

# SKYSTREAM 3.7™

1.8 KW RESIDENTIAL POWER APPLIANCE

## Technical Specifications

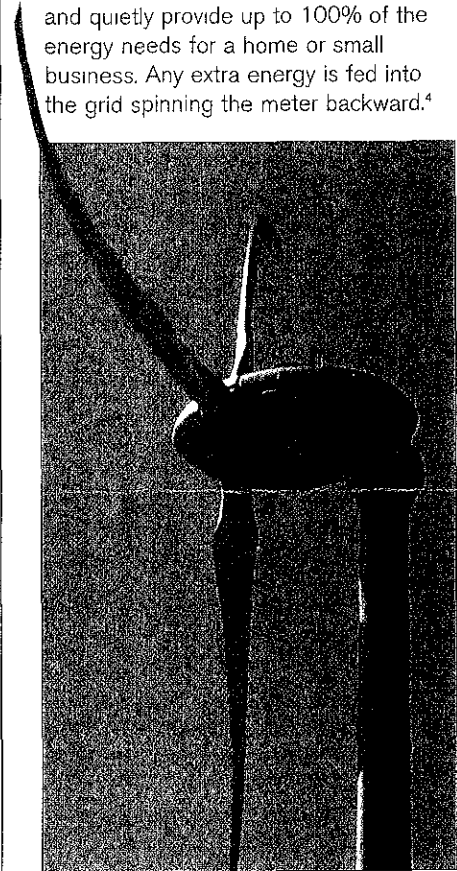
Model	Skystream 3.7
Rated Capacity	1.8 kW rated 2.4 kW peak
Weight	170 lbs. / 77 kg
Rotor Diameter	12 feet / 3.72 meters
Swept Area	115.7 ft <sup>2</sup> / 10.87 m <sup>2</sup>
Type	Downwind rotor with stall regulation control
Direction of Rotation	Clockwise looking upwind
Blade Material	Fiberglass reinforced composite
Number of Blades	3
Rated Speed	50 - 325 rpm
Tip Speed	66 - 213 f/s / 9.7 - 63 m/s
Alternator	Slotless permanent magnet brushless
Yaw Control	Passive
Grid Feeding	Southwest Windpower inverter 120/240 VAC 50-60/Hz
Braking System	Electronic stall regulation w/redundant relay switch control
Cut-in Wind Speed	8 mph / 3.5 m/s
Rated Wind Speed	20 mph / 9 m/s
User Control	Wireless 2 way interface remote system
Survival Wind Speed	140 mph / 63 m/s
Warranty	5 Year Limited Warranty

1. Based on a 12 mph (5.4 m/s) wind and utility energy cost of \$09/kWh
2. Taller towers are available
3. 120V will be available in the 4th quarter of 2006
4. Assuming the Skystream 3.7 is producing more energy than the load is consuming

MADE IN THE USA

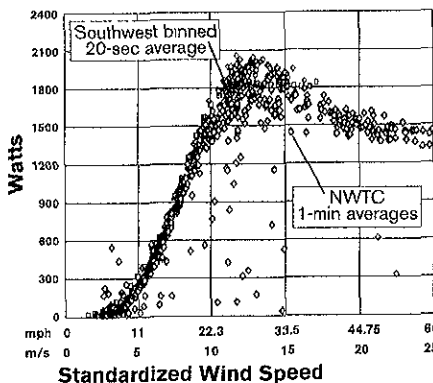
Skystream 3.7 is a breakthrough in a new generation of RPAs (Residential Power Appliances) that will change the energy landscape of how homes and small businesses receive electricity. Skystream is the first fully integrated system that produces energy for less than the average cost of electricity in the United States and it produces usable energy in exceptionally low winds.<sup>1</sup>

Skystream is available on towers ranging from 35' (10.67m) to 110' (33.5m).<sup>2</sup> Its universal inverter will deliver power compatible with any utility grid from 110-240 VAC.<sup>3</sup> Skystream will efficiently and quietly provide up to 100% of the energy needs for a home or small business. Any extra energy is fed into the grid spinning the meter backward.<sup>4</sup>

