

Feature

- Suit for LV/ HV voltage system
- Compact design with all real-time measurement
- Consist of basic unit and optional modules
- 10 years back-up of integrated energy data
- Large LCD, high brightness
- High accuracy, V or I is 0.2%, kWh is class 1
- CT and PT programmable
- Pluggable terminals, easy to install
- Support Modbus / Profibus communication (Optional)
- Panel size: 96 x 96mm
- Password protect
- Standard: IEC62053-21/23, CE



Basic Function

PMAC735 provide one RS485 communication, measures and display real-time parameters:

- Voltage—U_a, U_b, U_c, U_{ab}, U_{bc}, U_{ca},
- Voltage unbalance rate – UL-L unbal, UL-N unbal
- Current—I_a, I_b, I_c, I_n
- Current unbalance rate –I unbal
- Active power – P_a, P_b, P_c, ΣP
- Reactive power –Q_a, Q_b, Q_c, ΣQ
- Apparent power—S_a, S_b, S_c, ΣS
- Power factor—PF_a, PF_b, PF_c, ΣPF
- Frequency—F
- Active energy—kWh (4 quadrant)
- Reactive energy—kvarh (4 quadrant)
- Demand and Max. record for I, P, Q, S
- Max./ Min. value

Optional Module

- 4 status input + 4 relay output
- 8 status input + 2 relay output
- 8 status input + 2 pulse output
- Profibus communication module

Status input apply to monitoring various kinds of switch status

Relay output apply to monitoring over limit alarm with setpoint system

Pulse output apply to exporting pulse signal for active/ reactive energy

Profibus supports high speed bus communication up to 1.5M, and

Compatible with SIEMENS Profibus communication system.

Optional Function

- Up to 31st harmonic analysis, K factor, THD
- SOE (event log)
- One 4~20mA analog output

Technical Specification

Metering	True RMS, 1 sec refresh time
Input	Rate current: 1A or 5A Rate voltage: direct 120 ~277Vph-N, (optional) PT secondary 57.7/ 100V Frequency: 50/ 60Hz
Overload	120% of rated, continuously Instantaneous current: 10 times/ sec Instantaneous voltage: 2 times/ sec
Status input (optional)	≤8 channels, provides 30VDC power if it is dry contact
Relay output (optional)	≤4 channels, Node capacity: 220VAC/5A, 30VDC/5A
Analog output (optional)	1 channel, 4~20mA, load resistance: 400Ω
Pulse output (optional)	2 channels, Pulse width: 80ms Pulse constant: 1000~40000 programmable 1 pulse = (1+ pulse constant × PT × CT) kWh

Power frequency withstand voltage	AC 2KV/minute
Insulation resistance	≥50MΩ
Impulse withstand voltage	4kV (peak), 1.2/50μS

Power supply	85~265VAC, 80~300VDC Or 24~48VDC (optional)
Power loss	<2VA
Communication	RS485 serial, support Modbus-RTU Baudrate: 4800, 9600, 19200, 38400bps Address: 1~247
Dimension (L x W x H)	Panel: 96 x 96 x 18 mm Cut-out: 89.5 x 89.5 x 65 mm (+0.5mm)
IP index	IP54 (front panel) and IP20 (case)
Weight	Approx. 500gr.

Standard (EMC)

Electrostatic discharge immunity test	IEC 61000-4-2,Level 4
Radiated immunity test	IEC 61000-4-3,Level 3
Electrical fast transient/burst immunity test	IEC 61000-4-4,Level 4
Surge immunity test (1, 2/50 μ s~8/20 μ s)	IEC 61000-4-5,Level 3
Conducted emissions	EN 55022,Class B
Radiated emissions	EN 55022,Class B

