

PHE426

RoHS
Compliant

- Single metallized film pulse capacitor, polypropylene dielectric
- According to IEC 60384-16, grade 1.1

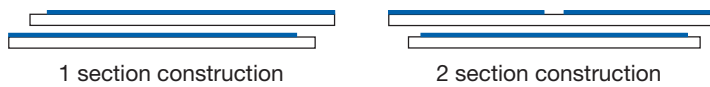
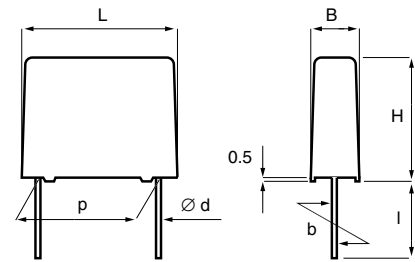
TYPICAL APPLICATIONS

Pulse operation in SMPS, TV, monitor, electrical ballast and other high frequency applications demanding stable operation.

CONSTRUCTION

Polypropylene film capacitor with vacuum evaporated aluminum electrodes. Radial leads of tinned wire are electrically welded to the contact metal layer on the ends of the capacitor winding. Encapsulation in self-extinguishing material meeting the requirements of UL 94V-0.

Two different winding constructions are used, depending on voltage and lead spacing. They are specified in the article table.

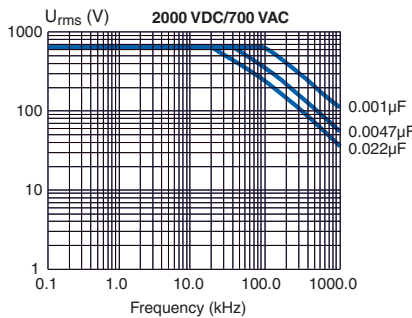
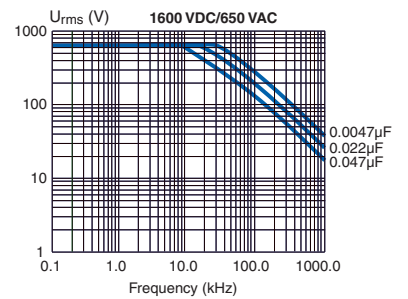
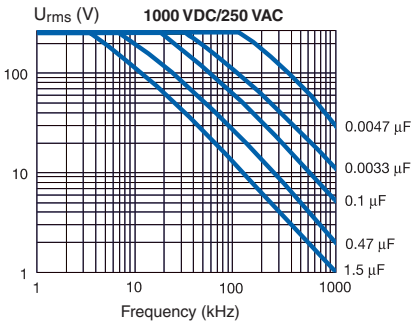
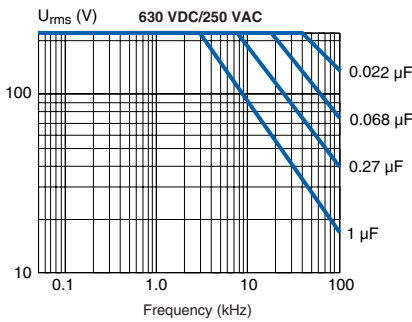
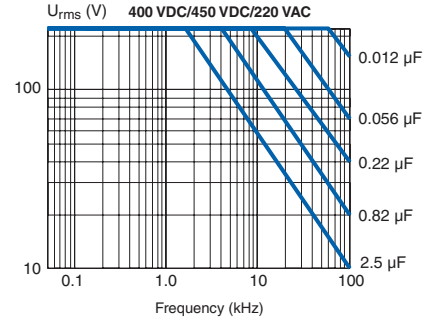
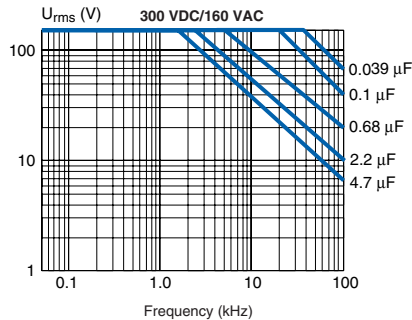
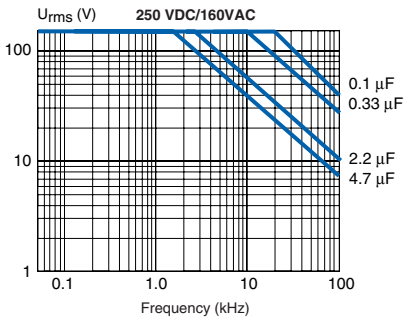


