

SPECIFICATIONS IFB 23IFB8760
VFI SWITCHGEAR

PART 1 - GENERAL

1.01 SCOPE:

- A. Work under this Section includes furnishing 15 kV padmount switchgear as herein specified.

1.02 APPROVAL DRAWINGS:

- A. Supplier shall furnish a PDF approval drawing for review and approval. Drawings shall be submitted on sheets no larger than 11 x 17 with lettering size no smaller than 0.05 in.

1.03 DRAWINGS AND INSTRUCTION MANUALS:

- A. The 15 kV padmount switchgear shall be shipped with an instruction manual and complete set of certified "record" drawings. The certified "record" drawings shall also be provided in PDF format. As-built drawings shall include the following:
 - 1. Dimensions.
 - 2. Descriptive data.
 - 3. Performance data.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS:

- A. All bids will be evaluated on the basis of compliance with the specifications, cost, delivery, and the Owners and Engineer's past experience with units manufactured by the Supplier.
- B. Padmount switchgear:
 - 1. S & C – Vista SD Underground Distribution Switchgear.
Catalog # 924222-E9-P1G1G2L2M1M2O w/TR-11887 USB cable
 - 2. No equal.

2.02 PADMOUNTED SWITCHGEAR CONSTRUCTION:

A. Switchgear shall include the following:

1. Double-side padmount style with front and back access.
2. Enclosure: Mild steel with padlocked security.
3. Color: Standard green.
4. Multi-way with 4 modules a PME 9 arrangement.
 - a. (2) 600A Load Interrupter Switch Bays
 - b. (2) 600A Fault Interrupter Bays
5. Load break vacuum switch modules shall include the following:
 - a. 600A bushings, dead front.
 - b. 3-phase gang operated functionality.
 - c. Shall consist of vacuum bottles encapsulated within solid dielectric epoxy modules with spring-assisted operating mechanism.
 - d. Switch operating mechanism shall be side-mounted, hookstick operable handles.
 - e. Viewing window for visual identification of open or closed vacuum contact position.
 - f. Ratings:
 - (1) 600 A
 - (2) 600 A load break.
 - (3) 12,500 A RMS symmetrical short circuit interruption.
 - g. Switches shall be designed and tested per applicable sections of IEEE C37.74 and the latest version of IEC 60265 standards.
 - h. Switches shall have parking stands for each phase.

6. Vacuum fault interrupter modules shall include the following:
 - a. 600 Amp bushing wells, dead front.
 - b. Shall consist of vacuum bottles and internal current transformers encapsulated within solid dielectric epoxy modules with spring-assisted operating mechanism.
 - c. Operating mechanism shall be side-mounted, hookstick operable handles. Any mechanical linkage shall provide for a “trip-free” operation, which shall allow the VFI to operate independently of the operating handle.
 - d. Ratings:
 - (1) 600 A continuous.
 - (2) 600 A load break.
 - (3) 12,500 A RMS symmetrical short circuit interruption.
 - e. Switches shall be designed and tested per applicable sections of IEEE C37.74 and C37.60, and the latest version of IEC 60265 standards.
 - f. Control:
 - (1) Self-powered electronics control package.
 - (2) Field selectable fuse and relay curves along with trip settings.
 - (3) Sensing on any of the one phases through the overcurrent device will allow for three phase tripping.
 - (4) LEDs to indicate last cause of trip.
 - (5) Manual trip/close arm to all for operation of each bay.
 - (6) Furnish Vista Overcurrent Control 2.0 or Engineer Approved equal.
 - g. Viewing window for visual identification of open or closed vacuum contact position.
 - h. VFIs shall have parking stands for each phase.

7. Insulation: Solid dielectric.
8. Grounding studs at each incoming cable connection.
9. Switchgear Ratings:

Nominal voltage -	15 kV
Basic Insulation Level -	95 kV
Continuous current (minimum) -	600 A
Momentary interrupting current -	12,500 A

2.03 BOX PADS FOR PADMOUNT SWITCHGEAR:

- A. Fiberglass box pad shall be supplied sized to match the previously mentioned padmount switches.
- B. Box pad shall be step designed of heavy construction in order to support the above switch. Pad shall be sized to place the weight of the supported device as close to the outside edge as possible.
- C. Height of pad shall be thirty-six inches (36").
- D. The box pad manufacturer shall be responsible for coordinating with the padmount switch supplier regarding pad size, top opening, etc.