Environment

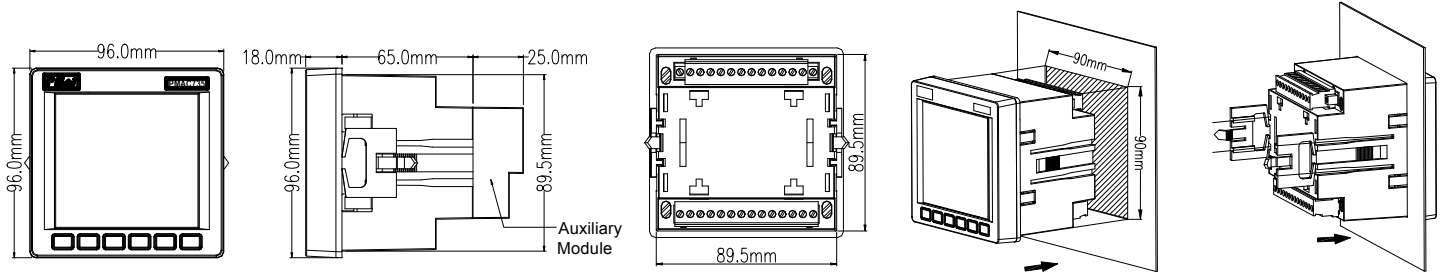
Operating temperature: -20℃~ +60 ℃
 Storage temperature: -30℃~ +70 ℃
 Humidity: 5%~95% non-condensing

Parameter	Accuracy	Resolution	Measuring Range
Voltage	0.2%	0.01V	Directly: 300Vph-N, 520Vph-ph
			PT primary: 0~499,999V PT secondary: 57.7Vph-N, 100Vph-ph (Note: when PT ratio is non-integer, voltage range is 0~ 49,999V)
Current	0.2%	0.001A	CT primary: 0~49,999A CT secondary: 1 A or 5A
Power	0.5%	0.1W/ var	each phase: 0~100 MW/ Mvar
Power factor	0.5%	0.001	-1.000~+1.000
Frequency	0.01	0.01Hz	35~ 65 Hz
Active energy	1.0%	0.1kWh	0~ 99,999,999.9 kWh
Reactive energy	2.0%	0.1kvarh	0~ 99,999,999.9 kVarh
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%

Feature	Model PMAC	735N	735A	735B	735E	735P
U-LL, U-LN, 3I, In, 3P, Σ P, 3Q, Σ Q, 3S, Σ S, F, 3PF, Σ PF, kWh, kvarh, Demand& maximum recording, Unbalance rate, Build-in clock, Max./min. recording, RS485 communication		●	●	●	●	●
4 status input + 4 relay output			●			
8 status input + 2 relay output				●		
8 status input + 2 pulse output					●	
Profibus communication						●
Harmonic analysis, K factor		○	○	○	○	○
SOE			○	○	○	
One 4-20mA analog output		○	○	○	○	○
Remark: ●= standard, ○=optional						

Dimension & Installation

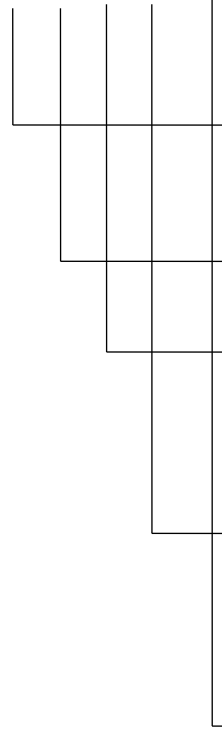
unit: mm



Order Information

PMAC735

①--②--③--④--⑤



N	Basic Module
A	Basic Module + 4 Status Inputs (Dry Contact) + 4 Relay Outputs
B	Basic Module + 8 Status Inputs (Dry Contact) + 2 Relay Outputs
E	Basic Module + 8 Status Inputs (Dry Contact) + 2 Pulse Outputs
P	Basic Module + Profibus Module
H	Up to 31 st Harmonic Analysis, THD, K Factor
T	SOE (Event Log) Function
AO	One 4-20mA Analog Output
A	AC85-265V~50Hz/60Hz DC80-300V
D	DC24 - 48V
V1	57.7/ 100V (via PT), 5A
V2	57.7/ 100V (via PT), 1A
V3	220/ 380V (direct), 5A
V4	220/ 380V (direct), 1A
V5	120/ 208V (direct), 5A
V6	240/ 415V (direct), 5A
V7	277/ 480V (direct), 5A
V8	63.5/ 110V (via PT), 5A
50Hz	50Hz
60Hz	60Hz

Example: Model No. PMAC735-A-H-A-V1-50Hz, which indicates the device provides basic function + 4 status input + 4 relay output + harmonic analysis, AC85-265V~50Hz/60Hz ,DC80-300V power supply, rated input 57.7/ 100V, 5A, 50Hz

Note:

1. Function **H**, **T**, **AO** can be selected together.

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