℃~ 70℃
Power Consumption	≤2.5W		Humid : 10 ~ 80%
Other Configurations	System clock for synchronization	Software Upgrade	Network Upgrade
Languages	Chinese, English and OEM other language		
System Security	Provided filtering mechanism based on IP , and system operation, control and management of the user ID and password protection.		
Certificates	CE,FCC		

Accessories

SN	Name	M.N	Function	Connection
1	Temp&Humid Sensor	RC77015 OLED Display	Detect data center indoor temperature and humidity parameters, every 20 M² need to install 1pc	RS422
		RC77012 Digital Type		

NetmateLite Mini 1   NetmateLite Mini 2   NetmateLite SE   NetmateLite Mini (internal)   NetmateLite Mini (external)   NetmateLite

Netmate Lite ≫

Basic Web-based SNMP Cards for UPS

▨ Brief Introduction

NetmateLite/NetmateLite Mini Series, which will be satisfy user with a basic UPS monitoring demands. This type SNMP cards support fast installation, friendly interface visit and configuration and have been widely applied to branches UPS monitoring and control.

▨ Function & Feature

- Support SNMP version V1.1;
- Support user authority management;
- Support 500 history events;
- With clock function;
- Embeded system, support web browser visit and configure;
- Support network upgrade;
- Support UPS remote control, such as UPS shutdown, self-test and reboot;
- Support SNMP trap, Email alarm notifications.
- Available to work with centralized software for centralized monitoring.

▨ RS232 Definition

PINS	Definition
2	Receive
3	Send
5	GND

▨ Gold Finger Definition

PINS	Definition
1	VCC
2	D-
3	D+
4	GND

▨ Ports Introduction

1 Ethernet port   4 DC input
2 USB   5 RS232
3 LED indicators
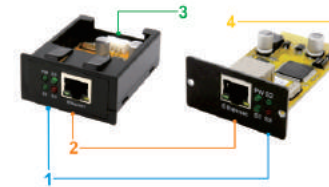
1 LED indicators   3 4 Pin serial port
2 Ethernet port   4 Gold finger
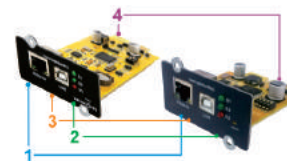
1 Ethernet port   3 USB
2 LED indicators   4 Gold finger

Network Diagram

User Interface

UPS Monitoring

History Event

Email Settings

Basic Settings
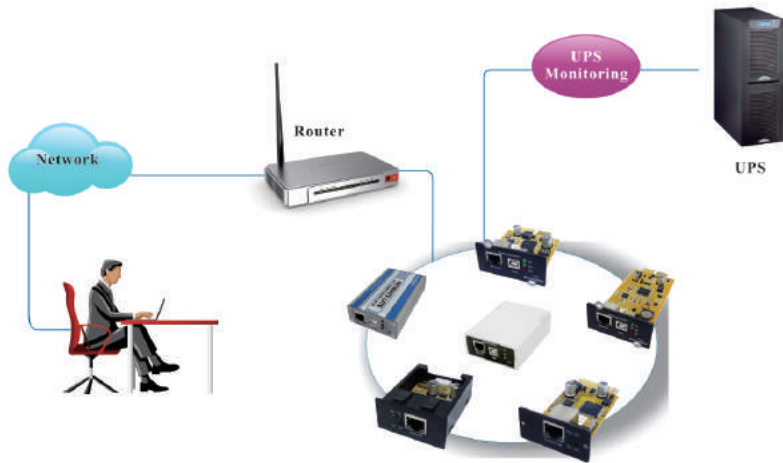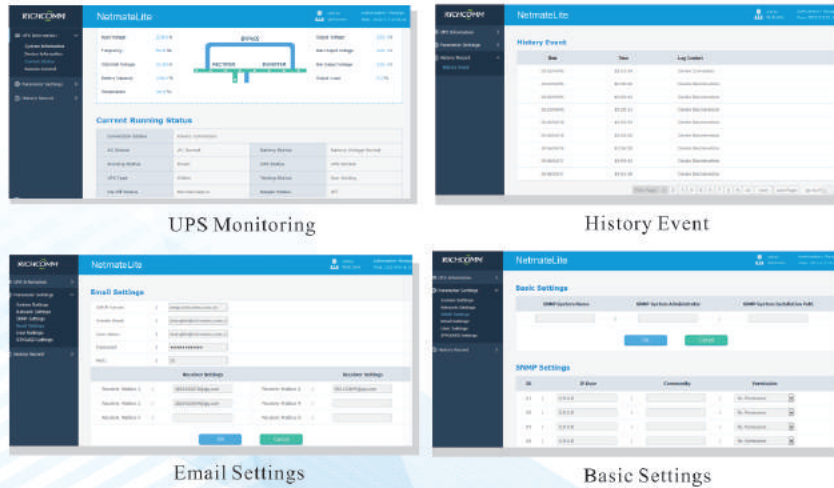
Technical Parameters

