





## **NEWCAP CAPACITORS PVT. LTD.**

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CAPACITORS



## New generation of efficient motor run and start capacitors by NEWCAP

## www.newcapindia.com

## **NEWCAP CAPACITOR CATALOGUE**





Our extensive product catalogue encompasses a wide variety of AC motor run and start capacitors, including motor running capacitors, power factor correction capacitors\*, and specialized capacitors for various industries. Each capacitor is meticulously designed and manufactured to ensure exceptional performance, durability, and safety.

#### Why Choose Newcap Capacitors:

Unrivaled Quality: Every capacitor undergoes stringent testing, Every step in manufacturing is tested and retested at packing.

**Innovation at Heart**: Our commitment to innovation is at the core of our offerings; • We use only quality film material made in Japan. Our assembly line is dust proof and humidity controlled. We have new fully equipped R&D and Testing Lab.

**Reliable Performance**: Newcap Capacitors has been capacitors business for past several years and we still have our first customers with repeat orders.

**Custom Solutions**: For tailored needs, our expert team crafts solutions that align perfectly with unique requirements. We carter to OEM and service market, meeting each one of their needs.

**Exceptional Support**: Our dedicated support team provides technical expertise, solution insights, and unwavering assistance.

EXPLORE NEWCAP CAPACITORS, SYNONYMOUS WITH SUPERIOR QUALITY AND PERFORMANCE.

Newcap Capacitors (P) Limited, established in 2015 in Gandhinagar, India, specializes in AC motor start capacitors and motor run capacitors. With a strong commitment to quality and reliability, the company employs innovative technologies, advanced processes, and top-quality raw materials, resulting in exceptional price-performance ratios.

Our modern semi-automatic plant, machinery, and testing equipment ensure top-notch manufacturing capabilities. We offer a comprehensive range of capacitors, including technical specifications, product descriptions, performance characteristics, and application guidelines to assist in selecting the ideal capacitor for your needs.

<sup>\*</sup> Under developmen



# What are Motor Run and Start Capacitors.

#### Motor Running Capacitor:

A motor running capacitor, or run capacitor, connects in parallel with the auxiliary winding of single-phase induction motors, enhancing efficiency and performance during operation.

- Improves motor efficiency and power factor during the running phase.
- Creates a phase shift between motor windings, generating a rotating magnetic field.
- Stores and releases energy to aid continuous motor rotation.
- Enhances motor performance and reduces energy consumption.



Newcap's combination capacitor with Start and Run circuits

#### Motor Starting Capacitor:

A motor starting capacitor, also called a start capacitor, is another type of capacitor used in single-phase induction motors. It's connected in series with the motor's start winding and is typically larger in capacitance compared to the running capacitor. The start capacitor provides an extra boost of torque to help the motor overcome the initial inertia and start rotating.

- Provides an initial torque boost to overcome motor inertia during startup.
- Connected in series with the motor's start winding.
- Increases phase shift for extra starting torque.
- Disengages after motor reaches a certain speed.
- Enables efficient motor startup, particularly for single-phase induction motors.

#### Motor Running Capacitor Circuit



The capacitor is connected for the entire time the motor is in operation.

#### Motor Starting Capacitor Circuit



The capacitor is connected in series with the auxiliary motor winding only, it operates for short periods of time (3 second max.) and is automatically switched off using a centrifugal switch or electromagnetic relay as soon as the motor has built up speed.

# **Exploration of Newcap's Latest Accomplishments in** the Innovative Premium<sup>+</sup> Intelligent Capacitor Design.

### ➡ PREMIUM<sup>+</sup> installation

- With inhouse R&D capabilities, NEWCAP capacitor's optimized design reduces the product size and weight by 12% compared to the same rating of the capacitor unit of the same class available in market.
- This optimized design and compact size helps to save the panel space while its lower weight contributes to user experience during installation.

#### PREMIUM quality assurance

- NEWCAP Capacitor's are manufactured in a state of the art factory with most advance manufacturing and test equipment to maintain highest product quality.
- Every single capacitor is 100% tested in every step of production and test finally once manufactured so you can be rest assured.

#### + PREMIUM<sup>\*</sup> safety and reliability

- NEWCAP Capacitor's ensures remarkable reliability, prolonged lifespan, and robust over-current capacity to manage mildly harmonically polluted networks.
- Capacitor has a Pressure Sensitive Disconnection mechanism prevents overcharging and subsequent bursting.

#### PREMIUM saving

- NEWCAP Capacitor's with its new core design help reduce heat generation and power losses.
- Our innovation and Kaizen technique of constant improvement makes sure you get the best with each new generation of capacitors.





More Endurance\*



#### **OFFERINGS**

# **Range Overview - Motor Running Capacitors**



A motor run capacitor is a type of capacitor used in motors where it remains in the circuit continuously. These capacitors are designed for continuous operation and maintain a fixed capacitance and voltage rating.

Newcap's terminal type motor Running capacitors

#### **PREMIUM**<sup>+</sup> Motor Running Capacitor:

Newcap Motor run capacitors are produced using imported Zn/Al alloy MPP film under stringent quality control conditions. We offer a comprehensive range of motor run capacitors, complete with technical specifications, product descriptions, performance characteristics, and application guidelines to assist you in selecting the appropriate capacitor to fulfill your requirements.

## **PREMIUM**<sup>+</sup> Technology:

- Internally, it's designed with single-phase capacitor elements in an efficient setup.
- Each of these capacitor elements is created using Metallized Polypropylene (MPP) film.
- These active capacitor elements are then coated with a specially formulated, eco-friendly, • non-PCB (No polychlorinated biphenyls).
- This coating serves the purpose of maintaining thermal stability and effectively dissipating ٠ heat from within the capacitor.

