

PHE845

- EMI suppressor, class X1, metallized polypropylene
- 0.01 – 1.0 μF , 760 VAC/600VAC, +105°C
- New, small dimensions

TYPICAL APPLICATIONS

For worldwide use as electromagnetic interference suppressor in all X1 and across-the-line applications.

CONSTRUCTION

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

TECHNICAL DATA

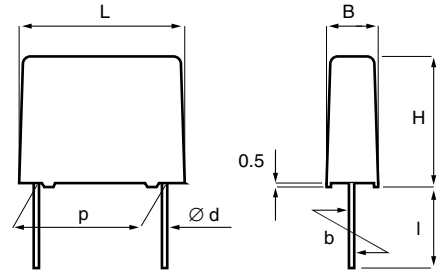
Rated voltage	760 VAC 50/60 Hz (ENEC) 600 VAC 50/60 Hz (UL, CSA)												
Capacitance range	0.01 – 1.0 μF												
Capacitance tolerance	$\pm 20\%$ standard, $\pm 10\%$ option												
Temperature range	-40 to +105°C												
Climatic category	40/105/56/B												
Approvals	ENEC, UL, CSA												
Dissipation factor	Maximum values at +23°C												
	<table border="1"> <thead> <tr> <th></th> <th>$C \leq 0.1 \mu\text{F}$</th> <th>$0.1 \mu\text{F} < C \leq 1 \mu\text{F}$</th> </tr> </thead> <tbody> <tr> <td>1 kHz</td> <td>0.1%</td> <td>0.1%</td> </tr> <tr> <td>10 kHz</td> <td>0.2%</td> <td>0.4%</td> </tr> <tr> <td>100 kHz</td> <td>0.6%</td> <td>-</td> </tr> </tbody> </table>		$C \leq 0.1 \mu\text{F}$	$0.1 \mu\text{F} < C \leq 1 \mu\text{F}$	1 kHz	0.1%	0.1%	10 kHz	0.2%	0.4%	100 kHz	0.6%	-
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100 kHz	0.6%	-											

Test voltage between terminals The 100% screening factory test is carried out at 4100 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 $C \leq 0.33 \mu\text{F}$: $\geq 30\,000 \text{ M}\Omega$
 $C > 0.33 \mu\text{F}$: $\geq 10\,000 \text{ s}$

In DC application Recommended voltage: $\leq 1000 \text{ VDC}$



p	d	std l	max l	b
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 $\begin{matrix} +0 \\ -1 \end{matrix}$ mm

≥ 30 mm $\begin{matrix} +5 \\ -0 \end{matrix}$ 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 $\text{V}/\mu\text{s}$	Approvals			Article code
	B	H	L	p	Tray pcs	Weight g	f_0 MHz		ENEC	UL	CSA	
LEAD SPACING 22.5 MM												
0.010	6.5	14.5	26.0	22.5	234	2.7	11	100	√	√	√	PHE845VD5100MR06L2
0.015	6.5	14.5	26.0	22.5	234	2.7	9.2	100	√	√	√	PHE845VD5150MR06L2
0.022	6.5	14.5	26.0	22.5	234	2.7	7.6	100	√	√	√	PHE845VD5220MR06L2
0.033	7.0	16.5	26.0	22.5	216	3.2	6.4	100	√	√	√	PHE845VD5330MR06L2
0.047	9.0	18.5	26.0	22.5	168	5.0	5.3	100	√	√	√	PHE845VD5470MR06L2
0.068	10.5	19.0	26.0	22.5	264	5.8	4.4	100	√	√	√	PHE845VD5680MR06L2
0.10	11.0	21.5	26.0	22.5	253	6.6	3.5	100	√	√	√	PHE845VD6100MR06L2
0.15	13.5	23.0	26.0	22.5	209	10.0	3.1	100	√	√	√	PHE845VD6150MR06L2
0.22	15.5	24.5	26.0	22.5	176	10.0	2.7	100	√	√	√	PHE845VY6220MR06L2*
LEAD SPACING 27.5 MM												
0.10	10.5	20.5	31.5	27.5	216	8.0	3.4	100	√	√	√	PHE845VF6100MR06L2
0.15	11.5	22.5	31.5	27.5	198	9.1	3.0	100	√	√	√	PHE845VF6150MR06L2
0.22	13.5	23.0	31.5	27.5	171	11.0	2.4	100	√	√	√	PHE845VF6220MR06L2
0.33	19.0	29.0	31.5	27.5	117	19.0	2.0	100	√	√	√	PHE845VF6330MR06L2
0.47	21.0	30.0	31.5	27.5	108	23.0	1.6	100	√	√	√	PHE845VZ6470MR06L2*
LEAD SPACING 37.5 MM												
0.47	15.0	26.0	41.0	37.5	119	17.0	1.6	100	√	√	√	PHE845VR6470MR06L2
0.68	19.0	36.0	41.0	37.5	91	28.0	1.2	100	√	√	√	PHE845VR6680MR06L2
1.0	21.0	38.0	41.0	37.5	84	34.0	1.0	100	√	√	√	PHE845VW7100MR06L2*

* Only $\pm 20\%$

APPROVALS/REFERENCE DOCUMENTS

Certification Body	Specification	Approval reference
ENEC	EN 132400	SE/0140-2
UL	UL 1283 ($U_R=600\text{ VAC}$)	E100117
CSA	C 22.2 No. 8 ($U_R=600\text{ VAC}$)	E100117

MARKING

- RIFA
- RIFA article code
- Rated capacitance
- Capacitance tolerance code
- Rated voltage
- X1
- 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.