compere







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Industrial Energy Management System software and hardware integration service provider

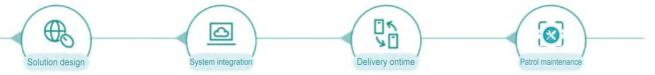
Henan Compere Smart Technology CO.LTD

COMPANY INTRODUCTION

Henan compere smart technology Co., Ltd. is a professional industrial energy management system software and hardware integration service provider.

Focusing on industrial energy management, we provide energy management system, intelligent operation and inspection system, equipment health management system, intelligent double carbon platform, energy consumption online monitoring system, power quality monitoring products, intelligent communication software and hardware products and system integration services for global users. With the mission of "Make energy benifit more simple", the company provides systematic solutions for the efficient use of energy.

Compere is a technology innovation enterprise integrating R&D, production and sales, and has obtained the dual certification of high-tech enterprise and software enterprise.





CORPORATION CULTUER

We takes "Make energy benefit more simple" as our mission, "Integrity, focus, efficiency, innovation, win-win" as our core values, and insists on "Customer first, people-oriented, win-win cooperation" as our business philosophy. With mature management and advanced technology to serve customers, we will make every city, every building and every enterprise benefit from the use of Compere's products.

Compere is committed to becoming a leading brand in the global energy management industry, providing systematic solutions for the efficient use of energy in the world, jointly guarding the beautiful home and green earth.



COMPANY STRENGTH

We have an efficient embedded R&D team, a strong Internet software development team and a marketing service network. We have passed ISO9001, ISO14001, ISO45001 and have over 70 software copyrights, over 30 patent certificates, over 50 product testing certificates and electric power contracting and testing qualifications.

In addition to independent research and development, the company has established long-term and stable strategic cooperation with many universities and scientific research institutions and has made many scientific research achievements.



CUSTOMER VALUE

We have rich construction experience and application cases in various fields in the field for energy management and power quality management to meet the personalized needs of energy management for customers in various industries.

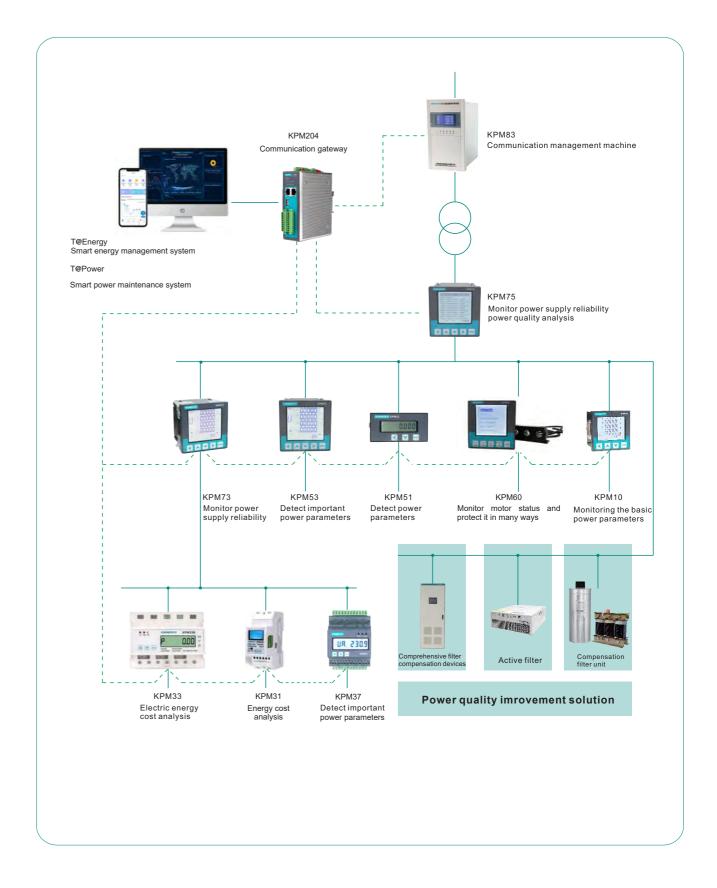
We strive to help customers realize energy visualization, production refinement, smart management and maintenance to improve the effectiveness, utility, and efficiency. Through quantitative analysis and expert evaluation, we propose targeted management solutions for energy saving and efficiency enhancement to help enterprises achieve the ultimate goal of energy digital transformation.



MARKETING NETWORK

We have formed four regional sales networks in Central China, East China, South China and Northwest China, and the international business to more than 50 countries, such as the United States, Mexico, Germany and Cambodia, etc. We have direct sales and channels sales in local, which can provide customers with more convenience, better quality and more efficient services.

Power quality monitoring and management – overall solution



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Three-phase DIN rail smart power meter

1 KPM 33
Three-phase DIN rail smart energy meter

Motor protection controller

KPM83
Comprehensive protection device

77 CPT Capacitor and rectance



Cmpere has passed the ISO9001 quality syst emcertification, China CCC mandatory product certification, CMMI 3 level, high-depends on strong technical strength, advanced intelligent electrical components production equipments, advanced process technology equipments and advanced testing equipment.



The company insisted on the independent research and development, at the same time it actively to establish long-term strategic cooperative relations with some world famous university such as Xi'an Jiaotong University, Zhengzhou University and many other domestic, they obtained a number of scientific technological achievements, a number of software copyrights and product patents. High quality, honesty, great service had led the company to became the leader of the electrical industry.





















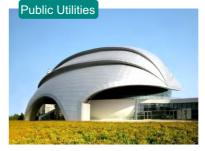












Royal Orchid Guam Hotel Ariston Group Infox Technology Anana Computer Electricite du cambodge Complex Technology

XO TEX Garment Factory (Cambodia)

ScienceSoft USA Corporation

Nishat Mills Limited O.M. Manufacturing Phils., Inc.

Longson Dormitory

SC IZED BETAINVEST SRL PKN Defense & Industrial Systems Kft.

PLX Devices Inc. ENSUR Energy Solutions Uruguay Ltda

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Tajikistan Tower aluminum sulfate plant Henan Lingrui pharmaceutical oral drug production base

Ancaigaoke Co., Ltd.

Yishui County Central Hospital

People's Liberation Army Academy of Military Medical Sciences

Henan Kangda Pharmaceutical Co., Ltd.

Hualan Bioengineering Co., Ltd. Beijing Daheng times Health Pharmaceutical Co., Ltd. times

Zhengzhou City tenth People's Hospital Henan Lizhu Pharmaceutical Group

Province Psychiatric Hospital Liaocheng City third Beijing Shunyi Wastewater Treatment Plant

people's Hospital Sand Group Co., Ltd.

Capital International Airport Power Distribution Project Henan Agricultural University

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Iconico iot solutions Light Engineering Design Solutions Sdn Bhd

Devices Unlimited

AVIALITE SDN. BHD.

D R Home Appliance (Pvt) Ltd.

Tianjin West Bus Station

T@Energy Smart Energy Management System



T@Energy smart energy management system is an integrated energy management platform which includes online monitoring, analyzing, reporting, controlling, maintenance, production management, prediction, billing reports and other functions. It adopts B/S architecture for users to easier to login by web or APP. It supports Android & IOS APP, Pad & PC computer browser, etc. to login to realize real time online monitoring and controlling.

T@ENERGY supports smart power meters, water meter, gas meter, heat meter, temperature and humidity sensors and other smart sensors to be accessed.

System function











Energy consumption real time monitoring

Energy consumption
Al prediction

Carbon emission monitor

Custom report service B

B/S Access interface











Group energy management model

Power Quality
Management

Production process energy consumption analysis

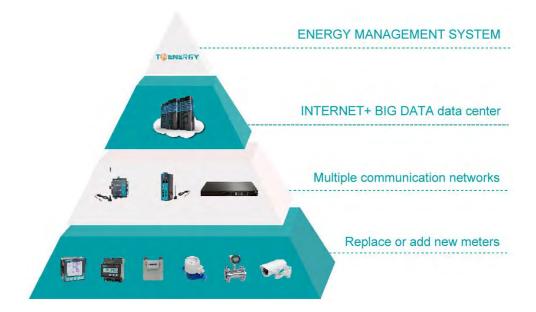
Work shift energy consumption analysis

Energy consumption bill analysis

System Structure

Smart energy management system includes monitoring, management and control of water, electricity, gas, cooling, heat and other energy usage management. It can also monitor on-site pressure, temperature and humidity, visual images, biometrics and other parameters.

Based on the regional data, combined with the effective use of "Internet + big data", the system can be freely combined into multiple "energy consumption units" and realize real-time monitoring, single consumption index, comparative analysis, expert evaluation and energy prediction through the intelligent energy management platform.



◆ Improvement of measurement system

By installing smart meters and sensors or interfacing with other systems such as MES, SCADA, BAS, DCS, ERP, etc., we collect energy consumption data from various parts of the enterprise in a classified manner.

♦ Construction of data transmission network

Based on transmission methods such as wired optical fiber, twisted pair, VPN, etc. and wireless 4/5G, WIFI, LoRaZigBeeNB-IOT, etc., data encryption transmission, data security isolation, network LAN division, firewall and other technologies are used to achieve safe and stable data transmission.

◆ Management center of "Internet+Big Data

Through localized deployment, or by establishing "private cloud" or renting "public cloud", we can build a distributed and multi-redundant data storage management center.

♦ Construction of a smart energy management system platform

With energy data as the basis, data security transmission and data center as the support, through the platform of real-time monitoring, alarm checking, report output, operation and maintenance, asset management, energy consumption analysis, energy consumption prediction, expert evaluation and other functions, to realize a map of intelligent energy management.

T@Power Smart Power Maintenance System



T@Power Smart Power Maintenance System is used for power maintenance team to standardize their maintenance process and changes the local records to electronic documentary records to reduce error and improve the maintenance efficiency and keep the power system in a continuous better condition.

T@Power Smart Power Maintenance System can help users to accurate knowledge of equipment status, improve operation and inspection management system, avoid dead ends of equipment information, reduce personnel work intensity, establish a closed-loop management framework.

System function













Operation Monitoring

Video Surveillance

e

Power system defect management

Devices maintenance management

Alarm Management

Energy efficiency management













Maintenance process management

Asset Management

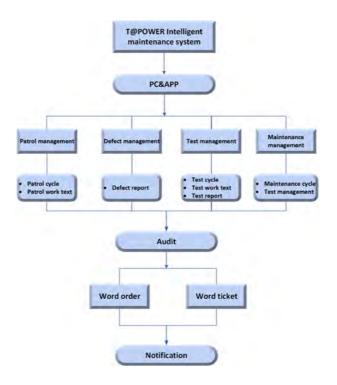
Historical data record

Work Tickets management

Work Order Management

User management

System process



- Accurate understanding of equipment status
- Improve operation and inspection management system
- · Avoiding dead ends of equipment information
- Reduce personnel work intensity
- · Establish a closed-loop management framework



Through the introduction of equipment QR code, forming "one machine one code", build maintenance IOT, improve maintenance efficiency and quality.

- Real-time view of operating equipment data, energy data management, historical data statistics, data comparison.
- Equipment alarms, fault information push, abnormal information management.
- One machine, one code, quick view of equipment operating status, data indicators.
- One machine, one code, quickly report equipment failure.
- · User information management.
- Support uploading equipment condition photos.
- Inspection plan and work orders are pushed in time.



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T@PREPAY PREPAYMENT SYSTEM



T@Prepay Prepayment System is used for energy data and bill collection and management. The system integrates electricity purchasing, electricity consumption, and automatically turn on/off functions, no need extra personnel to read meters and collect bill on site. It can eliminate the occurrence of non-payment, reducing management personnel and management costs.

It has the functions of remote meter reading, remote account opening, remote electricity sales, remote switch on/off, energy consumption analysis, data report, power warning, etc., which makes electricity consumption collection and bill collection more convenient and more efficient for management.

System function













Remote meter reading

Remote recharge

Prepaid

Remote switch on/off

Alarm Management

Energy consumption analysis













Refund function

Authority management

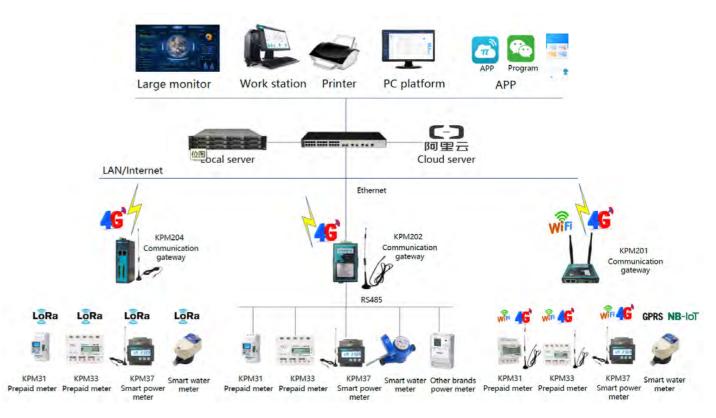
Alarm record query and export

Report Service

Reminder function

External interface

System Structure



System functions

- * Pay first before use energy, with the functions of remote switch on/off, remote electricity sales, management, etc.
- * Parameters such as alarm limit, time period alarm, over power limit, tariff management, etc. can be set.
- Daily energy consumption report can be quired and exported, including the energy consumption and financial payment information according to year, month, day and time dimensions.
- Users can recharge the meter through their APP or by manager's PC in cash.
- When a user withdraws from the household, if there is still a remaining amount in the meter, the manager can return the balance to the user through the "refund" function, and at the same time the meter will be tripped and disconnected.
- * With multi-role management function, the system can be set with different operation permission levels.
- Support alarm outage record storage, query and export function, and real-time view of communication status of electricity meter and gateway.
- The system can do automatically meter reading and set up time interval for regular reading, and can read the total electricity consumption, multi tariff electricity consumption, balance, etc..
- After successful recharge, users can receive a reminder of successful recharge. When the balance of the meter is low, they can receive a balance warning, and the user manager can set the warning value independently.
- · Compere provide unified API interface. Third-party platforms can choose to access data or take over completely.

T@EUIPHMS EQUIPMENT HEALTH MONITOR SYSTEM



T@EUIPHMS Equipment health management system is an industrial-level equipment health management system for rotating machinery, with wireless intelligent sensors and data collectors, with intelligent diagnosis as the core, analysis and evaluation, big data warning and other functions, by monitoring and important machines and accurately capture the abnormal status of equipment, cause and part of the fault, and assist in maintenance decision, which can greatly improve the efficiency of the unit on the basis of avoiding the economic loss caused by stopping the key equipment.

System function













Data Monitoring

Working status

Maintenance process management

Healthiness evaluation

Smart Alerts

Forecast Report













Intelligent spot check

Trend analysis

Historical data record

Industry standard benchmarking

Electronic Ledger

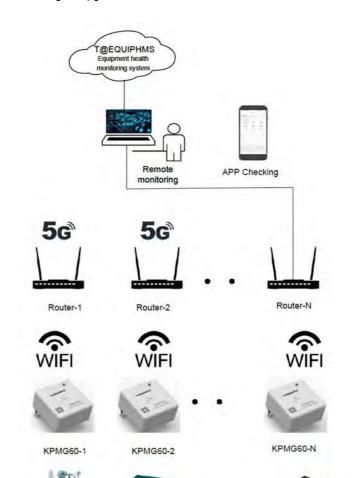
User management

System process

Through wireless temperature and vibration integrated sensor to achieve digital accurate collection and safe transmission of industrial equipment operating status.

Through WIFI wireless transmission solution, covering a wide range of wireless transmission distance about 150 meters, no need to deploy cable network wires at the equipment end, lower installation cost.

With WIFI communication, no need traditional gateway to do data collection, the sensor can send data to the system directly, saving more communication costs, accurate and convenient, widely applicable to all kinds of industrial equipment intelligent upgrade of the rear and front installation market.



- Electrical equiments
- √ Transformer, Inverter, High-voltage Switch, etc.
- Motor, Fan, Pump
- ✓ Online monitoring of industrial low-voltage motors and pump groups, mainly for motors above 100kW and lifecycle management of large special motors and large rotating equipment.
- Rotating Parts (E.g. Gearboxes, Bearings)
- √ Vibration temperature acoustic fault monitoring at key points of key components of industrial rotating equipment to reduce downtime losses, timely repair and replacement of core components such as gearboxes, bearings and other parts.

- Key Equipment monitoring
- Deterioration monitoring
- Smart Alerts

- Healthiness evaluation
- Trend Analysis
- Healthiness Forecast

KPM204 Smart communication gateway



The KPM204 communication gateway completes the information interaction between the microcomputer protection, automatic device, measurement and control of the power distribution room and the computer system and the power grid automation system.

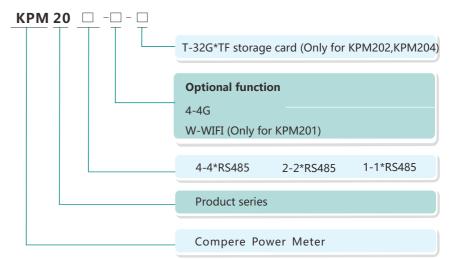
It realize the exchange of information from each remote power station to the upper host and the network replacement, thus forming a fully decentralized RTU communication system.

KPM204 has 2 RS485 port for data reading from smart devices.



