

PHE843

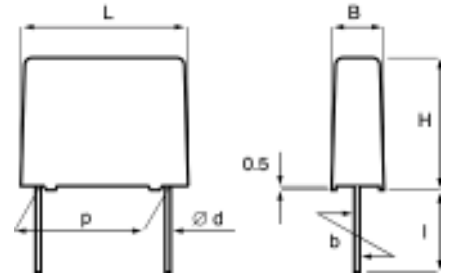
- EMI suppressor, class X2, metallized polypropylene
- See the new version of PHE840M. This series will be combined into that one and the maximum C-value increased to 10uF!
- 0.01 – 6.8 μF , 275/280 VAC, +105°C

TYPICAL APPLICATIONS

For worldwide use as electromagnetic interference suppressor in all X2 and across-the-line applications.

CONSTRUCTION

Metallized polypropylene winding, encapsulated in self-extinguishing material meeting the requirements of UL 94 V-0.



TECHNICAL DATA

Rated voltage	275 VAC 50/60 Hz (280 VAC North America)			
Capacitance range	0.01 – 6.8 μF			
Capacitance tolerance	± 20% standard, ± 10% option			
Temperature range	–40 to +105°C			
Climatic category	40/105/56/B			
Approvals	S, UL, CSA			
Dissipation factor tanδ	Maximum values at +23°C			
		C ≤ 0.1 μF	0.1 μF < C ≤ 0.47 μF	C > 0.47 μF
	1 kHz	0.1%	0.1%	0.1%
	10 kHz	0.1%	0.2%	0.5%
	100 kHz	0.6%	0.9%	–
Test voltage between terminals	The 100% screening factory test is carried out at 2200 VDC. The voltage level is selected to meet the requirements in applicable equipment standards. All electrical characteristics are checked after the test.			
Resonance frequency	Tabulated self-resonance frequencies f ₀ refer to 5 mm lead length.			
Insulation resistance	C ≤ 0.33 μF: ≥ 30 000 MΩ C > 0.33 μF: ≥ 10 000 s			
In DC applications	Recommended voltage: ≤ 630 VDC			

p	d	std l	max l	b
10.0 \pm 0.4	0.6	17	30	± 0.4
15.0 \pm 0.4	0.8	17	30	± 0.4
22.5 \pm 0.4	0.8	6	30	± 0.4
27.5 \pm 0.4	0.8	6	30	± 0.4
37.5 \pm 0.5	1.0	6	30	± 0.7

Tolerance in lead length

< 30 mm $\begin{smallmatrix} +0 \\ -1 \end{smallmatrix}$ mm

$\geq 30\text{ mm}$ $\begin{smallmatrix} +5 \\ -0 \end{smallmatrix}$ mm

ENVIRONMENTAL TEST DATA

Endurance	IEC 60384-14	1.25 x U_R VAC 50 Hz, once every hour increased to 1000 VAC for 0.1 s, 1000 h at upper rated temperature	
Vibration	IEC 60068-2-6 Test Fc	3 directions at 2 hours each, 10–55 Hz at 0.75 mm or 98 m/s ²	No visible damage No open or short circuit
Bump	IEC 60068-2-29 Test Eb	1000 bumps at 390 m/s ²	No visible damage No open or short circuit
Change of temperature	IEC 60068-2-14 Test Na	Upper and lower rated temperature 5 cycles	No visible damage
Active flammability	EN 132400		
Passive flammability	IEC 60384-14 (1993) EN 132400 UL1414	Enclosure material of UL94V-0 flammability class	
Humidity	IEC 60068-2-3 Test Ca	+40°C and 90 – 95% R.H.	56 days

ARTICLE TABLE

Capacitance μF	Max dimensions in mm				Quantity per package				Max dU/dt V/μs	Approvals			Article code 1 st block	
	B	H	L	p	Bulk pcs	Tray pcs	reel taped pcs	Weight g		f ₀ MHz	RoHS	UL		CSA
LEAD SPACING 10 MM														
0.068	5.0	11.0	13.0	10.0	800		700	1.0	7.5	100	✓	✓	✓	PHE843MA5680M
0.10	6.0	12.0	13.0	10.0	600		500	1.2	6.0	100	✓	✓	✓	PHE843MA6100M
LEAD SPACING 15 MM														
0.15	7.5	14.5	18.0	15.0	400		400	2.2	2.8	100	✓	✓	✓	PHE843MB6150M
0.22	8.0	15.0	18.0	15.0	400		400	2.9	2.5	100	✓	✓	✓	PHE843MB6220M
0.33	9.5	17.5	18.0	15.0	300		350	3.5	2.0	100	✓	✓	✓	PHE843MB6330M
LEAD SPACING 22.5 MM														
0.47	9.0	18.5	26.0	22.5		168		5.0	1.5	100	✓	✓	✓	PHE843MD6470M
0.68	10.5	19.0	26.0	22.5		264		6.6	1.2	100	✓	✓	✓	PHE843MD6680M
1.0	13.5	23.0	26.0	22.5		209		10.0	1.0	100	✓	✓	✓	PHE843MD7100M
LEAD SPACING 27.5 MM														
1.5	14.5	24.5	31.5	27.5		153		14.5	0.87	100	✓	✓	✓	PHE843MF7150M
2.2	19.0	29.0	31.5	27.5		126		17.0	0.78	100	✓	✓	✓	PHE843MF7220M
3.3	21.0	30.0	31.5	27.5		108		22.6	0.66	100	✓	✓	✓	PHE843MF7330M
LEAD SPACING 37.5 MM														
4.7	19.0	36.0	41.0	37.5		91		28.5	0.44	100	✓	✓	✓	PHE843MR7470M
6.8	21.0	38.0	41.0	37.5		84		34.4	0.39	100	✓	✓	✓	PHE843MR7680M

APPROVALS/REFERENCE DOCUMENTS

Country	Specification	Approval reference PHE843
S = Sweden	EN 132400	0045274/01
UL = USA	UL 1283 ($U_R = 280 \text{ VAC}$)	E100117
	UL 1414 ($U_R = 250 \text{ VAC}$)	E73869
CSA = Canada	C 22.2 No. 8 ($U_R = 280 \text{ VAC}$)	E100117
(cUL recognition)	C 22.2 No. 1 ($U_R = 250 \text{ VAC}$)	E73869

MARKING

- RIFA
- RIFA article code
- Rated capacitance
- Capacitance tolerance code
- Rated voltage
- X2
- Approval marks
- Manufacturing date code
- IEC climatic category
- Passive flammability class

ORDERING INFORMATION

Article code

1st block

See article table
Pos. 13 Capacitance tolerance code:
M = $\pm 20\%$ standard
K = $\pm 10\%$ option

2nd block

If not standard lead length,
add R06 – R30 in pos. 14–16.
For reel taped, add 17T0 or 17T1
in pos. 14–15.
For packing on trays (6 mm lead length),
add L2 in pos. 17–18.

P H E 8 4 3 M B 6 1 5 0 M

R 0 6

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

PACKING

The box dimensions for bulk packaging are
245 x 145 x 80 mm. Quantity/package as
per article table.

Reels with taped capacitors are packed
10 in a box with dimension 370 x 370 x 560
mm. Quantity/reel according to article table.
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.

DATA SHEET PHE843

Specifications subject to change without
notice

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