## Vishay Sfernice



# **Enamelled Wirewound Power Resistors Axial Leads**



As a result of more than 50 years of experience and continuous improvements the RWM Series of resistors features proven reliability in AC or DC applications.

The high quality of the RWM resides mainly in the use of a proprietary VISHAY SFERNICE enamel fired at high temperature and free from any compound liable to corrode the resistive wire.

#### **FEATURES**

- High dissipation up to 30 W (25 °C)
- Fire Proof

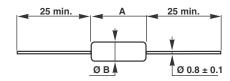


- Excellent Endurance typical drift ± 1.5 % after compliant 1000 hours
- Conformal Vitreous Enamel
- All Welded Construction
- Low ohmic values 0.1  $\Omega$  available
- Termination: Sn/Ag/Cu

The performance of this series of professional resistors fully meets the requirements of the following specifications:

- NF C 83-210-001
- CECC 40201-001
- BS CECC 40201-002

#### **DIMENSIONS** in millimeters



TECHNICAL SPECIFICATIONS												
VISHAY SFERNICE STYLES	DESIGNATIONS		POWER RATING		Ohmic Range in	Qualified	I imalalis	Outil a al	DIMENSIONS IN mm			
	CECC 40201 -001	CECC 40201 -002	at + 70 °C	at + 25 °C	With Surface Temp. ≤ + 450 °C	Relation to Tolerance ± 5 % E24 Series	Ohmic Range NF C 83-210	Limiting Element Voltage	Critical Resis- tance	Α	ØВ	WEIGHT IN g
<b>RWM</b> 4 x 10	RB59	JB	2.6 W	3 W	5.5 W	0.1 Ω 10 kΩ	0.1 Ω 10 kΩ	120 V	4.8 kΩ	12 ± 1	5.5 ± 1	1
<b>■</b> RWM 4 x 22	RB61	НВ	4.5 W	5 W	7 W	0.1 Ω 16 kΩ	0.1 Ω 6.8 kΩ	300 V	-	22.1 ± 1	5.5 ± 1	2
<b>€</b> RWM 5 x 26	RB57	-	6 W	7 W	10 W	0.1 Ω 27 kΩ	0.15 Ω 10 kΩ	350 V	18.8 kΩ	24.7 ± 1	7.4 ± 1.5	3
<b>€</b> RWM 6 x 22	RB57	КВ	6 W	7 W	10 W	0.1 Ω 39 kΩ	0.15 Ω 39 kΩ	350 V	17.5 kΩ	18 ± 1	6.5 ± 1	2.2
RWM 8 x 26	RB60	-	7 W	8 W	10 W	0.1 Ω 27 kΩ	-	500 V	-	24.7 ± 1	7.4 ± 1.5	3
<b>€</b> RWM 6 x 34	RB60	LB	7 W	8 W	12 W	0.33 Ω 36 kΩ	0.33 Ω 15 kΩ	500 V	31 kΩ	33.7 ± 1	7.4 ± 1.5	4
RWM 8 x 34	RB58	-	9.5 W	11 W	14 W	0.33 Ω 36 kΩ	-	650 V	-	33.7 ± 1	7.4 ± 1.5	4
<b>RWM</b> 8 x 45	RB58	МВ	9.5 W	11 W	20 W	0.47 Ω 62 kΩ	0.47 Ω 33 kΩ	650 V	38 kΩ	45.8 ± 2	9.4 ± 1.5	8
RWM 10 x 45	-	-	21 W	25 W	25 W	0.47 Ω 62 kΩ	-	800 V	25.6 kΩ	45.8 ± 2	9.4 ± 1.5	8
RWM 10 x 64	-	-	21 W	25 W	25 W	0.68 Ω 100 kΩ	-	800 V	25.6 kΩ	63.8 ± 1	9.4 ± 1.5	14
RWM 10 x 65	-	-	25.8 W	30 W	30 W	0.68 Ω 100 kΩ	-	800 V	21.3 kΩ	63.8 ± 1	9.4 ± 1.5	14

Undergoes European Quality Insurance System (CECC)



