



Feature

➤ **Suit for LV/ HV voltage system**

For low voltage system, direct connect up to 690 V (L-L) AC

For high voltage system, support connect up to 650KV

➤ **Real-time measurement**

True-RMS measuring parameters includes:

U, I, P, Q, S, PF, F, kWh, kvarh, kVAh

➤ **Demand calculation mode is programmable**

2 kinds of demand modes: fixed block and rolling block

➤ **Power quality analysis**

Sag, Swell, THD, 63rd Harmonic analysis, crest and K factor, unbalance etc.

➤ **Multi-tariff billing, historical data of 31 days and 12 months**

➤ **Max./ Min. Record (U, I, P, Q)**

➤ **Under/ over limit alarm**

➤ **DI/ DO**

➤ **Multiple Communication**

Optional Modbus RTU protocol, Modbus TCP,

Bacnet, IEC61850

➤ **High accuracy**

Active energy: according to IEC62053-22, class 0.2s

Reactive energy: according to IEC62053-23, class 2


➤ **Small size and thin style**

➤ **Standard IEC62053-22/ 23, CE.**

Basic Function

Real time metering	Voltage	Ua, Ub, Uc, Uab, Ubc, Uca, UL-L avg, UL-N avg
	Current	Ia, Ib, Ic, In, Iavg
	Power	Pa, Pb, Pc, $\sum P$, Qa, Qb, Qc, $\sum Q$, Sa, Sb, Sc, $\sum S$
	Power factor	PFa, PFb, PFc, $\sum PF$
	Energy	kWh, kvarh (4 quadrant) & kVAh
	Frequency	F
	Demand & Max. demand	Dmd_I, Dmd_P, Dmd_Q, Dmd_S
	Max./ min. value	Max./ min. (U, I, P, Q)
	Multi-tariff energy	
Power quality analysis	Unbalance	U_unbl, I_unbl
	Harmonic (63 rd)	THDu, THDi, TOHDu, TOHDi, TEHDu, TEHDi, HRU, RHI
	Waveform capture	Real time voltage waveform, Sag, Swell
	Voltage crest factor, current K factor, Load rate, Voltage deviation, Frequency deviation,	
Setpoint alarm	Over/ under limit alarm	
3DI +2 DO	3 status input + 2 relay output	
RS485	Modbus-RTU protocol	
Record function	SOE (event log), Real-time clock (yyyy-mm-dd hh:mm:ss)	
	Voltage/ frequency deviation, Voltage unbalance record	

Optional Module

	SW	4 status input (External Wet contact)	R	2 relay output
	SD	4 status input (External Dry contact)	AO	2 analog output (4-20mA)
	LAN	1 Ethernet port	EP	2 pulse output
	C	One more RS485 port		
	Note: One power meter max. work with 3pcs of optional modules. SW/ SD/ R/ AO can be select 2pcs for one device.			

Parameter	Accuracy	Resolution	Measuring Range
Voltage	0.2%	0.01V	10V ~650KV
Current	0.2%	0.001A	50000A
Power	0.5%	0.1W/var/ VA	each phase: 0~649.9MW/ Mvar/ MVA Total: 0~1949.8MW/ Mvar/ MVA
Power factor	0.5%	0.001	-1.000~+1.000
Frequency	0.01	0.01Hz	45~ 65 Hz
Active energy	0.2%	0.1kWh	0~ 99,999,999.9 kWh
Reactive energy	2.0%	0.1kvarh	0~ 99,999,999.9 kvarh
Apparent energy	1.0%	0.1kVAh	0~ 99,999,999.9 kVAh
THD	1.0%	0.001	0~100.0%
Individual harmonic	1.0%	0.001	0~100.0%
Un-balance	1.0%	0.001	0~100.0%

