Components of the M3 Switch

1. By-pass Studs (Optional)
   Two copper alloy by-pass studs used for regulator, reclosers, and metering devices for by-passing operations. Provides superior corrosion protection as well as high conductivity. Chance hot line clamps are to be used in conjunction with this option (refer to section 13 of the Chance catalog for selection of proper clamp).

2. Terminal Pad (Standard)
   High conductivity tin-plated copper, NEMA two-hole terminal pad.

3. Back-up Springs (Standard)
   Two stainless steel springs (300 series) for high strength and superior corrosion resistance to maintain efficient current transfer at the stationary contact and end of blade.

4. Loadbreak Hooks (Standard)
   Hot dipped galvanized steel to ASTM A153 for corrosion protection to be used with portable loadbreak tool. Also acts as a blade guide to increase the side loading capabilities during switch closing.

5. Copper Blade (Standard)
   High conductivity copper blade and silver-plated moving contact areas. The blade utilizes four-finger contact design for superior performance on momentary currents. Blade is triangulated and edge-formed for superior stiffness and blade side-loading capability during closing.

6. Stainless steel pin (Standard)
   Stainless steel pin can be positioned to stop the blade at 90° (as supplied) or 160°.

7. 160° Open Position Latch (Optional)
   This is a 300 series stainless steel latch to hold the blade in the 160° open position.

8. Parallel Groove Connectors, (Optional)
   Catalog No. ATC1343, fortified cadmium-plated aluminum parallel groove clamp, furnished with galvanized steel bolts and nuts and will accept #2 through 500 kcmil aluminum or copper conductor.

9. Insulators
   Available in 2.25-inch bolt circle distribution insulators of light weight ESP™ silicon alloy rubber or porcelain.

10. Switch Base
    Bases are hot dip galvanized to ASTM A153 for corrosion protection and can be mounted on aluminum or steel equipment mounts. See drawings on following pages for dimensions.

11. Serrated Slots (Standard)
    For retaining 3/8” carriage bolts, which are included, with the mounting back-strap when ordered. Smooth slots are available as an option. (Distribution switches only)

12. Back-strap (Standard)
    Comes with hardware to match the distribution base ordered: U-shaped for rigidity and strength. Galvanized to ASTM A153 for corrosion protection. (Distribution switches only)

13. Dead-end Provision (Standard)
    Holes for dead-ending conductors are stamped out of the galvanized steel base. Rated for 8,000 lb. working load. Hole size is 1”

14. Captive Hardware (Optional)
    Two stainless steel spline bolts pressed into each terminal pad, bronze nut and stainless steel lock washer included.
DISTRIBUTION Class Insulators

Distribution class insulators are 2 1/4" bolt-circle, provided with 110, 125 or 150kV BIL respectively for the 15.5, 27 and 38kV ratings. These are available in either ESP™ silicon alloy rubber or porcelain insulators.

ESP™ Insulator, available in three sizes

Structural design of ESP™ insulator:
• Rod
ESP™ insulator fiberglass rod is produced from the highest quality material. Strands are aligned for the maximum tensile strength. The rod is filled with electrical grade glass fibers.

DISTRIBUTION Class Insulators

Distribution class insulators are 2 1/4" bolt-circle, provided with 110, 125 or 150kV BIL respectively for the 15.5, 27 and 38kV ratings. These are available in either ESP™ silicon alloy rubber or porcelain insulators.

STATION Class Insulators

Station class insulators are available with Sky-Glaze horizon-blending 3" bolt-circle, which provide 110 and 150kV BIL respectively for the 15 and 27kV substation switches. These are available in porcelain or at 15kV polymer (cycloaliphatic).

Substation-style Station Class Type M3S switch is made for mounting on a steel structure or on a pole-mounted aluminum or steel equipment mount.
Distribution Class
M3 Switch - Dimensional Data
110kV BIL - 600 Amp
Distribution Class
M3 Switch - Dimensional Data
110kV BIL - 900 Amp
125kV BIL - 600 Amp
150kV BIL - 600 & 900 Amp
Type M3 Switch
DISTRIBUTION CLASS
RUS Listed

**Ordering Information**

**M3**

**OPTIONS**

- **C** = Captive Hardware*
  Consists of 4 each: 1/2" x 13 stainless steel bolts, 1/2" flatwasher / lockwasher, 1/2" bronze nut
- **L** = Open Position Latch
  (P8070181P)
  Stainless steel latch for holding the blade in the 160° open position
- **P** = Parallel Groove Terminals*
  (ACT1343 2 per switch)
  Two complete connectors and hardware. Accepts #2 - 500 kcmil (Copper or Aluminum)
- **R** = Bypass Studs
  (P8070166P 2 per switch)
  Two copper alloy bypass studs, which can be used for regulator or recloser bypassing

*NOTE: Captive Hardware and Parallel Groove Terminals CANNOT be ordered together.

**BASE**

- **D** = Distribution base, serrated slots with four 3/8" x 8'/10" carriage bolts and backstrap
- **H** = Distribution base, smooth slots with four 1/2" x 8'/10" carriage bolts and backstrap

**RATED CURRENT**

- 6 = 600 AMP
- 9 = 900 AMP

**INSULATION**

- 2 = 15kV 110BIL Porcelain
- 3 = 25kV 125BIL Porcelain (not available in 900 amp)
- 4 = 35kV 150BIL Porcelain
- 6 = 15kV 110BIL Polymer
- 7 = 25kV 125BIL Polymer (not available in 900 amp)
- 8 = 35kV 150BIL Polymer

**BOLT LENGTH**

- **A** = 10" Length
- **B** = 8" Length