

## TMS / ITS - Approved Products List

### 120 / 240 Electric Service Cabinet - Metered

The Electric Service Cabinet shall be listed by a National Recognized Testing Laboratory (NRTL) as defined by the U.S. Department of Labor. The testing laboratory must be listed by OSHA in its scope of recognition for the applicable tests being conducted as required by this specification. A list of recognized testing labs for products sold in the United States may be found on the U.S. Department of Labor's web site: <http://www.osha.gov/>

The Electric Service Cabinet shall be listed and labeled by a NRTL as being in compliance with UL508 and UL50. The cabinet shall be a NEMA type 3R rated. Typical outside dimensions are: 16" L X 16" W X (55" – 75") H. The dimension from the bottom of the cabinet to the center of the meter socket shall be between 48" and 72". The cabinet base shall be capable of mounting to foundations that are pre-cast or poured in place. Attachment shall be made at each corner through interior bottom flanges that are 1.50" wide minimum having slotted holes that accommodate 0.50" diameter anchor bolts. The base must have a divided space that separates the customer load section and the utility access section. The utility service conductor runs continuous to the meter section. The base layout allows placement over a 10" x 12.5" area of conduit installation located towards the front of the cabinet. The following minimum requirements must be met:

- A.** The cabinet enclosure shall be of clear-anodized aluminum finish and shall be fabricated from 0.125 inch aluminum, type 5052-H32. Any welded seams shall be done with gas tungsten arc welds that comply with AWS B3.0 and C5.6 for aluminum. The aluminum surfaces must have a uniform appearance inside and out after the anodizing process. Apply the anodic coating as per MIL-A-8625C for Type II, Class I Coating except:
1. The outer surface coating is 0.018 mm (0.0007 in);
  2. The coating weighs 27 mg per 645 mm<sup>2</sup>;
  3. the coating is sealed by immersion in a 100 degrees C. aqueous, 5 percent nickel acetate solution for 15 minutes.

Before applying the anodic coating, the aluminum shall be:

4. etched with inhibited alkaline cleaner at 70 degrees C for 5 minutes;
  5. rinsed with cold water;
  6. immersed in a 50 percent (by volume) nitric acid solution for 2 minutes at 20 degrees C;
  7. rinsed with cold water.
- B.** All external handles, fasteners, rivets, screws, and bolts shall be stainless steel. Lift off hinges must be die cast zinc construction with black powder coating and nylon washers or an approved equal.
- C.** All edges and corners on both the exterior and interior must be rounded and smoothed to prevent injuries.

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- D. Provide a 0.25 inch thick neoprene gasket for the base.
- E. The service cabinet shall have separate, isolated sections for metering equipment, utility access, and customer load terminations. All external openings are sealed with neoprene gaskets.
- F. The utility access section shall be pad-lockable and sealable and have a stainless steel handle on a lift-off cover. Sufficient clearance shall be provided for a 4" diameter conduit for utility cables.
- G. The customer load section door shall be pad-lockable. Required labeling shall be located on the inside of the customer door. Distribution and control equipment shall be behind an internal dead-front door with a quarter-turn securing latch and be hinged to open more than 90 degrees. Neutral and ground busses are attached to be back wall of the customer compartment. The dead-front door shall be hinged on the same side as the customer section door; these hinges shall be aluminum or stainless steel.
- H. The service cabinet shall be rated 120/240 volt, three wire, single phase power.
- I. The service cabinet shall be provided with the following equipment:
  - 1. Ring-less meter socket rated at 200A with a fifth terminal, lever bypass and provision for placement of a Utility company seal. The meter socket may be internal or external to the cabinet allowing total unobstructed access. The meter faceplate shall not require tools for removal by Utility personnel. The meter socket assembly must be approved by the Utility Company that provides service in the area where it will be installed.
  - 2. Circuit load center that:
    - 1. Is designed for a 200A, 120/240V single phase operation.
    - 2. Has No. 2 AWG wire from utility lugs to Service Disconnect in load center.
    - 3. Is constructed with 30 panel knock outs for breakers.
    - 4. Shall come equipped with a 60A 2-Pole main breaker, one 30A, and **four 15A** breakers. Any additional circuit breaker sizes and quantities shall be defined in project plans.
    - 5. Accepts one of the following plug-on circuit breaker families: Cutler-Hammer, General Electric, Milbank, and Siemens,
    - 6. Has a circuit directory to document breaker assignments provided on the inside surface of the customer load section door.
    - 7. Utilizes copper busses for customer loads.
    - 8. Has properly sized sub-feed lugs.