

PRECISION TYPE METAL CLAD RESISTORS

RHE / M, RHFE / M

Features :

- Ideal for current sensing application.
- Small size, high power and ultra precise resistors.
- Ultra precise resistors in low resistance value are available.
- Low temperature coefficient.
- Strongly resistant to moisture, Solvent, Dielectric Strength, and Insulation.

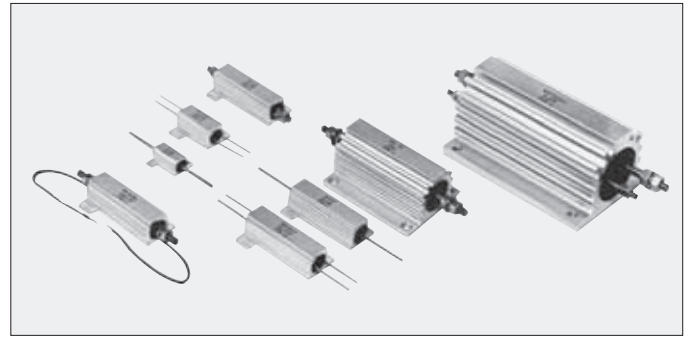
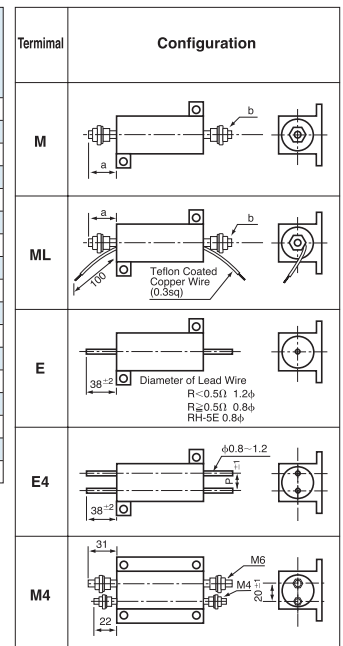
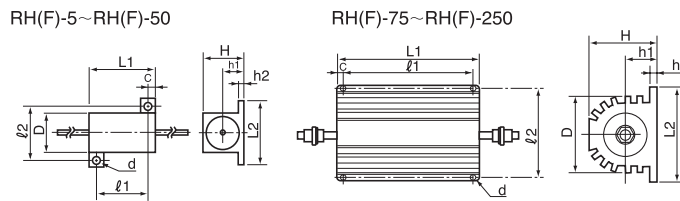


Fig. 1

Type	Wattage Rating (W)		Terminal	Resistance Range (Ω)						Maximum Resistance (Ω)	Maximum Current Running (A)	MAX Working (V)	Dielectric Strength (V)
	Chassis Mounted*	Free Air		Resistance Tolerance Minimum Resistance (Ω)									
				±1% (F)	±0.5% (D)	±0.1% (B)	±0.05% (A)	±0.02% (Q)	±0.01% (T)				
RH-5E	2	1	2	0.02~	0.1~	1~	2~	20~	30~	150K	10	300	500
RH-10E	4	2	2	0.02~	0.1~	0.3~	1~	10~	20~	300K	14	300	1,000
RH-10E4	4	2	4	0.02~	0.02~	0.05~	0.1~	0.2~	20~	300K	14	300	1,000
RH-25E	6	3	2	0.02~	0.1~	0.5~	1~	10~	20~	600K	17	400	1,000
RH-25E4	6	3	4	0.01~	0.01~	0.03~	0.05~	0.1~	10~	600K	24	400	1,000
RH-50E	10	4	2	0.02~	0.1~	0.5~	1~	10~	20~	3M	22	1,300	2,000
RH-50E4	10	4	4	0.01~	0.01~	0.02~	0.05~	0.1~	10~	3M	25	1,300	2,000
RH-50M	10	4	2	0.01~	0.05~	0.3~	0.5~	—	—	2M	31	1,300	2,000
RH-50ML	10	4	4	0.001~	0.005~	0.01~	0.02~	0.05~	5~	2M	100	1,300	2,000
RH-75M	20	8	2	0.01~	0.05~	0.3~	0.5~	10~	20~	150K	44	1,300	4,500
RH-75ML	20	8	4	0.001~	0.001~	0.001~	0.005~	0.01~	1~	150K	140	1,300	4,500
RH-100M	30	12	2	0.01~	0.05~	0.1~	0.3~	10~	20~	350K	50	1,400	4,500
RH-100ML	30	12	4	0.001~	0.001~	0.001~	0.005~	0.01~	1~	350K	170	1,400	4,500
RH-100M4	30	12	4	0.001~	0.001~	0.001~	0.005~	0.01~	—	0.5	170	1,400	4,500
RH-250M	50	20	2	0.01~	0.05~	0.1~	0.3~	10~	20~	600K	70	1,700	4,500
RH-250ML	50	20	4	0.001~	0.001~	0.001~	0.005~	0.01~	1~	600K	200	1,700	4,500
RH-250M4	50	20	4	0.001~	0.001~	0.001~	0.005~	0.01~	—	0.5	200	1,700	4,500