- Industrial-grade ARM9 processor, 300MHz main frequency
- 128MB DDR3 SDRAM, 128MBFlash
- Support 2 high-speed 10/100M independent network interfaces
- Support 4 RS485 serial communication interfaces
- Built-in real-time clock (RTC), temperature sensor and independent hardware encryption circuit, with user data protection function, built-in rich communication protocol library, support power IEC60870-104, Modbus-TCP/IP, Q/GDW376.1-2012, Modbus-RTU, DL/T645-2007, DL/T645-1997, KP104
- Built-in WEB server, supporting remote development, configuration, debugging and maintenance
- Special protocol development can be carried out according to site needs
- Realize communication management, data gateway, data forwarding, protocol conversion, pre-processing and other functions
- CAN interface implements bidirectional optical isolation CAN2.0B interface standard
- · Support one debugging serial port, support wireless communication such as extended WiFi/GPRS/3G/4G
- Expandable 4~32G TF memory card
- Strong metal shell and internal circuit "three-proof" treatment, especially suitable for harsh environment on site.





Specification

Working	Working voltage	DC9~48V
power	Power consumption	<3VA
	Network Interface	2 * 10/100M network RJ45 interface
	RS485 Interface	4* RS485 interface
Capacity	Communication master station protocol	<16 /pc
iliuex	Series port baud rate	300bps-38.4kbps , programmable
	Transfer methods	Full or half duplex
	Device switching time	<5S
Feature index	MTBF	> 50000 hours
	Status indication	Panel LED, reflecting serial port data receiving and sending status
Protocol	Standard protocol	IEC60870-5-104、Modbus-TCPIP、 Q/ GDW376.1、Modbus-RTU、DLT645-2007, etc.
	Special protocol	Special protocol development based on site requirements
Configure tool	Configure tool	Webpage
A4:	Fast pulse burst immunity	IEC61000-4-4, Level 4
Anti- interference	Surge (impact) immunity	IEC61000-4-5, Level 4
performance	Electrostatic immunity	IEC61000-4-2, Level 4
	Working temperature	-25°C ~ +70°C
Working environment	Related humidity	5%-95%, no condensation
	Storage temperature	-30°C ~ +75°C
Installation	Installation	DIN rail / wall mounted
ounds011	Size	42×137×110 (mm)

Notice: When installing, disassembling, wiring, maintenance and inspection, be sure to disconnect the power supply, otherwise it may cause electric shock or equipment burnout.





The KPM202 communication gateway completes the information interaction between the microcomputer protection, automatic device, measurement and control of the power distribution room and the computer system and the power grid automation system.

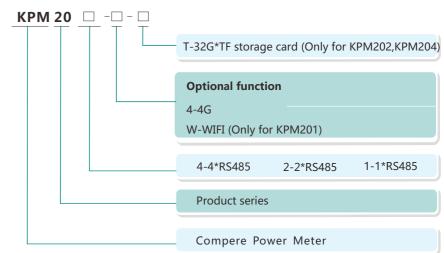
It realize the exchange of information from each remote power station to the upper host and the network replacement, thus forming a fully decentralized RTU communication system.

KPM202 has 2 RS485 port for data reading from smart devices.



- NUC970 CPU: 32bit ARM926EJ-S clocked 300MHz 1.1MIPS/MHz max support 300MHz.
- Built-in 64Mbyte DDR2 56Kbyte SRAM.
- Support 1 high-speed 10/100M independent network interfaces.
- Support 1 RS485 serial communication interfaces and 2 RS232 ports.
- Built-in real-time clock (RTC), temperature sensor and independent hardware encryption circuit, with user data protection function, built-in rich communication protocol library, support power IEC60870-104, Modbus-TCP/IP, Q/GDW376.1-2012, Modbus-RTU, DL/T645-2007, DL/T645-1997, KP104.
- Built-in WEB server, supporting remote development, configuration, debugging and maintenance.
- Special protocol development can be carried out according to site needs.
- Realize communication management, data gateway, data forwarding, protocol conversion, pre-processing and other functions
- Support wireless 4G communication.
- Expandable 4~32G TF memory card.
- · Strong metal shell and internal circuit "three-proof" treatment, especially suitable for harsh environment on site.





Specification

Working	Working voltage	DC9~25V
power	Power consumption	<3VA
	Network Interface	1 * 10/100M network RJ45 interface
	RS485 Interface	2* RS485 interface
Capacity index	Communication master station protocol	<16 /pc
IIIdex	Series port baud rate	300bps-38.4kbps , programmable
	Transfer methods	Full or half duplex
	Device switching time	<5S
Feature index	MTBF	> 50000 hours
	Status indication	Panel LED, reflecting serial port data receiving and sending status
Protocol	Standard protocol	IEC60870-5-104、Modbus-TCPIP、Q/ GDW376.1、Modbus-RTU、DLT645-2007, etc.
	Special protocol	Special protocol development based on site requirements
Configure tool	Configure tool	Webpage
Anti-	Fast pulse burst immunity	/ IEC61000-4-4, Level 4
interference	Surge (impact) immunity	IEC61000-4-5, Level 4
performance	Electrostatic immunity	IEC61000-4-2, Level 4
	Working temperature	-25°C ~ +70°C
Working environment	Related humidity	5%-95%, no condensation
	Storage temperature	-30°C ~ +75°C
Installation	Installation	DIN rail / wall mounted
mstallation	Size	135mm * 110mm * 42mm

Notice: When installing, disassembling, wiring, maintenance and inspection, be sure to disconnect the power supply, otherwise it may cause electric shock or equipment burnout.

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KPM201 Smart communication gateway



The KPM201 communication gateway completes the information interaction between the microcomputer protection, automatic device, measurement and control of the power distribution room and the computer system and the power grid automation system.

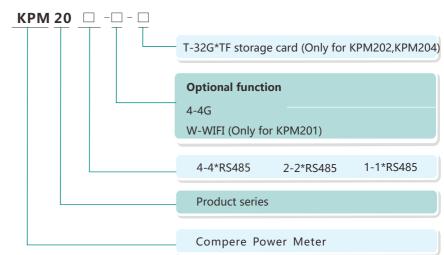
It realize the exchange of information from each remote power station to the upper host and the network replacement, thus forming a fully decentralized RTU communication system.

KPM201 has 1 RS485 port for data reading from smart devices.



- 16MB SPI FLASH, can be upgraded to 32MB.
- Built-in 64Mbyte DDR2, can be upgraded to 128M/256M.
- Support 2 high-speed 10/100M independent network interfaces.
- Support 1 RS485 serial communication interfaces and 1 RS232 ports.
- Built-in real-time clock (RTC), temperature sensor and independent hardware encryption circuit, with user data protection function, built-in rich communication protocol library, support power IEC60870-104, Modbus-TCP/IP, Q/GDW376.1-2012, Modbus-RTU, DL/T645-2007, DL/T645-1997, KP104.
- Built-in WEB server, supporting remote development, configuration, debugging and maintenance.
- Special protocol development can be carried out according to site needs.
- Realize communication management, data gateway, data forwarding, protocol conversion, pre-processing and other functions
- Support wireless 4G 7-mode all-networking.
- Support wireless WiFi 2.4G 802.11b/g/n, max speed 150Mbps.
- . Strong metal shell and internal circuit "three-proof" treatment, especially suitable for harsh environment on site.





Specification

Working	Working voltage	DC9~36V
power	Power consumption	<3VA
	Network Interface	1 * 10/100M network RJ45 interface
	RS485 Interface	1* RS485 interface
Capacity index	Communication master station protocol	<16 /pc
iliuex	Series port baud rate	300bps-38.4kbps , programmable
	Transfer methods	Full or half duplex
_	Device switching time	<5S
Feature index	MTBF	>50000 hours
	Status indication	Panel LED, reflecting serial port data receiving and sending status
Protocol	Standard protocol	IEC60870-5-104、Modbus-TCPIP、Q/ GDW376.1、Modbus-RTU、DLT645-2007, etc.
	Special protocol	Special protocol development based on site requirements
Configure tool	Configure tool	Webpage
A 4:	Fast pulse burst immunity	IEC61000-4-4, Level 4
Anti- interference	Surge (impact) immunity	IEC61000-4-5, Level 4
performance	Electrostatic immunity	IEC61000-4-2, Level 4
	Working temperature	-25°C ~ +70°C
Working environment	Related humidity	5%-95%, no condensation
	Storage temperature	-30°C ~ +75°C
Installation	Installation	DIN rail / wall mounted
	Size	100mm * 100mm * 23mm

Notice: When installing, disassembling, wiring, maintenance and inspection, be sure to disconnect the power supply, otherwise it may cause electric shock or equipment burnout.

● Standard ○ Optional — No

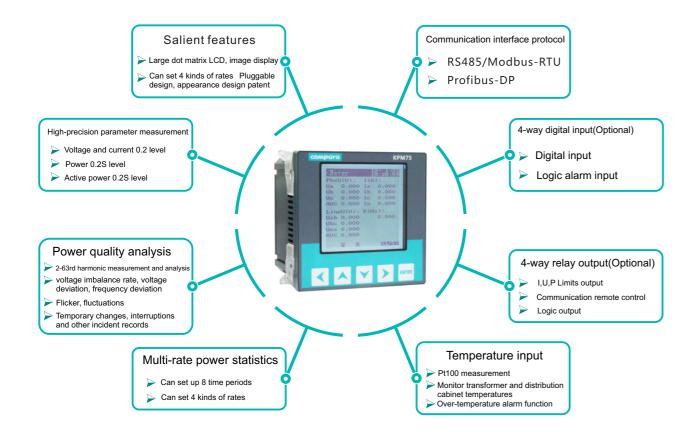
	optional	140																
	0000	100			0000				UR 2306			000	<u> </u>		# 10 000 P			
Measurable parameters	KPM75	KPM73	KPM53I	KPM53U	KPM53S	KPM53E	KPM53Z	KPM10	KPM37	KPM51I	KPM51U	KPM51S	KPM51E	KPM51Z	KPM33A/B	KPM31A/B	KPM31C	KPM312
Current	•	•	•	_	•	•	•	•	•	•	_	•	•	•	•	•	•	•
Line voltage	•	•	_	•	•	•	•	•	•	_	_	_	_	_	_	_	_	•
Phase voltage	•	•	_	•	•	•	•	•	•	_	•	•	•	•	•	•	•	•
Active power	•	•	_	_	•	•	•	•	•	_	_	•	_	•	_	•	•	•
Total active power	•	•	_	_	•	•	•	•	•	_	_	_	_	_	•	_	_	•
Reactive power	•	•	_	_	•	•	•	•	•	_	_	•	_	•	_	•	•	•
Total reactive power	•	•	_	_	•	•	•	•	•	_	_	_	_	_	•	_	_	•
Apparent power	•	•	_	_	•	•	•	•	•	_	_	•	_	•	_	•	•	•
Total apparent power	•	•	_	_	•	•	•	•	•	_	_	_	_	_	•	_	_	•
Phase power factor	•	•	_	_	•	•	•	•	•	-	_	•	•	•	_	•	•	•
Total power factor	•	•	_	_	•	•	•	•	•	_	_	•	•	•	•	_	_	•
Monthly average power factor	•	•	_	_	_	_	_	_	•	_	_	_	_	_	_	_	_	•
Frequency	•	•	_	_	•	•	•	•	•	_	_	•	•	•	•	•	•	•
Active energy	•	•	_	_	_	•	•	•	•	_	_	_	•	•	•	•	•	•
Reactive energy	•	•	_	_	_	•	•	•	•	_	_	_	•	•	•	•	•	•
4 quadrant power	•	•	_	_	_	•	•	•	•	_	_	_	_	_	_	_	_	•
1-way pulse output	•	•	_	_	_	•	•	•	•	_	_	_	_	_	•	•	•	•
Multi-rate energy statistic	•	•	_	_	_	_	_	_	•	_	_	_	_	_	•	•	•	•
Historical energy statistic	•	•	-	_	_	_	_	_	•	_	-	_	_	_	•	•	•	•
Max/Min	•	•	_	_	_	_	•	•	•	_	_	_	_	_	_	_	_	•
Harmonic analysis	○ 2-63rd	○ 2-51st	O 2-31st	O 2-31st	○ 2-31st	○ 2-31st	O 2-31st	○ 2-21st	• 2-31st	_	_	_	_	_	_	_	_	• 2-31st
Zero sequence current	•	•	•	_	•	•	•	•	•	_	_	_	_	_	_	_	_	•
Current imbalance rate	•	•	•	_	•	•	•	•	•	_	_	_	_	_	_	_	_	•
Zero sequence voltage	•	•	_	•	•	•	•	•	•	_	_	_	_	_	_	_	_	•
Voltage imbalance rate	•	•	_	•	•	•	•	•	•	_	_	_	_	_	_	_	_	•
Positive/Negative sequence	•	•	_	_	_	_	_	_	•	_	_	_	_	_	_	_	_	•
Demand statistic	•	0	_	_	_	_	•	-	•	_	_	_	_	_	_	_	_	•
Record	•	0	-	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Advanced power quality	•	_	-	_	_	_	_	_	_	_	-	_	_	_	_	_	_	_
Load control	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0	0	•	_
Digital input	○ (4DI)	○(4DI)	○(2DI)	○(2DI)	○(2DI)	○(2DI)	○(2DI)	○(2DI)	○(2DI)	○(2DI)	○(2DI)	○ (2DI)	○(2DI)	○(2DI)	_	_	_	○(4DI)
Relay output	○(4DO)	O (4DO)	○(2DO)	○(2DO)	○(2DO)	○(2DO)	○(2DO)	○(2DO)	○(2DO)	○(2DO)	○(2DO)	○(2DO)	○(2DO)	○(2DO)	_	_	_	○ (4DO)
Analog output	0	0	0	0	0	0	0	_	_	0	0	0	0	0	_	_	_	_
Temperature input	0	0	0	0	0	0	0	0	0	0	0	0	0	0	_	_	_	0
Time statistic	•	•	•	•	•	•	•	•	•	•	•	•	•	•	_	_	_	•
Applicable voltage level	<110kV	<110kV	<110kV	<110kV	<110kV	<110kV	<110kV	400V										
RS485 port	Optional 2 ports	Optional 2 ports	Optional 2 ports			Optional 2 ports	Optional 2 ports	Standard one way										
Profibus-DP port	0	0	0	0	0	0	0	_	_	_	_	_	_	_	_	_	_	_

KPM75 Power quality analyser



The KPM75 is a new generation advanced power quality analyzer that follows international power quality standards and monitor all power quality parameters such as flicker, short interruptions in recorded voltage, and harmonic up to 63rd measurements with power data statistics, IO signal control alarm, communication and other functions. Large graphic LCD display, pluggable function module design, widely used in key power applications, it is the ideal choice to monitor the distribution operation efficiency.

Product Features

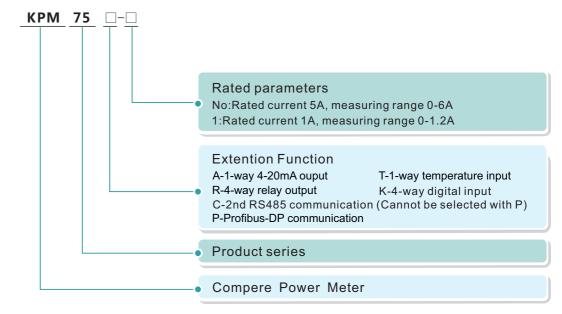


Function features



- Measure the real effective value of all-parameter
- 63rd harmonic measurement and analysis
- Measure voltage imbalance rate, voltage deviation, frequency deviation and other power quality parameters
- Measuring and recording voltage fluctuation and flicker, inter-harmonics and other power quality parameters
- Short-term interruption of voltage, surge, sudden drop and other power quality events recorded
- Demand statistics function, record the current value and maximum value
- 0.2S four quadrant power statistics
- 4 tariffs for 8 time slots power statistics
- RS485 communication interface, Modbus-RTU protocol, Optional Profibus-DP
- 1 road passive optical coupler collector active pulse output
- Can be extended 4-way passive digital input
- Can be extended 4-way relay output
- Working time, load time statistics
- 160 * 160 graphic LCD screen, rich in content, intuitive and clear
- Pluggable design, appearance design patents, replacement and maintenance easy

Products list



◆ Example:KPM75-1:Rated current1A, power quality analysis instrument.

