# **PMR210**

- RC unit, class X1, metallized paper with integrated resistor
- 0.022 0.1 μF, 100 Ω, 250 VAC, +85 °C
- RC unit for safety applications.
- Small dimensions
- High dU/dt capability.
- Self-extinguishing encapsulation. The material is recognized acc. to UL 94 V-0
- Good resistance to ionisation due to impregnated dielectric.
- Excellent self-healing properties. Ensures long life even when subjected to frequent overvoltages.
- The impregnated paper ensures excellent stability giving outstanding reliability properties, especially in applications having continuous operation.

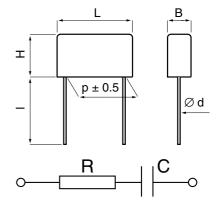
### **TYPICAL APPLICATIONS**

RC unit for use in DC and AC applications for:

- contact protection
- interference suppression of contacts
- transient suppression

### CONSTRUCTION

Single layer metallized paper, encapsulated and impregnated in self-extinguishing material meeting the requirements of UL 94V-0. The resistance in the metal layer is utilized as series resistance, integrated resistor.



d = 0.8 for p = 15.2 and 20.3 1.0 for p = 25.4

I: standard: 30 +5/-0 mm

short leads, tolerance +0/-1 mm (standard 6 mm, code R06) Other lead lengths on request.

	TECHNICAL DATA
Rated voltage	250 VAC, 50/60 Hz
Capacitance range	0.022–0.1 μF
Capacitance tolerance	± 20%
Resistance range	100 Ω
Resistance tolerance	± 30%

Peak pulse voltage 1000 V

**Temperature range** -40 to +85°C **Climatic category** 40/085/56/B

Approvals S, N, D, FI, VDE, SEV, UL

**Series resistance** The series resistance is defined at 100 kHz

Insulation resistance  $\geq 1000 \, \text{M}\Omega$ 

Measured at 500 VDC after 2 min, +23°C

Pulse current Max 12 A repetitive. Max 20 A peak for occasional

transients.

Test voltage between

terminals

The 100% screening factory test is carried out at 3000 VDC. The voltage level is selected to meet the requirements in applicable equipment standards. All electrical characteristics are checked after the test.

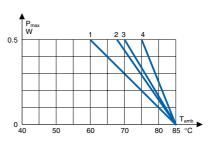
In DC applications Recommended voltage ≤ 1000 VDC.

**Power ratings** 

The average losses may reach 0.5 W provided the surface temperature does not exceed + 85°C. For maximum permitted power dissipation vs temperature, see derating curves.

Curve Dimensions

Curve	Dimensions
1	B = 7.3
1	B = 8.5
2	B = 9.0
3	B = 11.3
4	B = 10.6



Maximum allowable power dissipation vs ambient temperature and case sizes.



•	RTI	$\alpha$		<b>T</b> A	-	
			_	- 1 - 4	В.	_

Capaci-	Resis-	· Max	dimens	ions in ı	nm	Quan	tity per p	oackage reel	Weight	Approvals	
tance μF	tance Ω	В	н	L	р	R30 pcs	R06 pcs	taped pcs	g	S N D D VDE SEV UL	Article code
0.022 0.033	100 100	7.3 8.5	13.0 14.3	19.0 18.5	15.2 15.2	400 300	800 500	400 350	3.0 3.8	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	PMR210MB5220M100R30 PMR210MB5330M100R30
0.047 0.068	100 100	9.0 11.3	15.0 16.5	24.0 24.0	20.3 20.3	200 150	1200 1000	250 180	5.0 7.0	1 1 1 1 1 1 1	PMR210MC5470M100R30 PMR210MC5680M100R30
0.10	100	10.6	16.1	30.5	25.4	150	1000		8.0	$\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{$	PMR210ME6100M100R30

#### **APPROVALS/REFERENCE DOCUMENTS Certification Body Specification** Approval reference S EN 132400 9528106 FI EN 132400 184191-01 Ν EN 132400 293103075 EN 132400 303424 D **VDE** EN 132400 91806 SEV EN 132400 00-1928 UL UL 1414 Across-the-line ( $U_R = 250 \text{ VAC}$ ) E 73869

IΑ		

- RIFA
- RIFA article code
- RC unit
- Rated capacitance and resistance
- Rated voltage IEC 60065
- SH, for self-healing
- Climatic category according to IEC 60068-1, appendix A
- Passive flammability class
- Approval marks
- Manufacturing code (year, month)

ENVIRONMENTAL	IESI	DAIA

IEC 60068-2-6 3 directions at 2 hour each No visible damage 10 - 500 Hz at 0.75 mm Test Fc No open or short circuit

or 98 m/s<sup>2</sup>

**Bump** IEC 60068-2-29 4000 bumps at 390 m/s<sup>2</sup> No visible damage No open or short circuit

Test Eb

Solderability IEC 60068-2-20 Solder globule method Wetting time

Test Ta

for  $d \le 0.8 < 1 \text{ s}$ for d > 0.8 < 1.5 s

**Active** EN 132400

flammability

**Vibration** 

**Passive** IEC 60384-14 (1993)

flammability EN 132400

UL 1414 Enclosure material of UL 94V-0 flammability class

Humidity IEC 60068-2-3 +40°C and 90 - 95% R.H. 56 days

Test Ca

## ORDERING INFORMATION

The article code for the standard part is given in the article table. For other options, see page 21.

### **PACKING**

RC units in standard design (lead length 30 mm) and with L < 24 mm and lead length 5 or 6 mm are packed bulk in a box with dimensions 245 x 145 x 80 mm. Quantity/ package as per article table.

RC units with L≥24 mm and lead length 5 or 6 mm are packed on trays piled in a box with dimensions 300 x 260 x 195 mm. Quantity/package as per article table.

Reels with taped capacitors are packed 10 in a box with dimensions 370 x 370 x 560 mm. The standard quantity/reel is for 360 mm reel. If 500 mm reel is required, it must be specified when ordering and the quantity is 2 x the given quantity.

