



DRY CAPACITORS FOR MOTOR RUN & HID LIGHTING APPLICATIONS

Proven EIA-456-A Compliant 60,000 Hour
Reliability Industry Standard

Descriptive Information

Motor Run Applications 2

HID Lighting Applications 3

Model Numbering system 4

Dry Capacitors - Motor Run Applications

Product Specifications 5

Single Ratings – 1 Section 6

Application Data 7

Dry Capacitors - HID Lighting

Product Specifications 8

Single Ratings – 1 Section 9

Application Data 11

Outline 12

Capacitor Label 13

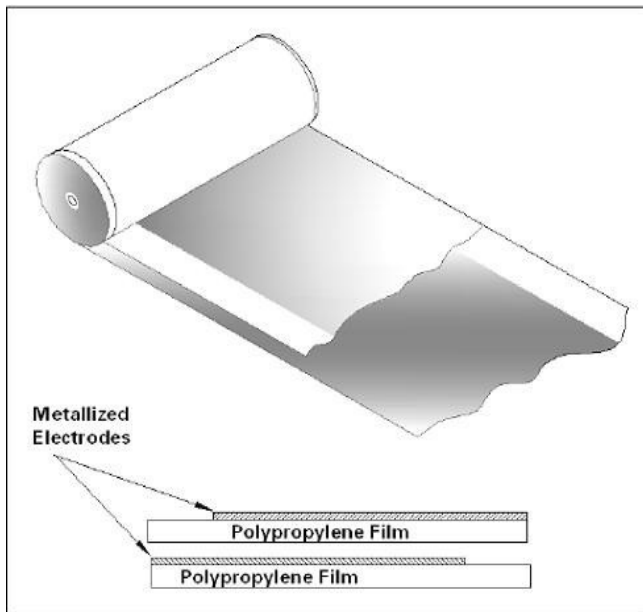
Capcom Capacitors Dry Capacitors for Motor Run Applications

Metallized film capacitors are unsurpassed in terms of size, weight, performance, and reliability for AC applications. Capcom brings over 60 year of capacitor manufacturing experience to the product lines described in this publication. These capacitors represent the best in product design for long-term reliability. Capcom's materials, product, and process development work continue to provide capacitor users with outstanding total value.

The Motor Run Dry Capacitors are widely used with permanent split phase capacitor motors for the more efficient use of electricity. These motors are used in heating and cooling equipment, appliances, business machines, office equipment, and a wide variety of light commercial and

Dry Capacitor Construction

Capcom's GEM III capacitors are manufactured with high-grade metallized polypropylene film. This film is in the range of 5 to 10 microns thick, depending on the application, voltage, and conditions. The metallized electrode is several hundred angstroms thick.



The film is wound into capacitor rolls on high-speed, high-precision machines. The winding is extremely tight so that there is not enough space between the layers for corona (localized partial electrical discharges) to occur. The rolls are sprayed on both ends with metal to make the connection to the extremely thin edges of the metallized electrodes. This process is critical to the quality and performance of the capacitors.

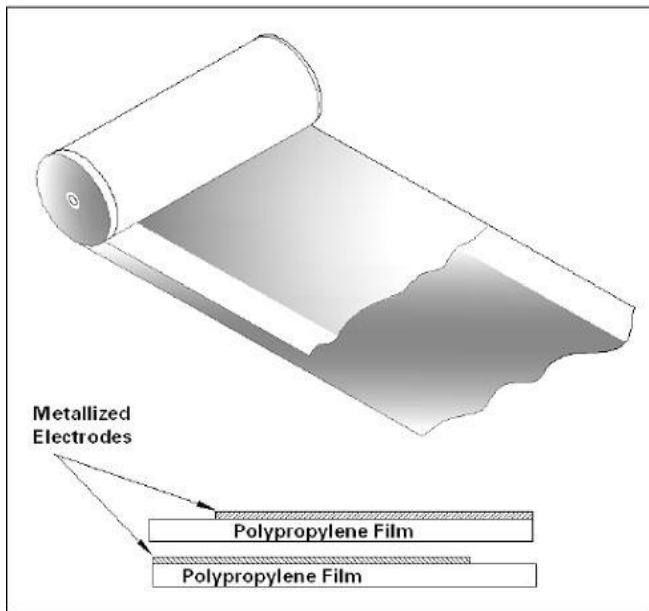
The rolls are assembled in plastic cases, an encapsulate is introduced, and the capacitors are cured. They are then subjected to 100% electrical testing for capacitance, dissipation factor, and high potential electrical withstand, both terminal-to-terminal and terminal-to-case.

