POWER DESIGN INC.

Padmount Metering Switchgear

- 200A or 600A Lindsey air insulated bushing wells accept IEEE standard inserts and elbows
- Multi-line and load configurations with optional fusing
- Free standing galvanized steel frame
- Optional 3/8” solid copper ground bar
- Stainless steel brackets for easy CT installation or replacement
- Available with potential and current transformers installed and wired.
- Meter socket installation and wiring optional
- Optional galvanized steel hinged swing out meter mounting panel
- Fiberglass enclosure with (2) hinged double doors w/ captive penta head bolts and padlocking provisions and removable eyes for lifting enclosure and frame as one unit
- 1/4” clear lexan barrier between meter panel and live parts
- Optional 30” high fiberglass box pad

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25KV PRIMARY METERING SWITHGEAR

1.0 SCOPE

This specification applies to padmounted outdoor 25 KV primary metering switchgear. Unit shall be designed for mounting on a fiberglass box pad or concrete pad at ground level. The switchgear shall be in complete conformance with all applicable NEC, ANSI, IEEE, and NEMA standards in addition to ANSI C57.12.28, Padmounted Equipment Enclosure Integrity Standard.

2.0 CONSTRUCTION

1. The switchgear components, dimensions and construction shall be as shown on the drawing.
2. The unit shall be constructed on a free-standing galvanized frame designed per applicable standards to withstand the electrical and mechanical stresses.
3. Frame lifting and grounding provisions shall be provided.
4. The unit shall be completely assembled at the factory.
5. The unit shall use a 25 KV separable insulated connector system per IEEE Standard 386 and outdoor style instrument transformers separated by a galvanized steel bushing plate. A second galvanized steel swing out plate shall be supplied on the back to isolate the transformers and provide a mounting surface for an NStar supplied test switch and other equipment.

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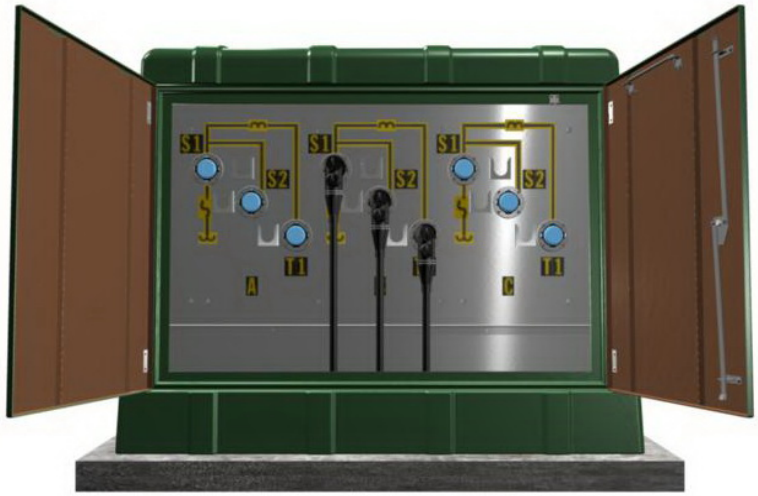
6. The schematic shall be applied to the bushing plate with a black line on yellow reflective tape. Transformer and fuse symbols shall be included in the schematic. Source and tap bushings shall be identified and numbered .



7. The voltage transformers shall be protected with a current limiting fuse rated at 1/2E amps with clip style mountings. All enclosure hardware shall be made of 304 stainless steel.

8. Phase and ground barriers shall be provided with appropriate clearances for the rated voltage. The barriers shall be made of 3/16" NEMA GPO-3 material. A ¼" clear lexan barrier shall be mounted behind the swing out panel to provide visual inspection of the fuses and instrument transformers without removing the safety barrier.

9. Bushing arrangement and amperage shall be provided as shown on the drawing. Cable to air bushings shall be bolt in type with clamping ring and gasket to allow for field replacement

10. Copper bus bar shall be provided and sized for the amperage of the bushings supplied.

11. Nstar supplied outdoor type instrument transformers shall be mounted and wired to the test switch. Wire shall be #10 stranded XHHW gray with wire markings as shown on the wiring drawing. Flex-poly conduit shall be provided between transformers and the test switch to house wires.

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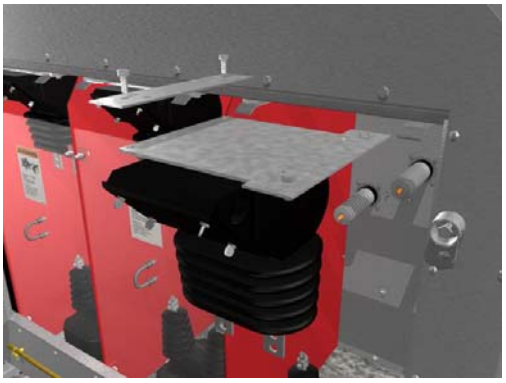
12. Current transformers shall be mounted using a sliding bracket assembly so they can be installed/removed with the enclosure in place. A stainless steel plate shall be bolted to each side of the transformer base which slides into place on the frame.



13. The switchgear shall be housed in a fiberglass outdoor, weatherproof housing sized to cover the unit.
14. Fiberglass laminate shall be 3/16" nominal thickness except where local reinforcement is required.
15. Fiberglass shall not support combustion and be self extinguishing.
16. Enclosure exterior shall be gel-coated to .014 inch nominal thickness and be manufacturer's standard munsell green color.
17. Locking device shall provide both a captive penta head bolt and padlocking provisions.
18. All enclosure hardware shall be made of 304 stainless steel .
19. Enclosure shall be removable without disturbing enclosed equipment or cables.
20. A stainless steel identification plate shall be affixed outside the enclosure which identifies the manufacturer; model number of the equipment; and date of manufacture.
21. Stainless steel louvers shall be provided with stainless steel screen baffle for adequate air flow and heat dissipation as required for enclosed equipment.

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22. When required a fiberglass box pad shall be supplied in place of a cement pad for mounting of the frame and enclosure. The box pad shall be 30” high with an opening to allow the high voltage cables to enter.

3.0 INSTALLATION

1. Remove enclosure and set aside.
2. Mount free-standing frame on pad and secure.
3. Terminate cables and connect to appropriate bushings.
4. Lower enclosure over frame/cable assembly and secure.

For more information, check out video or our web site. The following are the links;

Video: http://www.powerdesigninc.com/video/main-video.htm

Web Site: http:/www.powerdesigninc.com/ps/ps_primary_three_phase.asp

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