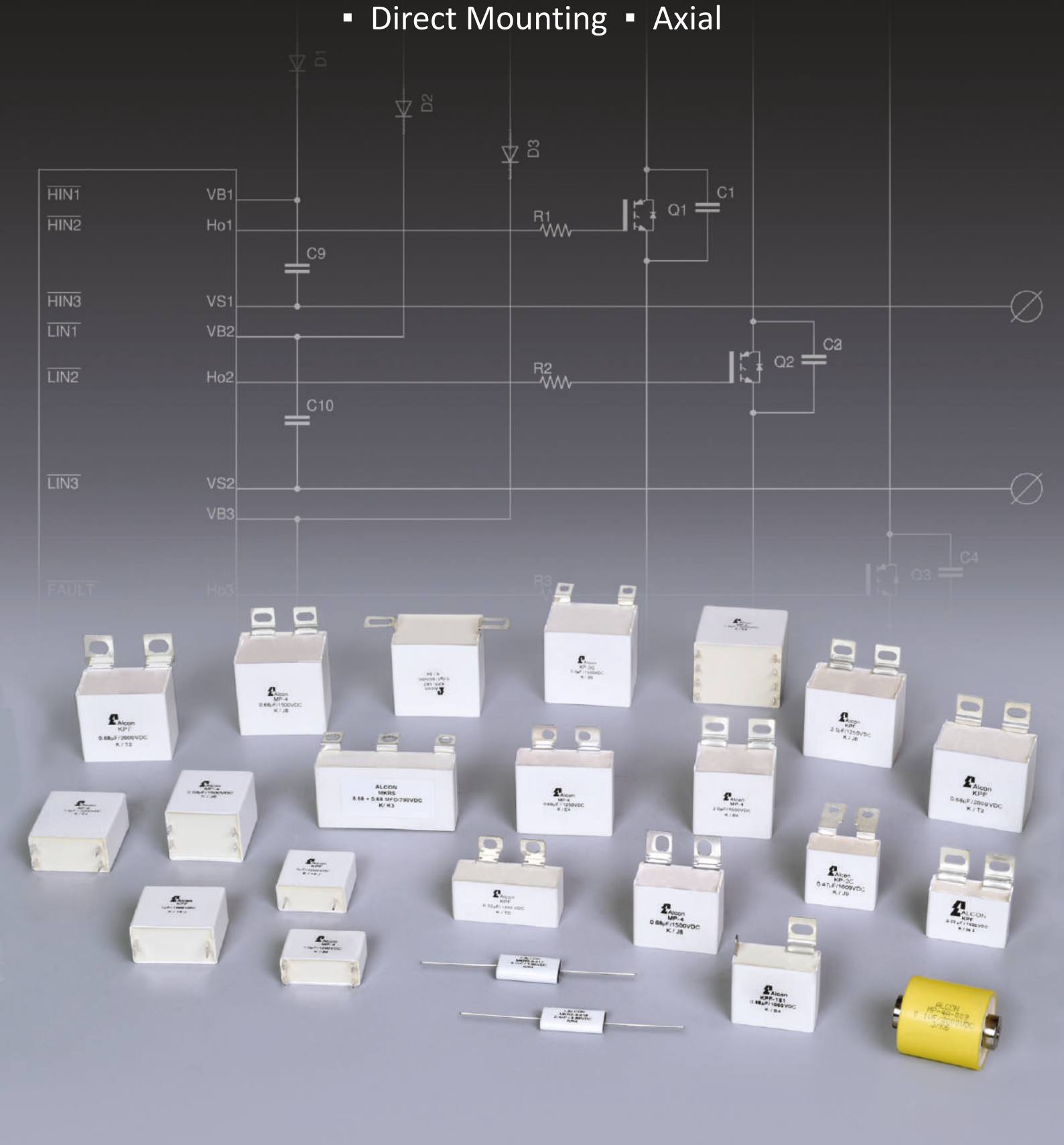
ALCON ELECTRONICS PRIVATE LIMITED
An Exxelia Company

EXXELIA

IGBT SNUBBER CAPACITORS

▪ Direct Mounting ▪ Axial




CERTIFICATE

The Certification Body of TÜV SÜD South Asia Private Limited certifies that

Alcon Electronics Pvt. Ltd.
34-B, MIDC Industrial Estate, Satpur
Nashik - 422 007, Maharashtra, INDIA

including the sites and scope of application see enclosure

has implemented Quality Management System in accordance with ISO 9001:2015 for the scope of

DESIGN, DEVELOPMENT, MANUFACTURE AND SUPPLY OF ALUMINIUM ELECTROLYTIC CAPACITORS & FILM CAPACITORS

The certificate is valid from 2021-08-02 until 2024-08-01
Subject to successful completion of annual periodic audits.
The present status of this Certificate can be obtained on www.tuvsud.com/ps
Further clarifications regarding the scope of this certificate may be obtained by contacting the certification body

Certificate Registration No. 99 100 16077
Date of Initial certification: 2016-05-24
Issue Date: 2021-08-16 Rev. 00

Rahul Kale
Head of Certification Body of TÜV SÜD South Asia Private Limited, Mumbai
Member of TÜV SÜD Group

Page 1 of 2

TÜV SÜD South Asia Pvt. Ltd. ● TÜV SÜD House ● Saki Vihar Road ● Andheri (East) ● Mumbai ● 400072 ● Maharashtra ● INDIA

ISO 9001-2015
Quality Standard


CERTIFICATE

The Certification Body of TÜV SÜD South Asia Private Limited certifies that

Alcon Electronics Pvt. Ltd.
34-B, MIDC Industrial Estate, Satpur
Nashik - 422 007, Maharashtra, INDIA

including the sites and scope of application see enclosure

has implemented Environmental Management System in accordance with ISO 14001:2015 for the scope of

DESIGN, DEVELOPMENT, MANUFACTURE AND SUPPLY OF ALUMINIUM ELECTROLYTIC CAPACITORS & FILM CAPACITORS

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Subject to successful completion of annual periodic audits.
The present status of this Certificate can be obtained on www.tuvsud.com/ps
Further clarifications regarding the scope of this certificate may be obtained by contacting the certification body

Certificate Registration No. 99 104 00331
Date of Initial certification : 2015-11-25
Issue Date: 2021-08-16 Rev. 00

Rahul Kale
Head of Certification Body of TÜV SÜD South Asia Private Limited, Mumbai
Member of TÜV SÜD Group

Page 1 of 2

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ISO 14001-2015
Environmental Standard


CERTIFICATE

The Certification Body of TÜV SÜD South Asia Private Limited certifies that

Alcon Electronics Pvt. Ltd.
34-B, MIDC Industrial Estate, Satpur
Nashik - 422 007, Maharashtra, INDIA

including the sites and scope of application see enclosure

has implemented Occupational Health and Safety Management System in accordance with ISO 45001:2018 for the scope of

DESIGN, DEVELOPMENT, MANUFACTURE AND SUPPLY OF ALUMINIUM ELECTROLYTIC CAPACITORS & FILM CAPACITORS

The certificate is valid from 2021-08-02 until 2024-08-01
Subject to successful completion of annual periodic audits.
The present status of this Certificate can be obtained on www.tuvsud.com/ps
Further clarifications regarding the scope of this certificate may be obtained by contacting the certification body

Certificate Registration No. 99 117 00408
Date of Initial certification : 2016-05-24
Issue Date: 2021-08-16 Rev. 00

Rahul Kale
Head of Certification Body of TÜV SÜD South Asia Private Limited, Mumbai
Member of TÜV SÜD Group

Page 1 of 2

TÜV SÜD South Asia Pvt. Ltd. ● TÜV SÜD House ● Saki Vihar Road ● Andheri (East) ● Mumbai ● 400072 ● Maharashtra ● INDIA

OHSAS 45001-2018
Health and Saftey Standard

Alcon started manufacturing aluminium electrolytic capacitors for the Indian entertainment electronics industry in 1977. Over the years the focus has shifted and Alcon now manufactures a large range of high CV screw terminal type aluminium electrolytic capacitors and a large variety of film capacitors for power electronic applications. The range of film capacitors now includes 3 types namely, IGBT snubber capacitors (direct mounting with - different terminals styles to suit all types of power IGBT modules), DC Link capacitors for high frequency application in power electronic and Power film capacitors which are designed for application involving wide operating frequency range of 5 kHz to 1 MHz, high current ratings of 200 to 1250 Arms and voltage ratings of 400 to 1200 Vrms.

With this enlarged range of capacitors, Alcon caters to the increasing needs of the power electronics sector. To improve market share in India and abroad Alcon has now completed the expansion which has enabled it to create additional manufacturing capacity for all capacitor types mentioned above. With this expansion a new more modern, well equipped R & D Laboratory has been established. This will facilitate further product development at Alcon. This laboratory is equipped to collect application data related to all types of capacitors that will be manufactured. Alcon is now fully equipped to cater to the increasing requirements of the target industries and will therefore fall in line with the Governments plans of " Make in India ". Alcon will not only cater to the needs of the AC drives, UPS systems and the Inverter markets but will also cater to requirements of the industries involved in the manufacture of Wireless Electric Vehicle charging, High Frequency Induction Heating Equipment, Windmill and Solar Inverters, Telecom Equipment, besides a host of many special purpose industrial electronic equipment like Health Care (MRI, CT scan and X-ray) Equipment, Welding and Pulse Magnetizing Equipment, to name only a few.

Alcon has been able to meet the exacting quality criteria and standards of Indian as well discerning customers in USA, Germany, Italy, UK, Japan, Norway, Sweden, Denmark, South Korea, Turkey and even the very price conscious customers in China. Alcon believes that quality has to be built into the entire manufacturing process. The finest end products are assured by using the finest inputs, proven technology, modern production processes and equipment's and stringent quality control. Alcon is registered to ISO 9001, ISO 14001 and ISO 45001 signifying Alcon's commitment to quality, reliability and environment protection on the one hand and to safety as per international standards, on the other.

Designing capacitors for special applications requires an in-depth understanding of the application, knowledge of changing technologies, the ability to develop innovative technology concepts and finally, incorporate these concepts into the capacitors design & manufacturing processes. This would give the users high reliability and high performance products. Alcon's capability to make custom designed capacitors is well known. One of Alcon's significant advantage is that every stage of product development and innovation is evaluated in terms of changing technologies and user needs. Custom designed capacitors allow the users to select the right capacitor at the most viable price. Custom-designed capacitors account for almost 50% of Alcon's sales. It is also for this reason that Alcon today exports about 30% of its production and after the current planned expansion the company's target is to export 50% of its annual production. To enable the company to work effectively towards this objective Alcon's range of aluminium electrolytic capacitors now have CE marking and its range of DCL - 41 DC-Link Capacitors are UL approved.

At Alcon, responsiveness to customers needs is an integral part of our marketing strategy. We work with customers, to understand their production operations and application needs, analyse problems and offer optimum and cost effective solutions. We do what it takes to satisfy customer requirements. Alcon has a marketing team with component specific knowledge and experience. Our distributors who are located in all important cities in India and in many cities internationally, function as marketing nerve centres and provide timely deliveries to consumers in their region. Alcon has 23 distributors in India and 18 across the Globe. Alcon has received several awards as a recognition of the company's product quality, service, timely delivery and technology. Last fiscal the company received an award from Emerson Network Power India Pvt. Ltd., which was titled "Emerson Vendor appreciation Award." This year we have received an award titled "Supplier Technology Award" from GE Healthcare. This award is for innovative product designs and development of several new products for GE in India. "GE believes that this is the kind of partnership they look forward to in today's uncertain world."

Late 2021, Alcon joined forces with Exxelia, a Paris, France-headquartered global leader in the design, manufacture and sale of high-reliability complex, passive electronic components and rotary joint assemblies for aerospace, defense, medical, rail, energy and telecommunications applications. Among Exxelia's products are resistors, inductors, complex slip rings and high-end capacitors that Alcon's product offering complemented and strengthened.

Alcon and Exxelia's Customers are located in India and in many countries worldwide.

India : New Delhi, Jaipur, Ahmedabad, Baroda, Bhopal, Mumbai, Pune, **Nashik**, Hyderabad, Bangalore, Chennai, Cochin, Coimbatore Trivandram & Kolkata

International : Australia, China, Czech Republic, Denmark, Estonia, Finland, **France**, Germany, Italy, Ukraine, Japan, Latvia, Lithuania, Netherlands, Poland, Romania, Slovakia, U.K, USA, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, Turkey, Dubai, Singapore, Norway, Indonesia, Hongkong

INDEX

Direct Mounting

Axial

ALCON ELECTRONICS PRIVATE LIMITED
An Exxelia Company

IGBT SNUBBER CAPACITORS - DIRECT MOUNTING

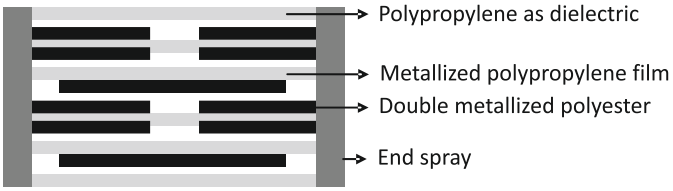
MP-4

Highlights

- Self-healing property
- High DV / DT
- Low ESR
- Low loss polypropylene dielectric
- Reference standard-IEC 61071
- Flame retardant UL94 - V0, ROHS compliant

Construction

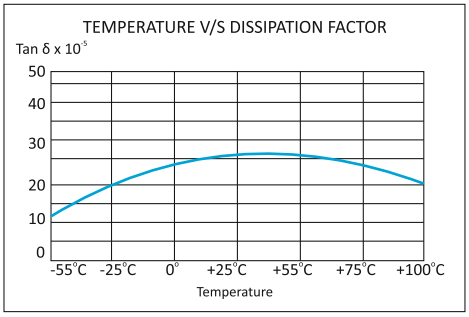
Extended double Metallized polyester electrodes with Metallized polypropylene dielectric internal series connection

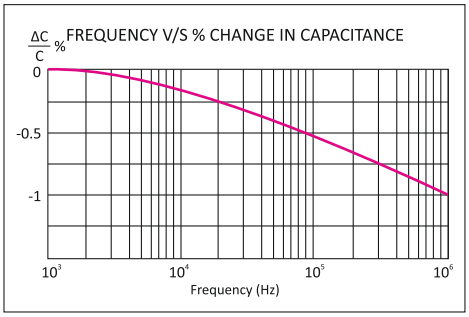


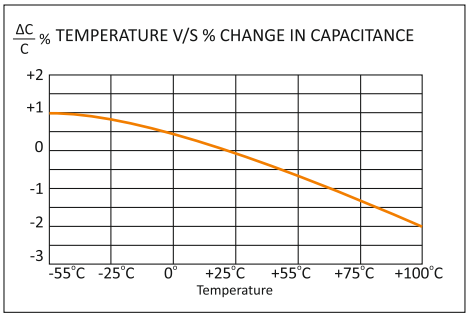
Applications

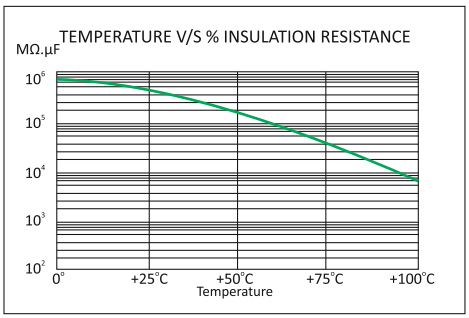
These capacitors are used in high voltage, high current and high pulse applications such as:

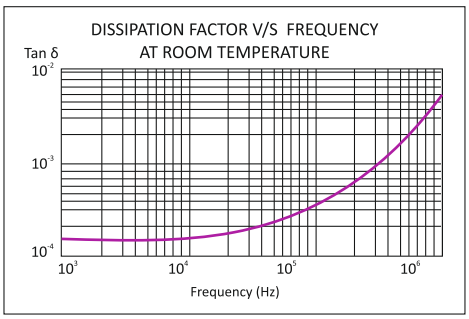
- IGBT protection circuits
- Snubber networks
- Energy conversion and control in power electronics
- Protection circuits in SMPS











MP-4

Technical Specifications

Physical Characteristics

▪ Dielectric material	Polypropylene film.
▪ Electrode material	Double metallized polyester and metallized polypropylene film.
▪ Winding construction	Extended double Metallized polyester electrodes with Metallized polypropylene dielectric internal series connection
▪ Enclosure	Preformed UL 94 V-0 plastic case with thermosetting resin-fill

Electrical Characteristics

▪ Capacitance range	0.1 MFD to 6.3 MFD
▪ Capacity tolerance	±5%(J), ±10%(K)
▪ Rated voltage VDC	700, 850, 1000, 1200, 1500, 2000, 2500, 3000
▪ Rated voltage VAC	420, 500, 575, 630, 650, 700, 725, 750
▪ Test voltage between terminals	1.6 x rated voltage VDC for 2 seconds
▪ Test voltage terminal to case	3KVAC at 50Hz for 60 seconds
▪ Dissipation factor (Tan d)	$\leq$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 $\leq$ 0.33 MFD $\geq$100,000MΩ C > 0.33 MFD $\geq$30,000MΩ

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 MP-4
- The capacitance value MFD
- The rated voltage VDC
- Capacity tolerance and manufacturing code
- Part number on non-standard capacitors

Standard Capacitor Values

Working Voltage 700 VDC (420 VAC)

Rated Capacitance MFD	Case Code	DV/DT V/µ Sec	I Peak Amps	Irms Max at 100KHz & 70°C Amps	Typical ESR at100KHz mΩ	Ordering Code*
1.000	B1	615	615.00	15.50	3.30	SI000010700AH0B1_ _ _ _K01
1.200	H7	615	738.00	17.50	3.10	SI01U200700AH0H7_ _ _ _K01
1.500	H1	615	922.50	19.00	2.80	SI01U500700AH0H1_ _ _ _K01
2.000	H1,H4	615	1230.00	23.50	2.50	SI000020700AH_ _ _ _ _ _ _K01
2.200	H1	615	1353.00	24.00	2.40	SI02U200700AH0H1_ _ _ _K01
2.500	H4	615	1537.50	24.50	2.20	SI02U500700AH0H4_ _ _ _K01
3.000	E3	400	1200.00	27.50	2.10	SI000030700AH0E3_ _ _ _K01
3.300	E3	400	1320.00	28.00	2.10	SI03U300700AH0E3_ _ _ _K01
3.500	C2	400	1400.00	28.50	2.00	SI03U500700AH0C2_ _ _ _K01
4.000	H5,C2	400	1600.00	29.00	2.30	SI000040700AH_ _ _ _ _ _ _K01
4.700	H6,C2	400	1880.00	32.00	2.10	SI04U700700AH_ _ _ _ _ _ _K01
5.000	H6,C2	400	2000.00	32.00	2.10	SI000050700AH_ _ _ _ _ _ _K01
5.600	H6,C2	400	2240.00	33.50	2.00	SI05U600700AH_ _ _ _ _ _ _K01
6.300	H6,C2	400	2520.00	34.50	1.90	SI06U300700AH_ _ _ _ _ _ _K01

Working Voltage 850 VDC (500VAC)

Rated Capacitance MFD	Case Code	DV/DT V/µ Sec	I Peak Amps	Irms Max at 100KHz & 70°C Amps	Typical ESR at100KHz mΩ	Ordering Code*
0.680	B1	760	516.80	15.00	3.50	SI00U680850AH0B1_ _ _ _K01
0.820	H7	760	623.20	16.50	3.10	SI00U820850AH0H7_ _ _ _K01
1.000	H7	760	760.00	18.50	2.70	SI000010850AH0H7_ _ _ _K01
1.500	H1	760	1140.00	24.50	2.20	SI01U500850AH0H1_ _ _ _K01
1.750	H1,H4	760	1330.00	25.50	2.10	SI01U750850AH_ _ _ _ _ _ _K01
2.000	H4	760	1520.00	28.00	2.00	SI000020850AH0H4_ _ _ _K01
2.200	H4	760	1672.00	28.50	2.00	SI02U200850AH0H4_ _ _ _K01
2.500	H4	760	1900.00	29.00	1.90	SI02U500850AH0H4_ _ _ _K01
3.000	H5,E3	450	1350.00	29.50	2.20	SI000030850AH_ _ _ _ _ _ _K01
3.300	H5,E3	450	1485.00	30.00	2.10	SI03U300850AH_ _ _ _ _ _ _K01
4.000	H6,C2	450	1800.00	33.50	1.90	SI000040850AH_ _ _ _ _ _ _K01
4.700	H6,C2	450	2115.00	34.50	1.80	SI04U700850AH_ _ _ _ _ _ _K01
5.600	H6,C2	360	2016.00	28.50	3.20	SI05U600850AH_ _ _ _ _ _ _K01

Working Voltage 1000 VDC (575VAC)

Rated Capacitance MFD	Case Code	DV/DT V/µ Sec	I Peak Amps	Irms Max at 100KHz & 70°C Amps	Typical ESR at100KHz mΩ	Ordering Code*
0.470	B1	880	413.60	14.00	3.90	SI00U471000AH0B1_ _ _ _K01
0.680	H7	880	598.40	16.50	3.30	SI00U681000AH0H7_ _ _ _K01
0.750	H7,H1	880	660.00	17.50	3.10	SI00U751000AH_ _ _ _ _ _ _K01
1.000	H1	880	880.00	22.50	3.10	SI000011000AH0H1_ _ _ _K01
1.200	H1	880	1056.00	23.50	2.50	SI01U201000AH0H1_ _ _ _K01
1.500	H1	880	1320.00	25.00	2.20	SI01U501000AH0H1_ _ _ _K01
1.750	H4	880	1540.00	27.00	2.10	SI01U751000AH0H4_ _ _ _K01
2.000	H4	880	1760.00	28.00	2.00	SI000021000AH0H4_ _ _ _K01
2.200	H4	750	1650.00	24.00	3.30	SI02U201000AH0H4_ _ _ _K01
2.200	H5	505	1111.00	27.50	2.50	SI02U201000AH0H5_ _ _ _K01
2.500	H4	750	1875.00	24.50	3.10	SI02U501000AH0H4_ _ _ _K01
3.000	H5,C2	450	1350.00	24.50	3.70	SI000031000AH0H6_ _ _ _K01
3.000	H6	505	1515.00	32.00	2.10	SI000031000AH_ _ _ _ _ _ _K01
3.300	H5,C2	450	1485.00	25.50	3.50	SI03U301000AH_ _ _ _ _ _ _K01
3.300	H6,C2	505	1666.50	32.50	2.00	SI03U301000AH_ _ _ _ _ _ _K01
4.000	H6,C2	450	1800.00	29.50	3.10	SI000041000AH_ _ _ _ _ _ _K01