CPU	Low power and high performance, high ARM7TDMI-S 72MHz CPU
RAM	98KB SDRAM
Flash	512KB Flash
Network Port	10/100Mbpshigh-speed Ethernet self-adaptive
Serial Ports	NetmateLite(Metal/Plastic) RS232 NetmateLite Mini Gold finger NetmateLite SE Gold finger NetmateLite Mini1 4 Pin connector NetmateLite Mini2 4 Pin gold finger
Browser Support	Internet Explorer, Google Chrome, Firefox, Netscape or other compatible browser
SNMP MIB	Support MIB-II(RFC1213,RFC1315,RFC1316),PPCMIB
Network Protocol	TCP/IP, UDP, SNMP, etc
Power Input(DC)	NetmateLite(Metal/Plastic) 9-15V NetmateLite Mini 9-15V NetmateLite SE 9-15V NetmateLite Mini1 4.5-12V NetmateLite Mini2 4.5-12V
LED Indicators	Power, Status, Ready, LAN 10/100M Link/Active
Power Consumption	<0.84W
Running Environment	Temperature: 0℃---70℃ Humidity:≤95%
System Upgrade	NetmateLite(Metal/Plastic Network /USB NetmateLite Mini Network /USB NetmateLite SE Network /USB NetmateLite Mini1 Network NetmateLite Mini2 Network
System Security	Provided filtering mechanism based on IP , and system operation, control and management of the user ID and password protection.
System Certificates	CE,FCC

ArmModbus SE
(internal)

ArmModbus Mini
(internal)

ArmModbus
(external)

ArmModbus ≫

ArmModbus Protocol Converter for UPS

Brief Introduction

ArmModbus/ArmModbus mini provides Modbus protocol via RS232 or RS422 port (Modbus protocol is general protocol), which helps UPS to be integrated to the 3rd party monitoring system for centralized monitoring and unified management.

Function & Feature

- Support UPS monitoring by position machine;
- Support UPS remote control by position machine;
- Support UPS self-testing, shutdown, reboot via ArmModbus protocol converter;
- Support RTU and ASCII(optional for administrators);
- Provide RS232/RS485(DB9/RJ45) Access;
- Compatible with multi-brand and multi-type compatible of UPS.

Ports Introduction
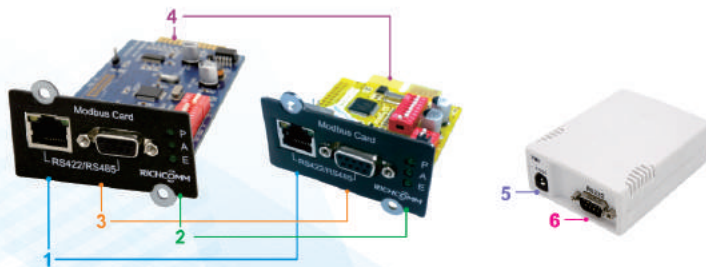
1 RJ45(RS422/485)   3 DB9(RS422/485)   5 DC input
2 LED indicators   4 Gold Finger   6 RS232

Technical Parameters

CPU	32-bit ARM RISC-based 50 MHZ CPU		
RAM	16M byte SDRAM	Flash ROM	64K byte Flash
Serial Ports	1 RS422/RS485 serial port(connect host) 1 RS232 port (connect UPS)		
LED Indicators	P,A,E indicators	Input(DC)	8- 15V
Running Environment	Temperature:0℃- 70℃	Power Consumption	≤2.5W
	Humidity:10-85%	Safety Certificate	CE. FCC

