

300 A Externally Operated Tap Changer Switch

GENERAL

The Cooper Power Systems 300 A externally operated tap changer switch eliminates many of the hazards associated with manual internal tap changing of distribution transformers because line crews need not be exposed to high voltage conductors and hot transformer fluids. They also eliminate the need to dismount pole-type transformers for voltage adjustment and prevent exposure of the transformer tank interiors to contamination. The switches are designed for use in distribution transformers filled with transformer oil, Envirotemp FR3 fluid or an approved equivalent.

Tap changers are available with lever and hotstick-operable handles with an indexing screw to ensure complete, positive switch contact.

The switch shaft is made of a high strength glass-reinforced nylon and is sealed against leakage by two high temperature resistant Viton® O-rings. The switch body and rotor are made of a glass-reinforced polyester. The snap-action bridge roller contact ensures complete, positive switch throw. All contacts are silver plated. The easily readable index plate provides positive contact positioning and positive stops, restricting the handle throw to five or seven positions.

INSTALLATION

No special tools are required. The switch body is installed through a keyed 1.33 inch (34 mm) hole in the tank wall and sealed by an inside gasket. An outer sealing nut is tightened to a torque of 80 to 120 in-lbs. Refer to Installation Instruction Sheet S800-16-1 (5000050065) for details.

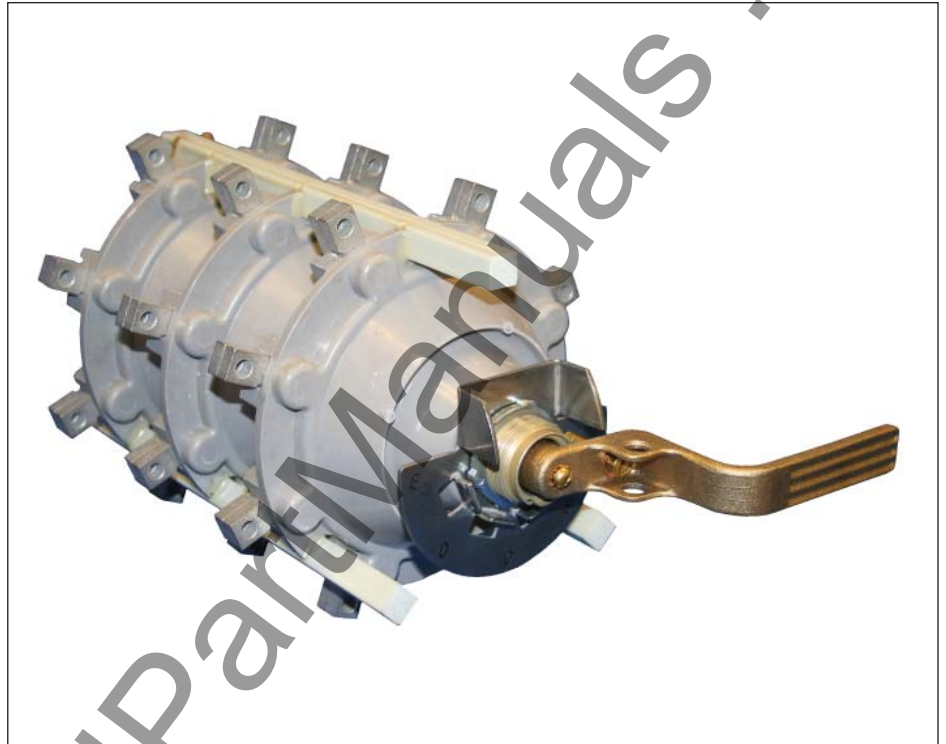


Figure 1.
300 A Externally Operated Tap Changer Switch (with Standard 5" Padlockable Lever Handle).

TABLE 1
Voltage Ratings and Characteristics

Description	kV
Standard Voltage Class	35 Max.
AC 60 Hz 1 Minute Withstand	50
BIL and Full Wave Crest	150

Voltage ratings and characteristics are in accordance with IEEE Std C57.12™ standard. (Phase-to-Phase or Phase-to-Ground).