Custom-designed capacitors are available on request

Refer to “Capacitor Drawing”on page 7 to 11

MP-4

Standard Capacitor Values

Working Voltage 1200 VDC (630 VAC)

Rated Capacitance MFD	Case Code	DV/DT V/µ Sec	I Peak Amps	Irms Max at 100KHz & 70°C Amps	Typical ESR at100KHz mΩ	Ordering Code*
0.330	B1	1010	333.30	12.00	5.10	SI00U331200AH0B1_ _ _ _K01
0.330	H7	1010	333.30	12.50	5.10	SI00U331200AH0H7_ _ _ _K01
0.390	B1	1010	393.90	13.00	4.60	SI00U391200AH0B1_ _ _ _K01
0.390	H7	1010	393.90	14.00	4.60	SI00U391200AH0H7_ _ _ _K01
0.470	H7	1010	474.70	15.00	4.10	SI00U471200AH0H7_ _ _ _K01
0.560	H7	1010	565.60	16.00	3.70	SI00U561200AH0H7_ _ _ _K01
0.680	H1	1010	686.80	20.00	3.30	SI00U681200AH0H1_ _ _ _K01
0.820	H1	1010	828.20	21.00	3.00	SI00U821200AH0H1_ _ _ _K01
1.000	H1	1010	1010.00	22.50	2.70	SI000011200AH0H1_ _ _ _K01
1.200	H1	870	1044.00	20.00	4.10	SI01U201200AH0H1_ _ _ _K01
1.200	H4	1010	1212.00	25.00	2.40	SI01U201200AH0H4_ _ _ _K01
1.500	H4	1010	1515.00	27.50	2.10	SI01U501200AH0H4_ _ _ _K01
2.000	H4	870	1740.00	24.50	3.30	SI000021200AH0H4_ _ _ _K01
2.000	H5	580	1160.00	28.00	2.40	SI000021200AH0H5_ _ _ _K01
2.200	H5,C2	500	1100.00	23.50	4.10	SI02U201200AH_ _ _ _ _ _ _K01
2.200	H6,C2	580	1276.00	31.00	2.30	SI02U201200AH_ _ _ _ _ _ _K01
2.500	H5,C2	500	1250.00	24.50	3.80	SI02U501200AH_ _ _ _ _ _ _K01
2.500	H6,C2	580	1450.00	32.50	2.10	SI02U501200AH_ _ _ _ _ _ _K01
3.000	H6,C2	500	1500.00	28.00	3.40	SI000031200AH_ _ _ _ _ _ _K01
3.300	H6	500	1650.00	28.50	3.20	SI03U301200AH0H6_ _ _ _K01

Working Voltage 1500 VDC (650 VAC)

Rated Capacitance MFD	Case Code	DV/DT V/µ Sec	I Peak Amps	Irms Max at 100KHz & 70°C Amps	Typical ESR at100KHz mΩ	Ordering Code*
0.220	B1	1225	269.50	11.00	6.10	SI00U221500AH0B1_ _ _ _K01
0.330	H7	1225	404.25	14.00	4.60	SI00U331500AH0H7_ _ _ _K01
0.390	H7	1225	477.75	14.50	4.30	SI00U391500AH0H7_ _ _ _K01
0.470	H1	1225	575.75	19.00	3.70	SI00U471500AH0H1_ _ _ _K01
0.680	H5	1225	833.00	21.00	3.10	SI00U681500AH0H5_ _ _ _K01
0.750	H1	1225	918.75	22.00	2.80	SI00U751500AH0H1_ _ _ _K01
1.000	H4	1225	1225.00	23.00	2.50	SI000011500AH0H4_ _ _ _K01
1.200	H5,C2	730	876.00	26.00	2.80	SI01U201500AH_ _ _ _ _ _ _K01
1.500	H6,C2	730	1095.00	29.50	2.50	SI01U501500AH_ _ _ _ _ _ _K01
1.800	H6,C2	730	1314.00	30.50	2.30	SI01U801500AH_ _ _ _ _ _ _K01
2.200	H6,C2	575	1265.00	26.50	3.70	SI02U201500AH_ _ _ _ _ _ _K01
2.500	H6,C2	575	1437.50	27.50	3.40	SI02U501500AH_ _ _ _ _ _ _K01

Custom-designed capacitors are available on request
Refer to “Capacitor Drawing”on page 7 to 11

MP-4

Standard Capacitor Values

Working Voltage 2000 VDC (700 VAC)

Rated Capacitance MFD	Case Code	DV/DT V/µ Sec	I Peak Amps	Irms Max at 100KHz & 70°C Amps	Typical ESR at100KHz mΩ	Ordering Code*
0.100	B1	1610	161.00	8.00	12.50	SI00U102000AH0B1_ _ _ _K01
0.100	H7	1610	161.00	8.50	12.50	SI00U102000AH0H7_ _ _ _K01
0.150	H7	1610	241.50	11.00	7.50	SI00U152000AH0H7_ _ _ _K01
0.220	H7	1610	354.20	13.50	5.10	SI00U222000AH0H7_ _ _ _K01
0.330	H7	1220	402.60	12.50	7.40	SI00U332000AH0H7_ _ _ _K01
0.330	H1	1610	531.30	18.00	4.10	SI00U332000AH0H1_ _ _ _K01
0.390	H1	1610	627.90	19.50	3.60	SI00U392000AH0H1_ _ _ _K01
0.470	H1	1220	573.40	16.50	6.00	SI00U472000AH0H1_ _ _ _K01
0.470	H4	1610	756.70	22.00	3.30	SI00U472000AH0H4_ _ _ _K01
0.560	H4	1610	901.60	23.00	3.00	SI00U562000AH0H4_ _ _ _K01
0.680	H1,H4	1220	829.60	18.00	5.00	SI00U682000AH_ _ _ _ _ _ _K01
0.680	H5,C2	935	635.80	23.00	3.50	SI00U682000AH_ _ _ _ _ _ _K01
0.820	H4	1220	1000.40	20.00	4.60	SI00U822000AH0H4_ _ _ _K01
0.820	H5,C2	935	766.70	24.50	3.10	SI00U822000AH_ _ _ _ _ _ _K01
1.000	H4	1220	1220.00	21.50	4.10	SI000012000AH0H4_ _ _ _K01
1.000	H6,C2	935	935.00	28.00	2.80	SI000012000AH_ _ _ _ _ _ _K01
1.200	H5,C2	725	870.00	22.50	4.50	SI01U202000AH_ _ _ _ _ _ _K01
1.200	H6,C2	935	1122.00	29.50	2.40	SI01U202000AH_ _ _ _ _ _ _K01
1.500	H6,C2	725	1087.50	26.00	4.00	SI01U502000AH_ _ _ _ _ _ _K01

Working Voltage 2500 VDC (725 VAC)

Rated Capacitance MFD	Case Code	DV/DT V/µ Sec	I Peak Amps	Irms Max at 100KHz & 70°C Amps	Typical ESR at100KHz mΩ	Ordering Code*
0.100	B1	2060	206.00	8.50	11.00	SI00U102500AH0B1_ _ _ _K01
0.100	H7	2060	206.00	9.00	11.00	SI00U102500AH0H7_ _ _ _K01
0.150	H7	2060	309.00	11.50	7.20	SI00U152500AH0H7_ _ _ _K01
0.220	H1	2060	453.20	16.00	5.20	SI00U222500AH0H1_ _ _ _K01
0.330	H1	2060	679.80	19.00	3.80	SI00U332500AH0H1_ _ _ _K01
0.470	H4	2060	968.20	23.00	3.00	SI00U472500AH0H4_ _ _ _K01
0.560	H5	1155	646.80	23.00	3.50	SI00U562500AH0H5_ _ _ _K01
0.680	H6	1155	785.40	26.00	3.20	SI00U682500AH0H6_ _ _ _K01
0.820	H6	1155	947.10	27.50	2.90	SI00U822500AH0H6_ _ _ _K01
1.000	H6	930	930.00	23.50	4.60	SI000012500AH0H6_ _ _ _K01
1.200	C2	930	1116.00	25.50	4.10	SI01U202500AH0H6_ _ _ _K01

Custom-designed capacitors are available on request
Refer to “Capacitor Drawing”on page 7 to 11

MP-4

Standard Capacitor Values

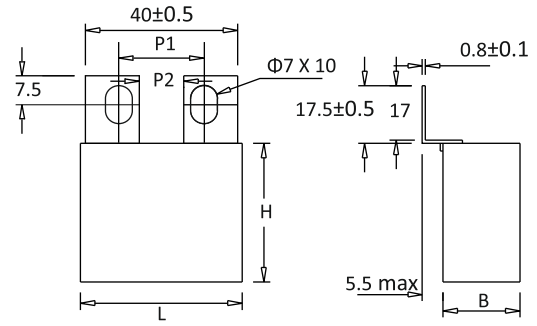
Working Voltage 3000 VDC (750 VAC)

Rated Capacitance MFD	Case Code	DV/DT V/µ Sec	I Peak Amps	Irms Max at 100KHz & 70°C Amps	Typical ESR at100KHz mΩ	Ordering Code*
0.047	B1	2515	118.20	7.00	16.50	SI0U0473000AH0B1_ _ _ _K01
0.047	H7	2515	118.20	7.50	16.50	SI0U0473000AH0H7_ _ _ _K01
0.068	B1	2515	171.02	8.00	11.50	SI0U0683000AH0B1_ _ _ _K01
0.068	H7	2515	171.02	9.00	11.50	SI0U0683000AH0H7_ _ _ _K01
0.100	H1	2515	251.50	12.50	8.50	SI00U103000AH0H1_ _ _ _K01
0.150	H1	2515	377.25	15.00	6.00	SI00U153000AH0H1_ _ _ _K01
0.220	H1	2050	451.00	14.50	8.20	SI00U223000AH0H1_ _ _ _K01
0.220	H4	2515	553.30	19.00	4.30	SI00U223000AH0H4_ _ _ _K01
0.330	H1	2050	676.50	16.50	6.10	SI00U333000AH0H1_ _ _ _K01
0.330	H5	1400	462.00	21.00	4.30	SI00U333000AH0H5_ _ _ _K01
0.470	H4	2050	963.50	19.50	5.00	SI00U473000AH0H4_ _ _ _K01
0.470	H6	1410	662.70	24.00	3.80	SI00U473000AH0H6_ _ _ _K01
0.680	H6,C2	1150	782.00	22.00	5.20	SI00U683000AH_ _ _ _ _ _ _K01
0.820	H6,C2	1150	943.00	24.00	4.70	SI00U823000AH_ _ _ _ _ _ _K01

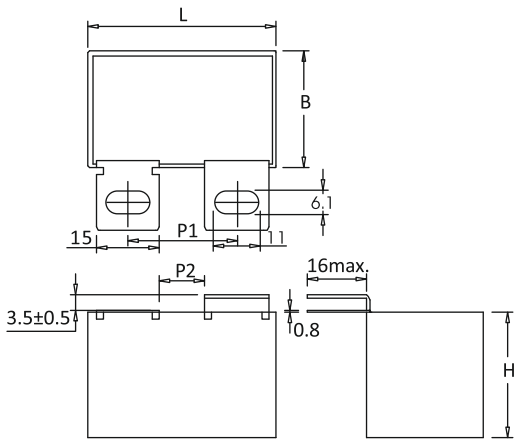
Custom-designed capacitors are available on request
Refer to “Capacitor Drawing”on page 7 to 11

MP-4

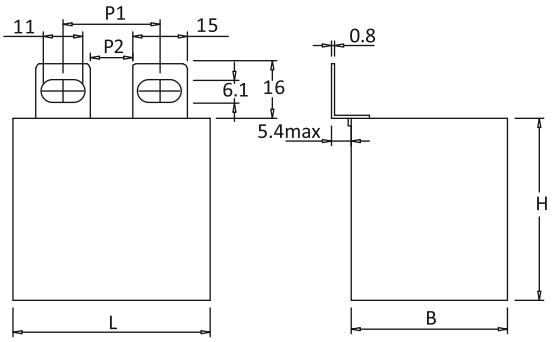
Capacitor Drawings and Terminal Styles



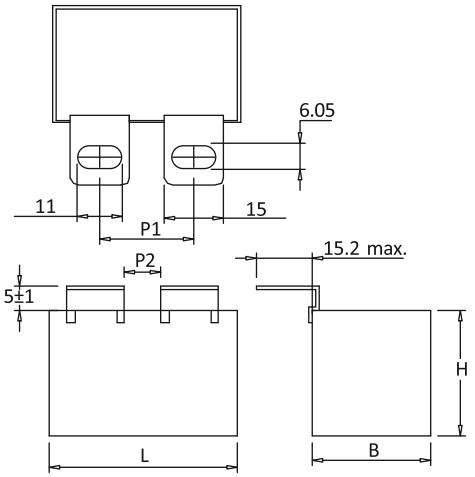
Terminal style : BBL
Case code : H1,H4,H7,H5,C2,H6,E3



Terminal style : SL
Case code : B1,H1,H4,H5,H6,H7,C2,E3



Terminal style : TL
Case code : B1,H1,H4,H5,H6,H7,C2,E3



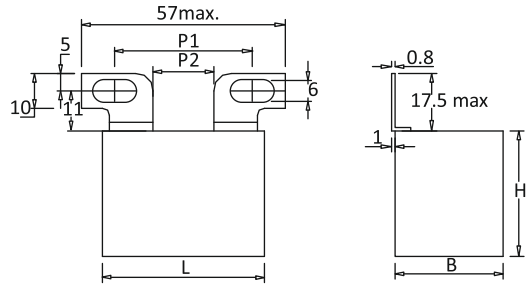
Terminal style : RL
Case code : B1,H1,H4,H5,H6,H7,C2,E3

Dimensions in mm

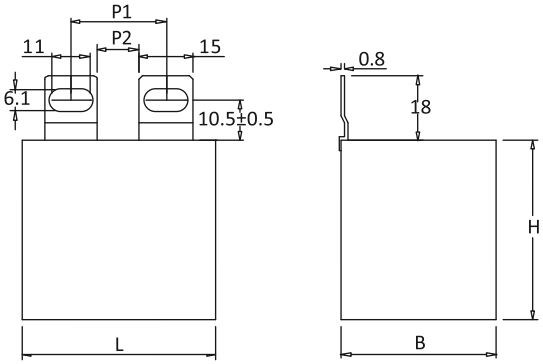
For details see Case Code table on page 12 & 13

MP-4

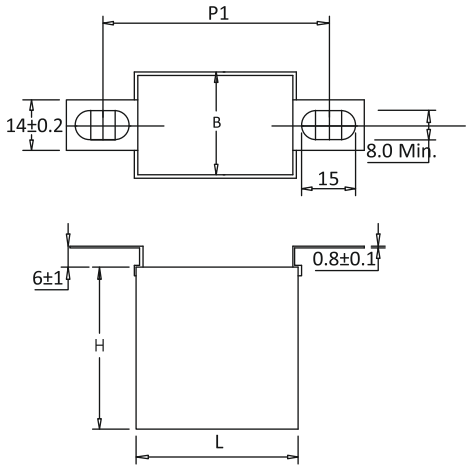
Capacitor Drawings and Terminal Styles



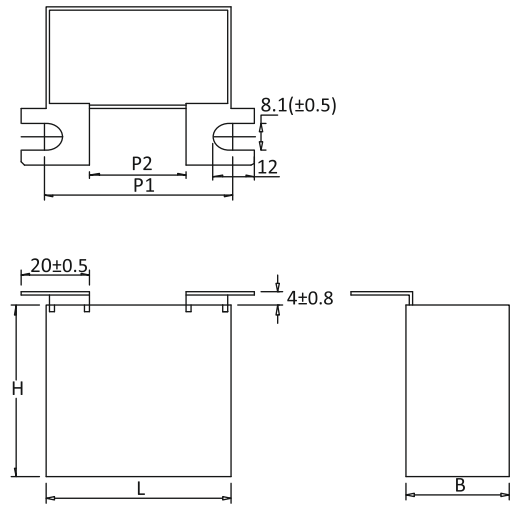
Terminal style : TP
Case code : H4,H5,H6,H1,B1,H7,C2,E3



Terminal style : STL
Case code : B1,H1,H4,H5,H6,H7,C2,E3



Terminal style : AD
Case code : H1,H4,H7,C2,H5,H6,E3

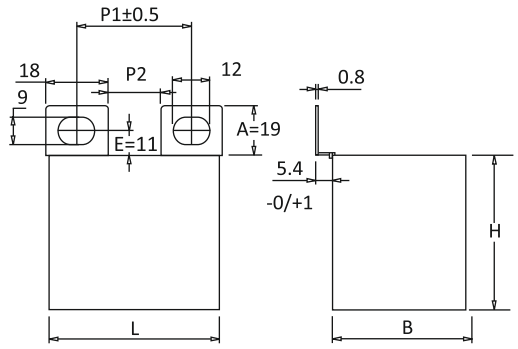


Terminal style : CL
Case code : H5,H6,C2,E3

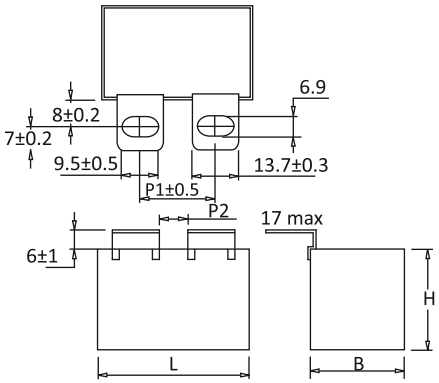
Dimensions in mm
For details see Case Code table on page 12 & 13

MP-4

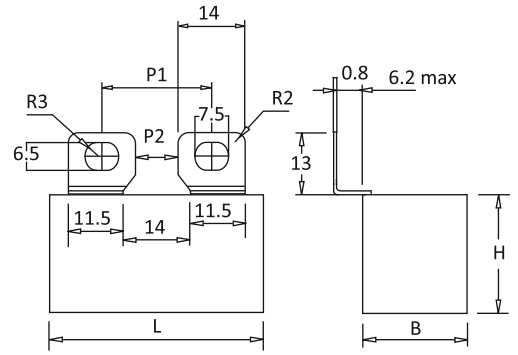
Capacitor Drawings and Terminal Styles



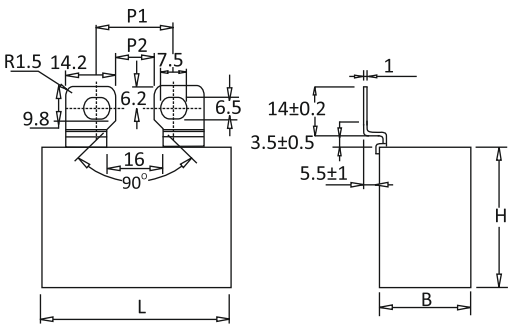
Terminal style : BTL
Case code : H1,H4,H5,H6,H7,C2,E3



Terminal style : MRL
Case code : B1,H1,H4,H5,H6,H7,C2,E3



Terminal style : VN
Case code : B1,H1,H4,H7

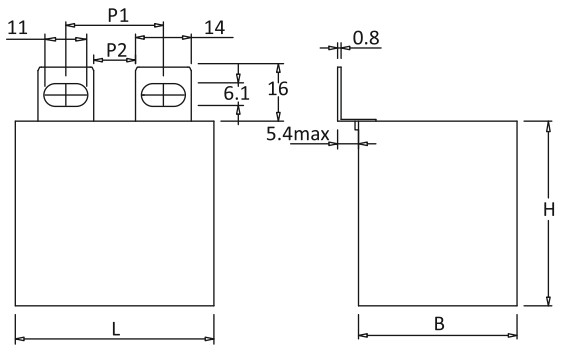


Terminal style : VT
Case code : H5,H6,C2,E3

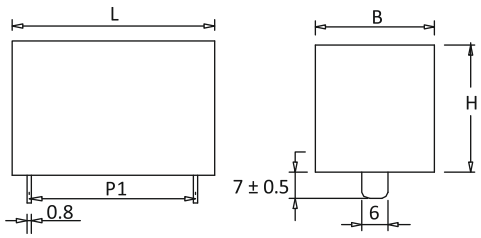
Dimensions in mm
For details see Case Code table on page 12 & 13

MP-4

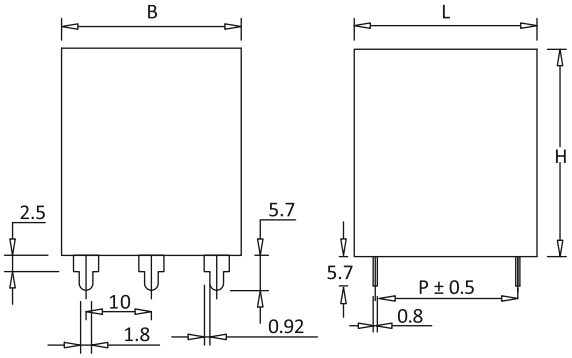
Capacitor Drawings and Terminal Styles



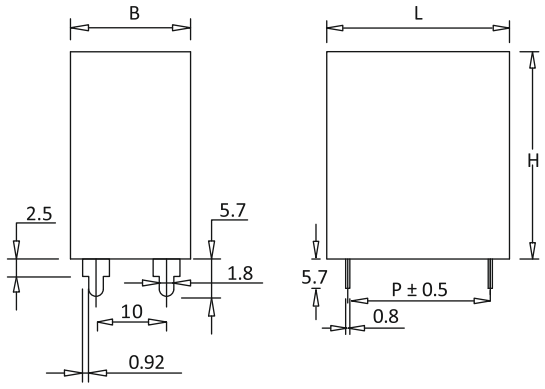
Terminal style : MTL
Case code : B1,H4,H5,H6,H7,H1,C2,E3



