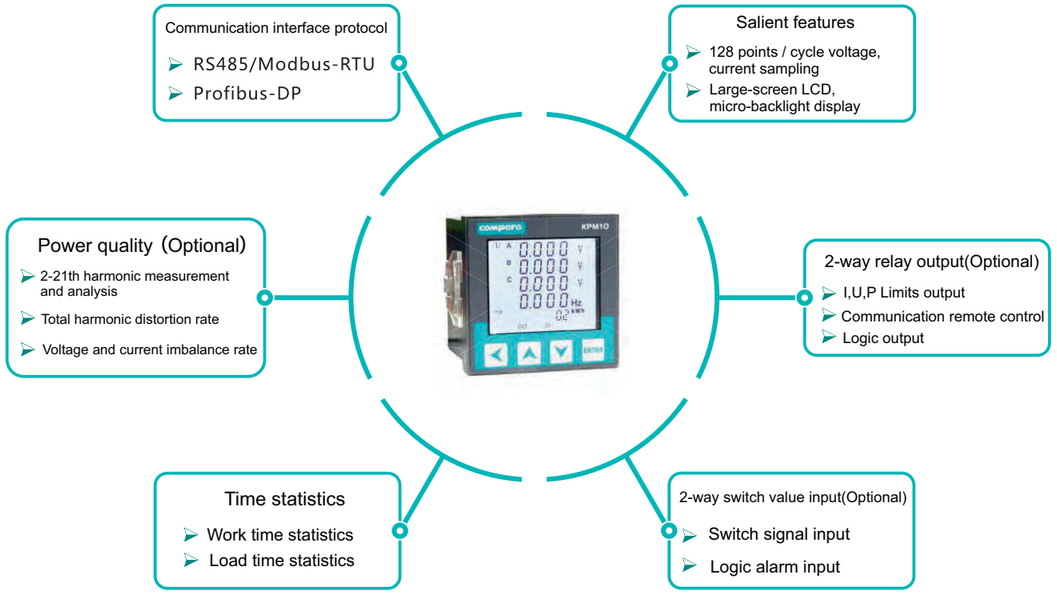
KPM10Three-phase multifunction power meter

KPM10 three-phase multi-function power meter was designed that using advanced 32-bit ARM processor and digital signal processing technology comprehensive set of three-phase electrical parameter measurement / display, power accumulation, fault alarm, harmonic measurement, digital inputs, relays Output and network communications in one. Standard 72 panel, large screen LCD screen, standard 1-way RS485 communication interface. With high precision, strong isolation, stable performance, anti-interference ability etc.

Product Features



Function features

- Measuring three-phase AC voltage, current, active / reactive power, active / reactive energy, power factor and other 30 kinds of basic parameters.
- 0.5Slevel two-way four-quadrant power statistics
- Working hours, load time statistics
- Support up to 21 harmonic distortion rate calculation, total harmonic distortion rate calculation, voltage and current imbalance rate, the current K-factor calculation
- Standard 1 –way RS485 communication interface, Modbus protocol
- Can be extended 2-way passive switch value input
- Can be extended 2-way relay output
- 128 points / cycle voltage, current sampling, high measurement accuracy
- LCD large-screen, micro-backlight display, in the light and wide viewing angle to obtain good visual effects

Products list

KPM 10 –□

Extention Function
R-2-wire relay output K-2-wire switch input

Functional module
S-Current, Voltage, Power Factor, Power, Frequency, Time Statistics
E-Current, Voltage, Power Factor, Power, Energy, Frequency, Time Statistics
Z-Measure the real effective value of all-paramenter Multi-rate power statistics, 2-21th harmonic measurement

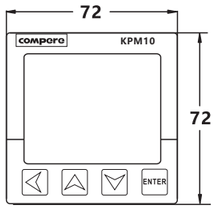
Product series

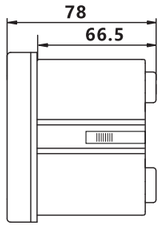
Compere Power Meter

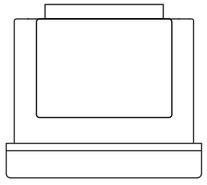
Application occasion

Energy and energy efficiency management system | Internal energy consumption statistical analysis and charging statistics basis | Energy metering, automatic meter reading system | Intelligent distribution management system