Capcom Capacitors Dry Capacitors for HID Lighting Applications

Metallized film capacitors are unsurpassed in terms of size, weight, performance, and reliability for AC applications. Capcom brings over 60 year of capacitor manufacturing experience to the product lines described in this publication. These capacitors represent the best in product design for long-term reliability and safe operation. Capcom's materials, product, and process development work continue to provide capacitor users with outstanding total value.

The HID Lighting Dry Capacitors are designed specifically for HID Lighting applications where the capacitors are used as part of the ballast circuit for mercury vapor, metal halide, and high-pressure sodium lamps. The units are designed to operate at temperatures up to 90°C, which is the normal requirement for HID ballast capacitors. Due to advances in material technology and breakthroughs in proprietary capacitor manufacturing processes, selected ratings are now

Dry Capacitor Construction



Capcom's GEM III capacitors are manufactured with high-grade metallized polypropylene film. This film is in the range of 5 to 10 microns thick, depending on the application, voltage, and conditions. The metallized electrode is several hundred angstroms thick.

The film is wound into capacitor rolls on high-speed, high-precision machines. The winding is extremely tight so that there is not enough space between the layers for corona (localized partial electrical discharges) to occur. The rolls are sprayed on both ends with metal to make the connection to the extremely thin edges of the metallized electrodes. This process is critical to the quality and performance of the capacitors.

The rolls are assembled in plastic cases, an encapsulate is introduced, and the capacitors are cured. They are then subjected to 100% electrical testing for capacitance, dissipation factor, and high potential electrical withstand, both terminal-to-terminal and terminal-to-case.

24D B 075 B 370 P A

Dry Capacitor

Product Line:

B = Motor Run
F = Lighting
C = General Purpose

uF Rating:

07.5 uF

Terminal Type:

A = Customer Designed
B = Quick Connects
C = Leads

Voltage Rating:

370 VAC

Case Diameter:

L = 1.375"
M = 1.25"
N = 1.57"
P = 1.75"
S = 2.00"

Temperature Rating:

A = 70°C
B = 90°C
C = 100°C

Data from

Product Line:	Motor Run
uF Rating:	7.5uF
Terminal Type:	Quick Connects
Voltage Rating:	370VAC
Case Diameter:	1.75"
Temperature Rating:	70°C

Dry Capacitors – Motor Run 370 VAC

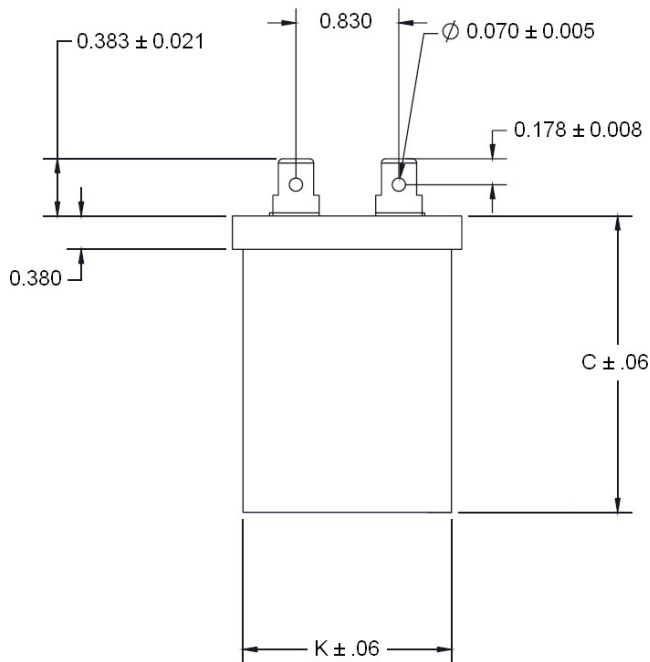
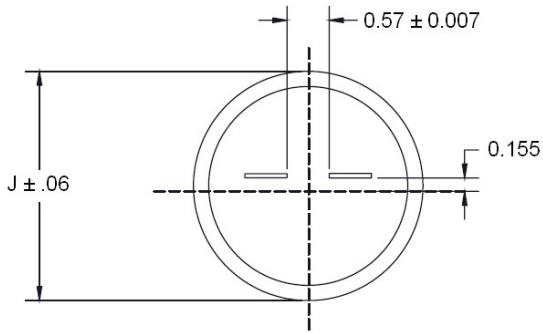


