Intelligent Power Panel

IPP-M Series

More convenient, More information, Less cost

IPP series gain mutil-circuits power information from remote site



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.

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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 totalization 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 0.001kWh-99999kWh.

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 ±1.0% (@PF=1.0, Rated Current), and W, V, A, VA, PF within ±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.

Low power consumption

The power consumption of IPP series is less than 3W.

Specification

Model	IPP-M series		
Phase& Wire	1P2W / 1P3W / 3P3W / 3P4W		
Module	12 power monitoring modules with 1P2W		
Communication			
Display	5 digits LED display power information and IP address		
	1 digit LED load number		
Ethernet	RJ45 /Wi-fi (USB dongle)		
Temperature & Humidity	RJ11x2 (ENV Probe option)		
Comm. Protocols	ICMP,ARP,IP,TCP,UDP,DHCP,HTTP(S),SNMPv1,v2,v3		
Comm. Protocols Operation	ICMP,ARP,IP,TCP,UDP,DHCP,HTTP(S),SNMPv1,v2,v3		
	ICMP,ARP,IP,TCP,UDP,DHCP,HTTP(S),SNMPv1,v2,v3 lower than 3W, AC 115V/230V		
Operation			
Operation Power Usage	lower than 3W, AC 115V/230V		
Operation Power Usage Certification	lower than 3W, AC 115V/230V FCC & CE		
Operation Power Usage Certification Operation Temperature	lower than 3W, AC 115V/230V FCC & CE -20~+60 Celsius degree		

IPP series can work with the following current transducer

CT inner diameter(mm)	25Ø	16Ø	10Ø		
Rated. Current (Max.)	50 (200) A	30 (120) A	15 (60) A		
Rated Voltage	220V / 60Hz				
Measurement					
Voltage	60.00V~440.00V				
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				
Precision					
kW	1% (PF=1.0 ,rated current)				
Power	1% (W,V.A.VA.PF,rated current)				
(Fund	_				

CT Module

IPP-M Series

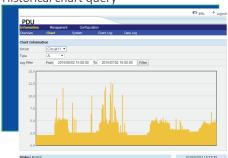
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Web Interfaces

Real time monitor of power information

PDU								
Information	Manage	ment		guration				
Overview	Chart		System	Event Log	Data Log			
ENV Status								
Temperature (1)	N/A						
Humidity (1)		N/A						
Temperature (2) :	26		Normal				
Humidity (2)		52	Normal					
Meter Status								
Load	CT Numb	er	kW	kWh	v	A	PF	Status
1	1,0,0		32.326	85.544	107.94	5.36	0.56	Normal
2	2,0,0		-32.725	32.728	107.76	5.35	0.57	Normal
3	3,0,0		26.140	48.328	107.97	3.84	0.63	Normal
4	4,0,0		-26.140	26.716	107.68	3.83	0.63	Normal
5	5,0,0		36.313	246.256	107.88	3.39	0.99	Normal
6	6,0,0		-36.313	94.381	108.75	3.38	0.99	Normal
7	7,0,0		0.000	0.623	108.28	0.00	1.00	Normal
0	9.0.0		42.400	96 501	109.04	5.87	0.66	Normal

Historical chart query



Historical data query

PDU	Managemen	t Configurat				
Overview	Chart	t Configurat System	en Event Log	Data Log		
Overview	Chart	System	Event Log	Data Log		
Data Log (Max	imum 500 reco	rds)				
Log Filter	From 2015	06/1 16:00:00	to 2015/06/2	2 17:00:00 Filter		
Circuit No.	Circuit5	•				
Date	Time	kW		Voltage	Current	PF
2015/06/11 02	1:23:13 20.994	84.	799	113.08	1.88	0.99
2015/06/11 02	:33:22 20.798	84.1	834	113.09	1.89	0.97
2015/06/11 02	:43:31 21.211	84.1	870	113.81	1.89	0.99
2015/06/11 02	:53:40 21.002	84.	905	113.52	1.89	0.98
2015/06/11 03	1:03:49 20.794	84.	941	112.79	1.88	0.98
2015/06/11 03	1:13:58 21.040	84.	976	113.27	1.88	0.99
2015/06/11 03	1:24:07 20.998	85.	011	112.76	1.88	0.99
2015/06/11 03	:34:16 20.798	85.0	046	112.90	1.88	0.98
2015/06/11 03	3:44:25 20.840	85.0	182	112.77	1.88	0.98
2015/06/11 03	1:54:34 20.798	85.	117	113.01	1.88	0.98

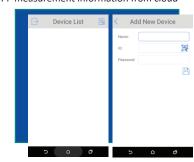
Model

Model No.	Phase&Wire	Package included
IPP-M1-C00	1P2W/1P3W	IPP x1,
IPP-M2-C00	Reserved	10Ø x 12,
IPP-M3-C00	3P3W	USB Wifi Dongle,
IPP-M4-C00	3P4W	Management Utility

APP

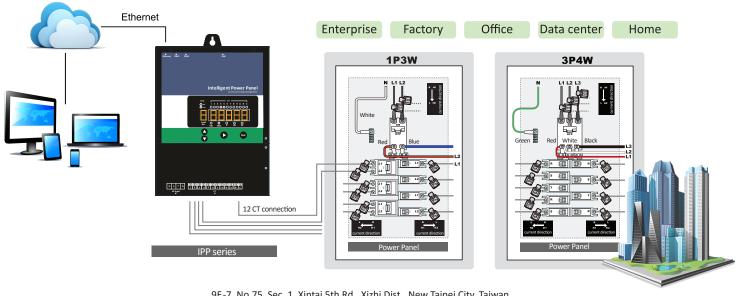
Monitor IPP measurement information from cloud







Application Diagram



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