Heatsink Encased Wirewound Power Resistors

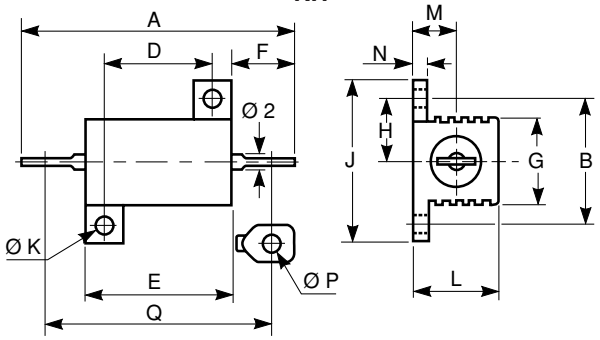
FEATURES

- 5 Watt to 50 Watt at 25°C
- MIL-R 18546 D and 1C
- NF C 83-210
- CECC 40 203
- High stability < 0.05% year
- Electrical insulation
- Low temperature coefficient
- Wide range of values

Encased in a compact and light heatsink offering complete environmental protection, great mechanical strength and easy mounting. Non inductive versions can be supplied under the RHNI designation (please indicate required specifications and frequency range upon ordering).

DIMENSIONS in millimeters

RH



MODEL AND STYLE	RH5	RH10	RH25	RH50
A B ± 0.2 D ± 0.2	28.5 ± 1.5 12.5 11.3	35 ± 1.5 15.9 14	49 ± 1.3 19.8 18.3	70.2 ± 1.4 21.4 39.7
E ± 0.5 F	16.3 6.8 ± 1.5	19 7.9 ± 1.5	28 11.1 ± 1.5	50 11 ± 1.2
G ± 1 H ± 0.7	8.5 6.2	11 7.9	14 9.9	15.5 10.7
J ± 0.5 Ø K ± 0.1	16.4 2.4	20.6 2.4	27.5 3.2	29.4 3.2
L max. M ± 0.5	8.9 4.3	11 5.6	15 8	15 8
N ± 0.3 Ø P min.	1.6 2.1	2 2.1	2.4 2.1	2.4 2.1
Q	25.3 ± 1.5	30.6 ± 1.5	44.6 ± 1.3	66.5 ± 1.4
Weight in g	3	8.8	16.5	30.8

ELECTRICAL SPECIFICATIONS

VISHAY SFERNICE MODEL AND STYLE				RH5 €	RH10 €	RH25 €	RH50 €
NF C 83-210 (CECC 40 203)				RE4	RE1	RE2	RE3
MIL-R-18546 D AND 1C				RE60	RE65	RE70	RE75
Power Rating	Chassis Mounted Resistors	MIL Limits	25°C	5W	10W	20W	30W
			70°C	4W	8W	16W	24W
	413 cm² for RH5 and RH10 536 cm² for RH25 and RH50	VISHAY SFERNICE Limits	25°C	10W	12.5W	25W	50W
			70°C	8W	10W	20W	40W
	Unmounted Resistors	VISHAY SFERNICE Limits	25°C	4W	6W	9W	12W
			70°C	3.2W	4.8W	7.2W	9.6W
Rated Maximum Voltage (VRMS)				160V	250V	550V	1285V
Dielectric Strength (RMS)				1000V	1500V	2500V	2500V
Ohmic Range		VISHAY SFERNICE		0.01Ω 12kΩ	0.006Ω 20kΩ	0.006Ω 62kΩ	0.006Ω 130 kΩ
Qualified Ohmic Range		NF C 83-210		0.1Ω 2.7kΩ	0.1Ω 4.99kΩ	0.1Ω 11.8kΩ	0.1Ω 33.2kΩ
Minimum Ohmic Values in Relation to Tolerance		E 96	± 0.1%	1Ω		1Ω	
		E 96	± 0.5%	0.1Ω		0.1Ω	
		E 96	± 1%	0.1Ω		0.05Ω	
		E 48	± 2%	0.01Ω		0.01Ω	
		E 24	± 5%	0.01Ω		0.01Ω	
		E 12	± 10%	0.01Ω	0.008Ω	0.006Ω	

€ Undergoes European Quality Insurance System (CECC)

