

KN Series

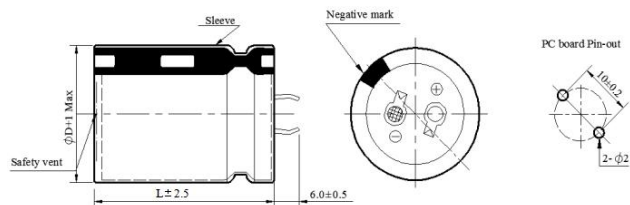
- Long life and high temperature, down size and high ripple current.
- Load life 5,000 hours at 105°C.

◆ SPECIFICATIONS

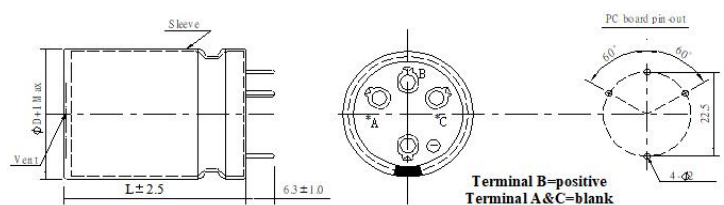
Item	Performance Characteristics								
Category Temperature Range	-25 ~ +105°C								
Working Voltage Range	200~500Vdc								
Capacitance Range	56~1,800μF								
Capacitance Tolerance	±20% (at 20°C and 120Hz)								
Dissipation Factor (tan δ) (at 20°C, 120Hz)	Rated Voltage (V)	200	220	250	400	420	450	500	
	tan δ (Max)	0.20	0.20	0.20	0.24	0.24	0.24	0.24	
The above values should be increased by 0.02 for every additional 1000μF									
Leakage Current	$I \leq 3 \sqrt{CV}$ I : Leakage current (μA) C : Rated capacitance (μF) V : Rated voltage (V) Apply rated voltage the rated voltage for 5 minutes.								
Low Temperature Characteristics Impedance Ratio(MAX)	Rated Voltage (V)	200~250	350	400	420 ~ 450	500	(at 120Hz)		
	Z(-25°C)/Z(+20°C)	4	4	4	10	10			
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied for 5,000 hours at 105°C.								
	Capacitance change	≅ ±20% of the initial value							
	Dissipation factor(tan δ)	≅ 200% of the specified value							
	Leakage current	≅ specified value							
Shelf Life	The following requirements shall be satisfied when the capacitor are restored to 20°C after the rated voltage applied for 1,000 hours at 105°C without voltage applied.								
	Capacitance change	≅ ±20% of the initial value							
	Dissipation factor(tan δ)	≅ 150% of the specified value							
	Leakage current	≅ 200% of the specified value							
Others	Conforms to JIS-C-5101-4 (1998)								

◆ DIMENSIONS(mm)

Terminal Code :S2

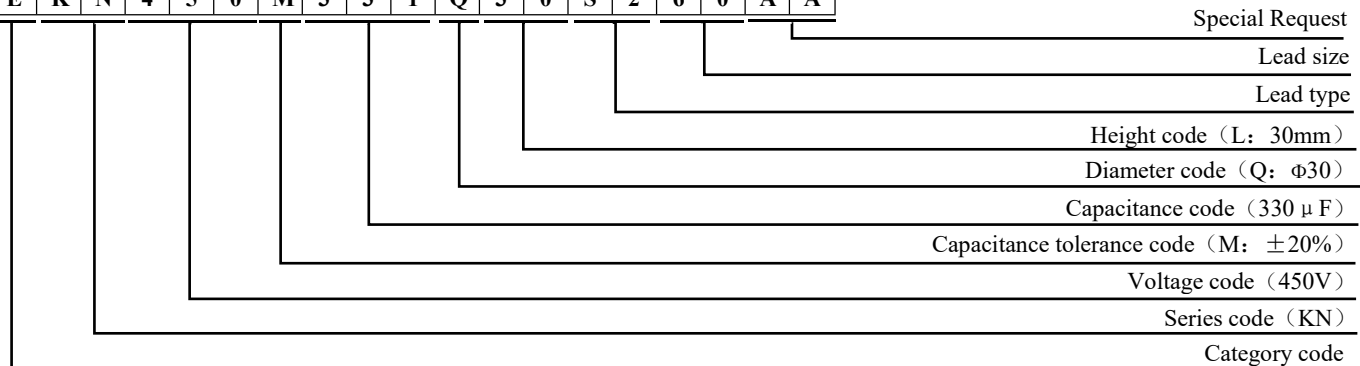


Terminal Code :S4



◆ PART NUMBER SYSTEM(Example : 450V 330μF)

E	K	N	4	5	0	M	3	3	1	Q	3	0	S	2	6	0	A	A
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KN Series