### **> PREMIUM**<sup>+</sup> Safety:

- MPP film has Self-healing capability
- Pressure-sensitive disconnector helps mitigate bursting on overcharge and heat.
- Equipped with non-removable discharge resistors.

#### > **PREMIUM**<sup>+</sup> Installation:

- Simplified installation process.
- Streamlines reliability and ensures safe usage.
- Facilitates quality assurance.
- An effortless choice for cost savings.

## **NEWCAP PREMIUM<sup>+</sup>** Specificat

Extruded Aluminium Car
2.5 μF to 100 μF
±5% to ±10%
±1%
±0.002% to ±0.1%
230 Volts AC
440 Volts AC
1.5 Times Rated Voltage
50 to 60 Hz
More than 2000 Mega Ol
Metallized Polypropylene Zn/Al alloy
Non-PCB, Dry Capacitor
min25 °C max 85 °C
Upright
Stud type terminals
IS 2993 - 1998

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# **Range Overview - Motor Running Capacitors**

<b>NEWCAP PREMIUM<sup>+</sup></b> General Availability		
Capacitance µF	Size - Diameter x Height (mm)	
2.5	27 x 52	
3.15	27 x 52	
4	27 x 52	
3.15	35 x 65	
6	27 x 52	
6	35 x 65	
8	35 x 65	
10	35 x 65	
12.5	40 x 75	
15	40 x 75	
20	40 x 75	
20	40 x 100	
25	40 x 75	
25	40 x 100	
30	40 x 75	
30	40 x 75	
36	40 x 75	
36	25 x 75	
40	40 x 100	
40	45 x 100	
45	40 x 100	
45	45 x 100	
50	40 x 100	
50	45 x 100	
60	45 x 100	
72	45 x 100	
80	50 x 120	
100	50 x 120	



Newcap's Run Capacitor With **Special Finish Aluminium Can** 

#### **OFFERINGS**

## **Range Overview - Motor Start Capacitors**



The motor start capacitor, or start capacitor, is active solely during motor startup, connected with an auxiliary winding. It automatically disconnects, often via a centrifugal switch, when the motor reaches a set speed.

<b>NEWCAP FOIL SERIES<sup>+</sup></b> Specifications		
Construction	Extruded Aluminium Can	
Capacitance Available	40/60 μF to 250/300 μF	
Capacitance Tolerance	±10%	
Working Voltage	230 Volts AC	
Max Voltage	300 Volts AC	
Frequency	50 to 60 Hz	
Insulation Resistance	More than 2500 Mega Ohms	
Dielectric	Paper based	
Impregnation	Non-PCB, Electrolytic Capacitor	
Ambient temperature	min25 °C max 85 °C	
Terminals	Cable & Stud type terminals	

#### Newcap's wire and terminal type motor Start capacitors

#### **FOIL SERIES**<sup>+</sup> Motor Start Capacitor:

Newcap manufactures AC motor start capacitors utilizing etched and formed aluminum foils of superior purity. These foils separate the anode and cathode, with tissue paper employed to retain sufficient electrolyte and absorbent material. To shield the capacitor element from atmospheric moisture and dust, it is enclosed within an aluminum can.

For enhanced safety, these capacitors undergo complete insulation with PVC shrinkable sleeves and are further sealed within an outer tubular aluminum can. Flexible terminations of the desired length are provided as per specific requirements.

#### > FOIL SERIES<sup>+</sup> Features:

- Single-can and double-can construction options available.
- Streamlined design for ease of handling. ٠
- Suitable for heavy-duty applications. •

<b>NEWCAP FOIL SERIES<sup>+</sup></b> General Availability		
Capacitance µF	Size - Diameter x Height (mm)	
40 x 60	40 x 100	
60 x 80	40 x 100	
80 x 100	40 x 106	
100 x 120	40 x 106	
120 x 150	40 x 106	
120 x 150	45 x 130	
150 x 200	45 x 130	
200 x 250	45 x 130	

# **Range Overview - General Purpose Motor Run Capacitors**



The PP Can Motor Start Capacitor is a vital electrical component used extensively in the industry to power motor initiation. This versatile electronic device stores electrical charge and comes in various capacities and sizes to suit different applications.

Newcap's PP can wire and terminal type capacitors

#### **NEWCAP PP Can Capacitors** Specifications

Construction	Polypropylene (PP) Can
Capacitance Available	2.5 μF to 100 μF
Capacitance Tolerance	±5% to ±10%
Capacitance Stability	±1%
Capacitance Dissipation Factor	±0.002% to ±0.1%
Working Voltage	230 Volts AC
Max Voltage	440 Volts AC
Test Voltage	1.5 Times Rated Voltage for 10 Seconds.
Frequency	50 to 60 Hz
Insulation Resistance	More than 2000 Mega Ohms
Dielectric	Metallized Polypropylene film with Zn/Al alloy
Impregnation	Non-PCB, Dry Capacitor
Ambient temperature	min. −25 °C max 85 °C
Terminals	Cable & Stud type terminals
Certification	IS 2993 - 1998

NEWCAP PP Can	Capacitors General Availability
Capacitance µF	Size - Diameter x Height (mm)
2.5	27 x 52
3.15	27 x 52
4	27 x 52
3.15	35 x 65
6	27 x 52
6	35 x 65
8	35 x 65
10	35 x 65
12.5	40 x 75
15	40 x 75
20	40 x 75
20	40 x 100
25	40 x 75
25	40 x 100
30	40 x 75
30	40 x 75
36	40 x 75
36	25 x 75
40	40 x 100
40	45 x 100
45	40 x 100
45	45 x 100
50	40 x 100
50	45 x 100
60	45 x 100
72	45 x 100
80	50 x 120
100	50 x 120

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