

Drive Motors

Motor Control Centers or also called MCC's, are an assembly of one or more enclosed sections, which have a common power bus principally containing motor control units. They have been utilized ever since the 1950's by the auto trade, for the reason that they used lots of electric motors. These days, they are utilized in various commercial and industrial applications.

Motor control centers are a modern technique in factory assembly for some motor starters. This machine can consist of variable frequency drives, programmable controllers and metering. The MCC's are commonly seen in the electrical service entrance for a building. Motor control centers often are utilized for low voltage, 3-phase alternating current motors which vary from 230 volts to 600 volts. Medium voltage motor control centers are designed for large motors that vary from 2300 volts to 15000 volts. These units make use of vacuum contractors for switching with separate compartments in order to attain power switching and control.

In factory area and locations that have corrosive or dusty processing, the MCC can be installed in climate controlled separated locations. Usually the MCC would be positioned on the factory floor adjacent to the machines it is controlling.

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

Every motor controller within a motor control center could be specified with different options. These choices consist of: pilot lamps, separate control transformers, extra control terminal blocks, control switches, as well as numerous kinds of solid-state and bi-metal overload protection relays. They even comprise various classes of kinds of circuit breakers and power fuses.

There are many alternatives regarding delivery of MCC's to the client. They could 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 prepared for the customer to connect all field wiring.

MCC's commonly sit on floors that are required to have a fire-resistance rating. Fire stops could be required for cables which go through fire-rated walls and floors.