

PV Ultra – 3MW_{Cogen}

Product Data Sheet

ELECTRICAL DATA

Rated power DC ¹	1.1 MW _{DC}
Nominal Power AC ²	1.0 MW _{AC}
Receiver efficiency ³	34%
Cell type	Triple Junction

THERMAL DATA

Rated power	2.0 MW _{th}
Supply temp.	55°C
Required return temp.	< 40°C
Flow rate (if return temp. @ 20°C)	1,300 l/min
<i>Electricity-only option available</i>	

TOWER AND FIELD

Tower height	40 m
Heliostat mirror area	19.4 m ²
No. of heliostats	273
Total mirror field area	5,285 m ²

LAND AREA

Hectares	2.0
System Footprint (maximum dimensions)	185m E-W x 180m N-S

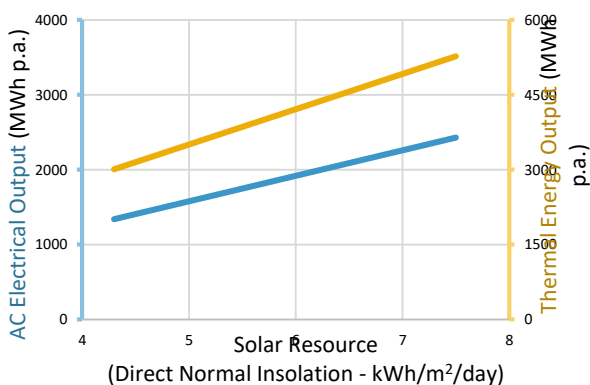
COOLING

Type	Closed Loop
Water Usage	None

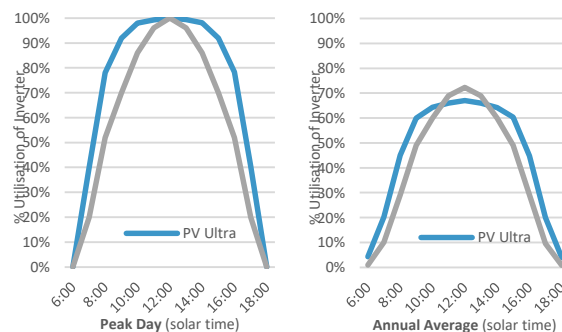
OPERATING CONDITION

Ambient temp.	-20 to +50°C
Operational wind speed	13 m/s
Survival wind speed	45 m/s
Hail survival	25mm dia. at 23 m/s

ANNUAL ENERGY PRODUCTION⁴



DAILY ELECTRICITY PROFILE (COMPARISON TO PV)⁵



REFERENCES

- Standard Test Conditions: 1,000 W/m² direct irradiance, 25°C cell temp. and AM1.5D (standard solar atmospheric condition)
- Peak AC at inverter output, Nominal Operating Conditions: 1,000 W/m² direct irradiance, 65°C cell temp., AM1.5D; includes losses due to cooling parasitics, inverter and cabling
- At Standard Test Conditions
- Net (includes parasitic pumping loads). Based on modelling using site solar resource data.
- NREL System Advisor Model. Typical Meteorological Year with site daily average DNI = 5.9kWh/m²

Updated September 2018 (REV_C2). This data sheet provides general information only and may be subject to change without notice.