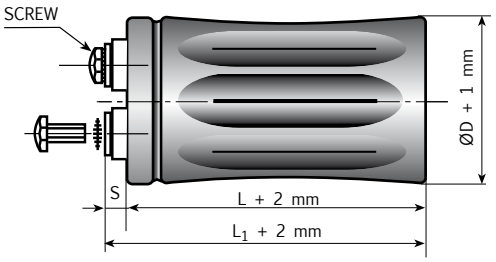
K42 TYPE -40°C +105°C 5000H

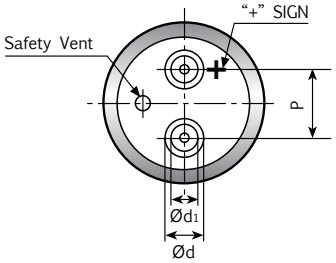
RoHS Compliant

- **Surge-proof capacitor in aluminium can with insulation sleeve.**
- **To be mounted with ring clips or with threaded stud.**
- **Design optimized for long term vibration stress, traction market.**
- **Octagonal can shape.**

APPLICATIONS

Designed for professional application under high mechanical stress.





STUD style

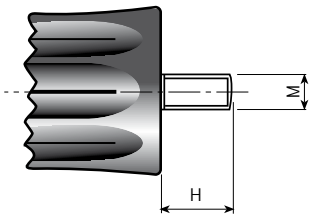


Diagram of dimensions (unit=mm)
Insert and screw threads: Metric (mm), UNF (inches)

ØD	d	d1	P	STUD M	STUD H	INSERT	SCREW	L1 -L[-1+3]	S[-1+1]	INSERT STYLE CODE
35	11	7.9	12.7	M8	12	M5	5MA x 9.5	2.5	5	O
51	18.5	13	22.7	M12	16	M5	5MA x 9.5	2.5	5	H
63	18.5	13	28.6	M12	16	M5	5MA x 9.5	2.5	5	H
63	17.3	17.3	28.6	M12	16	UNF 1/4-28 Low Post	1/4-28 x 3/8"	3	4	W
63	17.3	17.3	28.6	M12	16	UNF 1/4-28 High Post	1/4-28 x 1/2"	6	7	R
63	7.9	7.9	28.6	M12	16	UNF 10-32 Low Post	10-32 x 1/4"	2	2.5	Z
63	12	7.9	28.6	M12	16	UNF 10-32 High Post	10-32 x 3/8"	6	7	U
76	18.5	13	31.8	M12	16	M5	5MA x 9.5	2.5	5	H
76	18.5	13	31.8	M12	16	M5	5MA x 9.5	2.5	7	L
76	23.2	17.7	31.8	M12	16	M6	6MA x 10	4.5	7	6
76	17.3	17.3	31.8	M12	16	UNF 1/4-28 Low Post	1/4-28 x 3/8"	3	4	W
76	17.3	17.3	31.8	M12	16	UNF 1/4-28 High Post	1/4-28 x 1/2"	6	7	R
76	7.9	7.9	31.8	M12	16	UNF 10-32 Low Post	10-32 x 1/4"	2	2.5	Z
76	12	7.9	31.8	M12	16	UNF 10-32 High Post	10-32 x 3/8"	6	7	U
90	23.2	17.7	31.8	M12	16	M6	6MA x 10	4.5	7	H

Kendeil™

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SPECIFICATIONS

Temperature Range	Operating: -40°C +105°C [Environmental classification 40/105/56 IEC-68] Storage : Preferably below +25°C, not exceeding +40°C
Rated Voltage Range (V_r)	from 16V to 450V DC
Surge Voltage (V_p)	V_p = 1.15 V_r ($V_r \leq$ 250V DC) V_p = 1.10 V_r ($V_r >$ 250V DC)
Rated Capacitance Range	from 100 µF to 470,000 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= 0.003 C_r V_r + 4 µA At 85°C max I_L = 0.02 C_r V_r µA
Ripple current (I_r)	Refer to table at 105°C and 100Hz. For different temperature and frequency multiplier must be used as follows: 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 105°C 110°C MULTIPLIER 3.0 2.80 2.60 2.40 2.20 1.80 1.5 1.0 0.5 Maximum internal temperature 108°C Due to the current load capability of the contact elements, the following limits must not be exceeded: CAPACITOR DIAMETER 35mm 51mm 63mm 76mm 90mm Maximum current 20A 30A 40A 50A 70A
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 Centrifugal acceleration 20g for 48 hours
Life test	After 2,000 hours application of rated voltage at 105°C capacitors meet characteristics aside Cap change ≤ 10% tan δ ≤ 130% Leakage current (I_L) < initial limit Impedance (Z) ≤ 130%
Shelf life	After leaving capacitors under no load for 500 hours at 105°C when restored at 20°C meet specifications aside Cap change ≤ ±15% tan δ ≤ 150% Leakage current (I_L) < initial limit
Useful life (Vn, Temp rated I ripple applied)	250000 h at 40°C 5000 h at 105°C
Failure percentage **Failure rate**	≤ 1% (during useful life) ≤ 40 fit (40 10^{-9}/h)
Self inductance	Approx. 20 nH
Reference standards	CECC 30.300 IEC 60384-4 LONG LIFE GRADE

