

MCRF – FULLOHM

300, 400, 500, 600, 800, 1000, 1200, 1500, 2000W Metal Clad Wire Wound Resistors

Functions and Features

It is metal wire wound resistor with metal housing which is strong to external impact at rated power of 80W ~ 200W.

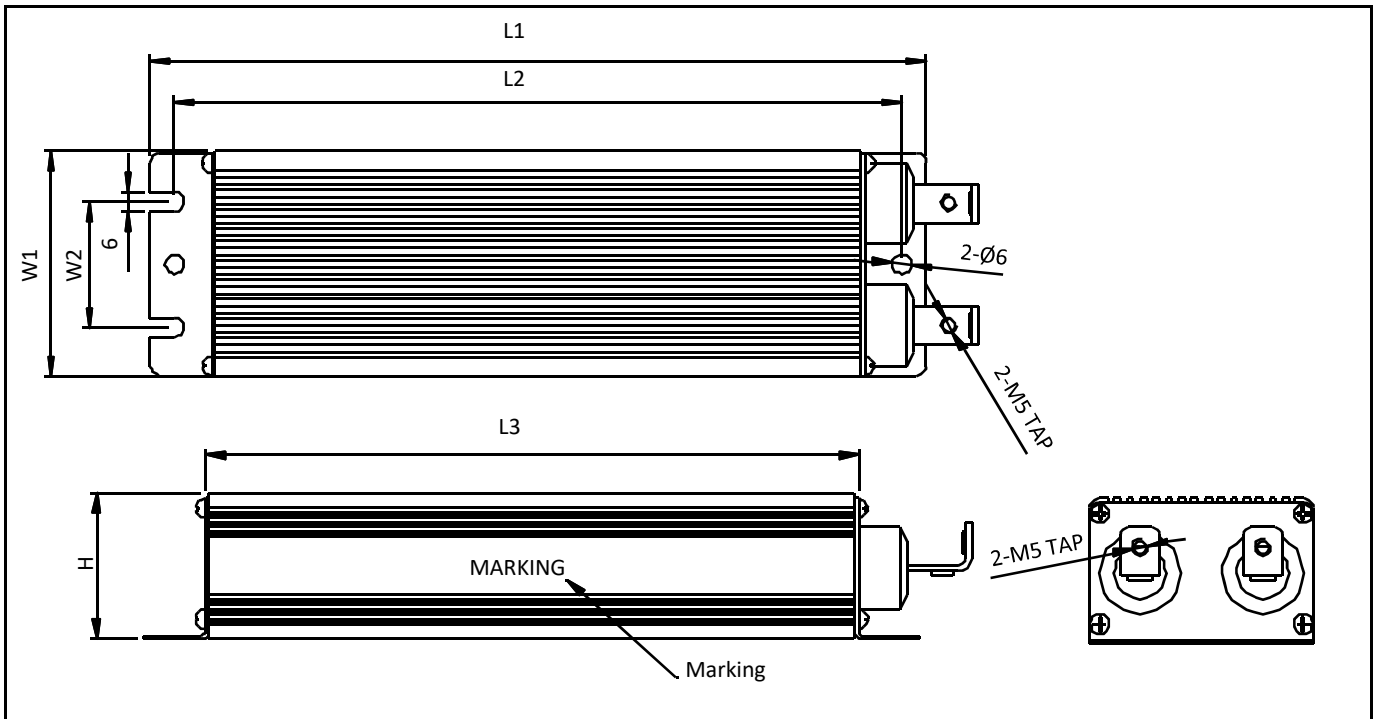
The resistance value can be selected from inducted winding or non-inducted winding from 0.1Ω.

It has a rectangular structure consisting of aluminum case with excellent thermal conductivity, the structure with excellent heat resistance and a non-combustible insulator to save the space.

This device may be used for electric power equipment, motor control circuit, regenerative braking resistor, inrush current prevention circuit and current detection resistor of general load resistance.