PERFORMANCE

TESTS	MIL-R-18546 D NF C 83-210 CONDITIONS	REQUIREMENTS	TYPICAL DRIFTS
Operating Temperature Range	– 55°C + 200°C	–	–
Momentary Overload	5Pr/5s	± (0.25% + 0.05Ω)	± (0.1% + 0.05Ω)
Climatic Sequence	– 55°C + 200°C 5 cycles	± (0.25% + 0.05Ω)	± (0.1% + 0.05Ω)
Load Life Test at High Temperature	2h at + 275°C	± (1% + 0.05Ω) Ins. resistance ≥ 1GΩ	± (0.1% + 0.05Ω)
Humidity (Steady State)	56 days	± (1% + 0.05) Ins. resistance ≥ 100MΩ	± (0.5% + 0.05Ω)
Resistance to Moisture	Climatic sequences test, with load and polarisation	± (1% + 0.05Ω)	± (0.5% + 0.05Ω)
Temperature Coefficient	5 to 10Ω > 10Ω	± 50ppm/°C ± 25ppm/°C	± 15ppm/°C
Load Life at Maximum Temperature	1000h 25°C Pn MIL VISHAY 200°C 30% of Pn SFERNICE	± (1% + 0.05Ω) Ins. resistance ≥ 1GΩ	± (0.1% + 0.05Ω) ± (0.5% + 0.05Ω)

MOMENTARY OVERLOAD

1. Momentary overload (> 2s):

See example in table below. In all cases, it should be understood that:

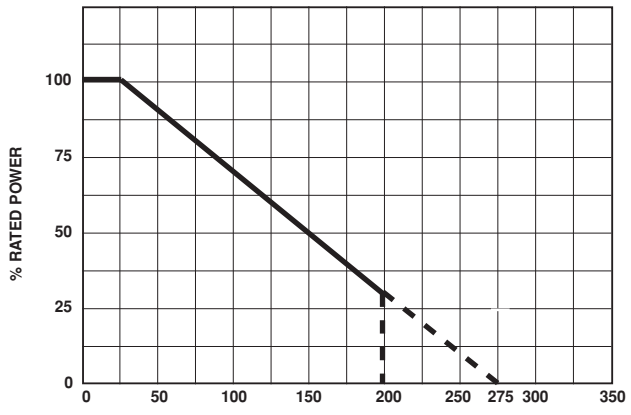
- the 12Pn overload applies only to ohmic values ≥ 0.1Ω.
- the overload voltage shall not be higher than that used for the dielectric strength test (see Standard Electrical Specifications).

2. Short time overload (< 2s):

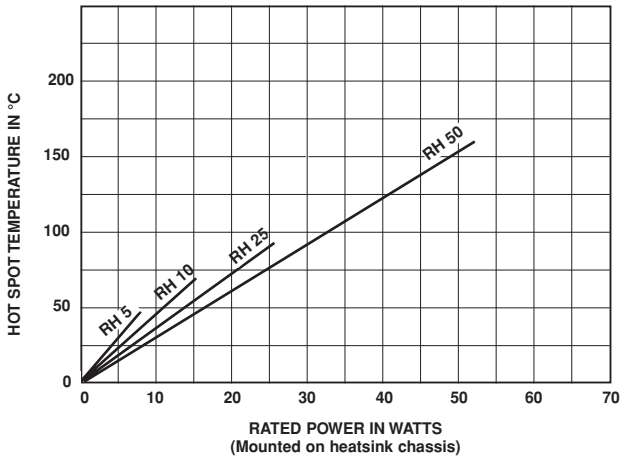
For times shorter than 2 seconds, higher overloads can be sustained in some cases. Consult VISHAY SFERNICE.

POWER LOADING	DURATION
2.5 Pn	10 s
5 Pn	5 s
12 Pn	2 s

POWER RATING CHART



TEMPERATURE RISE



MARKING

VISHAY SFERNICE trademark, model, style, CECC style (if applicable) nominal resistance (in Ω), tolerance (in %), manufacturing date.

ORDERING INFORMATION

RH	25	NI		150kΩ	± 5%
MODEL	STYLE	NON INDUCTIVE WINDING Optional	SPECIAL DESIGN Method N° Optional	OHMIC VALUE Custom items are subject to extra-charge and min. order. Please see price list.	TOLERANCE