



RWM

enamelled wirewound power resistors

- axial leads

NF C 83-210-001
CECC 40201-001
CECC 40201-002
MIL-R-26 E



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 SFERNICE enamel fired at high temperature and free from any compound liable to corrode the resistive wire. The performances of this series of professional resistors fully meet the requirements of the following specifications :

- NF C 83-210-001
- CECC 40201-001
- BS - CECC 40201-002
- MIL-R-26 E, RW 67, RW 68 and RW 69 models
- DIN 41 431, (minor variations in dimensions on some models)
- DEF-5115-2, RFH Series

- **HIGH DISSIPATION**
- **HIGH RELIABILITY LEVEL**
 - Fire proof
 - Excellent endurance
 - Conformal vitreous enamel
- **LOW OHMIC VALUES**

- Great mechanical strength
- Good environmental protection
- All welded construction

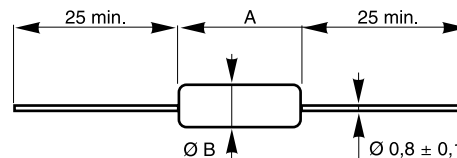


Fig. 1

Dimensions in mm

SPECIFICATIONS

Table 1

SFERNICE STYLES	DESIGNATIONS			POWER RATING			Ohmic range in relation to tolerance ±5% E24 serie	Qualified ohmic range NF C 83-210	Limiting element voltage	Critical resistance	DIMENSIONS in mm		Weight in g
	CECC 40201 -001 NFC 83-210 -001	BS CECC 40201 -002	Confor- mity MIL- R-26	at +70°C	at +25°C	with surface temp. ≤+450°C					A	Ø B	
☞ RWM 4x10	RB59	JB	RW69	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
☞ RWM 4x22	RB61	HB	—	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
☞ RWM 5x26	RB57	—	RW67	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
☞ RWM 6x22	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 ±1	2,2
RWM 8x26	RB60	—	—	7 W	8 W	10 W	0,1 Ω 27 kΩ	—	500 V	—	24,7 ±1	7,4 ±1,5	3
☞ RWM 6x34	RB60	—	—	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 8x34	RB58	—	—	9,5 W	11 W	14 W	0,33 Ω 36 kΩ	—	650 V	—	33,7 ±1	7,4 ±1,5	4
☞ RWM 8x45	RB58	—	RW68	9,5 W	11 W	20 W	0,47 Ω 62 kΩ	0,47 Ω 33 kΩ	650 V	38 kΩ	44,8 ±2	9,4 ±1,5	8
RWM 10x45	—	—	—	21 W	25 W	25 W	0,47 Ω 62 kΩ	—	800 V	25,6 kΩ	44,8 ±2	9,4 ±1,5	8
RWM 10x64	—	—	—	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 10x65	—	—	—	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)

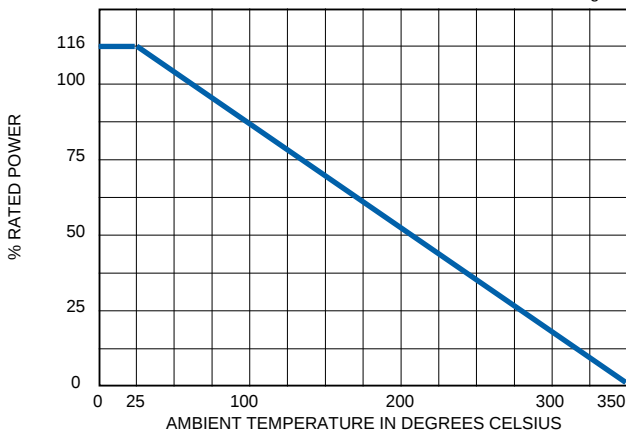
PERFORMANCES

Table 2

CECC 40201			TYPICAL DRIFTS
TESTS	CONDITIONS	REQUIREMENTS	
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. 93%	5 % + 0,1 Ω	0,5 % + 0,05 Ω
TERMINAL STRENGTH	Tensile test : 20 N 2 successive bendings 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

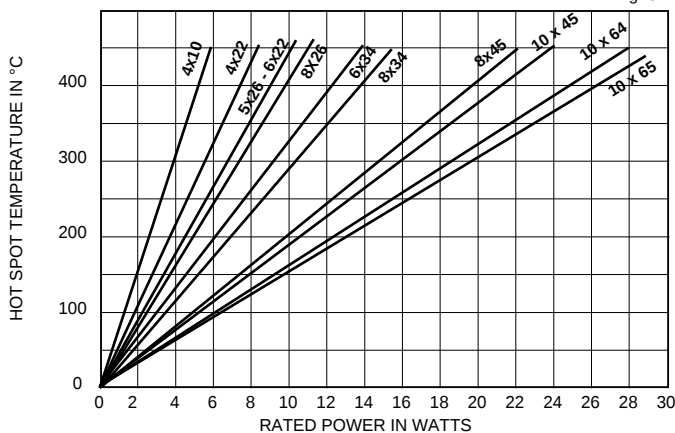
POWER RATING CHART

Fig. 2



TYPICAL TEMPERATURE RISE

Fig. 3



MARKING

SFERNICE trademark, series 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 PROCEDURE

SERIE	STYLE	NON INDUCTIVE WINDING	SPECIAL DESIGN	OHMIC VALUE	TOLERANCE	PACKAGING
RWM	8x45	NI	XXX	1,6 kΩ	± 5%	Optional
			Method N° Optional	Custom items are subject to extra charge and min. order. Please see price list.		

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RELIABILITY

The reliability rate is checked during endurance tests carried out on batches taken from the production line and covering the entire ohmic range. The typical results achieved at Pr (90°/30° cycle) and 25°C ambient allow us to state positively that, with 10, 10 million units x hours, the failure rate is below $3,9 \times 10^{-7}$ (60 % confidence level).

OVERLOAD

Heavy overloads can be endured in the form of short pulses < 0,1 s. Particular cases should be submitted to 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 fig. 1).
 - 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.

SPECIFICATIONS

Tolerance : ± 5% standard

±1% to ±10% on request.

Temperature coefficient : +75 ppm/°C typical.

Dielectric withstanding voltage : 1000 V RMS.

Inductance : non inductive (Ayrton-Perry) winding available.