

ABSTRACT

The consumption of electricity used at home is an important thing to pay attention to, so that there is no wastage of electricity. Homeowners who use power consumption are very large and the most dangerous is the occurrence of a short circuit. One way to prevent this is to design a fault detection or current mismatch detection on a two-way energy meter that can read phase currents and neutral currents.

Energy meters can make it easier to analyze electrical quantities, and components that detect the current through the sensor and the voltage coming from the power grid. The tools used in measurement are called measuring instruments, energy meters we also call KWH-meters. Yes

From the results of the analysis obtained a comparison of the load value of each tool. One of them is the fan, the fan load gets a current of 0.16 A for a circuit without an error, while a circuit with an error gets a current of 0.12 A, a decrease of 0.04 A. Likewise for other current values, if there is an error it will decrease current. A large decrease in current occurs at the load of the electric iron, which is 0.33 A with a predetermined resistor. So if an error occurs it will be very dangerous if a load experiences such a high error as to avoid more serious damage.

Keywords : Fault detection, Energy meter