

PHG Painted High Power Ceramic Tube Resistor

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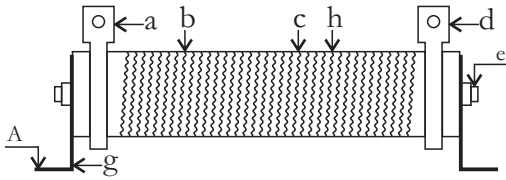
Performance



Feature

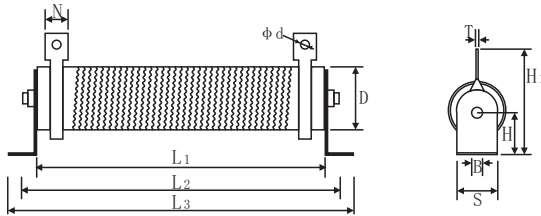
- I The product surface with solid wave type, which will help to reduce the stray inductance and withstand high current surge.
- II Good overload and heat durability capacity , the using life is longer than the others.
- III Resistance tolerance: $\pm 5\%$ 、 $\pm 10\%$

Construction



a	Terminal block
b	Epoxy resin insulating layer
c	Alloy wire
e	Metal screw
g	Zinc plating support
h	Alumina porcelain

Dimensions



Type	Power	Dimensions (mm)										
		$L_1 \pm 2$	$L_2 \pm 5$	$L_3 \pm 3$	$D \pm 2$	$B \pm 1$	$H \pm 1$	$H_1 \pm 3$	$S \pm 2$	$N \pm 2$	$\phi d \pm 1$	$T \pm 0.5$
PHG	20W	62	84	100	20	5	25	34	20	6	3.5	1.0
PHG	30W	82	104	120	20	5	25	50	20	6	3.5	1.0
PHG	50W	102	124	146	28	6.5	28	68	28	8	4.5	1.5
PHG	60W	102	124	146	28	6.5	28	68	28	8	4.5	1.5
PHG	80W	152	174	196	28	6.5	28	68	28	8	4.5	1.5
PHG	100W	182	204	226	28	6.5	28	68	28	8	4.5	1.5
PHG	150W	225	247	270	28	6.5	28	68	28	8	5.5	2.0
PHG	200W	225	247	270	28	6.5	28	68	28	8	5.5	2.0
PHG	300W	285	304	345	40	6.5	40	85	40	10	5.5	2.0
PHG	400W	316	338	375	40	6.5	40	85	40	10	5.5	2.0
PHG	500W	318	338	378	50	6.5	45	100	50	10	6.0	2.0
PHG	600W	348	368	408	50	6.5	45	100	50	10	6.0	2.0
PHG	750W	303	330	368	60	8.5	58	115	60	12	6.0	2.0
PHG	1000WS	303	330	368	60	8.5	58	115	60	12	6.0	2.0
PHG	1000W	433	460	500	60	8.5	58	115	60	12	6.0	2.0
PHG	1200W	418	445	485	60	8.5	58	115	60	12	6.0	2.0
PHG	1500WS	418	445	485	60	8.5	58	115	60	12	6.0	2.0
PHG	1500W	433	460	500	70	8.5	65	125	70	15	6.0	2.0
PHG	1800W	513	540	580	60	8.5	60	119	60	12	6.0	2.0
PHG	2000W	435	457	500	80	6.5	78	157	80	15	6.5	2.0
PHG	2500WS	603	630	670	60	8.5	60	119	60	12	6.0	2.0
PHG	2500W	433	475	525	80	8.5	82	170	80	15	6.5	2.0
PHG	3000W	433	475	525	100	8.5	82	170	100	15	6.5	2.0
PHG	5000W	505	560	580	150	10	120	260	150	30	10.0	3.0
PHG	5400W	505	560	580	150	10	120	260	150	30	10.0	3.0
PHG	10000W	900	925	980	150	10	120	260	150	30	10.0	3.0

Note: Customerized products are available.

Our factory can also produce 2500W~15000W non-standard resistors according to the requirement

Reference Standards

JISC 5201-1

Ordering Information

Example:

PHG	300	J	10R00	A
(1)	(2)	(3)	(4)	(5)
Series Name	Power Rating	Resistance Tolerance	Resistance	Special code

