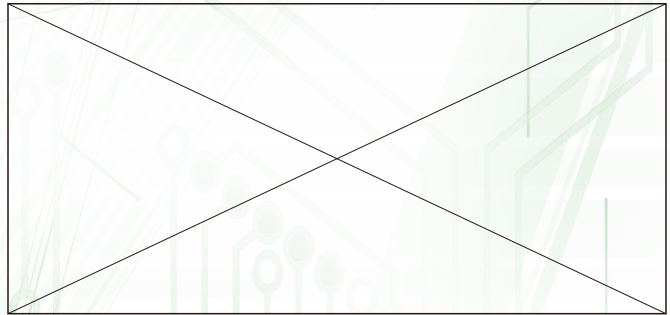


KX Series

- Radial lead type aluminum electrolytic Capacitor for general-purpose
- Rate voltage is extended to 450V
- We guarantee operation for 2000 hours at 85
- Rohs compliance.

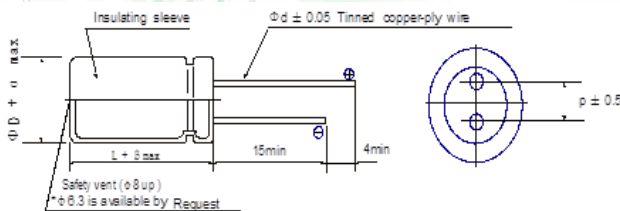


■ SPECIFICATIONS

Item	Characteristics	
Operating Temperature Range	- 40 ~ + 85°C	- 25 ~ + 85°C
Voltage Range	6.3 ~ 350 V.DC	160 ~ 450 V.DC
Nominal Cap. Range	0.1 ~ 15000 μF	0.47 ~ 220 μF
Capacitance Tolerance	- 20% ~ + 20% (at 20°C, 120Hz)	
Leakage Current	WV	6.3 ~ 100
	LC	I = 0.01CV or 3(μA) whichever is greater. (after 2 min.)
		I = 0.06cv + 10 μA (after 2 min.)
where, I: Max Leakage Current(μA), C: Nominal Capacitance(μF), V: Rated Voltage(V) (at 20°C)		
Dissipation Factor (tanδ) (at 120Hz, +20°C)	WV	6.3 10 16 25 35 50 63 100 160~250 350~450
	tanδ	0.22 0.19 0.16 0.1 0.1 0.1 0.09 0.08 0.12 0.20
0.02 is added to every 1000μF increase over 1000μF.		
Low Temp. Impedance Stability at 120Hz	Rated voltage (V.DC)	6.3 10 16 25 35 50 63 100 160 200 250 350 400, 450
	Impedance	Z - 25°C / Z + 20°C 4 3 2 2 3 8 16
	e ratio	Z - 40°C / Z + 20°C 8 6 6 3 - - -
High Temp. Load Test	After 2000hrs. Application of DC rated working voltage at +85°C, The capacitor shall meet the following limits. Capacitance change ... ≅ ± 20% of the initial measured value Tanδ ... ≅ 150% of the initial specified value DC leakage current ... ≅ the initial specified value	
High Temp. Non-Load Test	After storage for 1000 hours at 85°C with no voltage applied, voltage treatment of JIS-C-5102 article 4-4 is to be given and then measurement shall be made, at which time requirements specified in the table "High temperature loading" can be met.	

Note: Some cleaning solvents may adversely affect the capacitors. Consult us about the suitable type of cleaning solvents to be used.

● DRAWING



Unit:(mm)

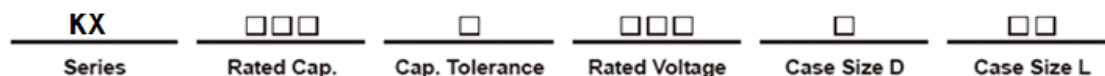
ΦD	5	6.3	8	10	13	16	18	22
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5	10.0
Φd	0.5		0.6		0.8			
β	1.0			1.5			2.0	
α	0.5							

▼ MULTIPLIER FOR RIPPLE CURRENT

Frequency coefficient

Freq.(HZ)	60(50)	500	1K	10K
Cap(μF)				
0.1~ 100	0.70	1.30	1.40	1.50
220 ~ 1000	0.75	1.20	1.30	1.35
2200 ~ 15000	0.80	1.10	1.10	1.15

