Guide Form Specification for a Compact Medium Voltage Transient Surge Suppressor

This specification is for a _____ kV compact medium voltage three phase transient surge suppressor that is designed to protect medium voltage motors and associated equipment from voltage surges due to lightning and switching events. The Medium Voltage Transient Surge Suppressor (CMV-TVSS) will be placed within or on the side of a _____ kV motor starter. The MOV's should be chosen so that they are suitable for a _____ (*ungrounded, solidly grounded, or resistance grounded*) grounded system. The CMV-TVSS shall come fully assembled and ready for interconnection.

All exceptions to this specification shall be clearly stated with your bid. If no exceptions are taken, the bid should include the phrase "no exceptions have been taken".

1. Enclosure

1.1 The CMV-TVSS shall be housed in a Galvanneal Steel enclosure. The enclosure shall be wall-mounted.

1.2 A Stainless Steel nameplate showing rating information shall be riveted to the front of the enclosure.

2. Surge Arrester

2.1 The CMV-TVSS shall be equipped with six heavy duty distribution class lightning arresters for limiting the crest of impending voltage surges to safe values. Three arresters shall be connected line-to-line and three shall be connected line-to-ground.

2.2 The surge arrester shall be silicone rubber housed and shall utilize MOV blocks. The arresters shall comply with ANSI/IEEE C62.11 standards.

2.3 The voltage rating and MCOV shall be appropriately rated for the system voltage and grounding as specified above. The manufacturer shall choose the appropriate rating.

3. Incoming Current Limiting Fuses

3.1 Current limiting fuses shall be provided to automatically disconnect a faulted CMV-TVSS.

4. Medium Voltage Cable Leads and Ground Wire

4.1 The unit shall come fully assembled and ready for interconnection. Medium voltage cable leads, 5 foot in length and suitable for the voltage level shall be provided for termination on the customer equipment.

4.2 A 5 foot #4 Copper Conductor shall be provided grounding.

5. Submittals

5.1 Upon issue of a purchase order, the supplier shall provide 3 copies of approval drawings. The submittals shall include:

- Installation Instructions

- Single Line and three line diagrams
- Pad and cable entry drawings
- Drawings showing component layout
- Data sheets for all internal components

6. Bid Requirements

6.1 Supplier must state all exceptions in the Bid. If no exceptions are taken, the supplier must state that there are no exceptions.

7. Acceptable Product & Suppliers

7.1 Suppliers must offer a minimum 1 year warranty and have available extended warranty programs.

7.2 Supplier must have a licensed professional engineer on staff that has a post graduate degree in electric power engineering. Credentials shall be supplied upon request.

7.3 Supplier must show that they are a regular supplier of medium voltage motor surge protection equipment.

7.4 Acceptable Manufacturer and Product:

CM-MVTSS™ by Northeast Power Systems, Inc. (*NEPSI*)