

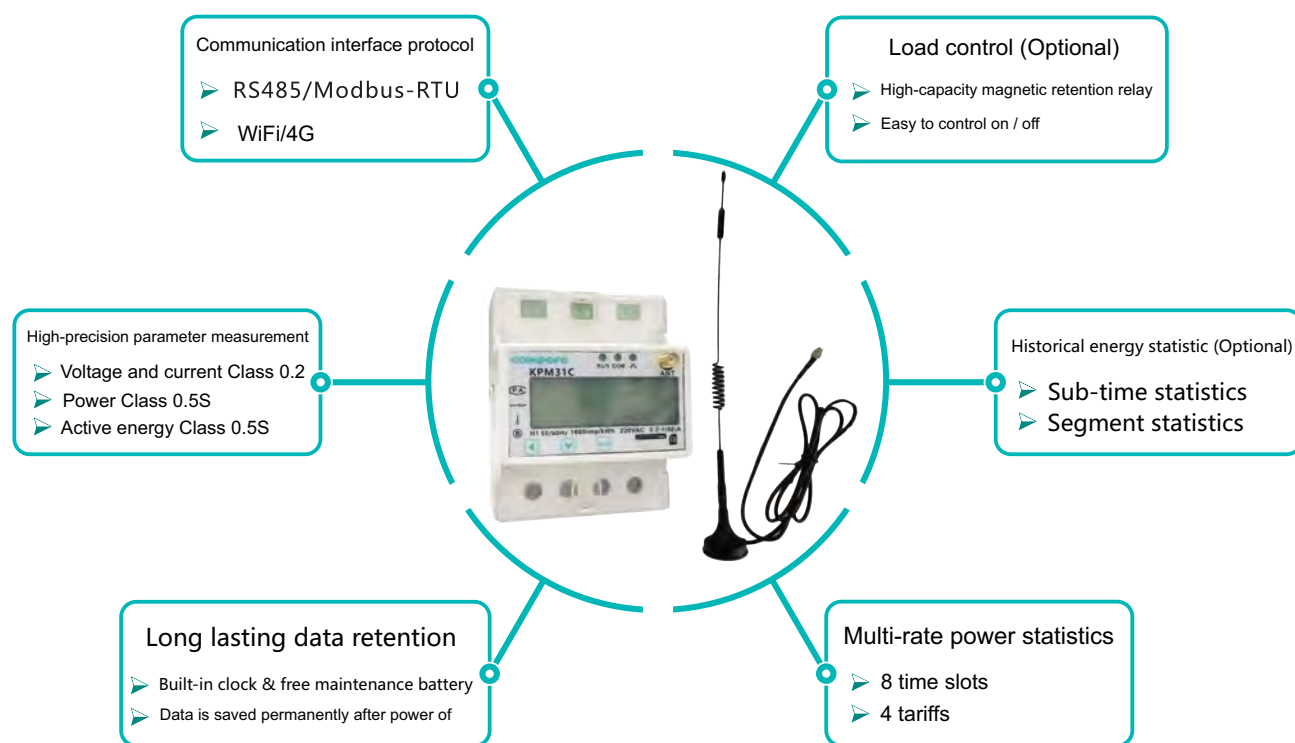
KPM31 Single-phase DIN rail smart energy meter



KPM31A&B Single-phase DIN rail smart energy meter is designed with advanced microprocessor and digital signal processing technology. It integrates comprehensive single-phase power measurement, display, energy accumulation, and network communication.

It has strong anti-interference ability and can still work stably in situations with severe electromagnetic interference.

Product Features

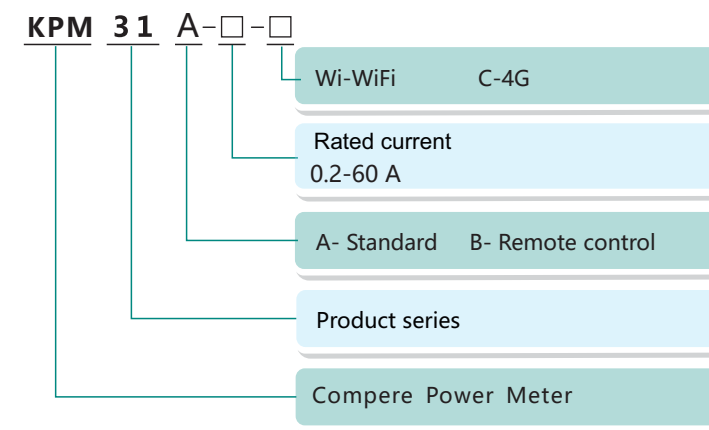


Function features



- Measurement of voltage, bidirectional current, active power, reactive power, apparent power, power factor, frequency, active energy, reactive energy.
- Multi-rate energy statistics, up to 8 time slots per day, 4 tariffs.
- 12 month historical power statistics function.
- Rated current 0.2-60A.
- 1 passive optical coupler collector active pulse outputs.
- Default Modbus communication through RS485 interface. Optional WiFi/4G communication
- LCD display a variety of power parameters and information.
- Built-in clock and maintenance-free battery, permanently data saving after power off.
- Large-capacity magnetic retention relay, load on-off control.