TABLE 2
Current Ratings and Characteristics

Description	Amperes
Continuous	300 A rms

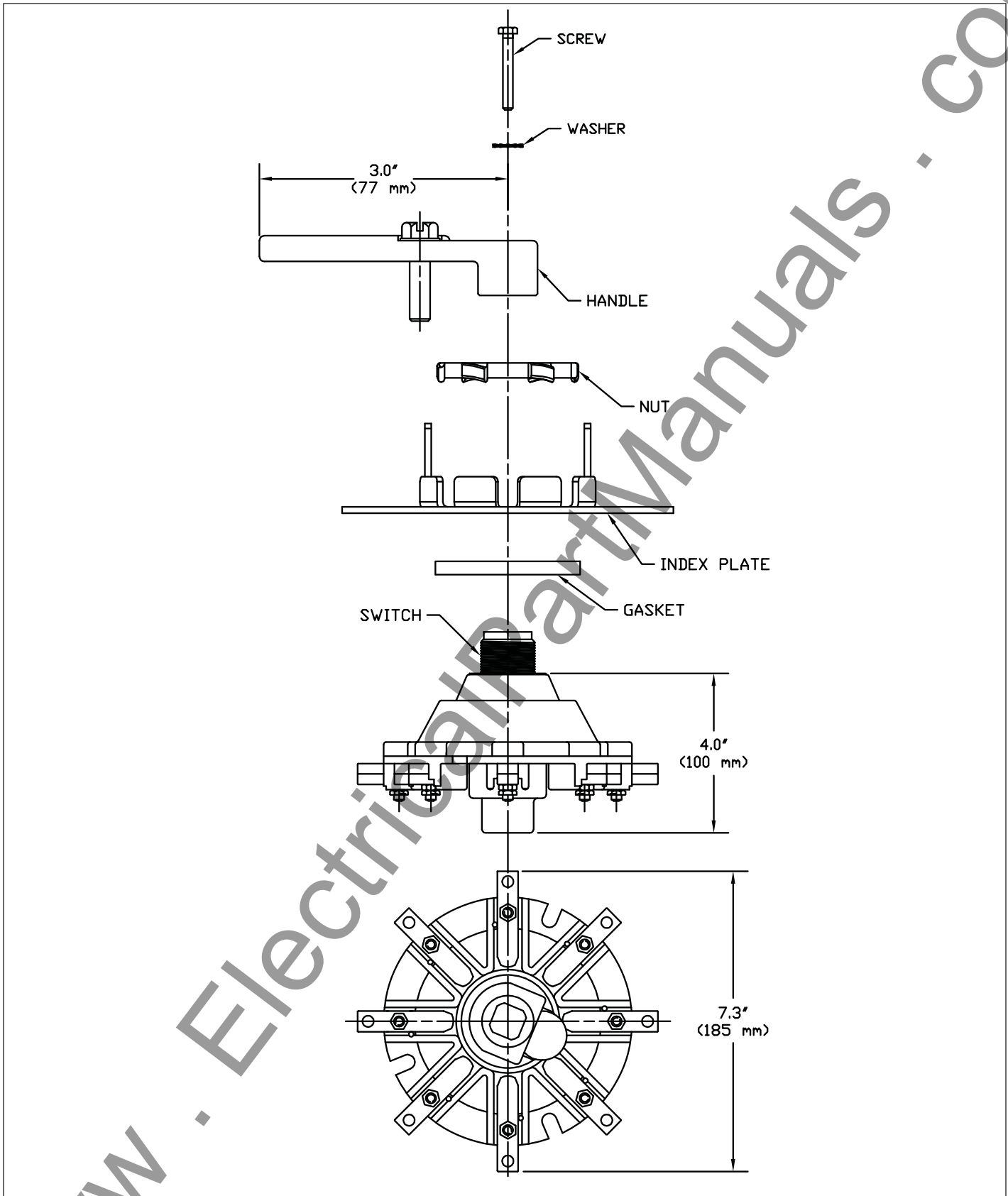


Figure 2.
One-Phase Switch with 3" Lever Handle.

NOTE: Dimensions given are for reference only.

