SECTION 26 24 16 - PANELBOARDS

PART I - GENERAL

1.1 SECTION INCLUDES

A. This section applies to branch circuit and distribution panels.

PART 2 - PRODUCTS

2.1 EQUIPMENT

A. Breakers for Devices 400 Amps or Less: Protective devices in branch circuit and distribution panels that are rated 400 amperes or less shall be circuit breakers with appropriate short circuit ratings to maintain building coordination. Circuit breakers shall have bolt or screw mounting to bus. Push-on mounting to bus is unacceptable.

B. Lighting and Receptacle Breakers: Branch circuit breakers for lighting and convenience receptacles shall be 20 amperes. Lighting and receptacles shall be connected to separate circuits.

C. Panel Capacity: All new distribution and branch circuit panels shall have 42 spaces. In addition, all new panels shall have a minimum of 9 spare spaces when installation is complete. Panelboards with 84 circuits in one panel are not allowed. Panelboards with 42 circuits and feed-thru lugs to a panelboard next to it for a total of 84 circuits are allowed.

D. Gutter Space: New branch circuit panels shall have minimum of 5-inch gutters, with additional gutter space being provided for feeder lugs or main breaker as required for particular installations.

E. Lockable: All distribution and branch circuit panels shall be lockable. Lock shall be equivalent to Corbin Series 1001, master keyable, and operate with a FAB-7 key. Panels with interiors and trims that do not allow use of this lock are unacceptable.

F. Schedule: Each panel shall contain a typewritten schedule. The schedule shall contain complete and detailed information for loads on each circuit.

G. Copper Bus: All panelboard bus shall be copper.

2.2 ARC-FLASH LABELING

A. All Panelboards shall have arc flash warning labels on the electrical equipment with a specific incident energy value in calories/cm².


2. Incident Energy calculations take into account bolted fault current, clearing time, equipment type, grounding and construction over a range of voltages

3. Information required to perform an Arc-Flash Analysis shall include:
   a. Up to date system one-line diagram (NFPA 70E)
   b. Conductor size, types, and lengths
   c. Electric utility source information
   d. Current short-circuit/coordination study (per 2.5)
e. Validated protective device types and settings

B. Arc-Flash labels shall meet the requirements of NFPA 70E.

1. Labels shall include the following information for Appropriate PPE Required:
   a. Flash Hazard Boundary Distance
   b. Flash Hazard at 18 inches
   c. Arc-Flash Hazard Risk/PPE Category
   d. Shock Hazard when cover is removed
   e. Class of glove
   f. Limited Approach Distance
   g. Restricted Approach Distance
   h. Prohibited Approach Distance
   i. Name. Address of Company preparing the Label
   j. Date of Label Preparation

PART 3 - EXECUTION

3.1 INSTALLATION

   A. Flush Mounted: Where possible, distribution and branch circuit panels installed in finished areas shall be flush mounted and served through concealed conduit.

   B. 65 Feet Max Distance: Branch circuit panels shall be located so that they will be not more than 65 feet from any portion of the floor served, so that branch circuits will not exceed 100 feet in total length.

   C. 4 Spare Conduits: All flush mounted panels shall have at least 4 spare 1-inch conduits extended to space above or near the ceiling for future use.

END OF SECTION 26 24 16

This section of the U of I Facilities Standards establishes minimum requirements only. It should not be used as a complete specification.