## **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 ODECICICATIONS



VISHAY SFERNICE STYLES	DESIGNATIONS		POWER RATING			Ohmic Range in	Qualified	l inclain a	Oritical	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	A	ØВ	WEIGHT IN g
<b>E</b> RWM 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>E</b> RWM 4 x 22	RB61	HB	4.5 W	5 W	7 W	0.1 Ω 16 kΩ	0.1 Ω 6.8 kΩ	300 V	-	22.1 <sup>± 1</sup>	5.5 <sup>± 1</sup>	2
<b>E</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 <sup>± 1.5</sup>	3
<b>E</b> RWM 6 x 22	RB57	KB	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 <sup>± 1</sup>	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 <sup>± 1.5</sup>	3
<b>E</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 <sup>± 1.5</sup>	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 <sup>± 1.5</sup>	4
<b>RWM 8 x 45</b>	RB58	MB	9.5 W	11 W	20 W	0.47 Ω 62 kΩ	0.47 Ω 33 kΩ	650 V	38 kΩ	45.8 <sup>± 2</sup>	9.4 <sup>± 1.5</sup>	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 <sup>± 1.5</sup>	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 <sup>± 1.5</sup>	14
RWM 10 x 65	-	-	25.8 W	30 W	30 W	0.68 Ω 100 kΩ	-	800 V	21.3 kΩ	63.8 <sup>± 1</sup>	9.4 <sup>± 1.5</sup>	14

E Undergoes European Quality Insurance System (CECC)



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RWM

PERFORMANCE							
	TYPICAL DRIFTS						
TESTS	CONDITIONS	REQUIREM	IENTS	TTPICAL	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.

• In any case: the surface temperature at the hottest point should not exceed 450 °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 Withstanding	y Voltage NF EN 140000	500 V <sub>RMS</sub> - 1 minute - 10 mA			
Inductance		non inductive (Ayrton-Perry) winding available			

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## **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		ХХХ	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	NUMBERI	NG GUIDELIN	ES					
RWM	0	410	1500	500 J A20			E1	
MODEL	S	TYLE OF	IMIC VALUE	TOLERANCE	PACKAGING L		EAD (Pb)-FREE	



Vishay

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