

# K55 TYPE -40°C +105°C 6000H

RoHS Compliant

- Design optimized for Solar inverter.
- Very high CV for unit volume.
- Low ESR, High ripple current and long file.
- Safety vent at bottom case or aside case.

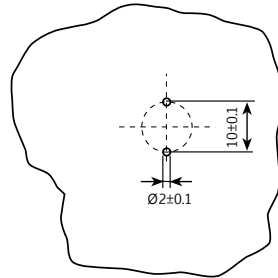
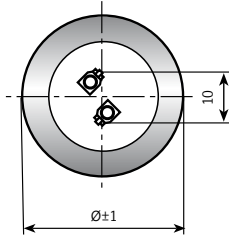
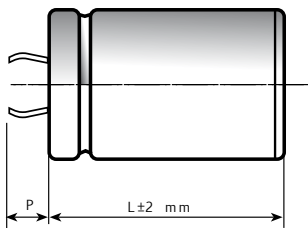
## APPLICATIONS

Designed for Solar inverters and professional power supplies.

Dimensions in mm.

Circuit board hole dimensions

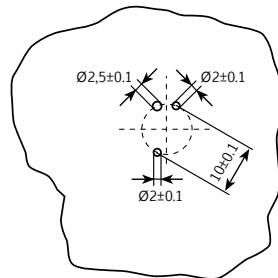
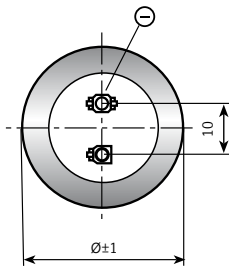
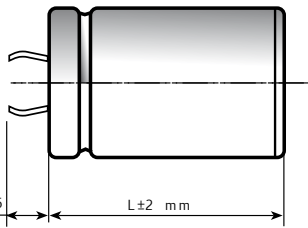
### 2 PIN CAPACITOR



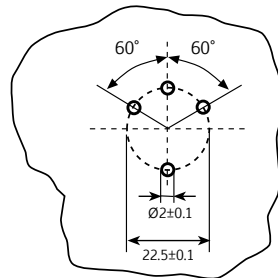
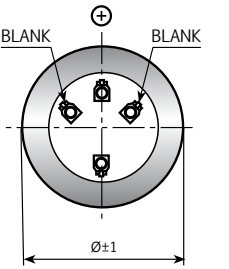
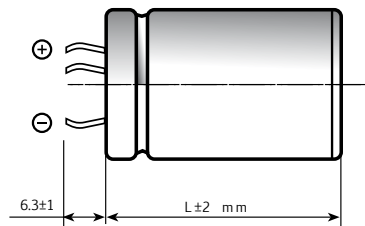
PIN LENGTH

P 4.5 short pin - P 6.3 long pin (standard)

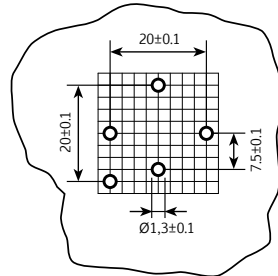
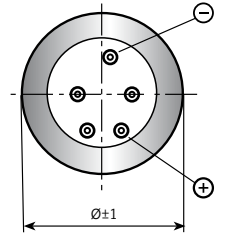
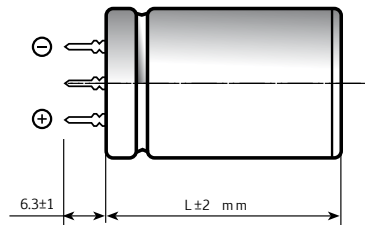
### 3 PIN CAPACITOR



### 4 PIN CAPACITOR



### 5 PIN CAPACITOR



Ø	22	25	30	35	40	45	50
2 PIN	●	●	●	●	●		
3 PIN		●	●	●			
4 PIN				●	●	●	●
5 PIN					●		

On demand, only for capacitors with diam ≥ 35mm: octagonal can shape for long stress vibration applications.

