

## TMS / ITS - Approved Products List

### 120 / 240 Electric Service Cabinet – Type Special (Non-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 is a NEMA type 3R cabinet listed and labeled compliant with UL 508 and UL 50. Typical outside dimensions are: 16" L X 16" W X 47" H. 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 line 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 of hinges must be die cast zinc construction with black powder coating and nylon washers or an approved equal.
- C.** All external openings are sealed with neoprene gaskets.

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- D. All edges and corners on both the exterior and interior must be rounded and smoothed to prevent injuries.
- E. A neoprene gasket, 0.25 inch minimum thickness, is provided for the base.
- F. The line 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 and shall have provisions to hold the door in an open position. 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, and single phase power.
- I. The service cabinet shall be provided with a circuit load center that:
  - a. Is designed for a 200A, 120/240V single phase operation.
  - b. Is constructed with 30 panel knock outs for breakers
  - c. Shall come equipped with a 60A 2-pole main breaker, one 30A, and 4-15A breakers. Any additional circuit breaker sizes and quantities shall be defined in project plans.
  - d. Accepts one of the following plug-on circuit breaker families: Cutler-Hammer, General Electric, Milbank, and Siemens,
  - e. Has a circuit directory to document breaker assignments provided on the inside surface of the customer load section door.
  - f. Utilizes copper busses for customer loads.
  - g. Has properly sized sub-feed lugs.