p	d	std l	max l	b
5.0 ± 0.4	0.5	5 ⁻¹	20	± 0.4
7.5 ± 0.4	0.6	5 ⁻¹	20	± 0.4
10.0 ± 0.4	0.6	5 ⁻¹	30	± 0.4
15.0 ± 0.4	0.8	6 ⁻¹	30	± 0.4
22.5 ± 0.4	0.8	6 ⁻¹	30	± 0.4
27.5 ± 0.4	0.8	6 ⁻¹	30	± 0.4
37.5 ± 0.5	1.0	6 ⁻¹	30	± 0.7

TECHNICAL DATA

Rated voltage U_R , VDC	100	250	300	400	450	630	1000	1600	2000
Rated voltage U_R , VAC	63	160	160	220	220	250	250	650	700
Capacitance range, μF	0.001 -0.22	0.001 -27	0.033 -18	0.001 -10	0.1 -3.9	0.001 -5.6	0.0027 -3.3	0.0047 -0.047	0.001 -0.027
Capacitance values	In accordance with IEC E12 series								
Capacitance tolerance	±5%, other tolerances on request								
Category temperature range	-55 ... +105°C								
Rated temperature	+85°C								
Voltage derating	The rated voltage is decreased with 1.3%/°C between +85°C and +105°C.								
Climatic category	IEC 60068-1, 55/105/56/B								
Passive flammability	Category B according to IEC 60065								
Maximum pulse steepness:	dU/dt according to article table For peak to peak voltages lower than rated voltage ($U_{pp} < U_R$), the specified dU/dt can be multiplied by the factor U_R/U_{pp} .								
Temperature coefficient	-200 (+50, -100) ppm/°C (at 1 kHz)								
Self-inductance	Approximately 6 nH/cm for the total length of capacitor winding and the leads.								
Dissipation factor $\tan\delta$	Maximum values at +23°C								
	$C \leq 0.1 \mu\text{F}$			$0.1 \mu\text{F} < C \leq 1.0 \mu\text{F}$			$C > 1.0 \mu\text{F}$		
1 kHz	0.05%			0.05%			0.10%		
10 kHz	-			0.10%			-		
100 kHz	0.25%			-			-		
Insulation resistance	Measured at +23°C, 100 VDC 60 s for $U_R < 500$ VDC and at 500 VDC for $U_R \geq 500$ VDC								
	Between terminals: $C \leq 0.33 \mu\text{F}$: $\geq 100\,000$ M Ω $C > 0.33 \mu\text{F}$: $\geq 30\,000$ s Between terminals and case: $\geq 100\,000$ M Ω .								

DERATING OF U_{RMS} VS FREQUENCY, +85°C AMBIENT TEMPERATURE AND 10°C INTERNAL HEATING, TYPICAL VALUES



More simulation possibilities in PCCAD software package. See page 94.

ENVIRONMENTAL TEST DATA

According to IEC 60384-16, Grade 1.1 and Quality tests and requirements for Pulse Capacitors on page 95.

ORDERING INFORMATION

The article code for the standard part is given in the article table. For other options, see page 11.

MARKING

- RIFA
- Article code
- Rated capacitance according to IEC 60062
- Capacitance tolerance code
- Rated voltage
- Manufacturing code (year, month)

