



Mz11-08E600~121RM/14D391 Specific Intelligent PTC Thermistor Electric Meter Electric Instrument Resistors

Our Product Introduction

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Basic Information

- Place of Origin: China
- Brand Name: lin kun
- Certification: A2230087967101002E
- Model Number: MZ11 06S 151-251R/10D391
- Minimum Order Quantity: 1000 Pieces
- Price: Contact sales
- Packaging Details: Bulk,500pcs per bag
- Delivery Time: 10-30 work days
- Payment Terms: T/T
- Supply Ability: 1,000,000 Pieces Per Month

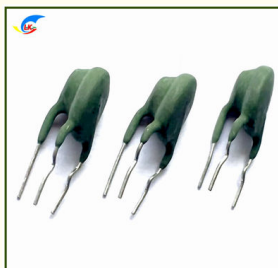


Product Specification

- Dielectric Strength: 500VAC
- Temperature Range: 0°C To +150°C
- Insulation Resistance: 100MΩ
- Thermal Hysteresis: ±0.2°C
- Dissipation Constant: 2mW/°C
- Time Constant: 3s
- Tolerance: ±10%
- Thermal Runaway: ±0.5°C
- Highlight: **Electric Meter PTC Thermistor,
Specific Intelligent PTC Thermistor,
Electric Instrument PTC Thermistor**



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Product Description

MZ11-08E600~121RM/14D391 Specific Intelligent PTC Thermistor Electric Meter High-Quality Electric Instrument Resistors



Description Of The Smart PTC Thermistor

MZ11 type PTC thermistor is mainly assembled in the power input terminal of microcomputer control panel of various household appliances, instruments and meters, or in communication lines and communication equipment for overcurrent, overvoltage, overheating and lightning protection. This product is also called ten thousand times fuse or resettable fuse in electronic engineering. Due to its dual sensitivity to temperature and current, it makes up for the shortcomings of temperature switches that are not sensitive to current and conventional fuses that are not sensitive to temperature. It has the advantages of fast response, strong protection, and high reliability. Truly high quality and inexpensive protection components. When used, it can be directly wound in the transformer wire package or assembled on the circuit board. The protection principle is: connect it in series in the load circuit, when the circuit is in normal working state, the current flowing through the PTC thermistor is not enough to make the temperature rise exceed the Curie temperature and it is in a low resistance state, once the circuit fails or When the overvoltage causes a sudden increase in the current in the circuit, the resistance of the PTC thermistor increases by 3-4 orders of magnitude in a short period of time due to self-heating, and the circuit is cut off in a high resistance state.

When the fault is removed, the PTC thermistor returns to the original conduction state.

The measured voltage is 220V and 265V, the current flowing through the primary of the transformer, tell us the parameters, and you can send samples for testing, electric energy meter application.

Application Guide Of The Smart PTC Thermistor

1. Our company generally requires the manufacturer to measure the current flowing through the primary of the transformer at 1.0Un, 1.2Un, and 1.9Un when the transformer is normally loaded with the PTC thermistor used for the primary overvoltage and overcurrent protection of the transformer.
2. For the carrier meter, our company requires that the ammeter be directly introduced into the assembly circuit of the thermistor.
3. For the three-phase electric meter, our company requires to measure the current flowing through the primary of the transformer when the single-phase power supply is 1.0Un, 1.2Un, and 1.9Un.

4. Unless otherwise specified, the default maximum working ambient temperature of the meter is 70°C. 5. Due to the difference in technology, instantaneous output power and volume of transformers that resist 1.9Un for four hours, our company generally does not recommend manufacturers to use transformers that resist 1.9Un for four hours.
6. If you replace transformers from different manufacturers or the same transformer is used on different power boards, our company recommends that you re-measure relevant parameters and report to our company for confirmation.
7. If your product requires normal measurement under wide voltage (110V-440V), please use our company's composite PTC thermistor.

Application circuit Of The Smart PTC Thermistor
Transformer Primary Thermistor Specifications Of The Smart PTC Thermistor

P/N	non-operating current Ih60°C(mA)	Operating current It25°C/300S(mA)	Applicable transformer		
			1.0Un (mA)	1.2Un (mA)	1.9Un (mA)
MZ11-06E201-401RM	25	80	15	20	60
MZ11-06E301-601RM	20	70	12	18	50
MZ11-06E501-801RM	15	60	10	12	40
MZ11-06E701-102RM	10	50	6.5	8	35
MZ11-06E901-122RM	8	40	5.0	6.5	30
MZ11-06E102-152RM	6	30	4.5	5.0	30
MZ11-04B201-401RM	10	35	6.0	8.0	30
MZ11-04B401-701RM	8.5	30	5.0	7.0	25
MZ11-04B501-801RM	8	30	4.5	6.5	25
MZ11-04B801-122RM	6.5	25	4.0	5.0	20
MZ11-04B102-122RM	6.0	20	4.0	4.5	18
MZ11-08D131-191RM	25	80	15	20	70
MZ11-08E151-251RM	35	90	25	30	80
MZ11-08E900-161RM	40	120	30	35	110
MZ11-08E650-101RM	50	150	35	40	130
MZ11-08E450-700RM	60	200	40	50	180
MZ11-09E200-400RM	80	250	50	70	200

