

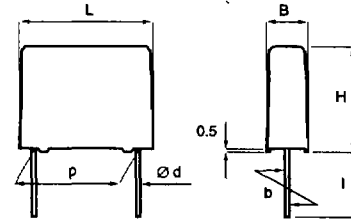
PHE426 Revised February 1999

- Single metallized film pulse capacitor, polypropylene dielectric
- According to IEC 384-16, grade 1.1

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

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.



TECHNICAL DATA						
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Rated voltage U_R, VDC	100	250	300	400	630	1000																
Rated voltage U_R, VAC	63	160	160	220	250	250																
Capacitance range, μF	0.001 -0.15	0.068 -22	0.001 -15	0.001 -6.8	0.001 -3.9	0.0047 -1.5																
Capacitance values	In accordance with IEC E12 series																					
Capacitance tolerance	$\pm 5\%$, other tolerances on request																					
Temperature range	-55 ... +105°C																					
Voltage derating	The rated voltage is decreased with 1.3%/°C between 85°C and 105°C.																					
Climatic category	IEC 68-1, 55/105/56 DIN 40040, FMD -55 ... +105°C Average relative humidity $\leq 80\%$ RH = 100% for 30 days per year. RH = 90% for further days limited by average value per year.																					
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 <table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th></th> <th>$C \leq 0.1 \mu\text{F}$</th> <th>$0.1 \mu\text{F} < C \leq 1.0 \mu\text{F}$</th> <th>$C > 1.0 \mu\text{F}$</th> </tr> </thead> <tbody> <tr> <td>1 kHz</td> <td>0.05%</td> <td>0.05%</td> <td>0.10%</td> </tr> <tr> <td>10 kHz</td> <td>-</td> <td>0.10%</td> <td>-</td> </tr> <tr> <td>100 kHz</td> <td>0.25%</td> <td>-</td> <td>-</td> </tr> </tbody> </table>							$C \leq 0.1 \mu\text{F}$	$0.1 \mu\text{F} < C \leq 1.0 \mu\text{F}$	$C > 1.0 \mu\text{F}$	1 kHz	0.05%	0.05%	0.10%	10 kHz	-	0.10%	-	100 kHz	0.25%	-	-
	$C \leq 0.1 \mu\text{F}$	$0.1 \mu\text{F} < C \leq 1.0 \mu\text{F}$	$C > 1.0 \mu\text{F}$																			
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: $C \leq 0.33 \mu\text{F}$: 100 000 M Ω $C > 0.33 \mu\text{F}$: 30 000 s Between terminals and case: 100 000 M Ω .																					

p	d	std l	max l	b
5.0 \pm 0.4	0.5	4 ⁺¹	20	\pm 0.4
7.5 \pm 0.4	0.6	4 ⁺¹	20	\pm 0.4
10.0 \pm 0.4	0.6	4 ⁺¹	30	\pm 0.4
15.0 \pm 0.4	0.8	6 ⁻¹	30	\pm 0.4
22.5 \pm 0.4	0.8	6 ⁻¹	30	\pm 0.4
27.5 \pm 0.4	0.8	6 ⁻¹	30	\pm 0.4
37.5 \pm 0.5	1.0	6 ⁻¹	30	\pm 0.7

Changes to PHE426

The following applies to lead spacings of 10mm and up only.

The 160VDC rating has been eliminated.

The 250VDC range has been reduced in size. (The new 250V capacitors have the same dimensions as the old 160V.)

A new 300VDC series has been added. (These capacitors have the same dimensions as the old 250V.)

These revised pages reflect the changes.

This document reflects only those pages with changes. For the complete specifications contact Evox Rifa or visit our Web site www.evox-rifa.com