Products list



◆ E.g.: KPM31B-Wi: Rated AC220V/0.2-60A, WiFi wireless communication, remote control, multi rate power consumption statistics, single phase DIN rail smart energy meter

Application occasion

Energy and efficiency management system

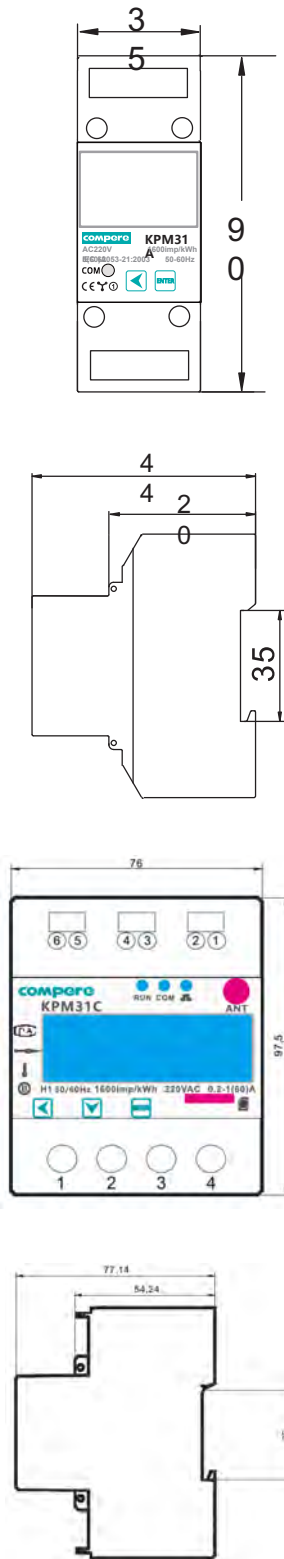
Power consumption statistical analysis and charging statistics basis

Energy metering, AMI system

Smart distribution management system

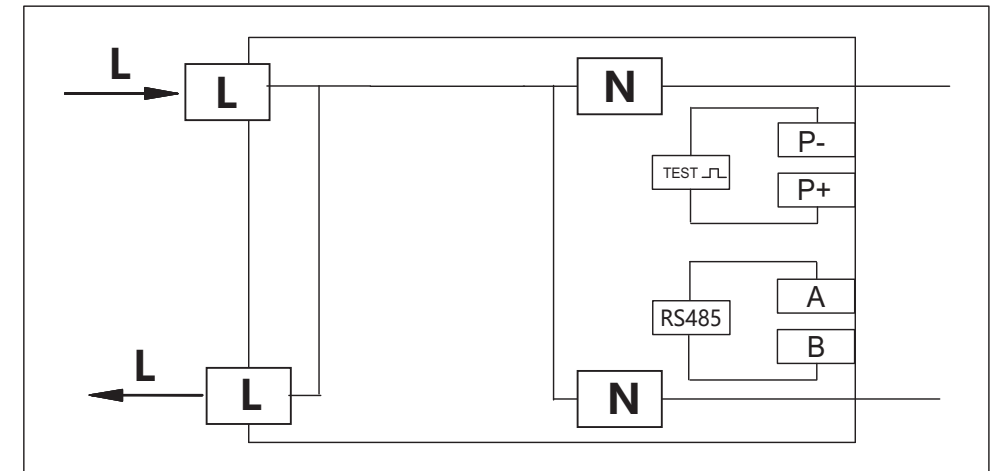
Product size **Technical Parameters**

Typical wiring



Input voltage	Rated voltage	AC 110V/220V
	Overall power consumption	<2VA
	Frequency range	45~65Hz
Input current	Rated current	0.2-60A
	Frequency range	45~65Hz
Measurement accuracy	Voltage	±0.2%(0.01V)
	Current	±0.2%(0.01A)
	Active power	±0.5%(0.1W)
	Reactive power	±2.0%(0.1var)
	Active energy	±0.5%(0.1kWh)
	Reactive energy	±2.0%(0.1kvarh)
	Power factor	±0.5%(0.001)
	Frequency	±0.02Hz(0.01Hz)
Clock	Clock accuracy	<0.5S/D
Communication	Communication interface	RS485 / WIFI / 4G
	Communication protocol	Modbus-RTU, 1200~9600bps
Electrical insulation	Power frequency withstand voltage	AC2kV/min~1mA Input-output-power source
	Insulation resistance	>50MΩ
Working environment	Impact voltage	5kV (Peak), 1.2/50us
	Operating temperature	-10°C ~ +55°C
	Relative humidity	5%~95% No condensation
	Storage temperature	-20°C ~ +75°C
Electromagnetic Compatibility	Altitude	No more than 3000m
	Surge (impact) immunity	IEC61000-4-5, Level4
	Electrical fast burst immunity	IEC61000-4-4, Level4
	Electrostatic discharge immunity	IEC61000-4-2, Level4
	Power frequency magnetic field immunity	IEC61000-4-8, Level4

KPM31A Low voltage single phase direct access typical wiring diagram.



KPM31B/KPM31C Low voltage single phase direct access typical wiring diagram.

