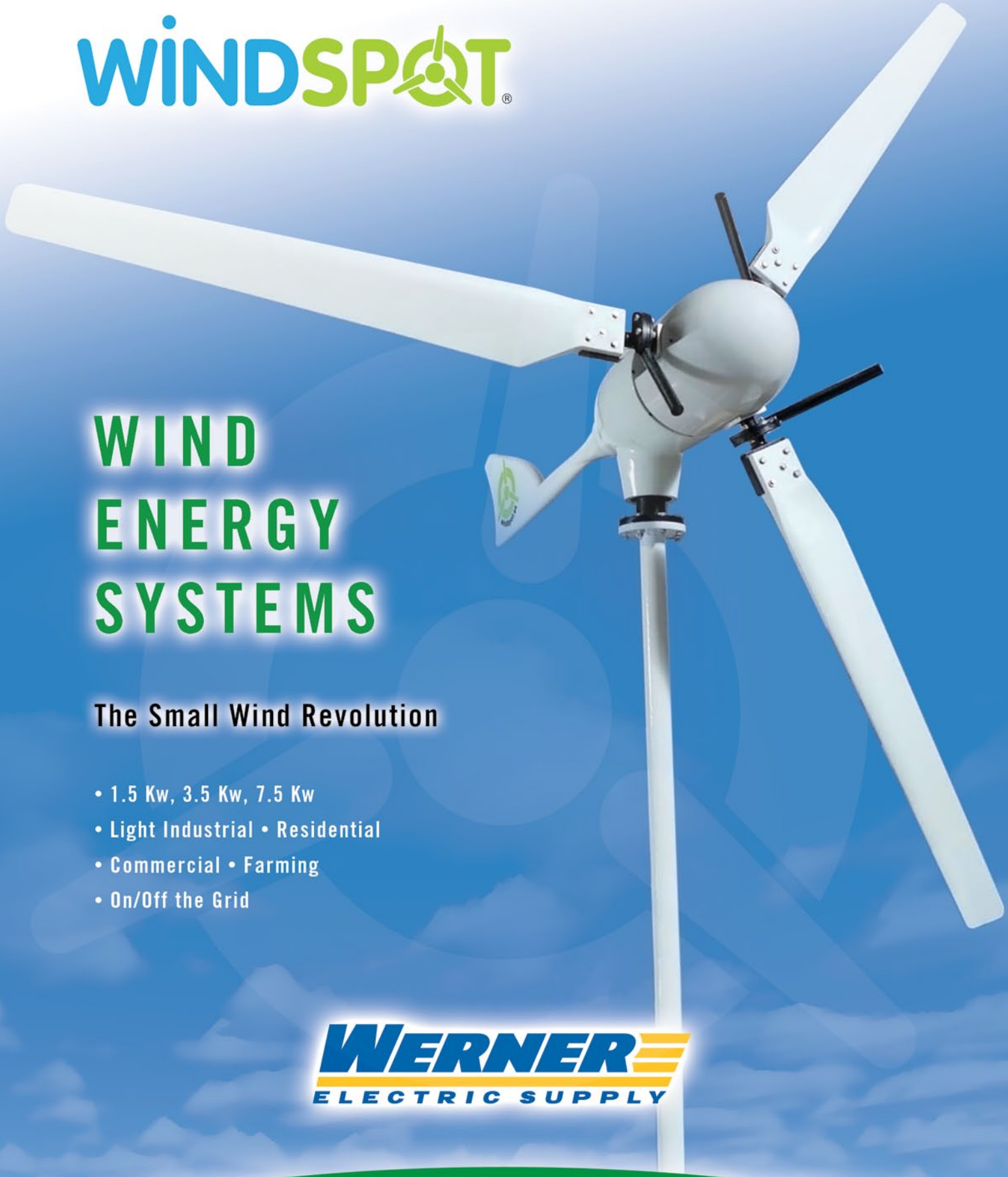
WINDSPOT®



WIND ENERGY SYSTEMS

The Small Wind Revolution

- 1.5 Kw, 3.5 Kw, 7.5 Kw
- Light Industrial • Residential
- Commercial • Farming
- On/Off the Grid

WERNER ELECTRIC SUPPLY

CLEAN ENERGY EXPERTS

WERNER ELECTRIC SUPPLY

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Werner Electric Supply is a proud distributor of *Windspot,* a small wind turbine from Sonkyo Energy. Windspot is an efficient, durable, reliable, high-performance turbine that comes in three models with powers of 1.5kW, 3.5kW and 7.5kW to adapt to every user need. They have many applications for households, commercial, light industry and farms ranging from self-sufficient battery-tied systems to grid connected systems, telecommunications aerials, and more.

Werner Electric Supply has been providing quality electrical products and services since 1948. Our clean energy team includes industry veterans who are ready to assist with analysis, design, and product selection. Eric Meyer, Werner Electric Supply's *Clean Energy Expert*, has over 19 years of experience in the electrical industry. In addition to clean energy products, he supports all of the electrical supply lines at Werner Electric. He can advise you regarding "smart energy" products, such as lamps, motors, and pneumatics, designed to help commercial, industrial and residential facilities be more energy efficient. Eric leads a team of clean energy experts, including solar energy specialist Richard Henes, and wind energy specialist Matt Giovanelli. These highly trained professionals are ready to help you reach your clean energy goals.

For more information regarding the outstanding Windspot small turbines, refer to this brochure, or call Eric at 920-969-2194.