Network Diagram
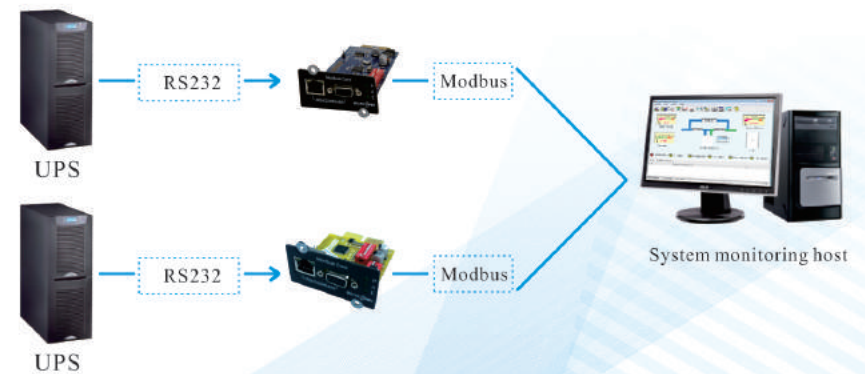
UPS SMS Monitor ≫

SMS Adapter for UPS

Brief Introduction

UPS SMS Monitor supports UPS monitoring via SMS query and alarm notifications. When UPS is under serious network or non network situation, administrators can only use SMS to know UPS running status and take efficient measures once alarm happens. It is flexible, convenient, stable, secure, reliable, powerful and valuable. UPS SMS monitor, which is with built-in GSM modem, is popularly applied to the UPS monitoring in outdoor base station, mountain broadcast, expressway culvert, outdoor meteorological sites.

Function & Feature

- Support UPS monitoring by SMS query and alarm;
- High-performance GSM/GPRS modem(800/900/1800/1900 Mhz);
- Standard ETSI GSM Phase 2+;
- Remote query of UPS status(UPS disconnect, AC fail, battery power low, UPS bypass, UPS testing, etc) by SMS;
- Send SMS alarm to multi-users;
- Convenient, flexible and reliable;
- Available to work with centralized software.

Ports Introduction
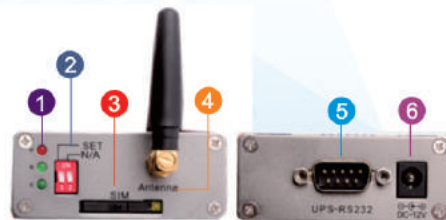
1. LED indicators
2. Dial Swith
3. SIM card slot
4. Antenna
5. RS232
6. DC input

Technical Parameters

CPU	32-bit ARM RISC-based 50 MHz high speed CPU
RAM	16M byte SDRAM
Flash ROM	64K byte Flash
Serial Ports	1 RS422/485 serial port to communicate with host (communication protocol is Modbus)
LED Indicators	Power, System operation, GSM signal
Input Power(DC)	8volt ~ 12volt
Power Consumption	≤2.5W
Working Environment	Temperature: 0°C ~ 70°C Humidity:10 ~ 85%
Safety Certificate	CE,FCC

Network Diagram

Drycontact Mini
(internal)

Drycontact SE
(internal)

Drycontact Mini
(external)

DryContact >>>

DryContact Adapter for UPS

Brief Introduction

DryContact/DryContact Mini provides dry contact signal for administrators to understand UPS running status, support remotely shutdown UPS, and output dry contact signal to link with other devices.

Function Feature

- Remotely monitor UPS status via dry contact type signal, can link to sound light sensor;
- Support UPS real time monitoring and remote control UPS shutdown;
- Output dry contact signal;
- Plug and play, no need other settings;
- Unique LED design, real time UPS status can be easily check by different flash frequency;

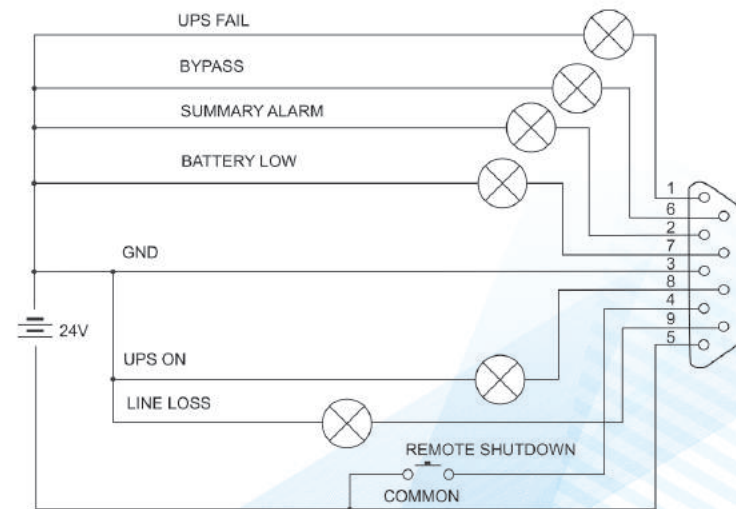### Ports Introduction
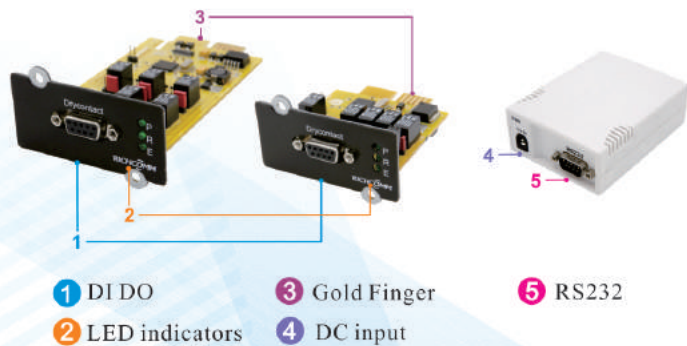
1 DI DO   **3** Gold Finger   **5** RS232
**2** LED indicators   **4** DC input

