

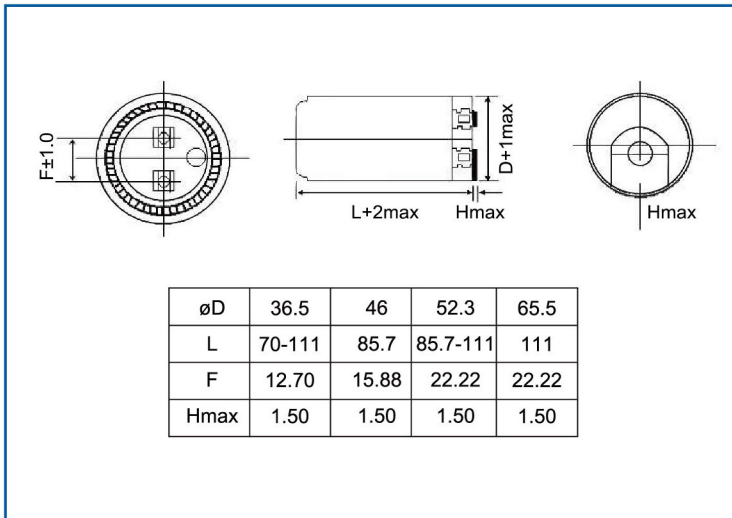
### Non-polar jump-start for motor starting, Series KLT

Diameters from  $\Phi 36.5$  to  $\Phi 65.5$ mm and a height of 111mm

RoHS

Outline Drawing

Unit: mm



Photo



Marking color: white print on black sleeve

### Specifications

No.	Item	Performance
1	Temperature range (°C)	-25 to +65
2	Rated voltage range (V)	110~330
3	Rated capacitance range ( $\mu F$ )	21~1536
4	Capacitance tolerance (%)	$\pm 10\%$ (20°C, 120Hz)
5	Tangent of the loss angle (Tan $\delta$ )	< 0.10 (20°C, 100Hz)
6	Endurance (65°C)	According to the working voltage and different capacitance, 0.5-4 minutes switch on electricity one time(1S), 12500 ~ 50000 times
7	The voltage between the terminal	Infliction 1.25 working voltage, 2S
8	The voltage between the terminal and the case	2000VAC 10S, no destroy
9	Applicable standards	JIS-C-5101-4(IEC60384)



### Rated voltage & Dimension & Capacitance

DXL(mm) Cap(μF)	WV(V)					
	110/115	125	165	220	250	330
22	36.5X70	36.5X70	36.5X70	36.5X70	36.5X70	36.5X85.7
27	36.5X70	36.5X70	36.5X70	36.5X70	36.5X70	36.5X85.7
33	36.5X70	36.5X70	36.5X70	36.5X70	36.5X85.7	46X85.7
39	36.5X70	36.5X70	36.5X70	36.5X70	36.5X85.7	46X85.7
47	36.5X70	36.5X70	36.5X70	36.5X85.7	36.5X85.7	46X85.7
52	36.5X70	36.5X70	36.5X70	36.5X85.7	36.5X85.7	46X85.7
59	36.5X70	36.5X70	36.5X70	36.5X85.7	46X85.7	46X111
70	36.5X70	36.5X70	36.5X70	46X85.7	46X85.7	46X111
79	36.5X70	36.5X70	36.5X70	46X85.7	46X85.7	46X111
100	36.5X70	36.5X70	36.5X85.7	46X85.7	46X111	52.3X111
120	36.5X70	36.5X70	36.5X85.7	46X85.7	46X111	65.5X111
130	36.5X70	36.5X70	36.5X85.7	46X111	46X111	65.5X111
150	36.5X70	36.5X70	46X85.7	46X111	46X111	65.5X111
160	36.5X70	36.5X70	46X85.7	52.3X111	52.3X111	65.5X111
180	36.5X70	36.5X70	46X85.7	52.3X111	52.3X111	65.5X111
200	36.5X70	36.5X85.7	46X85.7	52.3X111	65.5X111	65.5X111
230	36.5X85.7	36.5X85.7	46X85.7	65.5X111	65.5X111	65.5X111
250	36.5X85.7	36.5X85.7	46X111	65.5X111	65.5X111	
270	36.5X85.7	36.5X111	46X111	65.5X111	65.5X111	
290	36.5X85.7	36.5X111	46X111	65.5X111	65.5X111	
350	36.5X111	46X85.7	52.3X111			
370	46X85.7	46X85.7	52.3X111			
420	46X85.7	46X85.7	52.3X111			
440	46X85.7	46X85.7	52.3X111			
470	46X85.7	46X85.7	65.5X111			
500	46X85.7	46X85.7	65.5X111			
590	46X111	46X111	65.5X111			
650	46X111	46X111				
710	52.3X111	52.3X111				
780	52.3X111	52.3X111				
790	52.3X111	52.3X111				
880	52.3X111	52.3X111				
900	52.3X111	65.5X111				
910	65.5X111	65.5X111				
930	65.5X111	65.5X111				
1100	65.5X111					
1300	65.5X111					
1400	65.5X111					



### PC Board Plug-in 4 Terminals, Ultra miniaturized Capacitors, Series K4H.

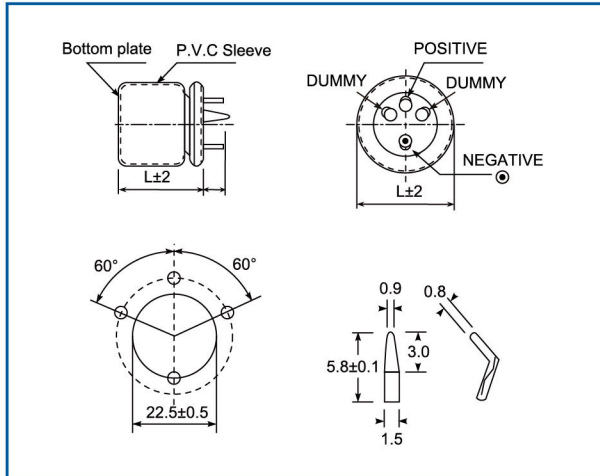
Long life 2000 hours at +105°C with ripple current applied.

Expected life: 75000 hours at +65°C with ripple current applied.

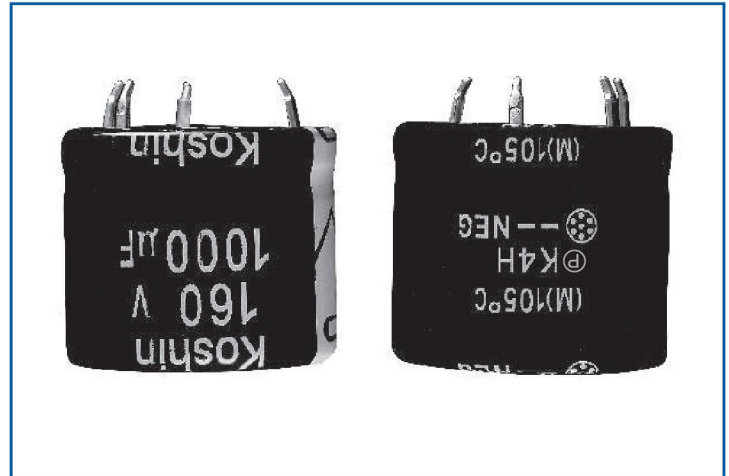
RoHS

Outline Drawing

Unit: mm



Photo



Marking color: White print on black sleeve

### Specifications

No.	Item	Performance					
1	Temperature range(°C)	-25 to +105					
2	Leakage current (µA)	Less than 0.02CV or 3mA whichever is smaller (after five minutes) C: Rated Capacitance(µ F); V: Rated voltage(V) 20°C					
3	Capacitance tolerance (%)	±20 (20°C, 120Hz)					
4	Tangent of the loss angle (Tan δ)	Rated voltage (V)	160	200	250	400	20°C 120Hz
		Tanδ(max)	0.15	0.15	0.15	0.15	
5	Low temperature characteristics	Rated voltage (V)	160	200	250	400	120Hz
		Impedance ratio(max)   $Z_{(-25°C)}/Z_{(+20°C)}$	4	4	4	8	
6	Endurance (105°C) (Applied ripple current)	Test time	2000hours				
		Leakage current	The initial specified value or less				
		Percentage of capacitance change	Within ±20% of initial value				
		Tangent of the loss angle	200% or less of the initial specified value				
7	Shelf life (105°C)	Test time	1000hours				
		Leakage current	The initial specified value or less				
		Percentage of capacitance change	Within ±20% of initial value				
		Tangent of the loss angle	200% or less of the initial specified value				
8	Applicable standards	JIS-C-5101-4(IEC60384)					

### Coefficient of Frequency for Ripple Current

Capacitance (µ F)	Frequency (Hz)				
	50-60	120	1K	10K	50K-100K
CAP ≤ 100	0.80	1.00	1.36	1.48	1.53
100 < CAP ≤ 1000	0.80	1.00	1.25	1.35	1.38
1000 < CAP	0.80	1.00	1.17	1.25	1.28

### Coefficient of Temperature for Ripple Current

Temperature(°C)	45	60	70	85	95	105
Coefficient	1.55	1.30	1.20	1.40	1.25	1.00



Dimension:  $\Phi$ DXL(mm)  
Ripple Current: A/rms at 120Hz, 105°C

### DIMENSION & PERMISSIBLE RIPPLE CURRENT

V.DC $\mu$ F	160				200			
	$\Phi$ DXL	A	$\Phi$ DXL	A	$\Phi$ DXL	A	$\Phi$ DXL	A
220					30X25	1.15		
330	30X25	1.39			30X30	1.33		
390	30X25	1.47			30X30	1.47	35X25	1.47
470	30X30	1.64			30X35	1.54	35X30	1.54
560	30X30	1.76			30X40	1.69	35X30	1.69
680	30X35	1.98	35X30	1.98	30X45	1.90	35X35	1.90
820	30X40	2.36	35X30	2.36	30X50	2.24	35X40	2.24
1000	30X50	2.60	35X35	2.60				
1200	30X55	2.73						

V.DC $\mu$ F	250				400			
	$\Phi$ DXL	A	$\Phi$ DXL	A	$\Phi$ DXL	A	$\Phi$ DXL	A
82					30X25	0.73		
100					30X30	0.82		
120					30X35	0.87	35X25	0.87
150					30X40	1.00	35X30	1.00
180	30X25	0.98			30X45	1.06	35X35	1.06
220	30X30	1.10			30X50	1.18	35X40	1.18
270	30X30	1.22						
330	30X35	1.36	35X30	1.36				
390	30X40	1.47	35X30	1.47				
470	30X40	1.58	35X35	1.58				
560	30X50	1.76	35X40	1.76				