EVOXD 00007

ARTICLE TABLE

Capacitance µF	Max dimensions in mm				Quantity per package				Weight g	Max dU/dt V/µs	Rthja 85 °C 0.2 m/s	Article code 1st block
	B	H	L	p	Bulk	Tray	Reel	Ammo				
250 VDC/160 VAC												
Lead spacing 7.5 mm NO CHANGES												
0.0010	4.0	8.0	10.5	7.5	1000		1700	1900	0.5	180	160	PHE426HK4100J
0.0012	4.0	8.0	10.5	7.5	1000		1700	1900	0.5	180	160	PHE426HK4120J
0.0015	4.0	8.0	10.5	7.5	1000		1700	1900	0.5	180	160	PHE426HK4150J
0.0018	4.0	8.0	10.5	7.5	1000		1700	1900	0.5	180	160	PHE426HK4180J
0.0022	4.0	8.0	10.5	7.5	1000		1700	1900	0.5	180	160	PHE426HK4220J
0.0027	4.0	8.0	10.5	7.5	1000		1700	1900	0.5	180	160	PHE426HK4270J
0.0033	4.0	8.0	10.5	7.5	1000		1700	1900	0.5	180	160	PHE426HK4330J
0.0039	4.0	8.0	10.5	7.5	1000		1700	1900	0.5	180	160	PHE426HK4390J
0.0047	4.0	8.0	10.5	7.5	1000		1700	1900	0.5	180	160	PHE426HK4470J
0.0056	4.0	8.0	10.5	7.5	1000		1700	1900	0.5	180	160	PHE426HK4560J
0.0068	4.0	8.0	10.5	7.5	1000		1700	1900	0.5	180	160	PHE426HK4680J
0.0082	4.0	8.0	10.5	7.5	1000		1700	1900	0.5	180	160	PHE426HK4820J
0.010	4.0	8.0	10.5	7.5	1000		1700	1900	0.5	180	160	PHE426HK5100J
0.012	4.0	8.0	10.5	7.5	1000		1700	1900	0.5	180	160	PHE426HK5120J
0.015	4.0	8.0	10.5	7.5	1000		1700	1900	0.5	180	160	PHE426HK5150J
0.018	4.0	8.0	10.5	7.5	1000		1700	1900	0.5	180	160	PHE426HK5180J
0.022	4.0	8.0	10.5	7.5	1000		1700	1900	0.5	180	160	PHE426HK5220J
0.027	4.0	8.0	10.5	7.5	1000		1700	1900	0.5	180	160	PHE426HK5270J
0.033	4.0	8.0	10.5	7.5	1000		1700	1900	0.5	180	160	PHE426HK5330J
0.039	4.0	8.0	10.5	7.5	1000		1700	1900	0.5	180	160	PHE426HK5390J
0.047	4.0	8.0	10.5	7.5	1000		1700	1900	0.5	180	160	PHE426HK5470J
0.056	4.0	8.0	10.5	7.5	1000		1700	1900	0.5	180	160	PHE426HK5560J
0.068	5.0	11.0	10.5	7.5	1000		1300	1500	0.8	180	160	PHE426HK5680J