Technical Parameters

CPU	32 bit ARM RISC-Based CPU
Serial Ports	1 RS232 DB9 connection port,Dry contact output signal, UPS control shut down signal to monitor working status
LED Indicators	P:Power indicator R:Program running indicator E:UPS status indicator
Power Input	DC 9-12V
Running Environment	Industry standard temperature: -40℃ -85 ℃
Safety Certificate	CE,FCC

Port Definitions
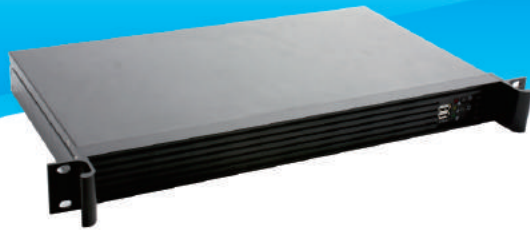
IP Power 2012 >>>

Data Center Infrastructure Management Platform
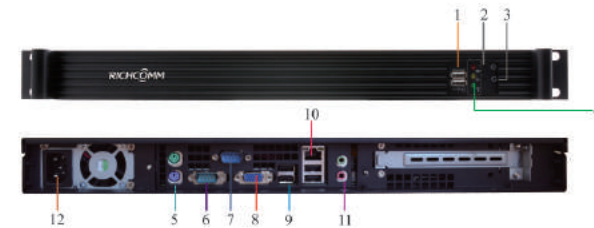
Brief Introduction

IP POWER2012 is a powerful centralized platform for multi-site UPS monitoring system. With a reliable Linux system, an efficient Apache WEB+PHP server stage and a security MYsql database, this platform provides accurate malfunction location, which fully satisfies the requirement of network operation and maintenance.

Based on IP network technology, IP POWER2012 provides visual management, one-click configuration and auto monitoring function and supports centralized monitoring and unified management for multiple network devices. It supports topological management, source management, malfunction management, safety management, configuration management and performance management for entire network. Through topological diagram, IPPOWER 2012 intensively shows the network source, also supports interface setting, add user, user management, area alarm, UPS brand alarm, history data record and derive.

Function & Feature

- Low power, ultra silence embedded hardware architecture; adaptive with various environment;
- Support centralized monitoring for multi-brand and multi-type of smart devices;
- With figures and graphs in details to intuitive display the real-time monitoring status of each device;
- B/S structure of convenient management and use;
- With distributed feature, only using web browser can intuitive check the data center and UPS monitoring status no software needs to be installed;
- Map mode display function;
- Embedded large MY SQL database system to support the centralized monitoring up to 5000 branches (depends on the configuration of server);
- Support the centralized monitoring for various brands and types of smart devices(such as temperature and humidity, water leakage, smoke sensor, door contact, power distribution cabinet, precision air condition, battery capacity, battery detect, etc);
- Powerful integration monitoring capacity including the monitoring of power, fire , security, air condition, surge protect, video, etc;
- High-speed of alarm respond time, support multiform alarm notifications such as SMS, e-mail, voice dialing, broadcast, etc;
- With powerful history event storage;
- With powerful history data storage;
- Support powerful reports management function to realize statistics, analysis and predication etc.
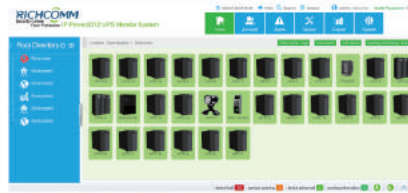
Ports Introduction

- 1 USB Port
- 2 Power
- 3 Reboot
- 4 Red LED, Hard disk running indicator
  Yellow LED, not to use
  Green LED, Power Indicator
- 5 PS/2 Keyboard Port
- 6 RS232 Port
- 7 Parallel Port
- 8 VGA Video Input Port
- 9 USB Port
- 10 Ethernet Port:(for network connection)
- 11 Audio Output Port / Audio Input Port
- 12 Power Input Port: AC 220V power

