K18 TYPE -55°C +85°C 10000H

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.

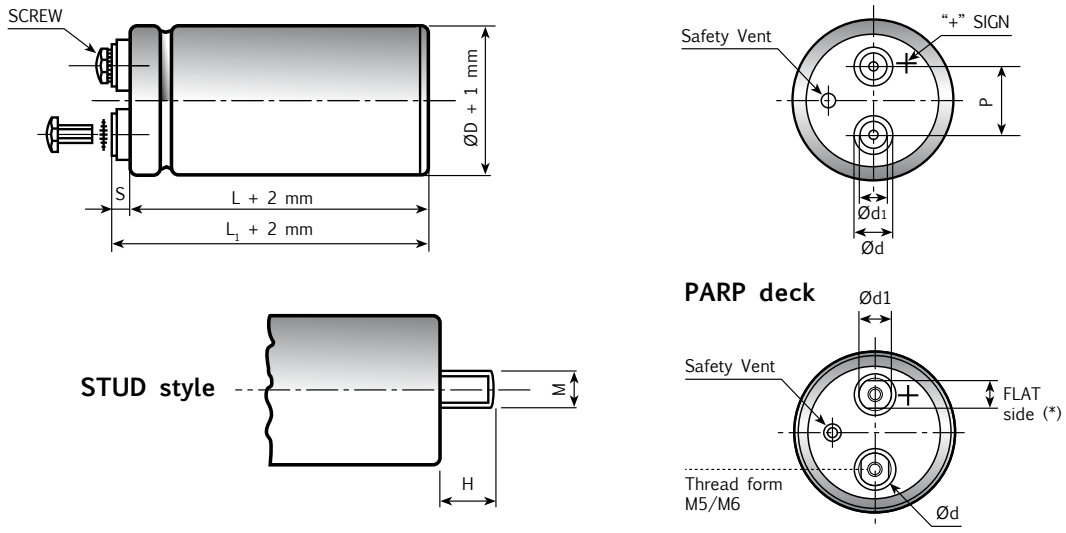


Diagram of dimensions (unit=mm)
Insert and screw threads: Metric (mm), UNF (inches)

ØD	d	d1	P	STUD		INSERT	SCREW	L1 -L[-1+3]	S[-1+1]	INSERT STYLE CODE
				M	H					
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
51	13	13 (10)*	22.7	M12	16	PARP M5	5MA x 9.5	6	7	K
63	15	15 (13)*	28.6	M12	16	PARP M5	5MA x 9.5	6	7	K
76	19	15 (13)*	31.8	M12	16	PARP M5	5MA x 9.5	6	7	K
76	19	15 (13)*	31.8	M12	16	PARP M6	6MA x 10	6	7	Q
90	19	15 (13)*	31.8	M12	16	PARP M6	6MA x 10	6	7	Q

Note: (*) quote on the PARP deck of the flat side (PARP = Protection Against Reverse Polarity).

K18 TYPE SPECIFICATIONS

Temperature Range	Operating: -55°C +85°C [Environmental classification 55/85/56 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 330 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)	Refer to table at 85°C and 100Hz : 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 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 85°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 2000 hours at 85°C, when restored at 20°C meet specifications aside	Cap change ≤ ±15% tan δ ≤ 150% Leakage current (I_L) < initial limit
Useful life (85°C, Vn, Ir applied) Operation up to 105° C with voltage derating 0,88 x Vr	> 10000 h at 85°C	
Failure percentage Failure rate	≤ 1% (during useful life) ≤ 33 fit (33 10^{-9}/h)	
Self inductance	Approx. 20 nH	
Reference standards	CECC 30.300 IEC 60384-4 LONG LIFE GRADE	