Part Numbering Of The Smart PTC Thermistor

Part number	Normal Operating Voltage	Suitable Meter
MZ11-06E201-401RM/10D391	220±50%AC	single-phase 220V
MZ11-06E151-251RM/10D391	220±50%AC	single-phase 220V
MZ11-06D500-101RM/10D181	100±50%AC	three-phase 100V
MZ11-08E600-121RM/14D391	220±50%AC	220V large user terminal
MZ11-10A101-201RM/14D391	220±50%AC	1200VAC solution
MZ11-10E300-500RM/14D900	57.7±50%AC	three-phase 57.7V

Why should be smart ptc thermistor ?

It has been more than ten years since PTC thermistor was used for overvoltage protection in the primary stage of the meter transformer in 1998. Because the use of thermistor has strict requirements on the parameter matching of the transformer, the environmental temperature has a great influence on its protection speed. Many electric energy meter manufacturers are eager to have a general-purpose PTC thermistor, without considering the size of the power load, without considering the differences between transformer manufacturers, without considering the impact of ambient temperature on the response speed, and meeting all single-phase or three-phase meters. transformer primary overvoltage requirements and can just

Locally reduce the impact of surge voltage and group pulse on meter accuracy. When overvoltage is applied, it responds immediately in a short time, so that the primary voltage of the transformer is clamped at about 220V, and the meter works normally. After the overvoltage is reduced, it will return to the original working state.

In order to thank many power meter users for their strong support and help to our company's products over the years, our company launched a composite PTC thermistor in early 2007. It is used to solve these problems that electric energy meter enterprises are plagued by. A PTC thermistor and a varistor (the varistor value varies according to the rated voltage of the transformer) are packaged together, and the thermistor responds quickly by using the current and temperature generated when the varistor is over-voltage. The effect of the rising resistance of the resistor on the voltage and current in turn protects the varistor.

protect. Due to the comprehensive protection effect of current and voltage between the thermistor and the varistor, the Under the premise that the varistor is damaged, in the design of this composite PTC thermistor, we have made bold designs on the varistor's varistor voltage and the thermistor's rated operating current: it can meet all types of The primary overvoltage protection of the transformer can also speed up the thermal overvoltage protection at any ambient temperature.

The response speed of the varistor can also reduce the group pulse, and the high residual voltage during the surge process affects the accuracy of the meter. After the protection process is completed, due to the influence of the heat dissipation of the varistor, the primary of the transformer can maintain a normal operation of $220\pm 20\%$. Voltage.

There is no overvoltage of 1.9Un after the composite PTC thermistor. We only require that the 56 transformer can work at 300VAC for a long time. This is for the transformer that requires a larger instantaneous power output for the carrier meter. The same volume can output more power. great power.

In order to verify the reliability of the long-term operation of the composite PTC thermistor. Since the beginning of 2007, our company has applied 450V high voltage for 1 minute on the high-voltage aging life test bench, and the power is turned off for 5 minutes for 1000 hours; in the high temperature aging room at 70°C, the high voltage 450V has been continuously operated for 1000 hours. Among the 200 samples, the thermistor and varistor were all intact.

About Us Of The Smart PTC Thermistor

LINKUN is specialized in R&D, manufacturing, application and sales of PTC thermistors in China.

One of the famous manufacturers for sale. The company currently has a production plant area of 3,000 square meters, masters a complete set of mature production processes, has the most mainstream standard production lines, experienced professionals and advanced testing equipment, and annually produces and sells 150 million PTC thermistors. above. Technology leadership and application guidance are the core competitiveness of the company. At present, the company has dozens of senior technical personnel in the industry. It has joined hands with the material colleges of well-known domestic universities to participate in the scientific and technological research and application projects of PTC materials for many times. It has stable and mature fans. Body formula and four patents including composite PTC thermistor with independent intellectual property rights product. At the same time, the company also has a large number of professional sales staff, who have a deep understanding of the application principle of thermistors, enabling them to provide customers with advanced application solutions and perfect after-sales service. The company has passed the ISO9001: 2008 quality system certification. All products of the company meet the requirements of ROHS. The products are mainly used in the primary of smart meter power transformer, 485 232 communication interface, IC card interface 4-20mA small signal interface and relay contact protection and In the protection circuits such as arc extinguishing control, the company also has very unique application technology and experience in the protection circuits of low-power switching power supplies and linear power supplies. At present, it mainly serves the domestic first-class intelligent instrument manufacturers. Advanced management experience, standard production lines and professional production and R&D personnel ensure that the company's products have stable first-class quality and better functions, so that customers can feel better products, more reasonable prices and more intimate service. It is the unanimous pursuit of every Jinyang member.