Network Diagram
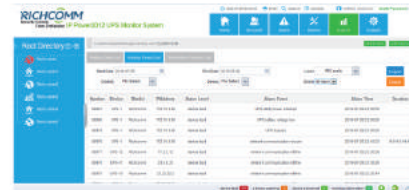
User Interface

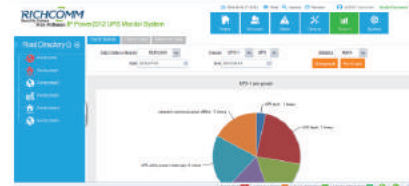Multiple Sites Monitoring

UPS Monitoring

Real-time Data

History Event

Map Mode

Pie Graph

Upgrade Configuration

Bar Graph

Technical Parameters

CPU	SV-D5212		
RAM	2G	Hard Disk	320G
Device	1 x 3.5" Device bays (2.5" Device bays compatible)	Mainboard	Support Mini-ITX SBC
Cooling	2x40mm double ball-bearing fans	Power	ATX 200W AC220V
Ports(Back Panel)	1 VGA video input 2 PS2 ports 4 USB ports 2 serial communication ports 1 LAN 10/100M self-adaptive Ethernet port 1 audio output 1 voice input 1 220V power supply		
Front Panel	1×Power button 1×Reset button 1×Power LED 1×HDD LED		
Ports(Front Panel)	2 USB port	Material	SECC
Color	Black/orange	Dimension	485*283*45mm
Running Environment	Relative Temperature: 0℃ ~ 50℃ Relative Humidity: 10% ~ 90%		
Safety Certificate	CE,FCC		

Accessories

SN	Name	M.N	Function	Connection
1	2012 System SMS Adapter	RC70605	Works with centralized system, provides SMS query or alarm notification	COM1/COM2 (DB9)
2	Telephone Alarm Module	RC77423	Works with centralized system, provides telephone voice alarm notification	USB
3	2012 Local Sound Light Component	RC77415	Works with centralized system, provides sound light notification	COM1/COM2 (DB9)

IP Power SE ≫

## Centralized Monitoring Software for UPS

Brief Introduction

IP Power SE is a simple centralized monitoring software, it is based on IP network technology, supports multiple UPS centralized monitoring, when AC is normal, this software will clearly display UPS various status of input/output voltage, frequency, load, temperature and battery capacity, help administrators understand the city power quality , at the same time take remote control of UPS; when AC abnormal, IP Power SE supports auto save, and provides various alarm notifications such as SMS, email, broadcast, etc, also, this software support UPS history events, history data and logs.
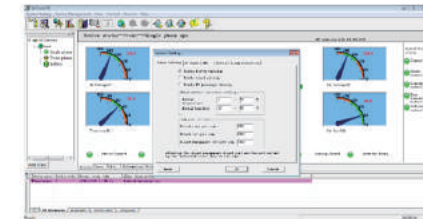
Function & Feature

- Real time display branches UPS status via various data and graphs;
- Friendly user interface, fast and convenient installation;
- Low bandwidth occupy, support real time alarm notifications in fastest speed;.
- Provide PC delay switch off service, realize files auto store to server end and customer end Zone management;

- Compatible with multiple brands and types of UPS;
- Support centralized monitoring and unify management of multiple UPS(within 100);
- Real time display various UPS running status, provide email, SMS alarm notifications;
- Support 7*24 hours real time monitoring, no need administrators on duty;
- Automatically running mode;
- With history events and history data records, provide analysis and predict for UPS & environment parameters.
- With data import and export function.
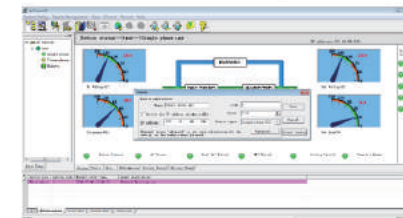- Provide remote control and maintenance of branches UPS;
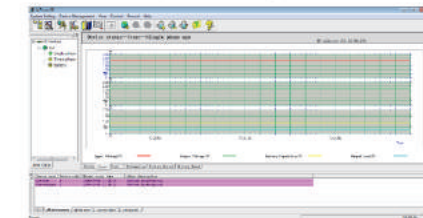
Software Interface
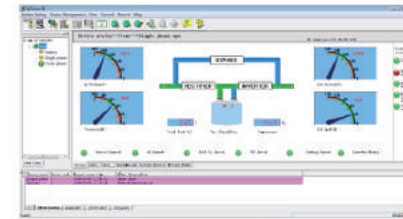
UPS Monitoring

