# INFINIA

# **PRODUCT SPECIFICATION**



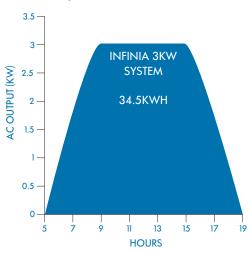






#### **INFINIA SOLAR SYSTEM**

Infinia data estimated based on NSRDB weather data for Daggett, CA, mid-summer day.



## **HOW IT WORKS**

At the heart of the Infinia Solar System (ISS) lies Infinia's long-life, zero-maintenance Free-Piston Stirling Engine. This engine converts an externally-applied temperature differential into electricity.

In the ISS, this temperature differential is maintained by using a mass-produced, dish-style solar concentrator to track the sun and heat one end of the engine, while the other end is cooled by a closed-loop, automotive style cooling system.

The result is a very high performance, massproduced solar power generation system that generates more kilowatt-hours at a lower cost than competing solutions.

**ISS** is scalable, adaptable, affordable, and available. Contact us - we'll be happy to help you put ISS to work.



# SIMPLICITY

Simplicity means achieving excellent results with minimum hassle. The ISS is a uniquely simple solution. It is a self-contained system which is easy to install, operates unattended, and generates clean, AC power. No plumbing. No cooling water. No complex balance-of-system needs. No new transmission lines. And no leaps of faith. Just proven technologies, great product design, and all the benefits of mass production. The result is megawatts installed in weeks. Not years.



## **FLEXIBILITY**

Flexibility means the ability to adapt to many situations. Whether you want to develop a 3 MW or 200 MW solar asset, ISS can do that. Want to develop a solar asset on sloped terrain? Without access to water? ISS can do that. Want to develop a solar asset to fit within existing transmission and distribution system constraints? ISS can do that. Want to develop a solar asset in less than a year? Well, you get the idea.



# **PERFORMANCE**

Performance means turning the smallest investment into the most kWh at a site, over time. ISS does this by capitalizing on its rapid and flexible deployment, high conversion efficiency, and low installation and operating costs. By combining excellent technology, automotive scale production, simple installation and very low operating costs, ISS is the preferred solar asset development solution for ground mount applications. That's what we mean by performance.



# RESULTS

Results are your return on investment.

And in the solar asset development game, investment starts early. You need to avoid costly permitting delays. You could live without huge upfront capital equipment down payments. You want faster time to revenue generation and access to less costly sites. You want to develop assets closer to, or right at, the point of consumption. And you want to avoid more than 5 tons of greenhouse gases annually per ISS. The bottom line is you want results. And ISS provides them.

6811 West Okanogan Place Kennewick WA 99336 USA **www.infiniacorp.com** 

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# **PRODUCT SPECIFICATION**

## **OUTPUTS\***

Peak Power\* 3.000 W

Voltage 240 VAC 1Ø 3 Wire or 208 VAC 3Ø 3 Wire\*\*

Frequency\*\* 50 Hz or 60 Hz\*\*\*

 at rated input direct normal insolation (DNI) > = 850 W/m², at 20°C (68°F) ambient temperature, net power out @ terminal, clean reflector, windspeed <= 1m/sec</li>

\*\* voltage and frequency automatically sensed and adjusted according to voltages on output terminals (grid connect) voltage and frequency user adjustable, Overall System Efficiency: 24% Peak

\*\*\* Based on local utility requirements, with no de-rating for either 50 Hz or 60 Hz

## **INPUTS**

Tracking Grid Load Steady state 5 W; peak 50 W

Slew to Sun/Stow Grid Load Steady state 50 W; peak 250 W

## **COMPLIANCE**

ETL Listed UL 1741, UL 2200

**CE Marked** 

**CEC Listed** 

## **WEIGHTS & DIMENSIONS**

Weight 864 kg (1900 lb)

	Pointed at Horizon	Pointed at Zenith
Width	4.7 m (15.4 ft)	4.7 m (15.4 ft)
Length	4.6 m (15 ft)	4.7 m (15.4 ft)
Height	5.6 m (18.4 ft)	6.4 m (21 ft)

# **AMBIENT CONDITIONS**

Operating Temperature Range -20°C to 55°C (-4°F to 131°F)

Operating Elevation Range\* -75 m to 1,890 m (6,200 ft) above sea level

Operating Relative Humidity Range 0 to 100%

Wind Speed – Max Operation 50 km/h (31 mph) for up to 3 second gust

Wind Speed – Maximum\*\* 140 km/h (87 mph)

Snow Load, Maximum, Stowed\*\*\* 1 kN/m² (20.9 psf) on inverted dish

Ice Load, Maximum, Stowed\*\*\* 5 cm (2 in. on one side)

Noise 65 dBA @10 m

- \* Locations above 1,890 (\*6,200 ft) elevation may require optional equipment
- \*\* No damage will occur to the Chassis or Bi-axial Drive systems when in the stow position up to the Maximum Wind Speed
- \*\*\* Non-concurrent



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