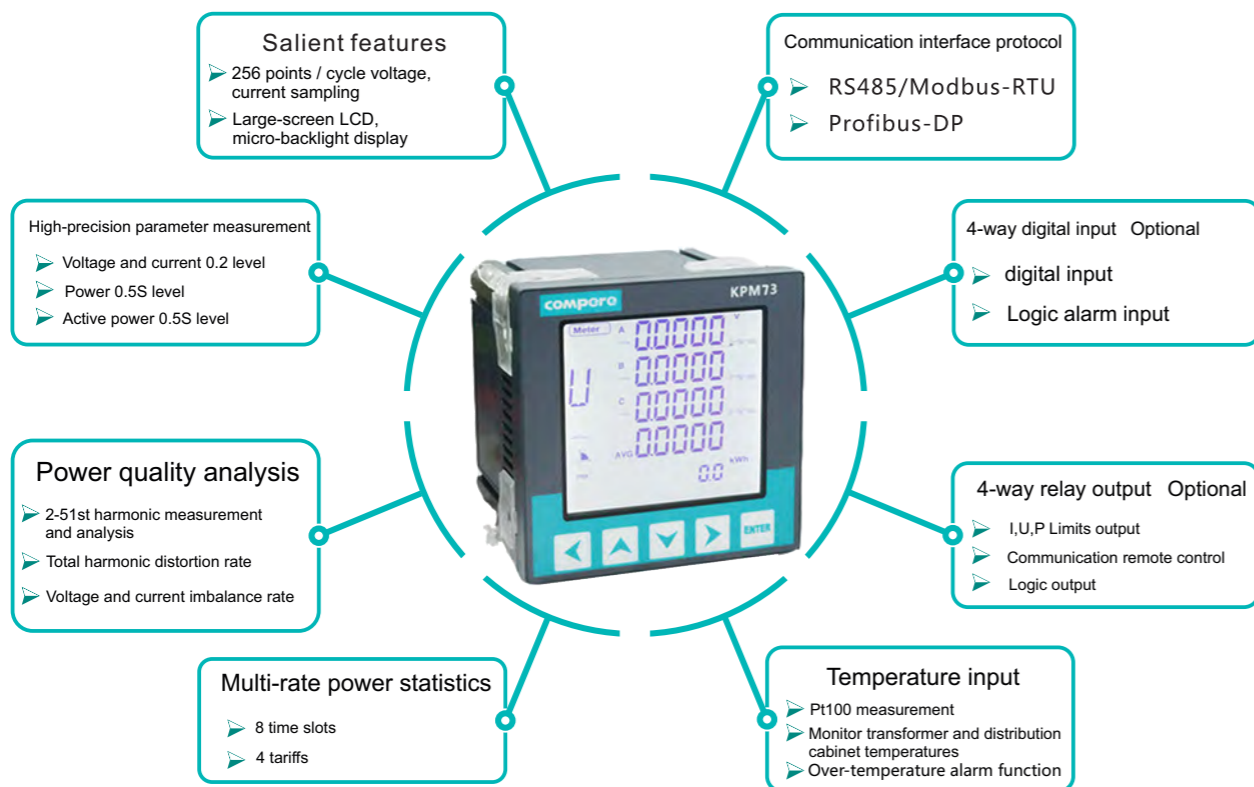


KPM73 Multifunction instruments



KPM73 series multifunction meter with accurate measurement of power parameters, bi-directional 4 quadrant energy measurement, statistics, recording functions, using advanced ARM processor and digital signal processing technology. Set a comprehensive three-phase electrical parameters measurement / display, energy accumulation, power quality analysis, multi rates statistics, digital input / output and communications networks in one. Has a fine manufacturing process, good electrical insulation and electromagnetic compatibility, large-screen LCD liquid crystal display, etc.