(1)Type:PHG SERIES

(2)Power Rating:10B=10W、50B=50W、100=100W、300=300W

(3)Tolerance: J=±5%、K=±10%

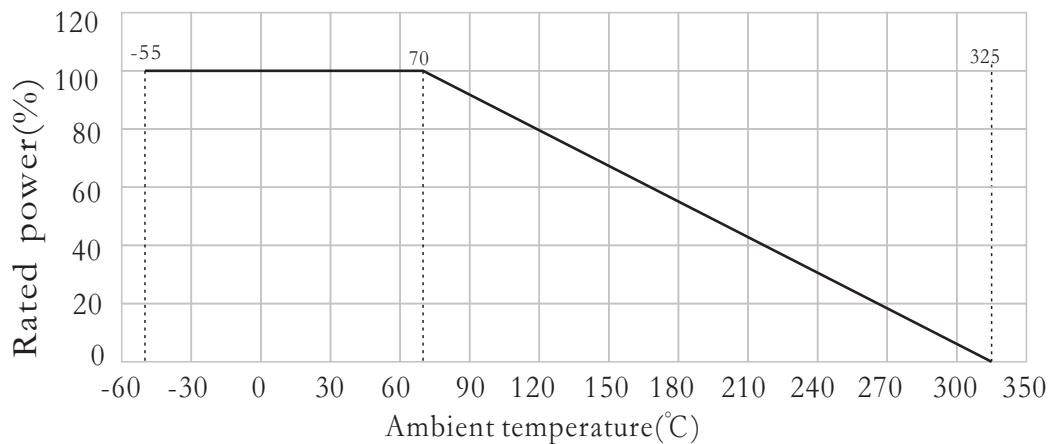
(4)Resistance Value:0R100=0.1Ω、0R200=0.20Ω、10R00=10Ω、10K00=10KΩ

(5)Special code: A1=Without brackets,A2=With brackets

Applications And Ratings

Type	Power (W)	Resistance Range(Ω)	Tolerance	T.C.R PPM/℃	Max Working Voltage (V)	Max Overload Voltage (V)	Operating Temp.Range
PHG	20W	0.1~100	J ± 5% K ± 10%	± 350	$\sqrt{P.R}$	6.25 $\sqrt{P.R}$	-55℃~325℃
PHG	30W	0.1~100					
PHG	50W	0.15~100					
PHG	60W	0.15~100					
PHG	80W	0.2~100					
PHG	100W	0.3~100					
PHG	150W	0.36~200					
PHG	200W	0.43~200					
PHG	300W	0.43~200					
PHG	400W	0.43~300					
PHG	500W	0.5~300					
PHG	600W	0.5~300					
PHG	750W	0.5~500					
PHG	1000WS	0.5~500					
PHG	1000W	0.5~500					
PHG	1200W	0.5~500					
PHG	1500WS	0.5~500					
PHG	1500W	0.5~500					
PHG	1800W	0.5~500					
PHG	2000W	0.5~500					
PHG	2500WS	0.5~500					
PHG	2500W	0.5~1000					
PHG	3000W	0.5~1000					
PHG	5000W	0.5~1000					
PHG	5400W	0.5~1000					
PHG	10000W	0.5~1000					

Derating Curve



Performance

Test Items	Performance	Test Methods(JIS C 5201-1)
Temperature coefficient	$\pm 350\text{PPM}/^{\circ}\text{C}$	Test resistance value at normal temperature and normal temperature added 100°C , calculate 70°C resistance value change rate.
Short-time overload	$\Delta R \leq \pm (2\%R_0 + 0.05\Omega)$	According 10 times rated power to account the power or max. overload voltage(get the lower) for 5seconds.
Resistance to soldering heat	$\Delta R \leq \pm (1\%R_0 + 0.05\Omega)$	Immerge into the $350 \pm 10^{\circ}\text{C}$ tin stove for 2~3 seconds
Solderability	Tth soldering area is over 98%	Immerge into the $245 \pm 3^{\circ}\text{C}$ tin stove for 2~3 seconds
Temperature cycle	$\Delta R \leq \pm (2\%R_0 + 0.05\Omega)$	At -55°C for 30min, then at $+25^{\circ}\text{C}$ for 10~15min, then at $+155^{\circ}\text{C}$ for 30min, then at $+25^{\circ}\text{C}$ for 10~5, min, total 5cycles.
Load life in humidity	$\Delta R \leq \pm (5\%R_0 + 0.1\Omega)$	Overload rated voltage or Max.working voltage(get the lower)for 1000hours(1.5hours on and half-hour off) at the $40 \pm 2^{\circ}\text{C}$ and 90~95% relative humidity.
Load life in heat	$\Delta R \leq \pm (5\%R_0 + 0.05\Omega)$	Overload rated voltage or Max.working voltage(get the lower)for 1000hours(1.5 hours on and half-hour off) at the $70 \pm 2^{\circ}\text{C}$.
Nonflammability	No visible flame	Respectively load AC voltage by 5,10,16 times rated power for 5 minutes.