

# Intelligent Power Panel

More convenient, More information, Less cost

IPP-S series gain multiple circuits' power information and provide digital input/output to do environment monitor and control.



IPP series is a single/three phase remotely monitored power meter, built-in 12 independent measurement modules. User may select any one phase of the input voltage as a measurement reference. It supports the monitoring of twelve loops of 1P2W, or four loops of 3P3W/3P4W, or a hybrid combination, providing flexible application.

Each built-in power measurement module supports to monitor voltage, current, power, power factor, kWh and other information in real time. All information can be displayed sequentially on LED monitor by manual and communicated with monitoring device via web browser. SNMP utility is free bundled in the IPP series.

IPP series built-in three groups isolated PT and 12 sets of removable external isolated CT, supports the most secure way to indirectly measure branches of power information in the power distribution panel. IPP series is small and may be easily surface mounted on anywhere you prefer.

IPP-S series combine power and environment monitoring with remote relay control. Its output relays can be triggered manually, or tied to specific alarm settings, includes the temp./humidity sensor and four digital inputs.

## **Features:**

### **Cost saving for software installation**

IPP series provides free central management utility to monitor group of IPP series, saving a lot time and cost to build up management system.

### **Various method to manage power information**

User may monitor power consumption on web, utility and APP.

### **Hot line installation**

IPP series provide CT clamps for installation on the monitored circuit. The installation could be executed under power-on status.

### **Dedicated Loops Measurement**

There are 12 built-in measurement modules. Each module with independent and complete power measurement capabilities, provides real time measurement data.

### **Flexibility**

12 measurement modules may be configured optionally as single-phase, three-phase power or a combination of hybrid.

### **Multi-functions**

Each loop may measure single and three-phase of the real time voltage (V), current (A), power (W), power factor (PF) and the tantalization of kWh, kVARh, kVAh.

### **Full Range**

The voltage range is 60V-440V (50 / 60Hz.); the current range is 0.5A-50A and maximum to 200A.

### **High Resolution**

Active power measurement shows 0.001kW-50kW; energy measurement displays. 001kWh-99999 kWh.

### **Safety**

IPP series adopts U.S. high-precision industrial microprocessor with a ferroelectric memory (FRAM), being free from power outages and restriction of erase/write cycles. It is highly anti-noise and reliable on saving data.

### **High Precision**

The accuracy rate of kWh measurement is within  $\pm 1.0\%$  (@PF=1.0, Rated Current), and W, V, A, VA, PF within  $\pm 1.0\%$  (@Rated Current).

### **Remote Monitor**

IPP series may remotely monitor power consumption Via TCP/IP and SNMP; it reads complete power information of each loop once a second.

### **Reliability**

IPP series adopts indirect measurement through PT and CT, isolated from measurement device. After installation all wiring and terminals are protected by terminal cover. IPP series also grants FCC & CE EMC certification.

### **Digital input/output**

It is built-in four digital inputs and four relay output ports. The relay outputs allow for automatic response by the alarm conditions you select. The relays can trigger flashing lights, back-up a/c (via contactor) and/or other external devices.

When the current and DI signal deviates from the preset conditions, it can trigger DO to control the power output.

### **Low power consumption**

The power consumption of IPP series is less than 6W.

### **Complete data record**

The web interface can display 5000 power records.

It also can use FTP to query all historical power data stored on the SD card.

### **Calculation and Control for Power Demand**

To avoid exceeding the amount of contracted electricity, IPP-S will notify the administrator via mail, TRAP in advance, or use the pre-setting DO condition to turn off the specified secondary electrical equipment,

To provide a power demand curve, clearly shows the gap between real-time electricity consumption and contract volume.