Product Features

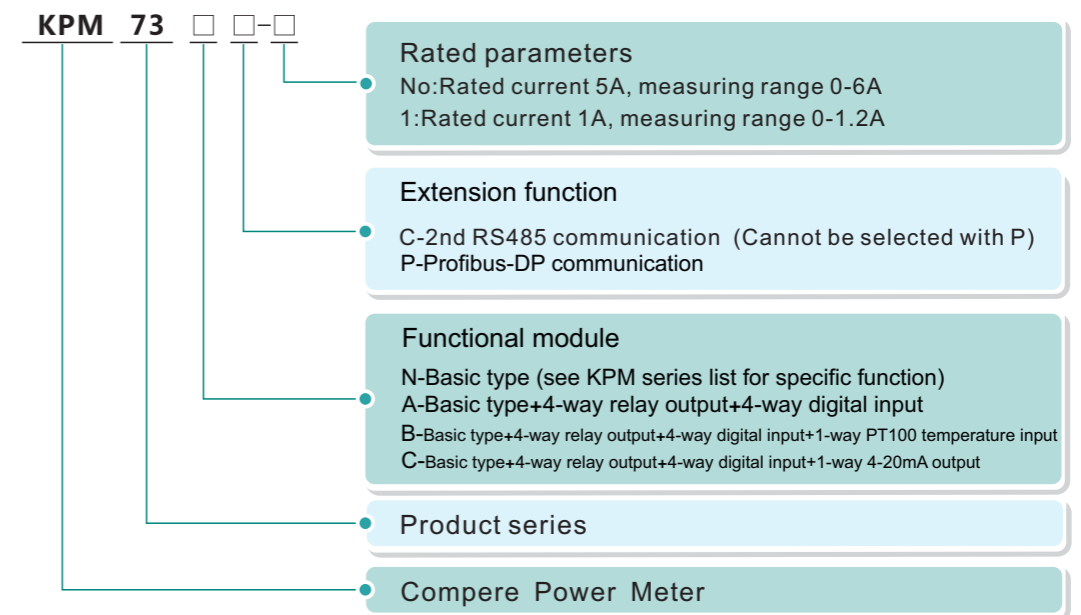


Function features



- Measure over 30 kinds of basic electricity such as phase / line voltage, three-phase current, zero sequence voltage, zero sequence current, active power, reactive power, apparent power, active energy, reactive energy, power factor, frequency, demand
- Measure and display the average power factor of the last three months and accurately grasp the amount of monthly reactive energy consumption
- Class 0.5S 4 quadrant power statistics and multi-rate statistics
- Demand statistics and record the maximum value, minimum value
- Working hours, load time statistics
- Time recording function, can record 100 events
- Support up to 51st harmonic calculation, total harmonic distortion rate calculation, unbalance rate, current K factor calculation
- Out of setting alarm function
- Standard 1-way RS485 communication interface, Modbus-RTU protocol, Optional Profibus-DP Communication module.
- Optional 4-way passive digital input
- Optional 4-way relay output
- Optional 1-way 4-20mA analog output
- 1 road passive optical coupler collector active pulse output
- Optional 1-way PT100 temperature input
- 256 points / cycle voltage, current sampling, to ensure measurement accuracy
- Multi tariff electricity costs for different time of use

Products list

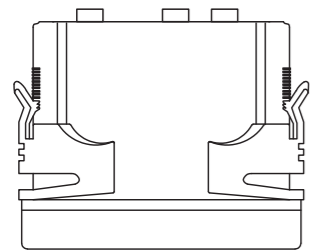
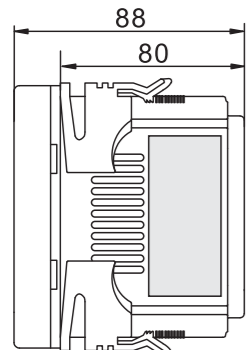
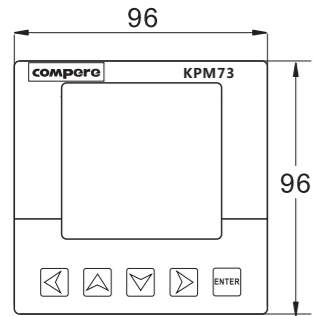


◆ Example : KPM73B-1 : Rated current1A,4-way digital input, 4-way relay output, 1-way temperature input, 51st harmonic measurement, demand