Terminal style : FT
Case code : B1,H4,H5,H6,H7,H1,C2,E3



Terminal style : 3P
Case code : H1,H4,H5,H6,C2,E3



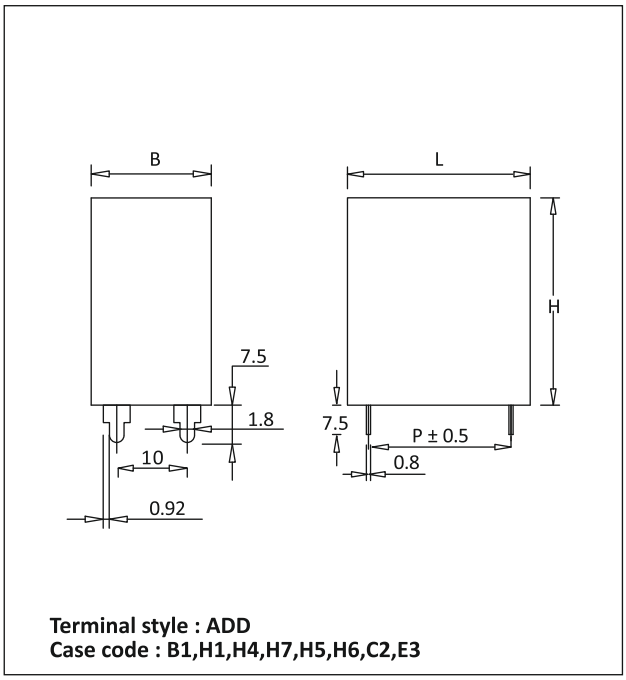
Terminal style : 2P
Case code : B1,H1,H4,H7,H6,C2,E3,H5

Dimensions in mm

For details see Case Code table on page 12 & 13

MP-4

Capacitor Drawings and Terminal Styles



Terminal style : ADD
Case code : B1,H1,H4,H7,H5,H6,C2,E3

Dimensions in mm
For details see Case Code table on page 12 & 13

MP-4

Table of Case Codes and Dimensions

Case code	Dimensions in mm*			P1	P2	Terminal Styles
	B	H	L	P ±0.5		
B1	17.00	29.00	41.50	37.50	-	FT,2P,ADD
B1	17.00	29.00	41.50	23.50	8.50	TL,RL,STL,SL
B1	17.00	29.00	41.50	38.50	17.00	TP
B1	17.00	29.00	41.50	24.50	10.50	MTL
B1	17.00	29.00	41.50	23.00	9.00	VN
B1	17.00	29.00	41.50	25.00	11.00	MRL
H1	33.50	35.50	42.50	37.50	-	FT,2P,3P,ADD
H1	33.50	35.50	42.50	23.50	8.50	TL,RL,STL,SL
H1	33.50	35.50	42.50	38.50	17.00	TP
H1	33.50	35.50	42.50	24.50	10.50	MTL
H1	33.50	35.50	42.50	57.50	-	AD
H1	33.50	35.50	42.50	25.00	7.00	BTL
H1	33.50	35.50	42.50	23.00	9.00	VN
H1	33.50	35.50	42.50	22.00	11.50	BBL
H1	33.50	35.50	42.50	25.00	11.00	MRL
H4	33.00	45.00	42.50	37.50	-	FT,3P,2P,ADD
H4	33.00	45.00	42.50	23.50	8.50	TL,RL,STL,SL
H4	33.00	45.00	42.50	38.50	17.00	TP
H4	33.00	45.00	42.50	24.50	10.50	MTL
H4	33.00	45.00	42.50	57.50	-	AD
H4	33.00	45.00	42.50	25.00	7.00	BTL
H4	33.00	45.00	42.50	23.00	9.00	VN
H4	33.00	45.00	42.50	22.00	11.50	BBL
H4	33.00	45.00	42.50	25.00	11.00	MRL
H5	30.00	45.00	57.50	48.50	-	FT,2P,3P,ADD
H5	30.00	45.00	57.50	26.50	11.50	TL,RL,STL,SL
H5	30.00	45.00	57.50	27.00	13.00	MTL
H5	30.00	45.00	57.50	37.00	19.00	BTL
H5	30.00	45.00	57.50	22.00	11.10	VT
H5	30.00	45.00	57.50	55.00	28.00	CL
H5	30.00	45.00	57.50	38.00	24.00	MRL
H5	30.00	45.00	57.50	22.00	11.50	BBL
H5	30.00	45.00	57.50	38.50	17.00	TP
H5	30.00	45.00	57.50	65-78	-	AD
H6	35.00	50.00	57.50	48.50	-	FT,2P,3P,ADD
H6	35.00	50.00	57.50	26.50	11.50	TL,RL,STL,SL
H6	35.00	50.00	57.50	27.00	13.00	MTL
H6	35.00	50.00	57.50	37.00	19.00	BTL
H6	35.00	50.00	57.50	22.00	11.10	VT
H6	35.00	50.00	57.50	55.00	28.00	CL
H6	35.00	50.00	57.50	38.00	24.00	MRL
H6	35.00	50.00	57.50	22.00	11.50	BBL
H6	35.00	50.00	57.50	38.50	17.00	TP
H6	35.00	50.00	57.50	65-78	-	AD
H7	24.50	27.50	42.50	37.50	-	FT,2P,ADD
H7	24.50	27.50	42.50	38.50	17.00	TP
H7	24.50	27.50	42.50	23.50	8.50	TL,RL,STL,SL
H7	24.50	27.50	42.50	24.50	10.50	MTL
H7	24.50	27.50	42.50	57.50	-	AD
H7	24.50	27.50	42.50	25.00	7.00	BTL
H7	24.50	27.50	42.50	23.00	9.00	VN
H7	24.50	27.50	42.50	22.00	11.50	BBL
H7	24.50	27.50	42.50	25.00	11.00	MRL

* Refer to “Capacitor Drawing”on page 7 to 11

MP-4

Table of Case Codes and Dimensions

Case code	Dimensions in mm*			P1	P2	Terminal Styles
	B	H	L	P ±0.5		
C2	43.00	50.00	54.00	48.50	-	FT,2P,3P,ADD
C2	43.00	50.00	54.00	26.50	11.50	TL,RL,STL,SL
C2	43.00	50.00	54.00	27.00	13.00	MTL
C2	43.00	50.00	54.00	68.50	-	AD
C2	43.00	50.00	54.00	37.00	19.00	BTL
C2	43.00	50.00	54.00	55.00	28.00	CL
C2	43.00	50.00	54.00	22.00	11.10	VT
C2	43.00	50.00	54.00	25.00	11.00	MRL
C2	43.00	50.00	54.00	22.00	11.50	BBL
C2	43.00	50.00	54.00	38.50	17.00	TP
E3	35.00	46.00	54.00	48.50	-	FT,2P,3P,ADD
E3	35.00	46.00	54.00	26.50	11.50	TL,RL,STL,SL
E3	35.00	46.00	54.00	27.00	13.00	MTL
E3	35.00	46.00	54.00	68.50	-	AD
E3	35.00	46.00	54.00	37.00	19.00	BTL
E3	35.00	46.00	54.00	55.00	28.00	CL
E3	35.00	46.00	54.00	22.00	11.10	VT
E3	35.00	46.00	54.00	25.00	11.00	MRL
E3	35.00	46.00	54.00	22.00	11.50	BBL
E3	35.00	46.00	54.00	38.50	17.00	TP

* Refer to “Capacitor Drawing”on page 7 to 11

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
4. MAX ESR = Typical ESR +30%

IGBT SNUBBER CAPACITORS - DIRECT MOUNTING

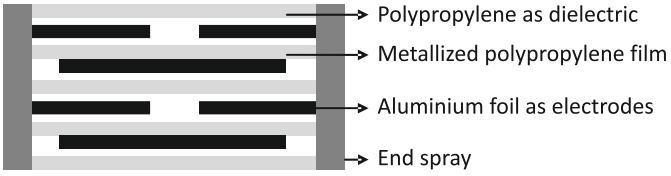
KPF

Highlights

- Self-healing property
- High DV / DT
- Low ESR
- Low loss polypropylene dielectric
- Reference standard-IEC 61071
- Flame retardant UL94 - V0, ROHS compliant

Construction

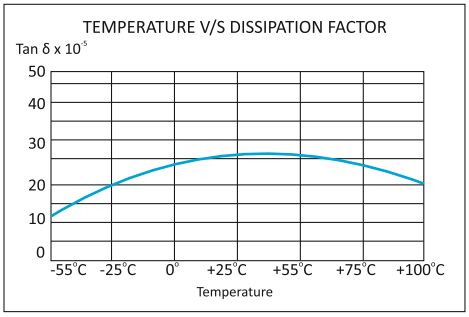
Extended foil electrodes with Metallized polypropylene dielectric internal series connection

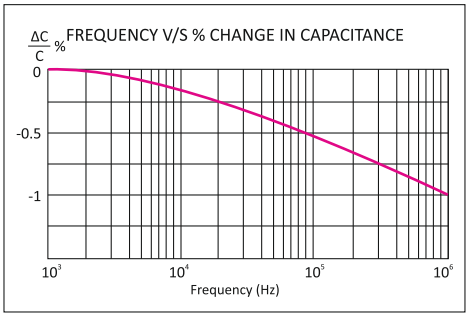


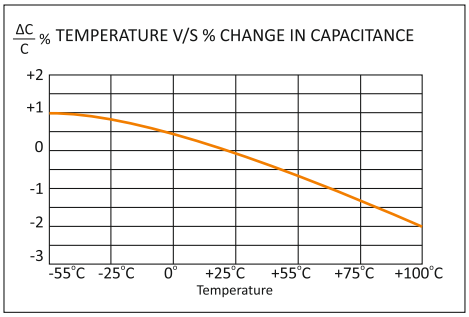
Applications

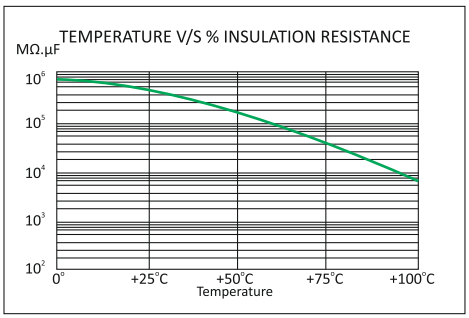
These capacitors are used in high voltage, high current and high pulse applications such as:

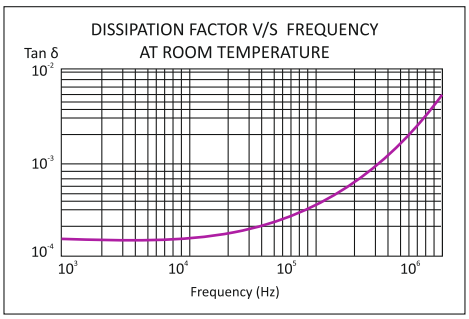
- IGBT protection circuits
- Snubber networks
- Energy conversion and control in power electronics
- Protection circuits in SMPS











KPF

Technical Specifications

Physical Characteristics

▪ Dielectric material	Polypropylene film.
▪ Electrode material	Aluminum foil and metallized polypropylene film
▪ Winding construction	Extended foil electrodes with metallized polypropylene dielectric internal series connection
▪ Enclosure	Preformed UL 94 V-0 plastic case with thermosetting resin-fill

Electrical Characteristics

▪ Capacitance range	0.1 MFD to 3.3 MFD
▪ Capacity tolerance	±5%(J), ±10%(K)
▪ Rated voltage VDC	1000, 1250, 1500, 2000
▪ Rated voltage VAC	480, 550, 630, 700
▪ Test voltage between terminals	1.6 x rated voltage VDC for 2 seconds
▪ Test voltage terminal to case	3KVAC at 50Hz for 60 seconds
▪ Dissipation factor (Tan d)	$\leq$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 $\leq$ 0.33 MFD $\geq$100,000MΩ C > 0.33 MFD $\geq$30,000MΩ

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
- The capacitance value MFD
- The rated voltage VDC
- Capacity tolerance and manufacturing code
- Part number on non-standard capacitors

KPF

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 & 70°C Amps	Typical ESR at100KHz mΩ	Ordering Code*
0.100	K2	1200	120.00	5.60	11.20	SI00U101000AF0K2_ _ _ _ K01
0.150	K2	1200	180.00	5.70	10.80	SI00U151000AF0K2_ _ _ _ K01
0.220	K3	1200	264.00	6.80	10.40	SI00U221000AF0K3_ _ _ _ K01
0.220	B1, C1	1200	264.00	18.20	4.20	SI00U221000AF_ _ _ _ _ _ _ K01
0.270	B1, C1	1000	270.00	18.70	4.00	SI00U271000AF_ _ _ _ _ _ _ K01
0.330	B1, C1	1000	330.00	19.70	3.70	SI00U331000AF_ _ _ _ _ _ _ K01
0.390	B1, C1	1000	390.00	20.60	3.70	SI00U391000AF_ _ _ _ _ _ _ K01
0.470	B1, C1	1000	470.00	21.10	3.50	SI00U471000AF_ _ _ _ _ _ _ K01
0.560	B1	900	504.00	21.30	3.50	SI00U561000AF0B1_ _ _ _ K01
0.680	B1	900	612.00	21.30	3.50	SI00U681000AF0B1_ _ _ _ K01
0.750	E1	900	675.00	25.60	3.20	SI00U751000AF0E1_ _ _ _ K01
0.820	E1	900	738.00	26.00	3.00	SI00U821000AF0E1_ _ _ _ K01
1.000	E1	900	900.00	26.00	3.00	SI000011000AF0E1_ _ _ _ K01
1.200	B3	900	1080.00	26.00	2.50	SI01U201000AF0B3_ _ _ _ K01
1.500	B3	900	1350.00	26.00	2.50	SI01U501000AF0B3_ _ _ _ K01
1.750	E2	800	1400.00	28.00	2.50	SI01U751000AF0E2_ _ _ _K01
2.000	E2	800	1600.00	28.20	2.50	SI000021000AF0E2_ _ _ _ K01
2.200	E2	700	1540.00	28.50	2.40	SI02U201000AF0E2_ _ _ _ K01
2.500	E3	600	1500.00	29.00	2.20	SI02U501000AF0E3_ _ _ _ K01
3.000	C2	600	1800.00	30.00	2.00	SI000031000AF0C2_ _ _ _ K01
3.300	C2	600	1980.00	30.00	2.00	SI03U301000AF0C2_ _ _ _ K01

Working Voltage 1250 VDC (550VAC)

Rated Capacitance MFD	Case Code	DV/DT V/µ Sec	I Peak Amps	Irms Max at 100KHz & 70°C Amps	Typical ESR at100KHz mΩ	Ordering Code*
0.100	K2	1400	140.00	5.60	11.20	SI00U101250AF0K2_ _ _ _ K01
0.150	K2	1400	210.00	5.70	10.80	SI00U151250AF0K2_ _ _ _ K01
0.220	K3	1400	308.00	6.80	10.40	SI00U221250AF0K3_ _ _ _ K01
0.220	B1, C1	1400	308.00	18.20	4.20	SI00U221250AF_ _ _ _ _ _ _ K01
0.270	B1, C1	1200	324.00	18.70	4.00	SI00U271250AF_ _ _ _ _ _ _ K01
0.330	B1, C1	1200	396.00	19.70	3.70	SI00U331250AF_ _ _ _ _ _ _ K01
0.390	B1, C1	1200	468.00	20.60	3.70	SI00U391250AF_ _ _ _ _ _ _ K01
0.470	B1	1200	564.00	21.10	3.50	SI00U471250AF0B1_ _ _ _ K01
0.560	E1	1100	616.00	21.30	3.50	SI00U561250AF0E1_ _ _ _ K01
0.680	E1	1100	748.00	21.30	3.50	SI00U681250AF0E1_ _ _ _ K01
0.750	E1	1100	825.00	25.60	3.20	SI00U751250AF0E1_ _ _ _ K01
0.820	B2	1100	902.00	26.00	3.00	SI00U821250AF0B2_ _ _ _ K01
1.000	B2	1100	1100.00	26.00	3.00	SI000011250AF0B2_ _ _ _ K01
1.200	E2	800	960.00	26.00	2.50	SI01U201250AF0E2_ _ _ _ K01
1.500	E2	800	1200.00	26.00	2.50	SI01U501250AF0E2_ _ _ _ K01
1.750	E3	800	1400.00	28.00	2.50	SI01U751250AF0E3_ _ _ _ K01
2.000	E3	800	1600.00	28.20	2.50	SI000021250AF0E3_ _ _ _ K01
2.200	C2	800	1760.00	28.50	2.40	SI02U201250AF0C2_ _ _ _ K01
2.500	C2	800	2000.00	29.00	2.20	SI02U501250AF0C2_ _ _ _ K01

Custom-designed capacitors are available on request
Refer to “Capacitor Drawing”on page 18 to 23

KPF

Standard Capacitor Values

Working Voltage 1500 VDC (630 VAC)

Rated Capacitance MFD	Case Code	DV/DT V/µ Sec	I Peak Amps	Irms Max at 100KHz & 70°C Amps	Typical ESR at100KHz mΩ	Ordering Code*
0.100	K2	1600	160.00	5.60	11.20	SI00U101500AF0K2_ _ _ _ K01
0.150	K2	1600	240.00	5.70	10.80	SI00U151500AF0K2_ _ _ _ K01
0.220	B1,C1	1600	352.00	18.20	4.20	SI00U221500AF_ _ _ _ _ _ _ K01
0.270	B1,C1	1400	378.00	18.70	4.00	SI00U271500AF_ _ _ _ _ _ _ K01
0.330	B1,C1	1400	462.00	19.70	3.70	SI00U331500AF_ _ _ _ _ _ _ K01
0.390	E1	1400	546.00	20.60	3.70	SI00U391500AF0E1_ _ _ _ K01
0.470	E1	1400	658.00	21.10	3.50	SI00U471500AF0E1_ _ _ _ K01
0.560	E2	1300	728.00	21.30	3.50	SI00U561500AF0E2_ _ _ _ K01
0.680	E2	1300	884.00	21.30	3.50	SI00U681500AF0E2_ _ _ _ K01
0.750	E2	1300	975.00	25.60	3.20	SI00U751500AF0E2_ _ _ _ K01
0.820	E2	1300	1066.00	26.00	3.00	SI00U821500AF0E2_ _ _ _ K01
1.000	E2	1300	1300.00	26.00	3.00	SI000011250AF0B2_ _ _ _ K01
1.200	E2	1300	1560.00	26.00	2.50	SI01U201500AF0E2_ _ _ _ K01
1.500	E3	1300	1950.00	26.00	2.50	SI01U501500AF0E3_ _ _ _ K01
1.750	E3	1000	1750.00	28.00	2.50	SI01U751500AF0E3_ _ _ _ K01
2.000	C2	1000	2000.00	28.20	2.50	SI000021500AF0C2_ _ _ _ K01

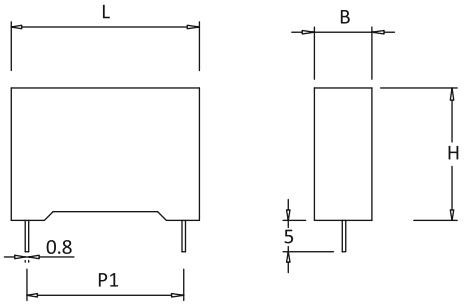
Working Voltage 2000 VDC (700VAC)

Rated Capacitance MFD	Case Code	DV/DT V/µ Sec	I Peak Amps	Irms Max at 100KHz & 70°C Amps	Typical ESR at100KHz mΩ	Ordering Code*
0.100	B1	1900	190.00	13.20	8.40	SI00U102000AF0B1_ _ _ _ K01
0.150	B1	1900	285.00	15.11	7.00	SI00U152000AF0B1_ _ _ _ K01
0.220	E1	1900	418.00	19.80	4.50	SI00U222000AF0E1_ _ _ _ K01
0.270	E1	1900	513.00	21.70	4.30	SI00U272000AF0E1_ _ _ _ K01
0.330	B2	1700	561.00	22.20	4.10	SI00U332000AF0B2_ _ _ _ K01
0.390	B3	1700	663.00	22.50	4.00	SI00U392000AF0B3_ _ _ _ K01
0.470	B3	1700	799.00	22.50	4.00	SI00U472000AF0B3_ _ _ _ K01
0.560	E2	1600	896.00	22.70	3.80	SI00U562000AF0E2_ _ _ _ K01
0.680	E3	1600	1088.00	22.80	3.70	SI00U682000AF0E3_ _ _ _ K01
0.750	E3	1500	1125.00	23.20	3.40	SI00U752000AF0E3_ _ _ _ K01
0.820	C2	1500	1230.00	23.20	3.30	SI00U822000AF0C2_ _ _ _ K01
1.000	C2	1500	1500.00	23.30	3.20	SI000012000AF0C2_ _ _ _ K01

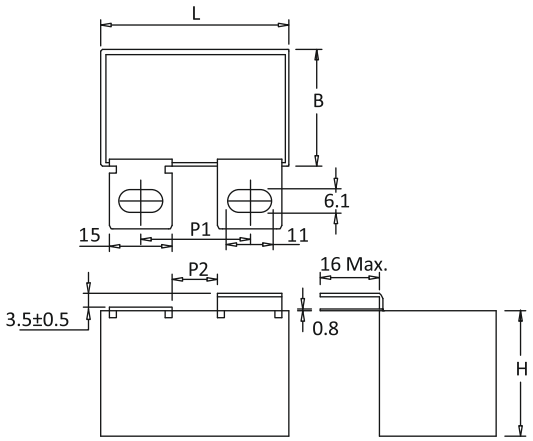
Custom-designed capacitors are available on request
Refer to “Capacitor Drawing”on page 18 to 23

