

SECTION 22 05 12  
GENERAL MOTOR REQUIREMENTS FOR PLUMBING EQUIPMENT

PART 1 - GENERAL

### 1.1 DESCRIPTION:

- A. This section describes the general motor requirements for plumbing equipment.

## 1.2 RELATED WORK:

- A. Section 26 05 11, REQUIREMENTS FOR ELECTRICAL INSTALLATIONS: General electrical requirements common to more than one section of Division 26.

### 1.3 SUBMITTALS:

- A. Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES.
- B. Shop Drawings:
  - 1. Sufficient information, clearly presented, shall be included to determine compliance with drawings and specifications.
- C. Manuals:
  - 1. Companion copies of complete maintenance and operating manuals, including technical data sheets and application data shall be submitted simultaneously with the shop drawings.
- D. Certification: Two weeks prior to final inspection, unless otherwise noted, four copies of the following certification shall be submitted to the Resident Engineer:
  - 1. Certification shall be submitted stating that the motors have been properly applied, installed, adjusted, lubricated, and tested.

#### 1.4 APPLICABLE PUBLICATIONS:

- A. The publications listed below (including amendments, addenda, revisions, supplements and errata) shall form a part of this specification to the extent referenced. Publications are referenced in the text by designation only.
- B. National Electrical Manufacturers Association (NEMA):
- MG 1-07.....Motors and Generators
- MG 2-01.....Safety Standard and Guide for Selection,  
Installation and Use of Electric Motors and  
Generators
- C. National Fire Protection Association (NFPA):
- 70-08.....National Electrical Code (NEC)

**PART 2 - PRODUCTS****2.1 MOTORS:**

- A. For alternating current, fractional and integral horsepower motors, NEMA Publications MG 1 and MG 2 shall apply.
- B. Voltage ratings shall be as follows:
  - 1. Single phase:
    - a. Motors connected to 120-volt systems: 115 volts.
- C. Number of phases shall be as follows:
  - 1. Motors, less than 373 W (1/2 HP): Single phase.
- D. Horsepower ratings shall be adequate for operating the connected loads continuously in the prevailing ambient temperatures in areas where the motors are installed, without exceeding the NEMA standard temperature rises for the motor insulation.
- E. Motor designs, as indicated by the NEMA code letters, shall be coordinated with the connected loads to assure adequate starting and running torque.
- F. Motor Enclosures:
  - 1. Shall be the NEMA types indicated in this specification section.
- G. Electrical Design Requirements
  - 1. Motors shall be continuous duty.
  - 2. Motors shall be suitable for full voltage starting, unless otherwise noted.

**PART 3 - EXECUTION****3.1 INSTALLATION:**

Install motors in accordance with manufacturer's recommendations, the NEC, NEMA, as shown on the drawings and/or as required by other sections of these specifications.

**3.2 FIELD TESTS**

Megger all motors after installation, before start-up. All shall test free from grounds.

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