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(54) Title: HOT SOCKET DETECTION AT AN ELECTRIC METER

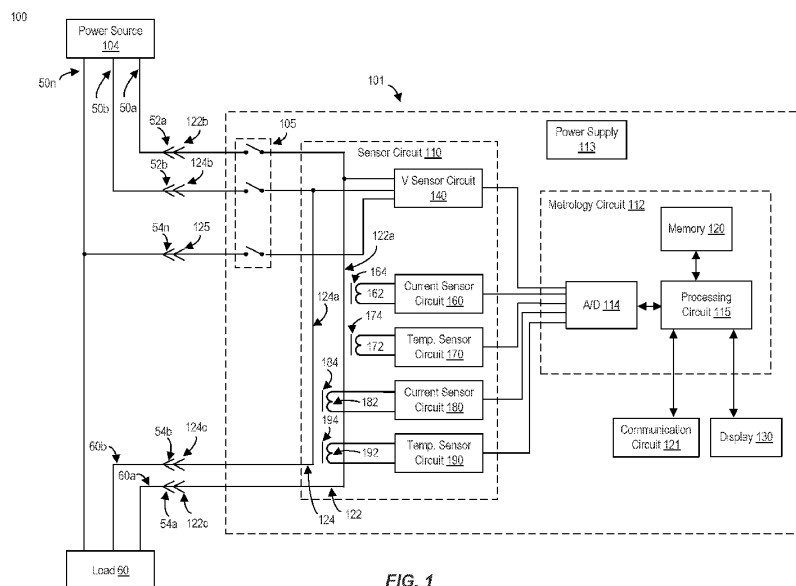


FIG. 1

(57) Abstract: Techniques for hot socket detection are disclosed. In an example, a meter includes a current transformer with a secondary bifilar winding. The meter is in proximity to a current coil. The secondary bifilar winding includes a first bifilar winding and a second bifilar winding. A start lead of the first bifilar winding is connected to a start lead of the second bifilar winding. The meter further includes a voltage source configured to generate a direct current (DC) voltage signal. The DC voltage signal is provided to a finish lead of the first bifilar winding. A first sense resistor is connected between a finish lead of the second bifilar winding and ground. A processing circuit receives a signal indicating a voltage across the first sense resistor and determines a temperature associated with the current coil. The processing circuit is further configured to detect a hot socket condition based on the temperature.

[Continued on next page]

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