



PA3000 Smart Power Meter

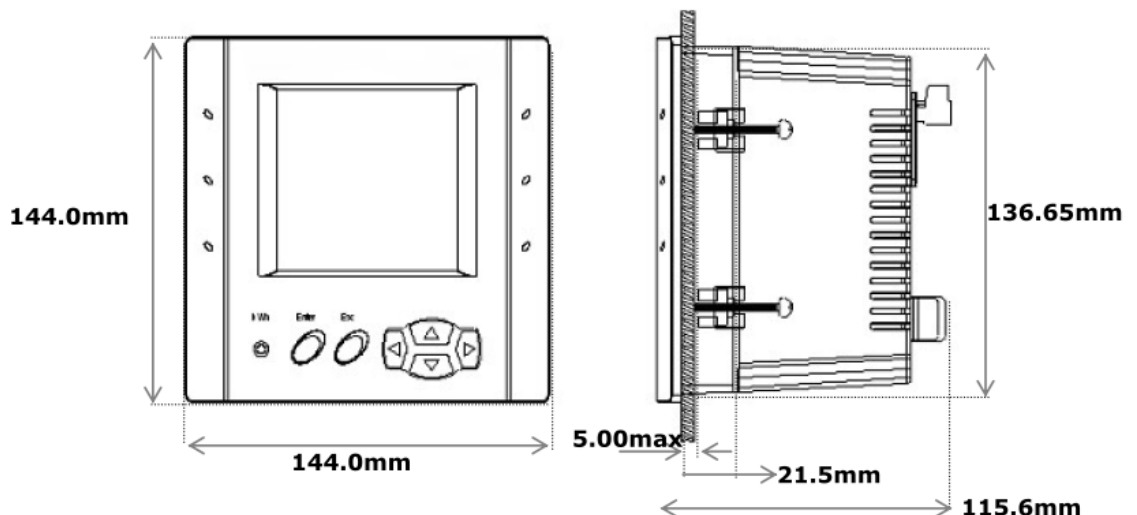
Ethernet-enabled revenue class multifunction meter for power measurement, power quality analysis, and power usage reporting.

◆ Function Guide

	Standard PA3000-1	Advanced PA3000-2
General Measurement		
Current(phase, average, Neutral)	■	■
Voltage(V_LL, V_LN, average)	■	■
Frequency	■	■
kW, kVAR, kVA(phase, total)	■	■
PF (True/Fundamental)	■	■
Energy Measurement		
kWh, kVARh, kVAh	■	■
Bi-directional Energy	■	■
Demand Measurement		
kW, kVAR, kVA(Last, Present, Max.)	■	■
Demand Predict(kW or kVA)		■
Demand Mode: Block, Rolling	■	■
Power Quality		
V/I Total Harmonic Distortion	■	■
V/I Individual Harmonics(31 orders, RMS)	■	■
Time stamp	■	■
Sag/Swell	■	■
Phasor(Va-Vx, Va-Ix, x=a, b,c)	■	■
Data Recording		
Max/Min of parameter values	■	■
Data log (Daily Report /Regular Report)	■	■
Event log	■	■
Alarm	■(11 items)	■(14 items)
Data Frozen(10 days and 6 Months, total kWh, total kWh and max. demand of each rate)		■
LoadProfile		■
TOU		■
I/O		
DI/DO(8DI, 4DO)	■	■
AI/AO(4AI, 4AO)	■(option)	■(option)
Communication		
RS485	■	■
Ethernet (TCP/IP)	■(option)	■(option)
Ethernet (DNP3)	■(option)	
Secondary RS485	■(option)	■(option)

◆ Mounting

Panel cut-out area is 138x138mm (+ or - 0.5mm)





◆ Technical Characteristics

Target Measuring System	3P4W, 3P3W-2CT, 3P3W-3CT, 1P3W, 1P2W, Auto-detection of wiring	
Sampling rate	8400 points/second	
Accuracy	Voltage:0.1% · Current:0.1% · kW, kVAR, kVA:0.5 % · kWh, kVARh, kVAh:0.5 % Power Factor:0.5% · Frequency:0.1% Total Harmonic Distortion:1.0% · Individual Harmonics:1.0%	
Aux. power	86-242 VAC/100-300VDC	
Power consumption	6W/15VA	
Input range	PT Primary:110-600000V · PT Secondary:1-600V CT Primary:1-9999A · CT Secondary:1-5A Frequency:47-63Hz	
I/O	Digital input : 8 channels, 12~24Vdc/ 40mA max Digital output : DO1 for alarm, DO2 for kWh pulse output or alarm(Advanced only), DO3/DO4 : Open. 12~240Vac-dc/ 120mA max Analog input : 4 channel 4-20mA input Analog output : 4 channel 4~20 mA for V, I, kW, kVA, kVAR, PF	
Data Recording	Report : Daily report : today, yesterday Regular report(Diagnostic) : this period, last reset Event logging : Sag, swell, alarm logging Load Profile : 8 channels	
TOU	Time Band: up to 99 time period base on regular basis Fix Recurring Holiday: to set up time period base on National Holidays Non-Recurring Holiday: to set up time period base on National Holidays but irregular dates Holiday Rate Type: available in A, B, C, D 4 tariffs rate defined by user	
Communication	Primary port : RS485 Modbus protocol, 2 –wire, 1200~57600bps Secondary port : ①Ethernet : Modbus over TCP/IP. ②RS485 II Modbus protocol. ③LoRa. ④Ethernet : DNP3	
Mount	Panel Mount	
Size(mm)	144*144*94	
Weight	1.1Kg	
Display	128*128 FSTN-LCD with Back-lighted	
Temperature/ Humidity	Operation T. : – 20 ~ 70 °C, Storage T. : – 25 ~ 80 °C, Humidity(RH, %) : 95%	
Index of Protection	IP54(Panel) IP20(Case)	
Certificate	1. LVD Test Report : EN61010-1 2. CE Test Report : EN61326 Conducted Emission EN61326 Radiated Emission EN61000-3-2 Harmonic Current Emission EN61000-3-3 Voltage Fluctuation and Flicker EN61000-4-2 Electrostatic Discharge	EN61000-4-3 Radiated Susceptibility EN61000-4-4 Electrical Fast Transient/Burst EN61000-4-5 Surge EN61000-4-6 Conducted Susceptibility EN61000-4-8 Power Frequency magnetic Field EN61000-4-11 Voltage Dips and Interruption 3. FCC Test Report : Class A and CISPR 22

◆ Ordering Code

PA3000 - ①②③④-⑤⑥

① Model	② Secondary Port	③ AI	④ AO	⑤ CT option	⑥ HZ
1 : Standard 2 : Advanced	0 : None 1 : Ethernet TCP/IP 2 : Secondary RS485 3 : LoRa 4 : Ethernet DNP3	0 : None 1 : with AI	0 : None 1 : with AO	0 : None(Inside 5A) 1 : 10A, CTΦ10mm, 10mA~10A 2 : 60A, CTΦ10mm, 25mA~60A 3 : 100A, CTΦ16mm, 50mA~100A 4 : 200A, CTΦ24mm, 100mA~200A 5 : 600A, CTΦ31.6mm, 1A~600A 6 : 1000A, CTΦ50.8mm, 1A~1000A 7 : 1000A: flexible Rogowski Coil CT 8 : 2000A: flexible Rogowski Coil CT	0 : 60HZ 1 : 50HZ