

# DATA SHEET

## LEADED POWER RESISTORS

KP – Stand off wirewound

UP TO 8.0 W



Product Specification – Jun. 18, 2003 V.0



**Power Wirewound Resistors**  
**radial, fibre glass core, coated**

**Specification**

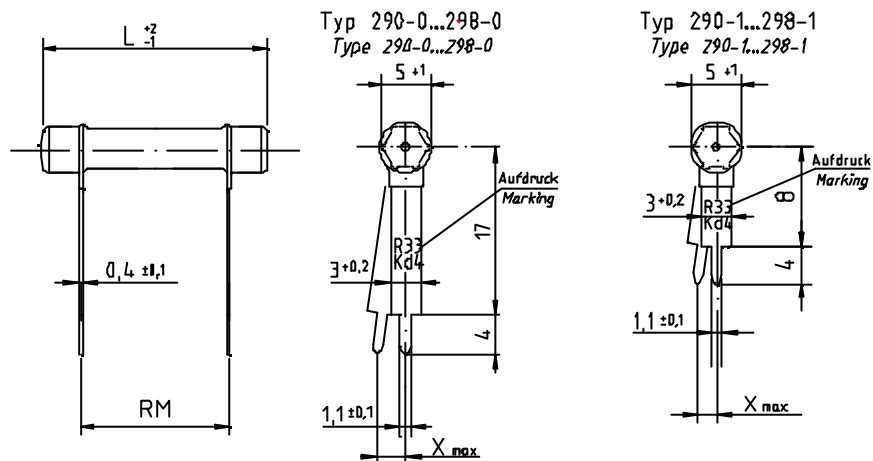
Type		KP290	KP292	KP294	KP296	KP298
Style		0518	0523	0533	0543	0553
Power rating P <sub>70</sub>	W	2,0	4,0	5,0	6,5	8,0
Resistance range	Ω	0R10...7K5	0R15...11K	0R27...20K	0R39...27K	0R47...36K
E-series		E 24/E 12	E 24/E 12	E 24/E 12	E 24/E 12	E 24/E 12
Tolerance	%	± 10 ± 5 ≥ R20	± 10 ± 5 ≥ R30	± 10 ± 5 ≥ R47	± 10 ± 5 ≥ R68	± 10 ± 5 ≥ R91
Temperature coefficient	10 <sup>-6</sup> * K <sup>-1</sup>			- 80 ... + 500		
max. cont. working voltage	V <sub>RMS</sub>		$\sqrt{P_{70} \cdot R}$	for all styles		
Insulation voltage (1min.)	V <sub>RMS</sub>			max. 75		
Insulation resistance	Ω			not insulated		
Derating linear	°C			70 ... 350 (0W)		
Climatic category				55/200/56		
Temperature range	°C			- 55 ... 350		
Thermal resistance	KW <sup>-1</sup>	110	70	60	50	40
Failure rate (Total, ϑ <sub>0</sub> max. 60% conf. lev.)	10 <sup>-9</sup> * h <sup>-1</sup>			appr. 100, depends on value		
Endurance (P <sub>70</sub> , 70°C, 1000h)	$\left[ \frac{\Delta R}{R} \right]$ %			± 3,0 average		
Damp heat, steady state (40°C, 93% r. h., 56d)	$\left[ \frac{\Delta R}{R} \right]$ %			± 2,0		
Climatic sequence	$\left[ \frac{\Delta R}{R} \right]$ %			± 2,0		
Terminal strength	$\left[ \frac{\Delta R}{R} \right]$ %			± 1,0		

# Series KP

## Power Wirewound Resistors radial, fibre glass core, coated

Type		KP290	KP292	KP294	KP296	KP298
Terminal tensile strength	N	40				
Resistance to soldering heat (260°C, 10s)	$\left[\frac{\Delta R}{R}\right] \%$	$\pm 0,2$ typ.				
Solderability		solderable according to IEC 60068-2-20Ta				
Marking		on termination; value 3 digits, Tolerance, Production date code				

Dimensions in mm:

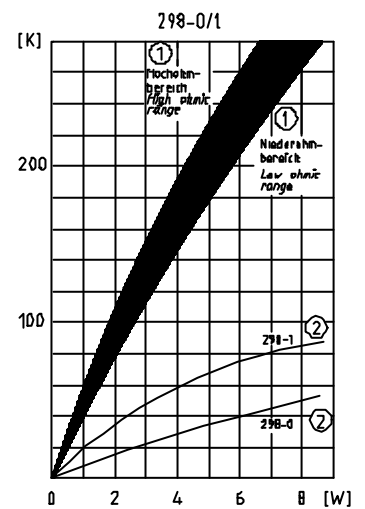
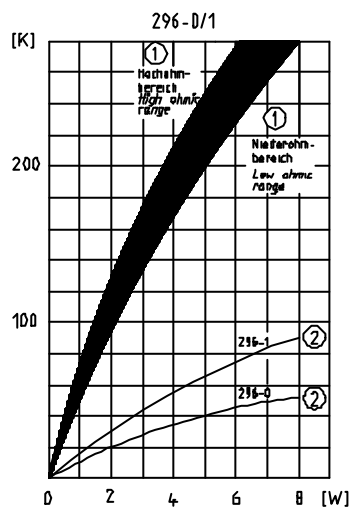
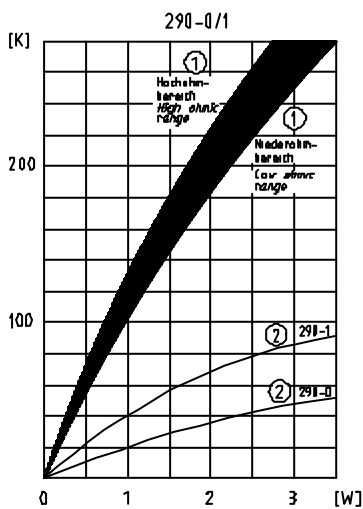
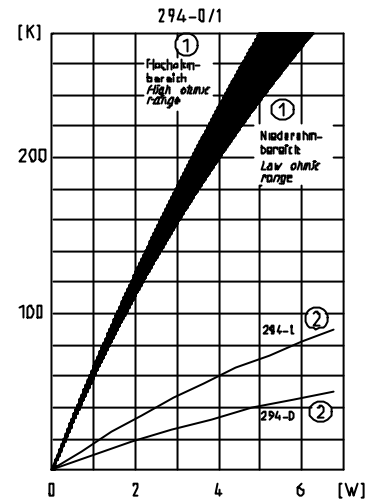
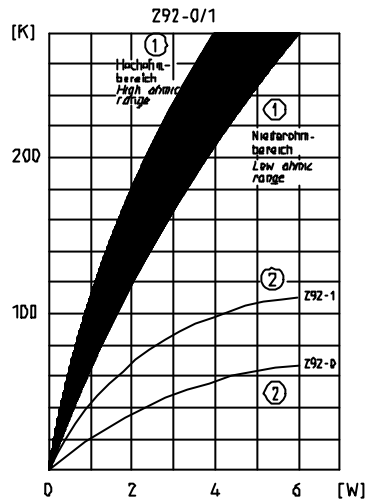
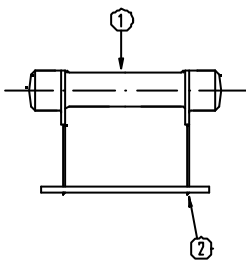


type	L	RM
KP290-0/1	18,2	10
KP292-0/1	23,3	15
KP294-0/1	33,4	25
KP296-0/1	43,5	35
KP298-0/1	53,7	45

Type	RM Tolerance	Xmax.
KP29x-0	$\pm 1,0$	3,0
KP29x-1	$\pm 0,8$	1,7

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Temperatur rise:  
 (hot-spot + solder joints)



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Packaging:

Type	Packaging	Pieces	Pack.-Code
KP290-0 KP290-1	bulk	250 450	B
KP292-0 KP292-1	bulk	200 300	B
KP294-0 KP294-1	bulk	100 200	B
KP296-0 KP296-1	bulk	100 125	B
KP298-0 KP298-1	bulk	75 100	B

Ordering example:      KP 294-1      5      B      1K3  
Type                      Tolerance      Pack.-Code      R-Value