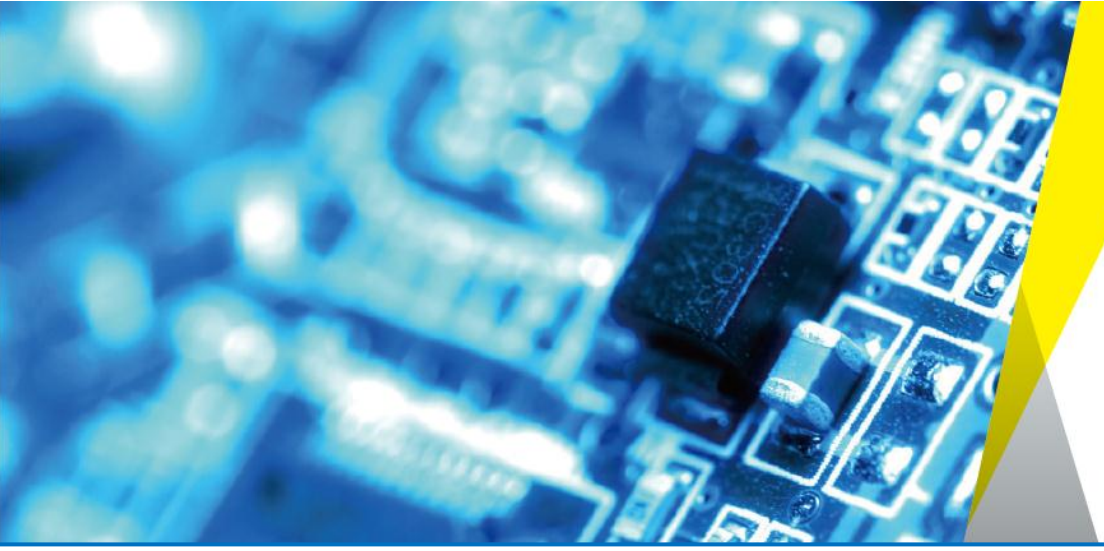

DATASHEET

Product Name	**Vitreous Enamel Power Wire-wound Resistors**
Part Name	**VWT2 90W~375W ±5%、±10% Series**
Part No.	**VWT2************
File No.	**DIP-SP-122**

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	Aeon Technology Corporation
	Royal Electronic Factory (Thailand) Co., Ltd.
	Royal Technology (Thailand) Co., Ltd.

1. Scope

1.1 This datasheet is the characteristics of Vitreous Enamel Power Wire-wound Resistors manufactured by UNI-ROYAL.

1.2 It is moisture-resistant, has high insulation, strong overload capacity, good thermal stability and long service life.

1.3 Good thermal stability and reliability.

1.4 Strong resistance to corrosion and harsh environment.

1.5 It is applicable to power supply testing,circuit load,frequency converter, lifting,braking,power,shipbuilding,industrial automation and other electromechanical equipment.

2. Part No. System

The standard Part No. includes 14 digits with the following explanation:

The standard Part No. includes 14 digits with the following explanation:

2.1st~4th codes: Product type. E.g.: VWT2=Tubular Ceramic, Fixed, 2 High Bracket;

2.2 The 5th digits:

The 5th digit indicates the type of bracket

Example: C=C Slotted type bracket ; L=Elongated type bracket

2.2 The 6th digits: Special features.

Example: 0=Standard ; S=Special

2.3 The 7th digit is to denote the Resistance Tolerance. The following letter code is to be used for indicating the standard Resistance Tolerance.

J=±5% K= ±10%

2.4 The 8th to 11th digits is to denote the Resistance Value.

2.4.1 If value belongs to standard value of E-24 series 5%&10%, the 8th code is zero, 9th~10th codes are the significant figures of resistance value, and the11th code is the power of ten.