System Settings

Add UPS

Real-time Data

Feature Function
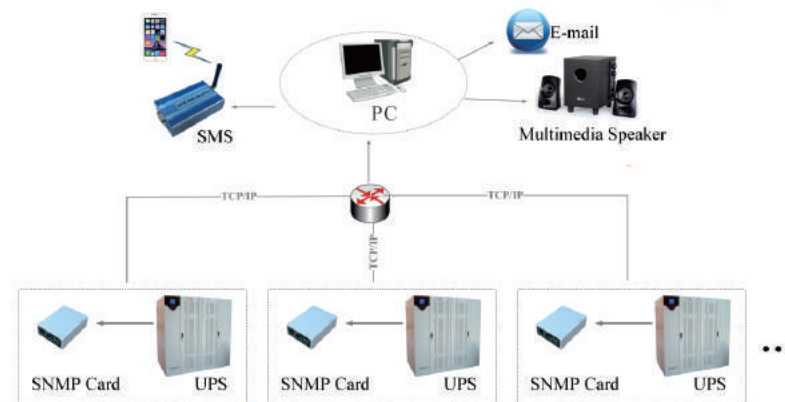
Battery Monitoring System ≫

Online VRLA Battery Monitoring System

Device

- BMS-802: 2 volt Battery block Stethophone
- BMS-812 : 12 volt Battery block Stethophone
- BMS-600: Battery string Stethophone
- BMS-GATE: Monitor Control gateway with Web view

BMS-812 BMS-802   BMS-600

Monitoring and Records

- Voltage,interal resistance, negative temperature of per block
- Voltage, current of per string
- Alarm of Battery's State of Charge and State of Health
- Real time and History data records and curve analysis

BMS-GATE   Web ViewATE

Measure Range and Accuracy

Item	Voltage	Temperature	Interal resistance
BMS-802	1.6V to 2.6V		0.1mΩ to 100mΩ
	(0.2%)	-20℃ to 85℃	Repeatability Error
		(±1℃)	1.5%+25uΩ
BMS-812	7.5V to 15.6V		Conformity Error
	(0.2%)		1.0%+25uΩ
BMS-600	20V to 800V	String Current	-1000A ~ +1000A
	(0.5%)		(By Hall sensor)

BMS-GATE Function

- Connect Max 480 units BMS stethophones
- 8GB TF card for 12 months monitor data Storage
- Build in web server, display data by web view pages
- Analysis monitor curve and judge battery SOC & SOH
- Battery switch status, humidity & temperature monitor
- Transmit data & alarm to Cloud server by Ethernet

Network Diagram
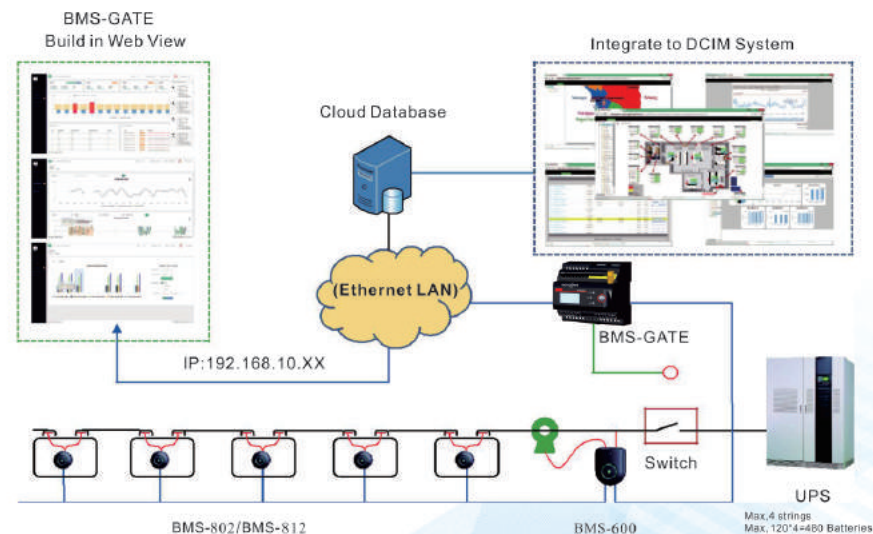
Feature

BMS-GATE is a industrial leading intelligent control gateway with OS, database, and multi communication. It collects, stores, and analyses data from each block and string stethophone, and then transmit to cloud server and remote system.
BMS-GATE build in Webserver and database. It can manage about 480 block battery's SOC and SOH without any system as a most cost-effective BMS.