Linkun hopes to be your seamless partner to create a better future with you!

Selection of Thermistors for Dongguan Linkun Electronics Co., Ltd

LKMZBseries overcurrent protection type ptc thermistors commonly used models

Order Number	Curie Temp	Resistance Rn (Ω)	Trip Current It(mA)	non-Operatin	Max. Current Imax(A)	Max. Voltage Vmax(V)	Dimensions (mm)	
	Tc (°C)			g Current Ih(mA)			Dmax	Hmax
LKMZB-03I202-302R	85±7	2500	16	3	0.2	420	4	5
LKMZB-03I102-202R	85±7	1500	18	4	0.2	420	4	5
LKMZB04I801-122R	85±7	1000	25	6	0.2	420	4.5	5
LKMZB-04I501-801R	85±7	650	28	7	0.2	420	4.5	5
LKMZB-04I301-501R	85±7	400	32	8	0.2	420	4.5	5
LKMZB-04M101-202R	105±7	1500	25	6	0.2	420	4.5	5
LKMZB-04M801-122R	105±7	1000	28	8	0.2	420	4.5	5
LKMZB-04M501-801R	105±7	650	30	10	0.2	420	4.5	5
LKMZB-06S102-202R	115±7	1500	30	10	0.3	420	6.5	5
LKMZB-06S801-122R	115±7	1000	35	12	0.3	420	6.5	5
LKMZB-06S601-901R	115±7	750	42	14	0.3	420	6.5	5
LKMZB-06S501-801R	115±7	650	45	15	0.3	420	6.5	5
LKMZB-06S401-601R	115±7	500	50	16	0.3	420	6.5	5
LKMZB-06S201-401R	115±7	300	60	20	0.3	420	6.5	5
LKMZB-06S151-251R	115±7	200	75	25	0.3	265	6.5	5
LKMZB-06S101-201R	115±7	150	80	28	0.3	265	6.5	5
LKMZB-06S900-151R	115±7	120	90	30	0.3	265	6.5	5
LKMZB-06M600-100R	105±7	80	100	32	0.3	265	6.5	5
LKMZB-06M400-800R	105±7	60	120	35	0.3	265	6.5	5
LKMZB-08S301-501R	115±7	400	80	20	0.8	420	8	5
LKMZB-08S201-301R	115±7	250	80	25	0.8	420	8	5
LKMZB-08S151-251R	115±7	200	100	28	0.8	420	8	5
LKMZB-08S900-151R	115±7	120	120	35	0.8	420	8	5
LKMZB-08S600-101R	115±7	80	140	40	0.8	420	8	5
LKMZB-08S400-800R	115±7	60	160	50	0.8	265	8	5
LKMZB-08S300-500R	115±7	40	180	60	0.8	265	8	5
LKMZB-10S300-500R	115±7	40	200	70	3	265	9	5
LKMZB-10S200-300R	115±7	25	250	80	3	265	9	5
LKMZB-13S200-300R	115±7	25	300	100	4	265	13	5
LKMZB-13S100-200R	115±7	15	360	120	4	265	13	5
LKMZB-16S200-300R	115±7	25	360	120	8	265	16	5
LKMZB-16S100-200R	115±7	15	420	140	8	265	16	5
LKMZB-16S080-150R	115±7	12	420	160	8	265	16	5

Remarks:Can be made into a machine plug-in, with an additional price

二、Common models of LK-MZB series composite thermistors

Order Number	Curie Temp	Trip Current	Non-Operating Current	Voltage sensitive	Max. Voltage	Dimensions (mm)	
	Tc (°C)	It(mA)	Ih(mA)	V(V)	Vmax(V)	Dmax	Hmax
LKMZB-08S300-600R/14D121	115±7	200	60	120	65	16	10
LKMZB-08S400-800R/14D181	115±7	200	50	180	120	16	10
LKMZB-10S300-500R/14D181	115±7	250	70	180	120	16	10
LKMZB-06S201-401R/10D391	115±7	80	20	390	265	12	10
LKMZB-06S151-251R/10D391	115±7	100	25	390	265	12	10
LKMZB-06S800-150R/10D391	115±7	120	35	390	265	12	10
LKMZB-08S600-121R/12D391	115±7	180	40	390	265	14	10
LKMZB-08S400-800R/12D391	115±7	200	60	390	265	14	10
LKMZB-10S400-800R/14D491	115±7	220	70	390	330	16	10
LKMZB-10S300-500R/14D391	115±7	250	90	390	265	16	10
LKMZB-10S250-400R/14D391	115±7	280	100	390	265	16	10
LKMZB-10S150-250R/14D391	115±7	350	120	390	265	16	10
LKMZB-16S200-300R/20D391	115±7	450	150	390	265	22	10
LKMZB-16S080-150R/20D391	115±7	600	200	390	265	22	10

Remarks: Can be made into a machine plug-in, with an additional price

Product Description:

Product Overview

Our **PTC Type Thermistor** is a special kind of thermistor with a Positive Temperature Coefficient (PTC) thermistor, which is used to detect and measure temperature. It is designed to have a robust construction to withstand the thermal shock resistance of $\pm 0.5^{\circ}\text{C}$. With its rated power at 0.25W and operating voltage at 50V, it provides a reliable and accurate measurement of temperature. Its dissipation constant is 2mW/°C, ensuring a stable measurement.

Features:

Product Name: **PTC Type Thermistor**

Temperature Range: **0°C To +150°C**

Resistance Range: **10Ω To 10KΩ**

Time Constant: **3s**

Insulation Resistance: **100MΩ**

Type: **Positive Temperature Coefficient Thermistor**

Technical Parameters:

Parameter	Value
Product Name	PTC Type Thermistor
Thermal Hysteresis	$\pm 0.2^{\circ}\text{C}$
Operating Voltage	50V
Thermal Shock Resistance	$\pm 0.5^{\circ}\text{C}$
Tolerance	$\pm 10\%$
Dielectric Strength	500VAC
Thermal Time Constant	3s
Thermal Runaway	$\pm 0.5^{\circ}\text{C}$
Time Constant	3s

Rated Power 0.25W

Applications:

Lin Kun's MF11 Positive Temperature Coefficient Thermistor is a reliable and robust device for many electrical and electronic applications. It is designed with high-quality materials to ensure robustness and precision performance. Its thermal hysteresis is $\pm 0.2^{\circ}\text{C}$, rated power is 0.25W, and thermal shock resistance is $\pm 0.5^{\circ}\text{C}$. Its resistance range is 10Ω to $10\text{K}\Omega$, and insulation resistance is $100\text{M}\Omega$. Because of its excellent performance, this thermistor is widely used in temperature control and thermal protection systems in various industries, such as automotive, medical, military and aerospace.

The MF11 Positive Temperature Coefficient Thermistor has a wide range of features and benefits. It provides accurate temperature control, fast response time, and high reliability. It also has a low thermal resistance, low power consumption, and a wide temperature range. All these features make it an ideal choice for applications such as temperature sensing, temperature control, temperature compensation, and thermal protection.

Lin Kun's MF11 Positive Temperature Coefficient Thermistor is the perfect solution for any temperature control or thermal protection applications. It is designed to meet the highest quality standards, and its excellent performance makes it the perfect choice for any industrial temperature control applications. With its excellent features and benefits, it is the perfect choice for any temperature control or thermal protection applications.

Customization:

Customized Positive Temperature Coefficient Thermistor (PTC Type) Service

Brand Name: Lin Kun

Model Number: MF11

Place of Origin: China

Insulation Resistance: $100\text{M}\Omega$

Thermal Shock Resistance: $\pm 0.5^{\circ}\text{C}$

Time Constant: 3s

Thermal Hysteresis: $\pm 0.2^{\circ}\text{C}$

Resistance Range: 10Ω To $10\text{K}\Omega$

We provide customized Positive Temperature Coefficient (PTC) Thermistor service with the highest quality and standards. Our PTC Thermistors are ideal for temperature sensing, overcurrent protection, and motor start-up protection.

Support and Services:

PTC Type Thermistor offers professional technical support and service. Customers can contact us directly via email, phone or live chat. We have a team of experienced and knowledgeable engineers who can provide comprehensive technical support and service for PTC Type Thermistor products. Our engineers are available to answer questions, provide troubleshooting advice and help to resolve any technical issue you may encounter.

We also offer 24/7 customer service and product warranty. All PTC Type Thermistor products come with a one-year warranty against any manufacturer defects. In addition, our customer service team is available to answer any questions and provide technical support at any time.



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