■ Outline Dimensions (mm)



	L1±1mm	L2±1mm	L3±1mm	W1±0.5mm	W2±0.5mm	H±1mm	Weight(kg) ±10%
MCRF-300	190	175	152	70	39	45	0.9
MCRF-400	220	205	182	70	39	45	1.1
MCRF-500	240	225	202	70	39	45	1.2
MCRF-600	260	245	222	70	39	45	1.3
MCRF-800	300	285	262	70	39	45	1.5
MCRF-1000	340	325	302	70	39	45	1.8
MCRF-1200	400	385	362	70	39	45	2.1
MCRF-1500	440	425	402	70	39	45	2.3
MCRF-2000	510	495	472	70	39	45	2.8

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Ordering Information

타입 Type&Terminal MCRF	정격전력 Power 1200	유도/무유도 Ind./non-ind. W	저항값 Resistance 50Ω	허용오차 Tolerance J
Std. (metal) W (wire)	300 to 2000 (Watt)	W(inductive) N (non-ind.)	Any value	±1.0% (F) ±5.0% (J) ±10% (K)

Note: Tolerance ±5%(J) is standard.

Specifications and Performances

Characteristics	Standards	Test method
Rated Resistance and Resistance tolerance	Resistance Tolerance ± 1% (F) ± 5% (J) ± 10% (K)	
Temperature coefficient	±260ppm/°C max.	
Power rating load	Surface temperature rise 450°C max.	
Short-time overload	No evidence of arc damage etc. (0.5% + 0.05Ω)	$V = \sqrt{10 * P * R} \rightarrow 5\text{sec.}$
Insulation resistance	20MΩ min.	DC1,000V
Dielectric withstanding voltage	No evidence of mechanical damage or insulation breakdown (0.5% + 0.05Ω)	AC2,500V / 1 minute
High temperature exposure	No evidence of mechanical damage (0.5% + 0.05Ω)	275°C 2 hours
Thermal shock	No evidence of mechanical damage (0.5% + 0.05Ω)	a. Continuous 1) -55 : 30 min 2) 25 : 5 min 3) 155 : 30 min 4) 25 : 5 min
Low temperature storage	No evidence of mechanical damage (0.5% + 0.05Ω)	40°C 24hours -> 25°C 2~8 hours

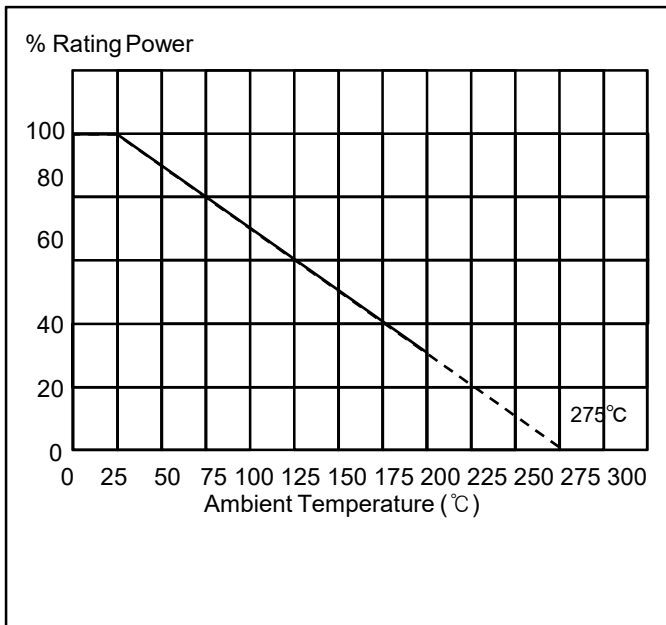
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■ Rated power and Resistance

Model	Rated Wattage	Resistance Value(Ω)		Tolerance
		W	N	
MCRF-300	300W	0.1~500	0.1~200	F: $\pm 1\%$ J: $\pm 5\%$ K: $\pm 10\%$
MCRF-400	400W	0.1~600	0.1~300	
MCRF-500	500W	0.1~600	0.1~300	
MCRF-600	600W	0.1~800	0.1~350	
MCRF-800	800W	0.1~1.0k	0.1~500	
MCRF-1000	1.0kW	0.1~1.5k	0.1~700	
MCRF-1200	1.2kW	0.1~2.0k	0.1~1.0k	
MCRF-1500	1.5kW	0.1~5.0k	0.1~2.0k	
MCRF-2000	2.0kW	0.1~7.0k	0.1~3.0k	

■ Derating curve



■ Temperature Rise

