Devices for Motor Circuits

Fuse Holders As listed to UL 512
When used with a motor disconnecting means and properly sized branch circuit fuses, fuse holders may provide main, feeder, branch circuit, motor, motor circuit, and group motor protection. They cannot be used alone as a motor disconnecting means to meet NEC® 430.109, nor can they be used alone as a motor controller (On-Off function) to meet NEC® Article 430, Part VII.

Identification
Fuse holders as listed to UL 512 will contain a marking near the agency listing symbol. This marking should read Listed Fuse Holder.

Disconnect Switches-Fused and Non-Fused As listed To UL 98
These are disconnect switches from 30 through 6000 amps, that may be used on service equipment, panelboards, switchboards, industrial control equipment, motor control centers, motor branch circuits, etc. These switches may be used as a motor disconnecting means to meet NEC® 430.109. They may also be used as a motor controller (on-off function) to meet NEC® article 430, Part VII, and may be used as both a motor disconnecting means and a motor controller (NEC® 430.111).

Allowed Uses:
- Motor Branch Circuit and “at the motor” Disconnecting Means
- Motor Controller

Identification
Disconnect switches as listed to UL 98 will contain a marking near the agency listing symbol. This marking should read “Listed Misc. Sw.”

Motor Switches (Manual Motor Controllers) As listed To UL 508
These switches may be used as a motor controller (On-Off function) to meet NEC® Article 430 Part VII. As motor controllers, they have creepage and clearance distances that are less than those required by UL 98. As a result, they cannot be used as a motor disconnecting means to meet NEC® 430.109. If the device is listed as a “manual motor controller” and is additionally marked “Suitable as Motor Disconnect” it shall be permitted to serve as a motor disconnecting means if it is located between the final motor branch-circuit short-circuit and ground-fault protective device and the motor. This marking and listing is optional, so a review of the device markings will be required if intended to be used for this purpose.

Identification
Motor Switches/Manual motor controllers as listed to UL 508 will contain a marking near the agency symbol. This marking should read manual motor controller or an abbreviation such as Man. Mtr. Cntlr. Manual motor controllers listed for use as a motor disconnecting means will be marked “Suitable as Motor Disconnect.”

Pullout Switches As Listed To UL 1429
These are switches from 30 through 200 amps at 600V or less. Pullout switches with horsepower ratings are suitable for motor disconnecting means to meet NEC® 430.109, as motor controllers to meet NEC® Article 430 Part VII (if rated 100Hp or less), and in general use for panelboards, switchboards, etc. They may be used as both a motor disconnecting means and a motor controller to meet NEC® 430.111. Pullout switches with amp ratings only (no Hp ratings) are suitable for general use only, not motor circuits. If they are marked “Motor circuit pullout switch” they may be used only in a motor circuit. When used with properly sized branch circuit fuses, pullout switches may be used for motor, motor circuit, and group motor protection.

Allowed Uses:
- Motor Branch Circuit and “at the motor” Disconnecting Means
- Motor Controller

Identification
Pullout switches as listed to UL 1429 will contain a marking near the agency symbol. This marking should read Listed Pullout Switch.

Molded Case Switches As listed to UL 489
These switches are very similar to molded case thermal magnetic circuit breakers except that they have no thermal overload protection. They may or may not be equipped with a “magnetic” instantaneous trip as a self-protect mechanism. They may be used on service equipment, panelboards, switchboards, industrial control equipment, motor control centers, motor branch circuits, etc. They are suitable for use as a motor circuit disconnect per NEC® 430.109. They may be used as a motor controller (On-Off function) to meet NEC® Article 430 Part VII, and as both a motor disconnecting means and motor controller to meet NEC® 430.111.

Allowed Uses:
- Motor Branch Circuit and “at the motor” Disconnecting Means
- Motor Controller

Identification
Molded Case Switches as listed to UL 489 will contain a marking near the agency listing symbol. This marking should read Listed Molded Case Switch.