Application occasion

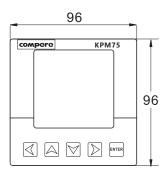
Measure, monitor and control power distribution system parameters Collect energy consumption datathat cost center analysis needs Power quality analysis (Harmonic, voltage interruption, flicker and so on)

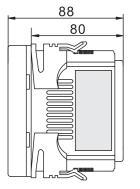
Signal control alarm

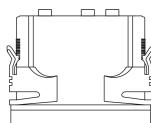
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KPM75 POWER QUALITY ANALYSER 26

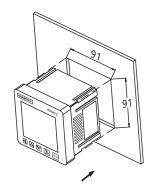
Product size Technical Parameters







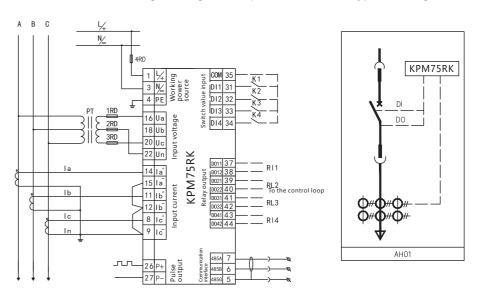
Installation instructions



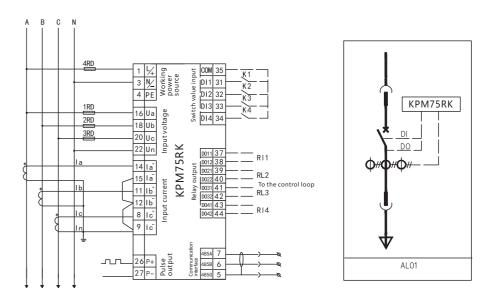
Working	Operating Voltage	AC 85-270V/DC 80-300V
power source	Rated power consumption	< 3VA
	Rated voltage	57.7/100V,220/380V,380/660V
Input	Overvoltage capability	1.2 times rated voltage allowed, continuous work; 2 times the rated voltage allowed 1 second
voltage	Rated power consumption	<0.5VA(per phase)
	Measurement range	LN: 50-270VAC, LL: 90-470VAC
	Rated current	Default 5A, input range 1-6A; optional 1A, input range 1-1.2A
Input	Overload capacity	1.2 times rated current allowed, continuous work; 20 times the rated current allowed 1 second
current	Rated power consumption	<0.4VA(per phase)
	Measurement range	5A:0-6A; 1A:0-1.2A
	Voltage	±0.2%(0.01V)
	Current	±0.2%(0.01A)
	Active power	±0.2%(0.01W)
Measure-	Reactive power	±2.0%(0.01var)
ment accuracy	Power factor	±1.0%(0.001)
	Frequency	±0.002Hz
	Active energy	±0.2%(0.1kwh)
	Reactive energy	±2.0%(0.1kvarh)
	Basic parameter	Voltage / current, active power, reactive power, apparent power, frequency, active energy
Measure-	Power quality	2-63rd harmonic distortion rate; total harmonic distortion rate; crest factor; current K factor voltage / current imbalance rate, flicker, voltage surge, dips, short interruptions
ment display	Demand statistics	Power demand, maximum, minimum and current value
	Multi-rate	4 tariffs for 8 time slots
	historical data	Record monthly average power factor and power data for the last three months
	communication port	RS485 Photoelectric isolation interface
Comm unication	Communication protocol	Modbus-RTU, 1200-38400BPS Probibus-DP,9600-12Mbps
	Switch value input	4-way passive main line contact DI input, internal supply DC24V power supply
Input output	Relay output	4-Way DO output, contact capacity 250VAC / 5A, 30VDC / 5A
	Pulse output	1-way passive optocoupler collector active pulse output
	Display	160 * 160 large dot-matrix LCD graphics display
Product	Extensions function	Pluggable expansion design
features	Degree of protection	Front panel IP54
	Dimensions	96*96*88mm
	Operating temperature	-25°C ~ +70°C
Working	Storage temperature	-30°C ~ +75°C
environ- ment	Relative humidity	5% ~ 95% No condensation
	Altitude	Not more than 4000m
	Withstand voltage	AC2kV/min~1mA input-output-source
Safety	Insulation	>50ΜΩ
	Surge (impact) immunity	IEC61000-4-5,Level4
Electro-	Electrical fast burst immunity	IEC61000-4-4,Level4
magnetic Compatibility	Electrostatic discharge immunity	IEC61000-4-2,Level4
	Power frequency	IEC61000-4-8,Level4
	magnetic field immunity	

Typical wiring

KPM75RK High-voltage three-phase three-wire typical wiring



KPM75RK 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 KPM75 instruction manual.
- 2. Terminal that without function description is invalid.
- 3. The function of dotted lines is optional.
- 4. The final interpretation belongs to Compere.

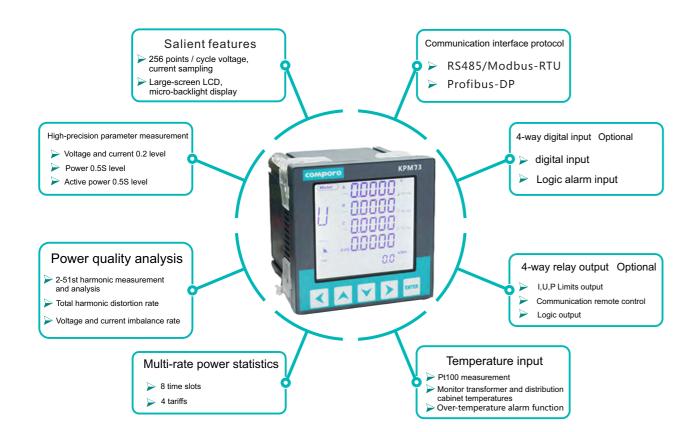
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KPM73 Multifunction instruments



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

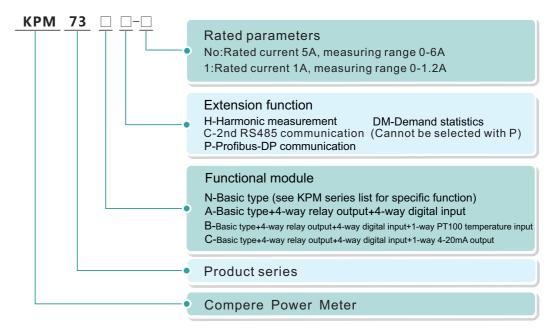


Function features



- 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
- 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
- FSTN large screen LCD, bright LED back light uniform display, in the bright light and large viewing angle environment to obtain a good visual effect

Products list



Example: KPM73BH-1: Rated current1A,4-way digital input, 4-way relay output,
 1-way temperature input, 51st harmonic measurement

Application occasion

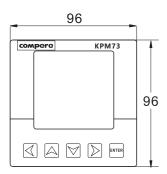
Measure, monitoring power distribution system parameters

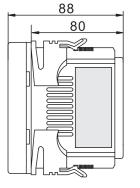
Collect energy consumption data that cost center analysis needs

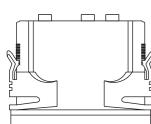
Limit monitor alarm such as over voltage, power consumption

Power quality analysis

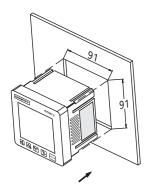
DC/Green building or DC







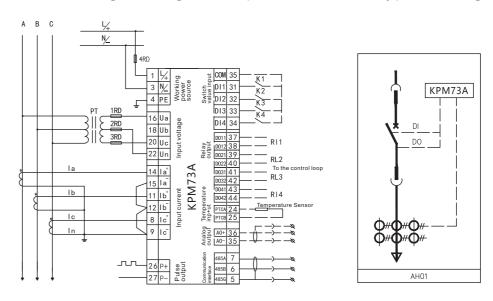
Installation instructions



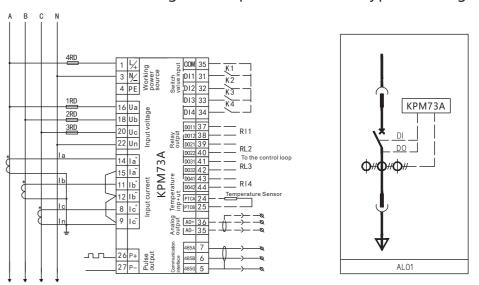
Working	Operating Voltage	AC 85-270V/DC 80-300V
power source	Rated power consumption	< 3VA
	Rated voltage	57.7/100V,220/380V,380V/660V Need to customize
	Sill value	5V
Input voltage	Overload capacity	1.2 times rated voltage allowed, continuous work; 2 times the rated voltage allowed 1second
	Power consumption	<0.5VA/phase(rated)
	Measurement range	Phase voltage(LN):50~270VAC, line voltage(LL):90~470VAC
	Frequency range	45~65Hz
	Rated current	Default 5A,Input range 1-6A;Optional 1A,Input range 1-1.2A
Input current	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)
	Switch value input	4-way passive main line contact DI input, internal supply DC24V power source
Input	Relay output	4-way DO output,Contact capacity 250VAC/5A,30VDC/5A
output	Analog output	Output range 4~20mA,overload allows 1.2times
	Temperature input	Measure range 0°C~100°C
Power	Harmonic measurement	Voltage/current 2~51st harmonic distortion ratetotal harmonic distortion rate.
quality	Harmonic distortion rate	Phase voltage, line voltage
monitor	Imbalance rate	Voltage. current
	Voltage	±0.2%(0.01V)
	Current	±0.2%(0.01A)
	Active power	±0.5%(0.1W)
	Reactive power	±2.0%(0.1kvar)
Measure- ment	Active energy	±0.5%(0.1kWh)
accuracy	Reactive energy	±2.0%(0.1kvarh)
	Power factor	±0.5%(0.001)
	Frequency	±0.02Hz(0.01Hz)
	Temperature	±1°C(1°C)
	Communication interface	RS485,Profibus-V1,Photoelectric isolation interface
Comm unication	Communication protocol	Modbus-RTU,1200~38400bps; Probibus-DP,9600~12Mbps
	Power frequency withstand voltage	AC2kV/min~1mA Input-output-power source
Electrical insulation	Insulation resistance	>50ΜΩ
	Impact voltage	5kV Peak ,1.2/50us
	Operating temperature	-25°C ~ +70°C
Working environ- ment	Relative humidity	5%~95% No condensation
	Storage temperature	-30°C ~ +75°C
	Altitude	No more than 4000m
	Surge (impact) immunity	IEC61000-4-5,Level4
Electrom- agnetic	Electrical fast burst immunity	IEC61000-4-4,Level4
Compati- bility	Electrostatic discharge immunity	IEC61000-4-2,Level4
2,,	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.

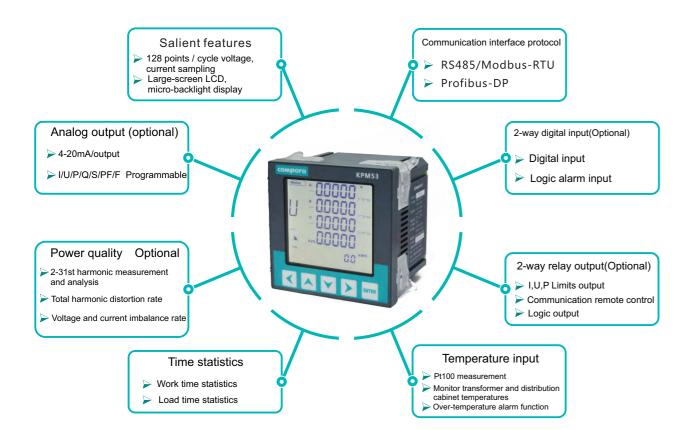
KPM53 Three-phase smart power meter

HENAN COMPERE SMART TECHNOLOGY CO., LTD.



KPM53 series of three-phase smart power meter with accurate measurement of lower parameters. It uses advanced ARM processor and digital signal processing echnology designed, integrated three-phase electrical parameters measurement, display, power statistics, power quality analysis, digital input / Output and network communications in one; with high precision, strong isolation, stable performance, anti-interference ability and a little; the instrument also has a very strong expansion capabilities, such as monitoring of external switching action, 4-20mA analog output, but also The network management of the instrument can be realized through RS-485 / Modbus communication protocol

Product Features

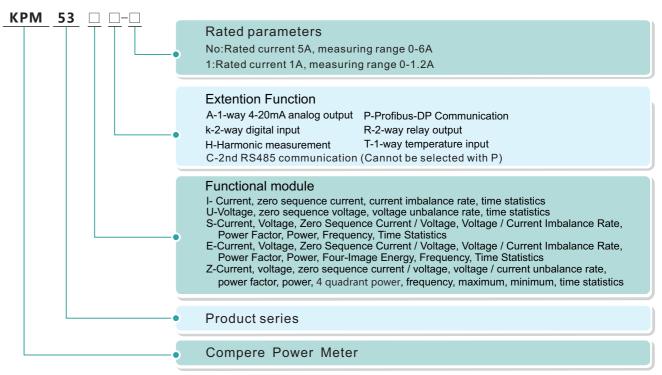


Function features



- Measuring three-phase AC voltage, current, voltage / current unbalance rate, four-quadrant power, active / reactive power, power factor, frequency, maximum / minimum
- · Voltage / current ratio programmable
- · Working hours, load time statistics
- · Support up to 31st harmonic calculation
- 1 -way RS485 communication interface, Modbus protocol
- Optional 2-way passive digital input
- · Optional 2-way relay output
- Optional 1-way 4-20mA analog output
- 1 road passive optical coupler collector active pulse output
- Can be extended 1-way PT100 temperature input
- · Excellent temperature characteristics and work stability
- . FSTN large screen LCD, bright LED backlight uniform display, in the bright light and large viewing angle environment to obtain a good visual effect

Products list



 Example:KPM53ZRH-1: Rated current 1A, harmonic measurement function, 2 relay outputs, three-phase smart power meter.

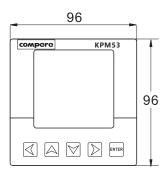
Application occasion

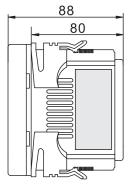
Alternative analog pointer table

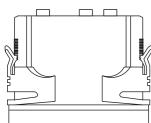
Display and control of electrical parameters in mid-low voltage distribution System

Collect energy consumption data that cost center analysis needs

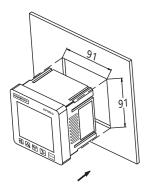
DC/Green building or DC







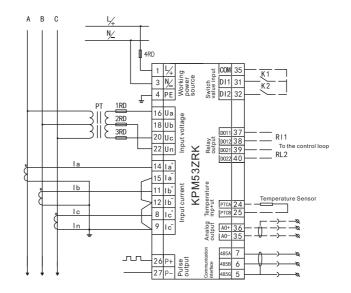
Installation instructions

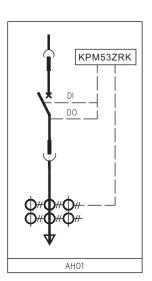


Working	Operating Voltage	AC 85-270V/DC 80-300V
power source	Rated power	< 3VA
	Rated voltage	57.7/100V,220/380V,380V/660V Need to customize
	Sill value	5V
Input voltage	Overload capacity	1.2 times rated voltage allowed, continuous work; 2 times the rated voltage allowed 1second
	Power consumption	<0.5VA/phase rated
	Measurement range	Phase voltage(LN):50~270VAC, line voltage(LL):90~470VAC
	Frequency range	45~65Hz, optional 400Hz
	Rated current	Default 5A,Input range 1-6A;Optional 1A,Input range 1-1.2A
Input current	Sill value	5A Configuration,5mA ;1A Configuration,0.8mA
Garroni	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
	Switch value input	2-way passive main line contact DI input, internal supply DC24V power source
Input	Relay output	2-way DO output,Contact capacity 250VAC/5A,30VDC/5A
output	Analog output	Output range 4~20mA,overload allows 1.2times
	Temperature input	Measure range 0°C~100°C
Power	Harmonic measurement	Voltage/current 2~31st harmonic distortion rate, total harmonic distortion rate.
quality	Harmonic distortion rate	Phase voltage, line voltage
monitor	Imbalance rate	Voltage. current
	Voltage	±0.2%(0.01V)
	Current	±0.2%(0.01A)
	Active power	±0.5%(0.1W)
	Reactive power	±2.0%(0.1kvar)
Measure- ment	Active energy	±0.5%(0.1kWh)
accuracy	Reactive energy	±2.0%(0.1kvarh)
	Power factor	±0.5%(0.001)
	Frequency	±0.02Hz(0.01Hz)
	Temperature	±1°C 1°C
Comm	Communication interface	RS485,Photoelectric isolation interface
unication	Communication protocol	Modbus-RTU,1200~38400bps
	Power frequency withstand voltage	AC2kV/min~1mA Input-output-power source GB/T 13729
Electrical insulation	Insulation resistance	>50ΜΩ
	Impact voltage	5kV Peak ,1.2/50us
	Operating temperature	-25°C ~ +70°C
Working environ- ment	Relative humidity	5%~95% No condensation
	Storage temperature	-30°C ~ +75°C
	Altitude	No more than 4000m
	Surge (impact) immunity	IEC61000-4-5,Level4
Electrom-	Electrical fast burst immunity	IEC61000-4-4,Level4
agnetic Compati- bility	Electrostatic discharge immunity	IEC61000-4-2,Level4
	Power frequency magnetic	IEC61000-4-8,Level4

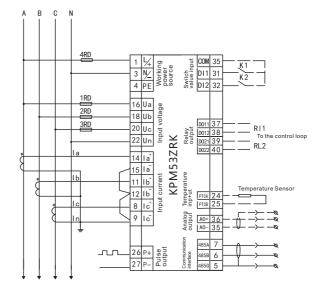
Typical wiring

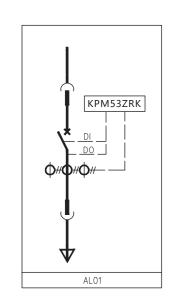
KPM53ZRK High-voltage three-phase three-wire typical wiring diagram





KPM53ZRK Low-voltage three-phase four-wire typical wiring diagram





Explanation:

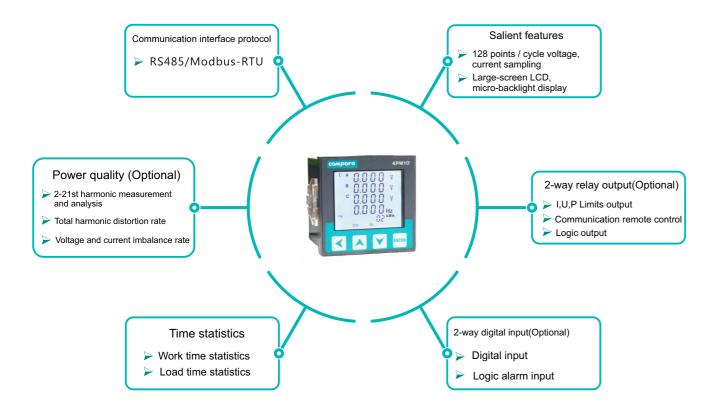
- 1. The wiring diagram is suitable for high voltage three-phase three-wire system, low voltage three-phase four-wire system, regard to other system wiring please refer to KPM53 instruction manual.
- 2. Terminal that without function description is invalid.
- 3. The function of dotted lines is optional.
- 4. The final interpretation belongs to Compere.

