

## Distance between the front and back rows of photovoltaic panels

What is the row spacing of a photovoltaic array?

where: The row spacing of a photovoltaic array is the distance between the front and rear rows of solar panels. This spacing is calculated to ensure that the rear panels are not shaded by the front panels, maximizing the efficiency of the solar array. Let's assume the following values: Using the formula:

How do I determine the correct row-to-row spacing for a solar system?

If your system consists of two or more rows of PV panels, you must make sure that each row of panels does not shade the row behind it. To determine the correct row-to-row spacing, refer to the figure above. There is no single correct answersince the solar elevation starts at zero in the morning and ends at zero in the evening.

What is the minimum row spacing required for a solar panel?

Therefore, the minimum row spacing required for this system in Massachusetts, with a 6° tilt angle, is approximately 20 inches. This spacing will ensure that the panels do not shade each other during the winter solstice when the sun is at its lowest.

Does a taller solar panel require more space between rows?

A taller panel will require more space between rowsto avoid shading. The formula for calculating row spacing is relatively straightforward, though it requires accurate measurements of panel height and the solar elevation angle during the winter solstice. The formula is:

Angle A is the installation inclination of the PV bracket, AB is the length of the inclined surface of the PV panel assembly, and AD is the distance between the front and back row of PV arrays.

The row spacing of a photovoltaic array is the distance between the front and rear rows of solar panels. This spacing is calculated to ensure that the rear panels are not shaded by the front



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