Technical Specification

Connection mode	3-phase 3-wire 3-phase 4-wire Single phase	Communication	Modbus-RTU Protocol	RS485 serial Baud rate: 2400, 4800, 9600, 19200, 38400bps Address: 1~247
Metering	True RMS, 1 sec refresh time		Modbus-TCP/ Bacnet/ IEC61850 optional	
Input	Rate current: 1A or 5A Rate voltage: Direct 100~398Vph-N CT, PT settable Frequency: 50/ 60Hz	Dimension (L x W x H)	Panel: 96 x 96 x 13.5 mm Cut-out: 90 x 90 x 58.6 mm (basic) 90 x 90 x 80.1 mm (optional module)	
Overload	120% of rated, continuously Instantaneous current: 10 times/ sec Instantaneous voltage: 2 times/ sec	IP index	IP52 (front panel) and IP30 (case)	
Status input	Wet contact or dry contact optional	Weight	Basic unit: approx 550gr. One Module: 50gr.	
Relay output	Node capacity: 250VAC/5A	Environment	Main Module & other Modules	Operating temperature: -10°C~ +55 °C Storage temperature: -40°C~ +70 °C Humidity: 5%~95% non-condensing
Pulse output	Pulse constant: 1000~9999 programmable Pulse width: 60~100ms programmable Formula: 1 pulse = (1 ÷ pulse constant × PT × CT) kWh			Power frequency withstand voltage
Power supply	85 ~265VAC, 85~265VDC	Insulation resistance	≥50MΩ	
Power loss	<10VA	Impulse withstand voltage	4kV (peak), 1.2/50μS	

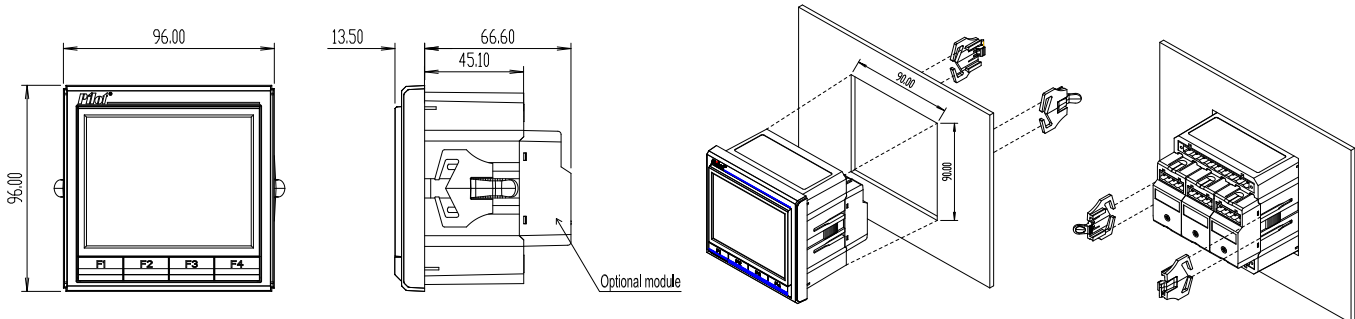
Standard (EMC)

Oscillatory Waves Immunity Test	IEC 61000-4-12,Level 3	Surge Immunity Test (1, 2/50μs~8/20μs)	IEC 61000-4-5,Level 3
Electrostatic Discharge Immunity Test	IEC 61000-4-2,Level 3	RF Conducted Immunity	IEC 61000-4-6,Level 3
Radiated Radio-frequency Electromagnetic Field Immunity (RFEMS)	IEC 61000-4-3,Level 4	Power Frequency Magnetic Field Immunity Test	IEC 61000-4-6,Level 3
Electrical Fast Transient/burst Immunity Test	IEC 61000-4-4,Level 3	Electromagnetic Emission Limits	IEC 60255-25, Passed
		Power Frequency Immunity	IEC 61000-4-8, Level A

Dimension & Installation

Unit: mm

PMAC770H : Panel Mount



Order Information

PMAC770H--①--②--③

Optional Module

Optional Module

Optional Module

N	No any module
SW	DI Module: 4 Status Input (wet contact)
SD	DI Module: 4 Status Input (dry contact)
R	DO Module: 2 Relay Output
AO	AO Module: 2 Analog output (4~20mA)
N	No any module
SW	DI Module: 4 Status Input (wet contact)
SD	DI Module: 4 Status Input (dry contact)
R	DO Module: 2 Relay Output
AO	AO Module: 2 Analog output (4~20mA)
EP	EP Module: 2 Pulse Output
N	No any module
LAN	1 Ethernet port 10/100M
C	RS485 Module: The 2nd RS485 comm

Pilot defines innovation of energy transition

Your trusted partner for smart energy

