1. Featur

1.1 Applied in across-the line, line-to-ground, and line-by-pass application.

1.2 Certified to meet demanding X & Y type worldwide safety agency requirements, based on IEC384-14 3ND edition.

1.3 Disc ceramic capacitors with epoxy coating (blue color).

1.4 Flame-resistant outer insulation (UL 94V-0).

1.5 RoHS compliance.

2. Standard Recognition

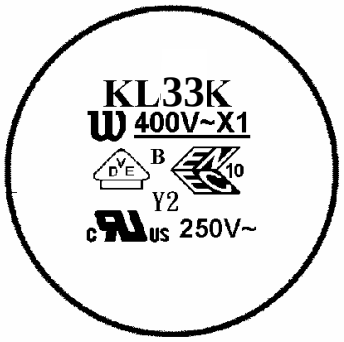
Country		Standard	Rated Voltage	Certificate number	Climate Category
UL USA	c UL us	UL1414 FOWX2	250VAC	E104572	
UL CANADA		UL1414 FOWX8			
CSA Canada		CAN/CSA-E384-14-95	250VAC	1413193 (LR66829)	
VDE Germany		EN 60384-14(0565-1)2006-04 EN60384-14 2005-08 IEC 60384-14 ED3	X1: 440/100 VAC Y2: 300/250 VAC	116772	55/125/21
ENEC (Table A)		EN 60384-14(0565-1)2006-04 EN60384-14 2005-08 IEC 60384-14 ED3	X1: 440/100 VAC Y2: 300/250 VAC	40016156	55/125/21
CQC China		GB/T14472-1998	X1: 400 VAC Y2: 250 VAC	CQC03001008380	

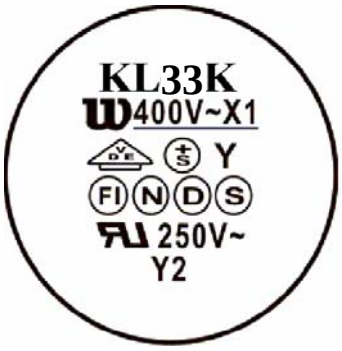
Table A — ENEC Signatories Please refer to http://www.eepca.org/affiche_cbgroup.php?typ=1&soc=4

AENOR (Spain)	MEEI (Hungary)
ASTABEAB (United kingdom)	NEMKO (Norway)
BSI (United kingdom)	SGS Belgium (Belgium)
CERTIF (Portugal)	SGS FIMKO (Finland)
ELECTROSUISEE (Switzerland)	SIQ (Slovenia)
ELOT (Greece)	SNCH (Luxembourg)
EZU (Czech Republic)	TRPS (Germany)
IMQ (Italy)	TUV SUD PS (Germany)
Intertek Semko (Sweden)	U Int DEMKO (Demark)
KEMA (Netheriands)	VDE (Germany)
LCIE (France)	OVE (Austria)

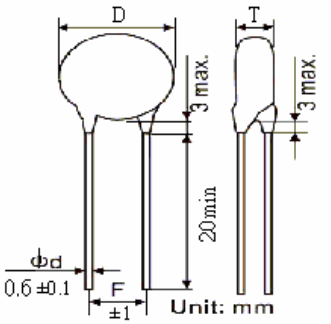
3. Marking & Mechanical Drawing

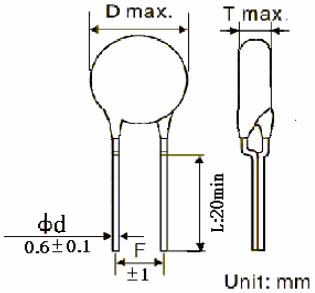
Ex:





Series:	KL
Capacitance:	33(33PF)
Tolerance:	K (±10%)
Trademark:	
Rated Voltage:	250V~, 400V~
Sub-class:	Y2, X1
Safety mark:	





REMARK:

Part Number Configuration :

KL SL 33P K Y2
(1) (2) (3) (4) (5)

(1) AC capacitors, safety
(2) Type code: COG, SL
(3) Rated capacitance
(4) Tolerance on rated capacitance
(5) Class Y2

