

## Power Wirewound Resistors

### Radial, fiber glass core

### Coated



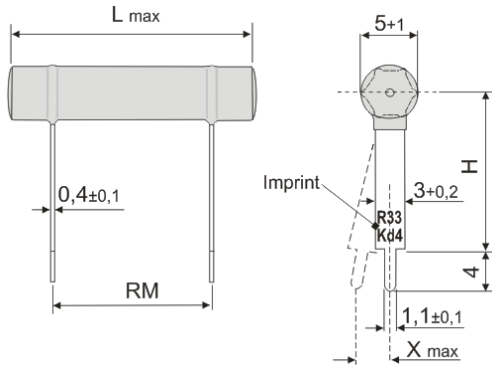
#### ELECTRICAL SPECIFICATIONS

Type		KP290	KP292	KP294	KP296	KP298
Nominal Power rating $P_{70}$	[W]	2,0	4,0	5,0	6,5	8,0
Resistance range	[Ω] Min Max	7K5	11K	20K	27K	36K
E-Series		E24 (5[%]), E12 (10[%])				
Tolerances	± [%]	5, 10				
Temperature coefficient	[10 <sup>-6</sup> *K <sup>-1</sup> ]	*Depends on the value, please check the table below				
Temperature range	[°C]	-55 ... +350				
Thermal resistance	[KW <sup>-1</sup> ]	140	70	56	43	35
Dielectric withstanding voltage <i>IEC115-1 clause 4.7 (1[min])</i>	[V]	75				
Max. working voltage	[V] <sub>RMS</sub>	$\sqrt{P_{70} * R}$				

#### PERFORMANCE DATA

Derating linear	[°C]	70...350 (0W)
Climatic category		55/200/56
Failure Rate <i>(Total, <math>\theta_o</math>, max, 60% cont. lev.)</i>	[10 <sup>-9</sup> h <sup>-1</sup> ]	appr. 100 depends on value
Endurance <i>IEC60115-1 clause 4.25 (<math>P_{70}</math>, @ 70[°C], 1000[h])</i>	± [%]	3,0
Damp heat, steady state <i>IEC115-1 clause 4.24 (40[°C], 93[% r.h.], 56[d])</i>	± [%]	2,0
Climatic sequence <i>IEC115-1 clause 4.23</i>	± [%]	2,0
Terminal strength	± [%]	1,0
Terminal Tensile Strength	[N]	40
Resistance to soldering heat <i>IEC115-1 clause 4.12 (260[°C], 10[s])</i>	± [%]	± 0,2
Solderability <i>IEC 60068-2-20 (245<sup>±3</sup>[°C] 3<sup>±0,3</sup>[s])</i>		Solder bath method (min. 95[%] coverage)
Marking <i>IEC60062</i>		On termination; value 3 digits, Tolerance, Production date code

**DIMENSIONS [mm]**



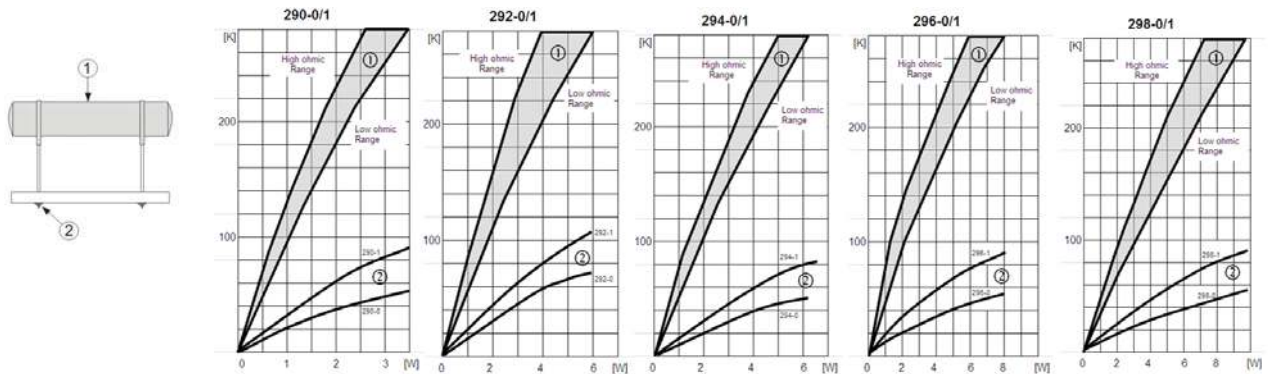
Type	L max	RM	H	X max
KP290-0	18,2	10 +1,0	17	3
KP292-0	23,3	15 +1,0		
KP294-0	33,4	25 +1,0		
KP296-0	43,5	35 +1,0		
KP298-0	53,7	45 +1,0		
KP290-1	18,2	10 +0,8	8	1,7
KP292-1	23,3	15 +0,8		
KP294-1	33,4	25 +0,8		
KP296-1	43,5	35 +0,8		
KP298-1	53,7	45 +0,8		

**ELECTRICAL PERFORMANCE**

Resistance range [minimum]		
Type	±10 [%]	±5 [%]
KP290-0 / 1	0R1	0R2
KP292-0 / 1	0R15	0R3
KP294-0 / 1	0R27	0R47
KP296-0 / 1	0R39	0R68
KP298-0 / 1	0R47	0R91

Temperature coefficient [ppm K <sup>-1</sup> ]			
Type	TC +400 ±50	TC 0 ±40	TC 0 ±10
KP290	0R1...0R27	0R3...510R	560R...7K5
KP292	0R15...0R56	0R62...620R	680R...11K
KP294	0R27...0R62	0R68...1K1	1K2...20K
KP296	0R39...1R3	1R5...1K6	1K8...27K
KP298	0R47...1R6	1R8...2K	2K2...36K

**TEMPERATURE RISE (Solder joints)**



**PACKAGING**

The standard packaging for KP in axial type is bulk, dimensions below.



Type	Packaging	Pieces	Pack. Code
KP290-0	BULK	500	B
KP290-1		1000	
KP292-0		500	
KP292-1		1000	
KP294-0		250	
KP294-1		500	
KP296-0		250	
KP296-1		500	
KP298-0		250	
KP298-1		250	

**ORDERING EXAMPLE**

KP292-1	10	B	82R
Type	Tolerance	Pack-Code	R-Value