Exception to (1): The rating and type of protection shall be permitted to be determined by Table 430.52(C)(1) using the power conversion equipment's rated input current where the power conversion equipment is listed and marked "Suitable for Output Motor Conductor Protection."

Informational Note No. 1: Motor conductor branch-circuit short-circuit and ground-fault protection from the power conversion equipment to the motor is provided by power conversion equipment that is listed and marked "Suitable for Output Motor Conductor Protection."

Informational Note No. 2: A motor branch circuit using power conversion equipment, including equipment listed and marked "Suitable for Output Motor Conductor Protection," includes the input circuit to the power conversion equipment.

(2) Where maximum branch-circuit short-circuit and ground-fault protective ratings are stipulated for specific device types in the manufacturer's instructions for the power conversion equipment or are otherwise marked on the equipment, they shall not be exceeded even if higher values are permitted by 430.130(A)(1).

(3) A self-protected combination motor controller shall only be permitted where specifically identified in the manufacturer's instructions for the power conversion equipment or if otherwise marked on the equipment.

Informational Note No. 3: The type of protective device, its rating, and its setting are often marked on or provided with the power conversion equipment.

(4) Where an instantaneous-trip circuit breaker or semiconductor fuses are permitted in accordance with the drive manufacturer's instructions for use as the branch-circuit short-circuit and ground-fault protective device for listed power conversion equipment, they shall be provided as an integral part of a single listed assembly incorporating both the protective device and power conversion equipment.

(B) Bypass Circuit/Device. Branch-circuit short-circuit and ground-fault protection shall also be provided for a bypass circuit/device(s). Where a single branch-circuit short-circuit and ground-fault protective device is provided for circuits containing both power conversion equipment and a bypass circuit, the branch-circuit protective device type and its rating or setting shall be in accordance with those determined for the power conversion equipment and for the bypass circuit/device(s) equipment.

430.131 Several Motors or Loads on One Branch Circuit Including Power Conversion Equipment. For installations meeting all the requirements of 430.53 that include one or more power converters, the branch-circuit short-circuit and ground-fault protective fuses or inverse time circuit breakers shall be of a type and rating or setting permitted for use with the power conversion equipment using the full-load current rating of the connected motor load in accordance with 430.53. For the purposes of 430.53 and 430.131, power conversion equipment shall be considered to be a motor controller.

Part XI. Over 1000 Volts, Nominal

430.201 General. Part XI recognizes the additional hazard due to the use of higher voltages. It adds to or amends the other provisions of this article.

430.202 Marking on Motor Controllers. In addition to the marking required by 430.8, a motor controller shall be marked with the control voltage.

430.203 Raceway Connection to Motors. Flexible metal conduit or liquidtight flexible metal conduit not exceeding 1.8 m (6 ft) in length shall be permitted to be employed for raceway connection to a motor terminal enclosure.

N **430.204 Wire-Bending Space in Enclosures.** Motor controllers rated over 1000 volts shall provide wire-bending space within the enclosure for conductors installed in accordance with 305.5.

430.205 Size of Conductors. The ampacities of conductors supplying equipment rated over 1000 volts, nominal, shall be determined in accordance with 315.60 or 430.205(A) and (B).

N **(A) General Motor Systems.** Conductors supplying motors shall be sized not less than the current trip setting of the motor overload protective device(s).

N **(B) Adjustable-Speed Drive Systems.** For an adjustable-speed drive system, the conductors supplying the power conversion equipment shall have an ampacity not less than 125 percent of the rated input current to the power conversion equipment.

430.206 Motor-Circuit Overcurrent Protection.

(A) General. Each motor circuit shall include coordinated protection to automatically interrupt overload and fault currents in the motor, the motor-circuit conductors, and the motor control apparatus. Adjustable-speed drive systems with input or output voltages over 1000 volts, nominal, shall comply with 430.124 and 430.126. All other motors shall comply with 430.206(B) through (C).

Exception: Where a motor is critical to an operation and the motor should operate to failure if necessary to prevent a greater hazard to persons, the sensing device(s) shall be permitted to be connected to a supervised annunciator or alarm instead of interrupting the motor circuit.

(B) Overload Protection.

(1) Type of Overload Device. Each motor shall be protected against dangerous heating due to motor overloads and failure to start by a thermal protector integral with the motor or external