*On Test Chassis Mounted

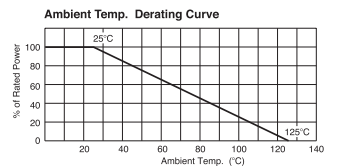


Test Chassis Dimensions

- RH(F)-5 · 10 152×102×51×1t
- RH(F)-25 · 50 178×127×51×1t
- RH(F)75~250 305×305×3t

Type	Dimensions (mm)													Weight (g)
	L1±1	L2±0.8	ℓ1±0.8	ℓ2±0.8	D±1	H±0.8	d±0.3	c±0.8	h1±1	h2±0.5	a±2	b	P±1	
RH-5E	15.3	16.4	11.3	12.5	8.5	8	2.3	2	4	1.6	—	—	3	
RH-10E	19	20	14.3	15.9	10.8	10	2.4	2.4	5.3	2.4	—	—	5	7
RH-25E	27	28	18.3	19.8	13.5	14	3.2	4.4	7.1	2.4	—	—	6	15
RH-50E	49.2	29.2	39.7	21.4	15.1	16	3.2	4.8	8	2.5	13	M4	7	33
RH-75E	66	52	56	42	32	33	4.8	5	16	3.2	22	M5	—	200
RH-100E	88.9	71.4	69.9	57.2	46	44.5	4.8	9.5	19.5	4.8	25	M6	—	450
RH-250E	114.3	76.2	98.4	63.5	54	55.6	4.8	7.9	25.4	6.4	31	M6	—	800

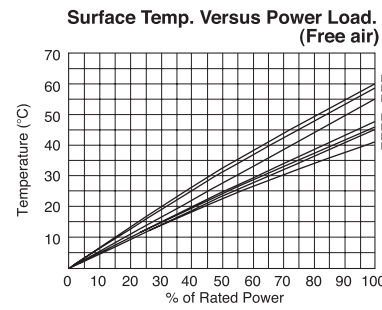
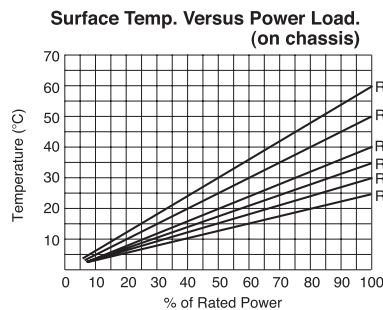
Operating Temp. - 55°C ~ +125°C



Temp. Coefficient

- Standard Temp. : 25°C
- Test Temp. : 0°C, 100°C

Resistance	T. C. (ppm/°C)	
	2 Terminal Type	4 Terminal Type
1Ω ≤ R	±30	±30
0.1Ω ≤ R < 1Ω	±50	±30
0.05Ω ≤ R < 0.1Ω	±50	±30
0.01Ω ≤ R < 0.05Ω	±100	±50
0.005Ω ≤ R < 0.01Ω	—	±50
0.001Ω ≤ R < 0.005Ω	—	±50



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■ Performance

Parameters	Test Condition	Specification
Short Time Over Load	2×Wattage Rating 5sec	±0.1%
Heat Resistance	Normal Temp. → 150°C 2Hr	±0.1%
Dielectric Strength	FIG.1 1min	±0.02%
Insulation Resistance	DC500V	1000MΩ MIN
Moisture Resistance	+40°C, 90~95%RH, 1/10×Wattage Rating (1.5Hr ON-0.5Hr OFF) Repeat 500Hr	±0.05% Insulation R 100MΩ MIN
Vibration	10Hz~55Hz~10Hz (1min) 2Hr each of paralleled and Right angle	±0.1%
Load Life	Load Voltage Rating (Chassis mounted) 1.5Hr ON- 0.5Hr OFF (Repeat 2000Hr)	±0.2%

Internal Circuit of 4 Terminal Resistors



Notes :

- This RH/RHF series is designed for chassis mounting style and note the followings.
 - In order to mount the resistor tightly to chassis, mounting surface should be completely smooth.
 - On the mounting surface, paint flatly the well temperature-conductive material like the radiant heat grease.
 - For RH(F)50M, RH(F)75, RH(F)100 and RH(F)250, use solderless terminal for the terminal and cable connection and fasten the nut by the following torque.
 RH(F)50M : 0.6N·m MAX, RH(F)75 : 1.18~1.57N·m, RH(F)100, RH(F)250 : 1.96~2.35N·m (M4 Terminal : 0.60~0.75N·m)

How to order

RHF100M4 0.05Ω A
 Type Resistance Tolerance

Note : As for the terminal style E, indicate the terminal length of root from the terminal joint point. (standard type terminal lengths 10mm)



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