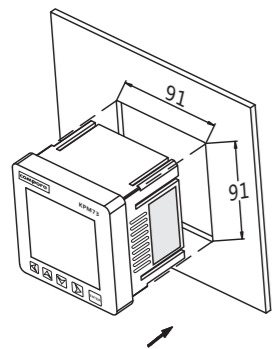
Application occasion

- Measure, monitoring power distribution system parameters
- Collect energy consumption data that cost center analysis needs
- Limit monitor alarm such as over voltage, power consumption
- Power quality analysis
- DC/Green building or DC

Product size Technical Parameters



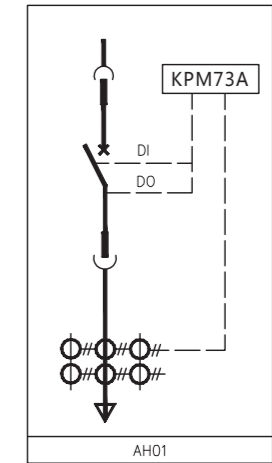
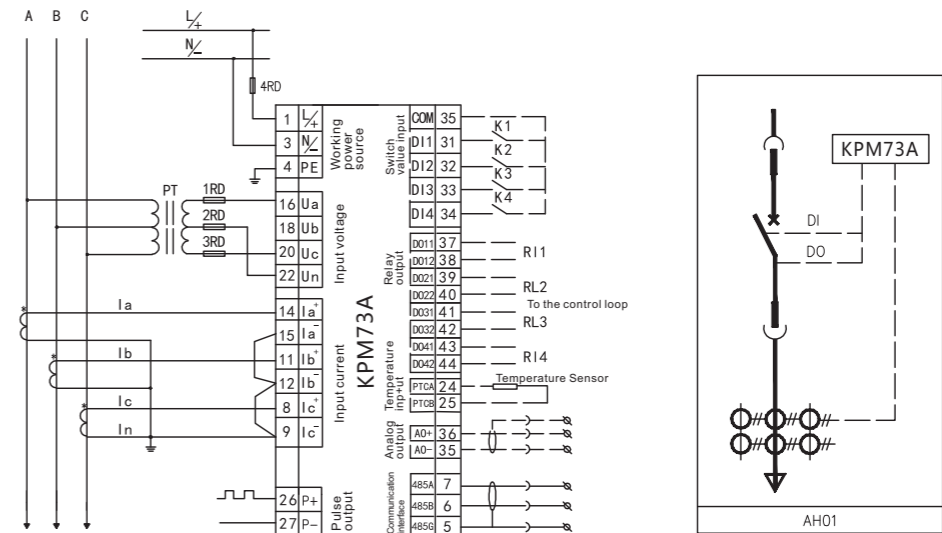
Installation instructions



