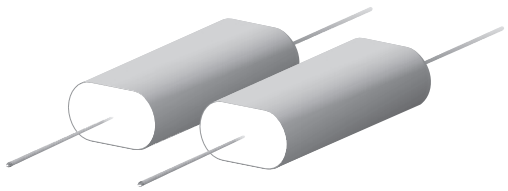
KPF-9 Axial Type



Highlights

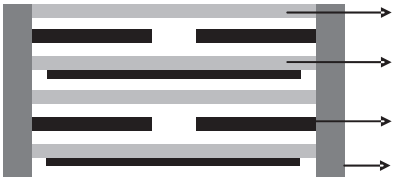
- Self-healing property
- High DV/DT
- Low ESR
- Low loss polypropylene dielectric
- Reference standard IEC 60384-14

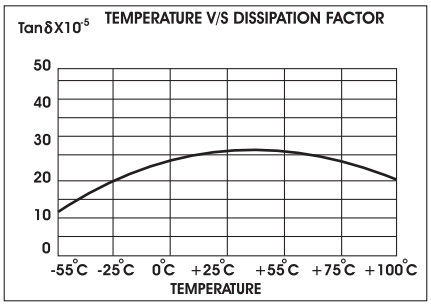
Applications

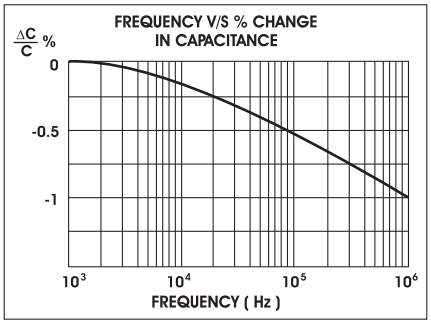
These capacitors are used in high voltage, high current and high pulse applications such as:

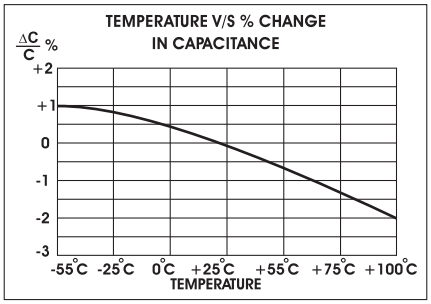
- "Turn On" and " Turn Off" snubber circuits
- Energy conversion and control in power electronics
- Protection circuits in SMPS

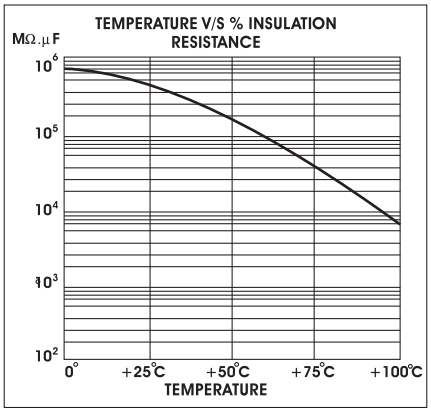
Construction

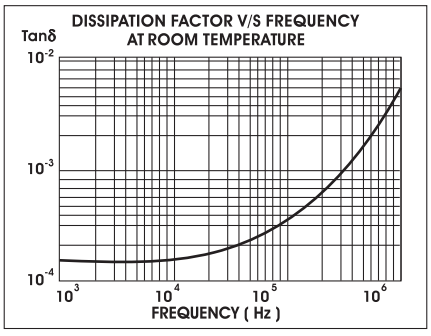












ALCON ELECTRONICS PRIVATE LIMITED
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email: mail@alconelectronics.com Website: www.alconelectronics.com

KPF-9 Axial Type

Technical Specifications

Physical Characteristics

• Dielectric material	Polypropylene film
• Electrode material	Aluminium foil and metallised Polypropylene film
• Winding construction	Polypropylene film, aluminium foil plus metallised polypropylene film wound in a series connection
• Terminals	Tinned copper
• Enclosure	UL 94 V-0 polyester tape wrap with thermosetting resin end fill

Electrical Characteristics

• Capacitance range	0.068MFD to 1.5MFD
• Capacity tolerance	±5%(J), ±10%(K)
• Rated voltage VDC	850, 1000, 1200, 1600, 2000, 2500, 3000
• Rated voltage VAC	450, 500, 500, 630, 630, 750, 750
• Test voltage between terminals	1.6 x rated voltage VDC for 10 seconds
• Dissipation factor (Tanδ)	≤ 0.0005 at 1 KHz and 25°C
• Temperature range	-40°C to +85°C
• Insulation resistance at 25°C at a test voltage of 500 VDC applied for 1 minute	C ≤ 0.33 MFD: ≥100,000 MΩ C > 0.33 MFD: ≥ 30,000 MΩ