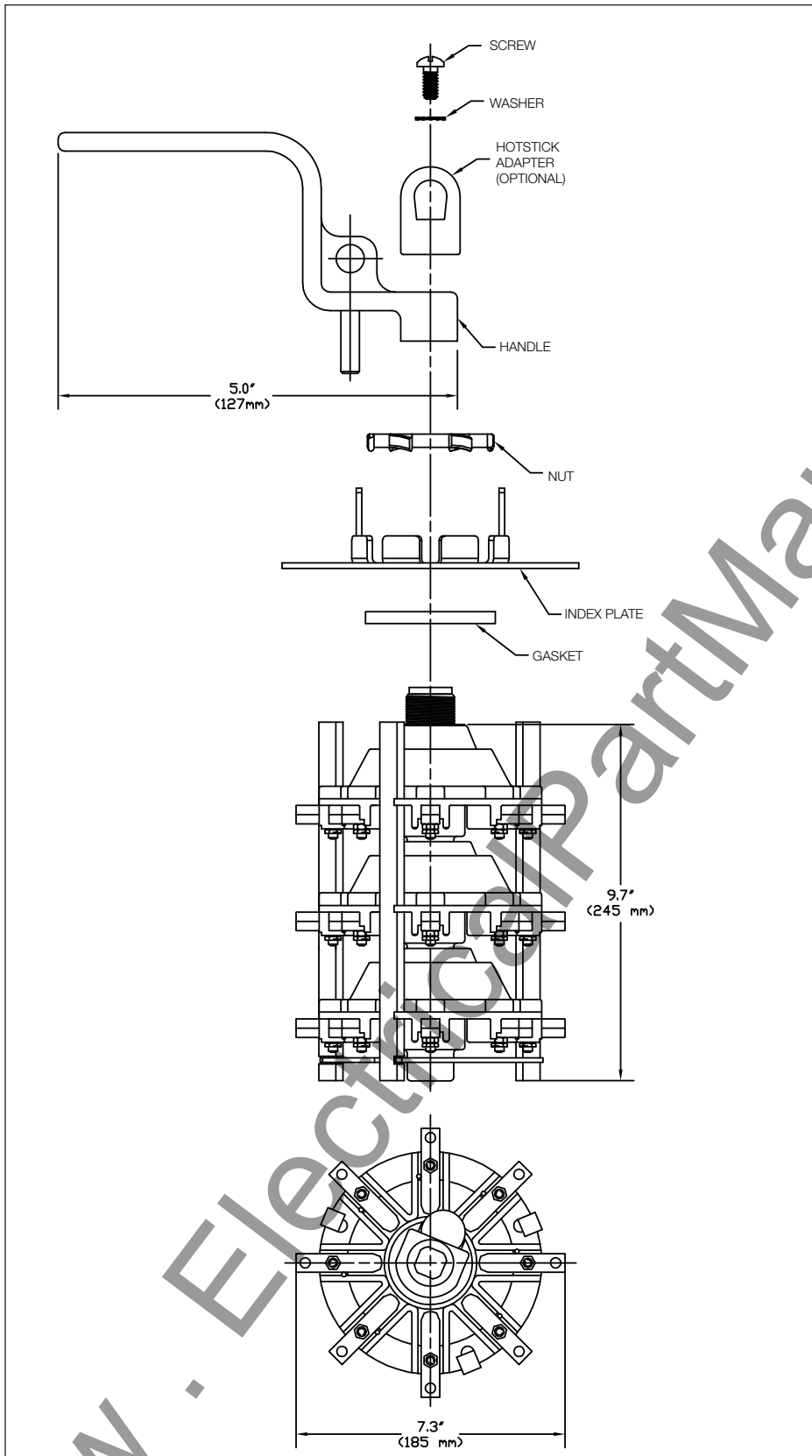


Figure 3. Three-Phase Switch with Optional Hotstick Handle. (Fibre back plate removed for clarity)

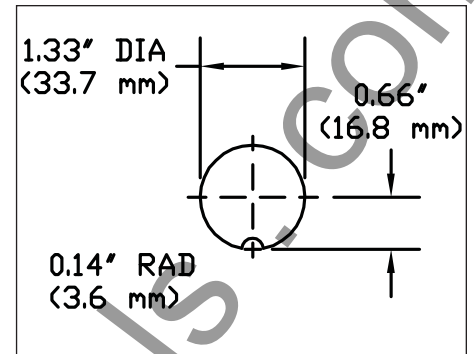


Figure 4. Switch mounting hole.

TABLE 3
Tap Changer Switches

Contact Type	Catalog Number
	Switch Only
One-Phase Tap Changer	2237179C01M
Two-Phase Tap Changer	2237179C04M
Three-Phase Tap Changer	2237179C02M

TABLE 4
Hardware Kits

Description	Catalog Number
5 Position Switches	
Single-Phase , 3 inch Lever Handle, A - E	2237947A20
Single, Two, and Three-Phase, 5 inch* Lever Handle, A - E	2237947A17
Single, Two, and Three-Phase, 5 inch* Hotstick Operable Lever Handle, A - E	2237947A18
Single, Two, and Three-Phase, 5 inch* Lever Handle, 1 - 5	2237947A371
Single, Two, and Three-Phase, 5 inch* Hotstick Operable Lever Handle, 1 - 5	2237947A372
7 Position Switches	
Single-Phase , 3 inch Lever Handle, A - G	2237947A266
Single, Two, and Three-Phase, 5 inch* Lever Handle, A - G	2237947A263
Single, Two, and Three-Phase, 5 inch* Hotstick Operable Lever Handle, A - G,	2237947A265
Single, Two, and Three-Phase, 5 inch* Lever Handle, 1 - 7	2237947A373
Single, Two, and Three-Phase, 5 inch* Hotstick Operable Lever Handle, 1 - 7	2237947A374
Hotstick Adapter Kit for Lever Handle Hardware Kit	2237913B01M

* All 5 inch Lever Handles are padlockable.

ORDERING INFORMATION

To order a Cooper Power Systems 300 A tap changer switch, specify catalog numbers for one switch and one hardware kit.

If other options, including cover mounting, are desired, contact your Cooper Power Systems representative.