

# PowerDish™

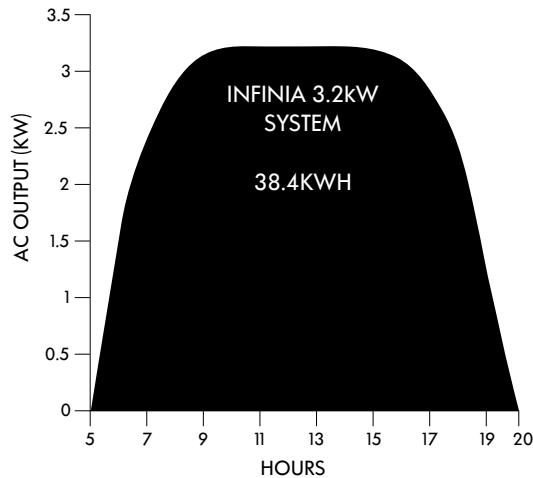
BY INFINIA

## PRODUCT SPECIFICATION



## PowerDish™

Infinia data estimated based on NSRDB weather data for Daggett, CA, midsummer day.



## HOW IT WORKS

At the heart of the Infinia PowerDish lies a long-life, zero-maintenance Free-Piston Stirling Engine. This engine converts an externally-applied temperature differential into electricity.

In the PowerDish, 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, mass-produced solar power generation system that generates more kilowatt-hours at a lower cost than competing solutions.

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

## SIMPLICITY

Simplicity means achieving excellent results with minimum hassle. The PowerDish 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, PowerDish can do that. Want to develop a solar asset on sloped terrain? Without access to water? PowerDish can do that. Want to develop a solar asset to fit within existing transmission and distribution system constraints? PowerDish 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. PowerDish 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, PowerDish 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 PowerDish. The bottom line is you want results. And PowerDish provides them.

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### OUTPUTS\*

Peak Power\* 3,200 W (STC DC approx. equivalent rating: 3.83 kW)

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) > = 1,000 W/m<sup>2</sup>, at 20°C (68°F) ambient temperature, net power out @ terminal, clean reflector, windspeed < = 3.6 km/hour (2.2 mph)  
\*\* voltage and frequency automatically sensed and adjusted according to voltages on output terminals (grid connect)  
Overall System Efficiency: 24% Peak  
\*\*\* 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\*\* 162 km/h (100 mph)

Snow Load, Maximum, Stowed\*\*\* 1 kN/m<sup>2</sup> (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

INFINIA

FOCUS YOUR ENERGY

6811 West Okanogan Place  
Kennewick WA 99336 USA

[www.infiniacorp.com](http://www.infiniacorp.com)

thePowerDish.com

Subject to change at any time by Infinia Corporation

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