# SECTION 262410 PANELBOARDS

## PART 1 - GENERAL

A. Description

This section describes materials, testing, and installation of panelboards.

B. Related Work Specified Elsewhere

General Electrical Requirements: 260500.

C. Submittals

1. Submit shop drawings in accordance with the General Conditions and Section 260500.

2. Show ratings and characteristics including voltage ratings, busing arrangement, continuous current ratings, fault current withstand ratings, neutral bus rating, enclosure type, ratings and arrangement of overcurrent protective devices, and mounting provisions.

3. Submit outline and dimensional drawings and conduit entry restrictions.

## PART 2 - MATERIALS

A. General

1. Panelboards shall comply with NEMA PB 1 (panelboards) and UL 67 (electric panelboards) requirements.

2. Provide dead-front, safety-type panelboards with ratings as scheduled. Panelboards shall be circuit-breaker type and shall be fully rated for short-circuit capacity indicated in the drawings. Panelboards shall be UL listed and labeled and manufactured by General Electric, Cutler-Hammer, Square D, Siemens, or equal.

B. Breakers

1. Breakers shall be molded-case type and shall comply with NEMA AB3 requirements. Provide quick-make and quick-break toggle mechanism, inverse-time trip characteristics, and trip-free operation on overload or short circuit. Automatic tripping shall be indicated by a handle position between the manual OFF and ON position. Provide trip ratings as indicated in the panelboard schedules.

2. Single-pole breakers shall be full module size; two poles shall not be installed in a single module. Multiple circuit breakers shall be of the common-trip type having a single operating handle.

C. Breaker Connections

Circuit breaker current-carrying connections to the bus shall be bolted type.

D. Bus Bars

Bus bars shall be copper. Provide a copper ground bus bar installed on the panelboard frame, bonded to the box, and containing a number of terminal screws equal to or greater than the maximum number of branch circuits. For panelboards with neutrals, provide full-size neutral bus bar, unless otherwise noted in the drawings, and suitable lugs to support maximum number of circuits.

E. Space

Where "space" is noted in the panelboard schedules in the drawings, provide connectors and mounting brackets for the future insertion of a 20-ampere, single-pole overcurrent device.

F. Directories

Provide typed circuit directories on the inside face of the door of each panel. Do not provide handwritten directories.

G. Nameplates

Provide nameplates as specified in Section 260500. Designate the identifying nomenclature, voltage, and phase of the panel as shown in the drawings; for example, "PANEL A, 120/240-volt, single-phase, 3-wire, 100-ampere bus."

## PART 3 - EXECUTION

A. Accessibility

Install panelboards so that the top of the highest circuit breaker is not more than 6 feet 6 inches above the floor or working platform.

B. Tests

Operate each circuit breaker and verify that all phases of each load are disconnected.

END OF SECTION