0.082	5.0	11.0	10.5	7.5	1000		1300	1500	0.8	180	160	PHE426HK5820J
0.10	5.0	11.0	10.5	7.5	1000		1300	1500	0.8	180	160	PHE426HK6100J
0.12	6.0	12.0	10.5	7.5	1000		1000	1200	1.0	180	160	PHE426HK6120J
0.15	6.0	12.0	10.5	7.5	1000		1000	1200	1.0	180	160	PHE426HK6150J
Lead spacing 10 mm NEW SMALLER SIZES												
0.068	4.0	9.0	13.0	10.0	1000		900		0.6	160	135	PHE426HA5680J
0.082	4.0	9.0	13.0	10.0	1000		900		0.6	160	135	PHE426HA5820J
0.10	4.5	10.5	13.0	10.0	1000		800		0.9	160	120	PHE426HA6100J
0.12	4.5	10.5	13.0	10.0	1000		800		0.9	160	120	PHE426HA6120J
0.15	5.0	11.0	13.0	10.0	800		700		1.0	160	113	PHE426HA6150J
0.18	5.0	11.0	13.0	10.0	800		700		1.0	160	113	PHE426HA6180J
0.22	6.0	12.0	13.0	10.0	600		500		1.3	160	105	PHE426HA6220J
Lead spacing 15 mm NEW SMALLER SIZES												
0.18	5.5	10.5	18.0	15.0	1000		600		1.5	120	99	PHE426HB6180J
0.22	5.5	10.5	18.0	15.0	1000		600		1.5	120	99	PHE426HB6220J
0.27	5.5	12.5	18.0	15.0	1000		600		1.7	120	85	PHE426HB6270J
0.33	6.0	12.0	18.0	15.0	1000		500		1.8	120	83	PHE426HB6330J
0.39	6.5	12.5	18.0	15.0	1000		500		2.0	120	82	PHE426HB6390J
0.47	7.5	14.5	18.0	15.0	800		400		2.7	120	74	PHE426HB6470J
0.56	7.5	14.5	18.0	15.0	800		400		2.7	120	74	PHE426HB6560J
0.68	8.0	15.0	18.0	15.0	800		400		3.0	120	71	PHE426HB6680J
0.82	8.5	16.0	18.0	15.0	800		400		3.4	120	64	PHE426HB6820J
1.0	9.5	17.5	18.0	15.0	600		350		4.2	120	60	PHE426HB7100J
Lead spacing 22.5 mm NEW SMALLER SIZES												
0.68	6.5	14.5	26.0	22.5	234				3.2	80	58	PHE426HD6680J
0.82	7.0	16.5	26.0	22.5	216				3.9	80	53	PHE426HD6820J
1.0	7.0	16.5	26.0	22.5	216				3.9	80	53	PHE426HD7100J
1.2	8.0	16.0	26.0	22.5	186				4.3	80	53	PHE426HD7120J
1.5	9.0	18.5	26.0	22.5	168				5.6	80	48	PHE426HD7150J
1.8	10.5	19.0	26.0	22.5	144				6.7	80	45	PHE426HD7180J
2.2	11.0	21.5	26.0	22.5	138				8.0	80	40	PHE426HD7220J