This capacitor series is **designed specifically for the motor run applications where the capacitors are used in conjunction with permanent split capacitor type motors.** They may be used on either 50 or 60-Hertz systems but should not be used at higher frequencies or in applications where higher frequency harmonics are present. If there are any questions regarding the correct application of these products, please contact your Capcom sales representative.

SPECIFICATIONS:

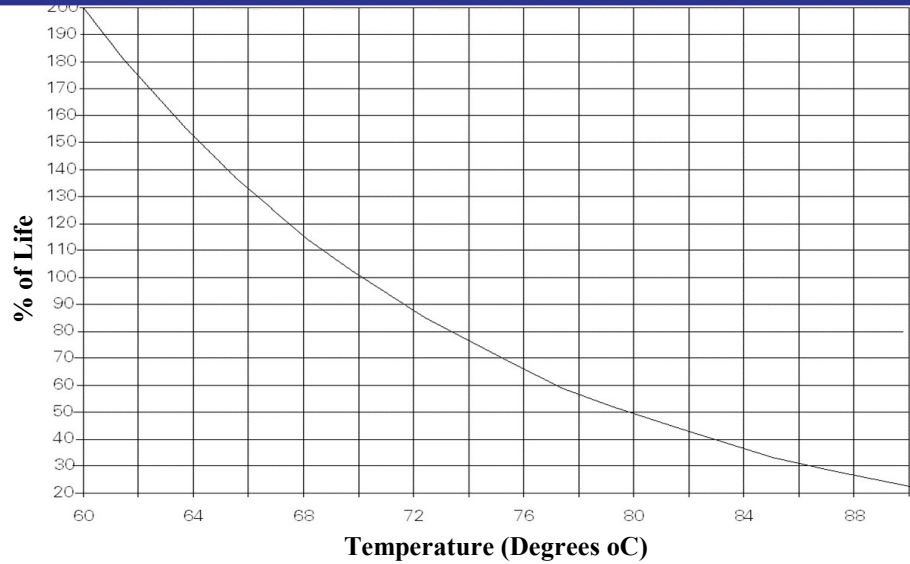
Available Capacitance Range:	2 to 50 μ F (Special ratings upon request)
Capacitance Tolerance	\pm 10%
Capacitance Variation with Temperature:	See Chart M-3 on page 7
Rated Voltage:	see RATING TABLES. RATING IS THE 50/60HZ RMS VOLTAGE for a sinusoidal waveform. (Special ratings upon request)
Leakage Current:	30 μ A maximum
Frequency	50/60 Hz.
Operating Temperature:	-40°C to +70°C
Storage Temperature:	-40°C to +90°C
Operating Life:	60,000 hours with 94% survival (In accordance with the EIA-456 Industry Standard)
Dissipation Factor:	0.1% maximum
Case Material/Finish:	Plastic
Terminations:	Combo' terminal: 0.250" x 0.031" quick connect blade:
Encapsulate:	Polyurethane Resin

Voltage (VAC)	Capacitance (µF)	Catalog Number	Case Style	Base Size (in.)	Can Type	Height C (in.)
370	7.5	24D B 075 B 370 L A	L	1.375	Round	2.52
	10.0	24D B 100 B 370 L A	L	1.375	Round	2.52
	12.5	24D B 125 B 370 L A	L	1.375	Round	2.52
	15.0	24D B 150 B 370 L A	L	1.375	Round	2.52
	20.0	24D B 200 B 370 N A	N	1.57	Round	3.15
	25.0	24D B 250 B 370 N A	N	1.57	Round	3.15
	30.0	24D B 300 B 370 N A	N	1.57	Round	3.15
	35.0	24D B 350 B 370 P A	P	1.75	Round	3.18
	40.0	24D B 400 B 370 P A	P	1.75	Round	3.80
	45.0	24D B 500 B 370 P A	P	1.75	Round	3.80