K18 TYPE STANDARD RATINGS

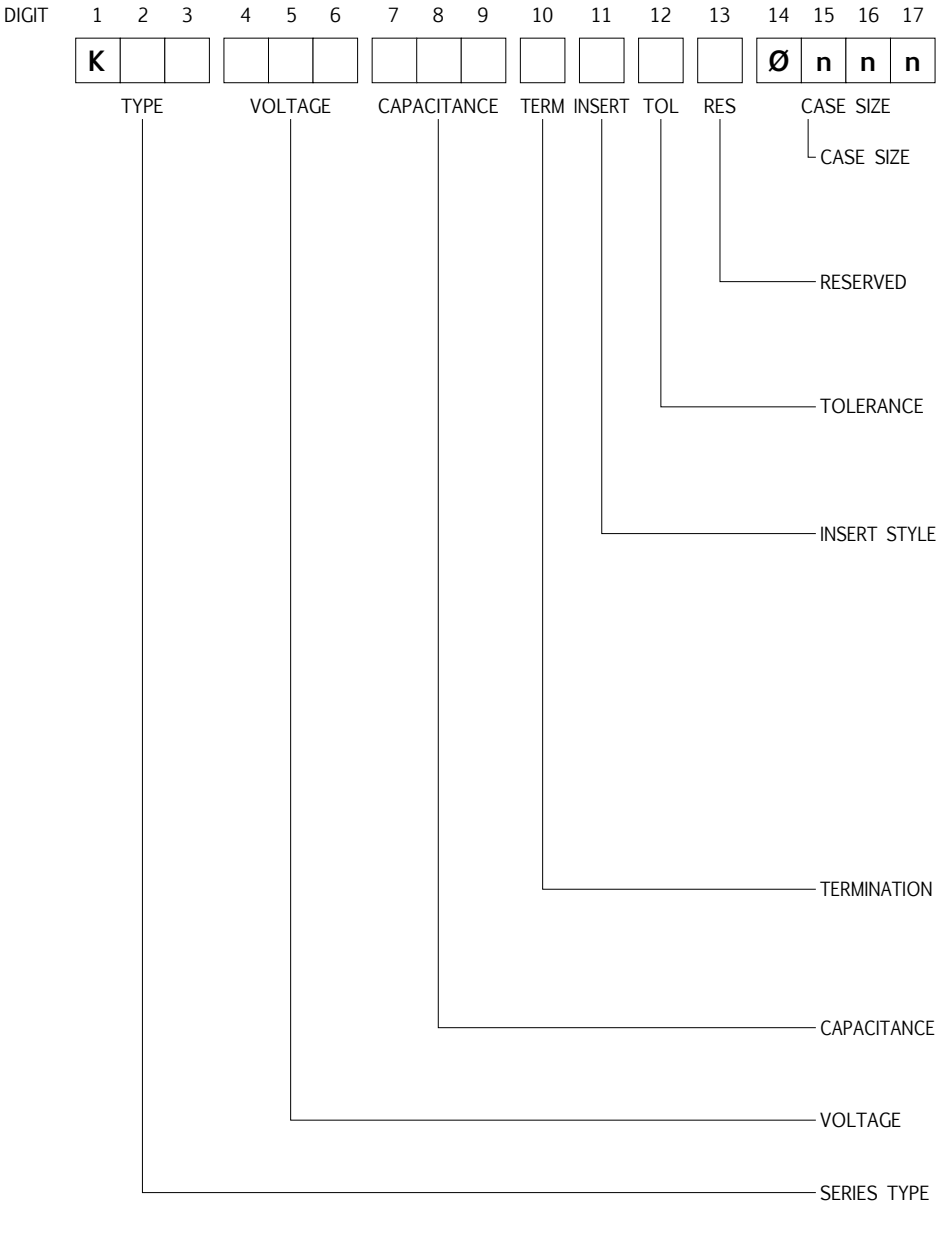
Cap µF	Ø x L Mm	Tan δ MAX 100 Hz 20°C	ESR TYP mΩ 100 Hz 20°C	Z TYP mΩ 10KHz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER Stud and insert style excluded	RATED VOLTAGE VDC
330	35x60	0.10	290	273	2.8	K18400331__M0E060	400V
470	35x60	0.10	160	150	3.0	K18400471__M0E060	
560	35x79	0.10	145	125	3.3	K18400561__M0E079	
680	35x79	0.10	120	115	3.8	K18400681__M0E079	
1000	51x79	0.10	105	95	5.8	K18400102__M0G079	
1500	51x79	0.10	65	55	6.3	K18400152__M0G105	
2200	51x105	0.10	50	47	8.3	K18400222__M0G105	
3300	63x105	0.12	35	30	11.0	K18400332__M0H105	
4700	76x105	0.15	30	29	14.9	K18400472__M0J105	
4700	76x143	0.15	30	29	16.8	K18400472__M0J143	
5600	76x143	0.15	26	25	19.0	K18400562__M0J143	
6800	76x143	0.15	22	18	19.5	K18400682__M0J143	
8200	76x143	0.15	22	18	19.5	K18400822__M0J143	
10000	76x143	0.15	21	17	19.6	K18400103__M0J143	
15000	76x214	0.20	15	12	26.0	K18400153__M0J214	
15000	90x220	0.20	15	12	33.5	K18400153__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 85°C	PART NUMBER Stud and insert style excluded	RATED VOLTAGE VDC
330	35x60	0.10	240	210	2.8	K18450331__M0E060	450V
470	35x79	0.10	200	179	3.1	K18450471__M0E079	
680	35x79	0.10	140	128	3.2	K18450681__M0E079	
820	51x79	0.10	120	102	4.8	K18450821__M0G079	
1000	51x79	0.10	100	88	4.9	K18450102__M0G079	
1500	51x79	0.10	67	55	5.4	K18450152__M0G079	
2200	51x105	0.10	60	55	7.2	K18450222__M0G105	
3300	63x105	0.12	35	30	9.3	K18450332__M0H105	
4700	76x105	0.15	32	30	14.0	K18450472__M0J105	
4700	76x143	0.15	32	30	15.0	K18450472__M0J143	
5600	76x143	0.15	26	25	18.0	K18450562__M0J143	
6800	76x143	0.15	23	22	19.2	K18450682__M0J143	
8200	76x143	0.15	22	20	19.5	K18450822__M0J143	
10000	76x214	0.15	20	19	23.1	K18450103__M0J214	
12000	76x214	0.15	15	12	23.8	K18450123__M0J214	
15000	90x220	0.20	14	12	32.6	K18450153__M0L220	

