

stations and similar control circuit components that do not open the power conductors to the motor are not considered controllers.

N Controller, Motion. (Motion Controller) The electrical device(s) for that part of the control system that governs the acceleration, speed, retardation, and stopping of the moving member. (620) (CMP-12)

Informational Note: The motor control function may be integral to the motion controller.

N Controller, Motor. (Motor Controller) Any switch or device that is normally used to start and stop a motor by making and breaking the motor circuit current. (CMP-11)

N Controller, Operation. (Operation Controller) The electrical device(s) for that part of the control system that initiates the starting, stopping, and direction of motion in response to a signal from an operating device. (620) (CMP-12)

Converter, DC-to-DC. (DC-to-DC Converter) A device that can provide an output dc voltage and current at a higher or lower value than the input dc voltage and current. (CMP-4)

N Converter Circuit, DC-to-DC. (DC-to-DC Converter Circuit) The dc circuit conductors connected to the output of a dc-to-dc converter. (CMP-4)

N Converting Device. That part of the heating equipment that converts input mechanical or electrical energy to the voltage, current, and frequency used for the heating applicator. A converting device consists of equipment using line frequency, all static multipliers, oscillator-type units using vacuum tubes, inverters using solid-state devices, or motor-generator equipment. (665) (CMP-12)

Cooking Unit, Counter-Mounted. (Counter-Mounted Cooking Unit) A cooking appliance designed for mounting in or on a counter and consisting of one or more heating elements, internal wiring, and built-in or mountable controls. (CMP-2)

Δ Coordination, Selective. (Selective Coordination) Localization of an overcurrent condition to restrict outages to the circuit or equipment affected, accomplished by the selection and installation of overcurrent protective devices and their ratings or settings for the full range of available overcurrents, from overload to the available fault current, and for the full range of overcurrent protective device opening times associated with those overcurrents. (CMP-10)

Fuses and circuit breakers have time/current characteristics that determine the time it takes to clear the fault for a given value of fault current. Selectivity occurs when the device closest to the fault opens before the next device upstream operates. Any fault on a branch circuit should open the branch-circuit breaker rather than the feeder overcurrent protection. All faults on a feeder should open the feeder overcurrent protection rather than the service overcurrent protection.

With coordinated overcurrent protection, the faulted or overloaded circuit is isolated by the selective operation of only

the OCPD closest to the overcurrent condition. The main goal of selective coordination is to isolate the faulted portion of the electrical circuit quickly while at the same time maintaining power to the remainder of the electrical system. The electrical system overcurrent protection must guard against short circuits and ground faults to ensure that the resulting damage is minimized while other parts of the system not directly involved with the fault are kept operational until other protective devices clear the fault. Where a series-rated system is used, an upstream device in the series will operate to protect a downstream device. For example, a current-limiting fuse will limit the available fault current to the downstream circuit breaker.

See also

700.32, 701.32, and 708.54 for selective coordination requirements for emergency systems, legally required standby systems, and critical operations power systems, respectively

620.62 for selective coordination requirements for elevator feeders

517.31(G), in which coordination is required only for faults that exceed 0.1 second in duration

N Cord, Flexible. (Flexible Cord) Two or more flexible insulated conductors enclosed in a flexible covering. (CMP-6)

N Cord Connector. A contact device terminated to a flexible cord that accepts an attachment plug or other insertion device. (CMP-6)

Types TC-ER and TC-ER-HL as a wiring method in Articles 501, 502, 503, 505, and 506 require a method of termination that currently is identified as a *cord connector* in the hazardous location (HazLoc) industry. However, the wiring device industry also uses the term *cord connector* to refer to a female electrical connector. The differentiation is addressed by use of the denotation "[as applied to hazardous (classified) locations]."

Cord Connector [as applied to hazardous (classified) locations]. A fitting intended to terminate a cord to a box or similar device and reduce the strain at points of termination and might include an explosionproof, a dust-ignitionproof, or a flameproof seal. (CMP-14)

N Cord Set. A length of flexible cord having an attachment plug at one end and a cord connector at the other end. (CMP-6)

N Corrosive Environment. Areas or enclosures without adequate ventilation, where electrical equipment is located and pool sanitation chemicals are stored, handled, or dispensed. (680) (CMP-17)

Informational Note No. 1: See *Advisory: Swimming Pool Chemical: Chlorine*, OSWER 90-008.1, June 1990, available from the EPA National Service Center for Environmental Publications (NSCEP) as sanitation chemicals and pool water are considered to pose a risk of corrosion (gradual damage or destruction of materials) due to the presence of oxidizers (e.g., calcium hypochlorite, sodium hypochlorite, bromine, chlorinated isocyanurates) and chlorinating agents that release chlorine when dissolved in water.