K22 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 high ripple current applications**

APPLICATIONS

Designed for professional application. Switch mode power suppliers, high ripple current converters, motor drives.

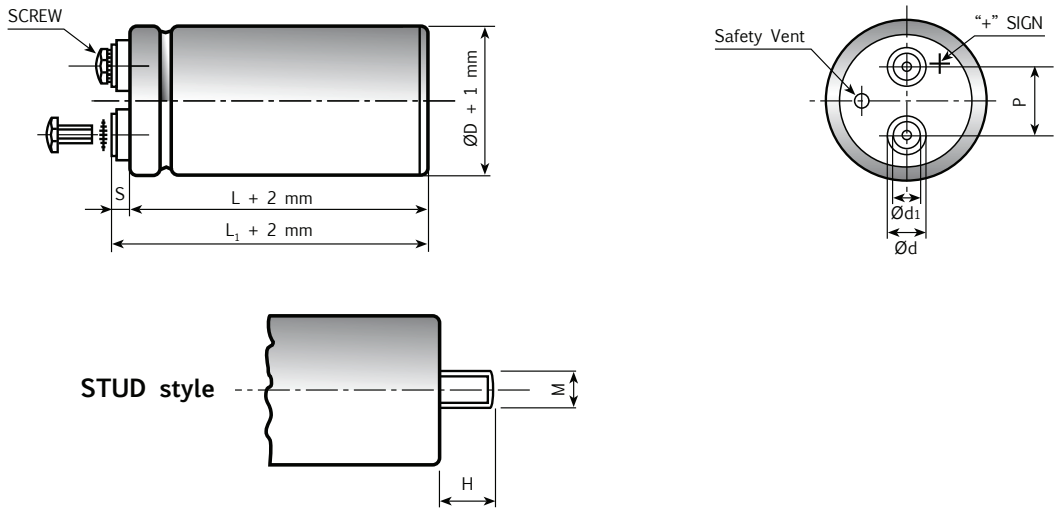

Diagram of dimensions (unit=mm)
Insert and screw threads: Metric (mm), UNF (inches)

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™

Vertrieb Deutschland:
IVD GmbH, Max-Eyth-Str. 10, 74405 Gaildorf
Telefon: 07971 9789-0
info@ivdgmbh.de www.ivdgmbh.de

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 350V to 450V DC
Surge Voltage (V_p)	V_p = 1.10 V_r
Rated Capacitance Range	from 1000 µF to 12000 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: FREQUENCY 50Hz 100 Hz 500Hz 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 2.8 2.6 2.4 2.2 1.8 1.5 1.0 0.5 Maximum internal temperature 110°C Due to the current load capability of the contact elements, the following limits must not be exceeded: CAPACITOR DIAMETER 51mm 63mm 76mm 90mm Maximum current 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
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

K22 TYPE STANDARD RATINGS

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP mΩ 100 Hz 20°C	Z TYP mΩ 10kHz 20°C	Ir a.c. A max 100 Hz 105°C	PART NUMBER stud and insert style excluded	RATED VOLTAGE VDC
1200	51x79	0.08	44	26	5.44	K22350122__M0G079	350V
1200	51x105	0.08	44	26	6.08	K22350122__M0G105	
1500	51x105	0.08	40	24	6.78	K22350152__M0G105	
1800	51x105	0.08	40	24	6.78	K22350182__M0G105	
2200	63x105	0.08	24	15	9.93	K22350222__M0H105	
2200	76x79	0.08	24	15	9.15	K22350222__M0J079	
2200	76x98	0.08	24	15	9.86	K22350222__M0J098	
2800	63x105	0.08	22	14	10.90	K22350282__M0H105	
3300	76x79	0.08	20	13	10.20	K22350332__M0J079	
3300	76x105	0.08	20	13	12.00	K22350332__M0J105	
3900	76x105	0.08	16	11	13.40	K22350392__M0J105	
3900	90x98	0.08	16	11	13.50	K22350392__M0L098	
4700	76x143	0.09	13	10	16.70	K22350472__M0J143	
5600	76x143	0.09	10	8	18.20	K22350562__M0J143	
6800	76x214	0.09	9	6	23.00	K22350682__M0J214	
6800	90x145	0.09	9	6	20.40	K22350682__M0L145	
8200	76x214	0.09	8	6	23.30	K22350682__M0J214	
8200	90x145	0.09	8.5	6	22.30	K22350822__M0L145	
10000	76x214	0.09	7	5	24.70	K22350103__M0J214	
10000	90x145	0.09	7	5	22.70	K22350103__M0L145	
12000	90x220	0.10	6.5	4	31.80	K22350123__M0L220	

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP mΩ 100 Hz 20°C	Z TYP mΩ 10kHz 20°C	Ir a.c. A max 100 Hz 105°C	PART NUMBER stud and insert style excluded	RATED VOLTAGE VDC
1200	51x79	0.08	44	26	5.44	K22400122__M0G079	400V
1200	51x105	0.08	44	26	6.08	K22400122__M0G105	
1500	51x105	0.08	40	24	6.78	K22400152__M0G105	
2200	63x105	0.08	24	15	9.93	K22400222__M0H105	
2200	76x79	0.08	24	15	9.15	K22400222__M0J079	
2200	76x98	0.08	24	15	9.86	K22400222__M0J098	
3300	76x105	0.08	20	13	12.00	K22400332__M0J105	
3900	76x105	0.08	16	11	13.40	K22400392__M0J105	
4400	90x98	0.08	15	10	14.00	K22400442__M0L098	
4700	76x143	0.09	13	10	16.70	K22400472__M0J143	
5600	76x143	0.09	10	8	18.20	K22400562__M0J143	
6800	76x214	0.09	9	6	23.00	K22400682__M0J214	
6800	90x145	0.09	9	6	20.40	K22400682__M0L145	
8200	90x145	0.09	8.5	6	22.30	K22400822__M0L145	
10000	90x220	0.09	7	5	29.70	K22400103__M0L220	
12000	90x220	0.10	6.5	4	31.80	K22400123__M0L220	

K22 TYPE STANDARD RATINGS

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP mΩ 100 Hz 20°C	Z TYP mΩ 10kHz 20°C	Ir a.c. A max 100 Hz 105°C	PART NUMBER stud and insert style excluded	RATED VOLTAGE VDC
1200	51x79	0.08	44	26	5.44	K22420122__M0G079	420V
1200	51x105	0.08	44	26	6.08	K22420122__M0G105	
1500	51x105	0.08	40	24	6.78	K22420152__M0G105	
2200	63x105	0.08	24	15	9.93	K22420222__M0H105	
2200	76x79	0.08	24	15	9.15	K22420222__M0J079	
2200	76x98	0.08	24	15	9.86	K22420222__M0J098	
3300	76x105	0.08	20	13	12.00	K22420332__M0J105	
3900	76x105	0.08	16	11	13.40	K22420392__M0J105	
4400	90x98	0.08	15	10	14.00	K22420442__M0L098	
4700	76x143	0.09	13	10	16.70	K22420472__M0J143	
5600	76x143	0.09	10	8	18.20	K22420562__M0J143	
6800	76x214	0.09	9	6	23.00	K22420682__M0J214	
6800	90x145	0.09	9	6	20.40	K22420682__M0L145	
8200	90x145	0.09	8.5	6	22.30	K22420822__M0L145	
10000	90x220	0.09	7	5	29.70	K22420103__M0L220	
12000	90x220	0.10	6.5	4	31.80	K22420123__M0L220	

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP mΩ 100 Hz 20°C	Z TYP mΩ 10kHz 20°C	Ir a.c. A max 100 Hz 105°C	PART NUMBER stud and insert style excluded	RATED VOLTAGE VDC
1000	51x79	0.08	67	40	5.20	K22450102__M0G079	450V
1000	51x105	0.08	67	40	5.61	K22450102__M0G105	
1200	51x105	0.08	56	32	6.23	K22450122__M0G105	
2200	63x105	0.08	30	18	9.75	K22450222__M0H105	
2200	76x79	0.08	36	20	8.90	K22450222__M0J079	
2200	76x98	0.08	36	20	8.90	K22450222__M0J098	
2800	90x98	0.08	28	16	12.20	K22450282__M0L098	
3300	76x105	0.08	26	16	11.60	K22450332__M0J105	
3900	76x143	0.08	19	14	15.30	K22450392__M0J143	
4700	76x143	0.09	16	9	16.70	K22450472__M0J143	
5600	90x145	0.09	15	9	18.80	K22450562__M0L145	
6800	76x214	0.09	11	6	23.70	K22450682__M0J214	
6800	90x145	0.09	11	7	20.60	K22450682__M0L145	
8200	90x220	0.09	10	6	27.40	K22450822__M0L220	
10000	90x220	0.10	9	6	29.60	K22450103__M0L220	

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