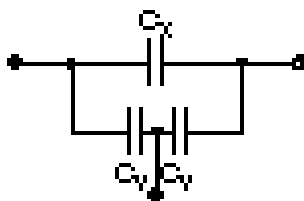




# Delta EMI Capacitors

This section covers components with one X2 rated and two Y2 rated capacitors mounted in delta form.



# PZB300

- Delta EMI suppressor, classes X2 and Y2, metallized paper
- 0.1 and 0.15  $\mu\text{F}$  X2, 2200, 3300 and 4700 pF Y2, 275 VAC, +100 °C

- Class X2 and Y2
- Compact size
- Self-extinguishing encapsulation.
- PCB mounting or fast-on connection
- Excellent self-healing properties.

Ensures long life even when subjected to frequent overvoltages.

- High dU/dt capability.
- Good resistance to ionisation due to impregnated dielectric material.

- The impregnated paper ensures excellent stability giving outstanding reliability properties, especially in applications having continuous operation.

## TYPICAL APPLICATIONS

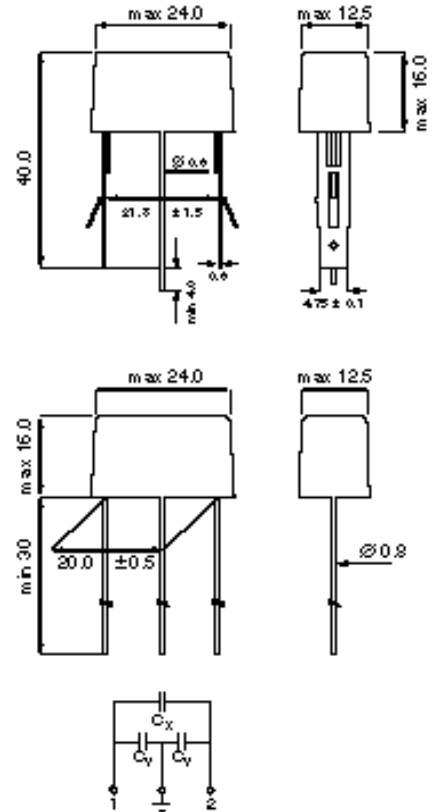
Interference suppressors with X2 + 2 x Y2 capacitors in a delta configuration.

## CONSTRUCTION

Multi-layer metallized paper. Encapsulated and impregnated in self-extinguishing material meeting the requirements of UL 94V-0.

## TECHNICAL DATA

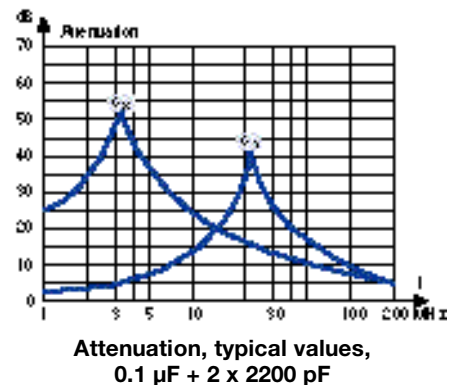
Rated voltage	275 VAC 50/60 Hz
Capacitance X value, $\mu\text{F}$	0.1 and 0.15
Capacitance Y value, pF	2200, 3300 and 4700
Capacitance tolerance	$\pm 20\%$
Temperature range	-40 to +100°C
Climatic category	IEC 40/100/56/B
Approvals	S, UL, CSA
Dissipation factor	1.3 % at 1 kHz
Insulation resistance	12000 M Measured at 500 VDC after 60 s, +23°C
Test voltage between terminals	The 100% screening factory test is carried out at 1800 VDC for X2 capacitors and at 2700 VDC for Y2 capacitors. The voltage level is selected to meet the requirements in applicable equipment standards. All electrical characteristics are checked after the test.



## ENVIRONMENTAL TEST DATA

<b>Vibration</b>	IEC 68-2-6 Test Fc	3 directions at 2 hour each 10 – 500 Hz at 0.75 mm or 98 m/s <sup>2</sup> (PZB300MC.. mounted on PC-board)	No visible damage No open or short circuit
<b>Bump</b>	IEC 68-2-29 Test Eb	4000 bumps at 390 m/s <sup>2</sup>	No visible damage No open or short circuit
<b>Solderability</b>	IEC 68-2-20 Test Ta	Solder globule method	Wetting time < 1 s
<b>Active flammability</b>	EN 132400		
<b>Passive flammability</b>	IEC 384-14 (1993) EN 132400		
<b>Humidity</b>	IEC 68-2-3 Test Ca	+40°C and 90 – 95% R.H.	56 days

## Suppression vs. frequency



## ARTICLE TABLE

Capacitance		Max dimensions				Quantity per package		Weight	Max dU/dt		Approvals			Article code 1 st block
C <sub>x</sub> μF	C <sub>y</sub> pF	B	H	L	p	R30 pcs	R06 pcs		V/μs	C <sub>x</sub>	C <sub>y</sub>	ø	UL	
0.1	2200	12.5	16.0	24.0	20.0	150	1000	7.5	600	1000				PZB300MC11
0.1	3300	12.5	16.0	24.0	20.0	150	1000	7.5	600	1000				PZB300MC12
0.1	4700	12.5	16.0	24.0	20.0	150	1000	7.5	600	1000				PZB300MC13
0.15	2200	12.5	16.0	24.0	20.0	150	1000	7.5	600	1000				PZB300MC21
0.15	3300	12.5	16.0	24.0	20.0	150	1000	7.5	600	1000				PZB300MC22
0.15	4700	12.5	16.0	24.0	20.0	150	1000	7.5	600	1000				PZB300MC23

## APPROVALS/REFERENCE DOCUMENTS

Country	Specification	Approval reference
S = Sweden	EN 132400	9650188-01
UL = USA	UL 1283	E 100117
CSA = Canada	C 22.2 No. 8-1982	53108

## MARKING

- RIFA
- RIFA article code
- Rated capacitance (X and Y)
- Rated voltage
- X2 and Y2
- SH, for self healing
- Climatic category according to IEC 68-1, appendix A
- Passive flammability class
- Approval marks
- Circuit diagram
- Manufacturing code (year, month)

## ORDERING INFORMATION

## Article code

## 1st block

See article table

## 2nd block

Options:

Short leads: e.g. 6 mm, add R06 in pos. 11–13.

Fast-on: Add TAG in pos. 11–13

<b>P</b>	<b>Z</b>	<b>B</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>M</b>	<b>C</b>	<b>1</b>	<b>1</b>
1	2	3	4	5	6	7	8	9	10

**R 0 6**

11 12 13

## PACKING

Capacitors in standard design are packed bulk in a box with dimensions 245 x 145 x 80 mm. Quantity/package as per article table.

Capacitors with 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.