◆ PART NUMBERING SYSTEM



KX series

STANDARD RATINGS

Cap (μF)	6.3		10		16		25		35		50		63		100	
	ΦDxL	Ripple	ΦDxL	Ripple	ΦDxL	Ripple	ΦDxL	Ripple	ΦDxL	Ripple	ΦDxL	Ripple	ΦDxL	Ripple	ΦDxL	Ripple
	(mm)	current (mArms)	(mm)	current (mArms)	(mm)	current (mArms)	(mm)	current (mArms)	(mm)	current (mArms)	(mm)	current (mArms)	(mm)	current (mArms)	(mm)	current (mArms)
0.1											5X11	1.5			5X11	3
0.22											5X11	3			5X11	5
0.33											5X11	5			5X11	7
0.47											5X11	8			5X11	11
1											5X11	10			5X11	15
2.2											5X11	20			5X11	25
3.3											5X11	26			5X11	35
4.7							5X11	27	5X11	30	5X11	33	5X11	35	5X11	45
10					5X11	40	5X11	45	5X11	50	5X11	60	5X11	60	6.3X11	70
22			5X11	50	5X11	60	5X11	70	5X11	80	5X11	90	6.3X11	100	6.3X11	130
33	5X11	60	5X11	65	5X11	80	5X11	90	5X11	100	6.3X11	110	6.3X11	140	8X11.5	170
47	5X11	70	5X11	80	5X11	110	5X11	120	5X11	130	6.3X11	140	6.3X11	240	8X11.5	230
100	5X11	120	5X11	140	5X11	170	5X11	180	6.3X11	210	8X11.5	260	10X12.5	300	10X16	370
220	6.3X11	200	5X11	210	6.3X11	260	6.3X11	330	8X11.5	370	10X12.5	440	10X20	490	13X25	630
330	6.3X11	240	6.3X11	290	6.3X11	350	8X11.5	410	8X14	490	10X16	610	13X21	680	16X25	860
470	6.3X11	340	6.3X11	390	8X11.5	470	8X14	540	10X16	620	10X16	750	13X20	880	16X32	1100
1000	8X12	590	8X12	660	8X16	790	8X20	950	13X20	1150	13X25	1350	16X25	1400	18X35	1600
2200	10X16	1050	10X16	1,000	10X20	1350 1210	13X20	1550	13X25	1700	16X35	2100	18X35	2300		
3300	13X20	1250	13X25	1200	13X25	1700	16X25	1700	18X32	2250	18X35	2400	18X40	2550		
4700	13X25	1700	16X25	1500	16X25	2100	16X32	2400	18X35	2600	18X40	2850				
6800	16X25	1950	16X31.5	1700	18X32	2550	18X35	2700	18X40	2650						
10000	16X32	2300	18X36	1900	18X40	2900	22X41	3000								
15000	18X35	3650														

Cap (μF)	160		200		250		350		400		450	
	ΦDxL	Ripple	ΦDxL	Ripple	ΦDxL	Ripple	ΦDxL	Ripple	ΦDxL	Ripple	ΦDxL	Ripple
	(mm)	current (mArms)	(mm)	current (mArms)	(mm)	current (mArms)	(mm)	current (mArms)	(mm)	current (mArms)	(mm)	current (mArms)
0.47	5X11	11	6.3X11	11	6.3X11	11	6.3X11	20	6.3X11	20	6.3X11	26
1	5X11	15	6.3X11	15	6.3X11	15	6.3X11	29	6.3X11	29	6.3X11	45
2.2	5X11	24	6.3X11	24	6.3X11	27	6.3X11	50	6.3X11	50	6.3X11	60
3.3	6.3X11	32	6.3X11	32	6.3X11	35	6.3X11	61	8X11.5	61	8X11.5	78
4.7	6.3X11	40	8X11.5	40	6.3X11	45	8X11.5	73	8X11.5	80	8X16	134
10	8X11.5	65	8X11.5	88	8X11.5	70	10X20	128	8X16	150	10X16	240
22	10X16	105	10X16	135	10X20	110	13X20	183	13X16	242	13X20	322
33	10X20	140	10X20	205	13X25	155	13X25	242	13X20	329		
47	13X21	160	13X21	230	16X25	175	16X25	254	16X25	344		
82	13X25	243	16X25	400	18X25	255	18X25	360	18X25	430		
100	16X25	280	16X25	460	18X32	310						
220	16X36	360	16X35.5	660								

→ Rated Ripple Current (mArms) at 85 120Hz
 → Case Size: ΦDxL (mm)