ARTICLE TABLE

Capacitance μF	Max dimensions in mm				Quantity per package				Weight g	Max dU/dt V/ μs	Rthha 85 °C 0.2 m/s	Article code 1st block
	B	H	L	p	Bulk	Tray	Reel	Ammo				
250 VDC/160 VAC												
Lead spacing 27.5 mm NEW SMALLER SIZES												
2.2	10.5	20.5	31.5	27.5			216		8.8	50	37	PHE426HF7220J
2.7	10.5	20.5	31.5	27.5			216		8.8	50	37	PHE426HF7270J
3.3	11.5	22.5	31.5	27.5			198		10.6	50	34	PHE426HF7330J
3.9	13.5	23.0	31.5	27.5			171		12.7	50	33	PHE426HF7390J
4.7	14.5	24.5	31.5	27.5			153		14.5	50	32	PHE426HF7470J
5.6	17.5	28.0	31.5	27.5			126		19.7	50	28	PHE426HF7560J
6.8	17.5	28.0	31.5	27.5			126		19.7	50	28	PHE426HF7680J
8.2	19.0	29.0	31.5	27.5			117		22.1	50	26	PHE426HF7820J
10.0	21.0	30.0	31.5	27.5			108		25.3	50	26	PHE426HF8100J
Lead spacing 37.5 mm NEW SMALLER SIZES												
4.7	13.0	24.0	41.0	37.5			140		16.6	30	27	PHE426HR7470J
5.6	13.0	24.0	41.0	37.5			140		16.6	30	27	PHE426HR7560J
6.8	15.0	26.0	41.0	37.5			119		20.8	30	25	PHE426HR7680J
8.2	16.5	32.0	41.0	37.5			105		28.1	30	21	PHE426HR7820J
10.0	16.5	32.0	41.0	37.5			105		28.1	30	21	PHE426HR8100J
12.0	19.0	36.0	41.0	37.5			91		36.5	30	19	PHE426HR8120J
15.0	19.0	36.0	41.0	37.5			91		36.5	30	19	PHE426HR8150J
18.0	21.0	38.0	41.0	37.5			84		42.5	30	17	PHE426HR8180J
22.0	21.0	38.0	41.0	37.5			84		42.5	30	17	PHE426HR8220J
300 VDC/160 VAC NEW VOLTAGE CLASS												
Lead spacing 10 mm												
0.033	4.0	9.0	13.0	10.0	1000		900		0.6	200	135	PHE426JA5330J
0.039	4.0	9.0	13.0	10.0	1000		900		0.6	200	135	PHE426JA5390J
0.047	4.0	9.0	13.0	10.0	1000		900		0.6	200	135	PHE426JA5470J
0.056	4.0	9.0	13.0	10.0	1000		900		0.6	200	135	PHE426JA5560J
0.068	4.5	10.5	13.0	10.0	1000		800		0.9	200	120	PHE426JA5680J
0.082	4.5	10.5	13.0	10.0	1000		800		0.9	200	120	PHE426JA5820J
0.10	5.0	11.0	13.0	10.0	800		700		1.0	200	113	PHE426JA6100J
0.12	5.0	11.0	13.0	10.0	800		700		1.0	200	113	PHE426JA6120J
0.15	6.0	12.0	13.0	10.0	600		500		1.3	200	105	PHE426JA6150J
Lead spacing 15 mm												
0.10	5.5	10.5	18.0	15.0	1000		600		1.5	150	99	PHE426JB6100J
0.12	5.5	10.5	18.0	15.0	1000		600		1.5	150	99	PHE426JB6120J
0.15	5.5	10.5	18.0	15.0	1000		600		1.5	150	99	PHE426JB6150J
0.18	5.5	12.5	18.0	15.0	1000		600		1.7	150	85	PHE426JB6180J
0.22	6.0	12.0	18.0	15.0	1000		500		1.8	150	83	PHE426JB6220J
0.27	6.5	12.5	18.0	15.0	1000		500		2.0	150	82	PHE426JB6270J
0.33	7.5	14.5	18.0	15.0	800		400		2.7	150	74	PHE426JB6330J
0.39	7.5	14.5	18.0	15.0	800		400		2.7	150	74	PHE426JB6390J
0.47	8.0	15.0	18.0	15.0	800		400		3.0	150	71	PHE426JB6470J
0.56	8.5	16.0	18.0	15.0	800		400		3.4	150	64	PHE426JB6560J
0.68	9.5	17.5	18.0	15.0	600		350		4.2	150	60	PHE426JB6680J
Lead spacing 22.5 mm												
0.33	6.5	14.5	26.0	22.5			234		3.2	100	58	PHE426JD6330J
0.39	6.5	14.5	26.0	22.5			234		3.2	100	58	PHE426JD6390J
0.47	6.5	14.5	26.0	22.5			234		3.2	100	58	PHE426JD6470J
0.56	6.5	14.5	26.0	22.5			234		3.2	100	58	PHE426JD6560J
0.68	7.0	16.5	26.0	22.5			216		3.9	100	53	PHE426JD6680J
0.82	8.0	16.0	26.0	22.5			186		4.3	100	53	PHE426JD6820J
1.0	9.0	18.5	26.0	22.5			168		5.6	100	48	PHE426JD7100J
1.2	10.5	19.0	26.0	22.5			144		6.7	100	45	PHE426JD7100J
1.5	11.0	21.5	26.0	22.5			138		8.0	100	40	PHE426JD7150J

