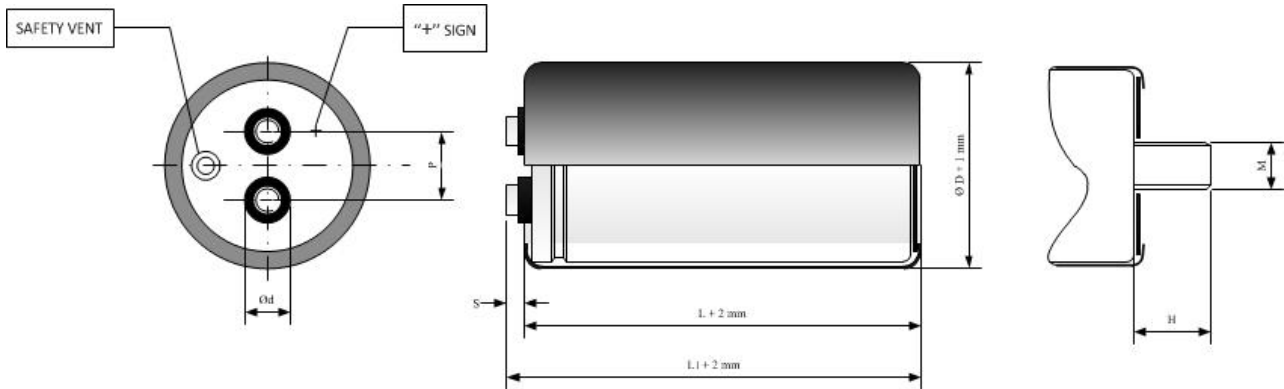


KD Type Screw Terminal -40°C +85°C 20000H

- Extended Life.
- Surge-proof capacitor in aluminium can with insulation sleeve.
- Heavy duty screw terminal connectors.
- Mounted with ring clip or threaded stud.
- Designed for high resistance to voltage spikes.

APPLICATIONS

Power supplies, motor drives, welding, energy storage.



ØD	Ød	P	M	H	Screw
35	11	12.7	M 8	12	5MA x 9.5
51	18.5	22.7	M 12	16	5MA x 9.5
63	18.5	28.6	M 12	16	5MA x 9.5
76	18.5	31.8	M 12	16	5MA x 9.5
76	18.5	31.8	M 12	16	6MA x 10
90	18.5	31.8	M 12	16	6MA x 10

M5	S = 5mm -0 +1mm from top of deck	L1 = L + 2.5mm	L1 tol = -0 +3mm
M6	S = 7mm -1 +1mm from top of deck	L1 = L + 4.5mm	L1 tol = -1 +3mm

