262923 - Variable Frequency Motor Controllers

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SECTION 26 2923 – VARIABLE-FREQUENCY MOTOR CONTROLLERS

1.1 SUMMARY

A. Section includes Solid-state, PWM, variable frequency drives for speed control of three-phase, squirrel-cage induction motors.

B. See Chapter 5, Division 01, Section 017700.1.1.B.1.i Closeout Procedures - Project Record Documents for equipment list requirements for all equipment provided in this section.

1.2 GENERAL

A. Manufacturers:

1. ABB.
2. Schneider Electric/Square D
3. Yaskawa.
4. Substitutions are not allowed.

B. All variable frequency drives for a particular project shall be provided by the Electrical Contractor and shall be of a single manufacturer.

C. Integral bypass switches that allow operation of the motor via line power in the event of VFD failure shall be provided on drives that are serving equipment without a standby only.

D. Hand-off-auto switches shall only be provided on drives that are not controlled by the Building Automation System (BAS).

E. When controlled by the Building Automation System (BAS), the following minimum points shall be provided:

1. Enable (DO).
2. Speed (AO).
3. Current/Load (AI).
4. Fault (DI).

F. All motors associated with variable frequency motor controllers shall be outfitted with:

1. Listed grounding rings, attached to their bearings, if of 5 hp or less.
2. Ceramic bearings, if greater than 5 hp.

END OF SECTION 26 2923