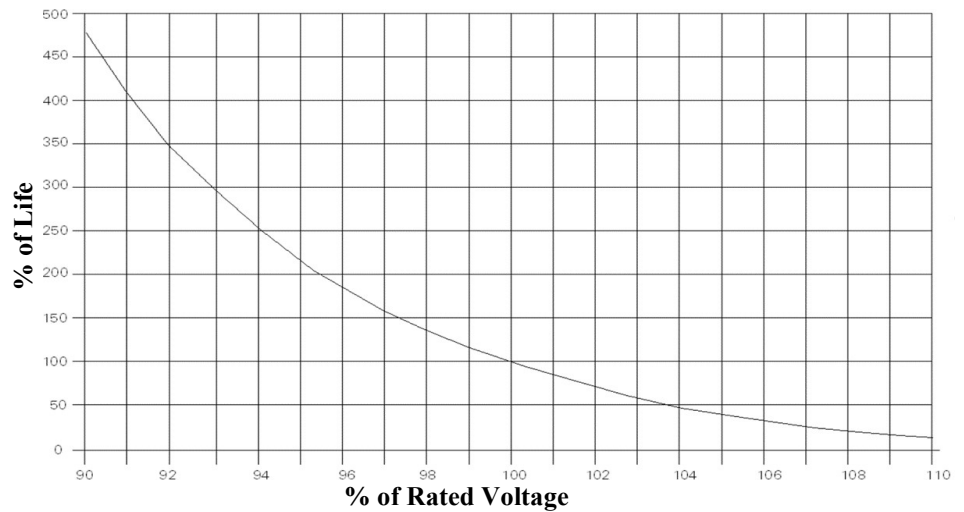
Case Style	K	J
L	1.375	1.375
N	1.57	1.695
P	1.75	1.875

LIFE vs TEMPERATURE
CHART M-1

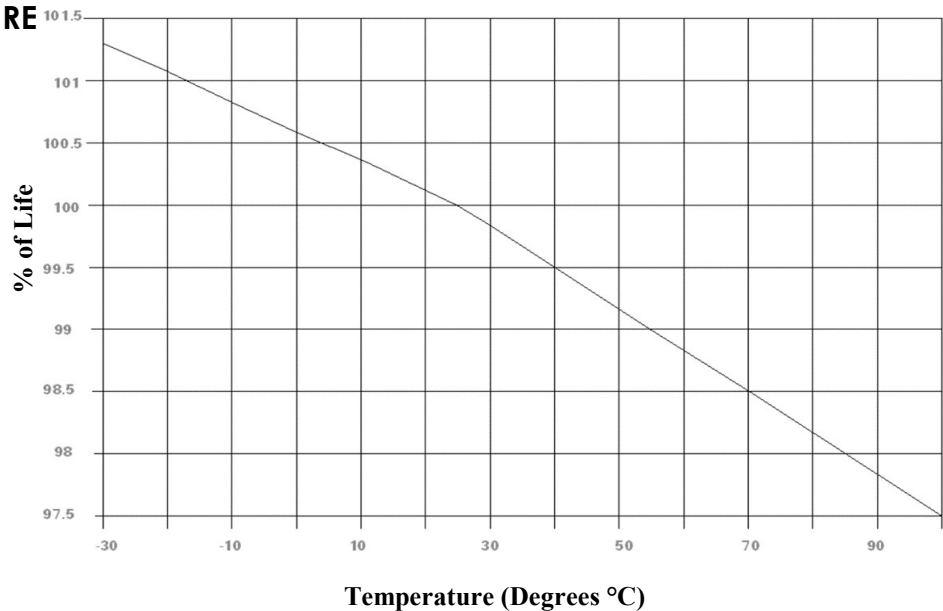


LIFE vs VOLTAGE
CHART M-2

This chart is intended as general reference only. Any indication of extended life by reducing voltage is in no way a guarantee of extended product life.