ARTICLE TABLE

Capacitance µF	Box code	Max dimensions in mm			Max dU/dt V/µs	Rththa °C/W 0.2 m/s	Article code	Capacitance µF	Box code	Max dimensions in mm			Max dU/dt V/µs	Rththa °C/W 0.2 m/s	Article code
		B	H	L						B	H	L			
250 VDC/160 VAC (1 Section)							300 VDC/160 VAC (1 Section)								
LEAD SPACING 27.5 MM							LEAD SPACING 22.5 MM								
2.2	F11	10.5	20.5	31.5	50	37	PHE426HF7220JR06L2	1.2	D18	10.5	19.0	26.0	100	45	PHE426JD7120JR06L2
2.7	F11	10.5	20.5	31.5	50	37	PHE426HF7270JR06L2	1.5	D16	11.0	21.5	26.0	100	40	PHE426JD7150JR06L2
2.7	F17	21.0	12.5	31.5	50	37	PHE426HT7270JR06L2	1.8	D20	13.5	23.0	26.0	100	40	PHE426JD7180JR06L2
3.3	F12	11.5	22.5	31.5	50	34	PHE426HF7330JR06L2	2.2	D20	13.5	23.0	26.0	100	40	PHE426JD7220JR06L2
3.9	F03	13.5	23.0	31.5	50	33	PHE426HF7390JR06L2	2.7	D19	15.5	24.5	26.0	100	40	PHE426JD7270JR06L2
4.7	F03	13.5	23.0	31.5	50	32	PHE426HF7470JR06L2	LEAD SPACING 27.5 MM							
5.6	F14	17.5	28.0	31.5	50	28	PHE426HF7560JR06L2	1.0	F11	10.5	20.5	31.5	70	37	PHE426JF7100JR06L2
6.8	F14	17.5	28.0	31.5	50	28	PHE426HF7680JR06L2	1.2	F11	10.5	20.5	31.5	70	37	PHE426JF7120JR06L2
6.8	F19	27.5	16.0	31.5	50	28	PHE426HT7680JR06L2	1.5	F11	10.5	20.5	31.5	70	37	PHE426JF7150JR06L2
8.2	F15	19.0	29.0	31.5	50	26	PHE426HF7820JR06L2	1.8	F11	10.5	20.5	31.5	70	37	PHE426JF7180JR06L2
10.0	F16	21.0	30.0	31.5	50	26	PHE426HF8100JR06L2	1.8	F17	21.0	12.5	31.5	70	37	PHE426JT7180JR06L2
10.0	F18	31.0	19.0	31.5	50	26	PHE426HT8100JR06L2	2.2	F12	11.5	22.5	31.5	70	34	PHE426JF7220JR06L2
LEAD SPACING 37.5 MM							LEAD SPACING 37.5 MM								
4.7	R05	13.0	24.0	41.0	30	27	PHE426HR7470JR06L2	2.7	F03	13.5	23.0	31.5	70	33	PHE426JF7270JR06L2
5.6	R05	13.0	24.0	41.0	30	27	PHE426HR7560JR06L2	3.3	F13	14.5	24.5	31.5	70	32	PHE426JF7330JR06L2
6.8	R04	15.0	26.0	41.0	30	25	PHE426HR7680JR06L2	3.9	F14	17.5	28.0	31.5	70	28	PHE426JF7390JR06L2
8.2	R02	16.5	32.0	41.0	30	21	PHE426HR7820JR06L2	3.9	F19	27.5	16.0	31.5	70	28	PHE426JT7390JR06L2
10.0	R02	16.5	32.0	41.0	30	21	PHE426HR8100JR06L2	4.7	F14	17.5	28.0	31.5	70	28	PHE426JF7470JR06L2
12.0	R03	19.0	36.0	41.0	30	19	PHE426HR8120JR06L2	5.6	F15	19.0	29.0	31.5	70	26	PHE426JF7560JR06L2
15.0	R03	19.0	36.0	41.0	30	19	PHE426HR8150JR06L2	5.6	F18	31.0	19.0	31.5	70	26	PHE426JT7560JR06L2
18.0	R06	21.0	38.0	41.0	30	17	PHE426HR8180JR06L2	6.8	F16	21.0	30.0	31.5	70	26	PHE426JF7680JR06L2
20.0	R06	21.0	38.0	41.0	30	17	PHE426HR8200JR06L2	LEAD SPACING 37.5 MM							
22.0	R08	28.0	43.0	41.0	30	17	PHE426HR8220JR06L2	3.3	R05	13.0	24.0	41.0	40	27	PHE426JR7330JR06L2
27.0	R08	28.0	43.0	41.0	30	17	PHE426HR8270JR06L2	3.9	R05	13.0	24.0	41.0	40	27	PHE426JR7390JR06L2
