

## PART 1 - GENERAL

### 1.1 SUMMARY

- A. This section of the specification applies to work required by the Design/Builder for Division 15-Mechanical. This work includes Design/Builder furnished variable frequency drives (VFD).

### 1.2 WARRANTY

- A. The VFD shall be warranted by the manufacturer for a period of 36 months from date of shipment. The warranty shall include parts, labor, travel costs, and living expenses incurred by the manufacturer to provide factory authorized on-site service.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Pre-approved: Allen Bradley Bulletin (ABB) 1336 family, and Magnetek GPD503 family, or approved equal.
- B. Provide NEMA 1 type drive for units installed indoors. All VFD's located outdoors shall be provided with NEMA 3R enclosures.
- C. Provide additionally the communication card allowing use of BACNET<sup>®</sup>, LonWorks<sup>®</sup>, ModBus<sup>®</sup>, RTU, Profibus<sup>®</sup> and DeviceNet<sup>®</sup>
- D. Provide a manual 3-contactor bypass consisting of a door interlocked main fused disconnect padlockable in the off position, a built-in motor starter and a four position DRIVE/OFF/BYPASS/TEST switch controlling three contactors.

## PART 3 - EXECUTION

### 3.1 GENERAL

- A. Motors larger than 5 HP shall be provided with variable frequency drives.
- B. The drives shall be sized as required by the scheduled motors.
- C. The manufacturer shall provide start-up commissioning of the VFD and its optional circuits by a factory certified service technician. Start-up services shall include checking for verification of proper operation and installation for the VFD, its options and its interface wiring to the building automation system.

END OF SECTION