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PERFORMANCE							
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TESTS	CONDITIONS	REQUIREMENTS	TYPICAL DRIFTS				
Short Time Overload	10 Pr during 10 s 25 °C ambient	± (2 % + 0.1 Ω)	± (0.5 % + 0.05 Ω)				
Temperature Cycling	- 55 °C + 200 °C	± (1 % + 0.05 Ω)	± (0.5 % + 0.05 Ω)				
Humidity (Steady State)	56 days 40 °C Ambient - R.H. 95 %	± (5 % + 0.1 Ω)	± (0.5 % + 0.05 Ω)				
Terminal Strength	Tensile test: 20 N 2 successive bending 2 full rotations of 180°	± (1 % + 0.05 Ω)	± (0.1 % + 0.05 Ω)				
Load Life	1000 h at Pr 90/30 Cycle 25 °C ambient	± (5 % + 0.1 Ω)	± (1.5 % + 0.05 Ω)				

#### **OVERLOAD**

Heavy overloads can be endured in the form of short pulses < 0.1 s. Particular requirements should be submitted to Vishay Sfernice, specifying peak voltage, cycle and environmental conditions.

#### **RECOMMENDATIONS FOR USE**

Since these components are high dissipation power resistors, customers are advised to use a high melting point solder.

For low ohmic values, the measurement becomes critical and the connecting wires resistance is to be included. The value is measured at 5 mm from the resistor body.

#### **Group Mounting**

In a still atmosphere, a distance between axes equal to five times the resistor's diameter is recommended.

#### **Cabinet Mounting**

- Unventilated box: dissipation should be reduced (see dimensional drawing).
- Forced ventilation: if conditions are appropriate, dissipation may be doubled or even trebled.
- $\bullet$  In any case: the surface temperature at the hottest point should not exceed 450  $^{\circ}\text{C}.$

These aspects should be considered by the end user.

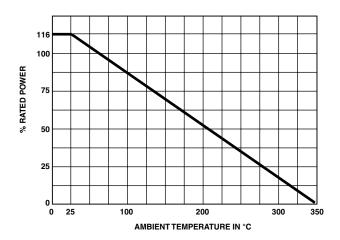
ELECTRICAL SPECIFICATIONS						
Tolerance	Standard	± 5 %				
	On request	± 1 % and ± 2 %				
Temperature Coefficient	: + 75 ppm/°C typical					
Dielectric Withstandin	g Voltage NF EN 140000	500 V <sub>RMS</sub> - 1 minute - 10 mA				
Inductance		non inductive (Ayrton-Perry) winding available				

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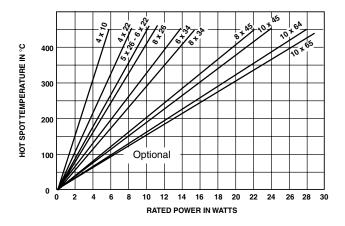
### Enamelled Wirewound Power Resistors Axial Leads



#### **POWER RATING CHART**



#### **TYPICAL TEMPERATURE RISE**



#### **MARKING**

Sfernice trademark, model and style, CECC style, if applicable (except for the smallest model due to lack of space: (4 x 10 or RB 59), ohmic value, resistance tolerance, manufacturing date (year - month).

ORDERING	INFORMA	TION					
RWM	4 x 10		XXX	150U	± 5 %	AM500	e1
MODEL	STYLE	NI OPTIONAL	SPECIAL DESIGN	OHMIC VALUE	TOLERANCE	PACKAGING	LEAD (Pb)-FREE
		Non Inductive Winding	Method N° Optional	Custom items are subject to extra charge and min. order. Please see price list.			

SAP PART NUMBERING GUIDELINES									
RWM	0410	1500	J	A20	E1				
MODEL	STYLE	OHMIC VALUE	TOLERANCE	PACKAGING	LEAD (Pb)-FREE				

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## **Legal Disclaimer Notice**



Vishay

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25J5R0-B 25W1D0 272-303-JBW 280-PRM5-150-RC CP0005270R0JE1491 CPCC0510R00JE32 CPCC051R000JB31 CPW052K500JE143

CPW05700R0JE143 C1010RJL CA000210R00JE14 VPR5F1500 RS02B887R0FE73 RWR74SR604FRB12 RWR84S1001FRB12

RWR84S20R0FSBSL RWR89S6190FSB12 CPW055R000JB143 ULW5-39R0JT075 W31-R47JA1 W31-R047JA1 VP25K-120 VC3D900

ULW5-68RJT075 65888-3R3 CB5JB10R0 CPW151K500JE313 RWR80N3400FSB12 RWR81S1000FRB12 RWR81S1000FSB12

RWR89S6R81FRB12 RWR89N30R1FRB12 RWR81S4R99FPB12