Model BS-520BK Si Photodiode detector

for Amorphous silicon (a-Si) solar cell and the Dye-sensitized Solar Cell (DSC)



Adjustment of the light intensity of the solar simulator

The BS-520BK is the Photodiode detector which is calibrated by the solar simulator whose light intensity is calibrated by the secondary reference amorphous solar cell.

Using the heat ray cut filter in the BS-520 Photodiode detector, infrared spectral response has been reduced and characteristic of spectra response of the BS-520BK has been similar to that of the thin film amorphous silicon solar cell and the DSC.

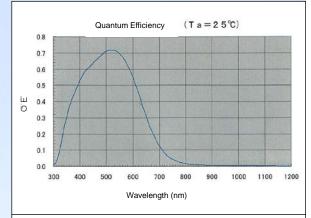
Features

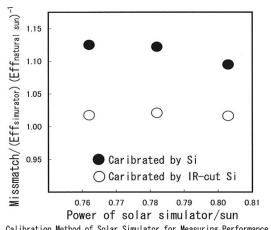
- 1. The BS-520BK can be used to adjust light intensity of the solar simulators that evaluate the output of Amorphous silicon (a-Si) solar cell and the DSC.
- Referring to the JIS C 8913 (secondary reference amorphous solar cell) and publication of Professor Seigo Ito, the property of the spectral response of the BS-520BK detector has been made similar to that of the DSC.
- The current value in 1SUN has been described on each of BS-520BK detector.
- The spectral response data for each BS-520BK can be offered optionally.

Usage

- 1. Turn on the light of the solar simulator.
- 2. Place the BS-520BK detector to the irradiation area.
- 3. Set the alligator clips on the pins of the BS-520BK and then connect the cables to the circuit tester.
- 4. Check the value of the output current of the BS-520BK.
- 5. Adjust the irradiation intensity of the solar simulator to the current value described on the BS-520BK detector.

The data in the right is quoted from the publication of Professor Ito. This shows the comparison of the data using IR-cut Si sensor. We can see that this is also very similar to natural light.





Calibration Method of Solar Simulator for Measuring Performance of Dye-Sensitized Solar Cells (201ST ESC, 2002, Philadelphia

*The specifications are subject to change without prior notice.

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