KD TYPE SPECIFICATIONS

Temperature Range	Operating: -40°C +85°C [Environmental classification 40/85/56 IEC-68] Storage : Preferably below +25°C, not exceeding +40 °C																													
Rated Voltage Range (V_r)	from 350V to 550V DC																													
Surge Voltage (V_p)	V _p = 1.05 V _r (V _r > 500 V DC) V _p = 1.10 V _r (V _r < 500 V DC)																													
Rated Capacitance Range	from 1500 µF to 15000 µF																													
Capacitance Tolerance	±20% at 100 Hz, 20°C [M class IEC-62] on request: -10% +30% at 100 Hz, 20°C [Q class IEC-62]																													
Leakage Current (I_L) (mA, 5 min, 20°C)	max I _L = 0.006 C _r V _r + 4 µA																													
Ripple current (I_r)	<p>Refer to table at 85°C and 100Hz. For different temperature and frequency, multiplier must be used as follows :</p> <table border="1"> <tr> <td>FREQUENCY</td> <td>50Hz</td> <td>100Hz</td> <td>500 Hz</td> <td>1000Hz</td> <td>>10kHz</td> </tr> <tr> <td>MULTIPLIER</td> <td>0.8</td> <td>1.0</td> <td>1.2</td> <td>1.3</td> <td>1.5</td> </tr> </table> <table border="1"> <tr> <td>AMBIENT TEMP</td> <td>35°C</td> <td>45°C</td> <td>55°C</td> <td>65°C</td> <td>75°C</td> <td>85°C</td> <td>95°C</td> </tr> <tr> <td>MULTIPLIER</td> <td>2.2</td> <td>2.1</td> <td>1.8</td> <td>1.6</td> <td>1.4</td> <td>1.0</td> <td>0.5</td> </tr> </table> <p>Due to the current load capability of the contact elements, the following limits must not be exceeded: CAPACITOR DIAMETER 63mm 76mm 90mm Maximum current 40A 50A 70A</p>		FREQUENCY	50Hz	100Hz	500 Hz	1000Hz	>10kHz	MULTIPLIER	0.8	1.0	1.2	1.3	1.5	AMBIENT TEMP	35°C	45°C	55°C	65°C	75°C	85°C	95°C	MULTIPLIER	2.2	2.1	1.8	1.6	1.4	1.0	0.5
FREQUENCY	50Hz	100Hz	500 Hz	1000Hz	>10kHz																									
MULTIPLIER	0.8	1.0	1.2	1.3	1.5																									
AMBIENT TEMP	35°C	45°C	55°C	65°C	75°C	85°C	95°C																							
MULTIPLIER	2.2	2.1	1.8	1.6	1.4	1.0	0.5																							
Insulation Resistance	At 100V DC for 1 min is >100 MΩ across insulating sleeve and terminals.																													
Vibration Resistance	Frequency range: 10 Hz to 55 Hz, amplitude 0.75 mm Capacitor length ≤ 143 : max acceleration 10g for 3x2 h Capacitor length > 143 : max acceleration 5g for 3x0.5 h																													
Life test	After 4,000 hours application of rated voltage at 85°C capacitors meet characteristics	Cap change ≤ ±10% tan δ ≤ 200% Leakage current (I _L) < initial limit Impedance (Z) ≤ 200%																												
Shelf life	After leaving capacitors under no load for 2000 hours at 85°C, when restored to 20°C meet specifications	Cap change ≤ ±15% tan δ ≤ 150% Leakage current (I _L) < initial limit																												
Working life	> 12000 h at 85°C for V < 550V > 20000 h at 85°C for V < 450V > 15000 h at 85°C for V < 500V	Cap change ≤ ±25% tan δ ≤ 300% Leakage current (I _L) < initial limit																												
Failure percentage Failure rate	≤ 1% (during useful life) ≤ 70 fit (70 10 ⁻⁹ /h)																													
Self inductance	Approx. 20 nH																													
Reference standards	CECC 30.300 IEC 60384-4 LONG LIFE GRADE																													

KD TYPE SPECIFICATIONS

	Capacitance μF	$\varnothing \times L$ mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z TYP m Ω 10 kHz 20°C	I _r a.c. A max 100 Hz 105°C	PART NUMBER standard insert style no stud
RATED VOLTAGE VDC 350V	2200	63x105	0.13	42	30	11.00	KD222MK63105AA1
	3300	63x105	0.13	30	22	12.60	KD332MK63105AA1
	3300	76x105	0.13	30	22	13.80	KD332MK76105AA1
	4700	76x105	0.13	23	15	16.10	KD472MK76105AA1
	4700	76x143	0.13	23	15	18.50	KD472MK76143AA1
	5600	76x143	0.15	19	14	20.00	KD562MK76143AA1
	6800	76x143	0.15	15	11	21.80	KD682MK76143AA1
	8200	76x143	0.15	13	9	23.60	KD822MK76143AA1
	10000	76x214	0.17	11	8	31.70	KD103MK76214AA1
15000	90x220	0.18	7	5	42.00	KD153MK90220AB1	