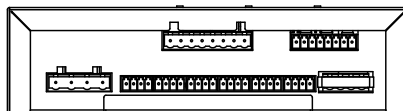
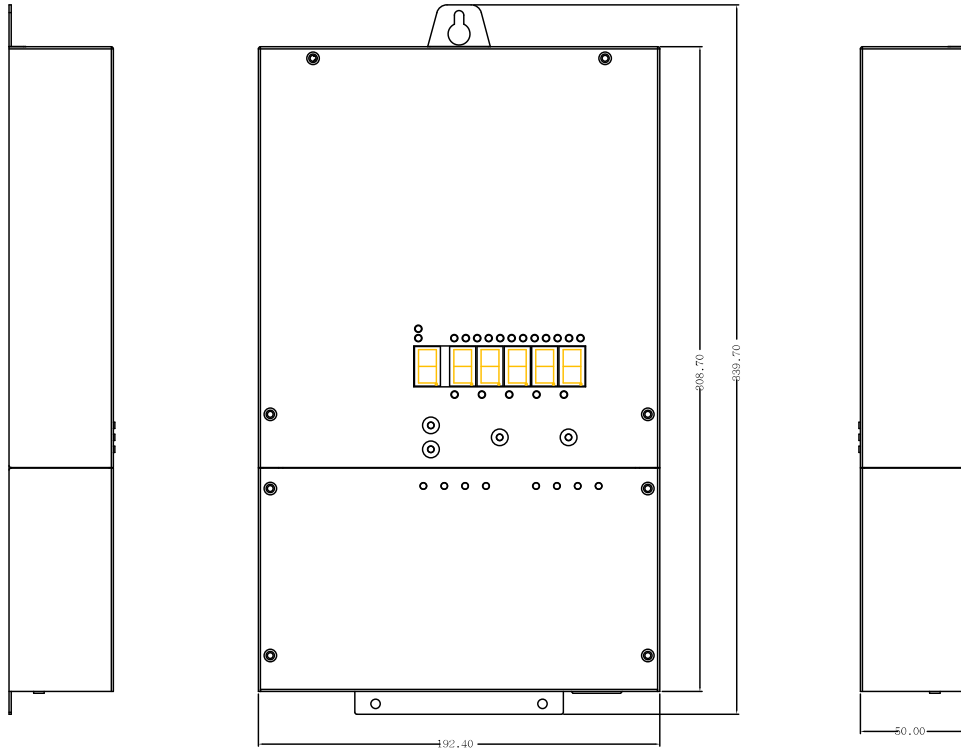
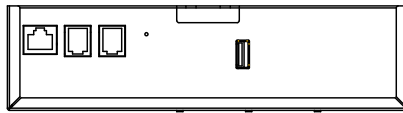
## Specification:

Model	IPP-SX-XXX
Phase& Wire	1P2W / 1P3W / 3P3W / 3P4W
Module	12 power monitoring modules with 1P2W
<b>Communication</b>	
Display	5 digits 7 segments display power information and IP address in turn 1 digit 7 segments display load number 12 Red LED to display circuits number 1 Green LED for Internal Communication is normal 1 Red Led for Internal Communication is failed
Ethernet	RJ45, Wi-Fi (USB Dongle option)
Temperature& Humidity	RJ11 x 2 (ENV Probe option)
Comm. Protocols	ICMP, ARP, IP, TCP, UDP, DHCP, HTTP, HTTPS, SNMPv1,V3
<b>Interface</b>	
DI	IPP-S uses a terminal in 4 channels, 2 tiers each as dry contact input interface. Its wire specification is 0.2 to 1.5 mm <sup>2</sup> /28 to 14AWG. Range : Dry contact open(off) or closed (on) ON-State Voltage: 0 to 5 Vdc ±1V OFF-State Voltage: 7 to 12 Vdc ±1V Voltage Drop: 2Vdc ±0.5V at Input Load 100 Ohm
DO	IPP-S uses a terminal in 4 channels, 2 tiers each as dry contact output interface. Its wire specification is 0.2 to 4 mm <sup>2</sup> /30 to 12AWG. Range : Dry contact open(off) or closed (on) Rated load:16A 240VAC / 16A 24Vdc Max. switching current: 16A Max. switching voltage: 250VAC Max. switching capacity: 4000VA
<b>Operation</b>	
Power Usage	lower than 6W, AC 115V/230V
Operation Temperature	-20~+60 Celsius degree
Operation Humidity	20%~95%RH
Size	192x308x50 mm
Weight	1.4 kg
Warranty	2 years
Certification	FCC & CE

