Drive Motors

MCC's or Motor Control Centersare an assembly of one or more sections which contain a common power bus. These have been utilized in the vehicle industry since the 1950's, since they were made use of a large number of electric motors. Nowadays, they are utilized in a variety of industrial and commercial applications.

In factory assembly for motor starter; motor control centers are quite common practice. The MCC's comprise metering, variable frequency drives and programmable controllers. The MCC's are normally found in the electrical service entrance for a building. Motor control centers frequently are utilized for low voltage, 3-phase alternating current motors which range from 230 V to 600V. Medium voltage motor control centers are designed for large motors that vary from 2300 volts to 15000 volts. These units utilize vacuum contractors for switching with separate compartments in order to accomplish power switching and control.

In areas where really corrosive or dusty processes are taking place, the motor control center could be installed in a separate air-conditioned room. Typically the MCC would be situated on the factory floor near the machinery it is controlling.

For plug-in mounting of individual motor controls, A motor control center has one or more vertical metal cabinet sections with power bus. So as to complete maintenance or testing, really big controllers can be bolted into place, whereas smaller controllers can be unplugged from the cabinet. Each and every motor controller consists of a solid state motor controller or a contractor, overload relays to protect the motor, circuit breaker or fuses to supply short-circuit protection and a disconnecting switch to be able to isolate the motor circuit. Separate connectors allow 3-phase power to enter the controller. The motor is wired to terminals situated inside the controller. Motor control centers offer wire ways for power cables and field control.

Every motor controller in a motor control center could be specified with various alternatives. These alternatives consist of: separate control transformers, extra control terminal blocks, control switches, pilot lamps, and numerous kinds of solid-state and bi-metal overload protection relays. They also have different classes of types of power fuses and circuit breakers.

Concerning the delivery of motor control centers, there are numerous choices for the consumer. These could be delivered as an engineered assembly with a programmable controller along with internal control or with interlocking wiring to a central control terminal panel board. Conversely, they can be provided prepared for the customer to connect all field wiring.

MCC's commonly sit on floors which must have a fire-resistance rating. Fire stops could be needed for cables which penetrate fire-rated floors and walls.