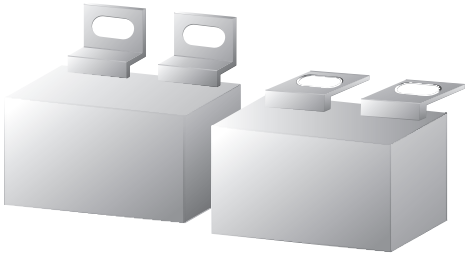
I G B T S N U B B E R C A P A C I T O R S

KP-3C Box Type



Highlights

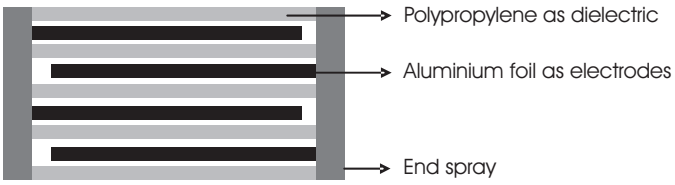
- Low inductance
- High DV/DT
- Low ESR
- Low loss polypropylene dielectric
- Impregnated elements eliminate corona

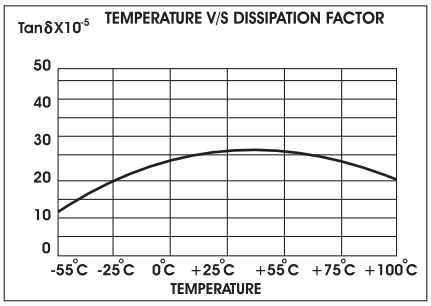
Applications

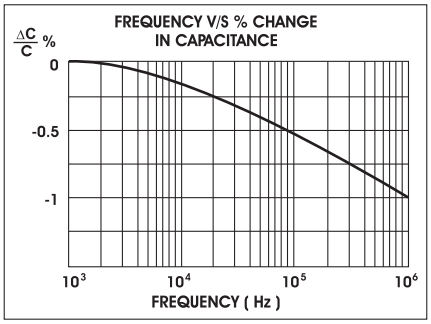
These capacitors are used in high voltage and high current applications such as:

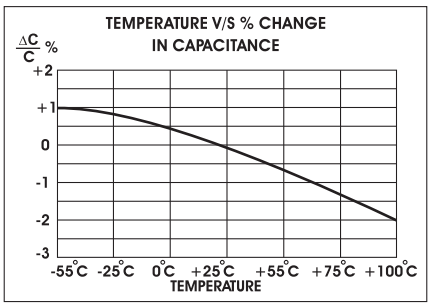
- IGBT protection circuits
- Snubber networks
- Low frequency tuning circuits

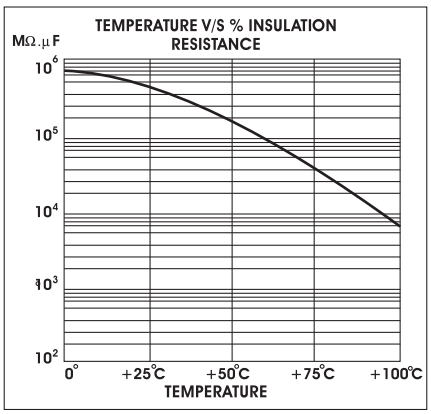
Construction

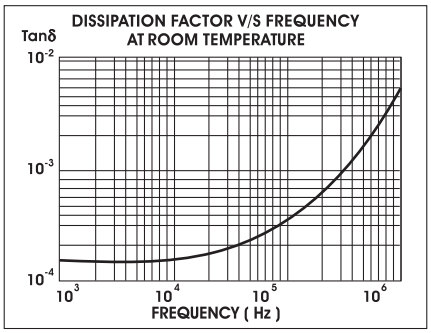












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email: mail@alconelectronics.com Website: www.alconelectronics.com

KP-3C Box Type

Technical Specifications

Physical Characteristics

• Dielectric material	Polypropylene film
• Electrode material	Aluminium foil
• Winding construction	Non-inductive, extended foil, impregnated
• Enclosure	Preformed UL 94 V-0 plastic case with thermosetting resin fill

