

# KX Series

## Features

- Snap-in, smaller size
- Endurance with ripple current: 105°C 2000 hours
- High ripple current capability
- Safety vent designed on aluminum case
- RoHS2.0 Compliant

## Applications

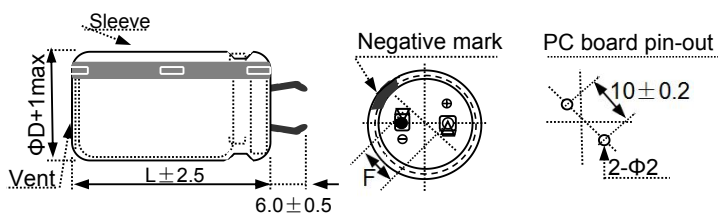
- Professional power supply
- Inverter
- UPS
- Air conditioner, general purpose inverter
- Professional arena power amplifier
- Frequency converters
- Medical power supply
- And others

## 规格表 Specifications

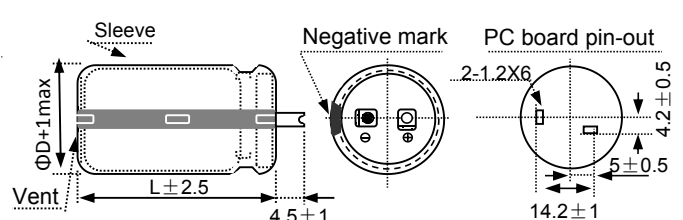
项目 Items	参数特性 Characteristics		
使用温度范围 Category Temperature Range	-25 ~ +105°C		
额定工作电压范围 Rated Voltage Range	160 ~ 500V.DC		
电容量允许偏差 Capacitance Tolerance	±20%(M) (at 20°C, 120Hz)		
漏电流 Leakage Current	I ≤ 3√CV 施加额定工作电压5分钟 After 5 minutes application of rated voltage . Note: I= Max. leakage current (μA), C = Nominal capacitance (μF), V = Rated voltage (V) (at 20°C)		
损耗角正切值 tanδ Dissipation Factor	Rated voltage(V)	160~400	420~500
	tanδ (Max.)	0.15	0.20
标称容量超过1000μF,则每增加1000μF,损耗角正切值增加0.02 When nominal capacitance exceeds 1000μF, add 0.02 to the value above for each 1000μF increase.(at 20°C, 120Hz)			
低温特性 LOW Temperature Characteristics (Max.Impedance Ratio)	阻抗比值不得超过下表中列出的值 The impedance ratio shall not exceed the values listed in the below table.		
	Rated volage(V)	160~400	420~500
Z(-25°C)/Z(+20°C)		4	8
(at 120Hz)			
耐久性 Endurance	在105°C环境中, 不超过额定电压的范围内叠加最大允许纹波电流, 连续2000小时, 经恢复到20°C后, 电容器满足以下各项要求。 The following specifications shall be satisfied when the capacitors are restored to 20°C after applied within maximum allowable ripple current and not over rated voltage range for 2000 hours at 105°C.		
	Capacitance change	≅ ±20% of the initial value	
	D.F.(tanδ)	≅ 200% of the initial specified value	
	Leakage current	≅ The initial specified value	
高温储存特性 Shelf Life	在105°C环境中, 不施加电压条件下储存1000小时, 经恢复到20°C后, 电容器满足以下各项要求。 The following specifications shall be satisfied when the capacitors are restored at 20°C after exposing them for 1000 hours at 105°C without voltage applied.		
	Capacitance change	≅ ±20% of the initial value	
	D.F.(tanδ)	≅ 150% of the initial specified value	
	Leakage current	≅ 200% of the initial specified value	

## 尺寸图 (单位: mm) DIMENSIONS (Unit:mm)

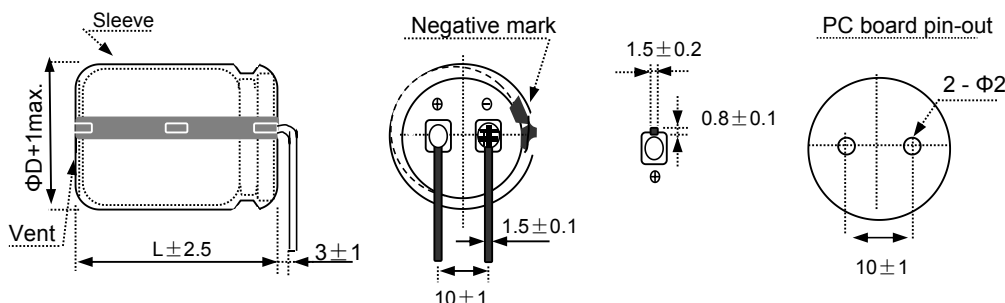
### ●Standard Terminal Type : S (Φ22 ~ Φ35)



### ●Terminal Type : P (Φ35)



### ●Terminal Type : L (Φ22×30 ~ 50L)



**KX Series**

◆ 纹波电流修正系数 **Rated Ripple Current Coefficient**

● 频率系数 **Frequency Coefficient**

Frequency(Hz)	50	120	300	1k	10k	50k
6.3 ~ 50V	0.95	1.0	1.03	1.05	1.08	1.08
63 ~ 100V	0.92	1.0	1.07	1.13	1.19	1.20
160 ~ 250 V	0.81	1.0	1.17	1.32	1.45	1.50
315 ~ 500 V	0.77	1.0	1.16	1.30	1.41	1.43

