



SPM32 Multifunction Power Meter



Feature

- Suit for Panel mount and DIN Rail Mount installation
- Suit for distribution system under 650kV (PT value settable)
- True RMS measuring parameters
- Setpoint alarm for over / under limit
- 31st Harmonic analysis, THD
- Status input & relay output function (Optional)
- High accuracy, class 0.5s for kWh
- Small size : 72*72mm
- One RS485, support MODBUS-RTU protocol



Basic Function

SPM32 measure and display real-time parameters:

- Voltage—Ua, Ub, Uc, Uab, Ubc, Uca,
UL-L avg, UL-N avg.
- Current—Ia, Ib, Ic, In, I avg.
- Current Unbalance Rate—I unbal.
- Active Power – Pa, Pb, Pc, ΣP
- Reactive Power – Qa, Qb, Qc, ΣQ
- Apparent Power—Sa, Sb, Sc, ΣS
- Power Factor—PFa, PFb, PFc, ΣPF
- Frequency—F
- Active Energy—Total kWh (import / export)
- Reactive Energy— Total kvarh (import / export)
- Apparent Energy – Total kVAh
- Demand (I, P) and Max. Demand Record for I, P
- 31st harmonic, THD, THDu, THDi,
- Setpoint Alarm – over voltage, under voltage, over current, under current, frequency too high, frequency too low, over load, over demand, phase loss, status input OFF

Optional Function

For SPM32 (Panel Mount)	R	2 relay outputs
	S	2 status inputs (Wet contact)

For SPM32-DR (DIN Rail Mount)	S	4 status inputs (wet contact)
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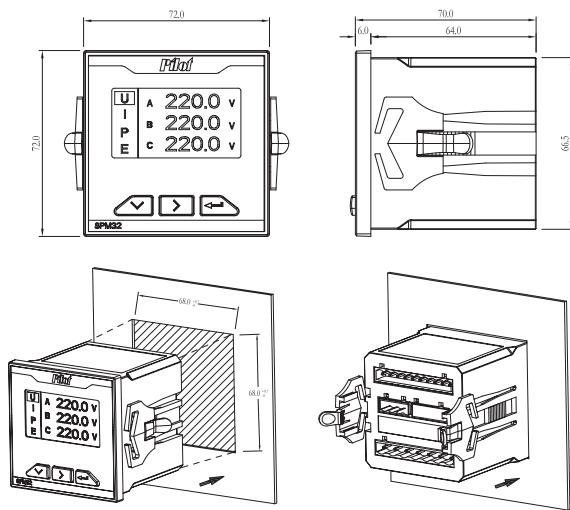
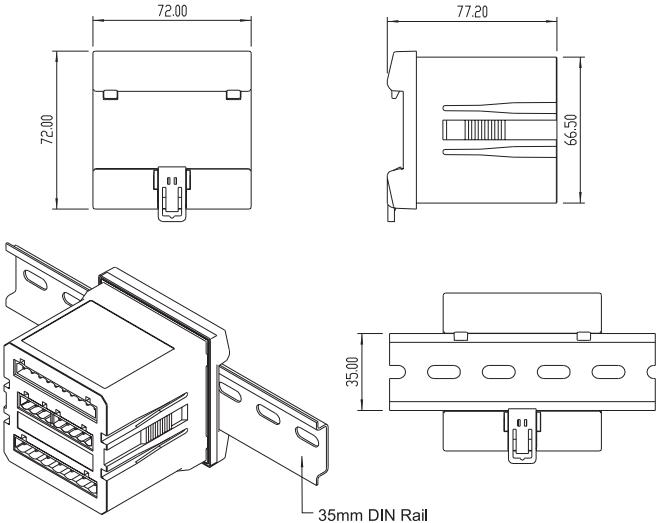
Technical Specification

Connection Mode	3 phase 3 wires, 3 phase 4 wires
Metering	True RMS, 1 sec refresh time
Input	Rated current: 5A or 1A Rated voltage: 57V ~300V(ph-N), 35Hz~65Hz
Status Input (optional)	Rated voltage 220V, 2 channel active status input. Lower than 60V is open, higher than 178V is closed. Max. input is 300V
Relay Output (optional)	Rated contact capacity: AC 250V/5A or DC 30V/5A
Power Supply	AC 85~265V or DC 100~300V
Power Loss	<4VA
Power Frequency Withstand Voltage	AC 2KV/minute
Insulation Resistance	$\geq 100M\Omega$
Impulse Withstand Voltage	6KV

Communication	RS485 serial, Modbus-RTU, Address: 1~247 Baudrate: 4800, 9600, 19200bps
Dimension (L x W x D)	Panel Mount: 72*72*70mm Din-rail Mount: 72*72*77.2mm
IP Index	IP52 (front panel) and IP20 (case)
Environment	Operating temperature: -10°C ~ +55°C Limit operating temperature: -25°C ~ +55°C Storage temperature: -40°C ~ +70°C Humidity: 5% ~ 95% RH, non-condensing
Standard (EMC)	Electrostatic discharge immunity test IEC 61000-4-2, Level 4 Radiated immunity test IEC 61000-4-3, Level 4 Electrical fast transient/burst immunity test IEC 61000-4-4, Level 4 Surge immunity test (1, 2/50μs ~ 8/20μs) IEC 61000-4-5, Level 4 RF field immunity induced mass IEC 61000-4-6, Level 3

Measurement Parameter	Accuracy	Measuring Range
Voltage	0.2%	10V~500V (PT secondary side)
Current	0.2%	5A or 1A (5%~120% of rating) (CT secondary side)
Power factor	0.5%	-1.000~1.000
Active power	0.5%	Per phase: 0 ~ ± 26MW Total: 0 ~ ± 78MW
Reactive power	1.0%	Per phase: 0 ~ ± 26Mvar/VAr
Apparent power	1.0%	Total: 0 ~ ± 78Mvar/VAr
Active energy	0.5%	0~ 99,999,999.9 kWh
Reactive energy	2.0%	0~ 99,999,999.9 kVarh
Apparent energy	2.0%	0~ 99,999,999.9 kVAh
Three-phase current unbalance	1.0%	0%~100%
Harmonic	class B	0%~100%

Dimension & Installation

SPM32: Panel Mount

SPM32-DR: DIN Rail Mount


Unit: mm

Order Information

SPM32	R	2 relay outputs
	S	2 status inputs (Wet contact)
	V1	5A
	V2	1A

SPM32-DR	S	4 status inputs
	V1	5A
	V2	1A

Example:

SPM32-RS-V1, it means the device provides basic measuring function, one RS485 port, 2 status inputs, 2 relay outputs. Rated input current 5A.

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