Electrical Characteristics

• Capacitance range	0.1MFD to 3.0MFD	
• Capacity tolerance	±5%(J), ±10%(K)	
• Rated voltage VDC	1000, 1250, 1500, 2000	
• Rated voltage VAC	480, 550, 630, 750	
• Test voltage between terminals	2.5 x rated voltage VDC for 10 seconds	
• Test voltage terminal to case	3KVAC at 50Hz for 60 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 KP-3C
- The capacitance value MFD
- The rated voltage VDC
- Capacity tolerance and manufacturing code
- Part number on non-standard capacitors

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KP-3C Box Type

Standard Capacitor Values

Working voltage 1000 VDC (480 VAC)

Rated Capacitance MFD	Case Code	DV/DT V/μ Sec	I Peak Amps	Irms Max at 100KHz & 55°C Amps	ESR Max at100KHz mΩ	Terminal Styles
0.10	K2	900	90	5.60	11.20	DL
0.15	K2	900	135	5.70	10.80	DL
0.22	K3	900	198	6.80	10.40	DL
0.22	B1	900	198	18.20	4.20	TL,RL,STL,FT,SL,MTL,2P
0.22	C1	900	198	18.20	4.20	CR,CT
0.27	B1	900	243	18.70	4.00	TL,RL,STL,FT,SL,MTL,2P
0.27	C1	900	243	18.70	4.00	CR,CT
0.33	B1	900	297	19.70	3.70	TL,RL,STL,FT,SL,MTL,2P
0.33	C1	900	297	19.70	3.70	CR,CT
0.39	B1	900	351	20.60	3.70	TL,RL,STL,FT,SL,MTL,2P
0.39	C1	900	351	20.60	3.50	CR,CT
0.47	B5	900	423	21.10	3.50	TL,RL,STL,FT,SL,MTL,2P
0.56	B5	800	392	21.30	3.50	TL,RL,STL,FT,SL,MTL,2P
0.68	B5	800	476	21.30	3.20	TL,RL,STL,FT,SL,MTL,2P
0.75	B5,B2	800	525	25.60	3.00	TL,RL,STL,FT,SL,MTL,2P
0.82	B5	800	574	26.00	3.00	TL,RL,STL,FT,SL,MTL,2P
1.00	B5	900	900	26.00	3.00	TL,RL,STL,FT,SL,MTL,2P
1.00	B3	800	900	26.00	3.00	TL,RL,STL,SL,MTL,2P
1.20	B3	800	960	26.00	2.50	TL,RL,STL,SL,MTL,2P
1.50	B3	800	1200	26.00	2.50	TL,RL,STL,SL,MTL,2P
1.75	B4	500	875	28.00	2.50	TL,RL,STL,SL,MTL,3P
2.00	B4	500	1000	28.20	2.50	TL,RL,STL,SL,MTL,3P
2.20	C2	400	880	28.50	2.40	TL,RL,STL,SL,MTL,4P
2.50	C2	400	1000	29.00	2.20	TL,RL,STL,SL,MTL,4P
3.00	C2	400	1200	30.00	2.00	TL,RL,STL,SL,MTL,4P

Working voltage 1250 VDC (550 VAC)

Rated Capacitance MFD	Case Code	DV/DT V/μ Sec	I Peak Amps	Irms Max at 100KHz & 55°C Amps	ESR Max at100KHz mΩ	Terminal Styles
0.10	K2	1000	100	5.60	11.20	DL
0.15	K2	1000	150	5.70	10.80	DL
0.22	K3	1000	220	6.80	10.40	DL
0.22	B1	1000	220	18.20	4.20	TL,RL,STL,FT,SL,MTL,2P
0.22	C1	1000	220	18.20	4.20	CR,CT
0.27	B1	1000	270	18.70	4.00	TL,RL,STL,FT,SL,MTL,2P
0.27	C1	1000	270	18.70	4.00	CR,CT
0.33	B1	1000	330	19.70	3.70	TL,RL,STL,FT,SL,MTL,2P
0.33	C1	1000	330	19.70	3.70	CR,CT
0.39	B1	1000	390	20.60	3.70	TL,RL,STL,FT,SL,MTL,2P
0.39	C1	1000	390	20.60	3.50	CR,CT
0.47	B5	1000	470	21.10	3.50	TL,RL,STL,FT,SL,MTL,2P

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KP-3C Box Type

Standard Capacitor Values

Working voltage 1250VDC (550 VAC)

