



OPERATION OF BREAKER

1. THE BREAKER WILL CLOSE IF THE CLOSING SPRINGS HAVE BEEN CHARGED ELECTRICALLY OR MANUALLY. 52/MS ENSURES THAT THE CLOSING SPRINGS CAN ONLY BE CHARGED ELECTRICALLY WITH THE BREAKER IN THE CONNECTED AND TEST POSITIONS.
2. THE CLOSING CIRCUIT HAS CONTINUITY WHEN THE CLOSING SPRINGS ARE CHARGED AND THE BREAKER IS OPEN. APPLYING A CLOSE SIGNAL ENERGIZES THE CLOSE COIL, 52/CC. IT DISCHARGES THE CLOSING SPRINGS, CLOSING THE BREAKER AND CHARGING THE OPENING SPRINGS. WHEN THE BREAKER CLOSES, 52/A, 52/b AND 52/LS CHANGE STATE.
3. 52/a CLOSING ALLOWS CONTINUITY IN THE TRIP CIRCUIT AND PICKS UP THE ANTI-PUMP RELAY, 52Y. 52Y SEALS ITSELF IN, ENSURING THAT THE CLOSE SIGNAL MUST BE REMOVED AND REAPPLIED BEFORE THE BREAKER CAN BE CLOSED AGAIN. 52/b, 52/LS AND 52Y OPEN THE CLOSING CIRCUIT. 52/LS CHANGING STATE ALLOWS THE CLOSING SPRINGS TO BE CHARGED.
4. APPLYING A TRIP SIGNAL ENERGIZED THE TRIP COIL, 52/TC. IT DISCHARGES THE OPENING SPRINGS, OPENING THE BREAKER. WHEN THE BREAKER OPENS, 52/a AND 52/b CHANGE STATE.
5. SPARE 52/a AND 52/b CONTACTS INDICATE THE BREAKER STATE. 52/a CLOSING WHEN THE BREAKER CLOSES. 52/b CLOSING WHEN THE BREAKER OPENS.

LEGEND

- 52 CIRCUIT BREAKER
- 52M SPRING CHARGING MOTOR
- 52Y ANTI-PUMP RELAY
- 52/a AUX. SWITCH CONTACTS, OPEN WHEN BREAKER IS OPEN
- 52/b AUX. SWITCH CONTACTS, CLOSED WHEN BREAKER IS OPEN
- 52/CC CLOSE COIL
- 52/LC LATCH CHECK SWITCH
- 52/LS SPRING CHARGING MOTOR LIMIT SWITCH
- 52/MS MOTOR CUTOFF SWITCH
- 52/TC TRIP COIL
- RES RESISTOR (250VDC CLOSING ONLY)

NOTES:

1. BREAKER SHOWN IN THE OPEN STATE WITH CLOSING SPRINGS CHARGED.
2. WHERE WIRE NUMBERS CHANGE ON A WIRE, THERE ARE INTERVENING TERMINAL BLOCKS NOT SHOWN.
3. BREAKER WIRING DIAGRAM IS 46040-652.

VR SCHEMATIC DIAGRAM
STANDARD BREAKER



by Schneider Electric

DWG# 46040-651
No.