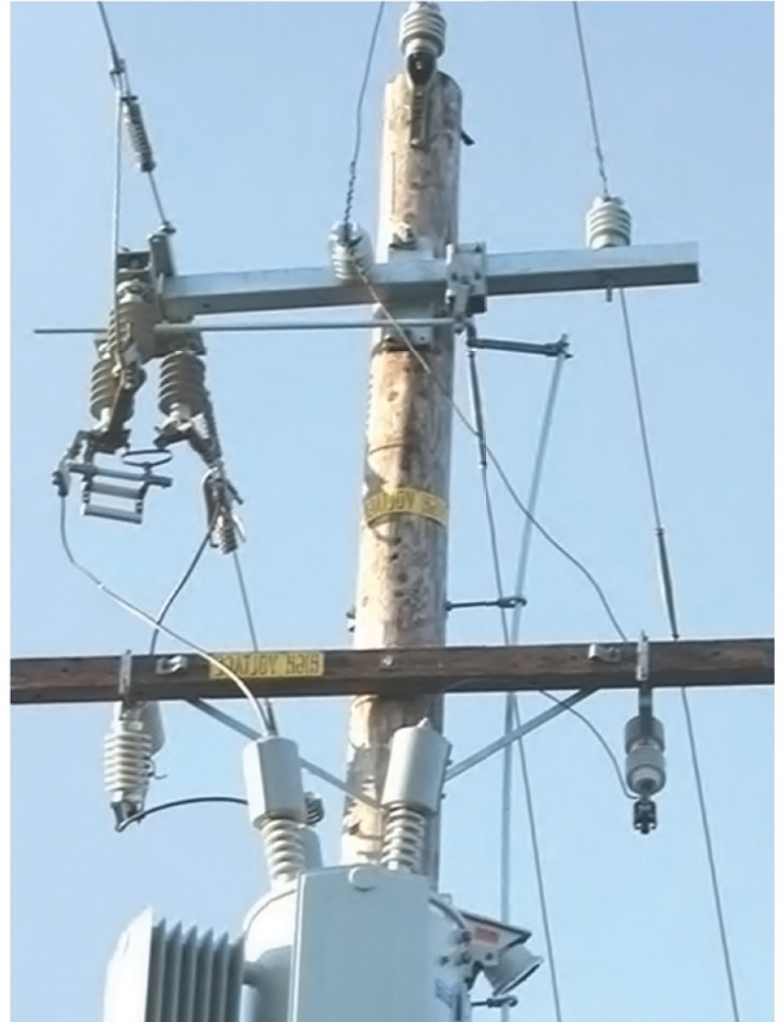


The LineBOSSTM NBS, Nielsen Bypass Switch, was originally designed in 1972 by Carl Nielsen, P.E. to allow non-interrupting bypassing and energizing (cut-in or cut-out) fixed booster transformers. The NBS switch now provides continuous power to load-side customers when energizing or de-energizing one, two, or three phase fixed booster, auto-booster, and regulator transformers as required by voltage conditions or routine maintenance or replacement.

The conventional combination bypass-disconnect switch used for de-energizing multi-step regulators; first requires the regulator be placed in the neutral position. As the switch opens, a shorting bar is inserted across the main line leads and regulator series winding. If the regulator tap changing mechanism or the position indicator has malfunctioned and the regulator is not in the neutral position, attempting a by-pass operation can result in excessively high circulating current in the series winding when can damage or destroy the series tap changer mechanism, the switchgear, bus work and endanger personnel.

The NBS bypass switch eliminates this safety hazard by controlling the series winding circulating current by use of a current limiting resistor, while providing uninterrupted service to load side customers. The transfer series resistor assembly permits bypassing multi-step regulators in the buck or boost position (refer to application calculations).



LineBOSSTM NBS Selection Guide

Non-interrupting Bypass Switch →

N 16 S S 1 R 2 2

Voltage and Current Rating

5 kV, (110 kV B.I.L.) 600 A = 06
15.5 kV, (110 kV B.I.L.) 600 A = 16
25.8 kV, (150 kV B.I.L.) 600 A = 26
38.0 kV, (200 kV B.I.L.) 600 A = 36

Insulator Type

Silicone rubber (3.0" BC) = S
Porcelain (3.0" BC) = P

Crossarm Material

Galv. steel = S
Aluminum = A
Fiberglass = F
No Crossarm = X
(pole mounted or existing structure)

Configurations

One-pole, unitized = 1
Two-pole, unitized = 2
Two-pole, double feed = 2D
Three-pole, unitized = 3
Pole mounted (direct) = 4
Double crossarm = 5

Cntrl. Rod Length (10' sect.)

20 feet (standard) = 2
Specify alternate = _____

Control Rod Type

Reciprocating
¾" galvanized pipe = 3
1" round fiberglass = 2

Control Mechanism

Reciprocating handle = R
Hookstick bellcrank = H
Twist-Assist (hookstick) = T*

* Twist-Assist is currently available as a single-pole or unitized, multiple single-pole units, only.