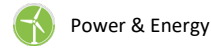


## KWA Series Datasheet

Power Wirewound Resistor | Fiber Glass core | Radial | Ceramic case | AMP contacts

### APPLICATIONS



### FEATURES

- Automotive grade
- Electrical / hybrid vehicles battery management
- High Pulse capability version available
- RoHs and REACH Compliant

### ORDERING CODE - Example

New SAP Part Nr.:

<b>KWA</b>	<b>40A</b>	<b>J</b>	<b>F</b>	<b>-</b>	<b>RD-</b>	<b>47R</b>	<b>AA</b>
Serie	Power rating	Tol. J = ±5% K = ±10%	Pack-Code F = Fiber Glass Element	TCR - Base on spec.	Forming type RD- = Radial	R Value	Special AA = Standard

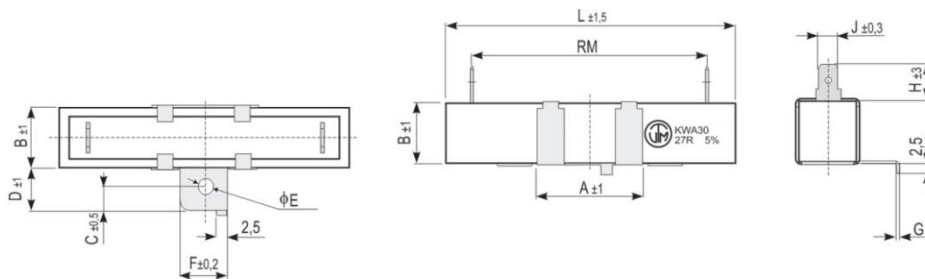
Historical VTM Part Nr.:

<b>KWA40</b>	<b>5</b>	<b>B</b>	<b>47R</b>
Type	Tol.	Pack-Code	R Value

### ELECTRICAL SPECIFICATIONS

Type		KWA15A	KWA20A	KWA30A	KWA40A
Historical Part Number		KWA15	KWA20	KWA30	KWA40
Nominal Power Rating P <sub>70</sub>	[W]	15	20	30	40
Resistance Range (Other values upon request)	[Ω] Min Max	R51 5K6	R51 10K	R62 10K	R62 10K
E-Series (preferred)		E24 (Other upon request)			
Tolerances	±[%]	J = 5% ; K = 10%			
Temperature Coefficient	±[10 <sup>-6</sup> K <sup>-1</sup> ]	250			
Working Temperature Range	[°C]	-55 ... +350			
Thermal Resistance	[kW <sup>-1</sup> ]	19	14	9	7
Insulation Resistance IEC60115-1 clause 4.6	[MΩ]	> 10 <sup>4</sup>			
Max. Working Voltage	[V] <sub>RMS</sub>	$\sqrt{P_{70} \times R}$			
Dielectric Withstanding Voltage IEC60115-1 clause 4.7 (1[ <i>min</i> ])	[V] <sub>RMS</sub>	2000			

### DIMENSIONS [mm]



New P/Nr. Type	Historical P/Nr:	L	RM	B	A	C	D	E	F	G	H	J
KWA15A	KWA15	48,0	34,0	13,0	25,0	6,0	12,5	4,0	12,0	0,6	9,0	4,8*
KWA20A	KWA20	63,5	48,0	13,0	25,0	6,0	12,5	4,0	12,0	0,6	9,0	4,8*
KWA30A	KWA30	75,0	56,0	19,0	40,0	8,0	18,0	4,2	18,0	0,8	12,0	6,3
KWA40A	KWA40	90,0	71,0	19,0	40,0	8,0	18,0	4,2	18,0	0,8	12,0	6,3

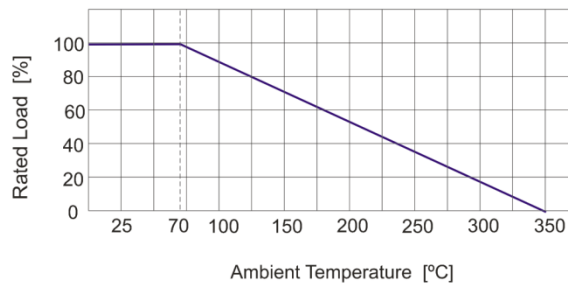
\* Special AMP contacts 6,3mm available types KWA15001 and KWA20001

# KWA Series Datasheet

## PERFORMANCE DATA

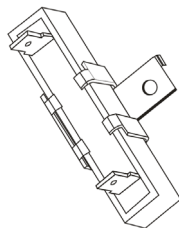
Type		KWA15A	KWA20A	KWA30A	KWA40A
Historical Part Number		KWA15	KWA20	KWA30	KWA40
Derating Linear	[°C]	70...350 (0W)			
Climatic Category		55/200/21			
Failure Rate <i>(Total, <math>\vartheta</math>, max, 60[%] cont. lev.)</i>	[ $10^{-9} \text{ h}^{-1}$ ]	appr. 100 depends on value			
Endurance <i>IEC60115-1 clause 4.25 (<math>P_{70}</math> @ 70[°C], 1000[h])</i>	±[%]	5			
Damp Heat, Steady State <i>IEC60115-1 clause 4.24 (40[°C], 93[% r.h.], 56[d])</i>	±[%]	5			
Resistance to Soldering Heat <i>IEC60115-1 clause 4.18 (260<sup>±5</sup>[°C], 10<sup>±1</sup>[s])</i>	±[%]	1			
Solderability <i>IEC60068-2-20 (245<sup>±5</sup>[°C] 3<sup>±0.5</sup>[s])</i>		Solder bath method (> 95% coverage)			
Marking <i>IEC60062</i>		Printed in clear			

## DERATING CURVE



## PACKAGING

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



New P/Nr. Type	Historical P/N:	Pieces	Pack Code	Forming Type
KWA15A	KWA15	70	F = Bulk with Fiber Glass Element	RD- = Radial
KWA20A	KWA20	60		
KWA30A	KWA30	14		
KWA40A	KWA40	14		