



Professionally approved products.

Instruction Manual

Metallized polypropylene film AC motor capacitor





RS Product List:

ltem	Description
843-2014/843-2014p	Motor cap 4uF 450Vac AMP187
843-2020/843-2020p	Motor cap 2.5uF 350V tinned wire 3.8mm
843-2023/843-2023p	Motor cap 3uF 450V tinned wire 4.0mm
843-2026/843-2026p	Motor cap 2.5uF 350V tinned wire 4.0mm
843-2032/843-2032p	Motor cap 1.5uF 450V AMP187
843-2036/843-2036p	Motor cap 4uF 450V tinned wire 4.0mm
843-2039/843-2039p	Motor cap 2uF 450V tinned wire 3.5mm
843-2042/843-2042p	Motor cap 2.2uF 350V tinned wire 5.0mm
843-2045/843-2045p	Motor cap 1.2uF 450V tinned wire 3.5mm
843-2048/843-2048p	Motor cap 4uF 250V tinned wire 4.3mm
843-2051/843-2051p	Motor cap 2uF 450V tinned wire 5.0mm
843-2054/843-2054p	Motor cap 4uF 250V tinned wire 30mm

Specifications:

Reference	e Standard	GB/T 3667.1 (IEC 60252-1)					
Rated Voltage		500Vac	450Vac	300/350Vac	250Vac		
		(50/60Hz)	(50/60Hz)	(50/60Hz)	(50/60Hz)		
Class of o	peration	Class C (Class B for 4 50Vac)	Class C	Class C	Class C		
Capacita	nce Range	0.1µF~9.5µF	0.1µF~9.5µF	0.5µF~20µF	0.5µF~20µF		
Class of s	afety protection	PO (Indicates that th	e capacitor type l	nas no specific failure	protection.)		
Climatic (Category		40/70/21 or	40/85/21			
Capacita	nce Tolerance		±5 %, ±10 %	‰, ± 15 %			
Voltage	Between	1000Vac(2s)	900Vac(2s)	600Vac/700Vac(2s)	500Vac(2s)		
Proof	Terminals						
	Between	2 000Vac(60s)					
	Terminals						
	And Case						
Maximum	permissible	1.1Un					
voltage							
Maximum permissible		1.3Ix					
current							
Insulation	n Resistance	η 3 000s (20ℤ,100V,1min)					
(IR× Cn)							
Dissipatio	on Factor	≤0.0020 (1kHz ,20②)					

Dimensions:

Tinned lead wire (mm)

450Vac					
C Ν (μ F)	W±1	H±1	T±1	P	RS Article Number
2.0	32.0	28.0	14.0	27.5	843-2051/843-2051p
1.2	36.0	22.0	13.0	32.5	843-2045/843-2045p
2.0	36.0	24.0	14.0	32.5	843-2039/843-2039
3.0	36.0	28.0	18.0	32.5	843-2023/843-2023p
4.0	36.0	30.0	18.0	32.5	843-2036/843-2036p

Note: 1. when P=22.5/27.5mm,d=0.8±0.05mm; when P>27.5mm,d=1.0±0.05mm

Tabs or Insulated flexible lead wires (mm)

450Vac					
C Ω(μF)	W±1	H±1	T±1	PA	RS Article Number
1.5	36.0	23.0	13.0	32.5	843-2032/843-2032p
4.0	47.0	30.0	18.0	37.0	843-2014/843-2014p

Note: 1. Dimension of tab please refer to outline drawing

Tinned Lood wire (mm)						
	350Vac					
CN (∪F)	W±1	H±1	T±1	P	RS Article Number	
2.2	32.0	28.0	14.0	27.5	843-2042/843-2042p	
2.5	32.0	28.0	14.0	27.5	843-2020/843-2020p & 843-2026/843-2026p	

Tinned lead wire (mm)

	250Vac					
С (µ F)	W±1	H±1	T±1	P	RS Article Number	
4.0	32.0	28.0	17.0	27.5	843-2054/843-2054p	
4.0	36.0	27.0	14.0	32.5	843-2048/843-2048p	

Test Method And Performance:

No.	Item	Performance	Test Method (IEC 60252-1)
1	Solder ability (for wire terminals)	Good quality of tinning	Solder temperature: 245°C ±5°C Immersion time: 2.0s±0.5s
2	Terminal strength	There shall be no visible damage	Tension: 20N(for wire terminals) 40N(for tabs) Bend: 10N, (only for wire terminals) The terminals shall be bent 2 times in each direction
3	Vibration	There shall be no visible damage Capacitance change: ≤0.5% High voltage between terminal and case: 2000Vac, 60s, There shall be no permanent breakdown or flashover	f=10Hz to 55Hz a=+/-0.35mm Test duration per axis = 10 frequency cycles (3 axes offset from each other by 90°C), 1 octave per minute, the total times are 135min for 3 axes.
4	Resistance to solder heat (for wire terminals)	There shall be no visible damage. The marking shall be legible. The capacitance change $\leq 0.5\%$	Solder temperature:260°C±5°C Immersion time: 10s±1s
5	Damp heat test	There shall be no visible damage.The marking shall be legible.Capacitance change: ≤0.5%High voltage between terminals:2.0Un, 60sHigh voltage between terminal andcase: 2000Vac, 60s.There shall be no permanent breakdown or flashover.	Temperature: 40°C ±2°C Humidity: 93 ⁺² %RH Duration: 21days
6	Endurance test	During test, no permanent breakdown, interruption or flashover shall occur Liquids are allowed to wet the surface but not to form droplets Capacitance change: <3%	Test time: 600 hours, Class C Temperature: maximum permissible capacitor operating temperature (+70 °C or +85 °C) Test voltage: 1.25 Un Continuous
7	Self-healing test	There shall be no visible damage. The marking shall be legible. Change of capacitance: ≤0.5% Insulation resistor: IR≥100s, charge voltage 100Vdc, 60s, temperature 20°C A total of 25 or more than clearings shall be obtained from 10 capacitors tested but if any capacitor shows more than five clearings, only five shall be used in calculating the	The capacitors shall be subjected to an a.c. voltage of 2.0Un, which is increased at a rate of not more than 200V/min. until five clearings have occurred since the beginning of the test or until the voltage has reach 3.5Un. The voltage shall be decreased to 0.8 times the value at which the fifth clearing occurs or 0.8 times 2.15Un whichever is lower and maintained for 10s.

		total.	
8	Ball-pressure test	The sample will be cooled in cooling water for 10s after test. Diameter of impression not exceedi ng 2mm	Sample: Epoxy Resin piece Sample size: 30mm×30mm Sample thickness: ŋ3mm Temperature: 注125±5 Ball diameter: φ5 Pressure: 20N Testing time: 1h
9	Glow-wire test	Any flame or glowing of the specime n shall extinguish within 30s of with drawing the glow-wire, and any flami ng drops shall not ignite the tissue	Sample: Epoxy Resin piece Sample size: 30mm×30mm Sample thickness: η 3mm The temperature of the tip of the glow-wir e: (550±10) \bigcirc , $I_n \zeta 0.5A$) (850±15) \bigcirc , $I_n > 0.5A$) (850±15) \bigcirc , $I_n > 0.5A$) Testing time: 30s±1s The tissue spread out below the sample: 2 00mm±5mm
10	Tracking test	The electric current of the surface of sample: 烋0.5A烊 The sample shall not be ignited	Sample: Epoxy Resin piece Sample size: 15mm×15mm Sample thickness: ŋ3mm Electrode: Pt Pressure: 1.0N±0.05N Drop of liquid: 50 or the sample has been d estroyed.

Quality ensuring test (before shipment):

Inspection item炷each batch炸	Inspection level 炷GB 2828炸		
	IL II	AQL	
Appearance inspection	I	1.5%	
Dimensions			
Capacitance	II	0.25%	
Tangent of the loss angle			
Dielectric strength			
Insulation resistance			
Solderability	S-3	2.5%	

Ma<u>rking Introduction</u>僉

Sign	Explain	Sign	Explain
⊲⊳	Brand	SH	Clearing capacitor
CBB61	Туре	PO	Class of safety protection
450VAC	Rated voltage	GB/T 3667.1	CQC Approved and apply standard
2.0 µF±5%	Rated capacitance and tolerance		UL and CUL Approved and apply standard
40/70/21	Climate category	EN 60252-1 IEC 60252-1	VDE Approved and apply standard
50/60Hz	Rated frequency	80	Making time
C	Running Class		