



**Article title:** Rentolog 5 Phase Inductor Motor Analysis

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## ABSTRACT

The working of 5 phase inductor is design to work in the same principle. Similar to the working of three phase induction motor, five phase induction motor works on the application of Faraday's law and Lorentz force on conductor. When five phase ac supply is given to the stator winding which are spatially and time displaced by displaced by  $72^\circ$  the rotating magnetic field is produce which rotates at synchronous speed. When short circuited rotor (squirrel cage) is placed in rotating magnetic field an EMF is induced in the rotor conductor due to electromagnetic induction. Due to this EMF, current starts flowing in the rotor conductor and sets up its own magnetic field. Due to interaction of these two magnetic fields, a torque is produced and conductor tends to move. A hole cut at the center of the drive shaft inside the rotor. An insulator is installed in the hole to act as a regulator, to control excess magnetic field. The component of the system is coated with oil film plate to reduce over heating (the idea was gotten from umbrella usage).

## INTRODUCTION

I believe you will be more excited when you add a 5 phase induction motor to your car. It is time to move in the speed of light

These are the reasons you should go for a 5 phase inductor coil.

1. High performance: Nicholas Tesla produced a two phase induction motor, it has speed but when a three phase induction motor was invented, it has higher speed, the 5 phase induction motor will perform faster.
2. Efficiency: the 5 phase inductor is efficient compared to other induction motors.
3. 5 phase induction motor is a complete star.
4. better torque.
5. smoother ripple
6. better fault tolerance
7. the possibility of connecting stator windings to star, pentagon and pentagram.

## MATERIAL AND METHOD

we want to thank God for the opportunity to display the analysis of 5 phase inductor motor:

1. 5 phase winding coil
2. Oil film coating
3. Rotor labeled with different color for identification
4. Insulator to reduce the excess amount of magnetic field
5. Drive shaft
6. Insulated wall to reduce escape of magnetic field

it was discovered from the inspiration of God which i state that everything on earth co-existed the same having the same curve attribute. That is why aero plane can fly, balloon float, plant , moon , human, animal have the same curve shape attribute. It was made a decision for 5 phase inductor motor to be in the same curve shape for better function.

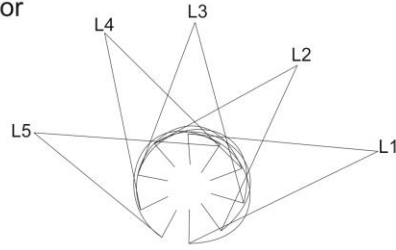
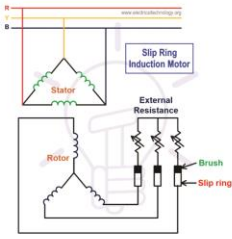
### HOW DOES IT WORK?

The working of 5 phase inductor is design to work in the same principle. Similar to the working of three phase induction motor, five phase induction motor works on the application of Faraday's law and Lorentz

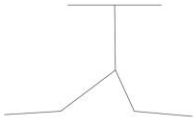
force on conductor. When five phase ac supply is given to the stator winding which are spatially and time displaced by displaced by  $72^\circ$  the rotating magnetic field is produce which rotates at synchronous speed. When short circuited rotor (squirrel cage) is placed in rotating magnetic field an EMF is induced in the rotor conductor due to electromagnetic induction. Due to this EMF, current starts flowing in the rotor conductor and sets up its own magnetic field. Due to interaction of these two magnetic fields, a torque is produced and conductor tends to move. A hole cut at the center of the drive shaft inside the rotor. An insulator is installed in the hole to act as a regulator, to control excess magnetic field. The component of the system is coated with oil film plate to reduce over heating (the idea was gotten from umbrella usage).

DIAGRAM:

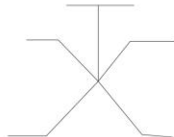
3 phase inductor motor



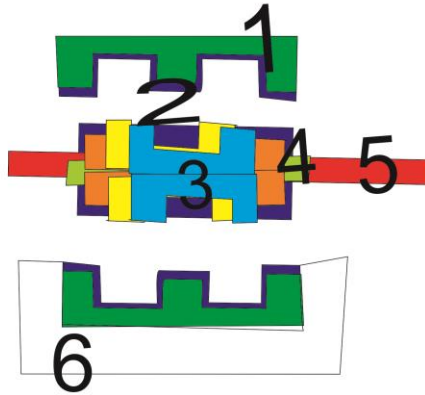
5 phase inductor motor



3 phase inductor star



5 phase inductor star



5 phase construction analysis

## CONCLUSION

it was discovered from the inspiration of God which i state that everything on earth co-existed the same having the same curve attribute. That is why aero plane can fly, balloon float, plant , moon , human, animal have the same curve shape attribute. It was made a decision for 5 phase inductor motor to be in the same curve shape for better function. LASTLY I WANT TO SAY JESUS LOVES YOU AND WILL ALWAYS LOVE YOU , SO ALWAYS DO THE RIGHT THING.

## REFERENCE

[https://www.ijera.com/papers/Vol6\\_issue5/Part%20-%207/A0605070108.pdf](https://www.ijera.com/papers/Vol6_issue5/Part%20-%207/A0605070108.pdf)