

**Power Wirewound Resistors**  
**Radial, Fiber glass core**  
**Ceramic case, AMP contacts**

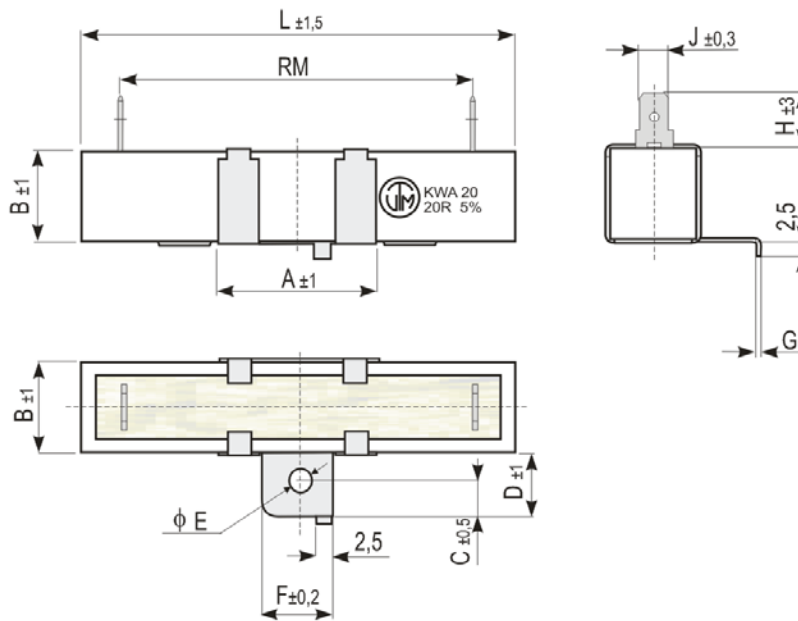
**ELECTRICAL SPECIFICATIONS**

Type		KWA 15	KWA 20	KWA 30	KWA 40
Nominal Power rating $P_{70}$	[W]	15	20	30	40
Resistance range	[Ω] Min	0R51	0R51	0R62	0R62
	Max	5K6	10K	10K	10K
<u>E-Series</u>			E24		
<u>Tolerances</u>	± [%]		5		
<u>Temperature coefficient</u>	[ $10^{-6} \cdot K^{-1}$ ]		±250		
<u>Temperature range</u>	[°C]		-55 ... +350		
<u>Thermal resistance</u>	[ $KW^{-1}$ ]	19	14	9	7
<u>Dielectric withstanding voltage</u> <i>IEC60115-1 clause 4.7 (1[<i>min</i>])</i>	[V]		2000		
<u>Max. working voltage</u>	[V] <sub>RMS</sub>		$\sqrt{P_{70} \cdot R}$		
<u>Insulation resistance</u> <i>IEC60115-1 clause 4.6</i>	[MΩ]		> 10		

**PERFORMANCE DATA**

<u>Derating linear</u>	[°C]	70...350 (0W)
<u>Climatic category</u>		55/200/21
<u>Failure Rate</u> <i>(Total, <math>\vartheta_o</math>, max, 60% cont. lev.)</i>	[ $10^{-9} h^{-1}$ ]	appr. 100 depends on value
<u>Endurance</u> <i>IEC60115-1 clause 4.25 (<math>P_{70}</math>, @ 70[°C], 1000[h])</i>	± [%]	5,0
<u>Damp heat, steady state</u> <i>IEC60115-1 clause 4.24 (40[°C], 93[% r.h.], 56[d])</i>	± [%]	5,0
<u>Resistance to soldering heat</u> <i>IEC60115-1 clause 4.12 (260[°C], 10[s])</i>	± [%]	1,0
<u>Solderability</u> <i>IEC 60068-2-20 (245<sup>±3</sup>[°C] 3<sup>±0,2</sup>[s])</i>		Solder bath method (min. 95[%] coverage)
<u>Marking</u> <i>IEC60062</i>		Printed in clear

**DIMENSIONS [mm]**

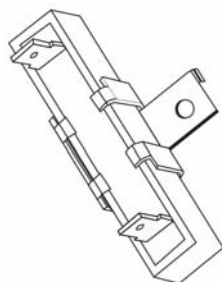


Type	L	RM	B	A	C	D	E	F	G	H	J
<b>KWA 15</b>	48,0	34,0	13	25	6	12,5	4,0	12	0,6	9	4,8*
<b>KWA 20</b>	63,5	48,0	13	25	6	12,5	4,0	12	0,6	9	4,8*
<b>KWA 30</b>	75,0	56,0	19	40	8	18,0	4,2	18	0,8	12	6,3
<b>KWA 40</b>	90,0	71,0	19	40	8	18,0	4,2	18	0,8	12	6,3

\* Special AMP contacts 6,3mm available types KWA15001 and KWA20001

**PACKAGING**

The standard packaging for KWA type is bulk, dimensions below.



Type	Pieces	Packaging	Pack. Code
<b>KWA 15</b>	70	Bulk	B
<b>KWA 20</b>	60		
<b>KWA 30</b>	14		
<b>KWA 40</b>	14		

**ORDERING EXAMPLE**

<b>KWA20</b>	<b>5</b>	<b>B</b>	<b>20R</b>
Type	Tolerance	Pack-Code	R-Value