



**HELIXWIND®**  
MODEL S594



## OUR PHILOSOPHY

Freedom is at the heart of our values – energy independence and autonomy – a freedom fueled by a resource that never runs out. The wind.

Often the simplest and most elegant solutions are the best. We believe that energy self sufficiency is better than the current antagonistic legacy system in decline. However progressive change requires courage, creative and positive innovation and unerring focus on performance. This is the soul of the Helix system.

## WHY HELIX WORKS

Inexpensive, reliable, simple, the hallmarks of the Helix system make it the best choice for low wind speed residential and commercial applications. The Savonius turbine based design catches wind from all directions creating smooth powerful torque to spin the electric generator. Mounted up to 35 feet high, in winds as low as 10 mph the Helix system creates electricity to power your home or business.

### HOW IT WORKS:

As the wind blows the long helical blade scoops catch wind from all directions forcing it through the turbine. The turbine generator is connected directly to your home and as electricity is generated your home is powered. If the wind isn't blowing your home is powered by the energy grid as usual. If the wind is blowing strongly then your energy produced can exceed your energy consumed and, depending on your local utility, your meter can spin backwards rolling back your energy bill.

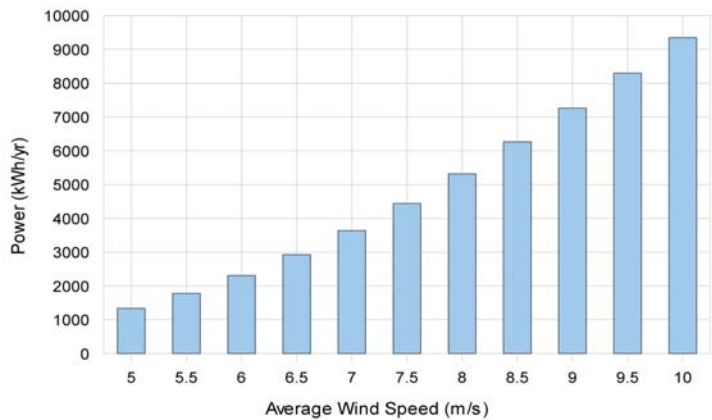
## S594 SYSTEM

The S594 (patent pending) is a commercial scale system for applications on medium to large size buildings. The blade is 16 ft high and 4 ft in diameter with a monopole support for the top bearing. The system utilizes a direct drive permanent magnet generator which reaches rated power at 200 RPM. Power is sent through a Grid tie inverter for use onsite and back into the utility grid for net metering.

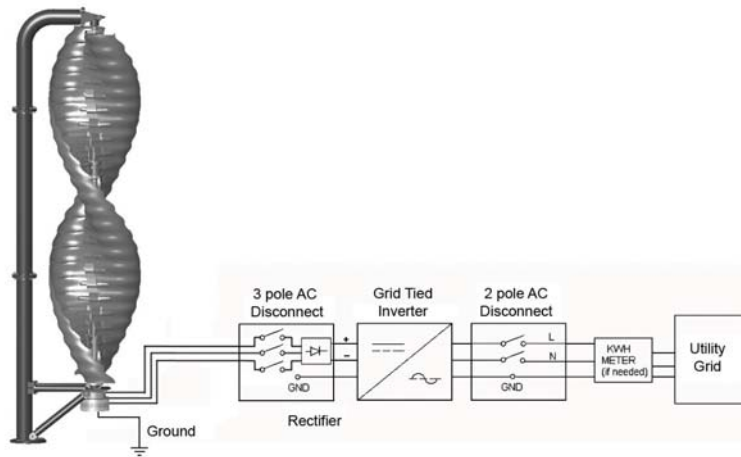
### OUR PROMISE

Helix Wind energy systems are designed, engineered and tested at corporate facilities in San Diego and California. Each component is individually tested to ensure the system performs seamlessly as a whole. Our performance data is from real installed working turbines, not a theoretical power curve created on a computer.