KPF

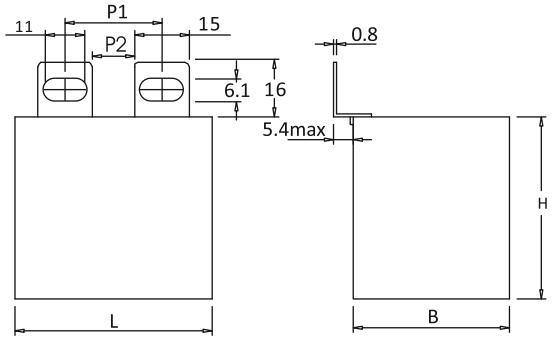
Capacitor Drawings and Terminal Styles



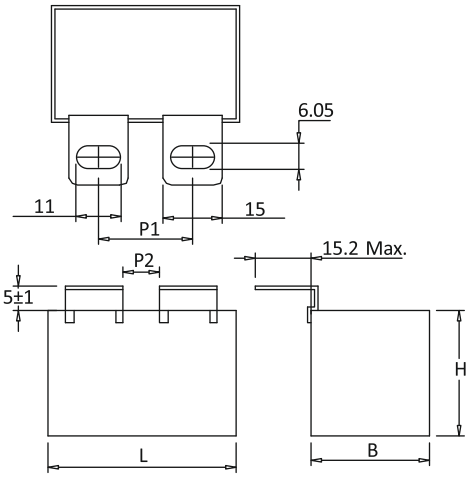
Terminal style : DL
Case code : K2,K3,K4



Terminal style : SL
Case code : B1,E1,B2,E2,B3,C2



Terminal style : TL
Case code : B1,E1,B2,E2,B3,E3,C2

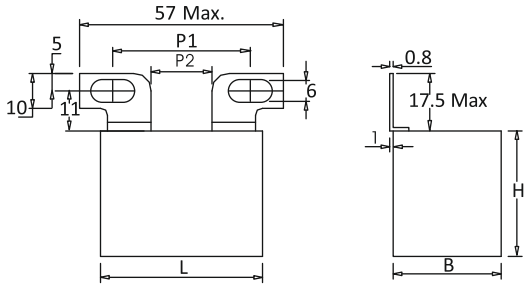


Terminal style : RL
Case code : B1,E1,B2,E2,B3,E3,C2

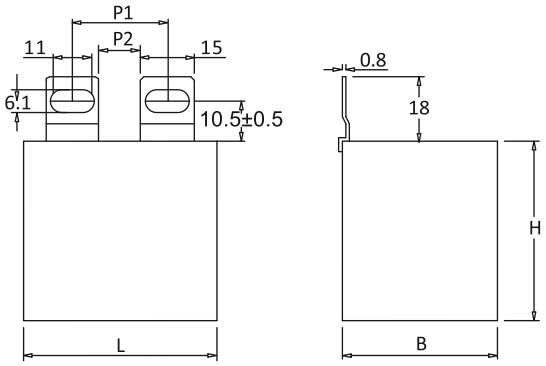
Dimensions in mm
For details see Case Code table on page 16 & 17

KPF

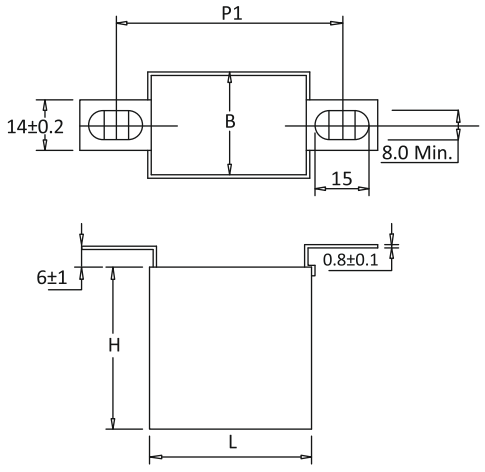
Capacitor Drawings and Terminal Styles



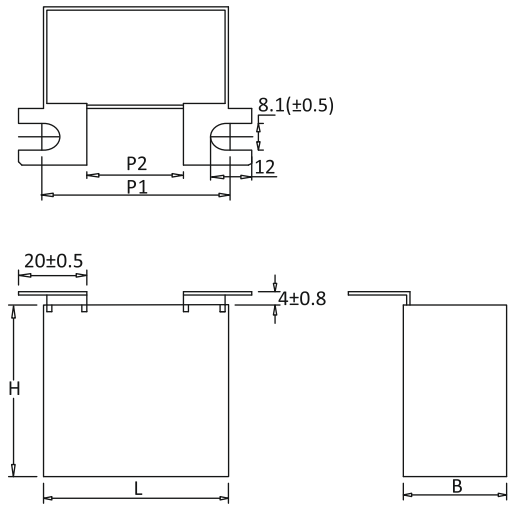
Terminal style : TP
Case code : B1,E1,B2,E2,B3



Terminal style : STL
Case code : B1,E1,B2,E2,B3,E3,C2



Terminal style : AD
Case code : E3,C2



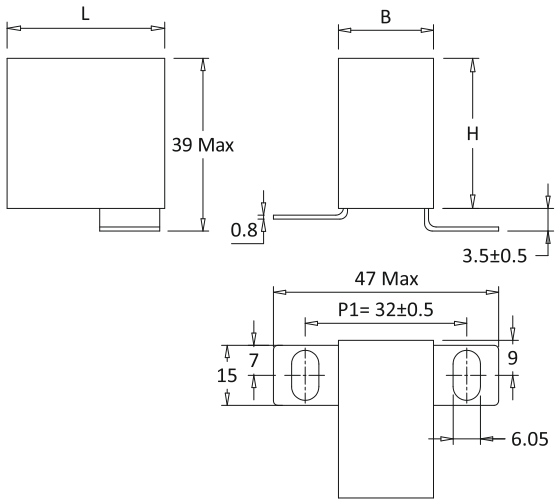
Terminal style : CL
Case code : E3,C2

Dimensions in mm

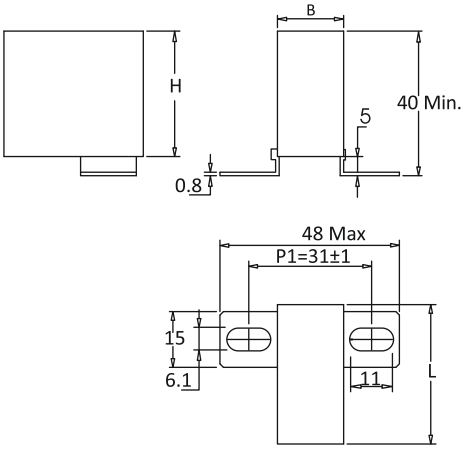
For details see Case Code table on page 16 & 17

KPF

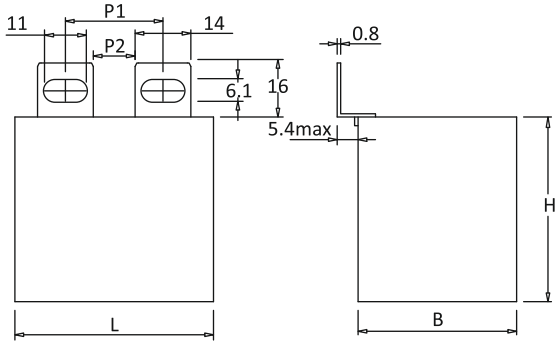
Capacitor Drawings and Terminal Styles



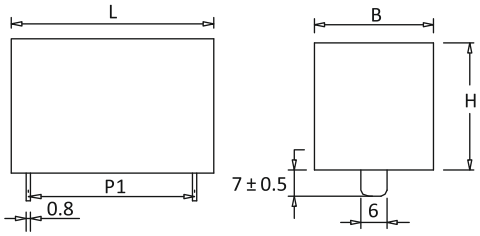
Terminal style :CT
Case code : C1



Terminal style : CR
Case code : C1



Terminal style : MTL
Case code : B1,E1,B2,E2,B3,E3,C2



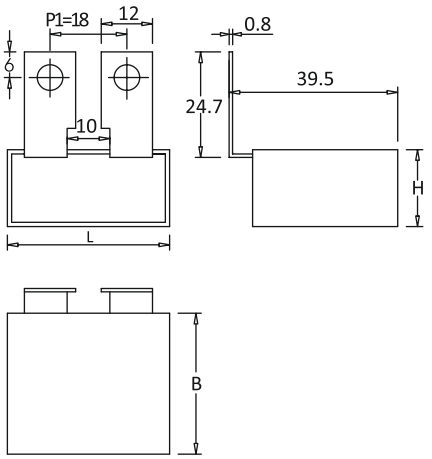
Terminal style : FT
Case code : B1,E1,B2,E2,B3

Dimensions in mm

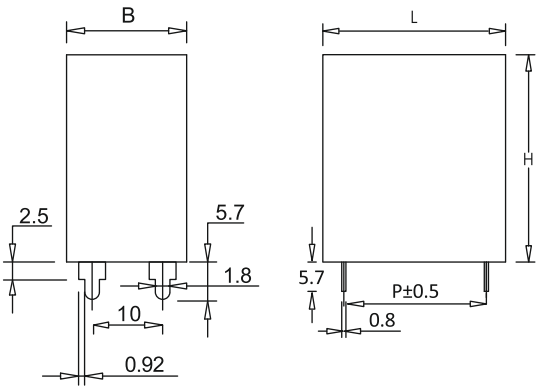
For details see Case Code table on page 16 & 17

KPF

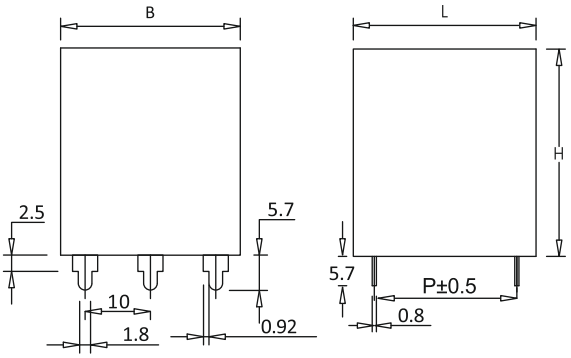
Capacitor Drawings and Terminal Styles



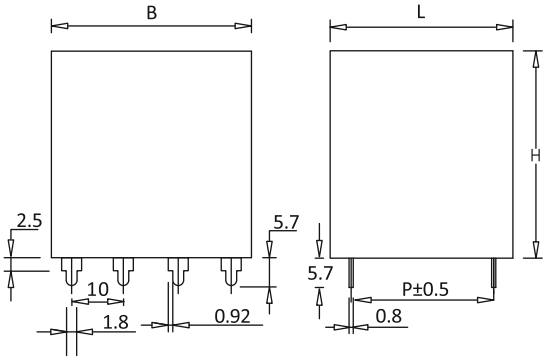
Terminal style :AB
Case code : C1



Terminal style : 2P
Case code : B1,E1,B2



Terminal style : 3P
Case code : E2,B3,E3



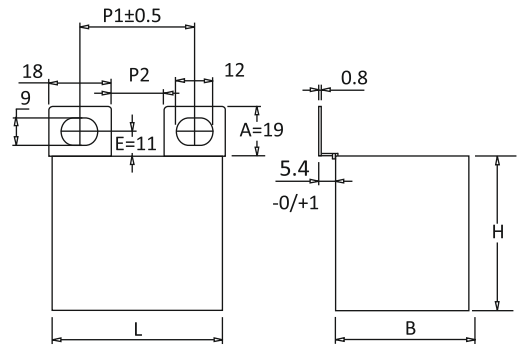
Terminal style : 4P
Case code : C2

Dimensions in mm

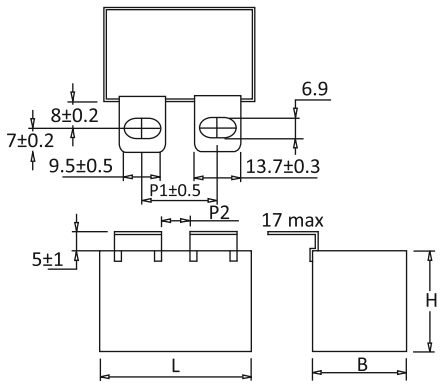
For details see Case Code table on page 16 & 17

KPF

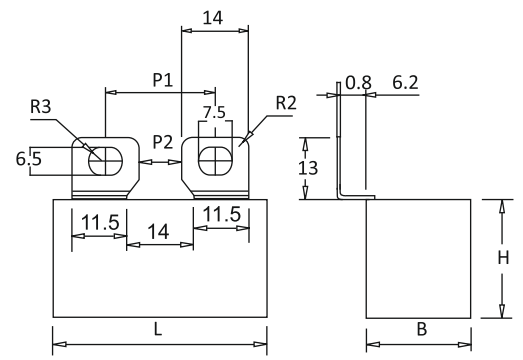
Capacitor Drawings and Terminal Styles



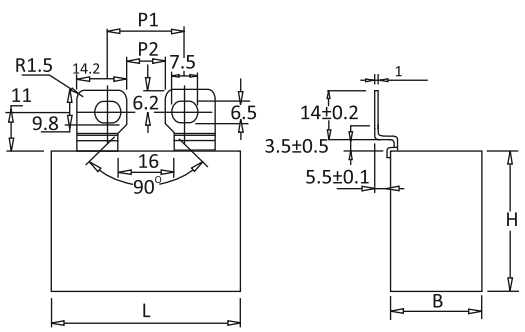
Terminal style : BTL
Case code : B2,E2,B3,E3,C2



Terminal style : MRL
Case code : B1,E1,B2,B3,E2,E3,C2



Terminal style : VN
Case code : B1,E1,B2,B3,E2,E3,C2



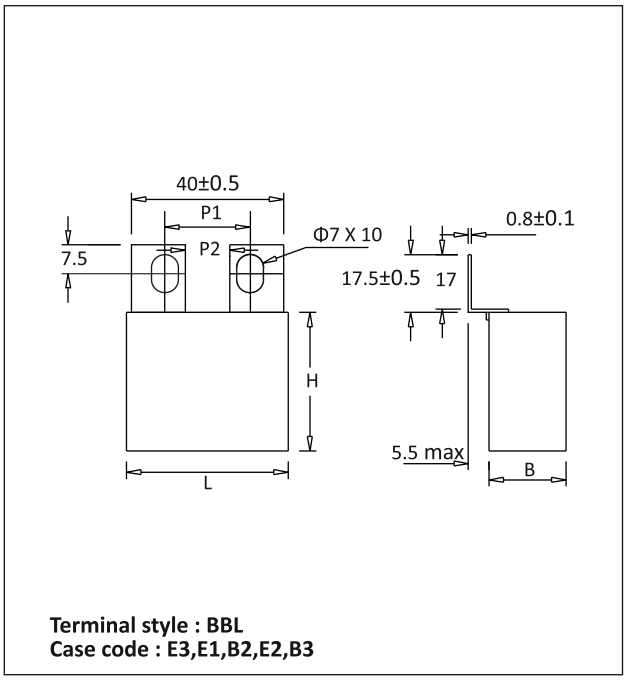
Terminal style : VT
Case code : B1,E1,B2,B3,E2,E3,C2

Dimensions in mm

For details see Case Code table on page 16 & 17

KPF

Capacitor Drawings and Terminal Styles



Terminal style : BBL
Case code : E3,E1,B2,E2,B3

Dimensions in mm

For details see Case Code table on page 16 & 17

KPF

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	11.0	20.0	32.0	27.5	–	DL
K3	13.0	22.0	32.0	27.5	–	DL
K4	14.0	24.0	32.0	27.5	–	DL
B1	17.0	29.0	41.5	37.5	–	FT,2P
B1	17.0	29.0	41.5	23.5	8.5	TL,RL,STL,SL
B1	17.0	29.0	41.5	22.0	8.5	MRL
B1	17.0	29.0	41.5	38.5	17.0	TP
B1	17.0	29.0	41.5	24.5	10.5	MTL
B1	17.0	29.0	41.5	23.0	9.0	VN
E1	20.0	36.0	42.0	37.5	–	FT,2P
E1	20.0	36.0	42.0	23.5	8.5	TL,RL,STL,SL
E1	20.0	36.0	42.0	22.0	8.5	MRL
E1	20.0	36.0	42.0	38.5	17.0	TP
E1	20.0	36.0	42.0	24.5	10.5	MTL
E1	20.0	36.0	42.0	22.0	11.5	BBL
E1	20.0	36.0	42.0	22.0	11.1	VT
E1	20.0	36.0	42.0	23.0	9.0	VN
B2	24.0	38.0	45.0	37.5	–	FT,2P
B2	24.0	38.0	45.0	23.5	8.5	TL,RL,STL,SL
B2	24.0	38.0	45.0	22.2	8.5	MRL
B2	24.0	38.0	45.0	38.5	17.0	TP
B2	24.0	38.0	45.0	24.5	10.5	MTL
B2	24.0	38.0	45.0	23.0	9.0	VN
B2	24.0	38.0	45.0	22.0	11.1	VT
B2	24.0	38.0	45.0	25.0	7.0	BTL
B2	24.0	38.0	45.0	22.0	11.5	BBL
E2	35.0	42.0	45.0	37.5	–	FT,3P
E2	35.0	42.0	45.0	27.0	11.5	TL,RL,STL,SL
E2	35.0	42.0	45.0	25.0	11.5	MRL
E2	35.0	42.0	45.0	38.5	17.0	TP
E2	35.0	42.0	45.0	27.0	13.0	MTL
E2	35.0	42.0	45.0	25.0	7.0	BTL
E2	35.0	42.0	45.0	22.0	11.1	VT
E2	35.0	42.0	45.0	23.0	9.0	VN
E2	35.0	42.0	45.0	22.0	11.5	BBL
B3	30.0	45.0	45.0	37.5	–	FT,3P
B3	30.0	45.0	45.0	26.50	11.5	TL,RL,STL,SL,VT,VN
B3	30.0	45.0	45.0	25.0	11.5	MRL
B3	30.0	45.0	45.0	38.5	17.0	TP
B3	30.0	45.0	45.0	27.0	13.0	MTL
B3	30.0	45.0	45.0	25.0	7.0	BTL
B3	30.0	45.0	45.0	22.0	11.5	BBL
E3	35.0	46.0	54.0	48.5	–	3P
E3	35.0	46.0	54.0	26.50	11.5	TL,RL,STL,SL
E3	35.0	46.0	54.0	25.00	11.5	MRL
E3	35.0	46.0	54.0	27.0	13.0	MTL
E3	35.0	46.0	54.0	68.5	–	AD
E3	35.0	46.0	54.0	55.0	28.0	CL
E3	35.0	46.0	54.0	37.0	19.0	BTL
E3	35.0	46.0	54.0	22.0	11.1	VT
E3	35.0	46.0	54.0	23.0	9.0	VN
E3	35.0	46.0	54.0	22.0	11.5	BBL
C2	43.0	50.0	54.0	37.0	19.0	BTL
C2	43.0	50.0	54.0	48.5	–	4P

* Refer to “Capacitor Drawing”on page 18 to 23

KPF

Table of Case Codes and Dimensions

Case Code	Dimensions in mm*			P1	P2	Terminal Styles
	B±1	H±1	L±1	P+0.5		
C2	43.0	50.0	54.0	26.50	11.5	TL,RL,STL,SL,BTL
C2	43.0	50.0	54.0	25.0	11.5	MRL
C2	43.0	50.0	54.0	27.0	13.0	MTL
C2	43.0	50.0	54.0	68.5	–	AD
C2	43.0	50.0	54.0	55.0	28.0	CL
C2	43.0	50.0	54.0	22.0	11.1	VT
C2	43.0	50.0	54.0	23.0	9.0	VN
C1	18.0	33.0	38.0	32.0	–	CT
C1	18.0	33.0	38.0	18.0	–	AB
C1	18.0	33.0	38.0	31.0	–	CR

* Refer to “Capacitor Drawing”on page 18 to 23

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
4. MAX ESR = Typical ESR +30%

IGBT SNUBBER CAPACITORS - DIRECT MOUNTING

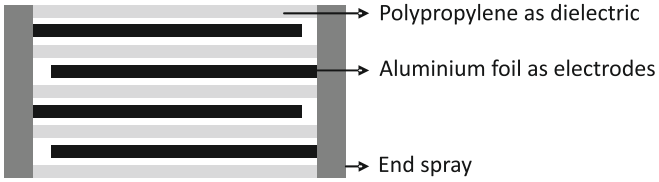
KP-3C

Highlights

- High DV/DT
- Low ESR
- Low loss polypropylene dielectric
- Impregnated elements eliminate corona
- Flame retardant UL94 - V0, ROHS compliant

Contruction

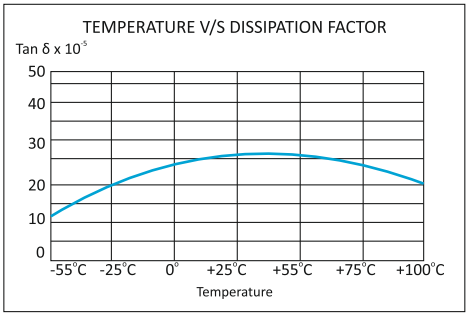
Extended foil electrodes and polypropylene film dielectric impregnated