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*72mm panel, large screen LCD screen, standard 1-way RS485 communication interface. With high precision, strong isolation, stable performance, anti-interference ability etc.

Product Features

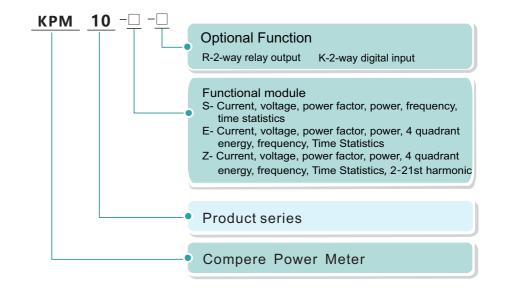


Function features



- Measuring three-phase AC voltage, current, active / reactive power, active / reactive energy, power factor and other 30 kinds of basic parameters.
- · Class 0.5S 4 quadrant power statistics
- · Working hours, load time statistics
- Support up to 21st 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
- Optional 2-way passive digital input
- Optional 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



Application occasion

Energy and energy efficiency management system

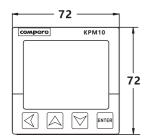
Internal energy
consumption statistical analysis
and charging statistics basis

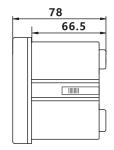
Energy metering, automatic meter reading system

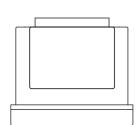
Intelligent distribution management system

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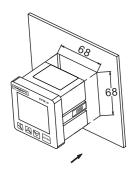
Product size Technical Parameters







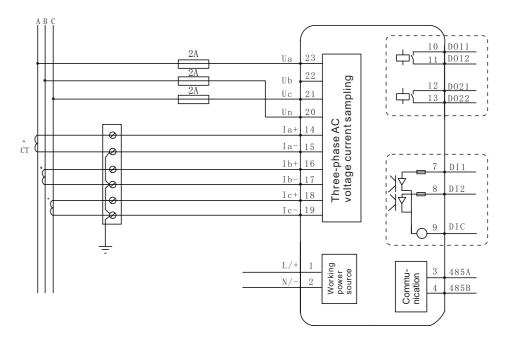
Installation instructions



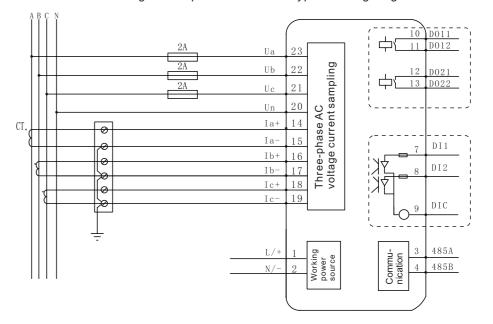
Working power	Operating Voltage	AC 85-265V/DC 80-300V
source	Rated power	<3VA
	Rated voltage	57.7/100V,220/380V
	Sill value	5V
Input	Overvoltage capability	1.2 times rated voltage allowed, continuous work; 2 times the rated voltage allowed 1 second
voltage	Power consumption	<0.5VA(per phase)
	Measurement range	5~260VAC
	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
Input current	Overload capacity	1.2 times rated current allowed, continuous work; 20 times the rated current allowed 1 secon
Current	power consumption	<0.75VA/phase(Rated current 5A);<0.25VA/phase(Rated current 1A)
	Frequency range	45~65Hz
Input/	Switch value input	2-way passive main line contact DI input, internal supply DC24V power source
Output	Relay output	2-way DO output,Contact capacity 250VAC/5A,30VDC/5A
	Harmonic measurement	Voltage/current2~21th harmonic distortion rate,total harmonic distortion rate.
Power quality	Harmonic distortion rate	Phase voltage, line voltage
monitor	Imbalance rate	Voltage. current
	Voltage	±0.2%(0.01V)
	Current	±0.2%(0.01A)
	Active power	±0.5%(0.01W)
	Reactive power	±2.0%(0.01var)
Measure-	Active energy	±0.5%(0.1kwh)
ment accuracy	Reactive energy	±2.0%(0.1kvarh)
	Power factor	±0.5%(0.001)
	Frequency	±0.02Hz(0.01HZ)
	Temperature	±1℃ 1℃
Comm-	Communication interface	RS485,Photoelectric isolation interface
unication	Communication protocol	Modbus-RTU, 1200-9600BPS
	Power frequency	AC2kV/min~1mA input-output-source
Electrical	withstand voltage Insulation resistance	>50ΜΩ
insulation	Impact voltage	5kV (Peak),1.2/50us
	Operating temperature	-25°C ~ +70°C
Working environment	Relative humidity	5% ~ 95% No condensation
	Storage temperature	
		-30°C ~ +75°C
	Altitude	Not more than 4000m
	Surge (impact) immunity Electrical fast burst	IEC61000-4-5,Level4
Electro- magnetic	immunity Electrostatic discharge	IEC61000-4-4,Level4
Compatibility	immunity	IEC61000-4-2,Level4
	Power frequency magnetic field immunity	IEC61000-4-8,Level4

Typical wiring

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



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



Explanation:

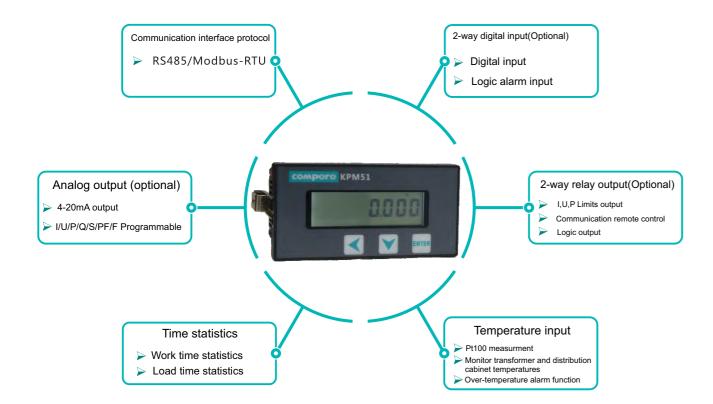
- 1. The wiring diagram is suitable for low voltage three-phase three-wire system, low voltage three-phase four-wire system
- 2. The function of dotted lines is optional
- 3. The final interpretation belongs to Compere

KPM51 Single-phase smart power meter



KPM51 is single-phase multifunction smart power meters, it is a collection of telemetry, remote communications, remote control, transmitter ,it with feature-rich, cost-effective, can be independently used in different occasions power measurement and display, helping customers save investment and use of space, it has been widely used in various industries.

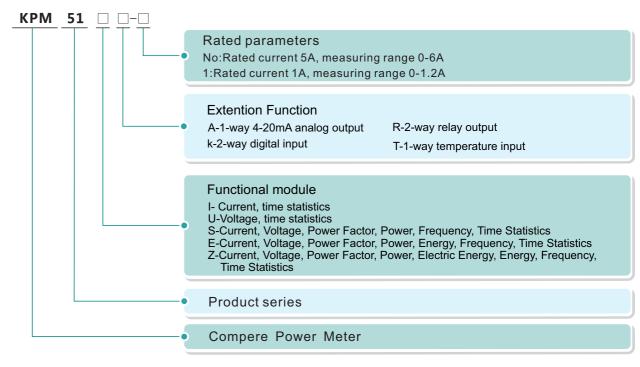
Product Features



Function features

- Measuring single-phase AC voltage, current, active / reactive power, power factor, frequency
- · Working hours, load time statistics
- 1-way RS485 communication interface, Modbus protocol
- Optional 2-way passive switch value input
- · Optional 2-way relay output
- Optional 1-way 4-20mA analog output
- 1-way passive optical coupler collector active pulse output
- Optional 1-way PT100 temperature input
- Excellent temperature characteristics and work stability
- FSTN large screen LCD, bright LED backlight uniform display, in the bright light and large viewing angle environment to obtain a good visual effect

Products list



◆ Example: KPM 51Z-1: Rated current 1A, single-phase smart power meter.

Application occasion

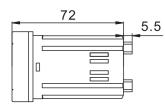
Alternative analog pointer table

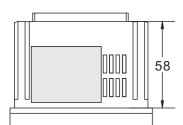
Display and control of electrical parameters in distribution System

Collect energy consumption data that cost center analysis needs

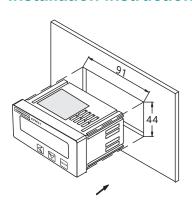
DC/Green building or DC







Installation instructions

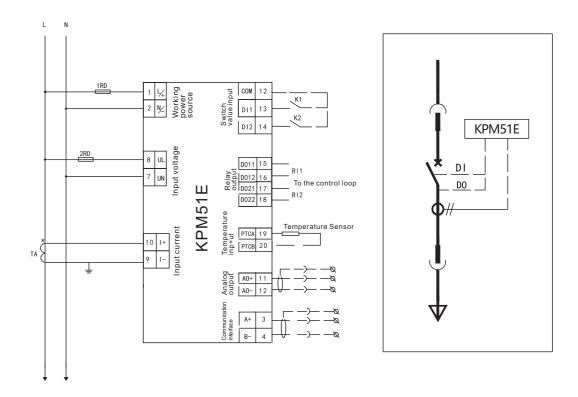


power source	Rated power	< 3VA
	Rated voltage	220V
	Sill value	5V
Input voltage	Overload capacity	1.2 times rated voltage allowed, continuous work; 2 times the rated voltage allowed 1second
	Power consumption	<0.5VA/phase rated
	Measurement range	5~260VAC
	Frequency range	45~65Hz
	Rated current	Default 5A,Input range 1-6A;Optional 1A,Input range 1-1.2A
Input current	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
	Frequency range	45~65Hz
	Switch value input	2-way passive main line contact DI input, internal supply DC24V power source
Input	Relay output	2-way DO output,Contact capacity 250VAC/5A,30VDC/5A
output	Analog output	Output range 4~20mA,overload allows 1.2times
	Temperature input	Measure range 0°C~100°C
	Voltage	±0.2%(0.01V)
	Current	±0.2%(0.01A)
	Active power	±0.5%(0.1W)
Measure- ment	Reactive power	±2.0%(0.1kvar)
accuracy	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°C(1°C)
Comm	Communication interface	RS485,Photoelectric isolation interface
unication	Communication protocol	Modbus-RTU,1200~38400bps
	Power frequency withstand voltage	AC2kV/min~1mA Input-output-power source
Electrical insulation	Insulation resistance	>50ΜΩ
	Impact voltage	5kV Peak ,1.2/50us
	Operating temperature	-25°C ~ +70°C
Working environ- ment	Relative humidity	5%~95% No condensation
	Storage temperature	-30°C ~ +75°C
	Altitude	No more than 4000m
	Surge (impact) immunity	IEC61000-4-5,Level4
Electrom- agnetic	Electrical fast burst immunity	IEC61000-4-4,Level4
Compati- bility	Electrostatic discharge immunity	IEC61000-4-3,Level4
Zility	Power frequency magnetic field immunity	IEC61000-4-8,Level4

AC 85-265V/DC 80-300V

Typical wiring

KPM51E Low-voltage single-phase typical wiring diagram



Explanation:

- 1.Working source:AC85-265V/DC80-300V
- 2. Terminal that without function description is invalid
- 3. The function of dotted lines is optional
- 4. The final interpretation belongs to Compere

KPM37 Three Phase DIN Rail Smart Power Meter

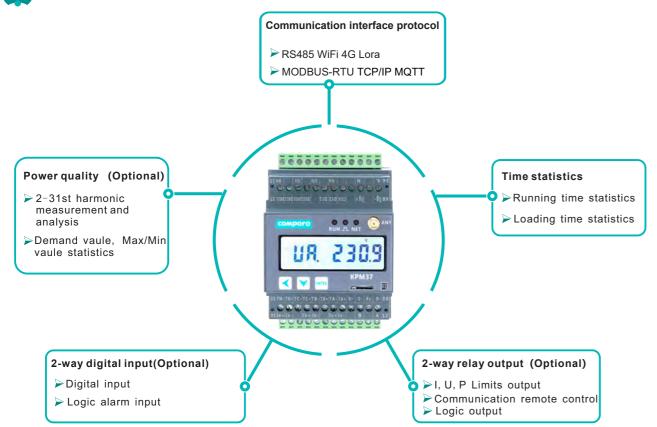
HENAN COMPERE SMART TECHNOLOGY CO., LTD.



KPM37 Three Phase Rail Smart Power Meter adopts DIN 35MM rail type installation structure and LCD display. It integrates three-phase electric parameter measurement, 2~31st harmonic analysis and time statistics.KPM37 default communication is Modbus-RTU by RS485 interface. WiFi, 4G, Lora communication are optional. The meter can also expand 2-way digital input and 2-way relay output, 4-way temperature measurement and 1 way residual

KPM37 has the advantages of small size, high accuracy, high reliability, easy installation, etc. It is mostly used for projects for system integration, wire line modification and in limited or inconvenient installation space, etc.

Product Features

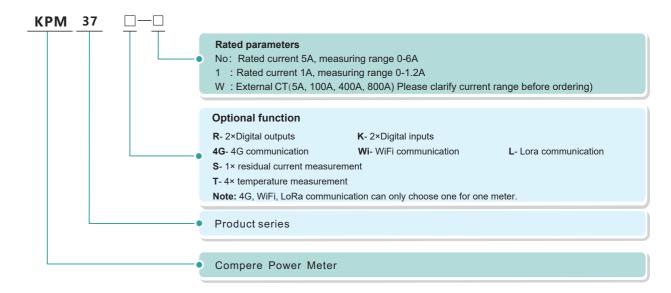


Function features



- · Measuring three-phase AC voltage, current, 4 quadrant power, power factor, frequency, demand, max & min value etc.
- · Programmable voltage current transformation ratio
- · Running time, loading time statistics
- · 2-31st harmonic calculation& analysis
- Default Modbus-RTU communication by RS485 interface
- Expandable 2 × DI and 2 × DO
- Expandable Temperature measurement and residual current measurement
- · Optional WiFi / 4G/ Lora wireless communication
- · Excellent temperature characteristics and work stability
- 7+1digits LCD screen display

