

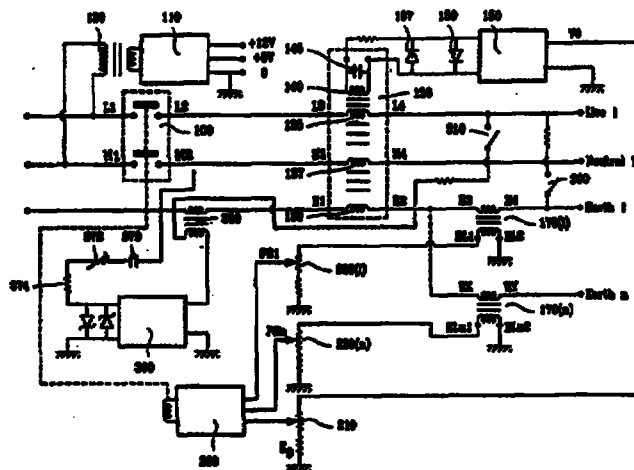
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(54) Title: AN EARTH LEAKAGE DETECTOR CIRCUIT



(57) Abstract

An earth leakage detection circuit is disclosed which includes a differential transformer (130) with primary coils (135/7/9) for sensing current flow in live, neutral and earth lines and a secondary coil (140) for sensing a difference between the current flowing in the live line and the sum of currents flowing in the neutral and earth lines and a trigger circuit (200) responsive to a difference signal from the secondary coil (140) for actuating a circuit breaker (100) if the difference exceeds a pre-determined level. Also disclosed is an earth leakage detection circuit comprising a plurality of earth leakage detectors (170) each for sensing for the level of earth leakage from a different source, the trigger circuit (200) being responsive to the detectors (170) for actuating the circuit breaker (100) if any one of the plurality of detectors (170) detects an earth leakage in excess of a pre-determined level. The secondary coil (140) of the differential transformer is also adjustable in position to obtain a null between primary coils and thus compensate for unequal physical dimensions/position of the primary coils.