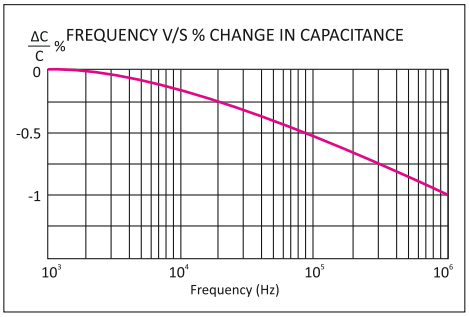


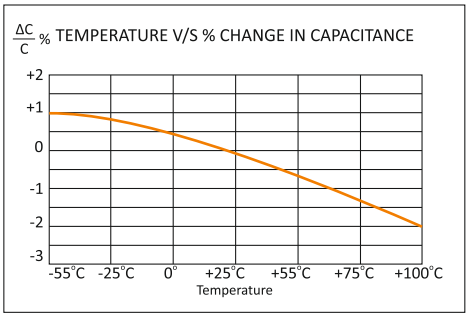
Applications

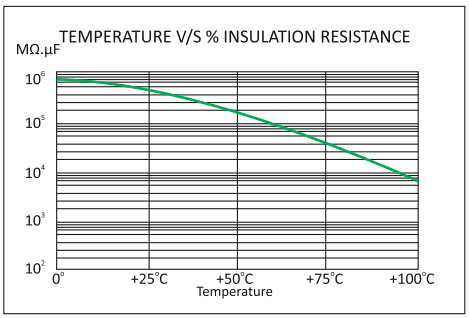
These capacitors are used in high voltage, high current and high pulse applications such as:

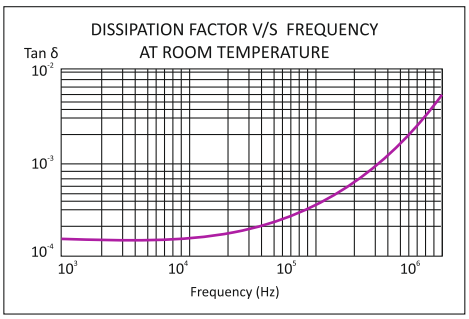
- IGBT protection circuits
- Snubber networks
- Low frequency tuning circuits











KP-3C

Technical Specifications

Physical Characteristics

▪ Dielectric material	Polypropylene film.
▪ Electrode material	Aluminium foil
▪ Winding construction	Extended foil electrodes and polypropylene film dielectric impregnated
▪ Enclosure	Preformed UL 94 V-0 plastic case with thermosetting resin-fill

Electrical Characteristics

▪ Capacitance range	0.1 MFD to 3.0 MFD
▪ Capacity tolerance	±5%(J), ±10%(K)
▪ Rated voltage VDC	1000, 1250, 1500, 2000
▪ Rated voltage VAC	480, 550, 630, 750
▪ Test voltage between terminals	2.5x rated voltage VDC for 10 seconds
▪ Test voltage terminal to case	3KVAC at 50Hz for 60 seconds
▪ Dissipation factor (Tan d)	≤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 ≥100,000MΩ C > 0.33 MFD ≥30,000MΩ

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

KP-3C

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	Ordering Code*
0.100	K2	900	90.00	5.60	11.20	SI00U101000AG0K2_ _ _ _K01
0.150	K2	900	135.00	5.70	10.80	SI00U151000AG0K2_ _ _ _K01
0.220	K3	900	198.00	6.80	10.40	SI00U221000AG0K3_ _ _ _K01
0.220	B1,C1	900	198.00	18.20	4.20	SI00U221000AG_ _ _ _ _ _ _K01
0.270	B1,C1	900	243.00	18.70	4.00	SI00U271000AG_ _ _ _ _ _ _K01
0.330	B1,C1	900	297.00	19.70	3.70	SI00U331000AG_ _ _ _ _ _ _K01
0.390	B1	900	351.00	20.60	3.70	SI00U391000AG0B1_ _ _ _K01
0.390	C1	900	351.00	20.60	3.50	SI00U391000AG0C1_ _ _ _K01
0.470	B5	900	423.00	21.10	3.50	SI00U471000AG0B5_ _ _ _K01
0.560	B5	800	392.00	21.30	3.50	SI00U561000AG0B5_ _ _ _K01
0.680	B5	800	476.00	21.30	3.20	SI00U681000AG0B5_ _ _ _K01
0.750	B5,B2	800	525.00	25.60	3.00	SI00U751000AG_ _ _ _ _ _ _K01
0.820	B5	800	574.00	26.00	3.00	SI00U821000AG0B5_ _ _ _K01
1.000	B5	900	900.00	26.00	3.00	SI000011000AG0B5_ _ _ _K01
1.000	B3	800	900.00	26.00	3.00	SI000011000AG0B3_ _ _ _K01
1.200	B3	800	960.00	26.00	2.50	SI001U21000AG0B3_ _ _ _K01
1.500	B3	800	1200.00	26.00	2.50	SI01U501000AG0B3_ _ _ _K01
1.750	B4	500	875.00	28.00	2.50	SI01U751000AG0B4_ _ _ _K01
2.000	B4	500	1000.00	28.20	2.50	SI000021000AG0B4_ _ _ _K01
2.200	C2	400	880.00	28.50	2.40	SI002U21000AG0C2_ _ _ _K01
2.500	C2	400	1000.00	29.00	2.20	SI002U51000AG0C2_ _ _ _K01
3.000	C2	400	1200.00	30.00	2.00	SI000031000AG0C2_ _ _ _K01

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	Ordering Code*
0.100	K2	1000	100.00	5.60	11.20	SI00U101250AG0K2_ _ _ _K01
0.150	K2	1000	150.00	5.70	10.80	SI00U151250AG0K2_ _ _ _K01
0.220	K3	1000	220.00	6.80	10.40	SI00U221250AG0K3_ _ _ _K01
0.220	B1,C1	1000	220.00	18.20	4.20	SI00U221250AG_ _ _ _ _ _ _K01
0.270	B1,C1	1000	270.00	18.70	4.00	SI00U271250AG_ _ _ _ _ _ _K01
0.330	B1,C1	1000	330.00	19.70	3.70	SI00U331250AG_ _ _ _ _ _ _K01
0.390	B1,C1	1000	390.00	20.60	3.70	SI00U391250AG_ _ _ _ _ _ _K01
0.470	B5	1000	470.00	21.10	3.50	SI00U471250AG0B5_ _ _ _K01
0.560	B5	1000	560.00	21.30	3.50	SI00U561250AG0B5_ _ _ _K01
0.680	B5	900	612.00	21.30	3.20	SI00U681250AG0B5_ _ _ _K01
0.750	B5,B2	900	675.00	25.60	3.00	SI00U751250AG_ _ _ _ _ _ _K01
0.820	B5	900	738.00	26.00	3.00	SI00U821250AG0B5_ _ _ _K01
1.000	B5	900	900.00	26.00	3.00	SI000011250AG0B5_ _ _ _K01
1.000	B3	1000	1000.00	26.00	3.00	SI000011250AG0B3_ _ _ _K01

Custom-designed capacitors are available on request
Refer to “Capacitor Drawing”on page 30 to 33

KP-3C

Standard Capacitor Values

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	Ordering Code*
1.200	B3	900	1080.00	26.00	2.50	SI001U21250AG0B3_ _ _ _K01
1.500	B3	900	1350.00	26.00	2.50	SI01U501250AG0B3_ _ _ _K01
1.750	B4	600	1050.00	28.00	2.50	SI01U751250AG0B4_ _ _ _K01
2.000	B4	600	1100.00	28.20	2.50	SI000021250AG0B4_ _ _ _K01
2.200	C2	500	880.00	28.50	2.40	SI002U21250AG0C2_ _ _ _K01
2.500	C2	500	1250.00	29.00	2.20	SI002U51250AG0C2_ _ _ _K01
3.000	C2	500	1500.00	30.00	2.00	SI000031250AG0C2_ _ _ _K01

Working Voltage 1500 VDC (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	Ordering Code*
0.100	K2	1100	110.00	5.60	11.20	SI00U101500AG0K2_ _ _ _K01
0.150	K2	1100	165.00	5.70	10.80	SI01U501500AG0K2_ _ _ _K01
0.220	K4	1100	242.00	6.80	10.40	SI00U221500AG0K4_ _ _ _K01
0.220	B1,C1	1100	242.00	18.20	4.20	SI00U221500AG0_ _ _ _ _ _K01
0.270	B1,C1	1100	297.00	18.70	4.00	SI00U271500AG_ _ _ _ _ _ _K01
0.330	B1,C1	1100	363.00	19.70	3.70	SI00U331500AG_ _ _ _ _ _ _K01
0.390	B1	1100	429.00	20.60	3.70	SI00U391500AG0B1_ _ _ _K01
0.390	C1	1100	429.00	20.60	3.50	SI00U391500AG0C1_ _ _ _K01
0.470	B5	1100	517.00	21.10	3.50	SI00U471500AG0B5_ _ _ _K01
0.560	B5	1000	560.00	21.30	3.50	SI00U561500AG0B5_ _ _ _K01
0.680	B5	1000	680.00	21.30	3.20	SI00U681500AG0B5_ _ _ _K01
0.750	B5,B2	1000	750.00	25.60	3.00	SI00U751500AG_ _ _ _ _ _ _K01
0.820	B5	1000	820.00	26.00	3.00	SI00U821500AG0B5_ _ _ _K01
1.000	B3	1000	1000.00	26.00	3.00	SI000011500AG0B3_ _ _ _K01
1.200	B3	1000	1200.00	26.00	2.50	SI001U21500AG0B3_ _ _ _K01
1.500	B3	1000	1500.00	26.00	2.50	SI001U51500AG0B3_ _ _ _K01
1.750	B4	700	1225.00	28.00	2.50	SI01U751500AG0B4_ _ _ _K01
2.000	B4	700	1400.00	28.20	2.50	SI000021500AG0B4_ _ _ _K01
2.200	C2	600	1320.00	28.50	2.40	SI002U21500AG0C2_ _ _ _K01
2.500	C2	600	1500.00	29.00	2.20	SI002U51500AG0C2_ _ _ _K01
3.000	C2	600	1800.00	30.00	2.00	SI000031500AG0C2_ _ _ _K01

Working Voltage 2000 VDC (750 VAC)

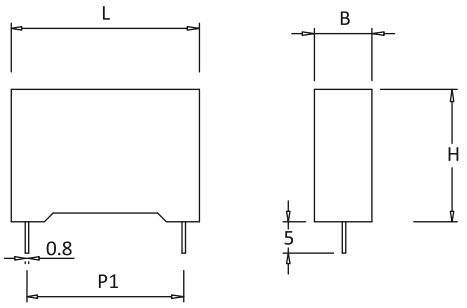
Rated Capacitance MFD	Case Code	DV/DT V/µ Sec	I Peak Amps	Irms Max at 100KHz & 55°C Amps	ESR Max at100KHz mΩ	Ordering Code*
0.100	B1	1300	130.00	13.20	8.40	SI00U102000AG0B1_ _ _ _K01
0.150	B5	1200	180.00	15.11	7.00	SI01U502000AG0B5_ _ _ _K01
0.220	B5	1200	264.00	19.80	4.50	SI00U222000AG0B5_ _ _ _K01
0.270	B5	1200	324.00	21.70	4.30	SI00U272000AG0B5_ _ _ _K01
0.330	B3	1200	396.00	22.20	4.10	SI00U332000AG0B3_ _ _ _K01
0.390	B3	1200	468.00	22.50	4.00	SI00U392000AG0B3_ _ _ _K01
0.470	B3	1200	564.00	22.50	4.00	SI00U472000AG0B3_ _ _ _K01
0.560	B4	1000	560.00	22.70	3.80	SI00U562000AG0B4_ _ _ _K01
0.680	B4	1000	680.00	22.80	3.70	SI00U682000AG0B4_ _ _ _K01
0.750	C2	800	600.00	23.20	3.40	SI00U752000AG0C2_ _ _ _K01
0.820	C2	800	656.00	23.20	3.30	SI00U822000AG0C2_ _ _ _K01
1.000	C2	800	800.00	23.30	3.20	SI000012000AG0C2_ _ _ _K01

Custom-designed capacitors are available on request

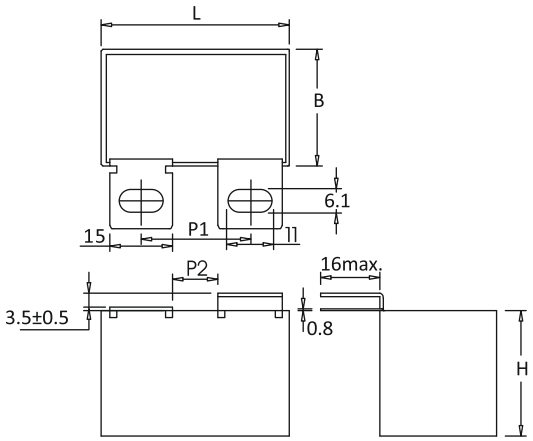
Refer to “Capacitor Drawing”on page 30 to 33

KP-3C

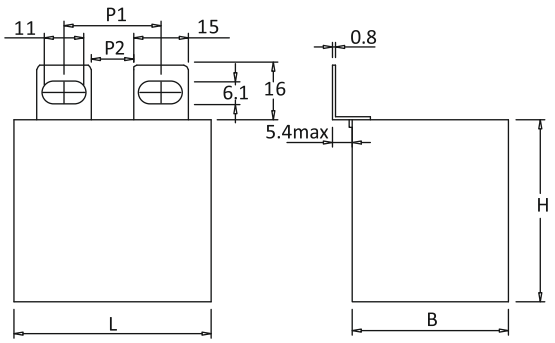
Capacitor Drawings and Terminal Styles



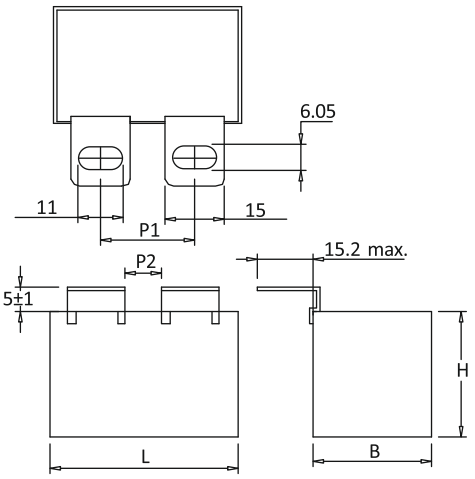
Terminal style : DL
Case code : K2,K3,K4



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



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



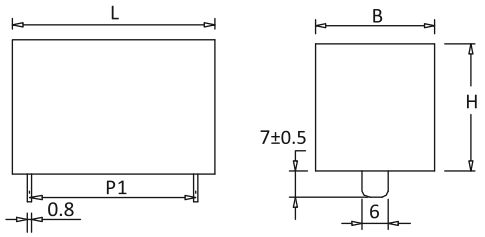
Terminal style : RL
Case code : B1,B2,B3,B4,B5,C2

Dimensions in mm

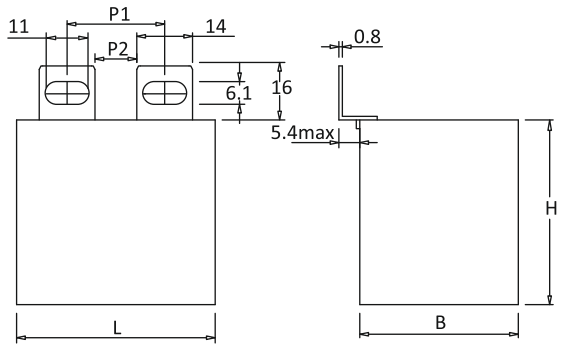
For details see Case Code table on page 34

KP-3C

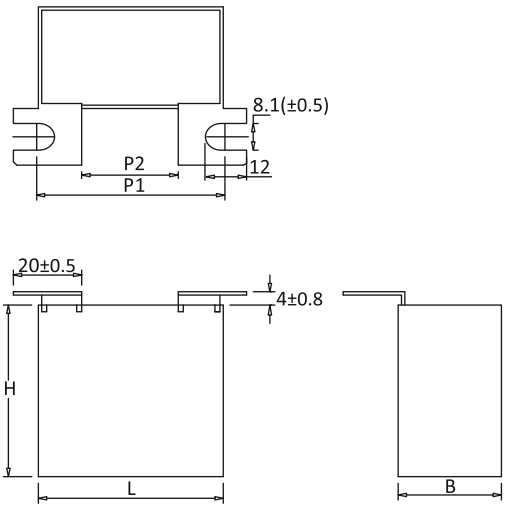
Capacitor Drawings and Terminal Styles



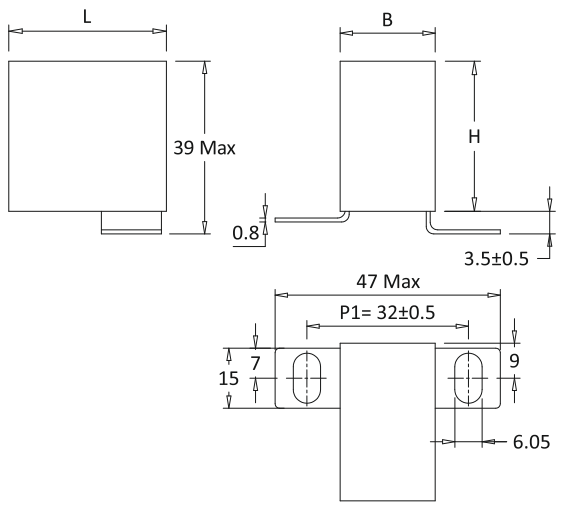
Terminal style : FT
Case code : B1,B2, B3, B5



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



Terminal style : CL
Case code : B4,C2



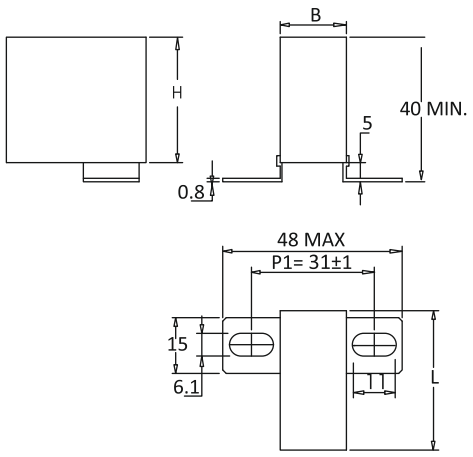
Terminal style :CT
Case code : C1

Dimensions in mm

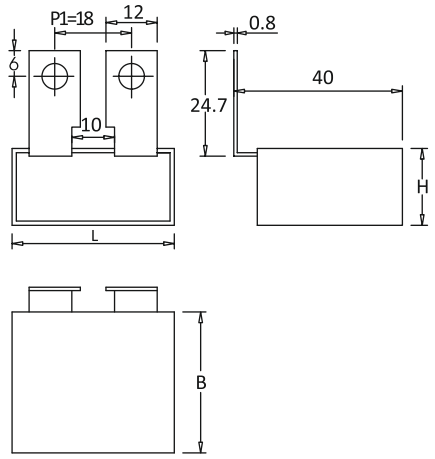
For details see Case Code table on page 34

KP-3C

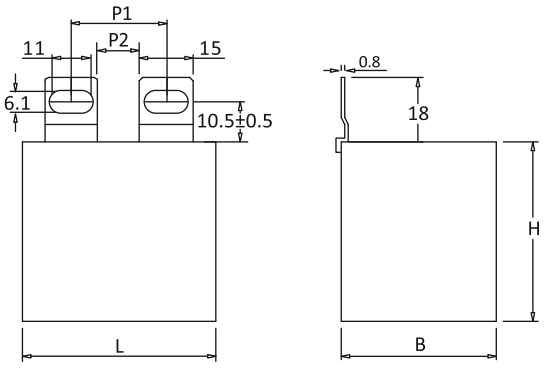
Capacitor Drawings and Terminal Styles



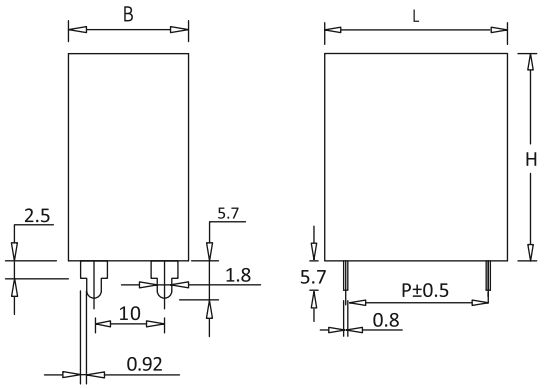
Terminal style : CR
Case code : C1



Terminal style :AB
Case code : C1



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



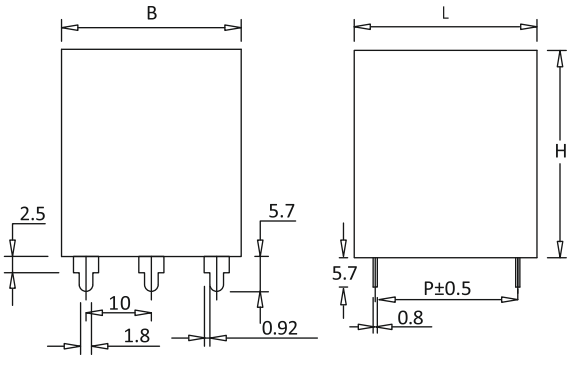
Terminal style : 2P
Case code : B1,B3,B5

Dimensions in mm

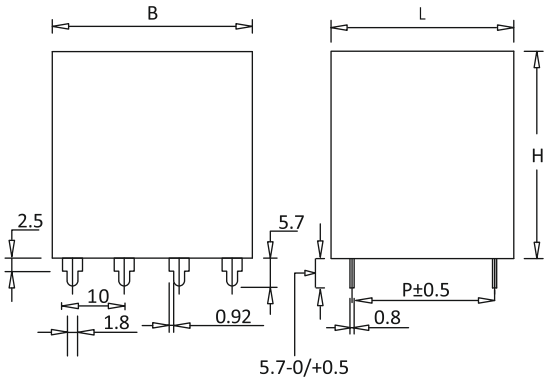
For details see Case Code table on page 34