Standard of optional type



Application occasion

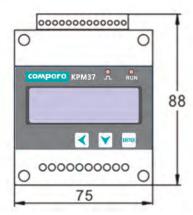
Energymanagement system integration

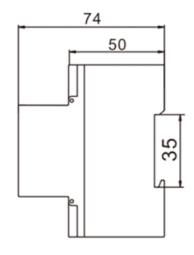
Old project or wire line modification

Projects with limitedspaceor inconvenient installation

Projects with limitedspaceor inconvenient installation





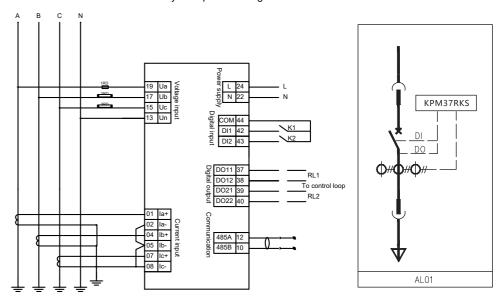


Rated power	Working power	Operating Voltage	AC85~265V/DC80~300V
Unput voltag Power consumption Power consu	source	Rated power	<3VA
Input voltage Power consumption Power consumption - vo.5VA/phase(rated) Reasurement range Input current input internal supply DC24V power source Input current Input cu		Rated voltager	57.7/100VAC,220/380VAC 380V/660V (Customized)
Power consumption Current L-N: 10-380VAC,LL:90-660VAC Frequency range L-N: 10-380VAC,LL:90-660VAC Frequency range 45-65Hz Overload capacity 20 times the rated current allowed 1 second current allowed 2, continuous work; 20 times the rated current allowed 3 second current allowed 3, continuous work; 20 times the rated current allowed 3 second current allowed 3, continuous work; 20 times the rated current allowed 3 second current allowed 3, continuous work; 20 times the rated current allowed 3 second current allowed 3, continuous work; 20 times the rated current allowed 4, continuous work; 20 times the rated current allowed 5, continuous		Overload capacity	
Frequency range Rated current Default5A, Input range 1-6A, Optional 1A, Input range 1-1.2A 1.2 times rated current allowed, continuous work; 20 times the rated current allowed 1 second Power consumption Frequency range 45~65Hz Switchinput Switchinput Power grange Power quality and programmable voltage current tament ratio Power grange Power quality and to the programmable voltage current transformation rate (FHD) Voltage Voltage 2-way Do output, Contact capacity 250VAC/5A, 30VDC/5A Phase voltage, current 2-31st harmonic distortion rate, total harmonic distortion rate (FHD) Voltage 4-0.2%(0.01V) Current 4-0.2%(0.01V) Current 4-0.2%(0.01V) Current 4-0.2%(0.01V) Reactive power 4-0.5%(0.1W) Reactive energy 4-0.5%(0.1Wh) Reactive energy 4-0.5%(0.1Wh) Reactive energy 4-0.5%(0.01V) Communication interface communication interface communication interface Communication interface Working Quere frequency Withstand voltage AC2KV/min-1mA Input-output-power source Working Relative humidity 5-95% No condensation Surge (impact) Finding group immunity GB/T 17626.5-2008, Level4, IEC61000-4-2, level 4 Electrom agnetic Electrom agnetic Billity Power frequency Compart inmunity GB/T 17626.5-2008, Level4, IEC61000-4-2, level 4 Electrome agnetic Electrome agnetic Billity Power frequency Compart inmunity GB/T 17626.2-2006, Level4, IEC61000-4-4, level 4 Electrome agnetic Electrome agnetic Billity Power frequency Compart inmunity GB/T 17626.2-2006, Level4, IEC61000-4-4, level 4 Electrome agnetic Electrome agnetic Billity Frequency Communic GB/T 17626.2-2006, Level4, IEC61000-4-4, level 4 Electrome agnetic Billity Frequency Communic GB/T 17626.2-2006, Level4, IEC61000-4-4, level 4 Electrome agnetic Electrome agnetic GB/T 17626.2-2006, Level4, IEC61000-4-4, level 4		Power consumption	<0.5VA/phase(rated)
Rated current Overload capacity Input current Overload capacity Power consumption Frequency range Switchinput Output Relay output Harmonic measure programmable voltage quality monitor Harmonic distortion rate (THO) Current Active power Active energy Power factor Power factor Communic relation Cation Interface Working Working Working Working Working Working Working Reactive energy Dower frequency Communic cation Interface Working		Measurement range	L-N: 10~380VAC,LL:90~660VAC
Overload capacity 1.2 times rated current allowed, continuous work; 20 times the rated current allowed 1 second		Frequency range	45~65Hz
Input Output Apactry Apace Apactry Apace		Rated current	Default5A,Input range 1-6A,Optional 1A,Input range 1-1.2A
Frequency range Frequency range A5-65Hz Switchinput Relay output Relay output Relay output Power grammable voltage current ransformation rate (FTBD) Voltage Voltage Voltage Voltage, current Voltage,		Overload capacity	
Switchinput 2-way passive main line contact DI input, internal supply DC24V power source	current	Power consumption	<0.75VA/phase (Rated current 5A) ;<0.25VA/phase (Rated current 1A)
Relay output 2-way DO output, Contact capacity 250VAC/5A, 30VDC/5A		Frequency range	45~65Hz
Power quality monitor Power quality monitor Harmonic measure ment programmable voltage current 2-31st harmonic distortion rate, total harmonic distortion rate programmable voltage current transformation rate (THD) Voltage ±0.2%(0.01V) Current ±0.2%(0.01V) Current ±0.2%(0.01A) Active power ±2.0%(0.1w) Reactive power ±0.5%(0.1W) Reactive energy ±2.0%(0.1var) Active energy ±2.0%(0.1kWh) Reactive energy ±2.0%(0.1kWh) Reactive energy ±0.02Hz(0.01Hz) Communication interface Communication interface Communication interface communication interface communication interface Insulation resistance SoMQ Operating temperature -25°C-+7°C Altitude No more than 3000m Surge (impact) immunity GB/T 17626.3-2008, Level4, IEC61000-4-1, level 4 Fower frequency Fower frequency GB/T 17626.2-2006, Level4, IEC61000-4-1, level 4 Fower frequency Fower frequency GB/T 17626.2-2006, Level4, IEC61000-4-1, level 4 Fower frequency Fower frequency GB/T 17626.2-2006, Level4, IEC61000-4-1, level 4 Fower frequency GB/T 17626.2-2006, Level4, IEC61000-4-1, level 4 Fower frequency Fower frequency GB/T 17626.2-2006, Level4, IEC61000-4-1, level 4 Fower frequency Fower frequency GB/T 17626.2-2006, Level4, IEC61000-4-1, level 4 Fower frequency Fower frequency GB/T 17626.2-2006, Level4, IEC61000-4-1, level 4 Fower frequency Fower frequency GB/T 17626.2-2006, Level4, IEC61000-4-1, level 4 Fower frequency Fower frequency GB/T 17626.2-2006, Level4, IEC61000-4-1, level 4 Fower frequency Fower frequency GB/T 17626.2-2006, Level4, IEC61000-4-1, level 4 Fow		Switchinput	2-way passive main line contact DI input, internal supply DC24V power source
rent voltage/current 2-31st harmonic distortion rate, total harmonic distortion rate quality artic in Harmonic distortion ratio (HD) voltage current transformation ratio (HD) voltage ±0.2%(0.01V) Current ±0.2%(0.01A) Active power ±0.5%(0.1W) Reactive power ±0.5%(0.1W) Reactive energy ±2.0%(0.1var) Active energy 0.55(0.1kWh) Reactive energy ±2.0%(0.1kwarh) Power factor ±0.5%(0.001) Frequency ±0.02Hz(0.01Hz) Communication interface Communication inte	Output	Relay output	2-way DO output, Contact capacity 250VAC/5A, 30VDC/5A
quality monitor Phase voltage, phase current	_	ment	Voltage/current 2~31st harmonic distortion rate,total harmonic distortion rate
Voltage ±0.2%(0.01V) Current ±0.2%(0.01A) Active power ±0.5%(0.1W) Reactive power ±2.0%(0.1var) Apparent power ±0.5%(0.1VA) Active energy ±2.0%(0.1kWh) Reactive energy ±2.0%(0.1kWarh) Power factor ±0.5%(0.001) Frequency ±0.02Hz(0.01Hz) Communication interface Communication protocol Power frequency withstand voltage withstand voltage Insulation resistance Insulati	quality	current transformation	Phase voltage,phase current
Current ±0.2%(0.01A) Active power ±0.5%(0.1W) Reactive power ±2.0%(0.1var) Apparent power ±0.5%(0.1VA) Active energy ±0.5%(0.1VA) Active energy ±2.0%(0.1kwrh) Power factor ±0.5%(0.001) Frequency ±0.02Hz(0.01Hz) Communication interface Communication interface Communication protocol Power frequency AC2kV/min~1mA Input-output-power source Communication interface Insulation resistance SoMΩ Impact voltag SkV(Peak),1.2/50us Operating temperature -25°C~+70°C Altitude No more than 3000m Surge (impact) immunity GB/T 17626.5-2008,Level4,IEC61000-4-2, level 4 Electrom agnetic Electrom agnetic immunity Power frequency Power factor ±0.5%(0.1VA) Active energy ±2.0%(0.1kwrh) Power factor ±0.5%(0.001) Frequency ±0.02Hz(0.01Hz) Communication interface RS485 / WIFI / 4G/ Lora Communication interface Communication Power frequency Modbus-RTU, DL/T645-2007, MQTT, 1200~38400bps Power frequency 50MΩ Impact voltag 5kV(Peak),1.2/50us Operating temperature -25°C~+70°C Altitude No more than 3000m Surge (impact) Surge (impact) Immunity GB/T 17626.5-2008,Level4,IEC61000-4-2, level 4 Electromal agnetic Electrostatic discharge immunity Power frequency 0.5%(0.1kwrh) Electromal active energy ±0.5%(0.01kwrh) ### Active energy ±0.5%(0.01kwrh) ### Active energy ±0.5%(0.01kwrh) ### Active energy ±0.5%(0.01kwrhh) ### Active energy ±0.5%(0.01kwrhhh) ### Active energy ±0.5%(0.01kwrhhh) ### Active energy ±0.5%(0.01kwrhhhh) ### Active energy ±0.5%(0.01kwrhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhh		Harmonic distortion rate (THD)	voltage,current
Active power ±0.5%(0.1W) Reactive power ±2.0%(0.1var) Apparent power ±0.5%(0.1VA) Active energy 0.5S(0.1kWh) Reactive energy ±2.0%(0.1kvarh) Power factor ±0.5%(0.001) Frequency ±0.02Hz(0.001Hz) Communication interface Communication protocol protocol protocol interface Communication interface Communication interface Communication protocol power frequency withstand voltage AC2kV/min~1mA Input-output-power source Insulation resistance >50MΩ Impact voltag 5kV(Peak), 1. 2/50us Operating temperature -25°C~+70°C Relative humidity 5%~95% No condensation Storage temperature -30°C~+75°C Altitude No more than 3000m Surge (impact) immunity GB/T 17626.5~2008, Level 4, IEC61000-4~2, level 4 Electrom agnetic Compati billty Power frequency CDT 175°C 2.0006, Level 4, IEC61000-4~4, level 4 interpretation interface of the compatibility o		Voltage	±0.2%(0.01V)
Reactive power ±2.0%(0.1var) Apparent power ±0.5%(0.1VA) Active energy 0.5S(0.1kWh) Reactive energy ±2.0%(0.1kvarh) Power factor ±0.5%(0.001) Frequency ±0.02Hz(0.01Hz) Communication interface Communication protocol Power frequency Modbus-RTU, DL/T645-2007, MQTT, 1200~38400bps Power frequency withstand voltage AC2kV/min~1mA Input-output-power source Insulation resistance >50MQ Impact voltag 5kV(Peak),1. 2/50us Operating temperature -25°C~+70°C Relative humidity 5%~95% No condensation Storage temperature -30°C~+75°C Altitude No more than 3000m Surge (impact) immunity Fast pulse group GB/T 17626.5-2008,Level4,IEC61000-4-2, level 4 Electrom agnetic Compati billity Electrostatic discharge immunity Power frequency CD/T 17626.2-2006,Level4,IEC61000-4-4, level 4 Power frequency CD/T 17626.2-2006,Level4,IEC61000-4-4, level 4 Power frequency CD/T 17626.2-2006,Level4,IEC61000-4-4, level 4		Current	±0.2%(0.01A)
Measure ment accuracy Apparent power ±0.5%(0.1VA) Active energy 0.5S(0.1kWh) Reactive energy ±2.0%(0.1kvarh) Power factor ±0.5%(0.001) Frequency ±0.02Hz(0.01Hz) Communication interface RS485 / WIFI / 4G/ Lora Communication protocol Modbus-RTU, DL/T645-2007, MQTT, 1200~38400bps Power frequency withstand voltage AC2kV/min~1mA Input-output-power source Insulation resistance >50MΩ Impact voltag 5kV(Peak),1. 2/50us Operating temperature -25°C~+70°C Relative humidity 5%~95% No condensation Storage temperature -30°C~+75°C Altitude No more than 3000m Surge (impact) immunity GB/T 17626.5-2008, Level4, IEC61000-4-2, level 4 Fast pulse group immunity GB/T 17626.4-2008, Level4, IEC61000-4-5, level 4 Electrostatic discharge immunity GB/T 17626.2-2006, Level4, IEC61000-4-4, level 4 Power frequency CDIT 17626.2-2006, Level4, IEC61000-4-4, level 4		Active power	±0.5%(0.1W)
ment accuracy Apparent power ±0.5%(0.1VA) Active energy 0.5S(0.1kWh) Reactive energy ±2.0%(0.1kvarh) Power factor ±0.5%(0.001) Frequency ±0.02Hz(0.01Hz) Communication interface RS485 / WIFI / 4G/ Lora Communication protocol Modbus-RTU, DL/T645-2007, MQTT, 1200~38400bps Power frequency withstand voltage AC2kV/min~1mA Input-output-power source Insulation resistance >50MΩ Impact voltag 5kV(Peak),1. 2/50us Operating temperature -25°C~+70°C Relative humidity 5%~95% No condensation Storage temperature -30°C~+75°C Altitude No more than 3000m Surge (impact) immunity GB/T 17626.5-2008, Level 4, IEC61000-4-2, level 4 Fast pulse group immunity GB/T 17626.4-2008, Level 4, IEC61000-4-5, level 4 Electrostatic discharge immunity GB/T 17626.2-2006, Level 4, IEC61000-4-4, level 4 Power frequency CDIT 17626.2-2006, Level 4, IEC61000-4-4, level 4	Manauma	Reactive power	±2.0%(0.1var)
Active energy 0.5S(0.1kWh) Reactive energy ±2.0%(0.1kvarh) Power factor ±0.5%(0.001) Frequency ±0.02Hz(0.01Hz) Communication interface Communication interface Protocol Communication interface Communication interface Protocol Communicatio	ment	Apparent power	±0.5%(0.1VA)
Power factor ±0.5%(0.001) Frequency ±0.02Hz(0.01Hz) Communication interface Communication protocol Power frequency withstand voltage Insulation resistance SoMΩ Impact voltag SkV(Peak),1. 2/50us Operating temperature 25°C~+70°C Relative humidity 5%~95% No condensation ent Storage temperature 30°C~+75°C Altitude No more than 3000m Surge (impact) immunity Fast pulse group immunity Fast pulse group immunity Electrostatic discharge immunity Found for the protocol power frequency of the protocol proto	accuracy	Active energy	0.5S(0.1kWh)
Frequency ±0.02Hz(0.01Hz) Communication interface Communication protocol Power frequency withstand voltage Insulation resistance SkV(Peak),1. 2/50us Operating temperature Storage temperature -30°C~+75°C Altitude No more than 3000m Surge (impact) immunity Fast pulse group immunity Electroom agnetic Compati bility Frequency ±0.02Hz(0.01Hz) RS485 / WIFI / 4G/ Lora Ac2kV/min~1mA Input-output-power source Storage temperature -500MΩ For a storage source SkV(Peak),1. 2/50us Operating temperature -25°C~+70°C Relative humidity 5%~95% No condensation Storage temperature -30°C~+75°C Altitude No more than 3000m Surge (impact) immunity GB/T 17626.5-2008, Level4, IEC61000-4-2, level 4 Electroom agnetic Compati bility For a storage for a storage immunity Electrostatic discharge immunity For a storage for a storage for a storage immunity For a storage for a storage for a storage immunity For a storage for a storage for a storage immunity For a storage for		Reactive energy	±2.0%(0.1kvarh)
Communication interface Communication protocol Power frequency withstand voltage Insulation resistance Impact voltag Operating environment ent Storage temperature Electrom agnetic Compati bility Electrostatic discharge immunity Electrostatic discharge interface. Communication interface RS485 / WIFI / 4G/ Lora Modbus-RTU, DL/T645-2007, MQTT, 1200~38400bps AC2kV/min~1mA Input-output-power source Input voltag SkV(Peak),1. 2/50us Operating -25°C~+70°C Relative humidity 5%~95% No condensation Surge (impact) immunity GB/T 17626.5-2008,Level4,IEC61000-4-2, level 4 Electrom agnetic Compati bility Power frequency CRIT 17626.2-2006,Level4,IEC61000-4-4, level 4 Power frequency CRIT 17626.2-2006,Level4,IEC61000-4-4, level 4		Power factor	±0.5%(0.001)
interface Communication protocol Power frequency withstand voltage Insulation resistance Insulation resistance Pomparature Power frequency withstand voltage Insulation resistance Insulation Power frequency Insulation Insulation resistance Insulation Insulation Insulation Power frequency Insulation Insulati		Frequency	±0.02Hz(0.01Hz)
Communication protocol Power frequency protocol Power frequency withstand voltage Insulation resistance Starter from Power frequency withstand voltage Insulation resistance StoMΩ Insulation resistance StoMΩ Impact voltag SkV(Peak),1. 2/50us	Communi		RS485 / WIFI / 4G/ Lora
Communication interface Insulation resistance >50MΩ Impact voltag 5kV(Peak),1. 2/50us Operating temperature -25°C~+70°C Relative humidity 5%~95% No condensation Storage temperature -30°C~+75°C Altitude No more than 3000m Surge (impact) immunity GB/T 17626.5-2008,Level4,IEC61000-4-2, level 4 Fast pulse group immunity GB/T 17626.4-2008,Level4,IEC61000-4-5, level 4 Electromatibility GB/T 17626.2-2006,Level4,IEC61000-4-4, level 4 Power frequency CB/T 17626.2-2006,Level4,IEC61000-4-4, level 4	interface	protocol	Modbus-RTU, DL/T645-2007, MQTT, 1200~38400bps
Insulation resistance >50MΩ Impact voltag 5kV(Peak),1. 2/50us	Communi		AC2kV/min~1mA Input-output-power source
Impact voltag 5kV(Peak),1. 2/50us Operating temperature -25°C~+70°C Relative humidity 5%~95% No condensation Storage temperature -30°C~+75°C Altitude No more than 3000m Surge (impact) immunity GB/T 17626.5-2008,Level4,IEC61000-4-2, level 4 Fast pulse group immunity GB/T 17626.4-2008,Level4,IEC61000-4-5, level 4 Electrom agnetic Compati bility Electrostatic discharge immunity Fast pulse group immunity GB/T 17626.2-2006,Level4,IEC61000-4-4, level 4 Power frequency CB/T 17626.2-2006,Level4,IEC61000-4-4, level 4	cation	Insulation resistance	>50ΜΩ
Working environm ent Relative humidity Storage temperature -30°C~+75°C Altitude No more than 3000m Surge (impact) immunity Electrom agnetic Compati bility Belectrostatic discharge immunity COMPATION CONTRACTOR A 2006 Level 4, IEC61000-4-4, level 4 Electrostatic discharge immunity Power frequency CONTRACTOR A 2006 Level 4 IEC61000-4-4, level 4 Power frequency CONTRACTOR A 2006 Level 4 IEC61000-4-4, level 4	menace	Impact voltag	5kV(Peak),1. 2/50us
environm ent Storage temperature -30°C~+75°C Altitude No more than 3000m Surge (impact) immunity GB/T 17626.5-2008,Level4,IEC61000-4-2, level 4 Fast pulse group immunity GB/T 17626.4-2008,Level4,IEC61000-4-5, level 4 Electrom agnetic Compati bility Electrostatic discharge immunity Electrostatic discharge immunity Fower frequency CRIT 17826.8-2006, Level4, IEC61000-4-4, level 4		Operating temperature	-25°C~+70°C
ent Storage temperature -30°C~+75°C Altitude No more than 3000m Surge (impact) immunity GB/T 17626.5-2008,Level4,IEC61000-4-2, level 4 Electrom agnetic Compati bility Electrostatic discharge immunity GB/T 17626.2-2006,Level4,IEC61000-4-4, level 4 Power frequency CB/T 17626.2-2006,Level4,IEC61000-4-4, level 4 Power frequency CB/T 17626.2-2006,Level4,IEC61000-4-8, level4	environm	Relative humidity	5%~95% No condensation
Surge (impact) immunity GB/T 17626.5-2008,Level4,IEC61000-4-2, level 4 Electrom agnetic Compati bility Electrostatic discharge immunity GB/T 17626.2-2006,Level4,IEC61000-4-4, level 4 GB/T 17626.2-2006,Level4,IEC61000-4-4, level 4 Power frequency CB/T 17626.2-2006,Level4,IEC61000-4-4, level 4		Storage temperature	-30°C~+75°C
Electrom agnetic Compati bility Electrostatic discharge immunity E			No more than 3000m
agnetic Compati bility immunity GB/T 17626.4-2008,Level4,IEC61000-4-5, level 4 GB/T 17626.4-2008,Level4,IEC61000-4-5, level 4 GB/T 17626.2-2006,Level4,IEC61000-4-4, level 4 Power frequency Power frequenc		immunity	GB/T 17626.5-2008,Level4,IEC61000-4-2, level 4
bility immunity Power frequency CRIT 17020.2-22000, Level 4 IS CC4000 4.9 Javel 4		immunity	GB/T 17626.4-2008,Level4,IEC61000-4-5, level 4
	Compati	immunity	GB/T 17626.2-2006,Level4,IEC61000-4-4, level 4
			GB/T 17626.8-2006,Level4,IEC61000-4-8, level 4

