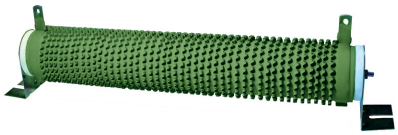
Wire-Wound Resistors
Power (Ribbon) Type

multicomp PRO



RoHS Compliant

Type	Power Rating	Resistance tolerance	Nominal Resistance
MPQRZG	200W	J	10Ω

Ratings

Type	Rated Power at 70°C (W)	Resistance Range	Resistance Tolerance	Operating Temp. Range
MPQRZGJ010J200	200	1Ω ~ 9.1Ω	± 5%	-55°C~ +155°C
MPQRZGJ047J300	300			
MPQRZGJ0100500	500	1Ω ~ 20Ω		
MPQRZGJ010J750	750	1Ω ~ 75Ω		
MPQRZGJ0101A00	1000	1Ω ~ 100Ω		
MPQRZGJ0100A00				
MPQRZGJ010JA00				
MPQRZGJ022JA00				
MPQRZGJ0220A00				
MPQRZGJ0330A00				
MPQRZGJ0470A00				
MPQRZGJ0100A50	1500	1Ω ~ 120Ω		
MPQRZGJ010JA50				
MPQRZGJ0101C00	2000			
MPQRZGJ010JC00				
MPQRZGJ0101C50	2500			
MPQRZGJ0100C50				
MPQRZGJ010JC50				
MPQRZGJ0220C50				

Power Rating

Resistors shall have a power rating based on continuous full load operation at an ambient temperature of 70°C. For temperature in excess of 70°C.

Voltage Rating

Resistors shall have a rated direct-current (DC) continuous working voltage or an approximate sine-wave root-mean-square (RMS) alternating-current (AC) continuous working voltage at commercial line frequency and waveform corresponding to the power rating , as determined from the following formula :

RCWV = $\sqrt{P \times R}$

Note : Max. Working Voltage or $\sqrt{P \times R}$ whichever is lesser

Max. Overload Voltage or 2.5 $\sqrt{P \times R}$ whichever is lesser

Where : RCWV = Rated DC or RMS AC continuous working voltage at commercial-line frequency and waveform (volt)

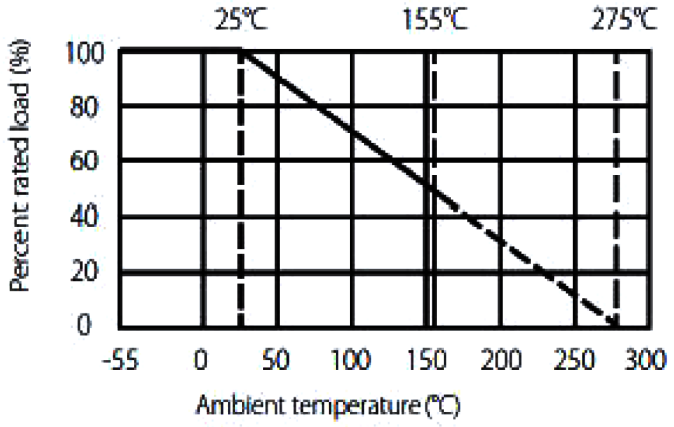
P = Power Rating (watt)

R = Nominal Resistance (Ω)

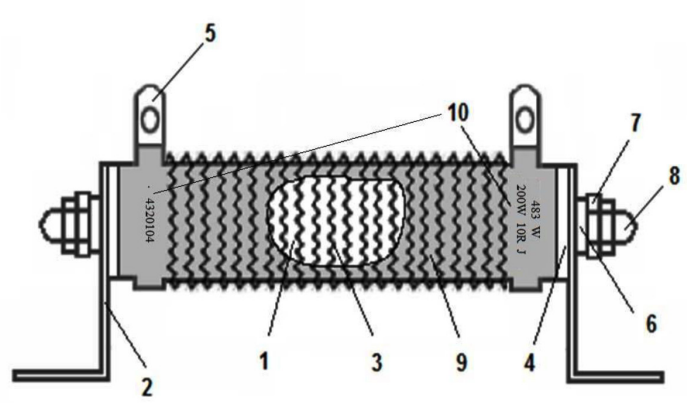
Wire-Wound Resistors
Power (Ribbon) Type

