

## SECTION 164XX

## OPEN DISCONNECT SWITCHES

## PART 1 GENERAL

## 1.1 SUMMARY

- A. Furnish and install fused and non-fused disconnect switches as shown on the drawings.

## 1.2 REFERENCES

- A. Fused and non-fused disconnect switches shall be designed, manufactured, and tested and in accordance with UL/CSA and IEC standards.
- B. Fused and non-fused disconnect switches shall be UL 98 listed (fused and non-fused), UL 508 listed (fused and non-fused where shown acceptable on drawings), CSA certified, IEC rated and CE marked.

## 1.3 SUBMITTALS

- A. Drawings: Submit detailed dimensioned product drawings and conduit entry/exit locations.
- B. Product Data: Submit manufacturer's product data sheets including:
  - 1. Switch ratings (voltage, continuous current, horsepower, and short-circuit current rating)
  - 2. Conductor termination ratings
  - 3. Fuse ratings and type
  - 4. Documentation of agency certifications
- C. Ten copies of the above are required for approval and final as-built submittals

## 1.4 QUALIFICATIONS

- A. Manufacturer shall be ISO 9000, 9001, or 9002 certified with a minimum of five years experience in producing fused and non-fused disconnect switches.

## 1.5 DELIVERY, STORAGE AND HANDLING

- A. Equipment shall be handled and stored in a manner that avoids damage.
- B. Equipment shall be inspected prior to installation for damage. Do not install damaged equipment.

## PART 2 PRODUCTS

## 2.1 GENERAL

- A. Manufacturer:
  - 1. Cooper Bussmann, Inc.
  - 2. Engineer approved equal, subject to compliance and approval with specifications

## 2.2 FUSED DISCONNECT SWITCHES

- A. Provide switches as shown on drawings with ratings:
  - 1. 30 to 800 amperes
  - 2. 600V rated
  - 3. Horsepower rated
  - 4. 200,000A short-circuit current rating (with Cooper Bussmann LP-CC, LPJ, JJN/JJS or KRP-C fuses)
- B. Construction
  - 1. Enclosed, double break contacts/blades on line and load side for fuse isolation
  - 2. Switch must positively indicate contact status (switch must not be able to attain the "off" position if the contacts are welded closed)
  - 3. Fuse carriers or covers and recessed terminals or terminal shrouds
  - 4. Designed to accept:
    - a. Cooper Bussmann LP-CC or LPJ fuses (30 amperes)
    - b. Cooper Bussmann LPJ (60 to 100 amperes)
    - c. Cooper Bussmann LPJ or JJN/JJS fuses (200-600 amperes)
    - d. Cooper Bussmann KRP-C fuses (800 amperes)
  - 5. Switches designed for Cooper Bussmann LPN-RK/LPS-RK fuses are acceptable where noted on drawings.
  - 6. 2, 3, or 4 poles
  - 7. Rotary operated
  - 8. Cu/Al mechanical lugs
- C. Accessories and options – refer to drawings
  - 1. Lockable handles
  - 2. Shaft for handle, length as specified
  - 3. Side operated switch (30 – 400 amperes)
  - 4. Flange operated (30 – 100 amperes)
  - 5. 6 pole, transfer, bypass, and mechanical interlock conversion kits
  - 6. Auxiliary Contacts and/or Mechanical Interlocks

## 2.3 NON-FUSED DISCONNECT SWITCHES

- A. Provide switches as shown on drawings with ratings:
  - 1. 16 to 3150 amperes
  - 2. 600V rated
  - 3. Horsepower rated
  - 4. Short-circuit current rating with upstream fuse (as indicated on drawing)
  
- B. Construction
  - 1. Enclosed, double break contacts/blades
  - 2. Switch must positively indicate contact status (switch must not be able to attain the “off” position if the contacts are welded closed)
  - 3. Recessed terminals or terminal shrouds
  - 4. 2,3, or 4 poles
  - 5. Rotary operated
  - 6. Cu/Al mechanical lugs
  
- C. Accessories and options – refer to drawings
  - 1. Lockable handles
  - 2. Shaft for handle, length as specified
  - 3. Side operated switch (30 – 400 amperes)
  - 4. Flange operated (30 – 100 amperes)
  - 5. Door mounted (16 – 100 amperes)
  - 6. 6 pole, transfer, bypass, and mechanical interlock conversion kits
  - 7. Auxiliary Contacts and/or Mechanical Interlocks

## PART 3 EXECUTION

### 3.1 INSTALLATION

- A. Equipment shall be installed in accordance with the manufacturer’s recommendations in enclosure (type) as indicated on drawings.
  
- B. Equipment shall have a nameplate that indicates: switch type, ampere rating, voltage rating, short-circuit rating, and load served.
  
- C. Install fuses for fused disconnects in accordance with Section 2.2. Refer to Section 16491 for product requirements. Install labeling that identifies replacement fuse type/class and rating.

END OF SECTION