	Capacitance μF	$\varnothing \times L$ mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z TYP m Ω 10 kHz 20°C	I _r a.c. A max 100 Hz 105°C	PART NUMBER standard insert style no stud
RATED VOLTAGE VDC 400V	1500	63x105	0.15	105	85	7.50	KD152ML63105AA1
	2200	63x105	0.15	80	63	8.80	KD222ML63105AA1
	2200	76x105	0.15	80	63	10.20	KD222ML76105AA1
	3300	63x105	0.15	50	40	10.70	KD332ML63105AA1
	3300	76x143	0.15	50	40	14.10	KD332ML76143AA1
	4700	76x105	0.17	40	32	14.70	KD472ML76105AA1
	4700	76x143	0.17	40	32	17.70	KD472ML76143AA1
	6800	76x143	0.17	27	22	18.00	KD682ML76143AA1
	10000	76x214	0.20	20	17	27.80	KD103ML76214AA1

	Capacitance μF	$\varnothing \times L$ mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z TYP m Ω 10 kHz 20°C	I _r a.c. A max 100 Hz 105°C	PART NUMBER standard insert style no stud
RATED VOLTAGE VDC 420V	1500	63x105	0.15	105	85	7.50	KD152MM63105AA1
	2200	63x105	0.15	80	63	8.80	KD222MM63105AA1
	2200	76x105	0.15	80	63	10.20	KD222MM76105AA1
	3300	76x143	0.15	50	40	14.10	KD332MM76143AA1
	4700	76x143	0.17	40	32	17.70	KD472MM76143AA1
	6800	76x143	0.17	27	22	18.00	KD682MM76143AA1
	10000	76x214	0.20	20	17	27.80	KD103MM76214AA1

KD TYPE SPECIFICATIONS

	Capacitance μF	$\varnothing \times L$ mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z TYP m Ω 10 kHz 20°C	I _r a.c. A max 100 Hz 105°C	PART NUMBER standard insert style no stud
RATED VOLTAGE VDC 450V	1500	63x105	0.15	95	76	7.90	KD152MN63105AA1
	2200	63x105	0.15	70	55	9.00	KD222MN63105AA1
	2200	76x105	0.15	70	55	10.30	KD222MN76105AA1
	2200	76x143	0.15	70	55	11.60	KD222MN76143AA1
	3300	76x105	0.15	48	35	12.50	KD332MN76105AA1
	3300	76x143	0.15	48	35	14.10	KD332MN76143AA1
	4700	76x143	0.17	35	29	17.10	KD472MN76143AA1
	6800	76x143	0.17	27	22	17.30	KD682MN76143AA1
	10000	76x214	0.20	18	15	27.70	KD103MN76214AA1
	12000	90x220	0.20	15	11	34.50	KD123MN90220AB1

	Capacitance μF	$\varnothing \times L$ mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z TYP m Ω 10 kHz 20°C	I _r a.c. A max 100 Hz 105°C	PART NUMBER standard insert style no stud
RATED VOLTAGE VDC 500V	1500	63 x 105	0.15	95	76	7.7	KD152MP63105AA1
	2200	63 x 105	0.15	65	55	8.9	KD222MP63105AA1
	2200	76 x 105	0.15	65	55	10.0	KD222MP76105AA1
	2200	76 x 143	0.15	65	55	11.4	KD222MP76143AA1
	3300	76 x 143	0.15	48	39	13.9	KD332MP76143AA1
	3900	76 x 143	0.17	38	34	14.7	KD392MP76143AA1
	4700	76 x 143	0.17	38	33	16.1	KD472MP76143AA1
	5600	76 x 143	0.17	30	26	17.5	KD562MP76143AA1
	6800	76 x 214	0.17	27	22	23.0	KD682MP76214AA1
	10000	90 x 220	0.20	20	17	30.4	KD103MP90220AB1

	Capacitance μF	$\varnothing \times L$ mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z TYP m Ω 10 kHz 20°C	I _r a.c. A max 100 Hz 105°C	PART NUMBER standard insert style no stud
RATED VOLTAGE VDC 550V	1500	63 x 105	0.19	109	88	6.5	KD152MQ63105AA1
	1800	76 x 105	0.19	99	80	7.6	KD182MQ76105AA1
	2200	76 x 143	0.19	81	70	9.5	KD222MQ76143AA1
	4700	76 x 214	0.20	48	41	16.0	KD472MQ76214AA1
	6800	90 x 220	0.21	34	28	18.1	KD682MQ90220AB1