## SPECIFICATIONS

<b>Temperature Range</b>	Operating: -40°C +105°C Storage : Preferably below +25°C, not exceeding +40°C	
<b>Rated Voltage Range (V<sub>r</sub>)</b>	450V DC at 105°C, 500V DC at 50°C	
<b>Surge Voltage (V<sub>p</sub>)</b>	500V	
<b>Rated Capacitance Range</b>	from 330 µF to 820 µF	
<b>Capacitance Tolerance</b>	±20% at 100 Hz, 20°C [M class IEC-62]	
<b>Leakage Current (I<sub>L</sub>) (mA, 5 min, 20°C)</b>	max I <sub>L</sub> = 0.003 C <sub>r</sub> V <sub>r</sub> + 4 µA	
<b>Ripple current (I<sub>r</sub>)</b>	Refer to table at 105°C and 100Hz:	
	FREQUENCY	50Hz 100Hz 500 Hz 1000Hz >10kHz
	MULTIPLIER	0.88 1.0 1.45 1.5 1.55
	AMBIENT TEMP.	35°C 45°C 55°C 65°C 75°C 85°C 95°C 105°C
	MULTIPLIER	3.0 2.8 2.6 2.4 2.2 1.8 1.5 1
	Maximum internal temperature 110°C	
<b>Insulation Resistance</b>	At 100V DC for 1 min is >100 MΩ across insulating sleeve and terminals.	
<b>Vibration Resistance</b>	Frequency range: 10 Hz to 55 Hz, amplitude 0.75 mm max acceleration 10g for 3x2 h	
<b>Withstand voltage (between terminals bundled and plate)</b>	2500 VAC for 1 min	
<b>Life test</b>	After 2,000 hours application of rated voltage at 105°C capacitors meet characteristics aside	
	for all sizes with V ≤ 100V; all voltage capacitors with diameter ≤ 35mm	Cap change ≤ ±20% tan δ ≤ 200% Leakage current (I <sub>L</sub> ) < initial limit Impedance (Z) ≤ 200%
	for V ≥ 160V and for capacitors with diameter ≥ 40mm	Cap change ≤ ±10% tan δ ≤ 130% Leakage current (I <sub>L</sub> ) < initial limit Impedance (Z) ≤ 130%
<b>Shelf life</b>	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 <sub>L</sub> ) < initial limit
<b>Useful life (V<sub>n</sub>, Temp rated I ripple applied)</b>	250,000 h at 40°C - 450V with ripple current applied 6,000 h at 105°C - 450V with ripple current applied 5,000 h at 50°C - 500V without ripple current applied	
<b>Failure percentage Failure rate</b>	≤ 1% (during useful life) ≤ 40 fit (40 10 <sup>-9</sup> /h)	
<b>Self inductance</b>	Approx. 15 nH	
<b>Damp heat test (V<sub>n</sub> applied, 2000 hours, 85% RH)</b>	Stable electrical parameters in humidity ambient condition 85°C	
<b>Electrolyte</b>	All the capacitors of this series have self-extinguishing electrolyte in accordance with IEC EN 60695-11-10	
<b>Marking information</b>	minus pole band aside within an angle of 41° ± 25°	
<b>Reference standards</b>	CECC 30.300 - IEC 60384-4 LONG LIFE GRADE	

## K55 TYPE STANDARD RATINGS

Cap $\mu\text{F}$	$\varnothing \times L$ mm	Tan $\delta$ MAX 100 Hz 20°C	ESR TYP m $\Omega$ 100 Hz 20°C	Z TYP m $\Omega$ 10 kHz 20°C	Ir a.c. A max 100 Hz 105°C	PART NUMBER termination digit excluded
330	30x40	0.09	240	170	1.80	K55450331_PM0D040
330	35x40	0.09	240	170	2.10	K55450331_PM0E040
390	30x50	0.09	197	149	2.20	K55450391_PM0D050
470	30x50	0.09	195	147	2.25	K55450471_PM0D050
470	35x50	0.09	195	147	2.67	K55450471_PM0E050
560	35x50	0.09	150	103	2.80	K55450561_PM0E050
560	35x60	0.09	150	103	3.10	K55450561_PM0E060
680	35x50	0.09	149	115	2.85	K55450681_PM0E050
680	35x60	0.09	149	115	3.25	K55450681_PM0E060
820	40x60	0.09	120	92	3.60	K55450821_PM0F060