300 VDC/160 VAC (1 Section)							400 VDC/220 VAC (1 Section)								
LEAD SPACING 10 MM							LEAD SPACING 5 MM								
0.033	A01	4.0	9.0	13.0	200	135	PHE426JA5330JR05	0.0010	J01	2.5	6.5	7.2	30	230	PHE426KJ4100JR05
0.039	A01	4.0	9.0	13.0	200	135	PHE426JA5390JR05	0.0012	J01	2.5	6.5	7.2	30	230	PHE426KJ4120JR05
0.047	A01	4.0	9.0	13.0	200	135	PHE426JA5470JR05	0.0015	J01	2.5	6.5	7.2	30	230	PHE426KJ4150JR05
0.056	A01	4.0	9.0	13.0	200	135	PHE426JA5560JR05	0.0018	J01	2.5	6.5	7.2	30	230	PHE426KJ4180JR05
0.068	A02	4.5	10.5	13.0	200	120	PHE426JA5680JR05	0.0022	J01	2.5	6.5	7.2	30	230	PHE426KJ4220JR05
0.082	A02	4.5	10.5	13.0	200	120	PHE426JA5820JR05	0.0027	J01	2.5	6.5	7.2	30	230	PHE426KJ4270JR05
0.10	A03	5.0	11.0	13.0	200	113	PHE426JA6100JR05	0.0033	J01	2.5	6.5	7.2	30	230	PHE426KJ4330JR05
0.12	A03	5.0	11.0	13.0	200	113	PHE426JA6120JR05	0.0039	J01	2.5	6.5	7.2	30	230	PHE426KJ4390JR05
0.15	A04	6.0	12.0	13.0	200	105	PHE426JA6150JR05	0.0047	J01	2.5	6.5	7.2	30	230	PHE426KJ4470JR05
LEAD SPACING 15 MM							LEAD SPACING 5 MM								
0.10	B04	5.5	10.5	18.0	150	99	PHE426JB6100JR06	0.0056	J01	2.5	6.5	7.2	30	230	PHE426KJ4560JR05
0.12	B04	5.5	10.5	18.0	150	99	PHE426JB6120JR06	0.0068	J01	2.5	6.5	7.2	30	230	PHE426KJ4680JR05
0.15	B04	5.5	10.5	18.0	150	99	PHE426JB6150JR06	0.0082	J02	3.5	8.0	7.2	30	230	PHE426KJ4820JR05
0.18	B05	5.5	12.5	18.0	150	85	PHE426JB6180JR06	0.010	J02	3.5	8.0	7.2	30	230	PHE426KJ5100JR05
0.22	B15	6.0	12.0	18.0	150	83	PHE426JB6220JR06	0.012	J02	3.5	8.0	7.2	30	230	PHE426KJ5120JR05
0.27	B10	6.5	12.5	18.0	150	82	PHE426JB6270JR06	0.015	J02	3.5	8.0	7.2	30	230	PHE426KJ5150JR05
0.33	B06	7.5	14.5	18.0	150	74	PHE426JB6330JR06	0.018	J02	3.5	8.0	7.2	30	230	PHE426KJ5180JR05
0.39	B06	7.5	14.5	18.0	150	74	PHE426JB6390JR06	0.022	J02	3.5	8.0	7.2	30	230	PHE426KJ5220JR05
0.47	B12	8.0	15.0	18.0	150	71	PHE426JB6470JR06	0.027	J03	4.5	9.0	7.2	30	230	PHE426KJ5270JR05
0.56	B11	8.5	16.0	18.0	150	64	PHE426JB6560JR06	0.033	J03	4.5	9.0	7.2	30	230	PHE426KJ5330JR05
0.68	B14	9.5	17.5	18.0	150	60	PHE426JB6680JR06	0.039	J04	5.0	10.0	7.2	30	230	PHE426KJ5390JR05
LEAD SPACING 22.5 MM							LEAD SPACING 5 MM								
0.33	D13	6.5	14.5	26.0	100	58	PHE426JD6330JR06L2	0.047	J05	6.0	11.0	7.2	30	230	PHE426KJ5470JR05
0.39	D13	6.5	14.5	26.0	100	58	PHE426JD6390JR06L2	0.056	J05	6.0	11.0	7.2	30	230	PHE426KJ5560JR05
0.47	D13	6.5	14.5	26.0	100	58	PHE426JD6470JR06L2	0.068	J06	7.2	13.0	7.2	30	230	PHE426KJ5680JR05
0.56	D13	6.5	14.5	26.0	100	58	PHE426JD6560JR06L2								
0.68	D17	7.0	16.5	26.0	100	53	PHE426JD6680JR06L2								
0.82	D14	8.0	16.0	26.0	100	53	PHE426JD6820JR06L2								
1.0	D15	9.0	18.5	26.0	100	48	PHE426JD7100JR06L2								