% CAPACITANCE vs. TEMPERATURE
CHART M-3



Dry Capacitors – HID Lighting

280 & 380 VAC



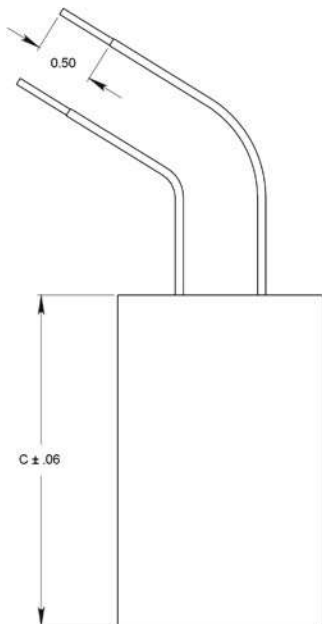
This capacitor series is **designed specifically for the HID Lighting applications** where the capacitors are used as part of the ballast circuit for mercury vapor, metal halide, and high-pressure sodium lamps. The units are designed to operate at up to 90°C, which is the normal requirement for HID ballast capacitors. Due to advances in material technology and breakthroughs in proprietary capacitor manufacturing processes, selected ratings are now available for operation up to 100°C for 60,000 hours. If there are any questions regarding the correct application of these products,

SPECIFICATIONS:

Available Capacitance Range:	2 to 50 μ F (Special ratings upon request)
Capacitance Tolerance	\pm 3%
Capacitance Variation with Temperature:	See Chart L-3 on page 11
Rated Voltage:	See Rating Tables. (Special ratings upon request)
Leakage Current:	30 μ A maximum
Frequency	50/60 Hz.
Operating Temperature:	-40°C to +90°C and up to 100°C MAX on selected ratings
Storage Temperature:	-40°C to +90°C
Operating Life:	60,000 hours with 90% survival
Dissipation Factor:	0.1% maximum
Case Material/Finish:	Plastic Case
Terminations:	Fly Leads: #16 AWG UL / CSA Recognized, 600VAC & 150 °C rated.
Encapsulate:	Polyurethane Resin

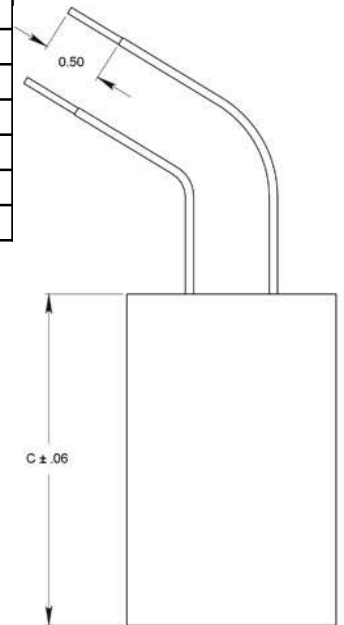
Dry Capacitors – HID Lighting Single Ratings – 1 Section

Voltage (VAC)	Capacitance (µF)	Catalog Number	Case Style	Base Size (in.)	Can Type	Height C (in.)
280	8.0	24D F 80 C 280 M B	M	1.25	Round	2.90
	10.0	24D F 100 C 280 M B	M	1.25	Round	2.90
	12.0	24D F 120 C 280 M B	M	1.25	Round	2.90
	15.0	24D F 150 C 280 N B	N	1.57	Round	2.76
	17.5	24D F 175 C 280 P B	P	1.75	Round	3.80
	20.0	24D F 200 C 280 P B	P	1.75	Round	3.80
	22.5	24D F 230 C 280 P B	P	1.75	Round	3.80
	24.0	24D F 240 C 280 P B	P	1.75	Round	3.80
	26.0	24D F 260 C 280 P B	P	1.75	Round	3.80
	28.0	24D F 280 C 280 P B	P	1.75	Round	3.80
	29.0	24D F 290 C 280 P B	P	1.75	Round	3.80
	34.0	24D F 340 C 280 P B	P	1.75	Round	3.80
	35.0	24D F 350 C 280 P B	P	1.75	Round	4.50
	40.0	24D F 400 C 280 P B	P	1.75	Round	4.50
	42.0	24D F 420 C 280 P B	P	1.75	Round	4.50
	45.0	24D F 450 C 280 P B	P	1.75	Round	4.50
	48.0	24D F 480 C 280 S B	S	2.00	Round	4.80
52.0	24D F 520 C 280 S B	S	2.00	Round	4.80	



