

Hitech Electrocomponents Pvt Ltd



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- Our Product Range
- Function of Ignition Capacitor
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Function of Ignition Capacitors

Ignition Capacitor is a principal component of the high tension magneto system. The essential parts of a magneto for a multicylinder automobile are : Spark Plug, Distributor, High Tension Coil (HT Coil), Contact Breakers (CB Point), Capacitor (Condenser) and Battery. For a single cylinder two Wheeler kick start magneto system, Magnet and Coil replace the Battery while the Distributor is absent.

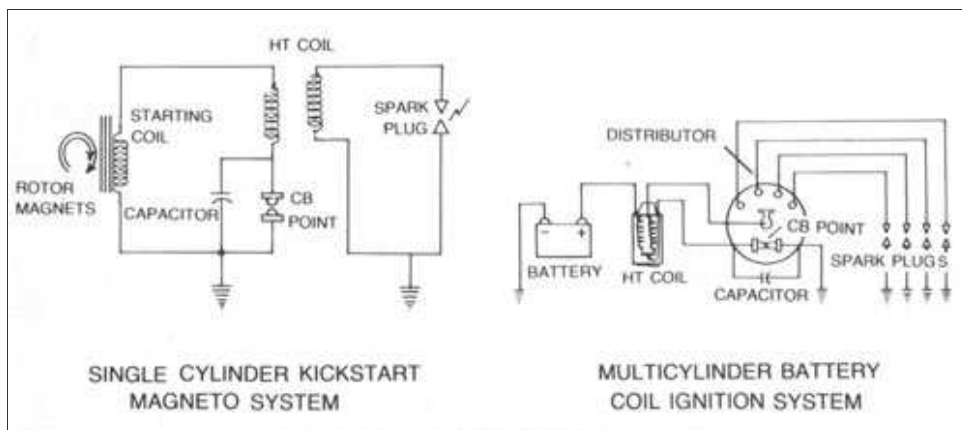
An Ignition Capacitor works essentially as a spark quencher. Everytime the contact breaker opens, the current in the primary circuit is abruptly broken resulting in heavy sparking across the CB points. The Capacitor connected across the CB points absorbs this spark energy and thus ensures that the CB points do not get pitted and worn out. The life of the contact breaker is very very limited in the absence of the Capacitor, while the presence of the right Capacitor extends its life immensely.



The Capacitor working in the inductive circuit also fulfils another important function. The spark across the CB points has to be quenched fully or else the current in the primary circuit does not rupture abruptly. Only when the current ruptures suddenly does the HT coil deliver a very high voltage kick in its secondary. Thus the choice of the capacitance value should be right and the Capacitor must be of a very high quality to result in a very powerful spark at the spark plug. To sum up, the functions of a Capacitor are :

1. To quench the sparking at the contacts and hence ensure a long life for the CB point.
2. To enable a high induced voltage in the secondary thus resulting in a powerful spark at the spark plug.

Thus the optimum performance of an automobile demands the choice of the best quality Ignition Capacitor.



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Important Notes

1. All information furnished regarding itemwise usage are to the best of our knowledge and should serve only as a guide. We do not claim any responsibility for the accuracy of these information.

2. All capacitors listed have their metal casing as one terminal, which is usually connected to the automobile body earth, the other terminal being the cable. Please note that some capacitors come with dual leads but both represent a single terminal (metal can being the other terminal as usual). The dual leads serve only as an electrical interconnect.

3. All capacitors are given a date stamp emboss to denote date of e.g. 8909 represents "Manufactured in September 1989"



This is to merely identify the manufacturing batch but should not be used as a cue for determining the life or quality of the capacitors. All capacitors have a very long storage life.

4. We can design capacitors to any fitment and performance requirement. A broad spectrum of cable harness designs and terminations are available to suit customer needs.

5. We can also develop equivalents of any capacitor against specifications or counter samples.

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General Data

Temperature	-40C to 100 C
Test Voltage	1000 VDC
Loss Factor	0.01 maximum at 1 Khz
Insulation resistance	25000 Megaohm minimum at 500 VDC, 1 Min
Dielectric used	Polyester film
Electrode uses	Amuminium Foil
Coil construction	Extended Foil (non-inductive)
Impregnanat Used	Mineral Oil (Bio-Degradable)
Internal contact	High current capacity pressure contacts
Outrer casing	Steel can, Zinc Plated; blue/yellow/passivation
Sealing	Epozy topping/rubber seal
Manufacturing date	Inedible emboss on metal can bottom
Usage	Across magneto contact breaker points Noise suppressor for automobiles general purpose electronic appliation.
Cable choice	Standard tinned copper wires PVC insulated Tinnie copper solid wire Treaded brass stud plug spring washer plus nut. Electrolytic copper strip terminal.
Cable termination choice	Ring tag, Flag tag, Tongue tag, Link Tag, Tab terminal, Bullet terminal, Snap on receptable, Hook terminated copper wire.



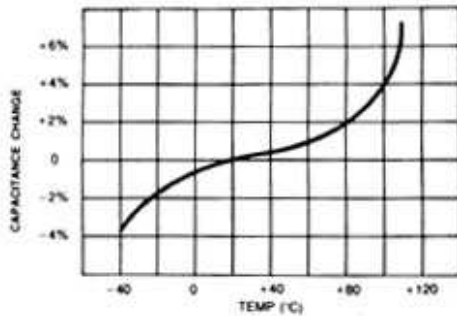
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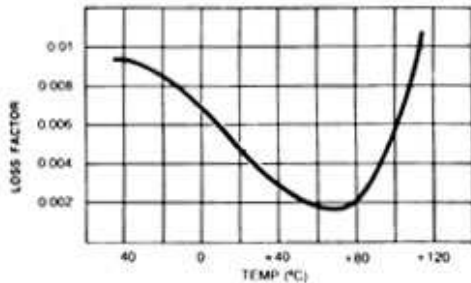
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Temperature Characteristic Curves

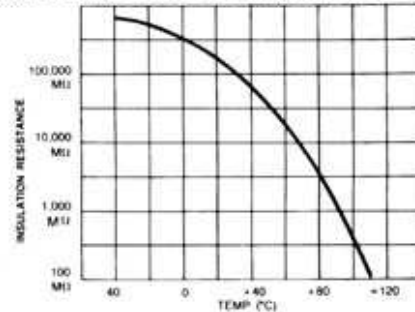
CURVE 1 : CAPACITANCE CHANGE VS TEMPERATURE



CURVE 2 : LOSS FACTOR (TAN δ) VS TEMPERATURE



CURVE 3 : INSULATION RESISTANCE VS TEMPERATURE



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