Marking on Capacitors

Each capacitor will have the following information printed on it, sequentially :

- The Company's symbol followed by the words ALCON
- The capacitor grade viz KPF-9
- The capacitance value MFD
- The rated voltage VDC
- Capacity tolerance and manufacturing code
- Part number on non-standard capacitors

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KPF-9 Axial Type

Standard Capacitor Values

Working voltage 850 VDC (450 VAC)

Rated Capacitance MFD	Dimensions in mm*				DV/DT V/μ Sec	I Peak Amps	Irms Max at 100KHz & 70°C Amps	Typical ESR at100KHz mΩ
	T max	W max	L max	d				
0.150	10.0	16.0	34.0	1.0	800	120.00	7.40	6.00
0.220	12.0	18.0	34.0	1.0	800	176.00	8.00	6.00
0.330	14.0	20.0	34.0	1.0	800	264.00	9.40	5.00
0.470	17.0	23.0	34.0	1.0	800	376.00	11.70	5.00
0.680	19.0	25.0	46.0	1.2	500	340.00	13.80	4.00
1.000	22.0	33.0	46.0	1.2	500	500.00	14.40	3.00
1.200	18.0	28.0	54.0	1.2	400	480.00	16.70	3.00
1.500	21.0	32.0	54.0	1.2	400	600.00	20.30	2.00

Working voltage 1000 VDC (500 VAC)

Rated Capacitance MFD	Dimensions in mm*				DV/DT V/μ Sec	I Peak Amps	Irms Max at100KHz & 70°C Amps	Typical ESR at100KHz mΩ
	T max	W max	L max	d				
0.220	12.0	18.0	34.0	1.0	800	176.00	8.00	6.00
0.330	14.0	20.0	34.0	1.0	800	264.00	9.40	5.00
0.470	17.0	23.0	34.0	1.0	800	376.00	11.70	5.00
0.680	19.0	25.0	46.0	1.2	500	340.00	13.80	4.00
1.000	22.0	33.0	46.0	1.2	500	500.00	14.40	3.00
1.200	18.0	28.0	54.0	1.2	400	480.00	16.70	3.00
1.500	21.0	32.0	54.0	1.2	400	600.00	20.30	2.00

Working voltage 1200 VDC (500 VAC)

Rated Capacitance MFD	Dimensions in mm*				DV/DT V/μ Sec	I Peak Amps	Irms Max at 100KHz & 70°C Amps	Typical ESR at100KHz mΩ
	T max	W max	L max	d				
0.150	9.5	16.0	34.0	1.0	1000	150.00	9.00	6.00
0.220	12.5	19.0	34.0	1.0	1000	220.00	10.20	6.00
0.330	13.5	20.5	46.0	1.2	800	264.00	10.80	6.00
0.470	19.5	25.5	46.0	1.2	800	376.00	11.70	5.00
0.680	20.5	29.0	46.0	1.2	800	544.00	13.60	5.00
1.000	21.0	30.0	54.0	1.2	700	700.00	16.20	4.00
1.200	22.0	32.0	54.0	1.2	700	840.00	16.80	3.00

Custom-designed capacitors are available on request

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KPF-9 Axial Type

Standard Capacitor Values

Working voltage 1600 VDC (630 VAC)

Rated Capacitance MFD	Dimensions in mm*				DV/DT V/μ Sec	I Peak Amps	Irms Max at 100KHz & 70°C Amps	Typical ESR at100KHz mΩ
	T max	W max	L max	d				
0.100	13.0	19.0	34.0	1.0	1100	110.00	9.00	7.00
0.150	16.0	21.0	34.0	1.0	1100	165.00	10.00	7.00
0.220	18.0	25.0	34.0	1.2	1100	242.00	12.00	7.00
0.330	17.0	23.0	46.0	1.2	900	297.00	12.00	6.00
0.470	21.5	28.5	46.0	1.2	900	423.00	13.80	6.00
0.680	23.5	34.0	46.0	1.2	900	612.00	14.50	6.00

Working voltage 2000 VDC (630 VAC)