Case Style	K	J
M	1.25	1.25
N	1.57	1.570
P	1.75	1.750
S	2.00	2.00

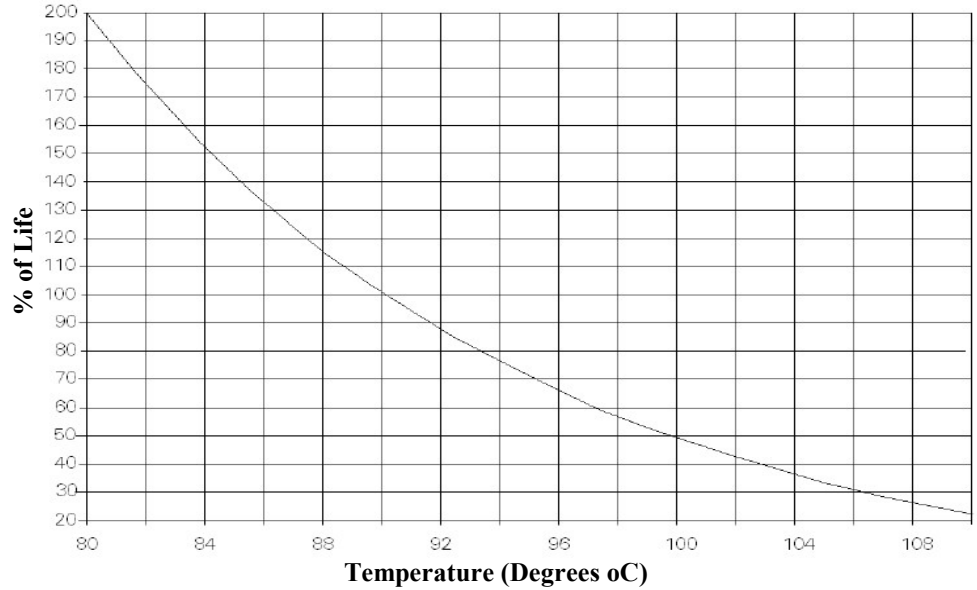
Voltage (VAC)	Capacitance (µF)	Catalog Number	Case Style	Base Size (in.)	Can Type	Height C (in.)
330	6.0	24D F 60 C 330 M B	M	1.25	Round	2.90
	7.0	24D F 70 C 330 M B	M	1.25	Round	2.90
	8.0	24D F 80 C 330 M B	M	1.25	Round	2.90
	10.0	24D F 100 C 330 N B	N	1.57	Round	2.76
	11.0	24D F 110 C 330 N B	N	1.57	Round	2.76
	12.0	24D F 120 C 330 N B	N	1.57	Round	2.76
	13.0	24D F 130 C 330 N B	N	1.57	Round	2.76
	13.5	24D F 135 C 330 N B	N	1.57	Round	2.76
	14.0	24D F 140 C 330 N B	N	1.57	Round	2.76
	15.0	24D F 150 C 330 N B	N	1.57	Round	2.76
	16.0	24D F 160 C 330 N B	N	1.57	Round	2.76
	17.5	24D F 175 C 330 P B	P	1.75	Round	3.80
	18.0	24D F 180 C 330 P B	P	1.75	Round	3.80
	19.0	24D F 190 C 330 P B	P	1.75	Round	3.80
	20.0	24D F 200 C 330 P B	P	1.75	Round	3.80
	21.0	24D F 210 C 330 P B	P	1.75	Round	3.80
	22.5	24D F 225 C 330 P B	P	1.75	Round	3.80
	24.0	24D F 240 C 330 P B	P	1.75	Round	3.80
	26.0	24D F 260 C 330 P B	P	1.75	Round	3.80
	28.0	24D F 280 C 330 P B	P	1.75	Round	3.80
	29.0	24D F 290 C 330 P B	P	1.75	Round	3.80
	30.0	24D F 300 C 330 P B	P	1.75	Round	3.80
	32.0	24D F 320 C 330 P B	P	1.75	Round	3.80
	34.0	24D F 340 C 330 P B	P	1.75	Round	3.80
36.0	24D F 360 C 330 P B	P	1.75	Round	4.50	
45.0	24D F 450 C 330 P B	P	1.75	Round	4.50	