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Derating Curve



Construction



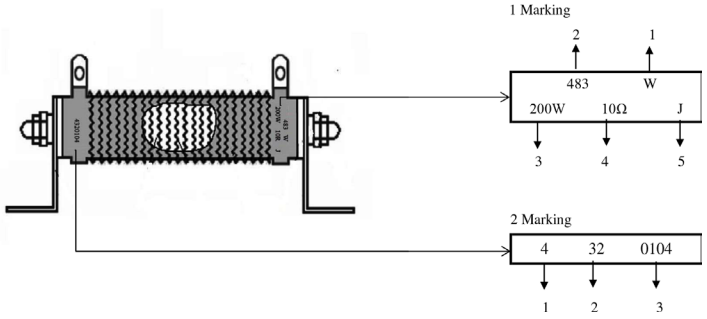
No.	Name	Material	Material Generic Name
1	Basic Body	Tube Type Ceramic	Al_2O_3, SiO_2
2	Terminal Support L	Stainless Steel	Stainless Steel
3	Resistance Wire	Resistance wire Alloy	Resistance wire Alloy
4	Mica	Mica	Mica
5	Terminal Ring	Stainless Steel	Stainless Steel
6	Spring Washer	Stainless Steel	Stainless Steel
7	Hex Nut	Stainless Steel	Stainless Steel
8	Cap Nut	Stainless Steel	Stainless Steel
9	Coating	Insulated & Non-Flame paint (Colour: Green)	Non-Flame paint
10	Marking	Marking Ink	Marking Ink

Wire-Wound Resistors
Power (Ribbon) Type

Performance Specifications

Characteristics	Limits	Test Methods (JIS C 5201-1)
DC. Resistance	Must be within the specified tolerance.	The limit of error of measuring apparatus shall not exceed allowable range or 5% of resistance tolerance (Sub-clause 4.5)
Temperature coefficient	<20Ω : ± 400 PPM/°C Max. ≥20Ω : ± 300 PPM/°C Max.	Natural resistance change per temp. degree centigrade. $\frac{R2-R1}{R1(t2-t1)} \times 10^6$ (PPM/°C) R1: Resistance value at room temperature (t1) R2: Resistance value at room temp. plus 100°C (t2) (Sub-clause 4.8)
Short time overload	Resistance change rate is ± (2% + 0.05Ω) Max. with no evidence of mechanical damage	Permanent resistance change after the application of a potential of 2.5 times RCWV for 5 seconds (Sub-clause 4.13)
Terminal strength	Resistance change rate is ±(1.0% + 0.05Ω) Max. with free of visible damage	Ual:45N ,30 seconds
Load life in humidity	Resistance change rate is ±(5% +0.05Ω) Max. with no evidence of mechanical damage	Resistance change after 1,000 hours in a humidity test chamber controlled at 40°C ±2°C and 90 to 95 % relative humidity (Sub-clause 4.24.2.1)
Load life	Resistance change rate is ±(5% + 0.05Ω) Max. with no evidence of mechanical damage	Permanent resistance change after 1,000 hours operating at RCWV with duty cycle of (1.5 hours “on”, 0.5 hour “off”) at 70°C ± 2°C ambient

Marking



Colour of marking : Black ink

Code description and regulation

1. Marking

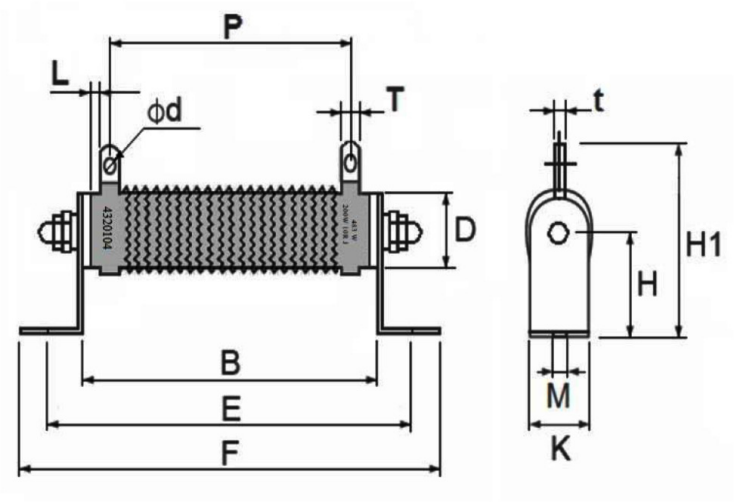
1. W marking for Wire wound type
2. Date manufactured.
3. Wattage rating.
4. Nominal resistance value.
5. Resistance tolerance.

2. Marking

Lot detail

First code:	Year : Year of lot manufactured	Example : 4 = Year 2024
Second code:	Week : Week of lot manufactured	Example : 32 = Week 32
Third code:	Production Code	Example : 0104