◆ Case size & Permissible rated ripple current: (mA rms) at 105°C / 120Hz.

uF	Vdc		200								uF	Vdc		220							
	ΦD	RC	Φ 22		Φ 25		Φ 30		Φ 35			ΦD	RC	Φ 22		Φ 25		Φ 30		Φ 35	
			ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC				ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC
220	22×25	900								180	22×25	920									
270	22×30	1100								220	22×30	990									
330	22×35	1150	25×25	1150						270	22×35	1040	25×25	1040							
390	22×40	1310	25×30	1310						330	22×40	1300	25×30	1260							
470	22×45	1450	25×35	1450	30×25	1450				390	22×45	1420	25×35	1450	30×25	1420					
560	22×50	1550	25×40	1580	30×30	1600				470	22×50	1580	25×40	1540	30×30	1540					
680			25×45	1780	30×35	1780	35×25	1780		560			25×45	1660	30×35	1650	35×25	1650			
820			25×50	1950	30×40	1950	35×30	1950		680			25×50	1850	30×40	1820	35×30	1780			
1000					30×45	2300	35×35	2300		820					30×45	2000	35×35	1930			
1200					30×50	2530	35×40	2650		1000					30×50	2350	35×40	2330			
1500							35×45	3080		1200							35×45	2650			
1800							35×50	3120		1500							35×50	2960			

uF	Vdc		250								uF	Vdc		400							
	ΦD	RC	Φ 22		Φ 25		Φ 30		Φ 35			ΦD	RC	Φ 22		Φ 25		Φ 30		Φ 35	
			ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC				ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC
150										68	22×25	520									
180	22×25	950								82	22×30	640									
220	22×30	1000								100	22×35	660	25×25	660							
270	22×35	1150	25×25	1150						120	22×40	750	25×30	750							
330	22×40	1200	25×30	1200	30×25	1200				150	22×45	870	25×30	860	30×25	820					
390	22×45	1440	25×35	1430	30×30	1430				180	22×50	910	25×35	890	30×30	870					
470	22×50	1600	25×40	1600	30×35	1650	35×25	1600		220			25×40	1120	30×35	1100	35×25	1100			
560			25×45	1780	30×40	1800	35×30	1800		270			25×45	1260	30×40	1220	35×30	1220			
680			25×50	1850	30×45	1870	35×35	2000		330			25×50	1300	30×45	1430	35×35	1430			
820					30×50	2060	35×40	2150		390					30×50	1600	35×40	1600			
1000							35×45	2380		470							35×45	1810			
1200							35×50	3000		560							35×50	2070			

uF	Vdc		420								uF	Vdc		450							
	ΦD	RC	Φ 22		Φ 25		Φ 30		Φ 35			ΦD	RC	Φ 22		Φ 25		Φ 30		Φ 35	
			ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC				ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC
68	22×25	460																			
82	22×30	580								68	22×25	490									
100	22×30	630	25×25	520						82	22×30	580	25×25	580							
120	22×35	730	25×30	620						100	22×35	690	25×30	700							
150	22×40	860	25×35	850	30×25	840				120	22×40	770	25×35	830	30×25	810					
180	22×50	1060	25×40	1050	30×30	980	35×25	950		150	22×45	880	25×40	880	30×30	880					
220			25×45	1180	30×35	1140	35×30	1070		180	22×50	900	25×45	920	30×35	1030	35×25	1050			
270			25×50	1330	30×40	1310	35×35	1380		220			25×50	1200	30×40	1170	35×30	1200			
330					30×45	1480	35×40	1480		270					30×45	1340	35×35	1330			
390					30×50	1500	35×45	1630		330					30×50	1510	35×40	1390			
470							35×50	1950		390							35×45	1710			
560							35×55	2170		470							35×50	1830			

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◆ Case size & Permissible rated ripple current: (mA rms) at 105°C / 120Hz.

Vdc ΦD uF	500							
	Φ 22		Φ 25		Φ30		Φ35	
	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC
56	22×25	560						
68	22×30	610	25×25	650				
82	22×35	720	25×30	740	30×25	740		
100	22×40	770	25×35	780	30×25	820		
120	22×45	930	25×40	930	30×30	910	35×25	880
150	22×50	1080	25×45	1080	30×35	1040	35×25	1080
180			25×50	1100	30×40	1170	35×30	1100
220					30×45	1330	35×35	1230
270					30×50	1500	35×40	1420
330							35×45	1600
390							35×50	1780

◆ **RIPPLE CURRENT MULTIPLIERS**

Frequency Multipliers

Vdc	Frequency (Hz)				
	50/60	120	1K	10K	100K
200 ~ 250	0.80	1.00	1.20	1.30	1.40
400 ~ 500	0.80	1.00	1.10	1.12	1.15