K42 TYPE STANDARD RATINGS

Cap µF	Ø x 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	Ir a.c. A max 100 Hz 105°C	PART NUMBER stud and insert style excluded	RATED VOLTAGE VDC
10000	35x60	0.25	25	24	3.3	K42016103__M0E060	16V
15000	35x60	0.30	16	16	3.5	K42016153__M0E060	
22000	35x60	0.35	12	12	4.4	K42016223__M0E060	
33000	35x79	0.40	12	12	5.9	K42016333__M0E079	
47000	35x79	0.55	9	10	7.5	K42016473__M0E079	
68000	51x79	0.60	8	8	11.9	K42016683__M0G079	
100000	51x105	0.80	8	8	12.3	K42016104__M0G105	
150000	63x105	1.10	7	7	15.4	K42016154__M0H105	
220000	76x105	1.50	7	7	18.8	K42016224__M0J105	
330000	76x105	1.90	7	7	19.7	K42016334__M0J105	
470000	76x143	2.00	6	6	22.5	K42016474__M0J143	

Cap µF	Ø x 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	Ir a.c. A max 100 Hz 105°C	PART NUMBER stud and insert style excluded	RATED VOLTAGE VDC
10000	35x60	0.20	23	18	3.8	K42025103__M0E060	25V
15000	35x60	0.25	16	12	4.8	K42025153__M0E060	
22000	35x79	0.30	12	12	7.2	K42025223__M0E079	
33000	51x79	0.35	10	10	8.9	K42025333__M0G079	
47000	51x79	0.40	9	9	11.6	K42025473__M0G079	
68000	51x105	0.50	8	8	13.0	K42025683__M0G105	
100000	63x105	0.60	8	8	15.8	K42025104__M0H105	
150000	76x105	0.90	7	7	18.3	K42025154__M0J105	
220000	76x143	1.30	7	7	21.6	K42025224__M0J143	
330000	76x143	2.00	7	7	23.8	K42025334__M0J143	

K42 TYPE STANDARD RATINGS

Cap µF	Ø x 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	Ir a.c. A max 100 Hz 105°C	PART NUMBER stud and insert style excluded	RATED VOLTAGE VDC
4700	35x60	0.20	31	29	3.3	K42040472__M0E060	40V
6800	35x60	0.20	23	20	3.9	K42040682__M0E060	
10000	35x79	0.20	16	12	4.8	K42040103__M0E079	
15000	35x79	0.20	12	10	5.4	K42040153__M0E079	
22000	51x79	0.25	10	10	8.9	K42040223__M0G079	
33000	51x105	0.35	10	10	11.2	K42040333__M0G105	
47000	51x105	0.45	9	9	13.8	K42040473__M0G105	
47000	63x105	0.45	9	9	14.5	K42040473__M0H105	
68000	63x105	0.60	7	7	15.0	K42040683__M0H105	
68000	76x105	0.60	7	7	15.9	K42040683__M0J105	
100000	76x105	0.90	7	7	19.1	K42040104__M0J105	
100000	76x143	0.90	7	7	21.0	K42040104__M0J143	
150000	76x143	1.30	7	7	25.9	K42040154__M0J143	