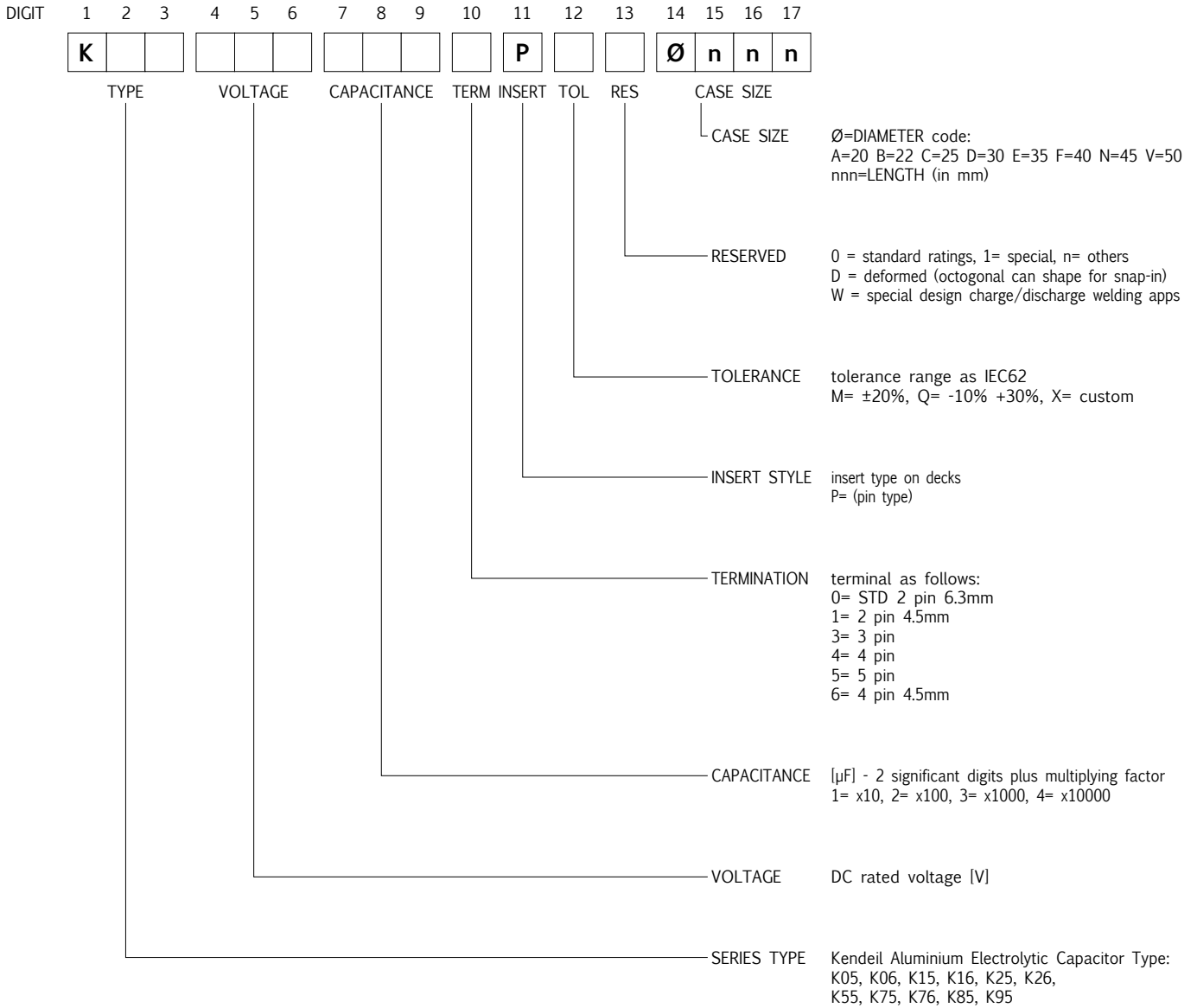
**RATED  
VOLTAGE  
VDC**

**450V**

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

# PART NUMBER SYSTEM FOR SNAP-IN 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.



## EXAMPLES

K	0	5	4	5	0	4	7	1	0	P	M	0	E	0	5	0
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K05 450V 470µF, standard pin, ±20%, 35x50

Specifications subject to change without notice