Rated Capacitance MFD	Case Code	DV/DT V/μ Sec	I Peak Amps	Irms Max at 100KHz & 55°C Amps	ESR Max at100KHz mΩ	Terminal Styles
0.56	B5	1000	560	21.30	3.50	TL,RL,STL,FT,SL,MTL,2P
0.68	B5	900	612	21.30	3.20	TL,RL,STL,FT,SL,MTL,2P
0.75	B5,B2	900	675	25.60	3.00	TL,RL,STL,FT,SL,MTL,2P
0.82	B5	900	738	26.00	3.00	TL,RL,STL,FT,SL,MTL,2P
1.00	B5	900	900	26.00	3.00	TL,RL,STL,FT,SL,MTL,2P
1.00	B3	1000	1000	26.00	3.00	TL,RL,STL,SL,MTL,2P
1.20	B3	900	1080	26.00	2.50	TL,RL,STL,SL,MTL,2P
1.50	B3	900	1350	26.00	2.50	TL,RL,STL,SL,MTL,2P
1.75	B4	600	1050	28.00	2.50	TL,RL,STL,SL,MTL,3P
2.00	B4	600	1100	28.20	2.50	TL,RL,STL,SL,MTL,3P
2.20	C2	500	880	28.50	2.40	TL,RL,STL,SL,MTL,4P
2.50	C2	500	1250	29.00	2.20	TL,RL,STL,SL,MTL,4P
3.00	C2	500	1500	30.00	2.00	TL,RL,STL,SL,MTL,4P

Working voltage 1500VDC (630 VAC)

Rated Capacitance MFD	Case Code	DV/DT V/μ Sec	I Peak Amps	Irms Max at 100KHz & 55°C Amps	ESR Max at100KHz mΩ	Terminal Styles
0.10	K2	1100	110	5.60	11.20	DL
0.15	K2	1100	165	5.70	10.80	DL
0.22	K4	1100	242	6.80	10.40	DL
0.22	B1	1100	242	18.20	4.20	TL,RL,STL,FT,SL,MTL,2P
0.22	C1	1100	242	18.20	4.20	CR,CT
0.27	B1	1100	297	18.70	4.00	TL,RL,STL,FT,SL,MTL,2P
0.27	C1	1100	297	18.70	4.00	CR,CT
0.33	B1	1100	363	19.70	3.70	TL,RL,STL,FT,SL,MTL,2P
0.33	C1	1100	363	19.70	3.70	CR,CT
0.39	B1	1100	429	20.60	3.70	TL,RL,STL,FT,SL,MTL,2P
0.39	C1	1100	429	20.60	3.50	CR,CT
0.47	B5	1100	517	21.10	3.50	TL,RL,STL,FT,SL,MTL,2P
0.56	B5	1000	560	21.30	3.50	TL,RL,STL,FT,SL,MTL,2P
0.68	B5	1000	680	21.30	3.20	TL,RL,STL,FT,SL,MTL,2P
0.75	B5,B2	1000	750	25.60	3.00	TL,RL,STL,FT,SL,MTL,2P
0.82	B5	1000	820	26.00	3.00	TL,RL,STL,FT,SL,MTL,2P
1.00	B3	1000	1000	26.00	3.00	TL,RL,STL,SL,MTL,2P
1.20	B3	1000	1200	26.00	2.50	TL,RL,STL,SL,MTL,2P
1.50	B3	1000	1500	26.00	2.50	TL,RL,STL,SL,MTL,2P
1.75	B4	700	1225	28.00	2.50	TL,RL,STL,SL,MTL,3P
2.00	B4	700	1400	28.20	2.50	TL,RL,STL,SL,MTL,3P
2.20	C2	600	1320	28.50	2.40	TL,RL,STL,SL,MTL,4P
2.50	C2	600	1500	29.00	2.20	TL,RL,STL,SL,MTL,4P
3.00	C2	600	1800	30.00	2.00	TL,RL,STL,SL,MTL,4P

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KP-3C Box Type

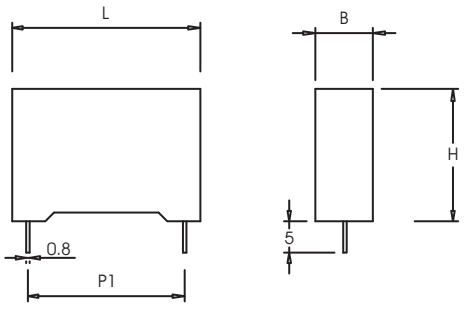
Standard Capacitor Values

Working voltage 2000VDC (750 VAC)

