

SECTION 262416 - PANELBOARDS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. This sections is a Division 26 Basic Electrical Materials and Methods section and is part of each Division 26 section making reference to electrical connections for equipment specified herein.

1.02 SCOPE OF WORK

- A. Provide a panelboard at each location shown on the drawings. Panelboards shall be furnished complete with circuit breakers and all other items specified.
- B. Panelboards shall be NEMA 1 for surface or recessed mounting, circuit breaker type, in a single width factory assembled enclosure including box, interior, trim and front. Panelboards and enclosing cabinets shall conform to standards established by Underwriters' Laboratories, Inc., and requirements of NEC and shall bear the UL label.
- C. Each panelboard shall be provided with an insulated neutral bus and a ground bus bonded to the panel backbox. Neutral and ground bus shall be readily identified and shall be provided with screw type terminals.
 - 1. All bus bars shall be electrical grade copper. The main bus bracing shall be equal or greater than the interrupting current rating called for by the drawings.

PART 2 - PRODUCTS

2.01 PANELBOARDS

- A. Panelboard box shall be galvanized code gauge sheet steel with a turned edge around front of box for rigidity and attachment of the front. Wiring gutters shall be in accordance with NEC and NEMA Standards. Where panelboard gutters are used as through-feeds and taps, provide increased side gutter space.
- B. Panelboard front shall be a flat piece of code gauge steel with opening to which the panelboard door construction is attached by means of concealed steel hinges. Fronts shall be standard factory finish over a rust inhibitor unless otherwise indicated. Front shall be designed for flush or surface mounting as indicated. Panel fronts shall be provided with a continuous hinge along the left side for easy access to the wire compartment (door within door construction). A three point lockable latch shall hold the front cover securely in place. Door trims shall be lockable and cover all switching device handles. All locks shall be flat key type and all keyed alike. Furnish two keys per lock.

- C. Interiors shall be of the unit type, interchange mounted on a backplate or frame. Branch circuit breakers shall be fully interchangeable and easily removed without disturbing adjacent breakers, base structure or insulation. Panels shall be designed for sequence phase connection of branch circuit devices.
- D. Each panel shall be equipped with a typewritten directory, indicating plainly what each branch circuit of the panel controls. The directory shall be placed in a clear plastic protective envelope and fastened to the inside of the door.

2.02 CIRCUIT BREAKERS

- A. Branch circuit protection devices shall be molded case circuit breakers with quick-made, quick-break toggle mechanism, inverse time delay overload and instantaneous short circuit protection by means of thermal magnetic element. Automatic tripping shall be indicated by a handle position between the manual "OFF" and "ON" position. Breakers shall be "bolt-on" interchangeable type and capable of being operated in any position. Circuit breakers shall be designed to carry their full rating continuously in ambient temperature of 40 degrees C. Two and three pole breakers shall have common trip handle. All lighting branch circuit breakers shall be switch rated.
- B. Panelboards shall have main and branch circuit breakers as indicated on the drawings.
- C. Where panels have spaces for future breakers, the space shall include complete buswork, hardware, appurtenances, etc., to accommodate future breakers. Provide locking devices for circuit breakers which are to be kept in locked position.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Panelboards shall be for surface or flush mounting as shown on the drawings.
 - 1. Flush mounted panelboards shall be set true and plumb in the wall and flush with the finished surface. Front trim panels shall meet the finished wall surface without any measurable gaps along the edges.
 - 2. Unless otherwise indicated, panelboards shall be mounted 6 feet to the top of the cabinet.

3.02 SUBMITTALS

- A. Submit shop drawings and descriptive data for each panelboard including dimensions of all parts and with all current and voltage ratings for each type of circuit breaker.

END OF SECTION 262416