2.4.3 The following number s and the letter codes are to be used to indicate the number of zeros in the 11th digit:

0=10^0 1=10^1 2=10^2 3=10^3 4=10^4 5=10^5 6=10^6 J=10^{-1} K=10^{-2} L=10^{-3} M=10^{-4}

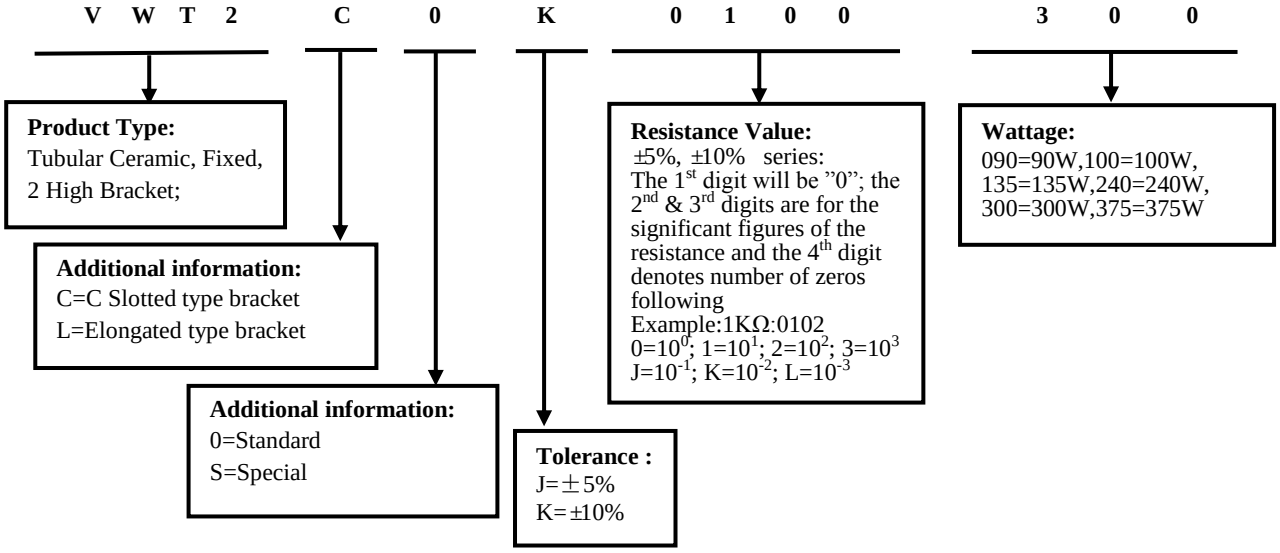
2.5 The 12th, 13th & 14th digits.