KP-3C

Capacitor Drawings and Terminal Styles



Terminal style : 3P
Case code : B4



Terminal style : 4P
Case code : C2

Dimensions in mm
For details see Case Code table on page 34

KP-3C

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	23.5	8.5	TL,RL,STL,SL
B1	17	29	41.5	24.5	10.5	MTL
B2	24	38	45.0	23.5	8.5	TL,RL,STL,SL
B2	24	38	45.0	24.5	10.5	MTL
B3	30	45	45.0	39.0	-	FT,2P
B3	30	45	45.0	27.0	13.0	MTL
B3	30	45	45.0	26.5	11.5	TL,RL,STL,SL
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	13.0	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	26.5	11.5	TL,RL,STL,SL
C2	43	50	54.0	27.0	13.0	MTL
C2	43	50	54.0	55.0	28.0	CL
C2	43	50	54.0	48.5	–	4P

* Refer to “Capacitor Drawings” on page 30 to 33

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

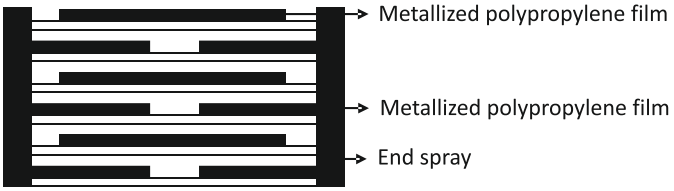
MKRS

Highlights

- Self-healing property
- High DV / DT
- Low ESR
- Low loss polypropylene dielectric
- Reference standard-IEC 61071
- Flame retardant UL94 - V0, ROHS compliant

Construction

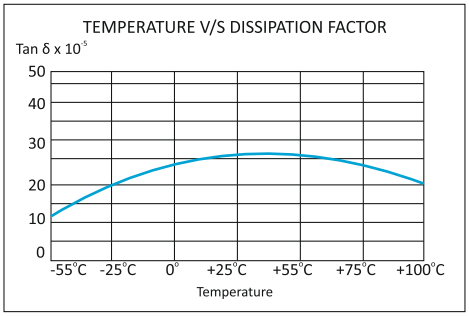
Extended double Metallized polyester electrodes with Metallized polypropylene dielectric internal series connection

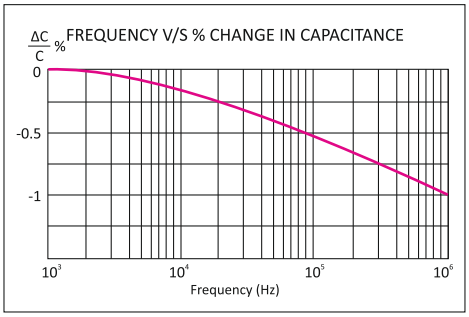


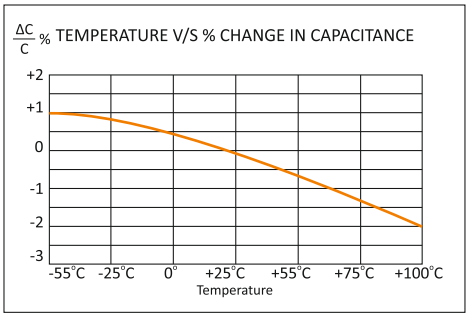
Applications

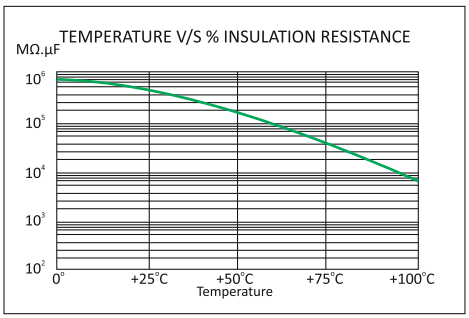
These capacitors are used in high voltage, high current and high pulse applications such as:

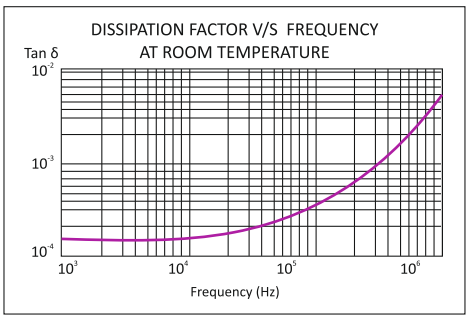
- IGBT protection circuits
- Snubber networks
- Energy conversion and control in power electronics
- Protection circuits in SMPS











MKRS

Technical Specifications

Physical Characteristics

▪ Dielectric material	Polypropylene film.
▪ Electrode material	Metallized polypropylene film.
▪ Winding construction	Metallized polypropylene dielectric internal series connection
▪ Enclosure	Preformed UL 94 V-0 plastic case with thermosetting resin-fill

Electrical Characteristics

▪ Capacitance range	0.1 MFD to 2.0 MFD
▪ Capacity tolerance	±5%(J), ±10%(K)
▪ Rated voltage VDC	600, 700, 1000, 1200, 1500, 2000, 2500
▪ Test voltage between terminals	1.5 x rated voltage VDC for 2 seconds
▪ Test voltage terminal to case	3KVAC at 50Hz for 60 seconds
▪ Dissipation factor (Tan d)	$\leq$0.0005 at 1 KHz and 25°C
▪ Temperature range	-40°C to +105°C
▪ Insulation resistance at 25°C & at a test voltage of 500 VDC applied for 1 minute	C $\leq$ 0.33 MFD $\geq$100,000MΩ C > 0.33 MFD $\geq$30,000MΩ

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 MKRS
- The capacitance value MFD
- The rated voltage VDC
- Capacity tolerance and manufacturing code
- Part number on non-standard capacitors

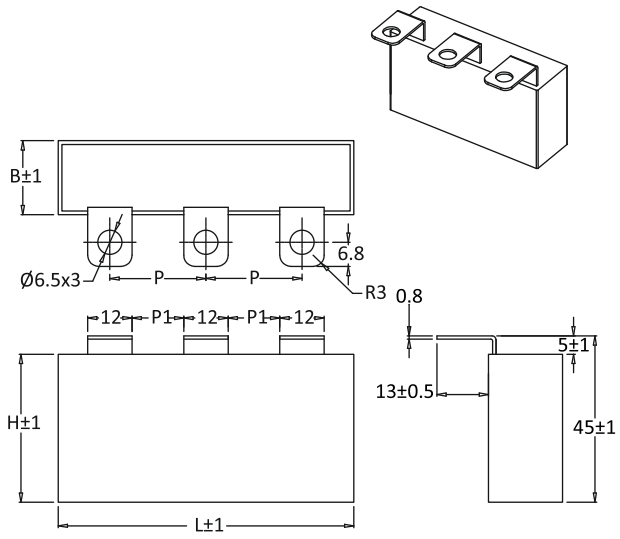
MKRS

Standard Capacitor Values

Rated Capacitance MFD	Rated DC Voltage	Rated AC Voltage	Case Code	Case Size			DV/DT V/µ Sec	I Peak Amps	Irms Max at 100KHz & 70°C Amps	Typical ESR at100KHz mΩ	Ordering Code*
				B	H	L					
0.1 +0.1	2500	700	H11	20	40	80	828	83	14	10.0	SI00U202500MKH11_ _ _ _ _01
0.15+0.15	2500	700	H11	20	40	80	828	124	15	7.2	SI00U302500MKH11_ _ _ _ _01
0.22 + 0.22	2000	600	H11	20	40	80	828	182	16	5.1	SI00U442000MKH11_ _ _ _ _01
0.33 + 0.33	2000	600	H11	20	40	80	828	273	17	4.1	SI00U662000MKH11_ _ _ _ _01
0.47+0.47	1500	500	H11	20	40	80	828	389	18	3.7	SI00U941500MKH11_ _ _ _ _01
0.68 + 0.68	1200	400	H11	20	40	80	828	563	19	3.3	SI01U361200MKH11_ _ _ _ _01
0.82 + 0.82	1200	400	H11	20	40	80	828	679	19	3.1	SI01U641200MKH11_ _ _ _ _01
1.0 + 1.0	1000	350	H11	20	40	80	828	828	20	3.0	SI000021000MKH11_ _ _ _ _01
1.2 + 1.2	1000	350	H11	20	40	80	828	994	20	2.8	SI02U401000MKH11_ _ _ _ _01
1.5 +1.5	700	250	H11	20	40	80	828	1242	21	2.7	SI000030700MKH11_ _ _ _ _01
1.75 + 1.75	700	250	H11	20	40	80	828	1449	22	2.5	SI03U500700MKH11_ _ _ _ _01
2.0 + 2.0	600	200	H11	20	40	80	828	1656	24	2.4	SI000040600MKH11_ _ _ _ _01

Capacitor Drawings and Terminal Styles

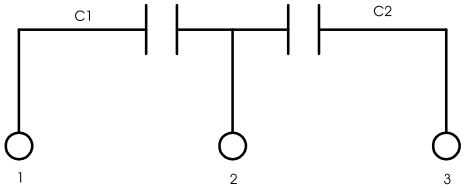
Style 3PLA



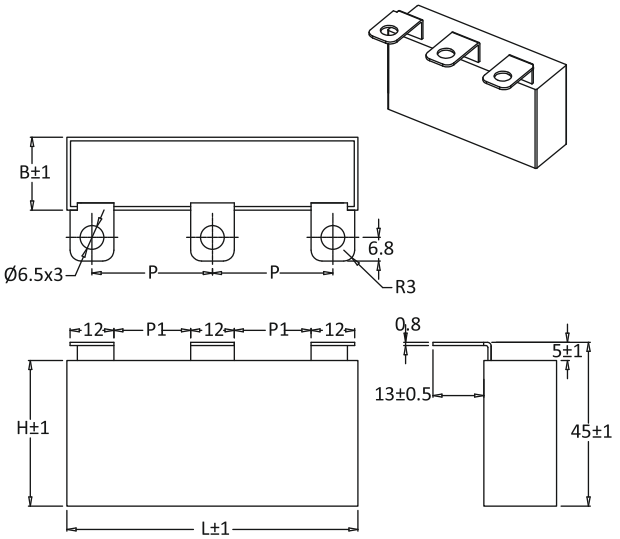
Dimension in mm.

P- 26.0 mm
P1- 14.0 mm

Circuit Symbol



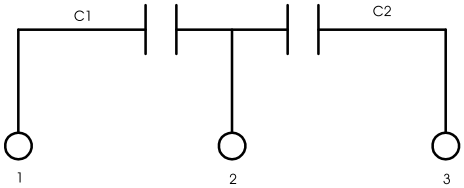
Style 3PLB



Dimension in mm.

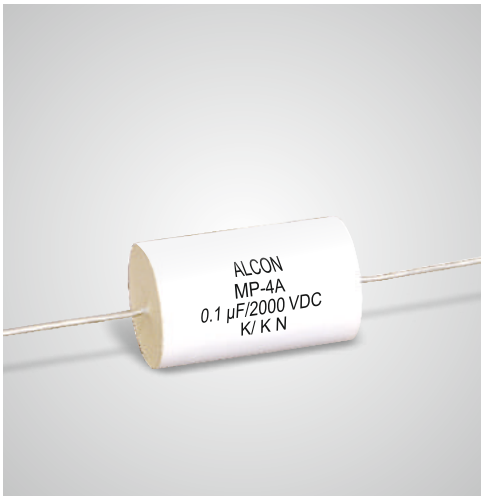
P- 33.0 mm
P1- 21.0 mm

Circuit Symbol



SNUBBER CAPACITOR WITH AXIAL LEADS

MP-4A

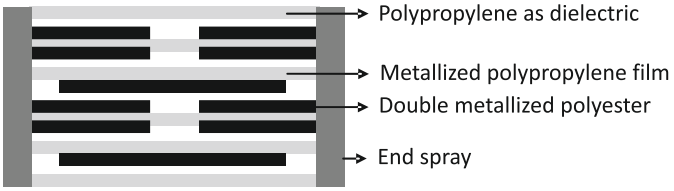


Highlights

- Low loss polypropylene dielectric
- High frequency & high voltage capability
- High peak current
- High DV/DT
- Low ESR
- Reference standard-IEC 61071
- Flame retardant UL94 - V0, ROHS compliant

Construction

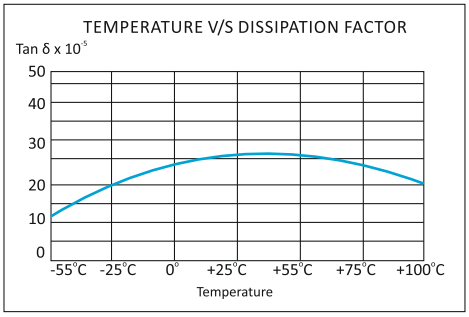
Extended double Metallized polyester electrodes with Metallized polypropylene dielectric internal series connection

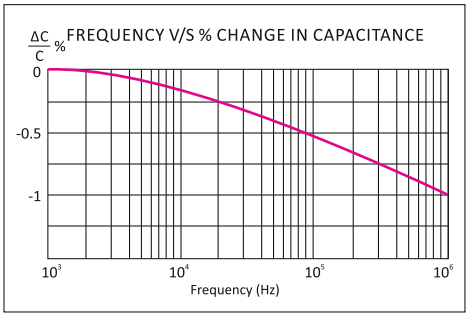


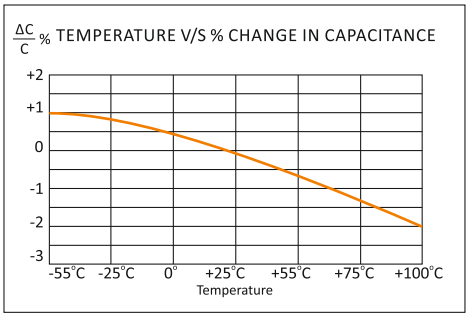
Applications

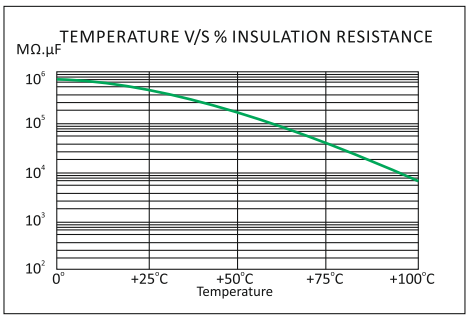
These capacitors are used in high voltage, high current and medium to high pulse applications such as:

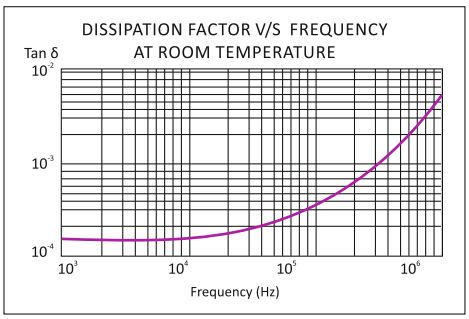
- Snubber circuits
- Speed control
- SMPS











MP-4A

Technical Specifications

Physical Characteristics

▪ Dielectric material	Polypropylene film
▪ Electrode material	Double metallized polyester and metallized polypropylene film
▪ Winding construction	Extended double metallized polyester electrodes with metallized polypropylene dielectric internal series connection
▪ Terminal	Tinned copper
▪ Enclosure	UL94-V0 Tape wrap with thermosetting resin end fill

Electrical Characteristics

▪ Capacitance range	0.015µF to 5µF
▪ Capacity tolerance	±5%(J),±10%(K)
▪ Rated voltage VDC	600, 850, 1000, 1200, 1600, 2000, 2500, 3000
▪ Rated voltage VAC	275, 450, 500, 500, 630, 630, 700, 750,
▪ Test voltage between terminals	1.6 x rated VDC for 10 secs.
▪ Test voltage terminal to case	3 KV AC
▪ Dissipation factor	< 0.0005 at 1 Khz and + 25°C
▪ Insulation resistance	>100,000 x µF at 100 VDC after 2 min
▪ Temperature range	-55°C to +105°C Upto + 85°C full rated voltage can be applied. However, at +105°C only half the rated voltage can be applied.

Marking on Capacitors

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

- The Company name in words ALCON
- The capacitor grade viz MP-4A
- The capacitance value MFD
- The rated voltage VDC
- Capacity tolerance and manufacturing date code
- Design reference number on non-standard capacitors

MP-4A

Standard Capacitor Values

Working Voltage 600 VDC (275 VAC)

Rated Capacitance MFD	Dimensions in mm *				Case Code	DV/DT V/µ Sec	I peak Amps	Irms Max at 70°C Amps	Typical ESR at 100Khz mΩ	Ordering Code
	Tmax	Wmax	Lmax	d						
0.330	10.0	16.0	34.0	1.0	P1	200	66.00	6.00	9.00	SI00U330600AK0P10AXLK01
0.470	12.0	18.0	34.0	1.0	P2	200	94.00	7.50	7.00	SI00U470600AK0P20AXLK01
0.680	14.5	20.5	34.0	1.0	BF	200	136.00	9.00	6.00	SI00U680600AK0BF0AXLK01
1.000	17.5	23.5	34.0	1.0	BG	200	200.00	10.00	6.00	SI000010600AK0BG0AXLK01
1.500	21.5	27.5	34.0	1.2	BH	200	300.00	12.00	5.00	SI01U500600AK0BH0AXLK01
2.000	18.0	27.5	46.0	1.2	BI	125	250.00	13.00	5.00	SI000020600AK0BI0AXLK01
3.300	22.5	31.5	54.0	1.2	BJ	100	330.00	17.00	4.00	SI03U300600AK0BJ0AXLK01
4.700	28.0	33.0	54.0	1.2	BK	100	470.00	18.50	4.00	SI04U700600AK0BK0AXLK01
5.000	30.0	34.0	54.0	1.2	BL	100	500.00	19.50	3.50	SI000050600AK0BL0AXLK01

Working voltage 850 VDC (450 VAC)

Rated Capacitance MFD	Dimensions in mm *				Case Code	DV/DT V/µ Sec	I peak Amps	Irms Max at 70°C Amps	Typical ESR at 100Khz mΩ	Ordering Code
	Tmax	Wmax	Lmax	d						
0.150	9.5	16.0	34.0	1.0	PB	700	105.00	6.40	8.00	SI00U150850AK0PB0AXLK01
0.220	11.5	18.0	34.0	1.0	BM	700	154.00	7.00	8.00	SI00U220850AK0BM0AXLK01
0.330	14.5	20.5	34.0	1.0	BF	700	231.00	8.30	7.00	SI00U330850AK0BF0AXLK01
0.470	17.0	23.5	34.0	1.0	BO	700	329.00	10.80	5.00	SI00U470850AK0BO0AXLK01
0.680	21.0	27.0	34.0	1.2	BP	700	476.00	13.30	4.00	SI00U680850AK0BP0AXLK01
1.000	17.5	27.0	46.0	1.2	BQ	400	400.00	12.70	5.00	SI000010850AK0BQ0AXLK01
1.500	21.5	31.0	46.0	1.2	BR	400	600.00	15.80	4.00	SI01U500850AK0BR0AXLK01
2.000	25.0	34.5	46.0	1.2	BS	400	800.00	19.80	4.00	SI000020850AK0BS0AXLK01
2.200	26.5	36.0	46.0	1.2	BT	400	880.00	20.40	3.00	SI02U200850AK0BT0AXLK01
2.500	28.5	38.0	46.0	1.2	BU	400	1000.00	21.20	3.00	SI02U500850AK0BU0AXLK01

Working Voltage 1000 VDC (500 VAC)

Rated Capacitance MFD	Dimensions in mm *				Case Code	DV/DT V/µ Sec	I peak Amps	Irms Max at 70°C Amps	Typical ESR at 100Khz mΩ	Ordering Code
	Tmax	Wmax	Lmax	d						
0.150	11.5	17.5	34.0	1.0	BV	850	127.00	7.40	9.20	SI00U151000AK0BV0AXLK01
0.220	13.5	20.0	34.0	1.0	BW	850	187.00	8.20	7.00	SI00U221000AK0BW0AXLK01
0.330	16.5	23.0	34.0	1.0	BX	850	280.00	9.60	6.00	SI00U331000AK0BX0AXLK01
0.470	20.0	26.5	34.0	1.2	BY	850	399.00	11.60	5.00	SI00U471000AK0BY0AXLK01
0.680	24.0	30.5	34.0	1.2	BZ	850	578.00	13.10	5.00	SI00U681000AK0BZ0AXLK01
1.000	20.5	30.0	46.0	1.2	CA	480	480.00	13.70	5.00	SI000011000AK0CA0AXLK01
1.500	25.5	34.5	46.0	1.2	CB	480	720.00	17.40	4.00	SI01U501000AK0CB0AXLK01
2.000	30.0	40.0	46.0	1.2	CC	480	960.00	21.60	3.00	SI000021000AK0CC0AXLK01

Custom-designed capacitors are available on request

* Refer to “Capacitor Drawing”on page 43

MP-4A

Standard Capacitor Values

Working voltage 1200 VDC (500 VAC)

Rated Capacitance MFD	Dimensions in mm *				Case Code	DV/DT V/µ Sec	I peak Amps	Irms Max at 70°C Amps	Typical ESR at 100Khz mΩ	Ordering Code
	Tmax	Wmax	Lmax	d						
0.100	11.5	18.0	34.0	1.0	BM	1150	115.00	6.70	11.00	SI00U101200AK0BM0AXLK01
0.150	14.5	20.5	34.0	1.0	BF	1150	172.00	8.30	7.00	SI00U151200AK0BF0AXLK01
0.220	17.5	23.5	34.0	1.0	BG	1150	253.00	9.20	7.00	SI00U221200AK0BG0AXLK01
0.330	14.5	24.0	46.0	1.0	CD	650	214.00	10.10	7.00	SI00U331200AK0CD0AXLK01
0.470	17.5	27.0	46.0	1.2	BQ	650	305.00	10.80	7.00	SI00U471200AK0BQ0AXLK01
0.680	21.5	31.0	46.0	1.2	BR	650	442.00	13.20	6.00	SI00U681200AK0BR0AXLK01
1.000	26.5	36.0	46.0	1.2	BT	650	650.00	15.80	5.00	SI000011200AK0BT0AXLK01
1.500	27.5	40.0	54.0	1.2	CE	500	750.00	19.60	4.00	SI01U501200AK0CE0AXLK01

