Abstract

In this paper, we propose a simple method to determine the dynamic resistance of a PV panel directly from a current-voltage (I-V) characteristic. The information currently provided in PV panel's datasheet by manufacturers is in general insufficient to construct a mathematical model. The dynamic resistance of the PV panel is determined by simple equations and a series of experiments including simulations and field data tests. Experimental results show that the resistance-estimation method allows exact prediction of the maximum power point under various weather conditions.

References

A Simple Theoretical Method for the Estimation of Dynamic Resistance in Photovoltaic Panels


Index Terms

Computer Science Control Systems

Keywords

Resistance-estimation Mppt (maximum Power Point Tracking) Pv Generator Dynamic Resistance