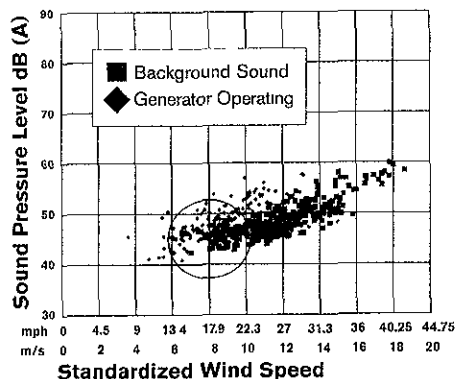


UL Certification and CE Certification Pending

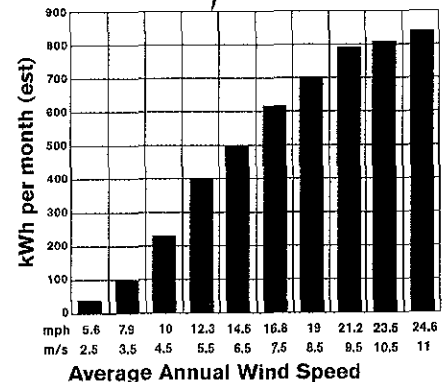
### PERFORMANCE GRAPH



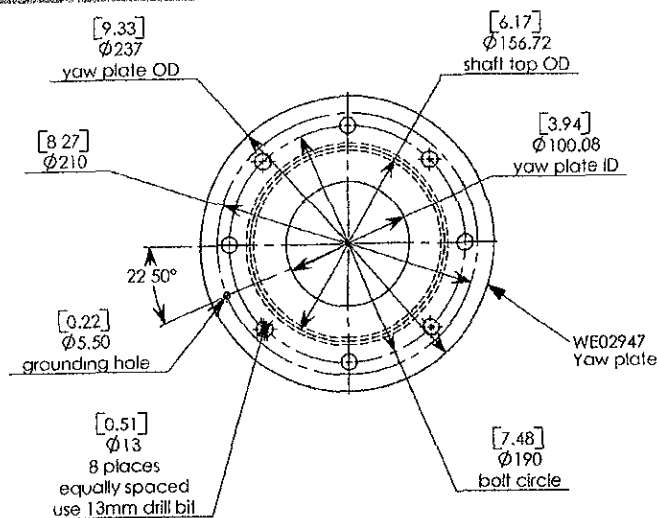
### SOUND REPORT



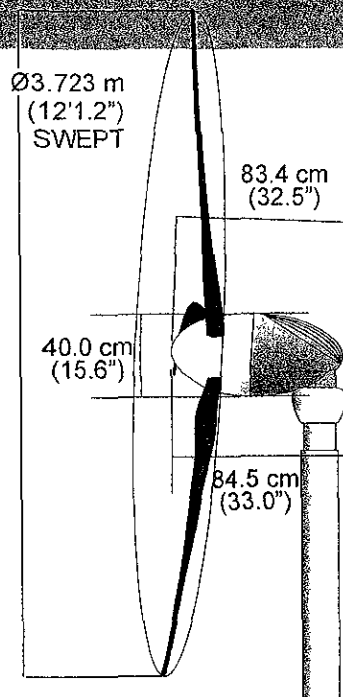
### ENERGY CHART



# Skystream - 1.8 kW Wind Turbine

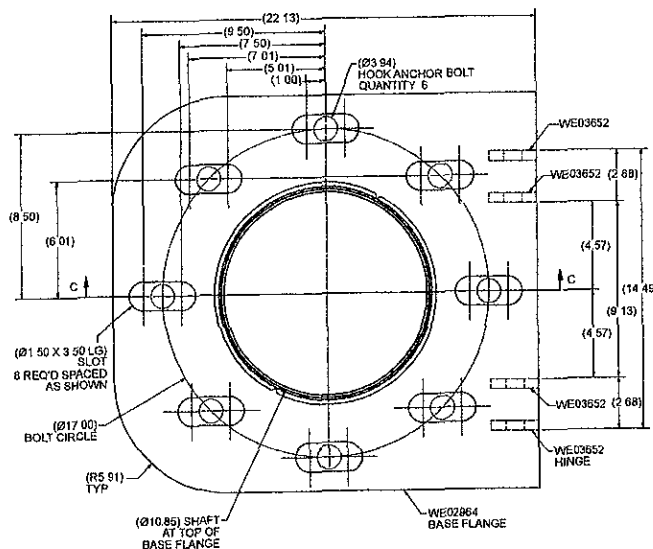


**Tower Top**



**Dimensions**

Prop Tip to Center of Tower: 780mm/30.7 in.  
 Minimum Tip Clearance: 690mm/27.16 in.  
 Max Tower Diameter at Tip: 171mm/6.75 in.



**Tower Base**

**Wiring**

Recommended Wire:  
 90C (UL) Water Resistant or equivalent

## Tower & Wind Generator Loading Specifications

Tower:	Freestanding Tapered Tubular Steel with Galvanized Finish
Tower Weight:	549 lbs/249.2 kg
<b>Bottom of Tower Forces</b>	
Center of Gravity:	400mm from center of tower
Axial Force:	3376 N (force due to tower and generator weight)
Overturing Bending Moment:	35611 Nm (includes wind loads)
Shear Force:	3851 N (includes wind loads)
<b>Top of Tower Forces</b>	
Thrust Load:	Average: 704
Design Shear Force:	2802 N (top of tower)
Peak Bending Moment:	1532 Nm
Downward Axial Force:	932 N (top of tower)

33'-6 13/16"

18'-1 1/4"

**Tower**

# Certificate of Compliance

Certificate Number: 20071402E300731  
Report Reference: E300731, issued 2006-10-17  
Issue Date: 2007 February 14

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**Underwriters  
Laboratories Inc.**

*Issued to:* **Southwest Windpower Inc**

1801 W Rte 66  
Flagstaff, AZ 86001  
United States

*This is to certify that  
representative samples of*

**Skystream Inverter**  
Component inverter for use with Skystream wind turbine, Utility Interactive Ready

*Have been investigated by Underwriters Laboratories Inc.® in  
accordance with the Standard(s) indicated on this Certificate.*



*Standard(s) for Safety:*

