



CIRCUIT BREAKER FOR DETECTING AN EXCESSIVE VOLTAGE
AND TRIPPING RESPONSIVE THERETO

ABSTRACT

5 A circuit breaker (2,40) includes a line terminal adapted to receive a
line voltage having a nominal voltage value and an excessive voltage value, a load
terminal (14,52,54), one or more neutral terminals (16,56), and separable contacts
(18,58,60) electrically connected between the line and load terminals. An operating
mechanism (20,62) opens and closes the separable contacts. A trip circuit (4,42)
10 cooperates with the operating mechanism to trip open the separable contacts. The trip
circuit includes a solenoid (24,66) having a trip coil with a threshold voltage for
energization, a circuit (28,72) adapted to detect an arc fault or ground fault trip
condition and to responsively energize the trip coil (26,68,70) with the line voltage,
and a MOV adapted to detect an excessive voltage condition associated with the load
15 and neutral terminals and to responsively energize the trip coil with at least the
threshold voltage.

FIG. 1



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