

Drive Motors

Motor Control Centers or otherwise called MCC's, are an assembly of one or more enclosed sections, which have a common power bus mainly consisting of motor control units. They have been used ever since the 1950's by the vehicle industry, in view of the fact that they made use of a lot of electric motors. Nowadays, they are utilized in a variety of industrial and commercial applications.

Inside factory assembly for motor starter; motor control centers are somewhat common method. The MCC's include metering, variable frequency drives and programmable controllers. The MCC's are normally utilized in the electrical service entrance for a building. Motor control centers commonly are utilized for low voltage, 3-phase alternating current motors that 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 accomplish power control and switching.

Inside factory area and locations that have corrosive or dusty processing, the MCC can be installed in climate controlled separated locations. Typically the MCC would be situated on the factory floor close to the machines 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 to complete maintenance or testing, while really large controllers could be bolted in place. Each motor controller consists of a solid state motor controller or a contractor, overload relays to protect the motor, fuses or circuit breakers to be able to provide short-circuit protection as well as a disconnecting switch in order to isolate the motor circuit. Separate connectors allow 3-phase power to enter the controller. The motor is wired to terminals situated within the controller. Motor control centers provide wire ways for power cables and field control.

Each motor controller in a motor control center can be specified with a range of options. These options comprise: separate control transformers, extra control terminal blocks, control switches, pilot lamps, as well as numerous types of bi-metal and solid-state overload protection relays. They likewise have different classes of kinds of circuit breakers and power fuses.

Regarding the delivery of motor control centers, there are many alternatives for the customer. These could be delivered as an engineered assembly with a programmable controller together with internal control or with interlocking wiring to a central control terminal panel board. On the other hand, they could be supplied ready for the customer to connect all field wiring.

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