NEOVOLTA

PRODUCT: NV7600, NVPlus-10.2

V20250703

Knowledge Base Article

How to Determine if Equipment is in Direct Sunlight?

Best practice for ensuring equipment is not in direct sunlight.

NeoVolta's user manual for the NVPlus 10.2kW battery:

Lithium battery is designed for outdoor use (IP65). But please avoid direct sunlight, rain exposure, snow laying up during installation and operation.
Please make sure the installation site meets below conditions:
◆Not in direct sunlight.

Make sure that the installation location meets the following conditions:
✧ The ambient temperature is within the range from -20°C to 50°C.

NeoVolta's user manual for the NV7600 7.6kW inverter:

This Hybrid inverter is designed for outdoor use(IP65), Please make sure the installation site meets below conditions:

· Not in direct sunlight

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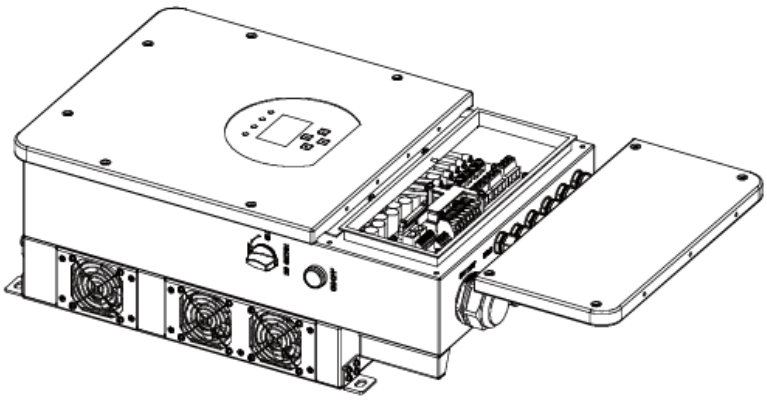
Please AVOID direct sunlight, rain exposure, snow laying up during installation and operation. Before connecting all wires, please take off the metal cover by removing screws as shown below:



Operating Temperature Range (℃)	-40 to +60℃, >45℃ Derating

The ambient temperature is measured in the shade, not in direct sunlight. This is the same for the weather temperature. When the thermometer is exposed to sunlight, it causes the thermometer itself to heat up, thus no longer providing an accurate air temperature. When measuring the ambient temperature, it is more accurate to measure the temperature in the shade.

Direct sunlight refers to any unshaded exposure to the sun's rays, regardless of the direction it's facing. Even east or north-facing placements can still receive direct sunlight during certain times of day, although the exposure is more limited.

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Sunlight on the surface of your solar inverter or battery can significantly heat the equipment beyond the ambient air temperature, raising internal temperatures and potentially affecting performance or longevity.

Please ensure the surface temperature of the equipment does not get above 50 °C/ 122°F. The surface temperature of the equipment can be measured with an IR thermometer (laser temperature gun).

Covered patios, areas under eaves, or even garages can be good placement options.

If a fully sheltered location isn't possible, consider installing a sunshade, canopy, or other physical barrier to reduce direct sunlight exposure and help protect the equipment's performance and lifespan.

It's an industry standard.

It isn't specific to NeoVolta equipment. All solar inverter/battery manufacturers have the same guideline.