Cap µF	Ø x 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	Ir a.c. A max 100 Hz 105°C	PART NUMBER stud and insert style excluded	RATED VOLTAGE VDC
2200	35x60	0.15	72	60	2.5	K42063222__M0E060	63V
3300	35x60	0.15	48	39	3.5	K42063332__M0E060	
4700	35x60	0.15	33	28	4.2	K42063472__M0E060	
6800	35x79	0.18	18	13	6.3	K42063682__M0E079	
10000	51x79	0.20	15	11	8.2	K42063103__M0G079	
15000	51x79	0.25	15	13	8.9	K42063153__M0G079	
15000	51x105	0.25	13	10	18.0	K42063153__M0G105	
22000	51x105	0.30	11	10	11.8	K42063223__M0G105	
22000	63x105	0.30	11	10	13.5	K42063223__M0H105	
33000	63x105	0.35	11	10	14.8	K42063333__M0H105	
33000	76x105	0.35	11	8	16.6	K42063333__M0J105	
47000	76x105	0.45	9	8	17.7	K42063473__M0J105	
47000	76x143	0.45	9	8	19.0	K42063473__M0J143	
68000	76x105	0.45	8	8	20.1	K42063683__M0J105	
68000	76x143	0.70	8	8	22.8	K42063683__M0J143	
100000	76x143	0.70	8	8	24.1	K42063104__M0J143	

K42 TYPE STANDARD RATINGS

Cap µF	Ø x 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	Ir a.c. A max 100 Hz 105°C	PART NUMBER stud and insert style excluded	RATED VOLTAGE VDC
1000	35x60	0.15	110	100	2.9	K42100102__M0E060	100V
1500	35x60	0.15	80	73	3.2	K42100152__M0E060	
2200	35x60	0.15	59	53	4.4	K42100222__M0E060	
3300	35x79	0.15	33	31	5.8	K42100332__M0E079	
4700	51x79	0.15	25	22	7.2	K42100472__M0G079	
6800	51x79	0.15	19	17	8.9	K42100682__M0G079	
6800	51x105	0.15	19	17	8.9	K42100682__M0G105	
10000	51x105	0.15	17	15	11.0	K42100103__M0G105	
10000	63x105	0.15	17	15	12.5	K42100103__M0H105	
15000	63x105	0.15	12	12	15.1	K42100153__M0H105	
22000	76x105	0.18	10	9	16.5	K42100223__M0J105	
33000	76x143	0.22	8	8	20.9	K42100333__M0J143	

Cap µF	Ø x 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	Ir a.c. A max 100 Hz 105°C	PART NUMBER stud and insert style excluded	RATED VOLTAGE VDC
1000	35x79	0.11	105	90	3.3	K42160102__M0E079	160V
1500	51x79	0.11	65	60	4.1	K42160152__M0G079	
2200	51X105	0.11	46	43	4.8	K42160222__M0G105	
3300	63x105	0.11	32	30	6.8	K42160332__M0H105	
4700	63x105	0.11	27	25	8.5	K42160472__M0H105	
6800	76x105	0.13	23	20	11.3	K42160682__M0J105	
10000	76x105	0.14	22	20	14.2	K42160103__M0J105	
10000	76x143	0.15	17	16	14.9	K42160103__M0J143	
15000	76x143	0.20	16	12	17.2	K42160153__M0J143	
22000	76X214	0.20	11	10	19.0	K42160223__M0J214	

K42 TYPE STANDARD RATINGS

Cap µF	Ø x 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	Ir a.c. A max 100 Hz 105°C	PART NUMBER stud and insert style excluded	RATED VOLTAGE VDC
680	35X60	0.11	133	98	2.5	K42200681__M0E060	200V
1000	51x79	0.11	85	64	4.6	K42200102__M0G079	
1500	51x105	0.11	65	58	5.1	K42200152__M0G105	
2200	51x105	0.11	60	53	6.1	K42200222__M0G105	
3300	63x105	0.11	40	35	7.9	K42200332__M0H105	
4700	63x105	0.11	25	23	8.7	K42200472__M0H105	
6800	76X105	0.11	18	16	11.8	K42200682__M0J105	
8200	76x105	0.11	17	15	12.8	K42200822__M0H105	
10000	76x105	0.13	15	13	14.5	K42200103__M0J105	
10000	76x143	0.15	13	12	16.0	K42200103__M0J143	
15000	76x143	0.20	12	11	17.3	K42200153__M0J143	
22000	76x214	0.20	11	10	18.9	K42200223__M0J214	

