What is the difference between a contactor and a relay

مستر نوب Last update : few days ago 3 Minutes to read

table of contents

What is the difference between a contactor and a relay

Welcome to the Electron Tips website, which has valuable explanations and information in the field of electrical Engineering and electronics engineering , In this article, we will give you an explanation between the contactor and the relay .

First : Definition of Contactor

The contactor is an electrical element that allows us to control the engines and large electrical loads that draw very high electrical currents, and it is originally an electromagnetic switch, as it has an electrical coil that controls the connection and separation of the power circuit, and the

contactor is used to control the engines and Electric pumps, by carrying out many types of operation, and these are the most important types of operation in which the contactor is used, "Star Delta operation, direct operation, soft start.

This electromagnetic element is distinguished by its availability of several control points and the addition of some additional electrical elements, as it is one of the safest electrical elements and is used in the industrial facility.

The working principle of the contactor :

When the electric current passes into the contact coil, the main points of the contactor are attracted and connected , and thus close the open auxiliary points NO and open the closed points NC, leading to the passage and flow of electric current to electrical loads that may be Pump or electric motor electric motor... .

Second : Definition of Relay

The relay is an electrical composite that allows to control electrical circuits that operate on a small and medium voltage, by means of a lower voltage that does not exceed 12 volts. Inside it, which leads to the disconnection or connection of the external electrical circuit that operates on a high voltage, such as 220 volts, which makes the relay element one of the most important electronic elements spread and widely used in the field of electronics and electricity alike, It can also be connected to the contactor.

The working principle of the Relay :

In the normal state of the relay element, the closed end NC is connected to the common terminal Common, that is, an electrical current does not pass into the outer circuit or the load circuit, but in the case of the magnetic coil, which generates a magnetic field that attracts the common end to the open end NO to become a closed circuit. And allow the electrical current to pass into the load, this is simply the principle of the relay.

Third : The difference between the contactor and the relay

The contactor is almost similar to the relay compound, but the difference is that the contactor is used heavily in large electrical loads, which draw high electric current, which operates on a three-phase system, while the relay is used in electrical electronic circuits. Which operates a rather small electric current, which operates on a single-phase system, but we cannot deny the function of each of them in the field of electricity and electronics, as each one used it and his own applications.

Conclusion :

In the end that was an explanation of the difference between a contactor and a relay and some applications and uses of each . Don't forget to share this article with your friends, see you in another Article .