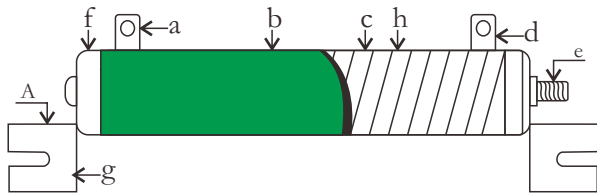


● Features

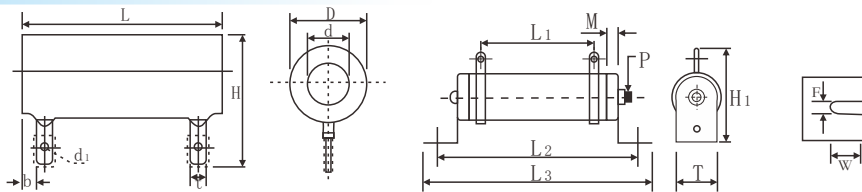
- I Surface glazed, won't be easily polluted or eroded by chemistry gas, high insulating capacity, can resist humidity and heat well, can be used in the atrocious environment.
- II Good overload and heat durability capacity , the useful time is longer than the others, withstand high voltage.
- III Resistance tolerance: $\pm 1\%$ 、 $\pm 2\%$ 、 $\pm 5\%$ 、 $\pm 10\%$.

● Construction



a,d	Terminal block
b	High voltage insulation ceramic glaze covering
c	Alloy wire
e	Metal screw
f	Ceramic facing
g	Zinc plating support
h	Alumina porcelain

● Dimensions



Type	Power	Dimensions (mm)															
		L ± 3	L1 ± 3	L2 ± 2	L3 ± 3	D ± 1	d ± 1	H ± 1.5	H1 ± 1.5	b ± 0.5	t ± 0.5	d1 ± 0.5	M ± 0.5	T ± 1.0	W ± 0.5	E ± 1	F ± 0.5
KNT	10	26	15	60	80	13	4	27	40	3.5	4.5	2	5	15	5	8	5
KNT	15	35	24	70	90	14	5.5	28.5	40	3.5	4.5	2	5	15	5	8	5
KNT	20	41	30	75	95	14	5.5	28.5	40	3.5	4.5	2	5	15	5	8	5
KNT	25	45	34	80	100	17	8	31	45	3.5	4.5	2	5	18	5	10	5
KNT	30	51	40	85	105	17	8	31	45	3.5	4.5	2	5	18	5	10	5
KNT	35	51	40	85	105	21	12	35	50	3.5	4.5	2	5	20	5	10	5
KNT	40	71	60	105	125	21	12	35	50	3.5	4.5	2	5	20	5	10	5
KNT	45	87	76	120	140	21	12	35	50	3.5	4.5	2	5	20	5	10	5
KNT	50	91	76	125	145	29	20	43	60	4.5	6	3	5	28	14	20	6.5
KNT	60	91	76	125	145	29	20	43	60	4.5	6	3	5	28	14	20	6.5
KNT	75	140	126	175	195	29	20	43	60	4.5	6	3	5	28	14	20	6.5
KNT	80	140	126	175	195	29	20	43	60	4.5	6	3	5	28	14	20	6.5
KNT	100	170	156	205	225	29	20	43	60	4.5	6	3	5	28	14	20	6.5
KNT	120	170	156	205	225	29	20	43	60	4.5	6	3	5	28	14	20	6.5
KNT	150	215	200	250	270	29	20	43	60	4.5	6	3	5	28	14	20	6.5
KNT	180	215	200	250	270	29	20	43	60	4.5	6	3	5	28	14	20	6.5
KNT	200	265	245	300	320	29	20	48	65	4.5	8	4	5	28	14	20	6.5
KNT	225	265	245	300	320	29	20	48	65	4.5	8	4	5	28	14	20	6.5
KNT	250	265	245	300	320	29	20	48	65	4.5	8	4	5	28	14	20	6.5
KNT	300	250	232	285	316	32	30	55	70	4.5	8	4	8	40	16	25	6.5
KNT	350	250	232	285	316	42	30	55	70	4.5	8	4	8	40	16	25	6.5
KNT	400	300	284	335	355	42	30	55	70	4.5	8	4	8	40	16	25	6.5
KNT	450	330	310	375	400	42	30	68	90	4.5	8	4	8	40	20	25	6.5
KNT	500	330	310	375	400	52	25	78	100	4.5	8	4	8	50	25	28	6.5

