Drive Motors

MCC's or likewise known as Motor Control Centersare an assembly of one section or more which include a common power bus. These have been utilized in the vehicle business since the 1950's, since they were utilized many electric motors. Today, they are utilized in other commercial and industrial applications.

Motor control centers are a modern practice in factory assembly for several motor starters. This machinery can comprise programmable controllers, metering and variable frequency drives. The MCC's are commonly utilized in the electrical service entrance for a building. Motor control centers frequently are used for low voltage, 3-phase alternating current motors that vary from 230 V to 600V. Medium voltage motor control centers are designed for big motors that vary from 2300V to 15000 V. These units utilize vacuum contractors for switching with separate compartments to be able to accomplish power switching and control.

In places where very dusty or corrosive methods are happening, the motor control center could be established in a separate air-conditioned room. Usually the MCC will be positioned on the factory floor next to the equipment it is controlling.

A MCC has one or more vertical metal cabinet sections with power bus and provisions for plug-in mounting of individual motor controllers. Smaller controllers can be unplugged from the cabinet in order to complete maintenance or testing, while very large controllers could be bolted in place. Every motor controller has a solid state motor controller or a contractor, overload relays to protect the motor, fuses or circuit breakers to be able to supply short-circuit protection as well as a disconnecting switch so as to isolate the motor circuit. Separate connectors enable 3-phase power to be able to enter the controller. The motor is wired to terminals located in the controller. Motor control centers supply wire ways for field control and power cables.

Within a motor control center, each and every motor controller could be specified with numerous various options. Some of the choices comprise: pilot lamps, separate control transformers, extra control terminal blocks, control switches, and many types of solid-state and bi-metal overload protection relays. They even comprise various classes of kinds of power fuses and circuit breakers.

There are numerous options regarding delivery of MCC's to the customer. They can be delivered as an engineered assembly with interlocking wiring to a central control terminal panel board or programmable controller together with internal control. Conversely, they could be provided ready for the customer to connect all field wiring.

Motor control centers normally sit on the floor and must have a fire-resistance rating. Fire stops can be required for cables which go through fire-rated walls and floors.