

Efficiency of P Series Power Optimizers

The power optimizer efficiency (or DC/DC conversion efficiency) is the ratio between the output power and the input power of the power optimizer. It is defined using the following values:

- Maximum (Peak) efficiency – The highest DC/DC conversion efficiency of the power optimizer.
- Weighted efficiency - This value is the weighted average DC/DC conversion efficiency. This efficiency provides a more accurate representation of the power optimizers' operating profile. The weighting formula takes into account the changing environmental conditions to which the power optimizer is exposed throughout the day and over the year and is calculated by measuring the efficiency at various power loads, input voltages and string conditions. The weighted efficiency of power optimizers is calculated using the same equation used for inverters.

The efficiency specifications of the P Series power optimizers are:

- Maximum Efficiency 99.5%
- Weighted Efficiency 98.8%

The graphs below show different P Series power optimizers' efficiency graphs under typical operating conditions:









