K92 TYPE -40°C +105°C 5000H

RoHS Compliant

- **Design optimized for low equivalent series resistance and high ripple current.**
- **Surge-proof capacitor in aluminium can with insulation sleeve.**
- **To be mounted with ring clips or with threaded stud.**

APPLICATIONS

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

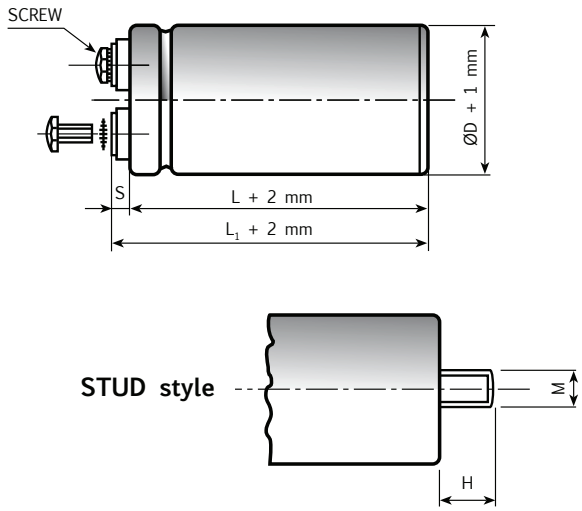

Diagram of dimensions (unit=mm)
Insert and screw threads: Metric (mm), UNF (inches)

ØD	d	d1	P	STUD M	STUD H	INSERT	SCREW	L_1 -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	0
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

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 400V to 450V DC
Surge Voltage (V_p)	V_p = 1.10 V_r
Rated Capacitance Range	from 1500 µF to 30000 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)	Refer to table at 105°C and 100Hz : FREQUENCY 50Hz 100Hz 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 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 **(105°C, Vn, Ir applied)**	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 **(105°C, Vn, Ir applied)**	> 5.000 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

K92 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
470	51x79	0.08	139	112	3.45	K92400471__M0G079	400V
680	51x79	0.08	107	100	3.90	K92400681__M0G079	
1000	51x79	0.08	75	67	4.50	K92420102__M0G079	
1000	51x105	0.08	75	67	4.90	K92400102__M0G105	
1500	63x105	0.08	53	40	6.00	K92400152__M0H105	
2200	63x105	0.08	40	31	7.50	K92400222__M0H105	
2200	76x105	0.08	40	31	8.50	K92400222__M0J105	
3300	76x143	0.08	25	16	11.30	K92400332__M0J143	
4700	76x143	0.08	20	15	14.10	K92400472__M0J143	
5600	76x143	0.08	17	11	14.30	K92400562__M0J143	
6800	76x143	0.08	15	10	18.00	K92400682__M0J143	
8200	76x214	0.08	14	10	20.10	K92400822__M0J214	
10000	90x220	0.09	13	9	25.10	K92400103__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
470	51x79	0.08	139	112	3.45	K92420471__M0G079	420V
680	51x79	0.08	107	100	3.90	K92420681__M0G079	
1000	51x79	0.08	75	67	4.50	K92420102__M0G079	
1000	51x105	0.08	75	67	4.90	K92420102__M0G105	
1500	63x105	0.08	53	40	6.00	K92420152__M0H105	
2200	63x105	0.08	40	31	7.50	K92420222__M0H105	
2200	76x105	0.08	40	31	8.50	K92420222__M0J105	
3300	76x143	0.08	25	16	11.30	K92420332__M0J143	
4700	76x143	0.08	20	15	14.10	K92420472__M0J143	
5600	76x143	0.08	17	11	14.30	K92420562__M0J143	
6800	76x143	0.08	15	10	18.00	K92420682__M0J143	
8200	76x214	0.08	14	10	20.10	K92420822__M0J124	
10000	90x220	0.09	13	9	25.10	K92420103__M0L220	

K92 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
470	51x79	0.08	159	120	3.20	K92450471__M0G079	450V
680	51x105	0.08	114	105	4.40	K92450681__M0G105	
1000	51x105	0.08	83	70	5.10	K92450102__M0G105	
1000	63x105	0.08	83	70	5.40	K92450102__M0H105	
1500	63x105	0.08	57	42	6.50	K92450152__M0H105	
1500	76x105	0.08	57	42	7.20	K92450152__M0J105	
2200	76x143	0.08	44	33	9.50	K92450222__M0J143	
3300	76x143	0.08	30	18	12.30	K92450332__M0J143	
4700	76x143	0.08	21	15	13.20	K92450472__M0J143	
5600	76x143	0.08	18	12	14.10	K92450562__M0J143	
6800	76x214	0.08	16	11	19.30	K92450682__M0J214	
8200	76x214	0.08	15	11	20.10	K92450822__M0J214	
10000	90x220	0.09	12	10	26.10	K92450103__M0L220	

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