Cap µF	Ø x 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	Ir a.c. A max 100 Hz 105°C	PART NUMBER stud and insert style excluded	RATED VOLTAGE VDC
470	35x60	0.11	211	193	2.0	K42250471__M0E060	250V
680	35x79	0.11	130	98	2.2	K42250681__M0E079	
1000	51x79	0.11	110	85	4.1	K42250102__M0G079	
1500	51x105	0.11	74	65	5.4	K42250152__M0G105	
2200	51x105	0.11	41	39	6.8	K42250222__M0G105	
3300	63x105	0.11	30	26	8.2	K42250332__M0H105	
4700	76x105	0.11	18	17	11.9	K42250472__M0J105	
6800	76x143	0.15	15	14	14.3	K42250682__M0J143	
8200	76x143	0.15	14	14	15.2	K42250822__M0J143	
10000	76x143	0.20	14	13	16.0	K42250103__M0J143	
15000	76x214	0.20	12	10	17.4	K42250153__M0J214	

K42 TYPE STANDARD RATINGS

Cap µF	Ø x 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	Ir a.c. A max 100 Hz 105°C	PART NUMBER stud and insert style excluded	RATED VOLTAGE VDC
330	35x60	0.11	255	196	1.8	K42350331__M0E060	350V
470	35x79	0.11	170	141	2.1	K42350471__M0E079	
680	51x79	0.11	128	96	3.8	K42350681__M0G079	
1000	51x105	0.11	85	68	5.0	K42350102__M0G105	
1500	63x105	0.11	59	52	6.4	K42350152__M0H105	
2200	76x105	0.11	44	40	8.1	K42350222__M0J105	
3300	76x105	0.11	26	23	10.2	K42350332__M0J105	
4700	76x143	0.11	18	16	13.5	K42350472__M0J143	
5600	76x143	0.12	18	17	14.3	K42350562__M0J143	
6800	76x143	0.15	16	15	15.1	K42350682__M0J143	
10000	76x214	0.20	15	14	19.9	K42350103__M0J214	

Cap µF	Ø x 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	Ir a.c. A max 100 Hz 105°C	PART NUMBER stud and insert style excluded	RATED VOLTAGE VDC
220	35x60	0.11	350	280	1.4	K42400221__M0E060	400V
330	35x60	0.11	250	210	2.2	K42400331__M0E060	
470	51x79	0.11	170	150	2.8	K42400471__M0G079	
680	51x79	0.11	110	100	3.2	K42400681__M0G079	
1000	51x105	0.11	95	82	4.1	K42400102__M0G105	
1500	63x105	0.11	64	53	5.8	K42400152__M0H105	
2200	63x105	0.11	45	53	6.0	K42400222__M0H105	
2200	76x105	0.11	45	39	7.3	K42400222__M0J105	
3300	76x143	0.11	28	25	11.1	K42400332__M0J143	
4700	76x143	0.11	24	23	12.8	K42400472__M0J143	
6800	76x214	0.15	19	15	15.0	K42400682__M0J214	
10000	90x220	0.20	16	14	22.5	K42400103__M0L220	

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Cap µF	Ø x 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	Ir a.c. A max 100 Hz 105°C	PART NUMBER stud and insert style excluded	RATED VOLTAGE VDC
							450V
100	35x60	0.11	800	650	1.2	K42450101__M0E060	
150	35x60	0.11	550	490	1.6	K42450151__M0E060	
220	35x60	0.11	370	310	1.8	K42450221__M0E060	
330	35x79	0.11	240	210	2.4	K42450331__M0E079	
470	51x79	0.11	200	179	3.0	K42450471__M0G079	
680	51x105	0.11	140	128	4.2	K42450681__M0G105	
1000	51x105	0.11	100	88	4.4	K42450102__M0G105	
1000	63x105	0.11	100	88	5.3	K42450102__M0H105	
1500	63x105	0.11	63	57	5.7	K42450152__M0H105	
1500	76x105	0.11	63	57	6.6	K42450152__M0J105	
2200	76x143	0.11	60	47	8.8	K42450222__M0J143	
3300	76x143	0.15	35	30	10.4	K42450332__M0J143	
4700	76x143	0.15	28	25	10.9	K42450472__M0J143	
6800	76x214	0.15	21	16	23.7	K42450682__M0J214	
10000	90x220	0.20	16	14	22.5	K42450103__M0L220	

PLEASE TO CONTACT OUR TECHNICAL SERVICE FOR MORE INFORMATION OR SPEC-IN ANALYSIS.

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