4.Product List and Dimensions

Welson Part Number	T.C.	Capacitance (PF) & Tolerance		D max	T max	F ±1.0	Remark for customer approval	
				Unit: mm			.Lead Spec. & Packing	Customer part number & Notes
KL COG 1P0 C/D Y2	COG	1.0 pF	±0.25pF(C) ±0.5pF(D)	8	6			
KL COG 1P5 C/D Y2	COG	1.5 PF	±0.25pF(C) ±0.5pF(D)	8	6			
KL COG 2P2 C/D Y2	COG	2.2 pF	±0.25pF(C) ±0.5pF(D)	8	6			
KL COG 3P3 C/D Y2	COG	3.3 PF	±0.25pF(C) ±0.5pF(D)	8	6			
KL COG 4P7 C/D Y2	COG	4.7 pF	±0.25pF(C) ±0.5pF(D)	8	6			
KL COG 5P1 C/D Y2	COG	5.1 PF	±0.25pF(C) ±0.5pF(D)	8	6			
KL COG 6P8 C/D Y2	COG	6.8 pF	±0.25pF(C) ±0.5pF(D)	10	6			
KL COG 10P J/K Y2	COG	10 PF	±5%(J) ±10%(K)	10	6			
KL SL 1P0 C/D Y2	SL	1.0 PF	±0.25pF(C) ±0.5pF(D)	8	6			
KL SL 1P5 C/D Y2	SL	1.5 pF	±0.25pF(C) ±0.5pF(D)	8	6			
KL SL 2P2 C/D Y2	SL	2.2 PF	±0.25pF(C) ±0.5pF(D)	8	6			
KL SL 3P3 C/D Y2	SL	3.3 pF	±0.25pF(C) ±0.5pF(D)	8	6			
KL SL 4P7 C/D Y2	SL	4.7 PF	±0.25pF(C) ±0.5pF(D)	8	6			
KL SL 5P1 C/D Y2	SL	5.1 pF	±0.25pF(C) ±0.5pF(D)	8	6			
KL SL 6P8 C/D Y2	SL	6.8 PF	±0.25pF(C) ±0.5pF(D)	10	6	5.0 7.5		
KL SL 10P J/K Y2	SL	10 pF	±5%(J) ±10%(K)	8	6			
KL SL 12P J/K Y2	SL	12 PF	±5%(J) ±10%(K)	8	6			
KL SL 15P J/K Y2	SL	15 pF	±5%(J) ±10%(K)	8	6			
KL SL 18P J/K Y2	SL	18 PF	±5%(J) ±10%(K)	8	6			
KL SL 20P J/K Y2	SL	20 pF	±5%(J) ±10%(K)	8	6			
KL SL 22P J/K Y2	SL	22 PF	±5%(J) ±10%(K)	8	6			
KL SL 27P J/K Y2	SL	27 pF	±5%(J) ±10%(K)	10	6			
KL SL 30P J/K Y2	SL	30 PF	±5%(J) ±10%(K)	10	6			
KL SL 33P J/K Y2	SL	33 pF	±5%(J) ±10%(K)	10	6			
KL SL 36P J/K Y2	SL	36 PF	±5%(J) ±10%(K)	10	6			
KL SL 39P J/K Y2	SL	39 pF	±5%(J) ±10%(K)	10	6			
KL SL 47P J/K Y2	SL	47 PF	±5%(J) ±10%(K)	11	6			
KL SL 56P J/K Y2	SL	56 pF	±5%(J) ±10%(K)	11	6			
KL SL 68P J/K Y2	SL	68 PF	±5%(J) ±10%(K)	11	6			
KL SL 82P J/K Y2	SL	82 pF	±5%(J) ±10%(K)	11	6			

Part Number Configuration :

KL B 101 K Y2
(1) (2) (3) (4) (5)

(4) AC capacitors, safety
(5) Type code: COG, SL
(6) Rated capacitance

(4) Tolerance on rated capacitance
(5) Class Y2

4.Product List and Dimensions

Welson Part Number	T.C.	Capacitance (PF) & Tolerance		D max	T max	F ±1.0	Remark for customer approval	
				Unit: mm			.Lead Spec. & Packing	Customer part number & Notes
KL B 101 K Y2	B (Y5P)	100 pF	±10%(K)	10	8	7.5		
KL B 101 M Y2		100 PF	±20%(M)	10	8	7.5		
KL B 151 K Y2		150 pF	±10%(K)	10	8	7.5		
KL B 221K Y2		220 PF	±10%(K)	10	8	7.5		
KL B 331K Y2		330 pF	±10%(K)	10	8	7.5		
KL B 331M Y2		330 PF	±20%(M)	10	8	7.5		
KL B 471K Y2		470 pF	±10%(K)	10	8	7.5 / 10		
KL B 471M Y2		470 PF	±20%(M)	10	8	7.5		
KL B 681K Y2		680 pF	±10%(K)	10	8	7.5		
KL B 681M Y2		680 PF	±20%(M)	10	8	7.5		
KL B 102K Y2		1000 pF	±10%(K)	10	8	7.5		
KL F 102 M Y2	F(Y5V)	1000 PF	±20%(M)	10	8	5.0		
KL F 152 M Y2	F (Y5V)	1500 pF	±20%(M)	11	8	7.5		
KL F 222 M Y2		2200 PF	±20%(M)	11	8	7.5 / 10		
KL F 332 M Y2		3300 pF	±20%(M)	10	8	7.5 / 10		
KL F 472 M Y2		4700 PF	±20%(M)	11	8	7.5 / 10		
KL F 103 M Y2		10000 pF	±20%(M)	16	8	10		

5. Performance

1	Capacitance Tolerance	J: ±5%, K: ±10%, C: ±0.25pF, D: ±0.5pF, M: ±20% at 25°C, 1KHz 1Vrms max.
2	Dissipation Factor (D.F.)	2.5% max. (T.C.: SL, COG, B, E) 5.0% max. (T.C.: F)
3	Insulation Resistance	10000 MΩ min. at 500v ±50V DC for 1 minute
4	Dielectric Strength	2500V AC for 60 seconds 50Hz or 60Hz
5	Working Temperature Range	-25°C to 125°C
6	Temperature Characteristic	COG: ±60 ppm/°C, SL: +350 ~ -1000 ppm/°C B: ±10%, E: +20% ~ -55%, F: +30% ~ -85% Between -25°C ~ +85°C
7	Operating Voltage	250VAC / 400VAC