

# PTC Thermistors For Electric Motor Protection

/ MZ6型电机保护PTC热敏电阻

## General information on PTC thermistors PTC 热敏电阻概述

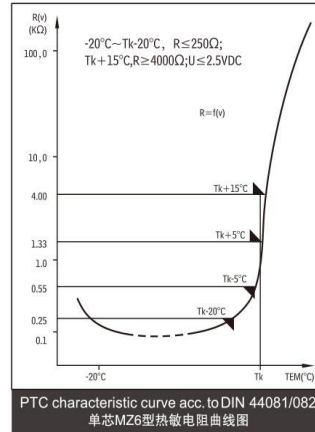
PTC thermistors acc. to DIN 44081 (triple sensors acc. to DIN 44082) are used to protect electrical machines against thermal overload. Thermistors have an even steeper R/T characteristic as that defined in the DIN standard. The temperature range is from 60 to 180°C. PTC thermistor beads with different rated response temperatures can be connected in series. This permits an optimal and economic thermal protection of machines and windings with different limit temperatures.

MZ6 型电机保护 PTC 热敏电阻，其关键技术是 90 年从美国引进。现已有十几年的生产经验，该产品可对电机及其它部位进行超温保护。将 PTC 热敏电阻埋置在电机的三相线圈中，当电机线圈的温度接近绝缘等级温度时，其 PTC 热敏电阻阻值升高，此信号传送到 GRB 电机过热保护器中，保护器根据此信号将电机电路断开，从而保护电机，是目前国际上普遍采用的电机保护方式。

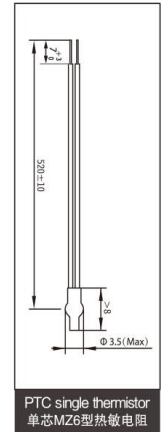


## Technical Data PTC acc. to DIN 44081/082 技术参数

	Single 单芯	Triple 三芯	单位
最大直流工作电压 Max. operating voltage	30	30	V
额定动作温度 Rated response temperature Tk	60-180		°C
Tk的公差 Tolerance of Tk	± 5	± 5	K
Tk的重复性 Reproducibility of Tk	± 0.5	± 0.5	K
常温阻值R25 Resistance R25	≤ 100	≤ 300	Ω
PTC电阻 Tk -5k 在某一温度时 Resistance at a temperature of Tk -5K	≤ 550	≤ 1650	Ω
PTC电阻 Tk +5k 在某一温度时 Resistance at a temperature of Tk +5K	≥ 1330	≥ 3990	Ω
PTC电阻 Tk +15k 在某一温度时 Resistance at a temperature of Tk +15K	≥ 4	≥ 12	kΩ
Tk动作时间 Td Thermal response time Td	≤ 5	≤ 5	s
绝缘强度V Insulation test voltage V	AC 2.5	AC 2.5	kV
最高允许工作温度 Max. operating temperature	200	200	°C
最高允许存放温度 Max. storage temperature	160	160	°C
最低允许存放温度 Min. storage temperature	-25	-25	°C
重量 Weight	2	3.5	g



PTC characteristic curve acc. to DIN 44081/082  
单芯MZ6型热敏电阻曲线图



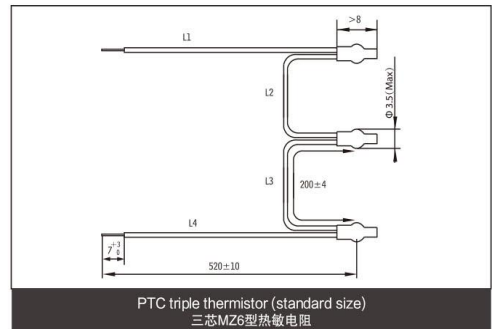
PTC single thermistor  
单芯MZ6型热敏电阻

## PTC Identification and Part Numbers PTC彩色编码

The colour of the connection leads identifies the rated response temperature. These are defined in DIN 44081/082

连接导线的颜色代表不同的温度。PTC 导线颜色编码通过了 DIN44081/44082 国际标准。

动作温度 Tk (°C)	Color of Leads 导线颜色	Single单芯 PTC DIN 44081编码	Triple三芯 DIN 44082编码
70	White/Brown 白/棕	MZ6-70-E	MZ6-70-D
80	White/White 白/白	MZ6-80-E	MZ6-80-D
90	Green/Green 绿/绿	MZ6-90-E	MZ6-90-D
100	Red/Red 红/红	MZ6-100-E	MZ6-100-D
110	Brown/Brown 棕/棕	MZ6-110-E	MZ6-110-D
120	Gray/Gray 灰/灰	MZ6-120-E	MZ6-120-D
130	Blue/Blue 蓝/蓝	MZ6-130-E	MZ6-130-D
140	White/Blue 白/蓝	MZ6-140-E	MZ6-140-D
145	White/Black 白/黑	MZ6-145-E	MZ6-145-D
150	Black/Black 黑/黑	MZ6-150-E	MZ6-150-D
155	Blue/Black 蓝/黑	MZ6-155-E	MZ6-155-D
160	Blue/Red 蓝/红	MZ6-160-E	MZ6-160-D



PTC triple thermistor (standard size)  
三芯MZ6型热敏电阻

## Application 特点

PTC thermistors are used to monitor temperature in machines and installations. The design ensures short response times and easy installation.

MZ6型电机保护PTC热敏电阻符合DIN44081/DIN44082国际标准。其体积小（尺寸：1.8 x 0.6mm），反应快，规格齐全，长期使用性能稳定，可靠性高。特别是在电机缺相时能迅速反应，保护电机。