Case Style	K	J
M	1.25	1.25
N	1.57	1.570
P	1.75	1.750
S	2.00	2.00

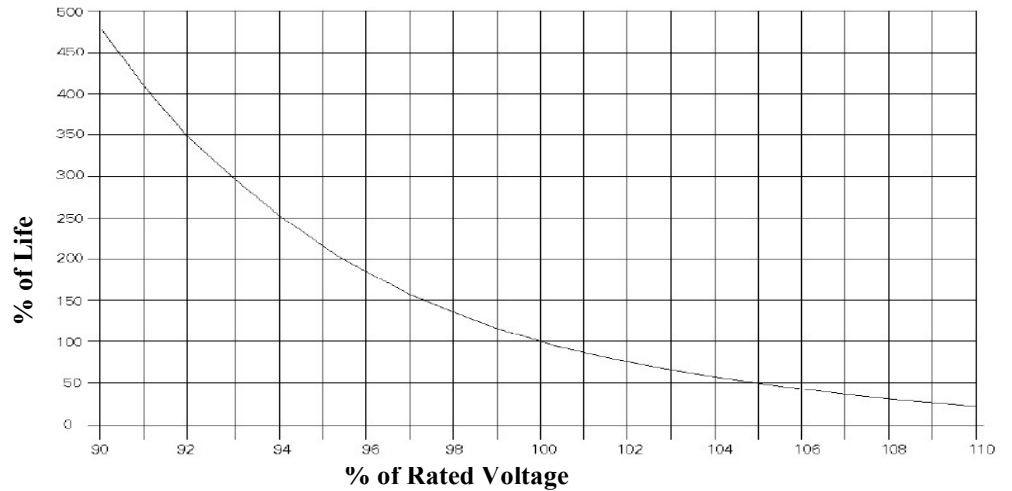


LIFE vs TEMPERATURE
CHART L-1

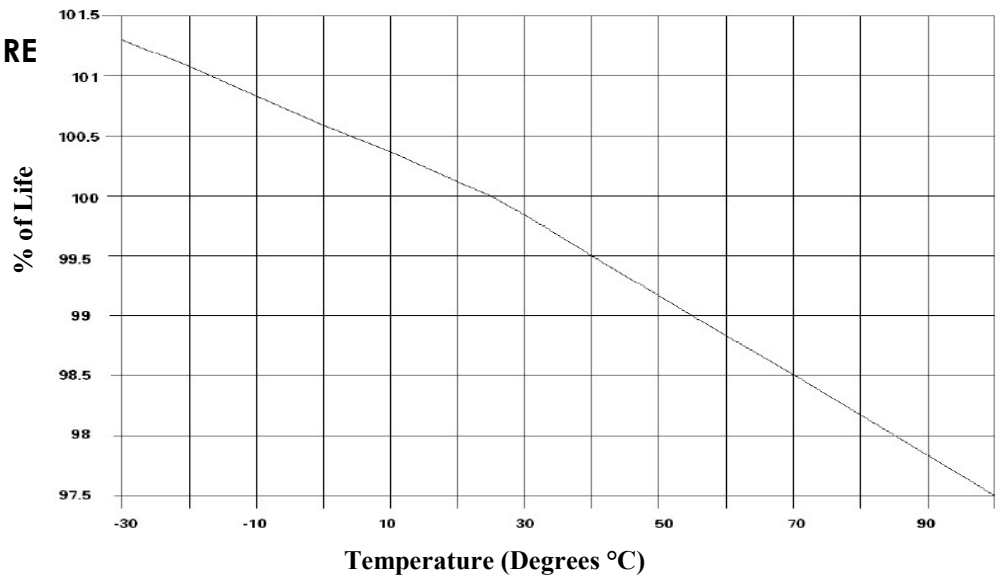


LIFE vs VOLTAGE
CHART L-2

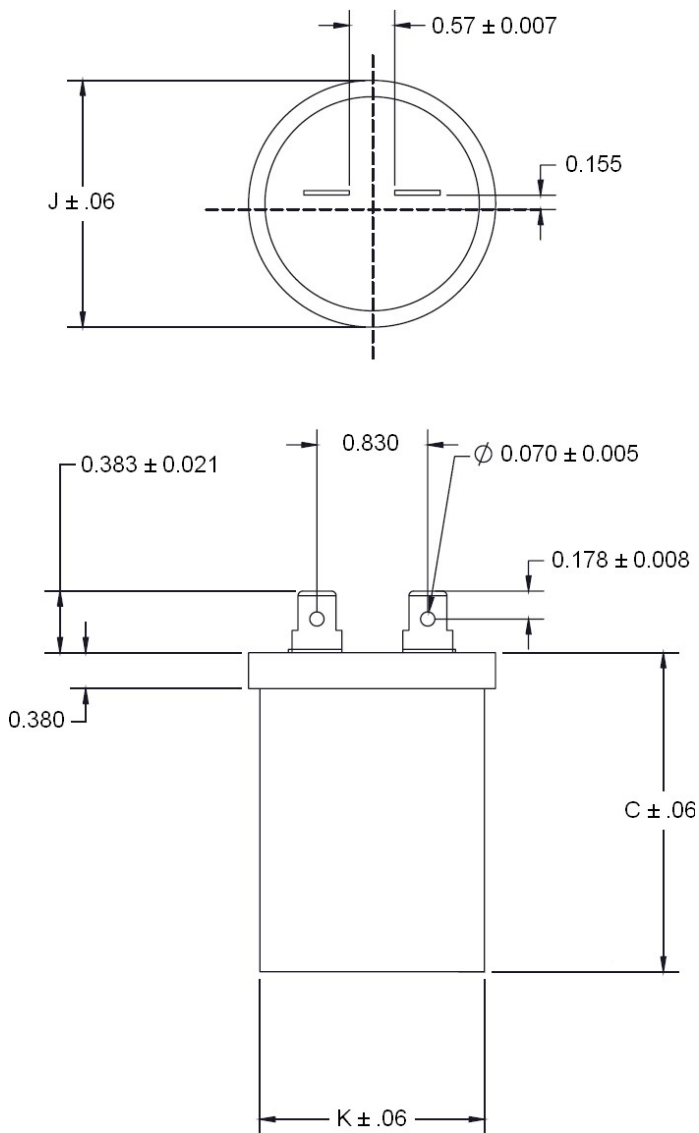
This chart is intended as general reference only. Any indication of extended life by reducing voltage is in no way a guarantee of extended product life.



% CAPACITANCE vs. TEMPERATURE
CHART M-3

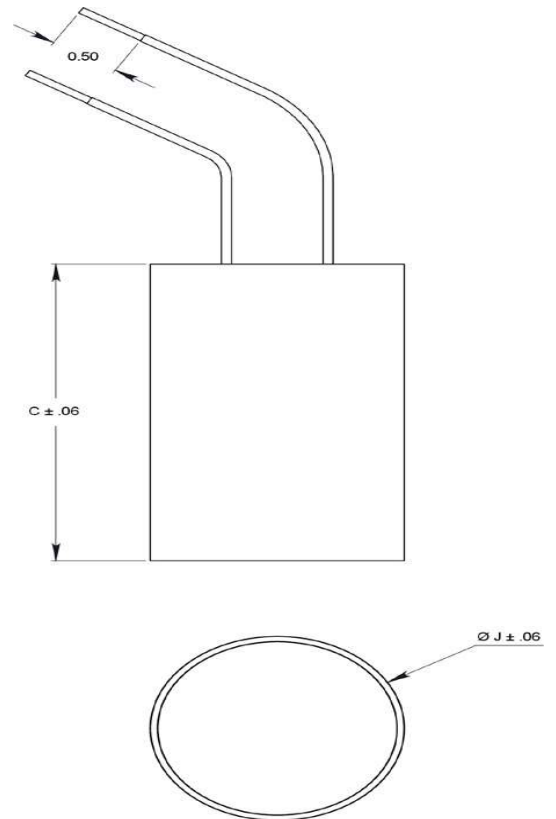


Motor Run Quick Connects



Case Style	K	J
L	1.38	1.38
N	1.57	1.695
P	1.75	1.875

HID Lighting Fly Leads



Case Style	K	J
M	1.25	1.25
N	1.57	1.570
P	1.75	1.750
S	2.00	2.00



1. Product / Brand
2. Gentaq Catalog Model Number
3. Capacitance in Micro-Farads
4. Tolerance
5. UL and CSA File Number
6. Canadian UL Approved Logo
7. Customer Part Number and Bar Code
8. AC Voltage Rating
9. Frequency
10. Manufacturing WIP Job Number
11. RoHS Compliant / No PCBs Statement
12. RoHS Compliant Logo
13. Self-Healing Symbol
14. UL Approved Logo

15. Data Matrix Bar Code
16. Manufacturing Date Code

Example:

<u>09</u>	<u>38</u>
↑	↑
Year (Last Digits of Year)	Fiscal Week

17. Label Sequence Number
18. Operating Temperature
19. Country of Origin
20. Label Part Number (Internal)



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