ARTICLE TABLE

Capacitance µF	Max dimensions in mm				Quantity per package				Weight g	Max dU/dt V/µs	Rthja °C/W 85 °C 0.2 m/s	Article code 1st block
	B	H	L	p	Bulk	Tray	Reel	Ammo				
300 VDC/160 VAC												
Lead spacing 27.5 mm NEW VOLTGE CLASS (cont.)												
1.0	10.5	20.5	31.5	27.5		216			8.8	70	37	PHE426JF7100J
1.2	10.5	20.5	31.5	27.5		216			8.8	70	37	PHE426JF7120J
1.5	10.5	20.5	31.5	27.5		216			8.8	70	37	PHE426JF7150J
1.8	10.5	20.5	31.5	27.5		216			8.8	70	37	PHE426JF7180J
2.2	11.5	22.5	31.5	27.5		198			10.6	70	34	PHE426JF7220J
2.7	13.5	23.0	31.5	27.5		171			12.7	70	33	PHE426JF7270J
3.3	14.5	24.5	31.5	27.5		153			14.5	70	32	PHE426JF7330J
3.9	17.5	28.0	31.5	27.5		126			19.7	70	28	PHE426JF7390J
4.7	17.5	28.0	31.5	27.5		126			19.7	70	28	PHE426JF7470J
5.6	19.0	29.0	31.5	27.5		117			22.1	70	26	PHE426JF7560J
6.8	21.0	30.0	31.5	27.5		108			25.3	70	26	PHE426JF7680J
Lead spacing 37.5 mm												
3.3	13.0	24.0	41.0	37.5		140			16.6	40	27	PHE426JR7330J
3.9	13.0	24.0	41.0	37.5		140			16.6	40	27	PHE426JR7390J
4.7	15.0	26.0	41.0	37.5		119			20.8	40	25	PHE426JR7470J
5.6	16.5	32.0	41.0	37.5		105			28.1	40	21	PHE426JR7560J
6.8	16.5	32.0	41.0	37.5		105			28.1	40	21	PHE426JR7680J
8.2	19.0	36.0	41.0	37.5		91			36.5	40	19	PHE426JR7820J
10.0	19.0	36.0	41.0	37.5		91			36.5	40	19	PHE426JR8100J
12.0	21.0	38.0	41.0	37.5		84			42.5	40	17	PHE426JR8120J
15.0	21.0	38.0	41.0	37.5		84			42.5	40	17	PHE426JR8150J
400 VDC/220 VAC NO CHANGES												
Lead spacing 5 mm												
0.0010	2.5	6.5	7.2	5.0	2000		2500	3000	0.2	30	230	PHE426KJ4100J
0.0012	2.5	6.5	7.2	5.0	2000		2500	3000	0.2	30	230	PHE426KJ4120J
0.0015	2.5	6.5	7.2	5.0	2000		2500	3000	0.2	30	230	PHE426KJ4150J
0.0018	2.5	6.5	7.2	5.0	2000		2500	3000	0.2	30	230	PHE426KJ4180J
0.0022	2.5	6.5	7.2	5.0	2000		2500	3000	0.2	30	230	PHE426KJ4220J
0.0027	2.5	6.5	7.2	5.0	2000		2500	3000	0.2	30	230	PHE426KJ4270J
0.0033	2.5	6.5	7.2	5.0	2000		2500	3000	0.2	30	230	PHE426KJ4330J
0.0039	2.5	6.5	7.2	5.0	2000		2500	3000	0.2	30	230	PHE426KJ4390J
0.0047	2.5	6.5	7.2	5.0	2000		2500	3000	0.2	30	230	PHE426KJ4470J
0.0056	2.5	6.5	7.2	5.0	2000		2500	3000	0.2	30	230	PHE426KJ4560J
0.0068	2.5	6.5	7.2	5.0	2000		2500	3000	0.2	30	230	PHE426KJ4680J
0.0082	3.5	8.0	7.2	5.0	2000		2000	2000	0.2	30	230	PHE426KJ4820J
0.010	3.5	8.0	7.2	5.0	2000		2000	2000	0.3	30	230	PHE426KJ5100J
0.012	3.5	8.0	7.2	5.0	2000		2000	2000	0.3	30	230	PHE426KJ5120J
0.015	3.5	8.0	7.2	5.0	2000		2000	2000	0.3	30	230	PHE426KJ5150J
0.018	4.5	9.0	7.2	5.0	1000		1500	1700	0.4	30	230	PHE426KJ5180J
0.022	4.5	9.0	7.2	5.0	1000		1500	1700	0.4	30	230	PHE426KJ5220J
0.027	4.5	9.0	7.2	5.0	1000		1500	1700	0.4	30	230	PHE426KJ5270J
0.033	5.0	10.0	7.2	5.0	1000		1300	1500	0.5	30	230	PHE426KJ5330J
0.039	5.0	10.0	7.2	5.0	1000		1300	1500	0.5	30	230	PHE426KJ5390J
0.047	6.0	11.0	7.2	5.0	1000		1000	1200	0.6	30	230	PHE426KJ5470J
0.056	6.0	11.0	7.2	5.0	1000		1000	1200	0.6	30	230	PHE426KJ5560J
0.068	7.2	13.0	7.2	5.0	1000		800		0.9	30	230	PHE426KJ5680J
Lead spacing 7.5 mm												
0.0010	4.0	8.0	10.5	7.5	1000		1700	1900	0.5	200	160	PHE426KK4100J
0.0012	4.0	8.0	10.5	7.5	1000		1700	1900	0.5	200	160	PHE426KK4120J
0.0015	4.0	8.0	10.5	7.5	1000		1700	1900	0.5	200	160	PHE426KK4150J
0.0018	4.0	8.0	10.5	7.5	1000		1700	1900	0.5	200	160	PHE426KK4180J
0.0022	4.0	8.0	10.5	7.5	1000		1700	1900	0.5	200	160	PHE426KK4220J
0.0027	4.0	8.0	10.5	7.5	1000		1700	1900	0.5	200	160	PHE426KK4270J
0.0033	4.0	8.0	10.5	7.5	1000		1700	1900	0.5	200	160	PHE426KK4330J

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