Working Voltage 1600 VDC (630 VAC)

Rated Capacitance MFD	Dimensions in mm *				Case Code	DV/DT V/µ Sec	I peak Amps	Irms Max at 70°C Amps	Typical ESR at 100Khz mΩ	Ordering Code
	Tmax	Wmax	Lmax	d						
0.100	14.5	20.5	34.0	1.0	BF	1400	140.00	8.40	7.00	SI00U101600AK0BF0AXLK01
0.150	17.5	24.0	34.0	1.0	CF	1400	210.00	11.20	5.00	SI00U151600AK0CF0AXLK01
0.220	21.5	28.0	34.0	1.2	CG	1400	308.00	10.20	7.00	SI00U221600AK0CG0AXLK01
0.330	18.0	27.5	46.0	1.2	BI	800	264.00	11.10	7.00	SI00U331600AK0BI0AXLK01
0.470	22.0	31.5	46.0	1.2	CH	800	376.00	13.20	6.00	SI00U471600AK0CH0AXLK01
0.680	27.0	36.0	46.0	1.2	CI	800	544.00	14.40	6.00	SI00U681600AK0CI0AXLK01
1.000	33.0	43.2	46.0	1.2	CJ	800	800.00	17.80	5.00	SI000011600AK0CJ0AXLK01
1.500	34.5	47.0	54.0	1.2	CK	600	900.00	22.30	4.00	SI01U501600AK0CK0AXLK01

Working voltage 2000 VDC (630 VAC)

Rated Capacitance MFD	Dimensions in mm *				Case Code	DV/DT V/µ Sec	I peak Amps	Irms Max at 70°C Amps	Typical ESR at 100Khz mΩ	Ordering Code
	Tmax	Wmax	Lmax	d						
0.022	8.0	14.0	34.0	1.0	PO	1700	38.00	2.80	35.00	SI0U0222000AK0PO0AXLK01
0.033	10.0	16.0	34.0	1.0	P1	1700	56.00	4.10	20.00	SI0U0332000AK0P10AXLK01
0.047	11.5	17.5	34.0	1.0	BV	1700	80.00	5.70	12.00	SI0U0472000AK0BV0AXLK01
0.068	14.0	20.2	34.0	1.0	BN	1700	115.00	7.70	8.00	SI0U0682000AK0BN0AXLK01
0.100	17.0	23.5	34.0	1.0	BO	1700	170.00	9.10	7.00	SI00U102000AK0BO0AXLK01
0.150	14.0	23.5	46.0	1.0	CL	950	142.00	9.70	7.00	SI00U152000AK0CL0AXLK01
0.220	17.5	26.5	46.0	1.0	CM	950	209.00	10.20	8.00	SI00U222000AK0CM0AXLK01
0.330	21.5	31.0	46.0	1.2	BR	950	313.00	11.20	8.00	SI00U332000AK0BR0AXLK01
0.470	26.0	35.5	46.0	1.2	CN	950	446.00	14.50	6.00	SI00U472000AK0CN0AXLK01
0.560	23.9	36.5	54.0	1.2	CO	750	420.00	13.80	7.00	SI00U562000AK0CO0AXLK01
0.680	26.6	39.2	54.0	1.2	CP	750	510.00	15.80	6.00	SI00U682000AK0CP0AXLK01
1.000	33.0	45.5	54.0	1.2	CQ	750	750.00	19.50	5.00	SI000012000AK0CQ0AXLK01

Custom-designed capacitors are available on request

* Refer to “Capacitor Drawing”on page 43

MP-4A

Standard Capacitor Values

Working Voltage 2500 VDC (700 VAC)

Rated Capacitance MFD	Dimensions in mm *				Case Code	DV/DT V/µ Sec	I peak Amps	Irms Max at 70°C Amps	Typical ESR at 100Khz mΩ	Ordering Code
	Tmax	Wmax	Lmax	d						
0.022	8.0	14.0	34.0	1.0	PO	2000	44.00	2.00	30.00	SI0U0222500AK0PO0AXLK01
0.033	10.0	16.0	34.0	1.0	P1	2000	66.00	3.50	16.00	SI0U0332500AK0P10AXLK01
0.047	11.5	17.5	34.0	1.0	BV	2000	94.00	5.00	16.00	SI0U0472500AK0BV0AXLK01
0.068	14.0	20.2	34.0	1.0	BN	2000	136.00	5.90	14.00	SI0U0682500AK0BN0AXLK01
0.100	17.0	23.5	34.0	1.0	BO	2000	200.00	6.30	12.00	SI000U12500AK0BO0AXLK01
0.150	14.0	23.5	46.0	1.0	CL	1550	232.00	7.20	10.00	SI00U152500AK0CL0AXLK01
0.220	17.5	26.5	46.0	1.0	CM	1550	341.00	8.50	9.00	SI00U222500AK0CM0AXLK01
0.330	21.5	31.0	46.0	1.2	BR	1550	511.00	10.00	7.00	SI00U332500AK0BR0AXLK01
0.470	26.0	35.5	46.0	1.2	CN	1550	728.00	11.60	6.00	SI00U472500AK0CN0AXLK01
0.680	27.0	39.5	54.0	1.2	CR	900	612.00	12.90	5.00	SI00U682500AK0CR0AXLK01
1.000	33.0	46.5	54.0	1.2	CS	900	900.00	13.90	4.00	SI000012500AK0CS0AXLK01

Working voltage 3000 VDC (750 VAC)

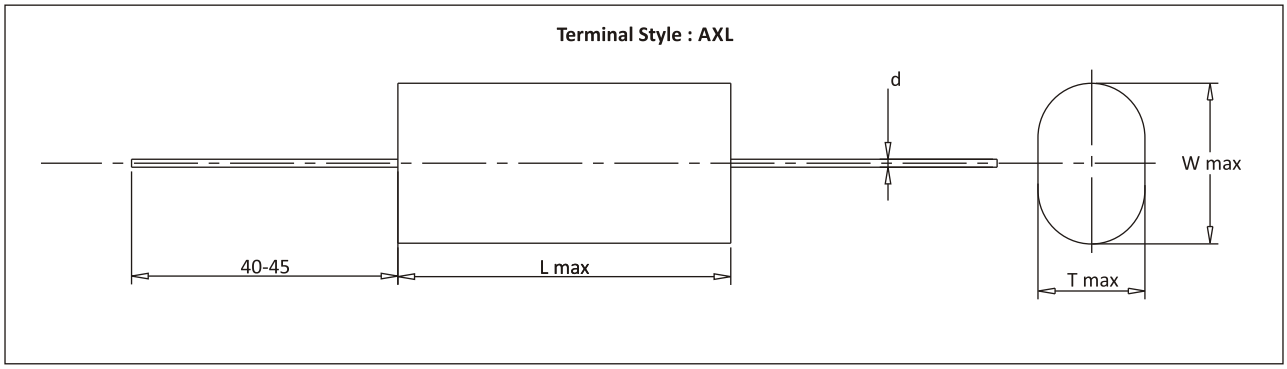
Rated Capacitance MFD	Dimensions in mm *				Case Code	DV/DT V/µ Sec	I peak Amps	Irms Max at 70°C Amps	Typical ESR at 100Khz mΩ	Ordering Code
	Tmax	Wmax	Lmax	d						
0.022	11.5	17.5	34.0	1.0	BV	2500	55.00	2.90	27.00	SI0U0223000AK0BV0AXLK01
0.033	14.0	20.5	34.0	1.0	CT	2500	82.00	4.00	14.00	SI0U0333000AK0CT0AXLK01
0.047	11.5	20.5	46.0	1.0	CU	1450	68.00	5.70	14.00	SI0U0473000AK0CU0AXLK01
0.068	14.0	24.0	46.0	1.0	CV	1450	98.00	6.30	12.00	SI0U0683000AK0CV0AXLK01
0.100	17.0	26.5	46.0	1.2	CW	1450	145.00	7.40	10.00	SI000U13000AK0CW0AXLK01
0.150	21.5	31.0	46.0	1.2	BR	1450	217.00	8.00	8.00	SI00U153000AK0BR0AXLK01
0.220	27.5	40.0	46.0	1.2	CX	1450	319.00	9.00	7.00	SI00U223000AK0CX0AXLK01
0.330	25.5	37.0	54.0	1.2	CY	1000	330.00	11.20	6.00	SI00U333000AK0CY0AXLK01
0.470	28.5	41.0	54.0	1.2	CZ	1000	470.00	12.60	5.00	SI00U473000AK0CZ0AXLK01
0.680	35.5	49.0	54.0	1.2	DA	1000	680.00	13.80	4.00	SI00U683000AK0DA0AXLK01

Custom-designed capacitors are available on request

* Refer to “Capacitor Drawing”on page 43

MP-4A

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
4. MAX ESR = Typical ESR +30%

SNUBBER CAPACITOR WITH AXIAL LEADS

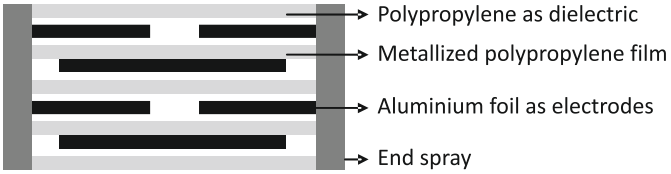
KPF-9

Highlights

- Self-healing property
- High DV / DT
- Low ESR
- Low loss polypropylene dielectric
- Reference standard-IEC 61071
- Flame retardant UL94 - V0, ROHS compliant

Construction

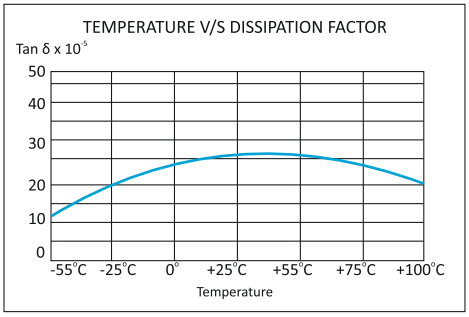
Extended foil electrodes with Metallized polypropylene dielectric internal series connection

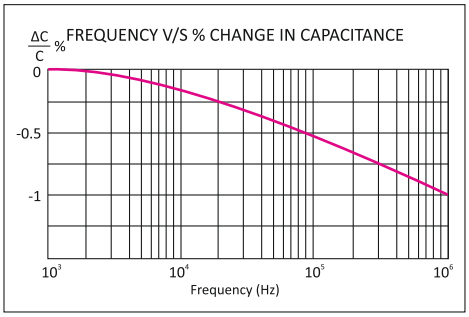


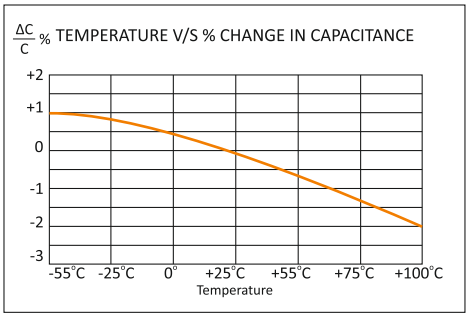
Applications

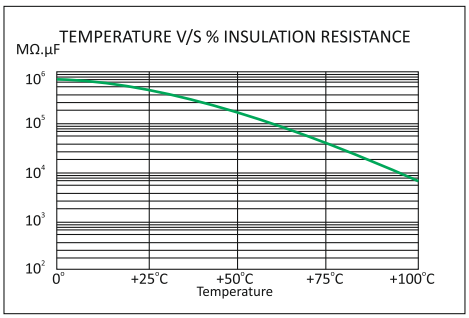
These capacitors are used in high voltage, high current and high pulse applications such as:

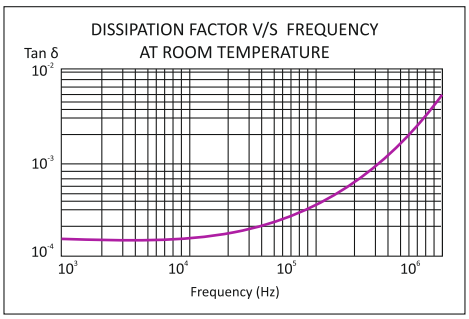
- “Turn On” and “Turn Off” snubber circuits
- Energy conversion and control in power electronics
- Protection circuits in SMPS











KPF-9

Technical Specifications

Physical Characteristics

▪ Dielectric material	Polypropylene film.
▪ Electrode material	Aluminum foil and Metallized polypropylene film
▪ Winding construction	Extended foil electrodes with Metallized polypropylene dielectric internal series connection
▪ Terminal	Tinned copper
▪ Enclosure	UL 94 V-0 polyester tape wrap with thermosetting resin end-fill

Electrical Characteristics

▪ Capacitance range	0.068 MFD 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
▪ Test voltage terminal to case	3KVAC at 50Hz for 60 seconds
▪ Dissipation factor (Tan d)	≤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 ≥100,000MΩ C > 0.33 MFD ≥30,000MΩ

Marking on Capacitors

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

- The Company name in words ALCON
- The capacitor grade viz KPF-9
- The capacitance value MFD
- The rated voltage VDC
- Capacity tolerance and manufacturing date code
- Design reference number on non-standard capacitors

KPF-9

Standard Capacitor Values

Working Voltage 850 VDC (450 VAC)

Rated Capacitance MFD	Dimensions in mm*				Case Code	DV/DT V/µ Sec	I Peak Amps	Irms Max at 100KHz & 70°C Amps	Typical ESR at 100KHz mΩ	Ordering Code
	T max	W max	L max	d						
0.150	10.0	16.0	34.0	1.0	P1	800	120.00	7.40	6.00	SI00U150850AI0P10AXLK01
0.220	12.0	18.0	34.0	1.0	P2	800	176.00	8.00	6.00	SI00U220850AI0P20AXLK01
0.330	14.0	20.0	34.0	1.0	P3	800	264.00	9.40	5.00	SI00U330850AI0P30AXLK01
0.470	17.0	25.0	34.0	1.0	P4	800	376.00	11.70	5.00	SI00U470850AI0P40AXLK01
0.680	19.0	25.0	46.0	1.2	P5	500	340.00	13.80	4.00	SI00U680850AI0P50AXLK01
1.000	22.0	33.0	46.0	1.2	P6	500	500.00	14.40	3.00	SI000010850AI0P60AXLK01
1.200	18.0	28.0	54.0	1.2	P7	400	480.00	16.70	3.00	SI01U200850AI0P70AXLK01
1.500	21.0	32.0	54.0	1.2	P8	400	600.00	20.30	2.00	SI01U500850AI0P80AXLK01

Working voltage 1000 VDC (500 VAC)

Rated Capacitance MFD	Dimensions in mm*				Case Code	DV/DT V/µ Sec	I Peak Amps	Irms Max at 100KHz & 70°C Amps	Typical ESR at 100KHz mΩ	Ordering Code
	T max	W max	L max	d						
0.220	12.0	18.0	34.0	1.0	P2	800	176.00	8.00	6.00	SI00U221000AI0P20AXLK01
0.330	14.0	23.0	34.0	1.0	P9	800	264.00	9.40	5.00	SI00U331000AI0P90AXLK01
0.470	17.0	25.0	34.0	1.0	PA	800	376.00	11.70	5.00	SI00U471000AI0PA0AXLK01
0.680	19.0	25.0	46.0	1.2	P5	500	340.00	13.80	4.00	SI00U681000AI0P50AXLK01
1.000	22.0	33.0	46.0	1.2	P6	500	500.00	14.40	3.00	SI000011000AI0P60AXLK01
1.200	18.0	28.0	54.0	1.2	P7	400	480.00	16.70	3.00	SI01U201000AI0P70AXLK01
1.500	21.0	32.0	54.0	1.2	P8	400	600.00	20.30	2.00	SI01U501000AI0P80AXLK01

Working voltage 1200 VDC (500 VAC)

Rated Capacitance MFD	Dimensions in mm*				Case Code	DV/DT V/µ Sec	I Peak Amps	Irms Max at 100KHz & 70°C Amps	Typical ESR at 100KHz mΩ	Ordering Code
	T max	W max	L max	d						
0.150	9.5	16.0	34.0	1.0	PB	1000	150.00	9.00	6.00	SI00U151200AI0P10AXLK01
0.220	12.5	19.0	34.0	1.0	PC	1000	220.00	10.20	6.00	SI00U221200AI0PC0AXLK01
0.330	13.5	20.5	46.0	1.2	PD	800	264.00	10.80	6.00	SI00U331200AI0PD0AXLK01
0.470	19.5	25.5	46.0	1.2	PE	800	376.00	11.70	5.00	SI00U471200AI0PE0AXLK01
0.680	20.5	29.0	46.0	1.2	PF	800	544.00	13.60	5.00	SI00U681200AI0PF0AXLK01
1.000	21.0	30.0	54.0	1.2	PG	700	700.00	16.20	4.00	SI000011200AI0PG0AXLK01
1.200	22.0	32.0	54.0	1.2	PH	700	840.00	16.80	3.00	SI01U201200AI0PH0AXLK01

Custom-designed capacitors are available on request

* Refer to “Capacitor Drawing”on page 48

KPF-9

Standard Capacitor Values

Working Voltage 1600 VDC (630 VAC)

Rated Capacitance MFD	Dimensions in mm*				Case Code	DV/DT V/µ Sec	I Peak Amps	Irms Max at 100KHz & 70°C Amps	Typical ESR at 100KHz mΩ	Ordering Code
	T max	W max	L max	d						
0.100	13.0	19.0	34.0	1.0	PI	1100	110.00	9.00	7.00	SI00U101600AI0PI0AXLK01
0.150	16.0	21.0	34.0	1.0	PJ	1100	165.00	10.00	7.00	SI00U151600AI0PJ0AXLK01
0.220	18.0	25.0	34.0	1.2	PK	1100	242.00	12.00	7.00	SI00U221600AI0PK0AXLK01
0.330	17.0	23.0	46.0	1.2	PL	900	297.00	12.00	6.00	SI00U331600AI0PL0AXLK01
0.470	21.5	28.5	46.0	1.2	PM	900	423.00	13.80	6.00	SI00U471600AI0PM0AXLK01
0.680	23.5	34.0	46.0	1.2	PN	900	612.00	14.50	6.00	SI00U681600AI0PN0AXLK01

Working voltage 2000 VDC (630 VAC)

Rated Capacitance MFD	Dimensions in mm*				Case Code	DV/DT V/µ Sec	I Peak Amps	Irms Max at 100KHz & 70°C Amps	Typical ESR at 100KHz mΩ	Ordering Code
	T max	W max	L max	d						
0.033	8.0	14.0	34.0	1.0	P0	1200	40.00	4.80	19.00	SI0U0332000AI0P00AXLK01
0.047	10.0	16.0	34.0	1.0	P1	1200	56.00	6.70	10.00	SI0U0472000AI0P10AXLK01
0.068	11.0	18.0	34.0	1.0	PP	1200	81.00	7.90	8.00	SI0U0682000AI0PP0AXLK01
0.100	14.0	22.0	34.0	1.0	PQ	1200	120.00	9.50	6.00	SI00U102000AI0PQ0AXLK01
0.150	14.0	23.0	46.0	1.0	PR	950	142.00	10.00	6.00	SI00U152000AI0PR0AXLK01
0.220	16.0	27.0	46.0	1.0	PS	950	209.00	11.00	6.00	SI00U222000AI0PS0AXLK01
0.330	18.0	27.0	54.0	1.2	PT	850	280.00	12.80	5.00	SI00U332000AI0PT0AXLK01
0.470	19.0	33.0	54.0	1.2	PU	850	400.00	15.00	5.00	SI00U472000AI0PU0AXLK01

Working voltage 2500 VDC (750 VAC)

Rated Capacitance MFD	Dimensions in mm*				Case Code	DV/DT V/µ Sec	I Peak Amps	Irms Max at 100KHz & 70°C Amps	Typical ESR at 100KHz mΩ	Ordering Code
	T max	W max	L max	d						
0.033	9.2	16.0	34.0	1.0	PV	1300	43.00	4.80	19.00	SI0U0332500AI0PV0AXLK01
0.047	10.0	17.0	34.0	1.0	PW	1300	61.00	6.50	13.00	SI0U0472500AI0PW0AXLK01
0.068	12.0	19.0	34.0	1.0	PX	1300	88.00	8.60	8.00	SI0U0682500AI0PX0AXLK01
0.100	15.0	21.0	34.0	1.0	PY	1300	130.00	9.80	6.00	SI00U102500AI0PY0AXLK01
0.150	15.0	24.0	46.0	1.0	PZ	1050	157.00	10.90	6.00	SI00U152500AI0PZ0AXLK01
0.220	18.0	27.0	54.0	1.2	PT	950	209.00	11.20	6.00	SI00U222500AI0PT0AXLK01
0.330	19.0	33.0	54.0	1.2	PU	950	313.00	13.50	5.00	SI00U332500AI0PU0AXLK01

