

ABSTRACT

A distributed generation unit (DGU) is provided. The DGU includes a meter and a processor. The meter generates a per-unit current based on the rated power value of the DGU. The processor is coupled between a control area network (CAN) bus and the circuit block. The processor causes the DGU to identify a first electrical signal at an initial time and perform a master selection process. The master selection process includes determining the delay time based on the per-unit current and the maximum per-unit current, identifying the per-unit current as the maximum per-unit current when the delay time has elapsed since the initial time, and broadcasting the maximum per-unit current and a second electrical signal through the CAN bus. The processor is further configured to perform a droop coefficient regulation process to maintain the current state of the DGU after the second electrical signal is broadcast.

Fig. 2