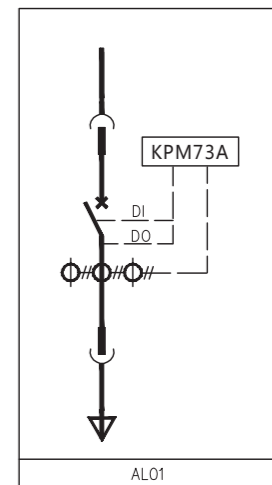
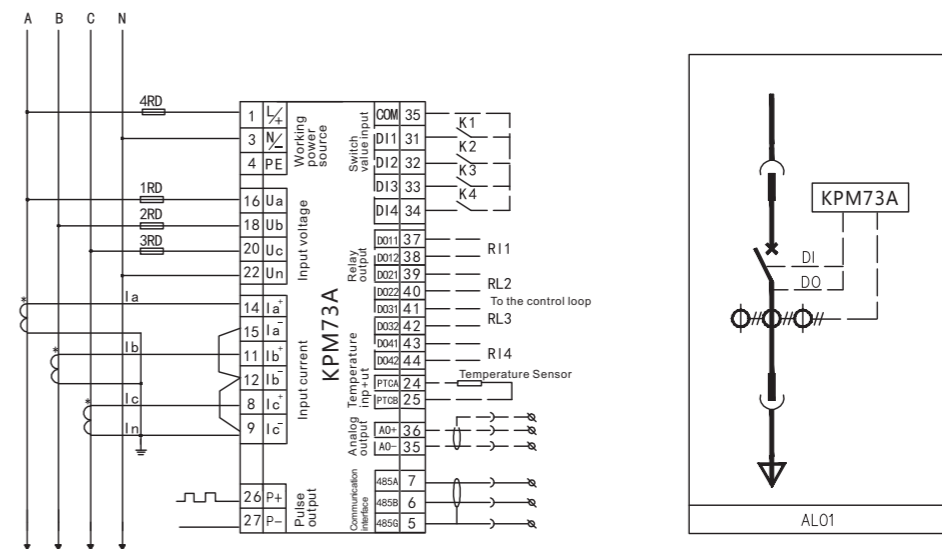
| | | |
|-------------------------------|-----------------------------------------|-----------------------------------------------------------------------------------------------|
| Working power source | Operating Voltage | AC 85-270V/DC 80-300V |
| | Rated power consumption | < 3VA |
| Input voltage | Rated voltage | 57.7/100V,220/380V,380V/660V Need to customize |
| | Sill value | 5V |
| | Overload capacity | 1.2 times rated voltage allowed, continuous work; 2 times the rated voltage allowed 1second |
| | Power consumption | <0.5VA/phase(rated) |
| | Measurement range | Phase voltage(LN):50~270VAC, line voltage(LL):90~470VAC |
| Input current | Frequency range | 45~65Hz |
| | Rated current | Default 5A,Input range 1-6A;Optional 1A,Input range 1-1.2A |
| | Sill value | 5A Configuration,5mA ;1A Configuration,0.8mA |
| | Overload capacity | 1.2 times rated current allowed, continuous work; 20 times the rated current allowed 1 second |
| | Power consumption | <0.75VA/phase(Rated current 5A);<0.25VA/phase(Rated current 1A) |
| Input output | Switch value input | 4-way passive main line contact DI input, internal supply DC24V power source |
| | Relay output | 4-way DO output,Contact capacity 250VAC/5A,30VDC/5A |
| | Analog output | Output range 4~20mA,overload allows 1.2times |
| | Temperature input | Measure range 0°C~100°C |
| Power quality monitor | Harmonic measurement | Voltage/current 2~51st harmonic distortion ratetotal harmonic distortion rate. |
| | Harmonic distortion rate | Phase voltage, line voltage |
| | Imbalance rate | Voltage, current |
| Measurement accuracy | Voltage | ±0.2%(0.01V) |
| | Current | ±0.2%(0.01A) |
| | Active power | ±0.5%(0.1W) |
| | Reactive power | ±2.0%(0.1kvar) |
| | Active energy | ±0.5%(0.1kWh) |
| | Reactive energy | ±2.0%(0.1kvarh) |
| | Power factor | ±0.5%(0.001) |
| Comm unication | Frequency | ±0.02Hz(0.01Hz) |
| | Temperature | ±1°C(1°C) |
| | Communication interface | RS485,Profibus-V1,Photoelectric isolation interface |
| Electrical insulation | Communication protocol | Modbus-RTU,1200~38400bps; Probibus-DP,9600~12Mbps |
| | Power frequency withstand voltage | AC2kV/min~1mA Input-output-power source |
| Working environment | Insulation resistance | >50MΩ |
| | Impact voltage | 5kV Peak ,1.2/50us |
| | Operating temperature | -25°C ~ +70°C |
| Electromagnetic Compatibility | Relative humidity | 5%~95% No condensation |
| | Storage temperature | -30°C ~ +75°C |
| | Altitude | No more than 4000m |
| Electromagnetic Compatibility | 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 |

Typical wiring

KPM73A High-voltage three-phase three-wire typical wiring



KPM73A Low-voltage three-phase four-wire typical wiring



Explanation:

1. The wiring diagram is suitable for high voltage three-phase three-wire system, low voltage three-phase four-wire system, regard to other system wiring please refer to KPM73 instruction manual.
2. Analog output AO- and switch input common COM share one terminal.
3. Terminal that without function description is invalid.
4. The function of dotted lines is optional.
5. The final interpretation belongs to Compere.