Custom-designed capacitors are available on request

* Refer to “Capacitor Drawing”on page 48

KPF-9

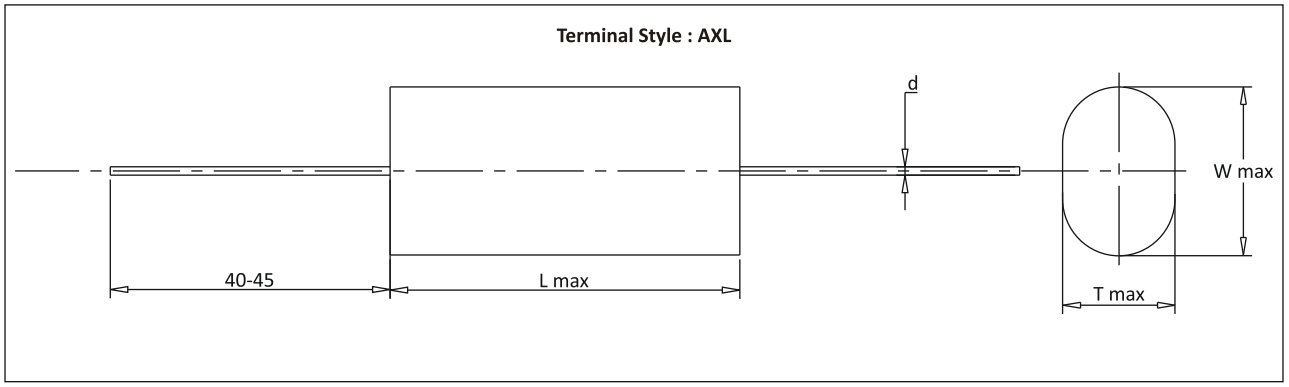
Standard Capacitor Values

Working Voltage 3000 VDC (750 VAC)

Rated Capacitance MFD	Dimensions in mm*				Case Code	DV/DT V/µ Sec	I Peak Amps	Irms Max at 100KHz & 70°C Amps	Typical ESR at 100KHz mΩ	Ordering Code
	T max	W max	L max	d						
0.015	8.5	15.5	34.0	1.0	BA	1500	22.00	3.00	35.00	SI0U0153000AI0BA0AXLK01
0.022	9.2	16.0	34.0	1.0	PV	1500	33.00	4.20	22.00	SI0U0223000AI0PV0AXLK01
0.033	11.0	17.0	34.0	1.0	BB	1500	49.00	6.10	15.00	SI0U0333000AI0BB0AXLK01
0.047	12.0	19.0	46.0	1.0	BC	1200	56.00	6.80	12.00	SI0U0473000AI0BC0AXLK01
0.068	14.0	21.0	46.0	1.0	BD	1200	81.00	7.90	10.00	SI0U0683000AI0BD0AXLK01
0.100	15.0	24.0	46.0	1.2	PZ	1200	120.00	9.30	8.00	SI00U103000AI0PZ0AXLK01
0.150	18.0	27.0	46.0	1.2	BE	1200	180.00	12.00	6.00	SI00U153000AI0BE0AXLK01

Custom-designed capacitors are available on request
* Refer to “Capacitor Drawing” below

Capacitor Drawing and Terminal Style



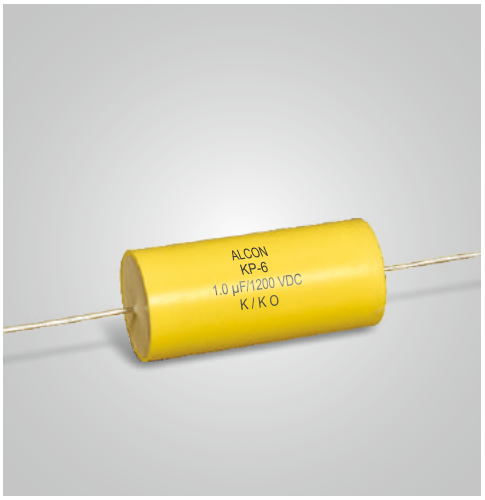
Dimensions in mm

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
4. MAX ESR = Typical ESR +30%

SNUBBER CAPACITOR WITH AXIAL LEADS

KP-6

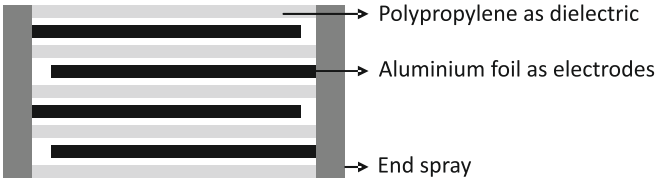


Highlights

- High DV/DT
- Low ESR
- Low loss polypropylene dielectric
- Impregnated elements eliminate corona
- Flame retardant UL94 - V0, ROHS compliant

Construction

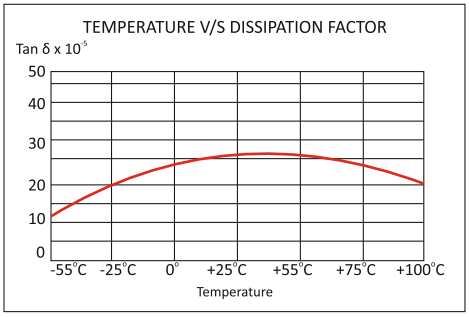
Extended foil electrodes and polypropylene film dielectric impregnated

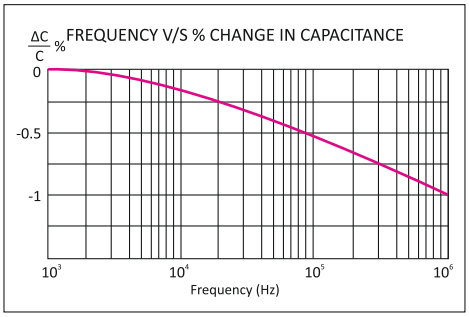


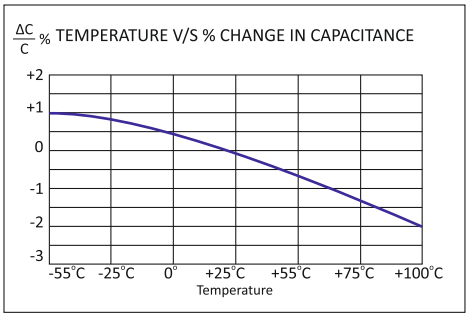
Applications

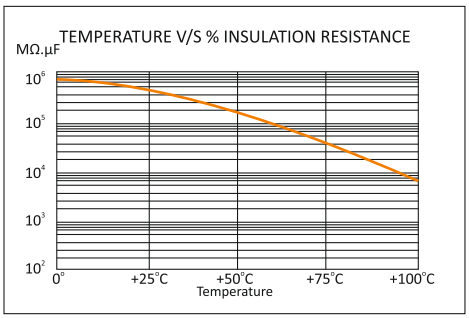
These capacitors are used in high voltage and high current applications such as:

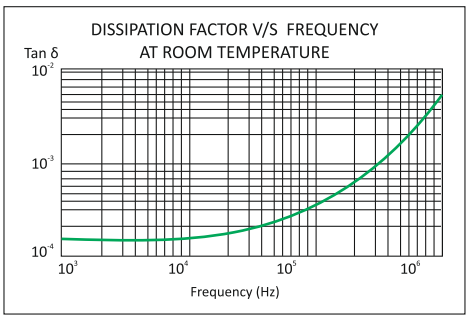
- Snubber networks
- Energy conversion and control in power electronics
- Noise suppressors in switching circuits











KP-6

Technical Specifications

Physical Characteristics

▪ Dielectric material	Polypropylene film.
▪ Electrode material	Aluminium foil
▪ Winding construction	Extended foil electrodes and polypropylene film dielectric impregnated
▪ Terminals	Tinned copper
▪ Enclosure	Preformed UL 94 V-0 plastic case with thermosetting resin-fill

Electrical Characteristics

▪ Capacitance range	0.01 MFD to 2.0 MFD
▪ Capacity tolerance	±5%(J), ±10%(K)
▪ Rated voltage VDC	850, 1200, 2000, 2500, 3000
▪ Rated voltage VAC	450, 500, 630, 700, 750
▪ Test voltage between terminals	Working voltage ≤ 2000VDC 2.5 x rated voltage VDC for 2 seconds Working voltage ≥ 2000VDC 2.0 x rated voltage VDC for 2 seconds
▪ Dissipation factor (Tan d)	≤ 0.0005 at 1KHz and 25°C
▪ Temperature range	- 25°C to +85°C
▪ Insulation resistance at 25°C & at a test voltage of 500 VDC applied for 1 minute	C ≤ 0.33 MFD ≥50,000MΩ C > 0.33 MFD ≥30,000MΩ

Marking on Capacitors

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

- The Company name in words ALCON
- The capacitor grade viz KP-6
- The capacitance value MFD
- The rated voltage VDC
- Capacity tolerance and manufacturing code
- Part number on non-standard capacitors

KP-6

Standard Capacitor Values

Working Voltage 850 VDC (450 VAC)

Rated Capacitance MFD	Dimensions in mm*			Case Code	DV/DT V/µ Sec	I Peak Amps	Irms Max at 100KHz & 55°C Amps	ESR Max at100KHz mΩ	Ordering Code
	D	L	d						
0.100	17.0	35.0	0.8	O3	1100	110.00	6.00	12.00	SI00U100850AJ0O30AXLK01
0.150	17.0	35.0	0.8	O3	1100	165.00	6.00	11.50	SI00U150850AJ0O30AXLK01
0.220	19.0	42.0	0.8	O4	1000	220.00	7.00	10.20	SI00U220850AJ0O40AXLK01
0.330	19.0	42.0	1.0	O4	1000	330.00	7.00	9.00	SI00U330850AJ0O40AXLK01
0.470	19.0	55.0	1.0	O7	900	423.00	8.00	8.60	SI00U470850AJ0O70AXLK01
0.680	19.0	55.0	1.0	O7	900	612.00	8.00	8.30	SI00U680850AJ0O70AXLK01
1.000	25.0	55.0	1.2	O5	900	900.00	10.00	7.60	SI000010850AJ0O50AXLK01
1.200	25.0	55.0	1.2	O5	900	1080.00	11.00	7.20	SI01U200850AJ0O50AXLK01
1.500	25.0	55.0	1.2	O5	900	1350.00	12.00	6.80	SI01U500850AJ0O50AXLK01
2.000	30.0	55.0	1.2	O6	900	1800.00	12.00	5.60	SI000020850AJ0O60AXLK01

Working Voltage 1200 VDC (500 VAC)

Rated Capacitance MFD	Dimensions in mm*			Case Code	DV/DT V/µ Sec	I Peak Amps	Irms Max at 100KHz & 55°C Amps	ESR Max at100KHz mΩ	Ordering Code
	D	L	d						
0.047	15.0	23.0	0.8	O1	1400	65.00	5.00	18.00	SI0U0471200AJ0O10AXLK01
0.068	15.0	23.0	0.8	O2	1400	95.00	6.00	13.00	SI0U0681200AJ0O20AXLK01
0.100	17.0	35.0	1.0	O3	1300	130.00	8.00	11.00	SI00U101200AJ0O30AXLK01
0.150	17.0	35.0	1.0	O3	1300	195.00	8.20	8.20	SI00U151200AJ0O30AXLK01
0.220	19.0	42.0	1.0	O4	1200	264.00	8.20	7.80	SI00U221200AJ0O40AXLK01
0.330	19.0	42.0	1.0	O4	1200	396.00	9.10	7.30	SI00U331200AJ0O40AXLK01
0.470	19.0	55.0	1.0	O7	1000	470.00	11.00	6.80	SI00U471200AJ0O70AXLK01
0.680	19.0	55.0	1.2	O7	1000	680.00	12.00	5.30	SI00U681200AJ0O70AXLK01
1.000	25.0	55.0	1.2	O5	1000	1000.00	12.00	5.00	SI000011200AJ0O50AXLK01
1.200	30.0	55.0	1.2	O6	1000	1200.00	12.00	4.80	SI01U201200AJ0O60AXLK01
1.500	30.0	55.0	1.2	O6	1000	1500.00	12.00	4.20	SI01U501200AJ0O60AXLK01

Working Voltage 2000 VDC (630 VAC)

Rated Capacitance MFD	Dimensions in mm*			Case Code	DV/DT V/µ Sec	I Peak Amps	Irms Max at 100KHz & 55°C Amps	ESR Max at100KHz mΩ	Ordering Code
	D	L	d						
0.010	12.0	23.0	0.8	O1	1700	17.00	3.00	42.00	SI0U0102000AJ0O10AXLK01
0.015	15.0	23.0	0.8	O2	1700	26.00	4.00	40.30	SI0U0152000AJ0O20AXLK01
0.022	15.0	23.0	0.8	O2	1700	37.00	6.00	36.50	SI0U0222000AJ0O20AXLK01
0.033	17.0	35.0	0.8	O3	1700	56.00	7.00	24.20	SI0U0332000AJ0O30AXLK01
0.047	17.0	35.0	0.8	O3	1700	80.00	8.00	15.30	SI0U0472000AJ0O30AXLK01
0.068	17.0	35.0	1.0	O3	1700	116.00	9.00	14.20	SI0U0682000AJ0O30AXLK01
0.100	19.0	42.0	1.0	O4	1000	100.00	9.00	8.60	SI00U102000AJ0O40AXLK01
0.150	19.0	42.0	1.0	O4	1000	150.00	10.00	7.20	SI00U152000AJ0O40AXLK01
0.220	25.0	55.0	1.0	O5	900	198.00	11.00	6.50	SI00U222000AJ0O50AXLK01
0.330	30.0	55.0	1.2	O6	900	297.00	11.00	4.60	SI00U332000AJ0O60AXLK01

Custom-designed capacitors are available on request

* Refer to “Capacitor Drawing”on page 53

KP-6

Standard Capacitor Values

Working Voltage 2500 VDC (700 VAC)

Rated Capacitance MFD	Dimensions in mm*			Case Code	DV/DT V/µ Sec	I Peak Amps	Irms Max at 100KHz & 55°C Amps	ESR Max at100KHz mΩ	Ordering Code
	D	L	d						
0.033	17.0	35.0	0.8	O3	1500	49.50	4.00	20.00	SI0U0332500AJ0O30AXLK01
0.047	17.0	35.0	0.8	O3	1500	70.50	6.00	13.00	SI0U0472500AJ0O30AXLK01
0.068	17.0	35.0	1.0	O3	1500	102.00	8.20	11.00	SI0U0682500AJ0O30AXLK01
0.100	19.0	42.0	1.0	O4	1200	120.00	8.20	8.90	SI00U102500AJ0O40AXLK01
0.150	19.0	42.0	1.2	O4	1200	180.00	8.20	7.70	SI00U152500AJ0O40AXLK01
0.220	19.0	55.0	1.2	O7	1000	220.00	9.10	6.90	SI00U222500AJ0O70AXLK01
0.330	25.0	55.0	1.2	O5	1000	330.00	10.80	5.80	SI00U332500AJ0O50AXLK01
0.470	25.0	55.0	1.2	O5	1000	470.00	12.00	4.20	SI00U472500AJ0O50AXLK01

Working Voltage 3000 VDC (750 VAC)

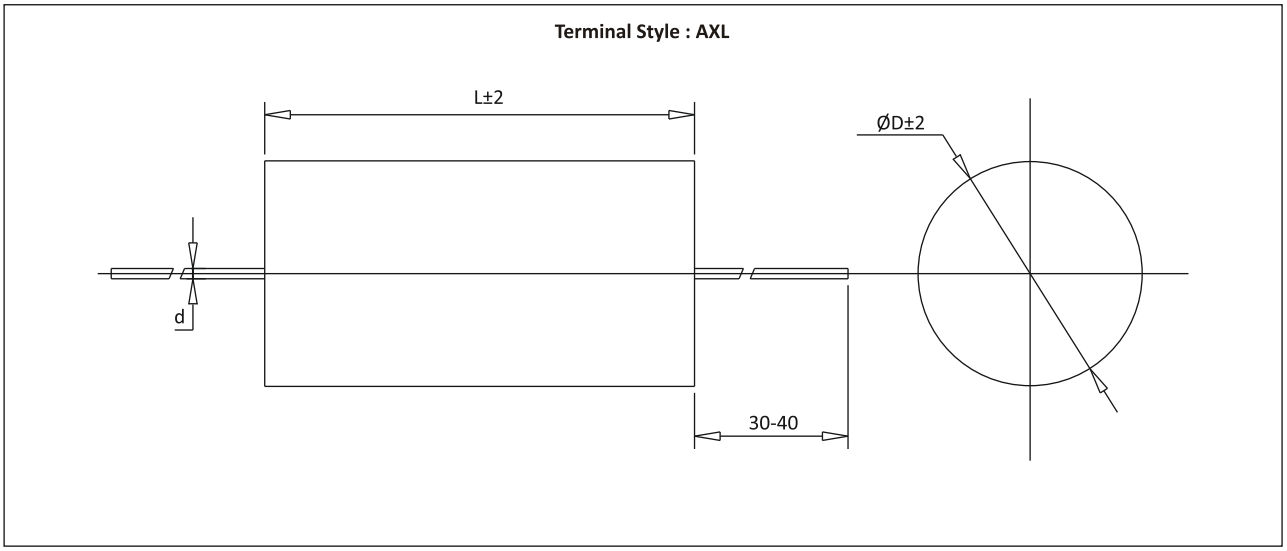
Rated Capacitance MFD	Dimensions in mm*			Case Code	DV/DT V/µ Sec	I Peak Amps	Irms Max at 100KHz & 55°C Amps	ESR Max at100KHz mΩ	Ordering Code
	D	L	d						
0.010	12.0	23.0	0.8	O1	2800	28.00	2.00	62.00	SI0U0103000AJ0O10AXLK01
0.015	12.0	23.0	0.8	O1	2800	42.00	3.00	41.00	SI0U0153000AJ0O10AXLK01
0.022	15.0	23.0	0.8	O2	2800	62.00	4.00	28.00	SI0U0223000AJ0O20AXLK01
0.033	17.0	35.0	1.0	O3	1500	50.00	5.00	19.80	SI0U0333000AJ0O30AXLK01
0.047	19.0	55.0	1.0	O3	1000	47.00	6.50	18.00	SI0U0473000AJ0O30AXLK01
0.068	19.0	55.0	1.0	O7	1000	68.00	8.00	12.50	SI0U0683000AJ0O70AXLK01
0.100	19.0	55.0	1.2	O7	1000	100.00	8.00	8.90	SI00U103000AJ0O70AXLK01
0.150	19.0	55.0	1.2	O7	1000	150.00	11.00	6.70	SI00U153000AJ0O70AXLK01
0.220	25.0	55.0	1.2	O5	1000	220.00	12.00	4.80	SI00U223000AJ0O50AXLK01
0.330	30.0	55.0	1.2	O6	1000	330.00	12.00	4.20	SI00U333000AJ0O60AXLK01

Custom-designed capacitors are available on request

* Refer to “Capacitor Drawing”on page 53

KP-6

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

Part Number System

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	**2**	**3 to 7**					**8 to 11**				**12 to 13**		**14 to 16**			**17 to 20**				**21**	**22 to 23**	

Standard / Non-standard

S - Standard

N - Non-standard

Series

A - Aluminium Electrolytic Capacitors

I - IGBT Snubber Capacitors

D - DC-Link Capacitors

P - Power Film Capacitors

Capacitance Rating

example : 00U68 - 0.680 MFD
01U50 - 1.50 MFD
00001 - 1.00 MFD
05U60 - 5.6 MFD
00003 - 3.00 MFD

Voltage Rating

example : 1000 - 1000 VDC/VRMS
0450 - 450 VDC/VRMS
0700 - 700 VDC/VRMS
2500 - 2500 VDC/VRMS

Grade

example : AG - KP3C
AJ - KP6
AK - MP4A
AM - MKR9
AN - MKRS

Case code

(Refer table)

Terminal Style

Refer Table
Drawing

Tolerance

M : ±20%
K : ±10%
J : ±5%

Canias Code

By Default - 01

Cautions For Proper Use Of Film Capacitors

SAFETY INSTRUCTION

- Do not exceed the upper category temperature (UCT).
- Do not apply any mechanical stress to the capacitor terminals.
- Avoid any compressive, tensile or flexural stress.
- Do not move the capacitor after it has been assembled
- Do not exceed the specified torque limits during assembly.
- Avoid external energy inputs, such as fire or electricity.
- Avoid overload of the capacitors.
- Consult us if application is with severe temperature and humidity condition.
- There are no serviceable or repairable parts inside the capacitor. Opening the capacitor or any attempts to open or repair the capacitor will void the warranty and liability of ALCON

DISPOSAL

For disposal do either of the followings.

1. Incineration (at high temperature over 800°C) after piercing or crushing capacitor body.
2. Consignment to specialists of industrial waste. As per the compliance prescribed by the law.

Other Products

Power Film Capacitors- High and Medium Frequency

Capacitance Range - 0.010 MFD to 85 MFD
Max Power - 100 KVAR to 1500 KVAR
Frequency Range - 5.2 KHz to 1900 KHz
Max Current - Up to 3000 Amps
Typical Applications
Induction Heating, Plasma Generators, Medical Equipment, Wireless EV Chargers, Magnetisers and Traction Equipment.

DC-Link Capacitors – Screw terminal and PCB mounting

Capacitance Range - 1 MFD to 2350 MFD
Rated Voltage Range - 400 VDC to 2400 VDC
Mounting Pitch - 45 mm (for screw terminal)
27.5, 37.5, 52.5 mm (for PCB mounting)
Frequency Range - 10 KHz to 100 KHz
Typical Applications
High Frequency Ripple Filtering in UPS, AC Drives, High Power IGBT Inverter, Induction Heating Equipment, Traction & Medical Equipment.

Aluminium Electrolytic Capacitors

Capacitance Range - 330 MFD to 470000 MFD
Rated Voltage Range (VDC) - 50 VDC to 550 VDC
Can Sizes - 50 mm Ø x 80 L mm to 120 mm Ø x 240 L mm
Temperature Rating - 40°C to + 70°C
40°C to + 85°C
40°C to + 105°C

Typical Applications
High ripple current applications like PWM Inverters, High KVA online UPS, Frequency converters, AC drives, High reliability power supplies, solar and wind inverters. HED range is designed for large instant energy discharge applications like Laser, X-ray equipment, welding machines, magnetisers & other pulse discharge applications

ALSO AVAILABLE

CUSTOM DESIGNED CAPACITORS

AUTHORISED DISTRIBUTOR

Designed and Printed by Delta Graphics

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Catalogue No. AEPL -IGBT SNUBBER CAPACITORS - JUNE-2023