Analysis & Report

SOH of Block Battery
SOC of String Battery
Curve Trend Analysis
Bar Graph Report
Threshold Alarm

Measurements

Block Battery: Voltage, Temperature, Internal Resistance (ohm)
Battery String: String Voltage, Charging/Discharging Current
Data Logging: 10 mins (Internal Resistance once per day)
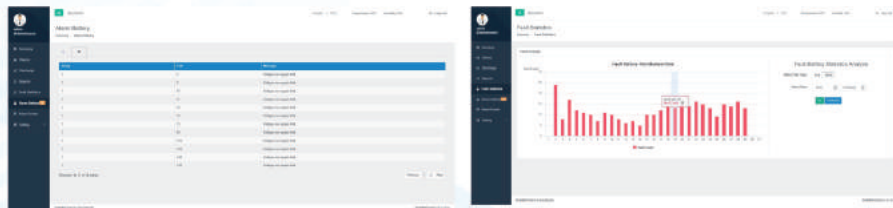
Technical Parameters

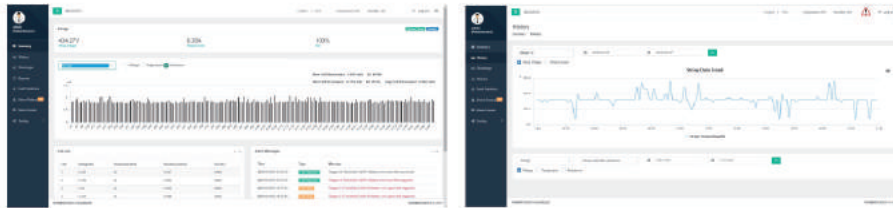| Main functions	Specification		
Data collection	Controlling every battery block stethophone of one string by discharging the AC current orderly to measurethe internal ohmic.		
Battery Monitoring	Max. up to 4 srings or 480 units stethophones connection		
Sensor Monitoring	Humidity and temperature sensors		
Hardware			
CPU	ARM artex A8 800MHZ	Operating system	Embedded Linux
Memory	512MB RAM, 512MB Flash and 8GB TF memory card.		
Communications	4 RS485 serial ports, 2 Ethernet Port (10/100M)		
Display	LCD with high resolution		
Power Supply	24VDC Power Source,220VAC to 24VDC		
Digital Input	4 digital input	Analog Input	2 Analog Input (4~20mA)
Relay Output	2 Relay Output. Capacity is 30VDC/5A and 250V AC/5A. Note: DI/AI/DO can only be availabe when the gateway has TWO RS485 ports.		
Others			
Weight	650g	Operation Temperature	-10℃~+55℃
Dimension	90mmX94mmX68mm	Operation Humidity	10%~95% Non-Condensing
Status Monitoring	< 5W	Certificate	CE EMC/LVD/FCC

Monitoring Comparision Sheet
IP Power2012 VS IP Power SE

Product	IP Power2012	IP Power SE
Function		
Support C/S	x	✓
Support B/S	✓	x
Map Display	✓	x
History Data Query/Export	✓	✓
History Event Query/Export	✓	✓
Remote Control	✓	✓
Temperature & Humidity Detection	✓	✓
District Management	✓	✓
Multi-user and Multi Authorization	✓	x
Diary and Report	✓	x
Monitoringing Amount	≤5000	≤100
Single-phase UPS Monitoring	✓	✓
Three-phase UPS Monitoring	✓	✓
General AirCondition Monitoring	✓	x
Precision AirCon Monitoring	✓	x
General Power Distribution Monitoring	✓	x
Precision Power Distribution Monitoring	✓	x
Located Water Leakage Monitoringing	✓	x

	IP Power2012	IP Power SE
Generator Monitoring	✓	x
Door Access Control System	✓	x
Video System	✓	x
SMS Alarm	✓	✓
Sound-light Alarm	✓	x
E-mail Alarm	✓	✓
Sound Alarm	✓	✓
Telephone Call Alarm	✓	x
SNMP Device	✓	x
Server Monitoringing	✓	x
Router Monitoringing	✓	x
Active Directory Management	✓	x
User-defined Alarm Level	✓	x
Alarm District Management	✓	x
Timing SMS	✓	x
Bulk Import/Export	✓	x
Device Enable/Disable	✓	x
Compatibility		
Browser Supported	IE,Chrome,Firefox,etc	x
OS Supported	Windows 98/2000/2003/2008/xp/7/8/vista/Linux/RedHat/Unix/Ubutun/etc.	Windows 98/2000/2003/2008/xp/7/8/vista

Monitoring Comparision Sheet
SitePro VS SitemateII VS NetmateIII EXT VS MobilemateII