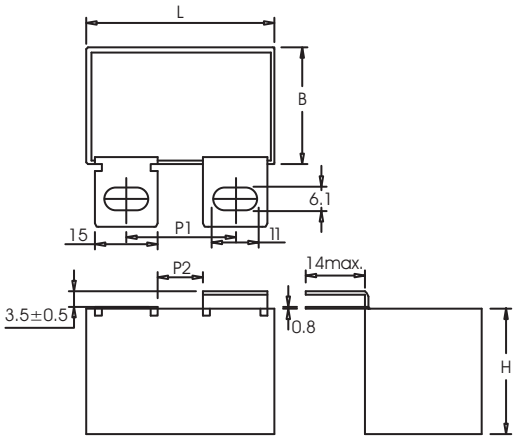
Rated Capacitance MFD	Case Code	DV/DT V/μ Sec	I Peak Amps	Irms Max at 100KHz & 55°C Amps	ESR Max at100KHz mΩ	Terminal Styles
0.10	B1	1300	130	13.20	8.40	TL,RL,STL,FT,MTL,2P
0.15	B5	1200	180	15.11	7.00	TL,RL,STL,SL,FT,MTL,2P
0.22	B5	1200	264	19.80	4.50	TL,RL,STL,SL,FT,MTL,2P
0.27	B5	1200	324	21.70	4.30	TL,RL,STL,SL,FT,MTL,2P
0.33	B3	1200	396	22.20	4.10	TL,RL,STL,MTL,2P
0.39	B3	1200	468	22.50	4.00	TL,RL,STL,MTL,2P
0.47	B3	1200	564	22.50	4.00	TL,RL,STL,MTL,2P
0.56	B4	1000	560	22.70	3.80	TL,RL,STL,MTL,3P
0.68	B4	1000	680	22.80	3.70	TL,RL,STL,MTL,3P
0.75	C2	800	600	23.20	3.40	TL,RL,STL,MTL,4P
0.82	C2	800	656	23.20	3.30	TL,RL,STL,MTL,4P
1.00	C2	800	800	23.30	3.20	TL,RL,STL,MTL,4P

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Capacitor Drawings and Terminal Styles



Terminal style : DL
Case code : K2,K3,K4



Terminal style : SL
Case code : B1,B2,B3,B4,B5,C2

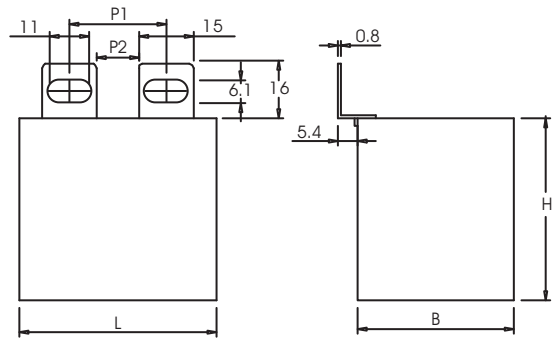
Dimensions in mm. For details see Case Code table

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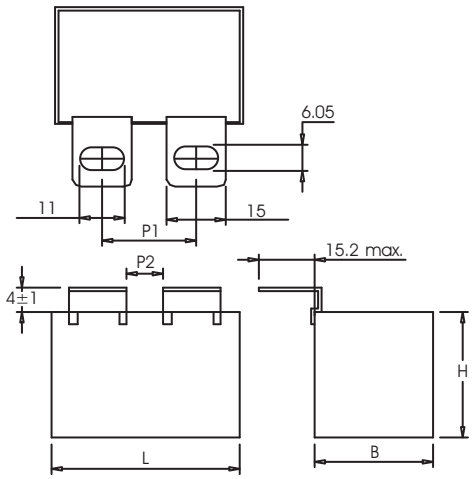
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KP-3C Box Type

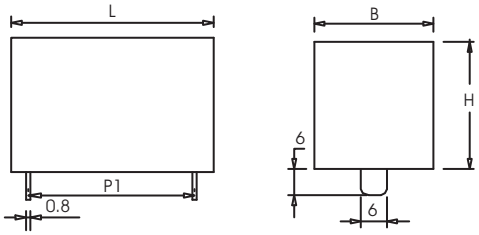
Capacitor Drawings and Terminal Styles



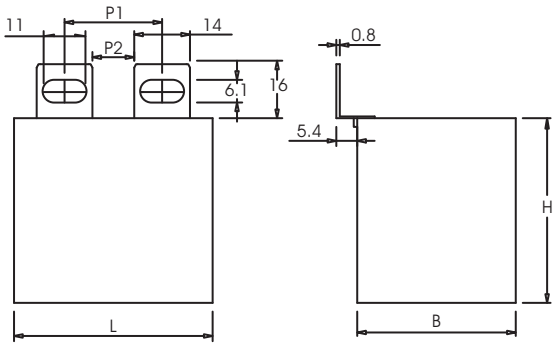
Terminal style : TL
Case code : B1,B2,B3,B4,B5,C2