UL 1741, Standard for Safety for Inverters, Converters, Controllers and Interconnection System Equipment for Use With Distributed Energy Resources, 1st Ed.; IEEE 1547-2003; CAN/CSA-C22.2 No.107.1-01, 3rd Ed., General Use Power Supplies

*Additional Information:*

Output configuration: 120/240V, L-N-L, Oper. voltage range Vac: 212-264; or 120/208V, L-N-L, Oper. voltage range Vac: 183-229; Normal out frequency Hz: 60.0; Operating frequency range Hz: 59.3-60.5; Rated output current Aac: 10.0; Rated continuous output power kW@25 °C: 1.8; Rated continuous output power kW@50°C: 1.4; Max. peak output kW: 2.4; Surge Rating B3

Only those products bearing the UL Recognized Component Marks for the U.S. and Canada should be considered as being covered by UL's Recognition and Follow-Up Service and meeting the appropriate U.S. and Canadian requirements.

The UL Recognized Component Mark for the U.S. generally consists of the manufacturer's identification and catalog number, model number or other product designation as specified under "Marking" for the particular Recognition as published in the appropriate UL Directory. As a supplementary means of identifying products that have been produced under UL's Component Recognition Program, UL's Recognized Component Mark  may be used in conjunction with the required Recognized Marks. The Recognized Component Mark is required when specified in the UL Directory preceding the recognitions or under "Markings" for the individual recognitions. The UL Recognized Component Mark for Canada consists of the UL Recognized Mark for Canada  and the manufacturer's identification and catalog number, model number or other product designation as specified under "Marking" for the particular Recognition as published in the appropriate UL Directory.

**Look for the UL Recognized Component Mark on the product**

Issued by **Chris Storbeck**  
Chris Storbeck, Project Engineer

Reviewed by **Christopher Flueckiger**  
Christopher Flueckiger, Sr. Project Engineer

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