

## Drive Motors

MCC's or Motor Control Centers are an assembly of one or more sections that include a common power bus. These have been utilized in the automobile trade since the 1950's, since they were used a large number of electric motors. Today, they are used in various commercial and industrial applications.

Motor control centers are a modern practice in factory assembly for some motor starters. This machinery could include variable frequency drives, programmable controllers and metering. The MCC's are normally used in the electrical service entrance for a building. Motor control centers commonly are utilized for low voltage, 3-phase alternating current motors which vary from 230 volts to 600 volts. Medium voltage motor control centers are made for big motors that range from 2300V to 15000 V. These units make use of vacuum contractors for switching with separate compartments in order to achieve power control and switching.

In factory locations and area which have corrosive or dusty processing, the MCC could be installed in climate controlled separated locations. Normally the MCC will be located on the factory floor adjacent to 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. To complete maintenance or testing, really large controllers could be bolted into place, whereas smaller controllers can be unplugged from the cabinet. Each and every motor controller consists of a contractor or a solid state motor controller, overload relays to protect the motor, circuit breaker or fuses to be able to supply short-circuit protection as well as a disconnecting switch to be able to isolate the motor circuit. Separate connectors enable 3-phase power to enter the controller. The motor is wired to terminals situated inside the controller. Motor control centers supply wire ways for field control and power cables.

Inside a motor control center, every motor controller can be specified with many various alternatives. Some of the alternatives include: extra control terminal blocks, control switches, pilot lamps, separate control transformers, and various kinds of bi-metal and solid-state overload protection relays. They even comprise different classes of kinds of power fuses and circuit breakers.

There are several options 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 along with internal control. On the other hand, they can be supplied set for the customer to connect all field wiring.

Motor control centers typically sit on the floor and should have a fire-resistance rating. Fire stops could be necessary for cables that go through fire-rated walls and floors.