

KNC Series Datasheet

Power Shunt Resistor | Axial | Low Inductance and Low Ohmic | Ceramic case

ORDERING CODE - Example

New SAP Part Nr.:

KNC	600	J	B	-	AX-	R056	AA
Serie	Power rating	Tol. F = ±1% G = ±2% H = ±3% J = ±5%	Pack-Code B = Bulk R = Tape Reel	TCR - Base on spec.	Forming type AX- = Axial 73- Inner Taping dimension or 83- Inner Taping dimension	R Value	Special AA = Standard

Historical VTM Part Nr.:

KN351 - 8	5	B	OR056
Type	Tol.	Pack-Code	R Value

APPLICATIONS

- Automotive
- Industrial
- Power & Energy

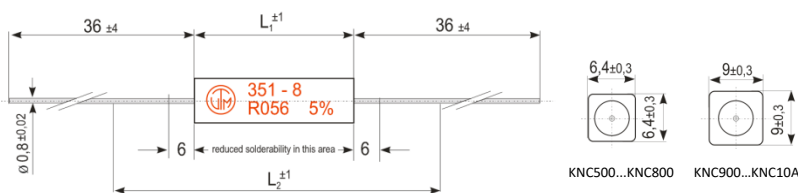
FEATURES

- All welded construction
- Very low inductance
- High power to size ratio
- Good overload and heat dissipation capability
- Bending options available
- RoHS & REACH Compliant

ELECTRICAL SPECIFICATIONS

Type		KNC500	KNC600	KNC800	KNC900	KNC10A	
Historical Part Number		KN350 - 8	KN351 - 8	KN352 - 8	KN353 - 8	KN354 - 8	
Nominal Power Rating P ₇₀	[W]	See next page					
Resistance Range (Other values upon request)	[Ω]	Min.	OR003	OR004	OR005	OR004	OR005
		Max.	OR051	OR068	OR1	OR068	OR1
E-Series (preferred)		E24 >OR01 (Other upon request)					
Tolerances	±[%]	F = 1% ; G = 2% ; H = 3% ; J = 5%					
Temperature Coefficient	±[10 ⁻⁶ K ⁻¹]	+200 ... +1200 (Depends on value)					
Working Temperature Range	[°C]	-55 ... +250					
Thermal Resistance	[kW ⁻¹]	65	50	38	20	18	
Insulation Resistance IEC60115-1 clause 4.6	[MΩ]	> 10 ⁴					
Max. Working Voltage	[V] _{RMS}	$\sqrt{P_{70} \times R}$					
Dielectric Withstanding Voltage IEC60115-1 clause 4.7 (1[<i>min</i>])	[V] _{RMS}	2000					

DIMENSIONS [mm]



New P/Nr. Type	Historical P/N:	L ₁	L ₂
KNC500	KN350 - 8	18 ± 1,0	40
KNC600	KN351 - 8	25 ± 1,0	45
KNC800	KN352 - 8	38 ± 1,0	60
KNC900	KN353 - 8	25 ± 1,0	45
KNC10A	KN354 - 8	38 ± 1,0	60

Measuring length L₂: Resistance value is measured over the centered length L₂ on terminals free of oxide and contaminations. Differing conditions require adequate corrections (R_{terminal} = 0,4 mΩ/cm).

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PERFORMANCE DATA

Type		KNC500	KNC600	KNC800	KNC900	KNC10A
Historical Part Number		KN350 - 8	KN351 - 8	KN352 - 8	KN353 - 8	KN354 - 8
Derating Linear	[°C]	70...250 (0W)				
Climatic Category		55/200/56				
Failure Rate <i>(Total, θ, max, 60[%] cont. lev.)</i>	[10 ⁻⁹ h ⁻¹]	appr. 10 depends on value				
Endurance <i>IEC60115-1 clause 4.25 (P₇₀ @ 70[°C], 1000[h])</i>	±[%]	3				
Damp Heat, Steady State <i>IEC60115-1 clause 4.24 (40[°C], 93[% r.h.], 56[d])</i>	±[%]	0,5				
Climatic Sequence <i>IEC60115-1 clause 4.23</i>	±[%]	0,5				
Resistance to Soldering Heat <i>IEC60115-1 clause 4.18 (260^{±5}[°C], 3,5^{±1}[s])</i>	±[%]	0,2				
Terminal Strength	±[%]	0,5				
Terminal Tensile Strength	[N]	≥ 25				
Solderability <i>IEC60068-2-20 (245^{±5}[°C] 3^{±0,5}[s])</i>		Solder bath method (> 95% coverage)				
Marking <i>IEC60062</i>		Printed in clear				

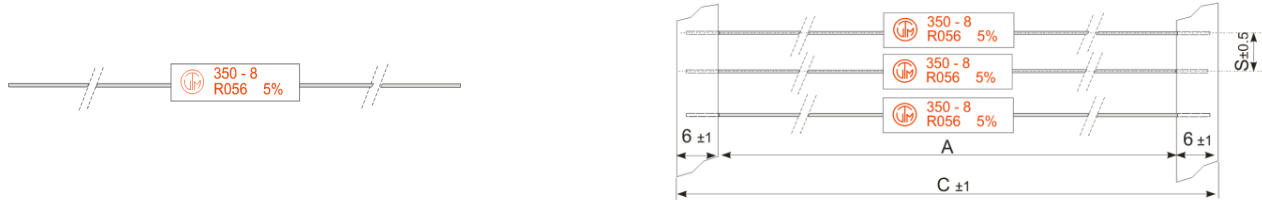
ELECTRICAL CHARACTERISTICS

Nominal Power Rating [W]			
New P/Nr. Type	Historical P/Nr:	Resistance Value	Rated Power [W] P _{70°C}
KNC450	KN350 - 8	OR003	4,5
KNC500		OR004 ... OR051	5,0
KNC600	KN351 - 8	OR004 ... OR068	6,0
KNC800	KN352 - 8	OR005 ... OR1	8,0
KNC900	KN353 - 8	OR004 ... OR068	9,0
KNC10A	KN354 - 8	OR005 ... OR1	10,0

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PACKAGING

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



ALTERNATIVE LEAD CONFIGURATIONS

This type KNC is also available in a different pre-forming, as shown below, other's upon request.

New P/Nr. Type	Historical P/N:	Pack Code	Pieces	Forming Type
KNC500	KN350- 8	B = Bulk	200	AX - Axial
KNC600	KN351- 8		200	
KNC800	KN352 - 8		200	
KNC900	KN353 - 8		200	
KNC10A	KN354 - 8		200	

New P/Nr. Type	Historical P/N:	Pack Code	Pieces	Forming Type (Inner Taping dim.)	A	C	S
KNC500	KN350- 8	R = Taped in Reel	1000	73- or 83-	73	85	10
KNC600	KN351- 8		1000		83	95	10
KNC800	KN352 - 8		1000		83	95	10
KNC900	KN353 - 8		500		83	95	10
KNC10A	KN354 - 8		500		83	95	10

THROUGH HOLE VERSION

Axial Goal Post (AG-)	Axial Goal Post Kink (AK-)	Radial (RD-)	Radial 2 Kink (RK-)

For horizontal and vertical pre-forming please consult your local sales contact.