2.5.1 The 12th to the 14th digits are to denote the actual wattage of the products.

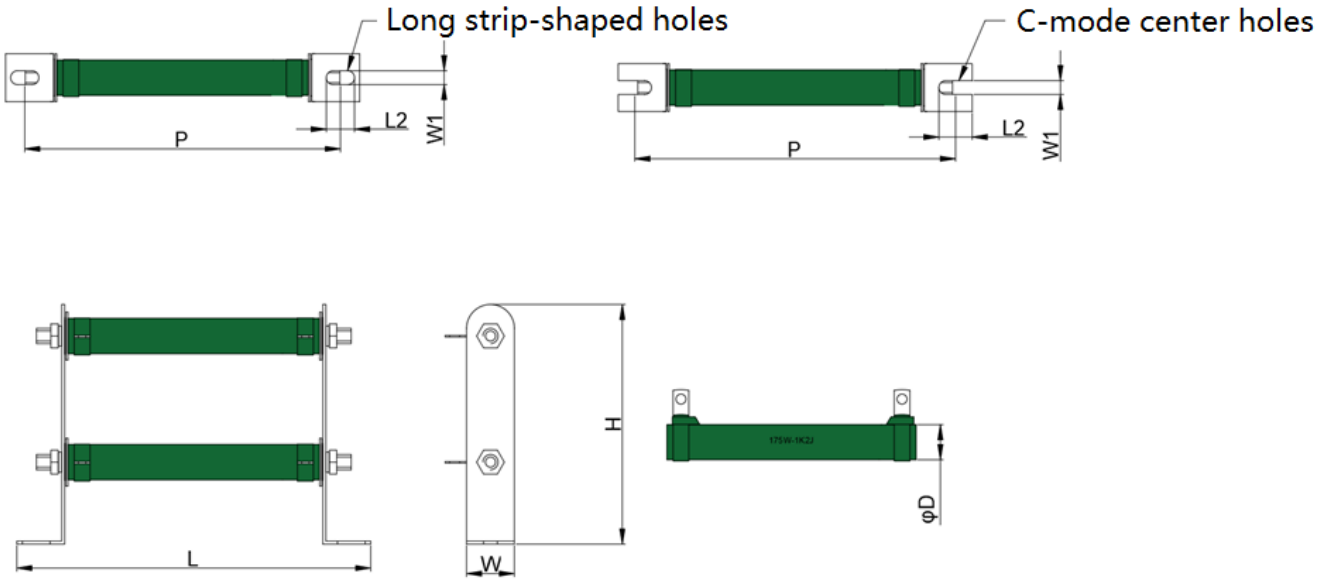
Example: 090 = 90W 100 = 100W 240=240W

3. Ordering Procedure

(Example: VWT2 300W ±10% 10Ω B/B)



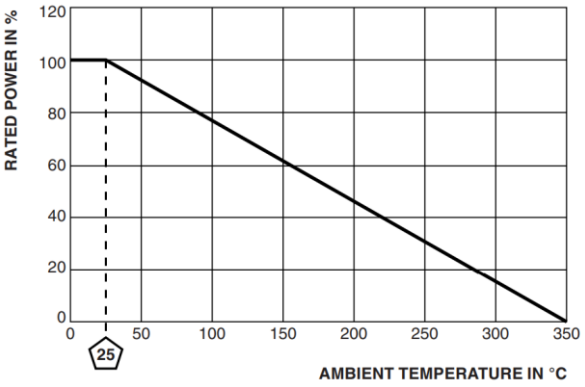
4. Dimension& Ratings



Unit：mm

Type	L ±5	L1 ±2	L2 ±1	ΦD ±2	W ±2	W1 ±0.5	H ±2	P ±5	P1 ±5	Φd +0.5/-0	Resistance Range	Remarks	Toleran ce	Operating Temperature
VWT2 90W	148	101	13	14	19	6.0	54	132	82	5	0.1Ω~1.0KΩ	Elongated type bracket	±5% ±10%	-55℃~+350℃
VWT2 100W	130	90	11	19	19	5.5	82	116	70	5	0.1Ω~3.3KΩ			
VWT2 135W	170	127	11	19	19	7.0	82	152	110	5	0.1Ω~3.3KΩ			
VWT2 240W	217	165	19	25	32	7.0	105	196	143	5	1.0Ω~5.0KΩ	C Slotted type bracket		
VWT2 300W	270	216	19	25	32	7.0	105	247	194	5	1.0Ω~10KΩ			
VWT2 375W	316	267	19	25	32	7.0	105	300	246	5	1.0Ω~10KΩ			

5. Derating Curve



6. Performance Specification

Characteristic	Limits	Test Method (GB/T5729&JIS-C-5201&IEC60115-1)
Short-time overload	ΔR≤±(5%+0.05Ω)	Apply 5 times rated power load for 5 seconds
Humidity (steady state)	ΔR≤±(5%+0.05Ω)	40±2℃, (93±3)%RH, 96h
Temperature Cycle	ΔR≤±(2% +0.05Ω)	-55℃~200℃, 5 cycles
Dielectric withstanding voltage	No evidence of flashover mechanical damage, arcing or insulation break down	Apply an AC voltage of 1000V for 60 seconds
Insulation resistance	≥1MΩ	Apply 500VDC, 1Min
Load life	ΔR≤±(5%+0.05Ω)	Apply rated power load for 1,000 hours at room temperature

7. Note

7.1. UNI-ROYAL recommend products store in warehouse with temperature between 15 to 35℃ under humidity between 25 to 75%RH.
Even under storage conditions recommended above, solder ability of products will be degraded stored over 1 year old.

7.2. Cartons must be placed in correct direction which indicated on carton, otherwise the reel or wire will be deformed.

7.3. Storage conditions as below are inappropriate:

a. Stored in high electrostatic environment

b. Stored in direct sunshine, rain, snow or condensation.

c. Exposed to sea wind or corrosive gases, such as Cl_2, H_2S, NH_3, SO_2, NO_2, Br， etc.

8. Record

Version	Description	Page	Date	Amended by	Checked by
1	First edition	1~4	May.20，2025	Haiyan Chen	Yuhua Xu
2	Modify the ordering procedure Modify the dimension Modify the derating curve	2 3 3	Aug.16,2025	Haiyan Chen	Yuhua Xu