# THE CITY OF COLUMBUS DEPARTMENT OF PUBLIC UTILITIES DIVISION OF POWER

#### GROUP-OPERATED AIR BREAK SWITCHES

## **TDMIS-9104**

### For Overhead Applications, 15 kV Max

Revised 11/2019

Specification

## 1.0 SCOPE

This specification covers three-phase, pre-assembled, hook stick operated, 900-Amp group-operated air break ("GOAB") switches for use in overhead applications up to 15 kV.

## 2.0 APPLICABLE PUBLICATIONS AND STANDARDS

The GOAB switches in this specification shall meet and/or exceed all requirements of the latest editions of the standards listed below. The switches hall further meet and/or exceed those applicable standards not stated herein but referenced by the below standards.

- 2.1. ANSI/IEEE C37.30.1 Standard Requirements for AC High-Voltage Air Switches Rated Above 1000 V
- 2.2. ASTM A153 Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware

### 3.0 **PRODUCT REQUIREMENTS**

- 3.1. GOAB switch described in this section shall be completely assembled and adjusted at the factory and shall be shipped in one piece, ready to install.
- 3.2. GOAB shall be configured for vertical mount horizontal operation, with a hook stick-operating mechanism with a lockout/tagout device. This padlockable device shall be capable of locking the switch in the open position with a single pull of the hookstick.

## 3.3. Materials

- 3.3.1. Arms shall be fiberglass with a UV protective out coating.
- 3.3.2. Insulators shall be composite polymer silicone, cycloaliphatic, or similar. Porcelain insulators are not acceptable.
- 3.3.3. All current carrying parts shall be non-ferrous metal with NEMA two-hole tin-plated bronze terminal pads or copper terminal pads.

#### 3.4. **Optional Features**

Options shall be included as follows:

- 3.4.1. Dead ending extension link assemblies
- 3.4.2. Ice shield

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- 3.4.3. Harsh environment at contacts
- 3.4.4. Mounting provisions for six (6) surge arresters

## 3.5. <u>Technical Requirements</u>

- 3.5.1. Voltage rating (continuous): 15 kV
- 3.5.2. BIL: 110 kV
- 3.5.3. Current rating (continuous): 900 A
- 3.5.4. Current rating (momentary): 40,000 A
- 3.5.5. Interrupting rating: 600 A

## 3.6. <u>Sampling, Inspection, and Test Procedures</u>

- 3.6.1. Any GOAB, which has been delivered and is found to not meet the specifications, will be rejected. GOAB that are rejected will be replaced by the vendor at their expense.
- 3.6.2. Reasons to reject a GOAB shall be as follows:
  - a) A GOAB has visible damage or is out of adjustment due to shipping.
  - b) A GOAB cannot be field adjusted as described in manufacturers' instructions.
  - c) Any sign of rust, corrosion, or deformation is evident.