Rated Capacitance MFD	Dimensions in mm*				DV/DT V/μ Sec	I Peak Amps	Irms Max at 100KHz & 70°C Amps	Typical ESR at100KHz mΩ
	T max	W max	L max	d				
0.033	8.0	14.0	34.0	1.0	1200	40.00	4.80	19.00
0.047	9.0	16.0	34.0	1.0	1200	56.00	6.70	10.00
0.068	11.0	18.0	34.0	1.0	1200	81.00	7.90	8.00
0.100	14.0	20.0	34.0	1.0	1200	120.00	9.50	6.00
0.150	14.0	23.0	46.0	1.0	950	142.00	10.00	6.00
0.220	16.0	27.0	46.0	1.0	950	209.00	11.00	6.00
0.330	18.0	27.0	54.0	1.2	850	280.00	12.80	5.00
0.470	19.0	33.0	54.0	1.2	850	400.00	15.00	5.00

Working voltage 2500 VDC (750 VAC)

Rated Capacitance MFD	Dimensions in mm*				DV/DT V/μ Sec	I Peak Amps	Irms Max at 100KHz & 70°C Amps	Typical ESR at100KHz mΩ
	T max	W max	L max	d				
0.033	9.2	16.0	34.0	1.0	1300	43.00	4.80	19.00
0.047	10.0	17.0	34.0	1.0	1300	61.00	6.50	10.00
0.068	12.0	19.0	34.0	1.0	1300	88.00	8.60	8.00
0.100	15.0	21.0	34.0	1.0	1300	130.00	9.80	6.00
0.150	15.0	24.0	46.0	1.0	1050	157.00	10.90	6.00
0.220	18.0	27.0	54.0	1.2	950	209.00	11.20	6.00
0.330	19.0	33.0	54.0	1.2	950	313.00	13.50	5.00

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KPF-9 Axial Type

Standard Capacitor Values

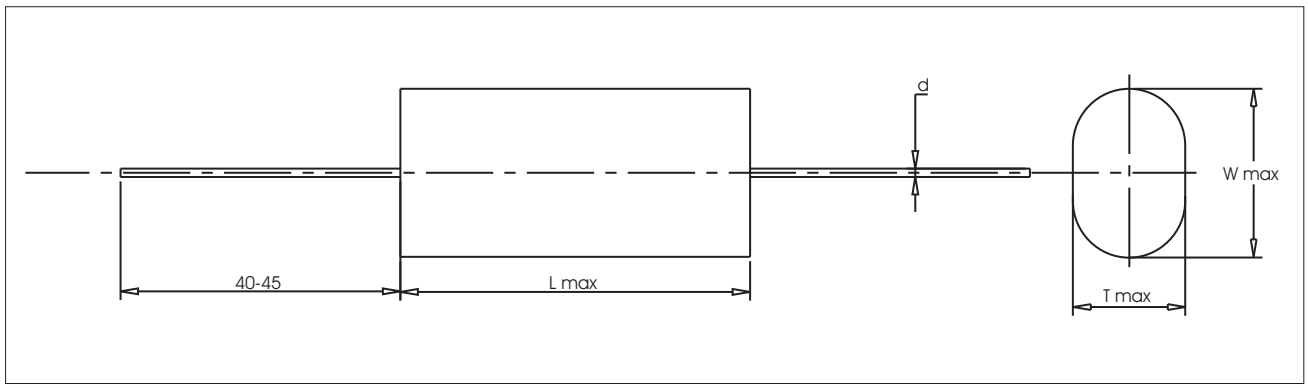
Working voltage 3000 VDC (750 VAC)

Rated Capacitance MFD	Dimensions in mm*				DV/DT V/μ Sec	I Peak Amps	Irms Max at 100KHz & 70°C Amps	Typical ESR at100KHz mΩ
	T max	W max	L max	d				
0.015	8.5	15.5	34.0	1.0	1500	22.00	3.00	35.00
0.022	9.2	16.0	34.0	1.0	1500	33.00	4.20	22.00
0.033	10.0	17.0	34.0	1.0	1500	49.00	6.10	12.00
0.047	12.0	19.0	46.0	1.0	1200	56.00	6.80	12.00
0.068	14.0	21.0	46.0	1.0	1200	81.00	7.90	10.00
0.100	15.0	24.0	46.0	1.2	1200	120.00	9.30	8.00
0.150	18.0	27.0	46.0	1.2	1200	180.00	12.00	6.00

Custom-designed capacitors are available on request

* Refer to "Capacitor Drawing"

Capacitor Drawing and Terminal Style



Dimensions in mm

Precaution

1. These capacitors are not suitable for 'across the line' applications
2. VAC (rated) : Frequency should be less than 1000Hz
3. VDC(rated) : 1.4 x Vrms + VDC should be less than rated VDC

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