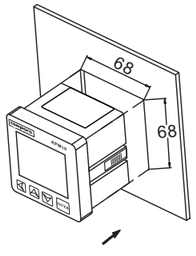
Product size







Installation instructions

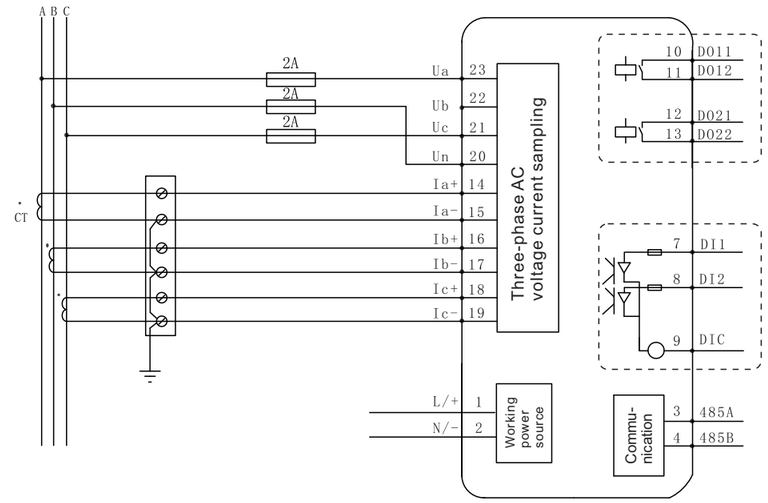


Technical Parameters

Working power source	Operating Voltage	AC 85-265V/DC 80-300V	
	Rated power	<3VA	
Input voltage	Rated voltage	57.7/100V,220/380V,380/660V(needs customization)	
	Sill value	5V	
	Overvoltage capability	1.2 times rated voltage allowed, continuous work; 2 times the rated voltage allowed 1 second	
	Power consumption	<0.5VA(per phase)	
	Measurement range	5~260VAC	
	Frequency range	45~65Hz	
Input current	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 secon	
	power consumption	<0.75VA/phase(Rated current 5A);<0.25VA/phase(Rated current 1A)	
	Frequency range	45~65Hz	
Input/ Output	Switch value input	2-way passive main line contact DI input, internal supply DC24V power source	
	Relay output	2-way DO output,Contact capacity 250VAC/5A,30VDC/5A	
Power quality monitor	Harmonic measurement	Voltage/current2~21th harmonic distortion rate,total harmonic distortion rate.	
	Harmonic distortion rate	Phase voltage, line voltage	
	Imbalance rate	Voltage. current	
Measure-ment accuracy	Voltage	±0.2%(0.01V)	
	Current	±0.2%(0.01A)	
	Active power	±0.5%(0.01W)	
	Reactive power	±2.0%(0.01var)	
	Active energy	±0.5%(0.1kwh)	
	Reactive energy	±2.0%(0.1kvarh)	
	Power factor	±0.5%(0.001)	
	Frequency	±0.02Hz(0.01HZ)	
	Temperature	±1℃(1℃)	
Comm-unication	Communication interface	RS485,Photoelectric isolation interface	
	Communication protocol	Modbus-RTU, 1200-38400BPS	
Electrical insulation	Power frequency withstand voltage	AC2kV/min~1mA input-output-source	(GB/T13729)
	Insulation resistance	>50MΩ	(GB/T13729)
	Impact voltage	5kV (Peak),1.2/50us	(GB/T13729)
Working environ-ment	Operating temperature	-25℃ ~ +70℃	
	Relative humidity	5% ~ 95% No condensation	
	Storage temperature	-30℃ ~ +75℃	
	Altitude	Not more than 4000m	
Electro-magnetic Compati-bility (EMC)	Electrical fast transient/ burst immunity test	IEC61000-4-4,Level4	
	Surge immunity test	IEC61000-4-5,Level4	
	Electrostatic discharge immunity	IEC61000-4-3,Level4	
	Power frequency magnetic field immunity	IEC61000-4-8,Level4	

Typical wiring

KPM10RK Low-voltage three-phase three-wire typical wiring diagram



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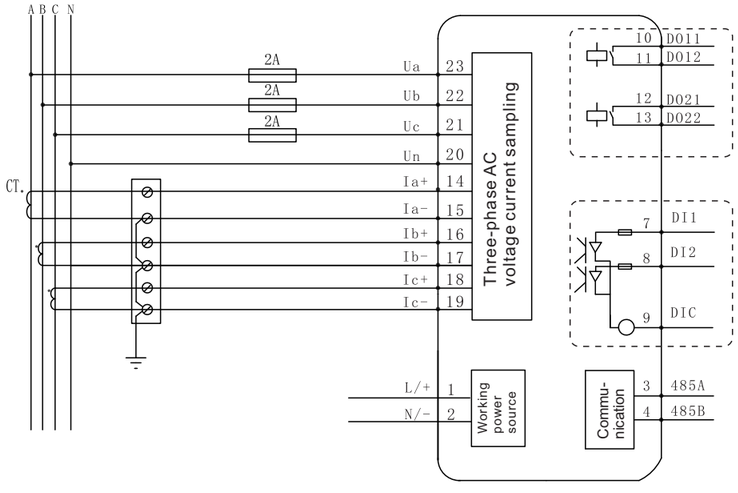

Explanation:

1.The wiring diagram is suitable for low voltage three-phase three-wire system, low voltage three-phase four-wire system
2.The function of dotted lines is optional
3.The final interpretation belongs to Compere