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(54) Title: SYSTEM AND METHOD FOR POLYPHASE GROUND-FAULT CIRCUIT-INTERRUPTERS

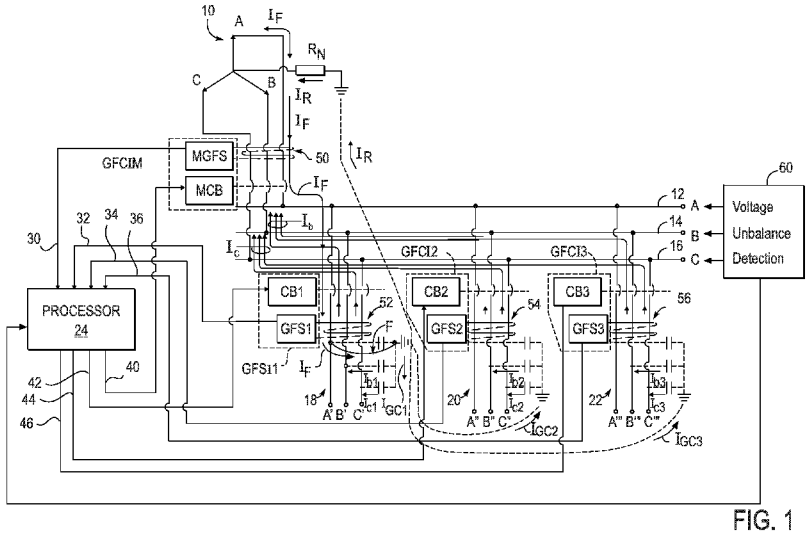


FIG. 1

(57) Abstract: A ground-fault circuit-interrupter (GFCI) system is provided that provides reliable and timely tripping of faulted circuits while minimizing so-called "nuisance" tripping. The GFCI includes a voltage unbalance detection device coupled to the main bus circuit for detecting a voltage unbalance during a fault condition. A computer processor in communication with the voltage unbalance detection device is programmed to determine when an actual fault condition exists based on a state of the voltage unbalance and certain predetermined among the fault signal generated by a GFCI unit in the main bus circuit and the fault signals generated by GFCI units in individual feeder circuits.

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