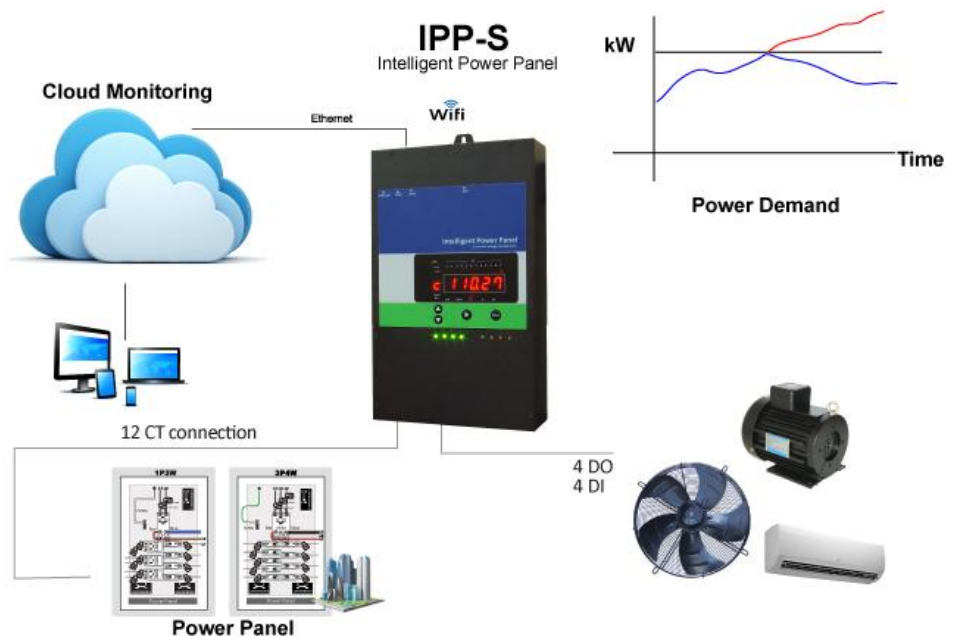
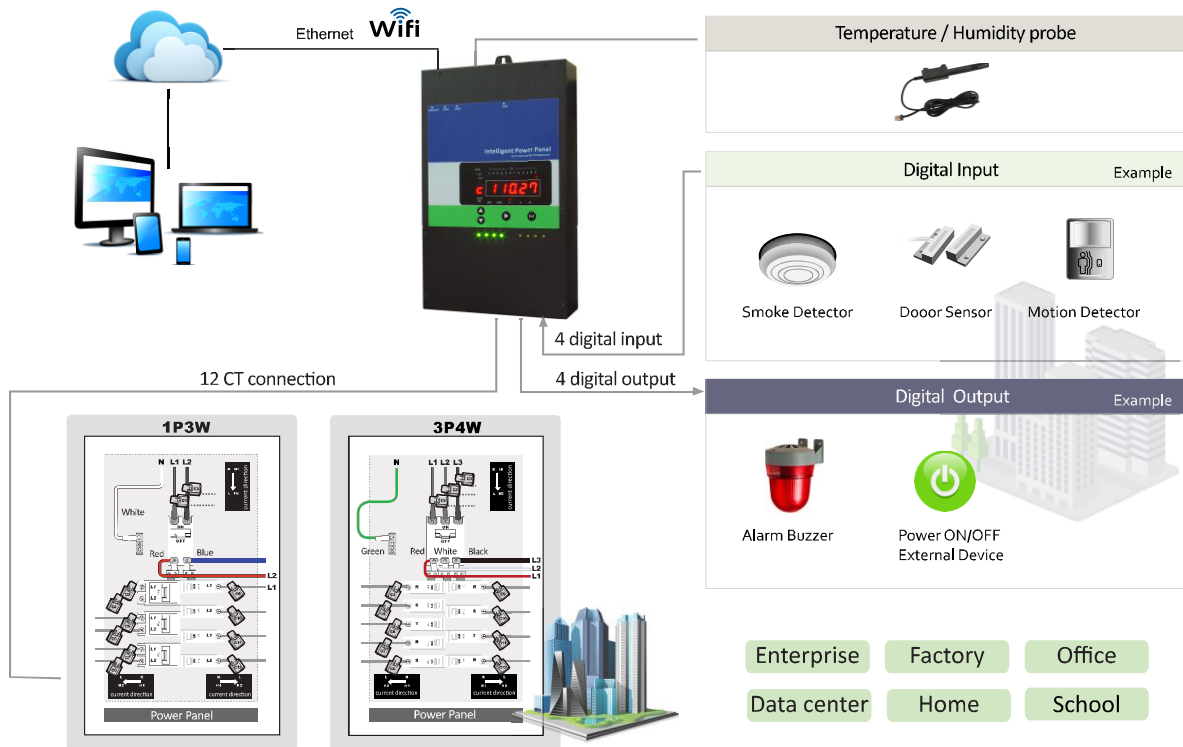
IPP series can work with the following current transducer

CT inner diameter(mm)	25 $\phi$	16 $\phi$	10 $\phi$
Rated. Current	200 A	120 A	60 A
<b>Measurement</b>			
Voltage	60.00V~480.00V		
Current	0.5A~200A	0.2A~120A	0.1A~60A
Active Power	0.001kW~50kW	0.001kW~30kW	0.001kW~15kW
Apparent Power	0.001kVA~50kVA	0.001kVA~30kVA	0.001kVA~15kVA
PF	0~1.00		
kWH	0.001kWh~99999kWh		
Active Power	0.001kVARh~99999kVARh		
Apparent Power	0.001kVAh~99999kVAh		
<b>Precision</b>			
kW	1% (PF=1.0 , rated current)		
Power	1% (W,V.A.VA.PF , rated current)		

# Outlook



# Diagram



### Model List:

Model No.	Phase & Wire	Package included
IPP-S1-C00	1P2W/1P3W	1. IPP-S x1, <b>2. 10Ø CT x 12 pcs</b> 3. USB Wifi Dongle,
IPP-S2-C00	Reserved	
IPP-S3-C00	3P3W	
IPP-S4-C00	3P4W	
IPP-S1-0C0	1P2W/1P3W	1. IPP-S x1, <b>2. 16Ø CT x 12 pcs</b> 3. USB Wifi Dongle,
IPP-S2-0C0	Reserved	
IPP-S3-0C0	3P3W	
IPP-S4-0C0	3P4W	
IPP-S1-00C	1P2W/1P3W	1. IPP-S x1, <b>2. 25Ø CT x 12 pcs</b> 3. USB Wifi Dongle,
IPP-S2-00C	Reserved	
IPP-S3-00C	3P3W	
IPP-S4-00C	3P4W	

Scan QR code to obtain installation manual and SNMP MIB data.

