TECHNICAL SPECIFICATION

CAPACITOR BANK SWITCH 600/1200 KVAR

JEA ITEM ID: CAPBA001 AND CAPBA002

(TO BE USED WITH CAPCO002)

1. GENERAL

This specification covers the technical requirements of rack mounted capacitor units of the voltages and size indicated below. Requirements of General Specifications Applicable to Individual and Banked Rack Mounted Distribution Capacitors also apply to all work under this specification. Where applicable, the capacitor unit shall meet or exceed the latest IEEE and ANSI standards.

2. ELECTRICAL REQUIREMENTS

2.1. Line to Ground Voltage 15.2 kV

2.2. Line to Line Voltage: 26.4kV

2.3. Basic Impulse Insulation Level: 150kV minimum

2.4. Continuous Current (50/60 Hz): 200A minimum

2.5. Capacitive Switching Current (50/60Hz): 200A minimum

2.6. Short Time Withstand Current (1sec): 12.5 kA RMS Symmetrical

2.7. Dry Withstand, 60 Hz, 1 minute: 70kV

2.8. Wet Withstand, 60 Hz, 10 second: 60kV

2.9. Symmetrical Fault Making Current: 6kA

2.10. Peak Fault Making Current: 15kA

2.11. Transient Inrush Frequency: 6000Hz

3. PHYSICAL REQUIREMENTS

3.1 Capacitor Bank Bracket

3.1.1. Shall be stainless steel or heavy duty aluminum and have a grounding provision located near the pole side

3.1.2. Shall accept a capacitor can with mounting lugs spaced at 15.625 inches (397mm)

3.1.3. Bracket shall include lifting lugs, positions for six (6) 200 kVAR capacitor cans, 3 vacuum switches, and a junction box (See 3.8)

3.1.4. Shall accommodate 12” bolt spacing for ¾” bolt

3.2. Control:

3.2.1. See specification for JEA Item ID: CAPCO002

3.3. 200 kVAR Capacitor Cans

3.3.1. Capacitor cans shall be equipped with mounting brackets spaced at 15.625 inches

3.3.2. Shall be in compliance with the specification for CAP UN 030

3.4. Vacuum Switches shall be Edison Capacitor Switches with a 150 kV BIL and include a visual indication of position.

3.5. Operating temperature range: Operating temperature range shall be -50°C (-58°F) to 55°C (131°F).

4. DRAWING SUBMITTAL

4.1. Bidders shall be required to submit two complete sets of shop drawings showing all details of the high voltage unit and/or the low voltage controller a minimum of two weeks before bid opening. One set will be returned to the vendor with approval and/or comments. If drawings and catalog information are not submitted, bid will not be evaluated. JEA shall not be liable for switches manufactured in accordance with unapproved shop drawings.

4.2. Shall include replacement Manufacturer Part Numbers for the following included items:

4.2.1. Pole Mounted Capacitor Rack

4.2.2. 200 kVAR Capacitor Cans

4.2.3. 150 kV BIL Capacitor Bank Switch

5. PACKAGING

5.1. Capacitor Bank - The Capacitor Bank Bracket (item CAP BA 001/002) shall be packaged in a wooden crate for material protection and outside storage requirements. All crates shall have a minimum ground clearance of two and one-half (2-1/2) inches.

5.2. Control - The control (item CAP CO 002) shall include the control box and control cable. It should be packaged separately from the capacitor bank. It should include a wiring diagram and schematic of the pin-out for the 7-pin connector.

6. NAMEPLATE

6.1. Shall be provided with kVAR, voltage class, BIL rating, frequency, capacitor rack connection, catalog #, serial #, weight, and date of manufacture.

JEA Item ID w/Description:

CAPBA001 – BANK, CAPACITOR, CONTROLLABLE, 1200 KVAR, FOR USE WITH ITEM CAPCO002, 150KV BIL, 26.4KV, INCLUDES CAPACITORS AND VACUUM SWITCHES. ALL MOUNTED IN A RACK.

CAPBA002 – BANK, CAPACITOR, CONTROLLABLE, 600 KVAR, FOR USE WITH ITEM CAPCO002, 150KV BIL, 26.4KV, INCLUDES CAPACITORS AND VACUUM SWITCHES. ALL MOUNTED IN A RACK.

CAPCO002 – CBC-8000 CONTROL BOX WITHOUT VOLT/VAR MONITORING, FOR USE WITH 600/1200 KVAR CAPACITOR BANK (CAPBA001 OR CAPBA002). INCLUDES CONTROL BOX AND CONTROL CABLE.