Diagram



Part Number	Dimension												
	B ±2	E±5	F±3	D±2	H±1	H1±3	M±0.5	K±1	L±1	P±3	T±0.5	t±0.5	Ød±0.5
MPQRZGJ010J200	195	217	239	40	41	81	8	40	3	179	10	1.8	5.5
MPQRZGJ047J300	282	304	326							266			
MPQRZGJ0100500	316	338	360	50	45	101		50		294	16		6.5
MPQRZGJ010J750													
MPQRZGJ0101A00	300	325	350	60	60	119	8.5	60		279	15	2	
MPQRZGJ0100A00													
MPQRZGJ010JA00													
MPQRZGJ022JA00													
MPQRZGJ0220A00													
MPQRZGJ0330A00													
MPQRZGJ0470A00													
MPQRZGJ0100A50	415	440	465							394			
MPQRZGJ010JA50													
MPQRZGJ0101C00	510	535	560							489			
MPQRZGJ010JC00													
MPQRZGJ0101C50	600	625	650							577			
MPQRZGJ0100C50													
MPQRZGJ010JC50													
MPQRZGJ0220C50													

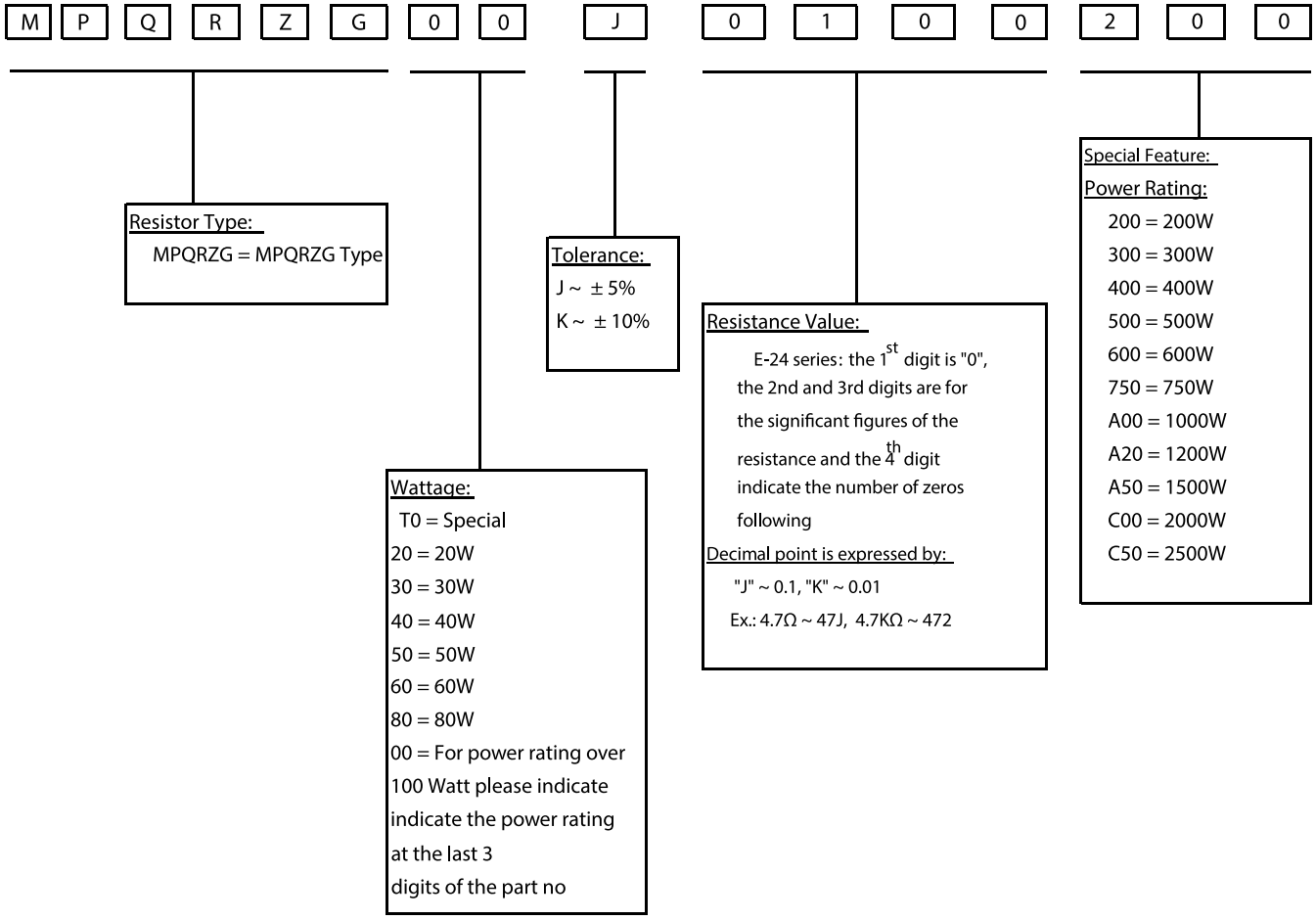
Dimensions : Millimetres

Wire-Wound Resistors
Power (Ribbon) Type

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Explanation of Part Number System

(Power (Ribbon) Wire-Wound Resistors)



Sample: MPQRZG 200W +/- 5% 1Ω B/B → MPQRZGT0J010J200

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