Terminal style : RL
Case code : B1,B2,B3,B4,B5,C2



Terminal style : FT
Case code : B1,B2,B5



Terminal style : MTL
Case code : B1,B2,B3,B4,B5,C2

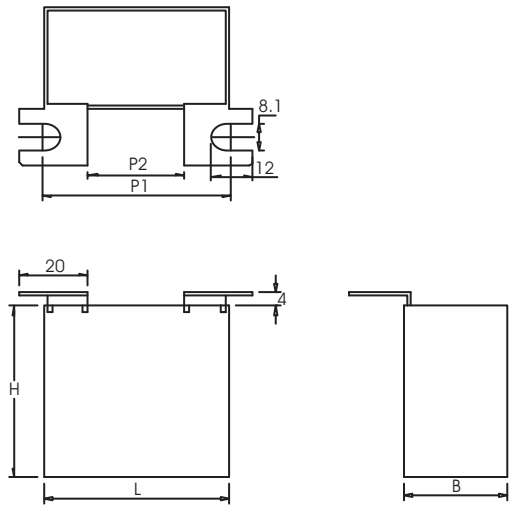
Dimensions in mm. For details see Case Code table

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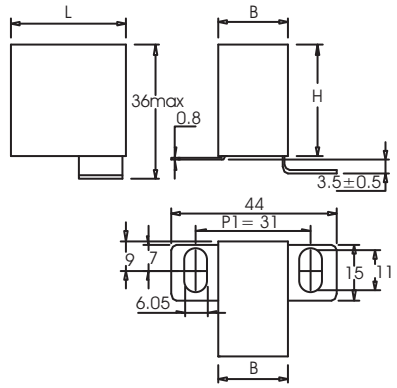
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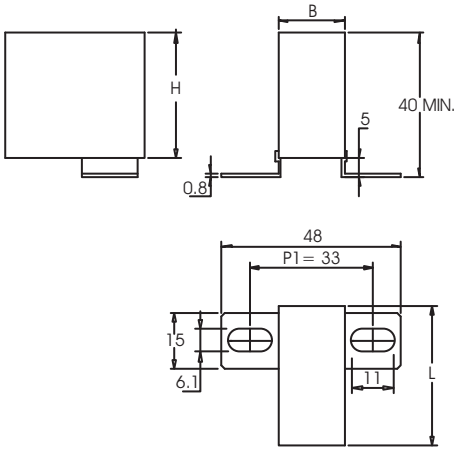
Capacitor Drawings and Terminal Styles



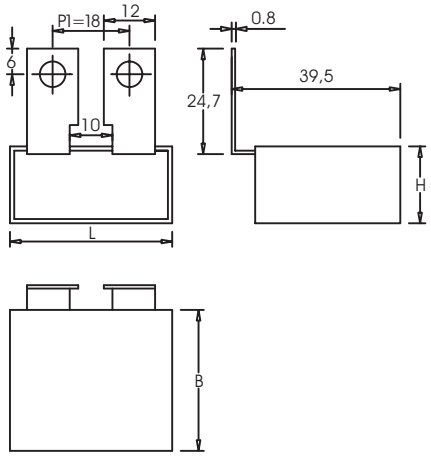
Terminal style : CL
Case code : B4,C2



Terminal style : CT
Case code : C1



Terminal style : CR
Case code : C1



Terminal style : AB
Case code : C1

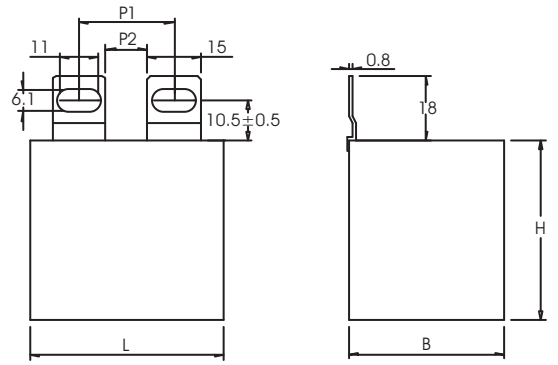
Dimensions in mm. For details see Case Code table