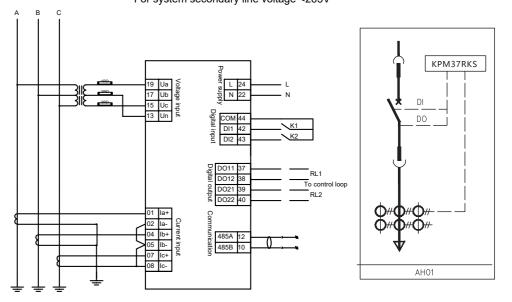
Typical wiring

Four lines star system: Direct wiring without PT voltage transformer (device set to P4L)

For system phase voltage <265V



Triangle system: 2 voltage transformer(PT), 3 current transformers(CT) (device set to P3L3) For system secondary line voltage <265V



Note:

- 1. Terminals without function description are invalid
- 2. The final interpretation is owned by Henan Compere Smart Technology Co., Ltd.

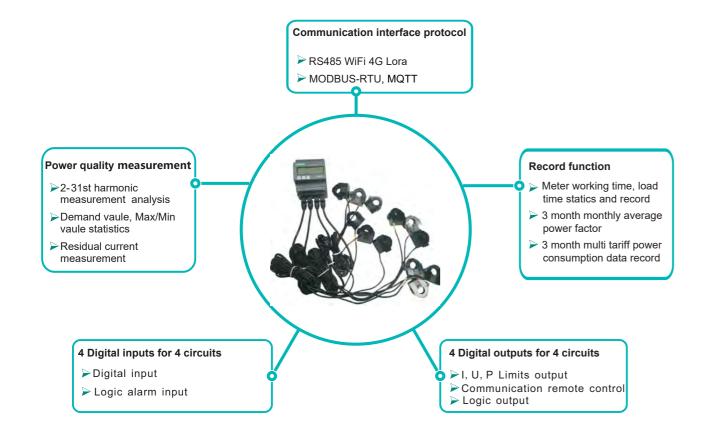
KPM312 Three Phase Multi Channel Power Meter



KPM312 Three Phase Multi Channel Power Meter is used for max 4 branch circuit power monitoring and data transmission. It adopts DIN 35mm rail type installation and LCD display and integrates three-phase electrical parameters measurement, 2~31st harmonic analysis and time statistics.

KPM312 default communication is Modbus-RTU by RS485. WiFi, 4G, Lora communication are optional. It can also expand 4-way digital input and 4-way relay output, 4-way temperature measurement for each circuit.

Product Features

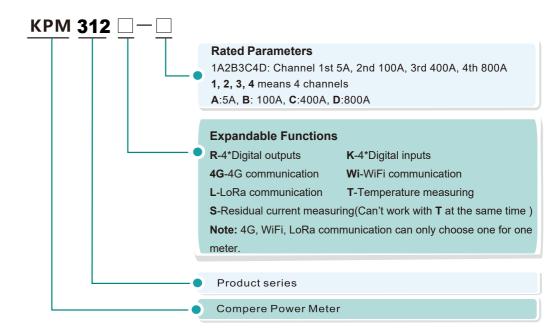


Function features



- Measuring 3 phase 4 circuit phase voltage, line voltage, current, active and reactive power, power factor, frequency, demand, max & min value etc.
- Programmable voltage current transformation ratio
- Running time, loading time statistics
- 2-31st harmonic calculation & analysis
- Default Modbus-RTU RS485 communication
- Optional WIFI 4G communication by MQTT, optional LoRa Modbus-RTU communication
- Optional 4 × DI and 4 × DO
- · Optional temperature measurement for 4 circuits
- Optional residual current measurement for 4 circuits (Can't work with temperature measurement at the same time)
- · 7+1digits LCD screen display
- · Rated current 5A-800A optional

Standard of optional type

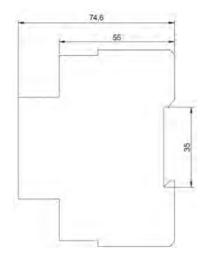


Note: The rated current is divided into four levels: A, B, C, D.

A for primary 5A, B for primary 100A, C for primary 400A, and D for primary 800A.

Each channel can be worked with different current level. Users can choose 1-4 channels as their needs. For example, 1A2A means channel 1 and 2 rated current is 5A respectively, channel 3 and 4 are not chosen, the default is 5A.





Power	Operating Voltage	AC85~265V/DC80~300V
supply	Rated power	<3VA
	Rated voltage	3*220VAC
	Overload capacity	1.2 times rated voltage allowed, continuous work. 2 times the rated voltage allowed 10 second
Input voltag	Power consumption	<0.5VA/phase(Rated)
	Measurement range	LN:50~260VAC,LL:90~450VAC
	Frequency range	45~65Hz
	Rated current	4 channels optional : 5A, 100A, 400A, 800A with split core current transformers
Input	Overload capacity	1.2 times rated current allowed, continuous work. 20 times the rated current allowed 1 second.
current	Power consumption	<0.75VA/phase (Rated current 5A)
	Frequency range	45~65Hz
Input/	Digital input	4-way passive main line contact DI input, internal supply DC24V power source
Output	Digital output	4-way DO output, Contact capacity 250VAC/5A, 30VDC/5A
	Harmonic measure ment	Voltage/current 2~31st harmonic distortion rate,total harmonic distortion rate
Power quality monitor	programmable voltage current transformation ratio	Phase voltage,phase current
	Harmonic distortion rate (THD)	Voltage, current
	Voltage	±0.2%(0.01V)
	Current	±0.2%(0.01A)
	Active power	±0.5%(0.1W)
	Reactive power	±2.0%(0.1var)
Measure	Apparent power	±0.5%(0.1VA)
accuracy	Active energy	0.5S(0.1kWh)
	Reactive energy	±2.0%(0.1kvarh)
	Power factor	±0.5%(0.001)
	Frequency	±0.02Hz(0.01Hz)
Communi	Communication interface	RS485 / WIFI / 4G/ Lora (410-525Mhz)
cation interface	Communication protocol	Modbus-RTU, DL/T645-2007, MQTT
Cammur:	Power frequency withstand voltage	2KV Insulation resistance, 1 minute
Communi	Insulation resistance	>50ΜΩ
interface	Impact voltag	5kV(Peak),1. 2/50us
	Operating temperature	-25°C~+70°C
Working environm ent	Relative humidity	5%~95% No condensation
	Storage temperature	-30°C~+75°C
	Altitude	No more than 3000m
	Surge (impact) immunity	GB/T 17626.5-2008,Level4,IEC61000-4-5, level 4
Electrom agnetic	Fast pulse group immunity	GB/T 17626.4-2008,Level4,IEC61000-4-4, level 4
Compati	Electrostatic discharge immunity	GB/T 17626.2-2006,Level4,IEC61000-4-2, level 4
	Power frequency magnetic field immunity	GB/T 17626.8-2006,Level4,IEC61000-4-8, level 4

Application occasion

Energymanagement system integration

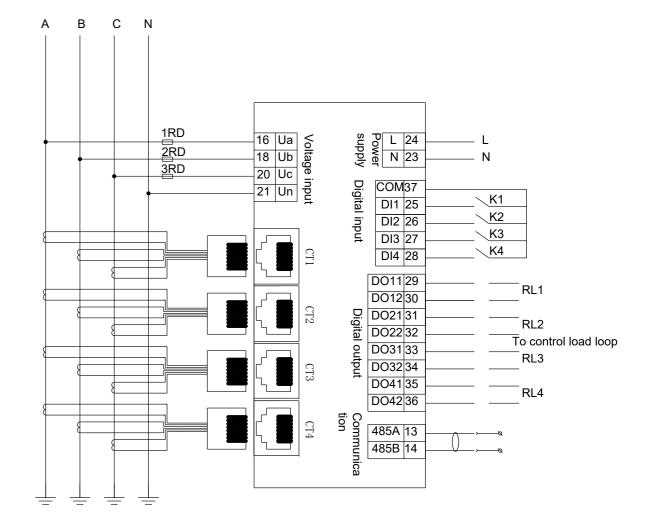
Old project or wire line modification

Projects with limited space or inconvenient installation Measured circuit are near or in one cabinet



Typical wiring

Star system wiring



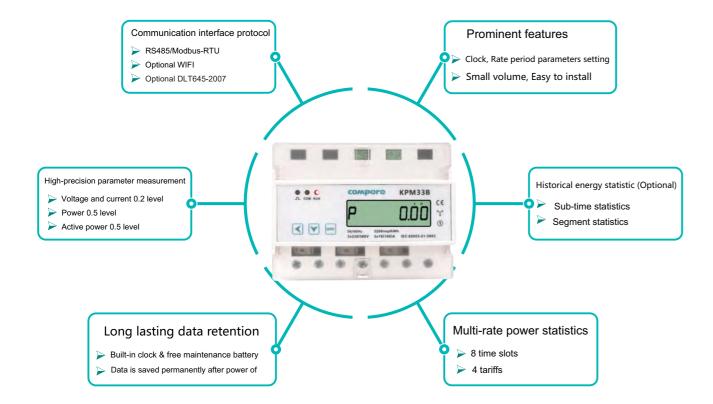
KPM33 Three-phase DIN rail smart energy meter



KPM33 three-phase smart energy meter with DIN35mm type installation structure, LCD display, measurement of electrical energy and other electrical parameters, it can set some parameter, such as the clock, rate period, and so on, it also own electrical energy pulse output function; default RS485 communication interface, optional WIFI connection.

The energy meter has the advantages of small physical protection, high precision, good reliability and convenient installation, and the performance indexes are in line with the requirements of the national standard and power industry standard. The technical requirements for government agencies and large public buildings in the measurement of electrical energy can also be used for enterprises and institutions for energy management

Product Features

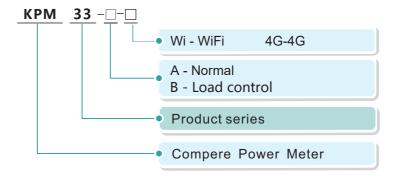


Function features



- Measurement of three-phase voltage, current, active power, reactive power, apparent power, power factor, frequency, active energy, reactive energy
- Multi-rate energy statistics, a day can be set up to eight time periods, four kinds of rates Historical
- power statistics function
- Rated current 0.2-100A
- · LED indicates pulse, phase failure, reverse power, communication status
- 1 road passive optical coupler collector active pulse output
- Default RS485 communication port & Modbus protocol, optional WIFI/4G MQTT communication.
- 7 +1 bit LCD display a variety of power parameters and information
- Built-in clock and maintenance-free battery, real-time monitoring, data is permanently saved after power off
- · 35mm standard DIN rail installation, beautiful appearance, easy installation
- Optional built-in relay for remote control

Products list



Example: KPM 33B: Rated AC380V /0.2-100A

Multi-rate energy statistics, historical power statistic, load control three phase DIN rail smart meter.

Application occasion

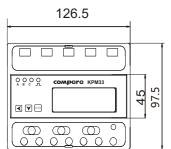
Intelligent distribution management system

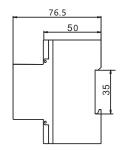
Internal energy consumption statistical analysis and charging statistics basis

Energy metering, automatic meter reading system

Energy and energy efficiency management system

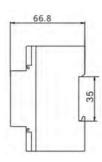
KPM33B





KPM33A

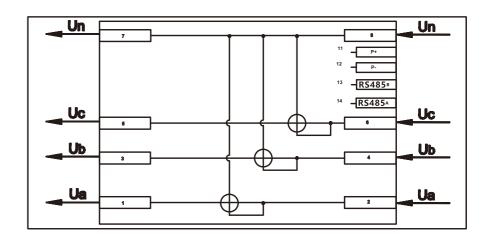
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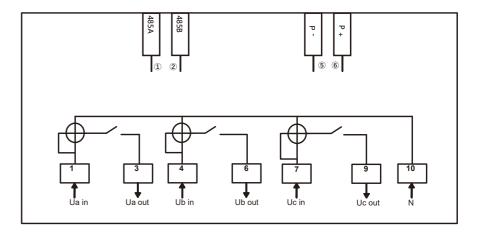
	Rated voltage	3×220V/380V
Input voltage	Overall power consumption	<2VA
	Frequency range	45~65Hz
Input	Rated current	0.2-100A
current	Frequency range	45~65Hz
	Voltage	± 0.2%(0.01V)
	Current	± 0.2%(0.01A)
	Active power	± 0.5%(0.1W)
Measure-	Reactive power	± 2.0%(0.1var)
ment accuracy	Active energy	± 0.5%(0.1kWh)
	Reactive energy	± 2.0% (0.1kvarh)
	Power factor	±0.5%(0.001)
	Frequency	±0.02Hz(0.01Hz)
Clock	Clock accuracy	<0.5S/D
Comm	Communication interface	RS485/WIFI/4G
unication	Communication protocol	Modbus-RTU,1200~19200bps; Optioanl WiFi, 4G
	Power frequency withstand voltage	AC2kV/min~1mA Input-output-power source
Electrical insulation	Insulation resistance	>50MΩ
	Impact voltage	5kV (Peak),1.2/50us
	Operating temperature	-25°C ~ +70°C
Working environ-	Relative humidity	5%~95% No condensation
ment	Storage temperature	-30℃ ~ +75℃
	Altitude	No more than 4000m
	Surge (impact) immunity	IEC61000-4-5,Level4
Electrom- agnetic	Electrical fast burst immunity	IEC61000-4-4,Level4
Compati- bility	Electrostatic discharge immunity	IEC61000-4-2,Level4
	Power frequency magnetic field immunity	IEC61000-4-8,Level4

