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


**Index Terms**

Computer Science  
Control Systems

**Keywords**

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