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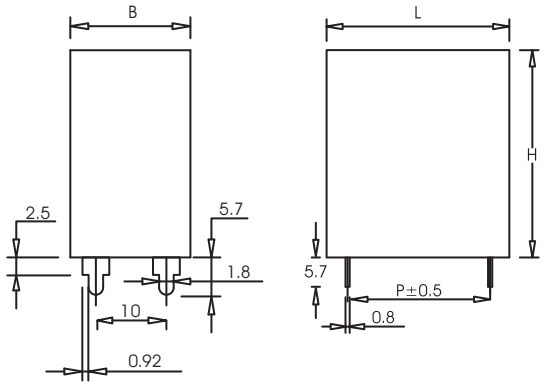
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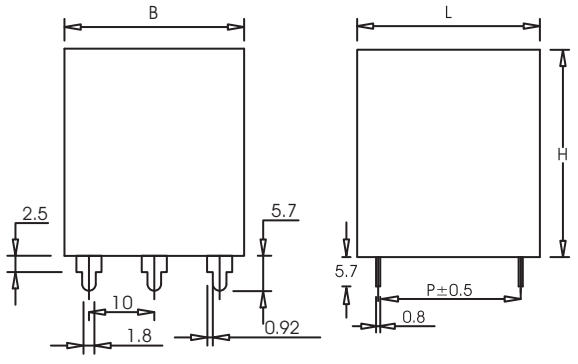
Capacitor Drawings and Terminal Styles



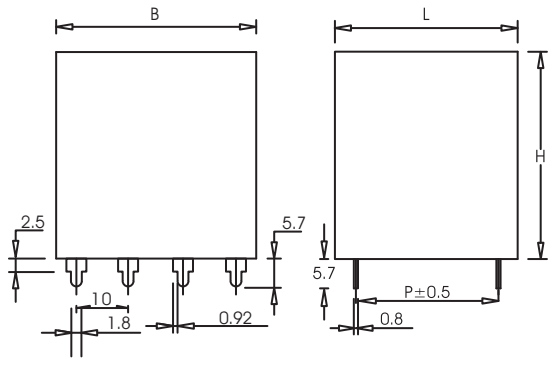
Terminal style : STL
Case code : B1,B2,B4,B5,C2



Terminal style : 2P
Case code : B2,B3,B5



Terminal style : 3P
Case code : B4



Terminal style : 4P
Case code : C2

Dimensions in mm. For details see Case Code table

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KP-3C Box Type

Table of Case Codes and Dimensions

Case code	Dimensions in mm*			P1	P2	Terminal Styles
	B±1	H±1	L±1	P±0.5		
K2	11	20	32.0	27.5	--	DL
K3	13	22	32.0	27.5	--	DL
K4	14	24	32.0	27.5	--	DL
B1	17	29	41.5	32.5	–	DL,FT,2P
B1	17	29	41.5	39.0	–	DL,FT,2P
B1	17	29	41.5	25.5	8.5	TL,RL,STL,SL
B1	17	29	41.5	25.5	11.5	MTL
B2	24	38	45.0	27.0	11.5	TL,RL,STL,SL
B2	24	38	45.0	27.0	13.0	MTL
B3	30	45	45.0	39.0	–	FT,2P
B3	30	45	45.0	27.0	13.0	MTL
B4	30	50	54.0	27.0	11.5	TL,RL,STL,SL
B4	30	50	54.0	48.0	–	3P
B4	30	50	54.0	55.0	28.0	CL
B4	30	50	54.0	27.0	13.0	MTL
B5	28	30	45.0	27.0	11.5	TL,RL,STL,SL
B5	28	30	45.0	27.0	13.5	MTL
B5	28	30	45.0	39.0	–	FT,2P
C1	18	33	38.0	33.0	–	CR
C1	18	33	38.0	31.0	–	CT
C1	18	33	38.0	18.0	–	AB
C2	43	50	54.0	27.0	11.5	TL,RL,STL,SL
C2	43	50	54.0	27.0	13.5	MTL
C2	43	50	54.0	55.0	28.0	CL
C2	43	50	54.0	48.0	–	4P

* Refer to "Capacitor Drawings"

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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