Note: Customized products are available. Our factory can also produce 600W~8000W non-standard resistors according to the requirement

Ordering Information

Example:

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

(1)Type: KNT 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

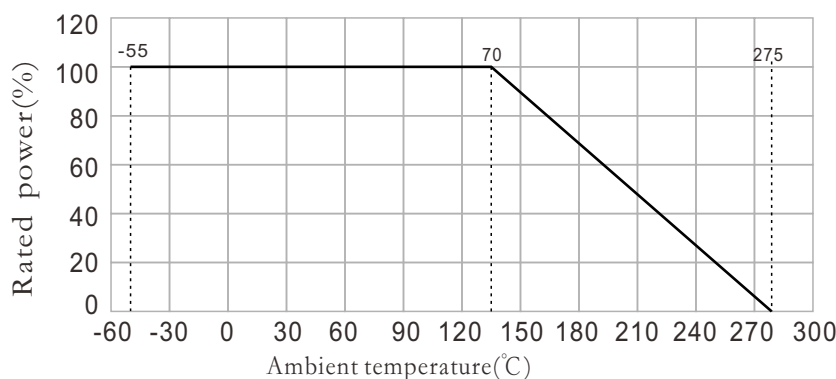
Reference Standards

JISC 5201-1

Applications And Ratings

Type	Power (W)	Resistance Range(Ω)		Tolerance	T.C.R PPM/°C	Max Working Voltage(V)	Max Overload Voltage(V)	Dielectric Withstanding Voltage(V)
		Standard	Non-inductive					
KNT	10	1~1K	1~100	± 1%	± 250 PPM/°C	$\sqrt{P.R}$	2.5 $\sqrt{P.R}$	700V/Ac
KNT	15	1~3.3K	1~100					
KNT	20	1~10K	1~100					
KNT	25	1~10K	1~100					
KNT	30	1~10K	1~200					
KNT	35	1~15K	1~200					
KNT	40	1~20K	1~200					
KNT	45	1~30K	1~200					± 2%
KNT	50	1~30K	1~200					
KNT	60	1~30K	1~300					
KNT	75	1~50K	1~300					± 5%
KNT	80	1~50K	1~300					
KNT	100	1~50K	1~300					± 10%
KNT	120	1~80K	1~300					
KNT	150	1~80K	1~300					
KNT	180	1~100K	1~300					
KNT	200	1~100K	1~300					
KNT	225	1~100K	1~300					
KNT	250	1~100K	1~500					
KNT	300	1~100K	1~500					
KNT	350	1~100K	1~500					
KNT	400	1~100K	1~1000					
KNT	450	1~100K	1~1000					
KNT	500	1~100K	1~1000					

Derating Curve



● Performance

Test Items	Performance	Test Methods(JIS C 5201-1)
Temperature coefficient	$\pm 250\text{ppm}/^{\circ}\text{C}$	Test resistance value at normal temperature and normal temperature added 100°C , calculate $^{\circ}\text{C}$ 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	$\Delta R \leq \pm (1\%R_0 + 0.05\Omega)$	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 10~5min, total 5cycles.
Load life in humidity	$\Delta R \leq \pm (5\%R_0 + 0.05\Omega)$	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 (1.5hours 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.
Withstand voltage	Or without spark-over when meets 1000V	Pressure testre, measurement according to be line end and resistance body between the dielectric strength