(f) Typical wiring

KPM33A Low-voltage three-phase four-wire directly wiring diagram



KPM33B low-voltage three-phase four-wire load control direct wiring diagram



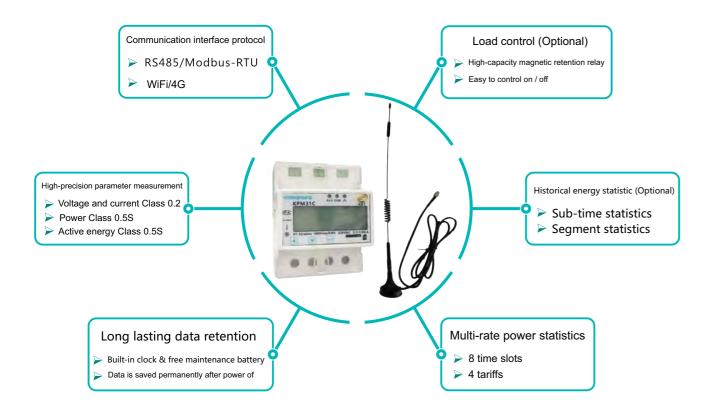
KPM31 Single-phase DIN rail smart energy meter



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

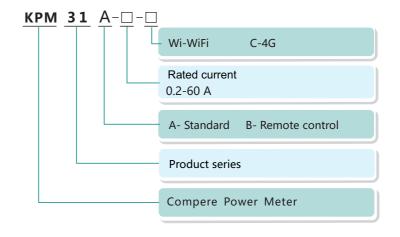


Function features



- 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

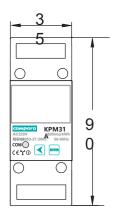
Application occasion

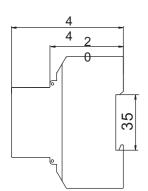
Energy and efficiency management system

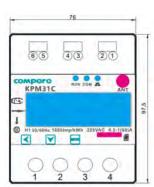
Power consumption statistical analysis and charging statistics basis

Energy metering, AMI system

Smart distribution management system





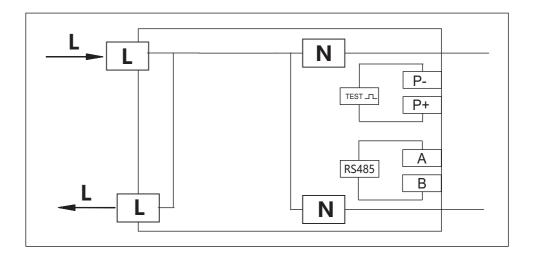




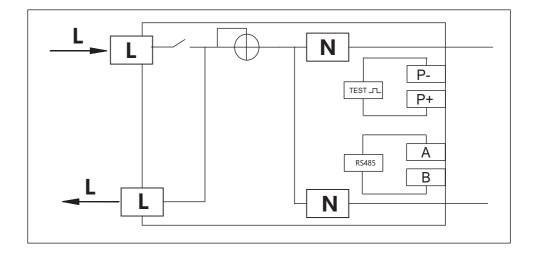
	Rated voltage	AC 110V/220V			
Input voltage	Overall power consumption	<2VA			
	Frequency range	45~65Hz			
Input	Rated current	0.2-60A			
current	Frequency range	45~65Hz			
	Voltage	±0.2%(0.01V)			
	Current	±0.2%(0.01A)			
	Active power	±0.5%(0.1W)			
Measure-	Reactive power	±2.0%(0.1var)			
ment accuracy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

Typical wiring

KPM31A Low voltage single phase direct access tipycal wiring diagram.



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



KPM60Low-voltage motor protection controller



KPM60 series of low-voltage motor protection controller is suitable for control protection circuit that rated voltage 380V to 660V, rated current 5A to 500A, providing a sound protection and control measures, It could achieve motor network management by the communication method that based on a variety of bus, the controller application greatly improves the design and production efficiency, reducing the on-site commissioning and maintenance workload.



Function features

Omprehens1ve motor protection

- Ground protection
- Phase failure protection
- TE time protection
- Under-power protection
- Overvoltage protection
- Undervoltage protection
- emperature protection
- Stall protection
- Leakage Protection ■ Phase sequence protection
- Current imbalance protection
- External fault protection
- Overload protection
- Underload protection
- Blocking protection
- Start overtime protection
- Contactor sectional current protection

Omprehens1ve motor protection

- Protection mode
- triangle start
- Direct start mode
- Bidirectional reversible start

Communicat1on function

- Modbus-RTU
- Profibus-DP

Control method

- Monitoring center remote control
- Operation panel control
- External input control (Such as: button)

Perfect management function

Use different operating, maintenance and diagnostic data to help users understand possible faults and prevent them with preventative measures. In the case of failure, rapid diagnosis, positioningAnd correct the problem.

Monitoring data

- Power Factor {Need to increase the voltage protection function)
- The maximum starting current
- Motor status
- Ground current
- Heat capacity
- Three-phase current
- Leakage current (need to add leakage protection function)
- Active/ Reactive power (need to increase the voltage protection function)
- Three-phase voltage (need to increase the voltage protection function)
- Active/ Reactive power (need to increase the voltage protection function)

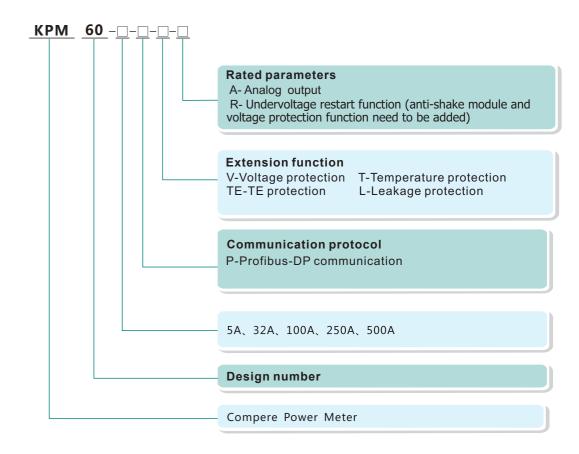
Maintain data

- Motor running time
- Motor starts times
- Motor tripping times

Diagnostic data

- Self-test information
- Current/ Auxiliary contact feed back error
- Motor fault alarm information
- un cool down time
- Motor fault trip information

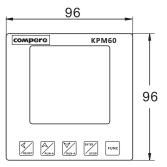
Standard of optional type

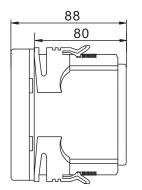


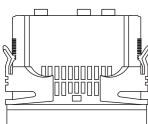
- Example: low-voltage motor protection controller with Rated current 100A RS485 communication, voltage protection, leakage protection and undervoltage start function.
- Remarks: For 380V motor rated power and controller selection

Motor rated power (KW)	0.25-2.2	1.5-15	5.5-45	45-132	200-250
Controller rated current specifications	5A	32A	100A	250A	500A

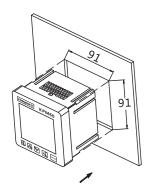








Installation instructions

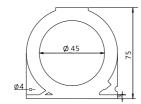


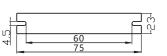
Working	Operating Voltage	AC85~265V/DC80~300V
power	Rated power	<5VA
Input	Rated voltage	380V-660V
voltag	Frequency range	45~65Hz
	Rated current	5A, 32A, 100A, 250A, 500A
Input current	Frequency range	45~65Hz
	Switch value input	8-way passive main line contact DI input, internal supply DC24V power source
Input Output	Relay output	4-way DO output, Contact capacity 250VAC/5A, 30VDC/5A
Carpar	Analog output	Output range 4~20mA, Programmable
	Temperature input	Measure range 0 $℃$ ~100 \textdegree
	Current	±1.0%(10%le~120%le)
	Leakage current	±1.0%(5%lse~100%lse)
Measure	Voltage	±0.5%(20%Ue~150%Ue)
ment accuracy	Frequency	±0.02Hz(45Hz~65Hz)
	Power factor	±1.0%(-1~1)
	Energy	±2.0%
	Power	±2.0%
Communi	Communication interface	RS485 Photoelectric isolation interface
cation	Communication protocol	Modbus-RTU,1200~38400bps Profibus-DP,9600~12Mbps
	Power frequency withstand voltage	AC2kV/min~1mA Input-output-power source (GB/T 13729)
Electrical insulation	Insulation resistance	>50MΩ (GB/T 13729)
	Impact voltage	5kV (Peak) , 1.2/50us (GB/T 13729)
	Operating temperature	-25°C~+70°C
Working environm ent		5%~95% No condensation
	Storage temperature	-30℃~+75℃
	Surge (impact) immunity	GB/T 17626.5-2008,Level3,IEC61000-4-2, level 4
Electrom	Fast pulse group immunity	GB/T 17626.4-2008,Level3,IEC61000-4-5, level 4
agnetic Compati bility	Electrostatic discharge immunity	GB/T 17626.2-2006,Level3,IEC61000-4-4, level 4
	Power frequency magnetic field immunity	GB/T 17626.8-2006,Level3,IEC61000-4-8, level 4

Typical wiring

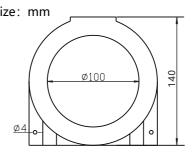
☐ LD45(1000mA:0.5mA), the inner diameter of 45mm, suitable for the rated current of 100A motor

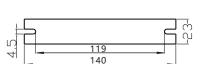
Size: mm



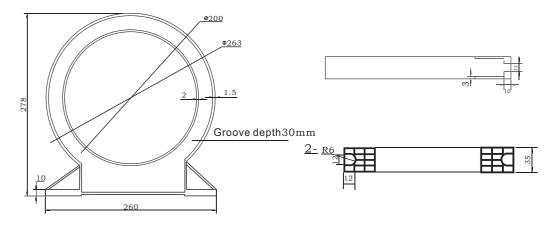


☐ LD100(1000mA:0.5mA), the inner diameter of 100mm, suitable for the rated current of 100A motor





☐ LD200(1000mA:0.5mA), the inner diameter of 200mm, suitable for the rated current of 250A motor Size: mm



Note: 1. The standard wire length of the leakage current transformer secondary line is 1m.

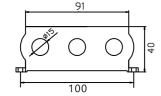
2. The model selection should be based on the cable size.

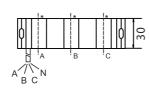
Acquisition unit

☐ Current ratings are 5A, 32A and 100A current harvesting module specifications

Size: mm



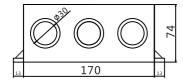


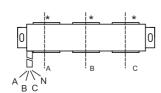


☐ Current Rating 250A current acquisition module specifications

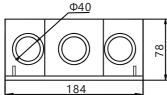
Size: mm

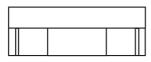






 \square Current Rating 500A current acquisition module specifications





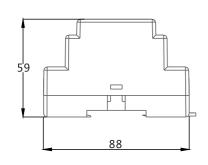
Note: The secondary lateral line length of the current acquisition unit is standard 1 meter

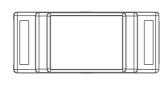
PR-01 Anti SwayElectrical Module

PR-01 anti sway electrical module support for AC 176V-310V, all external power loss conditions, to maintain the controller 3-6s work for undervoltage restart function.

Size: mm

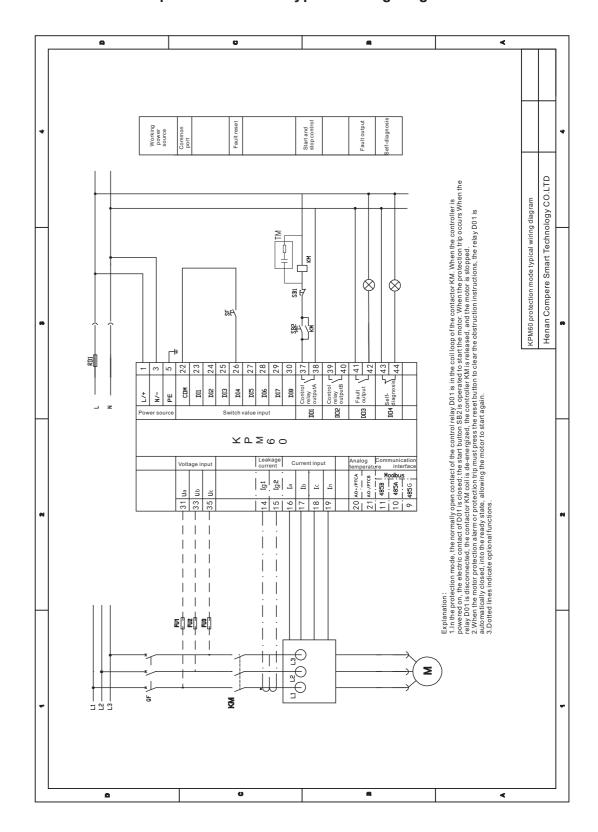




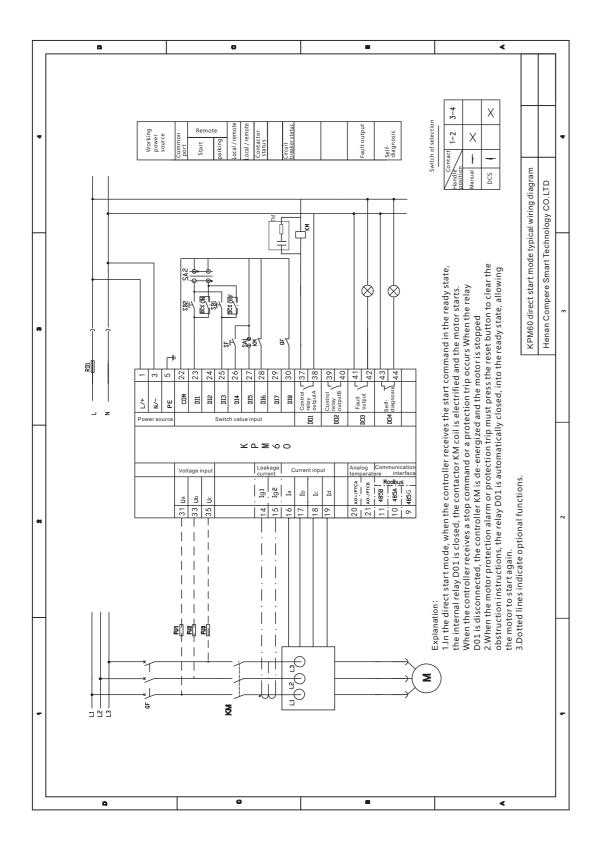




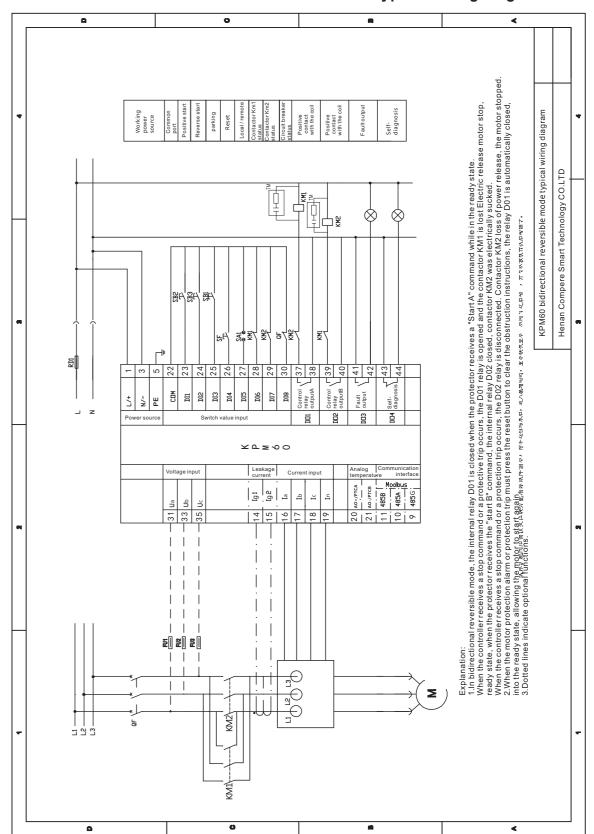
KPM60 protection mode typical wiring diagram



KPM60 direct start mode typical wiring diagram



KPM60 bidirectional reversible mode typical wiring diagram



KPMG60 Wireless vibration sensor



KPMG60 Intelligent temperature and vibration sensor is a new type vibration data acquisition sensor that replaces traditional piezoelectric analog output sensors. KPMG60 is based on the wireless MQTT protocol and are actively uploaded to the equipment health management system by WIFI.

The product is waterproof, dustproof, easy to install and maintain, and the wireless digital signal transmission method eliminates the noise interference caused by long cable transmission, and the whole measurement system has high measurement accuracy and anti-interference capability.

