

## TYPES NR AND NRV OIL SWITCHES

### **EQUIPMENT SPECIFICATIONS:** Types NR and NRV Oil Switches

Single phase, electrically operated oil switch, with quick close, quick-open mechanism, and close-and-latch capability. The Type NR switch is intended for application on a 14.4/24.9 kV grounded wye system, where the neutral is solidly grounded. The Type NRV switch can be applied on a 20/34.5 kV grounded wye system, with a solidly grounded neutral.

### **STANDARDS**

The switches covered by this specification shall be manufactured and tested in accordance with ANSI C37.66-1969 (R1988).

### **RATINGS**

	<b><u>NR</u></b>	<b><u>NRV</u></b>
Maximum Design Voltage, kV	15.0	22.0
Nominal Operating Voltage, kV	2.4-14.4	20.0
Basic Insulation Level (BIL), kV	95,125	125
60 Hertz Withstand Voltage, kV		
Dry, One Minute	35, 42	60
Wet, Ten Seconds	30, 36	50
Continuous Current Rating, Amps	200	200
Load Interrupting Ability (Inductive) Symmetric Amps		
75-100% power factor	200	60
50-75% p.f.	100	60
<50% p.f.	50	60
Maximum Capacitive Current, Amps (single bank only)	200	60
Momentary Rating, Amps asym.	9000	9000
Close & Latch Rating, Amps asym.	9000	4500
Short Time Current, Amps		
1/2 sec., sym.	6000	6000
1 sec., sym.	4500	4500

### **DUTY CYCLE** (for parallel capacitor operations)

	<b><u>NR</u></b>	<b><u>NRV</u></b>
200 Amps	400 operations	400 operations
94 Amps	400 operations	400 operations
36 Amps	400 operations	400 operations

## **SWITCH FEATURES**

The moving contacts of the switch shall be solid silver-tungsten and the stationary contacts shall be solid copper tungsten to prevent contact overheating.

The moving contacts shall be plated to prevent coking in applications where switching is not performed regularly.

The contacts of the switch shall be mounted to the head casting.

The stationary contacts of the switch shall not be mounted on the bushing stud.

The motor housing shall be metal for long life in high temperature or high ultra-violet applications.

The mechanical life of the switch shall be certified to be at least 10,000 operations.