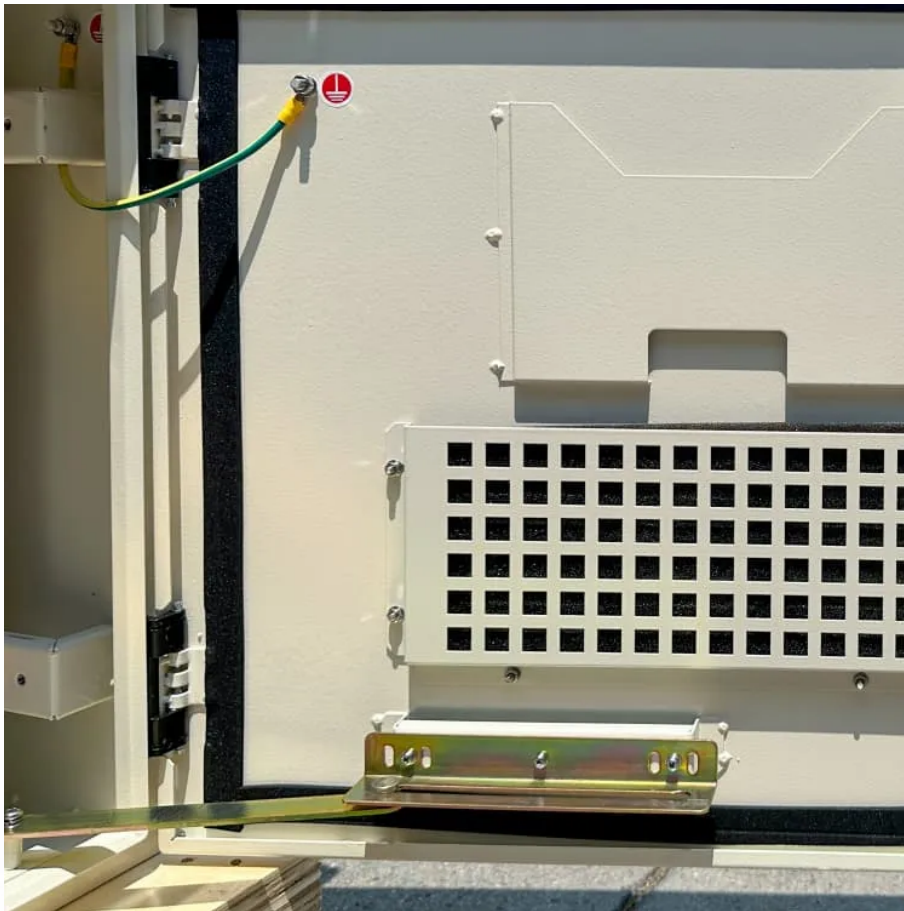


# Outdoor power loss rate





## Overview

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What is performance loss rate (PLR)?

The performance loss rate (PLR) is a vital parameter for the time-dependent assessment of photovoltaic (PV) system performance and health state. Although this metric can be calculated in a relatively straightforward manner, it is challenging to achieve accurate and reproducible results with low uncertainty.

What is photovoltaic ohmic loss?

Photovoltaic ohmic losses are the long-term degradation rates of PV modules and their uncertainties. It is the key for the economic calculation of the PV power plant yield over its service life. Ohmic losses in the PV plant wiring due to degradation of the electrical interconnectors and inverter efficiency drift related to semiconductor degradation.

What is the relationship between degradation and performance loss rate?

Relation between degradation and performance loss rate—PLR expresses all losses as a single rate. Although rarely measured in commercial and utility power plants, continuous module IV curves may give attributes to what drives PLR.

What are the four steps of performance loss rate analysis?

The four steps are 1) input data cleaning and filtering, 2) performance metric selection (performance ratio (PR) or predicted power (P) based), corrections and data aggregation, 3) time series feature corrections and finally 4) application of a statistical modeling methods to determine the Performance Loss Rate value and its uncertainty.



## Outdoor power loss rate

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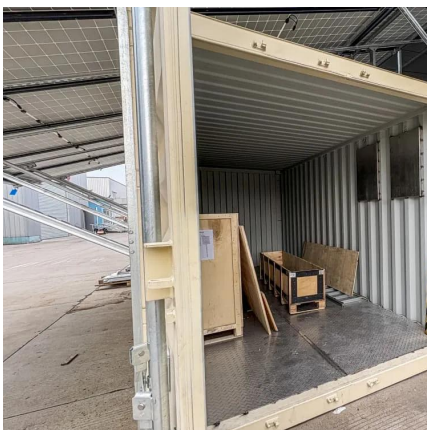
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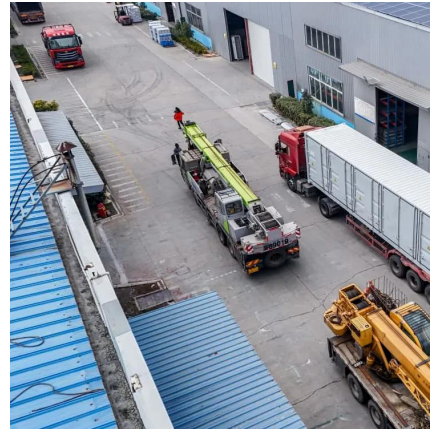
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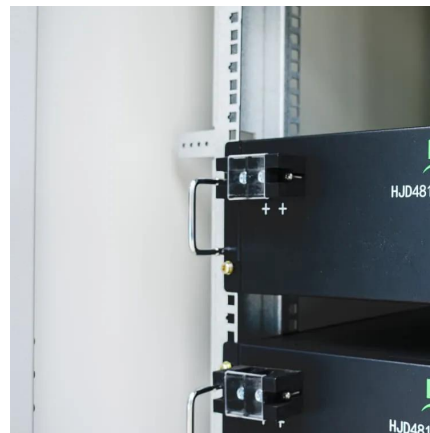


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