PHE843

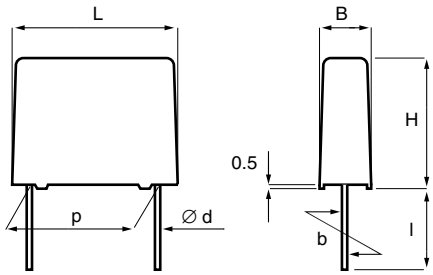
- **EMI suppressor, class X2, metallized polypropylene**
- **0.01 – 6.8 µF, 275/280 VAC, +105°C**
- **For replacement, see PHE840M**

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.



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

Tolerance in lead length

< 30 mm $^{+0}_{-1}$ mm

≥ 30 mm $^{+5}_{-0}$ mm

TECHNICAL DATA

Rated voltage
275 VAC 50/60 Hz (ENEC)
280 VAC 50/60 Hz (UL, CSA)

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	0.1µF < C ≤ 1 µF	C > 1 µF
1 kHz	0.1%	0.1%	0.1%
10 kHz	0.2%	0.4%	0.8%
100 kHz	0.6%	–	–

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

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/s²	No visible damage No open or short circuit
Bump	IEC 60068–2–29 Test Eb	1000 bumps at 390 m/s²	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 B	H	L	p	Quantity per package Bulk pcs	Tray pcs	reel taped pcs	Weight g	f_0 MHz	Max dU/dt V/µs	Approvals S	UL	CSA	Article code
LEAD SPACING 10 MM														
0.068	5.0	11.0	13.0	10.0	800		700	1.0	7.5	100	√	√	√	PHE843MA5680MR17
0.10	6.0	12.0	13.0	10.0	600		500	1.2	6.0	100	√	√	√	PHE843MA6100MR17
LEAD SPACING 15 MM														
0.15	7.5	14.5	18.0	15.0	400		400	2.2	2.8	100	√	√	√	PHE843MB6150MR17
0.22	8.0	15.0	18.0	15.0	400		400	2.9	2.5	100	√	√	√	PHE843MB6220MR17
0.33	9.5	17.5	18.0	15.0	300		350	3.5	2.0	100	√	√	√	PHE843MB6330MR17
LEAD SPACING 22.5 MM														
0.47	9.0	18.5	26.0	22.5		168		5.0	1.5	100	√	√	√	PHE843MD6470MR06L2
0.68	10.5	19.0	26.0	22.5		264		6.6	1.2	100	√	√	√	PHE843MD6680MR06L2
1.0	13.5	23.0	26.0	22.5		209		10.0	1.0	100	√	√	√	PHE843MD7100MR06L2
LEAD SPACING 27.5 MM														
1.5	14.5	24.5	31.5	27.5		153		14.5	0.87	100	√	√	√	PHE843MF7150MR06L2
2.2	17.5	28.0	31.5	27.5		126		17.0	0.78	100	√	√	√	PHE843MF7220MR06L2
3.3	21.0	30.0	31.5	27.5		108		22.6	0.66	100	√	√	√	PHE843MF7330MR06L2
LEAD SPACING 37.5 MM														
4.7	19.0	36.0	41.0	37.5		91		28.5	0.44	100	√	√	√	PHE843MR7470MR06L2
6.8	21.0	38.0	41.0	37.5		84		34.4	0.39	100	√	√	√	PHE843MR7680MR06L2

APPROVALS/REFERENCE DOCUMENTS

Certification Body	Specification	Approval reference
S	EN 132400	0045274/01
UL	UL 1283 (U_R = 275 VAC)	E100117
	UL 1414 (U_R = 250 VAC)	E73869
cUL recognition	C 22.2 No. 8 (U_R = 275 VAC)	E100117
(CSA)	C 22.2 No. 1 (U_R = 250 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

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

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.