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SMART ENERGY PRODUCTS

- Wind Energy
- Solar Energy
- Electric Motors
- Lighting: Lamps, Fixtures, Ballasts, Controls
- LED Technology
- Charging Stations
- Variable Frequency Drives
- RF Thermostats
- Pneumatics
- Infrared Heating
- Emerging Technologies
- Lamp Recycling

CLEAN ENERGY EXPERTS

THE SMALL WIND REVOLUTION

1.5 Kw, 3.5 Kw, and 7.5 Kw Wind Turbines

Guidance Rudder:

Manufactured in a single piece, keeping in mind its design from an aesthetic and aerodynamic point of view. Responds to changes in wind direction to optimize energy production.

Blades:

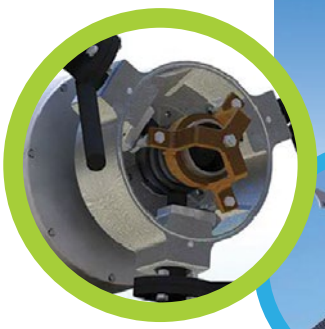
Constructed of polyester and fiberglass, the aerodynamics of the WINDSPOT blades allow the wind turbine to begin to produce energy with very low wind speeds, from 2.5 m/s.

Generator:

WINDSPOT turbines are designed to work at low revolutions. This results in less noise without affecting energy production. Additionally, this reduces the fatigue of the materials and the risk of suffering damage.

Variable Pitch System:

WINDSPOT turbines incorporate a patented variable pitch system which prevents, in the event of heavy winds, any surges that may damage the generator or the electronics. By means of a simple robust and reliable dampener mechanism, this passive system uses the centrifugal force created by the spinning of the wind turbine to change the angle of attack of the blades. The straightforward design and the use of high-quality materials, such as stainless steel, anodized aluminium and bronze, have resulted in a smooth working order even in gusty situations.



TECHNICAL SPECIFICATIONS

POWER	1.5 KW @ 250 RPM	3.5 KW @ 250 RPM	7.5 KW @ 200 RPM
ROTOR DIAMETER	3.3 m (10.8 ft)	4.05 m (13.4 ft)	6.3 m (19.3 ft)
CUT IN SPEED	3 m/s (6.7 mph)	3 m/s (6.7 mph)	3 m/s (6.7 mph)
RATED SPEED	12 m/s (26.8 mph)	12 m/s (26.8 mph)	12 m/s (26.8 mph)
WEIGHT	155 kg (341 lb)	185 kg (407 lb)	420 kg (925 lb)
TOTAL LENGTH	2.9 m (9.5 ft)	3.2 m (10.5 ft)	4 m (13.1 ft)
ESTIMATED ANNUAL PRODUCTION	2383-4850 KWh (5-7 m/s / 11.2-15.7 mph)	5550-11300 KWh (5-7 m/s / 11.2-15.7 mph)	11900-24200 KWh (5-7 m/s / 11.2-15.7 mph)
CO^2 SAVED	1550-3150 kg (3400-6950 lb)	3610-7350 kg (8000-16200 lb)	7730-15700 kg (17000-34600 lb)
TYPE	Up-wind horizontal rotor	Up-wind horizontal rotor	Up-wind horizontal rotor
GENERATOR	Synchronous, permanent magnets; 3 phases; 24-48-110-220 V at 50/60 Hz	Synchronous, permanent magnets; 3 phases; 24-48-110-220 V at 50/60 Hz	Synchronous, permanent magnets; 3 phases; 48-110-220 V at 50/60 Hz
YAW CONTROL	Passive system: Tail	Passive system: Tail	Passive system: Tail
POWER CONTROL	Passive Centrifugal Variable Pitch System with Shock Absorber (Patented design)	Passive Centrifugal Variable Pitch System with Shock Absorber (Patented design)	Passive Centrifugal Variable Pitch System with Shock Absorber (Patented design)
TRANSMISSION	Direct	Direct	Direct
BRAKE	Electric	Electric	Electric
CONTROLLER	On-grid, off-grid, water pumping or hybrid system	On-grid, off-grid, water pumping or hybrid system	On-grid, off-grid, water pumping or hybrid system
BLADES	Polyester resin reinforced with fiberglass	Polyester resin reinforced with fiberglass	Polyester resin reinforced with fiberglass
INVERTER	Efficiency ≈ 95%; Algorithm MPPT; Single Phase	Efficiency ≈ 95%; Algorithm MPPT; Single Phase	Efficiency ≈ 95%; Algorithm MPPT; Single Phase
NOISE	37 dB(A) from 60 m with a wind speed of 8 m/s (65 yd and 18 mph)	37 dB(A) from 60 m with a wind speed of 8 m/s (65 yd and 18 mph)	37 dB(A) from 60 m with a wind speed of 8 m/s (65 yd and 18 mph)
ANTICORROSION PROTECTION	Sealed design + e-coat + anodizing + UV resistant paint	Sealed design + e-coat + anodizing + UV resistant paint	Sealed design + e-coat + anodizing + UV resistant paint
DESIGN	According to IEC61400-2	According to IEC61400-2	According to IEC61400-2

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- Lamp Recycling

OUR VISION

Werner Electric Supply is dedicated to continual improvement in the distribution of quality products and services resulting in the long-term trust, profitability, and success of our employees, customers, vendors, and the communities we serve.

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