Product Features

- Wifi wireless transmission with built-in antenna
- Outdoor unobstructed communication distance of 150 meters or more
- Bluetooth configuration acquisition and forwarding
- Lithium sub-battery power supply, capacity 12000mAh, working time more than 24 months (measurement interval 5 minutes, data upload interval 24 hours)
- Easy installation, fixture fastening, gluing fixed to the measured equipment
- Protection class:IP66
- Impact limit:100g

Installation instructions





Clamp-on

Screw on

Product size Technical Parameters







	Measuring Vibration Parameters	3 axes (each axis includes acceleration peak value and speed effective value)
	Speed measurement range	0.01-200mm/s
Vibration	Acceleration measurement range	0.01~156.80m/s2(±16g)
characteristics	Resolution	0.01m/s2
	Precision	Acceleration:±5%@80Hz. Speed:±5%@80Hz Displacement: ±5%@80Hz
	Frequency range	10Hz-1600Hz
	Measuring range	-40∼85℃(Temperature sensing element)
Temperature characteristics	Resolution	0.10
	Precision	±1 ℂ (stable temperature)
Ultrasonic	Microphone	Range of amplitude: 0.6 mN/m2 - 20 N/m2
measurements		Measurement frequency: 100Hz~80kHz
Communication	WIFI	Frequency: 2.400 GHz to 2.48 GHz, within 150 m or more
Range	Bluetooth	Frequency: 2.400 GHz to 2.482 GHz, within 10 m
	Power supply	3.6V (Li-ion battery)
Power parameters	Battery capacity	Battery capacity 12000mAH, 3.6V
,	Stand-by current	<30uA
	Working current	<20mA during acquisition, <300mA during data upload
	Shell	PC+ABS
Enclosure Requirements	Size	86*86*41.9mm
Requirements	Installation	Magnetic, Bolt, Curved bracket, Adhesive
	Protection level	IP66
Working	Impact limit	100g
condition	Environment temperature	-40~85°C



Security threshold warning and alarm

Remote Monitoring

Online monitoring of equipment health status

Vibration analysis and health diagnosis

KPM 83 Microprocessor integrated protection relay



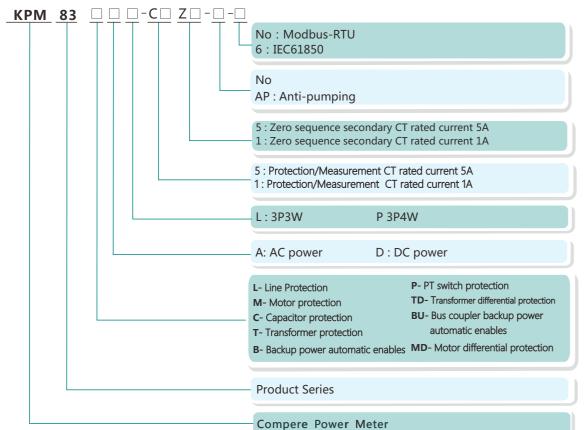
KPM83 series microprocessor integrated protection relay is based on high-performance DSP processor and embedded real-time operating system, it is a protection and monitoring devices that integrated protection, monitoring and control, communications.

It is suitable for substations, power plants, industrial and mining enterprises, construction and other fields with voltage levels up to 35KV. It has protection, telemetry, remote measure, remote adjust and remote control functions. We can provide line protection and monitoring and control, transformer protection and control, motor protection and control, PT protection and control, capacitor protection and control, backup power source automatic enable device bus bar protection and other protection functions.



- Fully enclosed structure, with good seismic dust performance
- Providing complete lines, transformers, motors, capacitors, PT, Bus line connection backup power automatic enable protection and other functions
- Using 192 * 64 dot matrix blue LCD display, all Chinese finished, the display rich and clear, easy to operate, beautiful
 appearance
- RS485 communication method, integrated standard Modbus communication protocol
- Perfect self-test function, improve the abnormal records, time records, records of operations, all information be maintained when power down.
- Advanced embedded real-time operating platform, software and hardware are modular design, easy to upgrade and extend functionality
- Light weight and reasonable structure, the use of high-quality high-level components and SMT production process, the
 product has a high electrical performance

Model selection



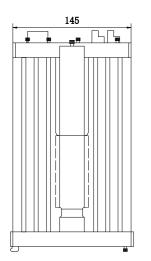


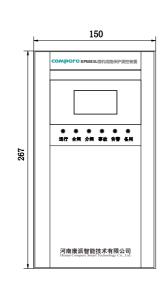
Function selection

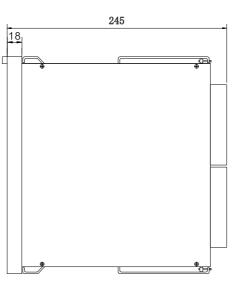
Model Functions	KPM 83L	KPM 83T	KPM 83TD	KPM 83C	KPM 83M	KPM 83MD	KPM 83P	KPM 83B	KPM 83BU
Quick cut-off	•	•	•			•			
Differential quick cut-off prot	ection		•			•			
Overcurrent tage I	•	•	•	•	•	•			•
Overcurrent tage II	•	•	•	•	•	•			
Negative sequence overcurrent stage I					•	•			
Negative sequence					•	•			
overcurrent stage II Inverse time overcurrent					•				
Zero sequence overcurrent	•	•			•				
Unbalanced zero sequence					_				
overcurrent Overload	•				•				
Inverse time overload		_							
Overvoltage protection	•								
Zero sequence overvoltage					•				
Unbalanced zero sequence of Low voltage protection Low voltage protection stage Low voltage protection stage Low-voltage inverse time zero sequence Extraction voltage Short circuit protection	vervoltage								
Low voltage protection	•		•	•		•	•		
Low voltage protection stage					•				
Low voltage protection stage	II				•				
Low-voltage inverse time zero sequence		•							
Extraction voltage	•								
Short circuit protection					•				
Over-heat protection					•	•			
Post-acceleration	•								
Reclosing	•								
PT disconnection	•	•	•	•		•	•		
Discharge PT overvoltage							_		
Non-power protection									
Low frequency load shedding									
Power direction									
2nd harmonic restraint ratio differential Protection			•			•			
CT disconnection detection & blocking			•			•			
Fault recorder									
Long start-up time protection									
Charging protection									
Insulation monitoring									
Control circuit disconnection									
switch output signal									
IA、IB、IC、Ua、Ub、									
Uc, la2, lb2, lc2, U0,	•	•	•	•	•	•			
I0、P、Q、F、COSΦ etc., analog									
Circuit breaker remote switch output signal IA, IB, IC, Ua, Ub, Uc, Ia2, Ib2, Ic2, U0, I0, P, Q, F, COSΦ etc., analog Iah, Ibh, Ich, Ia1, Ib1, Ic1 analog Real-time unbalanced									
Real-time unbalanced current									

Size

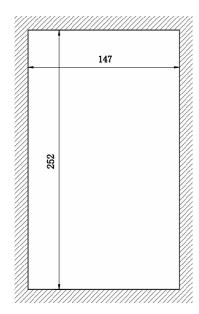
Size (mm)





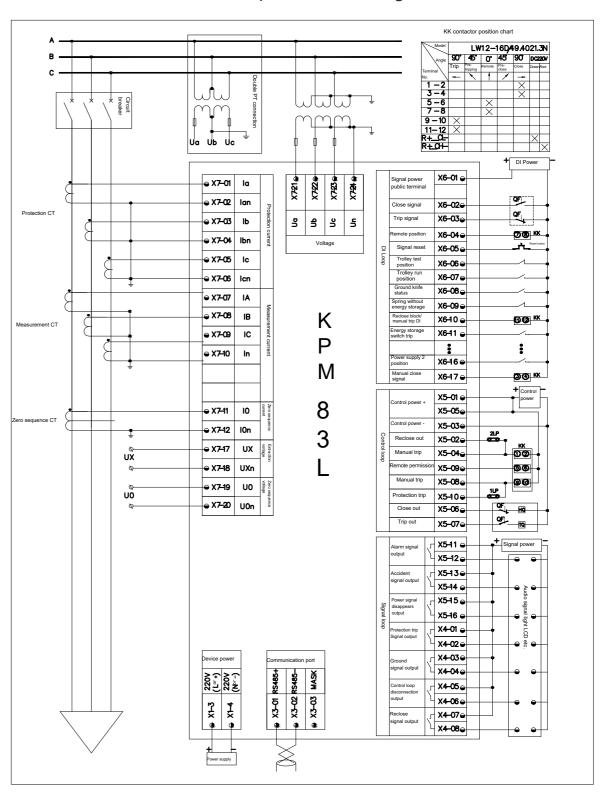


Installation size (mm)



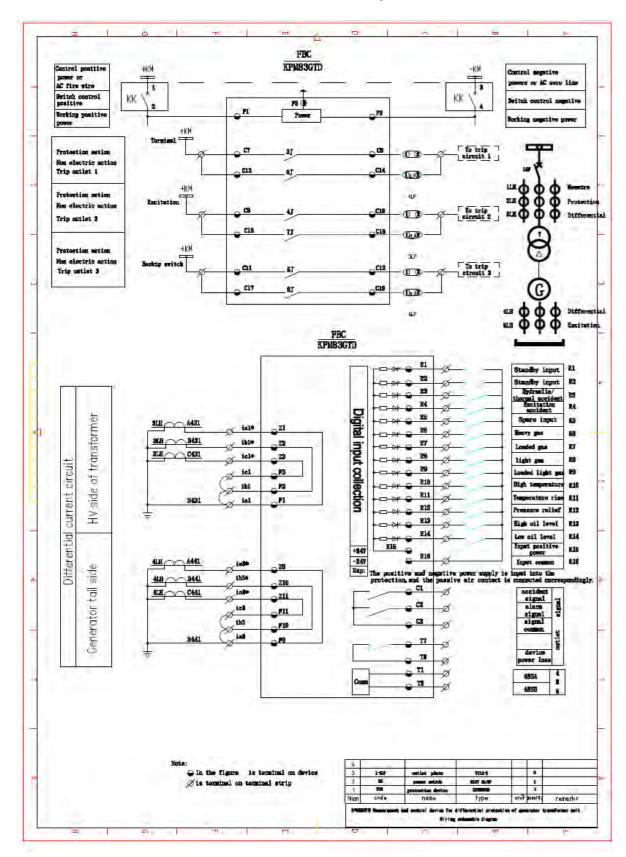
Typical wiring

KPM83L line protection wiring



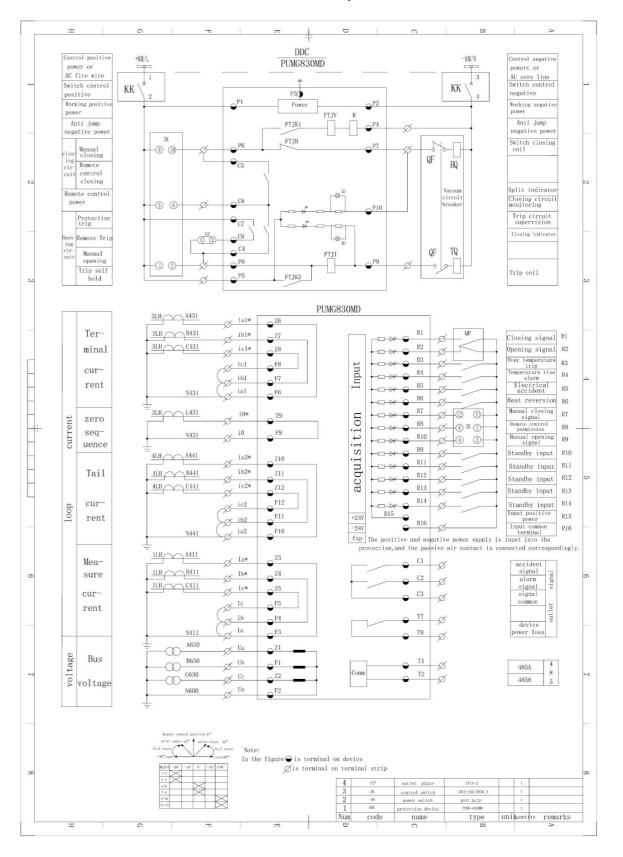
Typical wiring

KPM83TD Transfomer differential protection device



Typical wiring

KPM83MD motor differential protection device



PEF Power Factor Controller



PEF-2000 series power factor controller is a new intelligent power distribution measurement and control equipment integrating functions of measurement, protection, throwing control and communication.

Product Features

- High-speed digital signal processor as the core.
- Chinese and English interfaces are optional, manual and automatic modes are optional.
- With reactive power and power factor as the composite control object, effectively avoiding the phenomenon of over- or under-compensation of reactive power, and small loads do not produce throwing oscillation.
- Analyze the 3rd~21st harmonic content rate of the system, total harmonic distortion rate of voltage (THD%), total harmonic variation rate of current (THD1%).
- Adopt adaptive frequency algorithm, strong anti-interference ability, adapt to various complex field working conditions.
- According to the capacity setting of each compensation branch, the combination of "cyclic cut" and "code-optimized cut" improves the compensation precision and extends the service life of the capacitor bank.
- The combination of "cyclic cut" and "code-optimized cut" can improve the compensation accuracy and extend the service life of capacitor bank.
- International Modbus communication protocol

Technical Parameters

Supply voltage: 220V AC+20%
Sampling voltage: 380VAC20%
Sampling current: 0~5A/0~1A

Control loop number: 12 steps/24 steps

Output node capacity: 220V AC2~5A(PEF2100)

12V DC60mA (PEF2200, PEF2300)

Input/output delay time: 0.02~600s

- Display mode: Chinese and English LCD display
- Parameter measurement: power factor, voltage and current, frequency, active power, reactive power, voltage/current harmonic total distortion rate, voltage/current harmonic content rate, temperature, etc.
- Protection function: over-voltage protection, under-voltage protection, over-current protection, small current protection, harmonic over-limit protection, over-temperature protection Protection, parameter power-down protection
- Additional functions: temperature measurement, fault alarm, forced air cooling control, RS485 communication interface

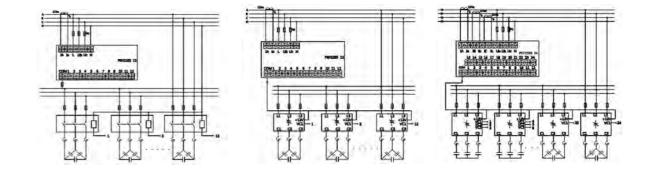
Environment condition

- Ambient temperature:-25 C~+65 C
- Relative humidity:95% max
- Altitude:below 2500m
- Installation environment: clean, no conductive dust

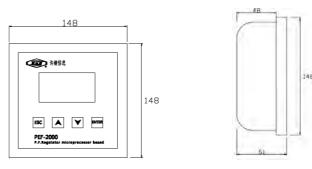
Product List

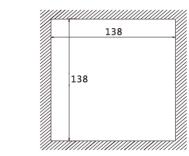
Model	Parameters description	Panel size/mm	Installation size/mm
PEF2100 12	12 steps control by contactor	148*148	138*138
PEF2100 24	24 steps control by contactor	148*148	138*138
PEF2200 12	12 steps control by thyristor	148*148	138*138
PEF2200 24	24 steps control by thyristor	148*148	138*138
PEF2200 12	12 steps split-phase compensation	148*148	138*138
PEF2200 24	12 steps split-phase compensation	148*148	138*138

Wiring diagram



Product size and opening size/mm





CPT Non-tunable compensation filter unit

Consists of CPC series capacitors and CPR series reactors, designed for reactive power compensation and filtering of harmonic pollution distribution systems



Product Features

Adopt enhanced and high quality special filter capacitor with higher voltage withstand level

Adopt H-class insulation, high linearity, low power consumption, high overload capacity and high reliability of special reactor

Advanced technology, strict testing, the parameters of capacitor and reactor match completely

Application occasions

CPT-T non-tunable compensation filter unit with 7% reactance provides reliable reactive power compensation while effectively suppressing the pollution of the 5th and higher harmonics, mainly used in industrial applications or applications with high three-phase loads.

The CPT-T non-tunable compensation filter unit with 14% reactance provides reliable reactive power compensation while effectively suppressing the pollution of the 3rd harmonic and above, mainly used in construction or single-phase load.



CPC 3 phase capacitor Technical parameters

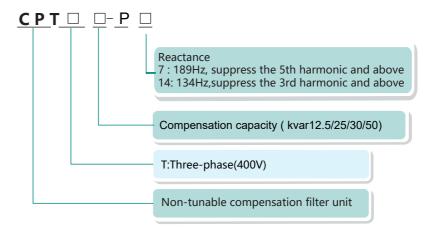
- Rated voltage: 480V (at 7%). 525V (at 14%)
- Over-voltage capacity: 1.1Un(long term operation)
- Overcurrent capacity: 1.5ln(long term operation)
- Dielectric loss:<0.1W/kvar
- Overall loss:<0.2W/kvar</p>
- Capacitance deviation:0~+5%
- Inter-pole withstand voltage:2.15Un,5s
- Case withstand voltage:3600V AC, 2s
- Discharge performance:1min drop to below 75V
- Environment type :-25/D(-25 C~+55 C)
- Life time:150,000 hours
- Standard:IEC60831-12



CPR three-phase reactor Technical parameters

- Rated voltage:400V
- Winding material: High quality low loss pure copper winding
- Overcurrent capacity:1.35In(long term operation)
- Maximum linear current: 1.8In
- Three-phase unbalance rate:-2%~+2%
- Protection grade: IP00
- Insulation class: H class
- Thermal protection:140C
- Reactance rate: 7%, 14% two categories
- Insulation level:3kV/1min
- Standard:IEC60289

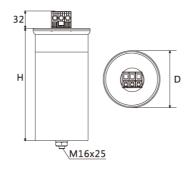
Products list



Products Size (mm)

Design sample

CPC capacitor



CPR Reactor

