Technical bulletin

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PV Watts estimated performance data

In case of SolarWorld's Sunmodules, the PVWatt's default overall DC to AC derate factor of 0.77 is not appropriate. You may use the overall DC to AC derate factor of 0.845 for any SolarWorld's design; this value has be calculated using the PVWatt's DC to AC Derate Calculater. In the table below all the components' derate values have been carefully chosen within the acceptable rage by PVWatts. If further information is needed, Please contact SolarWorld's account managers.

Calculator for Overall DC to AC Derate Factor

Component Derate Factors	Component Derate Values	Range of Acceptable Values
PV module nameplate DC rating	1	0.80 - 1.05
Inverter and Transformer	0.95	0.88 - 0.98
Mismatch	0.99	0.97 - 0.995
Diodes and connection	0.995	0.99 - 0.997
DC wiring	0.98	0.97 - 0.99
AC wiring	0.99	0.98 - 0.993
Soiling	0.95	0.30 - 0.995
System availability	0.98	0.00 - 0.995
Shading	1.00	0.00 - 1.00
Sun-tracking	1.00	0.95 - 1.00
Age	1.00	0.70 - 1.00
Overall DC to AC derate factor	0.845	

Explanation of Derate factors

PV module nameplate DC rating: **1.0** Sunmodule plus modules have nameplate rated power or higher. Factory flash data for each module will be provided.

Inverter and Transformer: **0.95** Based on SMA inverters with 98%.

Mismatch **0.99** There will not be mismatch losses with Sunmodule plus modules because they have nameplate rated power or higher. All other derate factors are PV Watts defaults.

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