Product	SitePro II	SiteMate II	NetmateIII EXT	MobileMate II
Network Protocol				
SNMPv1	✓	✓	✓	✓
SNMPv2c	✓	✓	✓	✓
HTTPS	✓	✓	✓	✓
SSL	✓	✓	✓	✓
SSH	✓	✓	✓	✓
SMTP	✓	✓	✓	✓
NTP	✓	✓	✓	✓
Ipv4	✓	✓	✓	✓
Ipv6	✗	✓	✓	✓
Function				
Single phase UPS Monitoring	✓	✓	✓	✓
Three phase UPS Monitoring	✓	✓	✓	✓
Temp & Humid	✓	✓	✓	✓
DI Monitoring	✓	✓	✓	✓
DO	✓	✓	✓	✓
AI Monitoring	✗	✓	✗	✗
Precision AirCon Monitoring	✓	✗	✗	✗
General AirCon Monitoring	✓	✓	✓	✓
General Power Distribution Monitoring	✓	✗	✗	✗
Mains ON/OFF Sensor	✓	✓	✗	✗
Precision Power Distribution Monitoring	✓	✗	✗	✗
Located Water Leakage Sensor	✓	✗	✗	✗
Generator Monitoring	✓	✗	✗	✗
Door Access Control System	✓	✗	✗	✗
Video System	✓	✗	✗	✗
APP Monitoring	✓	✗	✗	✗
Input Monitoring	✓	✗	✗	✗
NEV Monitoring	✓	✗	✗	✗
Data Center Capacity Management	✓	✗	✗	✗
PUE Caculation	✓	✗	✗	✗
UPS Control(Shutdown/Test)	✓	✓	✓	✓
History Data	✓	✓	✓	✓
History Event	✓	✓	✓	✓
E-mail Alaram	✓	✓	✓	✓
RFC1628 MIB	✓	✓	✓	✓
PPC MIB	✓	✓	✓	✓
Modbus	✓	✓	✓	✓
Sound-light Alarm	✓	✓	✓	✓
Sound Alarm	✓	✗	✗	✗
SMS Alarm	✓	✓	✗	✓
Telephone Alarm	✓	✗	✗	✗
Door	✓	✓	✓	✓
Smoke	✓	✓	✓	✓
Water Leakage	✓	✓	✓	✓
WEB Support	IE, Chrome,Firefox, etc			
Port				
10/100M Ethernet	2	1	1	1
RS232	2	1	1	1
RS232/RS485 Composite Port	2	/	/	/
RS485/RS422	8	9	1	1
DI (Door\Smoke\Leakage\etc)	8	16	4	4 (Extendable)
DO(Relay Output)	6	5	2	2 (Extendable)
AI	/	8	/	/
USB	2	/	/	/
SD Slot	1	/	/	/
Power Input	2	1	1	1

Monitoring Comparision Sheet
SMS Monitor VS Modbus VS DryContact VS NetmateLiteVS NetmateIII

Product Name	SMS Monitor	Modbus	DryContact	NetmateLite	NetmateIII
Network Protocl					
SNMPv1	x	x	x	✓	✓
SNMPv2	x	x	x	x	✓
SNMPv3	x	x	x	x	✓
HTTPS	x	x	x	x	✓
SSL	x	x	x	x	✓
SSH	x	x	x	x	✓
SMTP	x	x	x	✓	✓
NTP	x	x	x	✓	✓
Ipv4	x	x	x	✓	✓
Ipv6	x	x	x	x	✓
Function					
Single phase UPS Monitoring	✓	✓	✓	✓	✓
Three phase UPS Monitoring	✓	✓	✓	x	✓
UPS Remote Control(Shutdown\Test)	x	✓	✓	✓	✓
Temp&Humid	/	/	/	/	2
Water Leakage	x	x	x	x	✓
General AirCon Control	x	x	x	x	✓
History Data	x	x	x	x	✓
History Evenet	x	x	x	✓	✓
E-mail Alaram	x	x	x	✓	✓
SMS Alaram	✓	x	x	x	x

Product Name	SMS Monitor	Modbus	DryContact	NetmateLite	NetmateIII
RFC1628 MIB	x	x	x	✓	✓
PPC MIB	x	x	x	✓	✓
Modbus	x	✓	x	x	x
Browser Supported	x	x	x	IE,Chrome,Firefox,etc	
Port					
10/100M Ethernet	/	/	/	1	1
RS232	1	1	1	1	1
RS485/RS422	/	1	/	/	1
DI (Door\Smoke\Leakage,etc)	/	/	/	/	4 (Extendable)
DO(Relay Output)	/	/	3	/	/
OS Support	x	x	x	Windows98/2000/2003 /2008/xp/7/8/vista/Linux/ RedHat/Unix/Ubutun/etc.	
UPS Parameters					
Input Voltage	✓	✓	x	✓	✓
Input Frequency	✓	✓	x	✓	✓
Output Voltage	✓	✓	x	✓	✓
Output Frequency	x	x	x	x	✓
Output Current	x	x	x	x	✓
Rating Current	x	x	x	x	✓
Rating Power	x	x	x	x	✓
Battery Voltage	x	✓	x	✓	✓
Battery Capacity	x	x	x	✓	✓