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

PART NUMBER SYSTEM
FOR SCREW TYPE CAPACITORS

New PART-NUMBER CODE in use since Sep 2010. Total length is 17 digits.
Please see examples below and have a reference code from the standard ratings capacitors pages.



CASE SIZE: Ø=DIAMETER code: E=35 G=51 H=63 M=72 J=76 L=90; nnn=LENGTH (in mm)

RESERVED: 0 = standard ratings, 1= special, n= others
G = double sleeve
S = no end disk
W = special design charge/discharge welding apps

TOLERANCE: tolerance range as IEC62
M= ±20%, Q= -10% +30%, X= custom
T= -10% +50%
U= -10% +75%

INSERT STYLE: insert type on decks
0= diam 35 small diameter M5
C= M6 small diameter insert
H= STD High Ripple:
diam 51-63-76 (M5), diam.90 (M6)
I= small diameter M5
L= M5 long insert style (*)
6= M6 diam 76 ONLY
K= M5 PARP (Protection Against Reversal Polarity)
Q= M6 PARP (Protection Against Reversal Polarity)
U= thread size 10-32 UNF High Post
R= 1/4 28 UNF High Post
Z= thread size 10-32 UNF Low Post
W= 1/4 28 UNF Low Post

TERMINATION: terminal as follows:
0= no stud (flat bottom)
M= M8x12 stud ONLY diam 35 mm
S= M12x16 stud for diam 51-63-72-76-90 mm

CAPACITANCE: [µF] - 2 significant digits plus multiplying factor
1= x10, 2= x100, 3= x1000, 4= x10000

VOLTAGE: DC rated voltage [V]

SERIES TYPE: Kendeil Aluminium Electrolytic Capacitor Type:
K01, K02, K03, K04, K07, K11, K21, K22,
K41, K42, K61, K71, K72, K91, K92

EXAMPLES

K 0 1 1 0 0 2 2 3 0 H M 0 H 1 0 5	K01 100V 22000µF, Hi ripple, -20%+20%, 63x105
K 0 1 0 6 3 2 2 3 S H Q 0 G 1 0 5	K01 63V 22000µF, stud M12x16, Hi rip. -10%+30%, 51x105
K 0 2 0 4 0 1 0 4 0 H M 0 J 1 4 3	K02 40V 100000µF, Hi ripple, -20%+20%, 76x143

Specifications subject to change without notice

(*) Note for INSERT STYLE digit_11

M5 long insert style dedicated to not insulated bus bar (+2 mm height versus STD High Ripple code)