◆ 标准品一览表 **Standard Ratings**

WV(V) Cap.(μF)	160(2C)				180(2Z)				200(2D)			
470	22×25 1.47				22×25 1.32				22×30 1.34			
680	22×30 1.9	25×25 1.9			22×35 1.90				22×40 1.90	25×30 1.90		
820	22×35 2.09	25×30 2.09			22×40 2.20	25×30 2.10	30×25 2.30		22×45 2.20	25×35 2.20	30×25 2.20	
1,000	22×40 2.35	22×45 2.35	25×35 2.35	30×25 2.50	22×45 2.40	22×50 2.50	25×35 2.40	30×30 2.50	22×50 2.50	25×40 2.40	30×30 2.50	35×25 2.70
1,200	22×50 2.70	25×40 2.70	30×30 2.80	35×25 3.00	25×45 2.80	30×35 2.80	35×25 2.90		25×45 2.70	25×50 2.80	30×35 2.80	35×30 3.00
1,500	25×45 3.00	30×35 3.20	35×30 3.20		25×50 3.10	30×40 3.30	35×30 3.40		30×40 3.30	35×35 3.30		
1,800	25×50 3.40	30×40 3.60	35×30 3.70		30×45 3.70	35×35 3.70			30×45 3.70	30×50 3.70	35×40 3.80	
2,200	30×45 4.10	35×35 4.10			30×50 4.10	35×45 4.80			35×45 4.30			
2,700	30×50 4.50	35×40 4.70	35×45 4.80		35×45 4.80	35×50 4.90			35×50 4.90			
3,300	35×50 5.50	← Case size: ΦD×L(mm) 外壳尺寸: 直径X长度 (毫米) ← Maximum allowable ripple current at 105°C/120Hz(A.r.m.s) 在105°C/120Hz下的最大允许纹波电流 (有效值, 单位: 安)										

WV(V) Cap.(μF)	250(2C)				400(2G)				420(W6)			
150					22×30 0.90				22×35 1.00			
220					22×40 1.20	25×30 1.20			22×45 1.20	22×50 1.20	25×35 1.20	30×30 1.20
270	22×25 1.10				22×45 1.30	25×35 1.30	30×25 1.30		25×40 1.30	25×45 1.40	35×25 1.40	
330	22×30 1.30				22×50 1.50	25×40 1.50	30×30 1.50	35×25 1.50	35×50 1.50	30×35 1.50	30×40 1.50	35×30 1.60
470	22×40 1.60	25×30 1.60			30×40 1.90	35×30 1.90	35×35 2.00		30×50 1.90	35×40 1.90		
560	22×45 1.80	25×35 1.80	30×25 1.90		30×45 2.00	30×50 2.10	35×35 2.10		35×45 2.20			
680	22×50 2.00	25×40 2.00	30×30 2.10	35×25 2.20	35×40 2.40	35×45 2.40			35×50 2.50			
820	25×45 2.30	30×35 2.30	35×25 2.20		35×50 2.70							
1,000	25×50 2.50	30×40 2.70	35×30 2.70									
1,200	30×45 3.00	30×50 3.00	35×35 3.00									
1,500	35×40 3.50	35×45 3.60										
1,800	35×50 4.00	← Case size: ΦD×L(mm) 外壳尺寸: 直径X长度 (毫米) ← Maximum allowable ripple current at 105°C/120Hz(A.r.m.s) 在105°C/120Hz下的最大允许纹波电流 (有效值, 单位: 安)										

※ 铝电解电容器由于在纹波电流叠加时自我发热、温度上升而老化，中心温度每升温5°C寿命减少一半。要想保持长寿命请在使用过程中降低纹波电流。

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use the average ripple current has to be reduced.



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## ◆ 标准品一览表 Standard Ratings

Cap.( $\mu$ F)	WV(V)	450(2W)				500(2H)			
		120	22×30 0.80	22×35 0.90	25×25 0.80		22×50 0.90	25×35 0.95	30×30 0.95
150	22×40 0.95	25×30 0.95	30×30 1.20		25×45 1.10	30×35 1.10	35×25 1.00		
220	22×50 1.20	25×40 1.20	30×30 1.20	35×25 1.30	30×45 1.40	35×35 1.40			
270	25×45 1.40	25×50 1.50	30×35 1.40	35×30 1.40	30×50 1.50	35×40 1.50			
330	30×40 1.50	35×30 1.40			35×45 1.60				
470	35×40 2.00	35×45 2.10			35×60 2.00				
560	35×50 2.30	← Case size: $\Phi$ D×L(mm) ← Maximum allowable ripple current at 105°C/120Hz(A.r.m.s)							

※铝电解电容器由于在纹波电流叠加时自我发热、温度上升而老化，中心温度每升温5°C寿命减少一半。要想保持长寿命请在使用过程中降低纹波电流。

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced.