

[1] Features

- ① Self-healing property avoiding short circuit.
- ② Low loss.
- ③ High operating temperature.
- ④ Environmentally safe and compatible by use of nontoxic(no PCB's)dielectric oil.

[2]Typical applications

- ① Single phase AC induction motor(compressor,refrigerator,fan,pump,etc.)run.
- ② Lighting power factor correction(Fluorescent ballast efficiency):"Parallel"and "Series"compensation where standard ambient temperature or humid climatic conditions.
- ③ General 50/60Hz application,but not be used at higher frequency or in applications higher frequency harmonics are present.

[3]Construction



- ① **Winding** :non-inductively wound self-healing metallized polypropylene film.
 - ② **Style** :Dielectric oil impregnated winding is encapsulated in an aluminum case with a self-extinguishing rubber bake cover(UL-94V2).
- *Impregnation:For a self-healing dielectric,impregnation is basically not required.
 However,our capacitors,the windings are vacuum-impregnated with dielectric oil(non PCB) to eliminate air and moisture then protect metallized film from corrosion and improve "self-healing".

The dielectric oil

- ① suppresses the degrading effects of corona at the edge of the metallized film to attain a high life expectancy.
- ② eliminates environmental influences and improves heat transfer as coolant then reduces thermal resistance and provides excellent heat dissipation.
- ③ resulting in superior capacitance stability and guarantee reliable,long-term operation.

The winding is firmly located by inbuilt securing device,make the capacitor safe from earthing insulation and resistance to vibration.
 The capacitor is sealed by an edging of the case on the cover,ensuring air-tight closure.

- ③ **Terminal** :AMP 250 terminals standard.

Available with 2 tine upon request.

- ④ **Options** :Also,available with a discharge resistor,ground lugs,special terminals,mounting bracket, upon request.

[4]Specifications

① General data

Applicable standard	IEC60252,JIS C4908	
Rated voltage(URAC)	250VAC,450VAC	
Capacitance range	2.0uF~80.0uF	
Capacitance tolerance	+ 10~ -5%(U),±10%(K),±5%(J),±3%(W)	
Max. permissible temperature	+85℃	
Min. ambient temperature	-25℃	
Life expectancy	40D(40,000h)	

② Electrical data

AC withstand voltage	between terminals	1.75URAC for 10sec.
	the collected terminals and case	2,000 VAC for 60sec.
Dissipation factor(DF)	0.10% max. at 20℃,50/60hz,URAC	
Rated frequency	50/60hz.	
Insulation resistance	≥ 2,000MΩ at 20℃,between the collected terminals and the case. 500VDC,1 min.	
Max. permissible voltage	1.1 URAC	
Max. permissible current	1.3 rated current	
Max. permissible VA	1.35 rated VA	

*rated current(A)= $2\pi f(\text{hz})C(\text{uF})URAC(\text{VAC}) \times 10^{-6}$

*rated VA(Var)= $2\pi f(\text{hz})C(\text{uF})URAC^2(\text{VAC}) \times 10^{-6}$

3] Environmental test data

Item	Test conditions	Test criteria
Sealing and heating test	+90±3℃ for 1~3 hours	No leakage of dielectric fluid.
Damp heat test	5 cycles of; ① 8 hours at 40±3℃, R.H.:90~95% ② 16 hours under normal ambient temperature (5~35℃) and normal humidity(R.H.:45~85%)	① Rins: ≥ 0.5 x specified value in ② Electrical data. ② Increase in DF at 90±3℃: ≤ 0.05% ③ $\frac{C}{C_0}$: ≤ ±5% of initial value
Endurance test	85±3℃ applying 1.25URAC for 800 hours	① Increase in DF at 90±3℃: ≤ 0.05% ② $\frac{C}{C_0}$: ≤ ±5% of initial value

5] Marking

URAC, Capacitance & tolerance are marked on the capacitor.

6] Ordering/part number information

MLC	62	P0	Z	25	455	K	2	G	R	W
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)

(1) AC capacitor for electrical appliance

(2) Shape of capacitor (cylindrical, aluminum case)

(3) Safety class: without PSI

(4) Operating temperature: -25~+85℃

(5) URAC: expressed in tens of volts of AC, for example 25=250VAC

(6) Capacitance in pF: first 2 figures indicating the pF, last figure indicating numbers of zeros to be added to the pF.

The letter D indicates ½uF for capacitors 10.5uF and above.

For example: 4,500,000pF= 4,500nF= 4.5uF=455

12,500,000pF=12,500nF=12.5uF=12D

(7) Capacitance tolerance: ±10%

(8) Option (Terminal style): 2 tine AMP 250 quick disconnect terminals available.

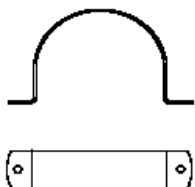
2 tine AMP 250 quick disconnect terminals: 2

(9) Option (Ground lug): G

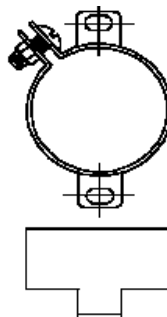
(10) Option (Discharge resistor): R

(11) Option (Mounting brackets): W (wrap around)

Mounting brackets

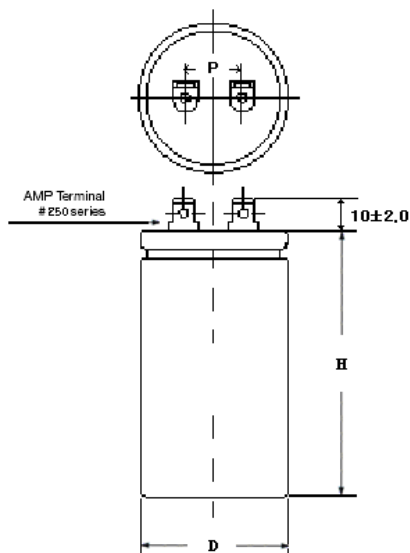


〈Wrap around〉 :W



〈2 footed〉 :F

7] Dimensions in mm



URAC:250Vrms(50/60Hz)

uF	D(±1.0)	H(±2.0)	P(±1.0)
2.0	35.0	55.0	12.0
2.5	35.0	55.0	12.0
3.0	35.0	55.0	12.0
3.5	35.0	55.0	12.0
4.0	35.0	55.0	12.0
4.5	35.0	55.0	12.0
5.0	35.0	55.0	12.0
6.0	35.0	65.0	12.0
7.0	35.0	65.0	12.0
8.0	35.0	65.0	12.0
9.0	35.0	65.0	12.0
10.0	35.0	65.0	12.0
11.0	35.0	65.0	12.0
12.0	35.0	65.0	12.0
14.0	35.0	65.0	12.0
15.0	35.0	65.0	12.0
16.0	40.0	65.0	12.0
17.0	40.0	65.0	12.0
18.0	40.0	65.0	12.0
20.0	40.0	65.0	12.0
22.0	40.0	65.0	12.0
25.0	40.0	65.0	12.0
27.0	40.0	65.0	12.0
30.0	40.0	65.0	12.0
35.0	40.0	85.0	12.0
40.0	45.0	85.0	15.0
45.0	45.0	85.0	15.0
50.0	45.0	90.0	15.0
55.0	45.0	90.0	15.0
60.0	45.0	90.0	15.0
65.0	50.0	100.0	20.0
70.0	50.0	100.0	20.0
75.0	50.0	100.0	20.0
80.0	50.0	100.0	20.0

URAC:450Vrms(50/60Hz)

uF	D(±1.0)	H(±2.0)	P(±1.0)
2.0	35.0	55.0	12.0
2.5	35.0	55.0	12.0
3.0	35.0	55.0	12.0
3.5	35.0	55.0	12.0
4.0	35.0	55.0	12.0
4.5	35.0	55.0	12.0
5.0	35.0	55.0	12.0
6.0	35.0	65.0	12.0
7.0	35.0	65.0	12.0
8.0	35.0	65.0	12.0
9.0	40.0	65.0	12.0
10.0	40.0	65.0	12.0
11.0	40.0	85.0	12.0
12.0	40.0	85.0	12.0
14.0	40.0	85.0	12.0
15.0	40.0	85.0	12.0
16.0	40.0	85.0	12.0
17.0	40.0	85.0	12.0
18.0	40.0	85.0	12.0
20.0	40.0	85.0	12.0
22.0	50.0	85.0	20.0
25.0	50.0	85.0	20.0
27.0	50.0	85.0	20.0
30.0	50.0	85.0	20.0
35.0	45.0	85.0	20.0
40.0	45.0	85.0	20.0
45.0	45.0	85.0	20.0

*For further details, refer to  [General technical information of AC film capacitors for electrical appliances](#)