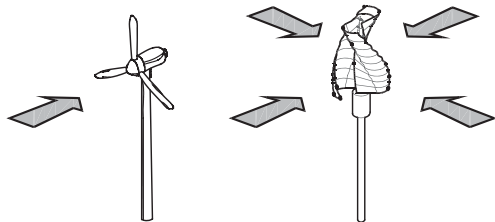
**ANNUAL POWER PRODUCTION**



**S594 ELECTRICAL SCHEMATIC**



**VAWT ADVANTAGES**

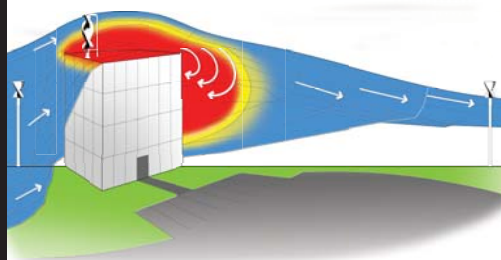


**Horizontal Turbine**  
Must have smooth laminar wind flow from a single direction.

**Vertical Turbine**  
- Functions in wind from any direction.  
- Functions in Turbulent or gusty winds.

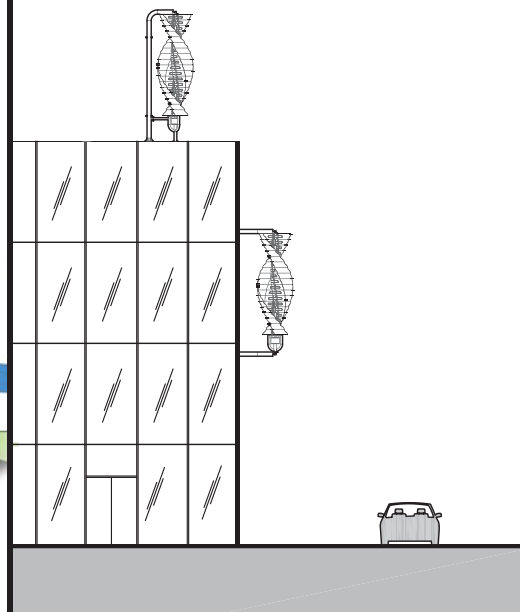
**URBAN SITING**

Urban structures create turbulence and gusts which are ideal for Vawt applications.



**Blue** Smooth laminar wind flow  
**Yellow** Turbulence boundary  
**Red** High wind turbulence

**MOUNTING FOR COMMERCIAL APPLICATIONS**



**TECHNICAL SPECIFICATIONS**

**Rated Capacity** - 5 kW

**Peak Power** - 5.63 kW

**Rotor Dimensions** - 16' h x 4' w (4.87 m x 1.2 m)

**Overall Height** - 19.8' (6.0m)

**Swept Area** - 5.88 m<sup>2</sup>

**Rotor Construction** - Ultra tough Aluminum Alloy

**Type** - Vertical axis helical Savonius rotor

**Cut-in Speed** - 8 mph

**Braking** - No braking needed for normal operation. Manual override for maintenance.

**Grid Connection** - 110VAC - 240VAC, 50-60Hz Grid Tied Inverter.

**Weight** - 1400 lb (635.029 kg)

**Design Life** - 30 years

**Installation** -Roof Top: recommend 2 ft above roof line. \*Consult with Helix Wind field engineers for optimum placement guidelines.

**Warranty** - 5 year Limited Warranty

**Generator** - 5 kw high efficiency Permanent Magnet Generator

**Battery charge systems available**

- Unique patent pending design.
- Rugged aluminum and steel construction for any environment.
- Modular, 3D blade for easy assembly and toughness.
- Helical turbine for smooth power production.
- Ultra reliable Low RPM Permanent magnet generator.
- Design gives almost silent operation at less than 5 decibels above background noise.
- Completely safe for our friends the birds and bats.
- Utilizes turbulent omni-directional air instantly, no yaw control required.