

evance



EVANCE ISKRA R9000  
ADVANCED WIND TURBINE





## PERFORMANCE

- Class leading energy yield
- Reactive Pitch™ technology continuously optimises aerofoil positioning
- Generates from wind speed of 2.5m/s (5.6mph)
- No cut out wind speed

## DESIGN EXCELLENCE

- Blends into the environment for low visual impact
- Lower material use for high ecological performance
- Aerodynamic and contemporary
- Created from big wind technology and automotive expertise

## EFFICIENCY

- Proprietary Reactive Pitch™ technology ensures perfect positioning of the aerofoils to maximise yield
- Patented axial flux generator sets new standard of 96% efficiency
- Upwind architecture with tail vane ensures precise yaw control

## LOW MAINTENANCE

- Autonomous operation up to 60m/s (134mph)
- Direct drive - no gearbox
- Patented ElectroBrake™ - automatic with no moving parts

## DURABILITY

- All parts manufactured in composite, stainless steel or coated to automotive standards
- Blade erosion resistance tested to double military standards
- Designed to IEC61400-2, the international standard for wind turbines
- 5 year warranty underpinned by more than 2.5 million hours in the field

## RELIABILITY

- Reactive Pitch™ is a simple and durable mechanical system
- ElectroBrake™ has no moving parts
- Backed by manufacturer trained and certified service network
- Integrated generator eliminates complexity
- Existing installations average > 99% up time

## SAFETY

- Reactive Pitch™ automatically limits maximum of 230rpm whilst generating maximum energy. No cut out speed or intervention needed
- Brake system tower top mounted - no dependence on external systems
- ElectroBrake™ provides secondary backup safety system

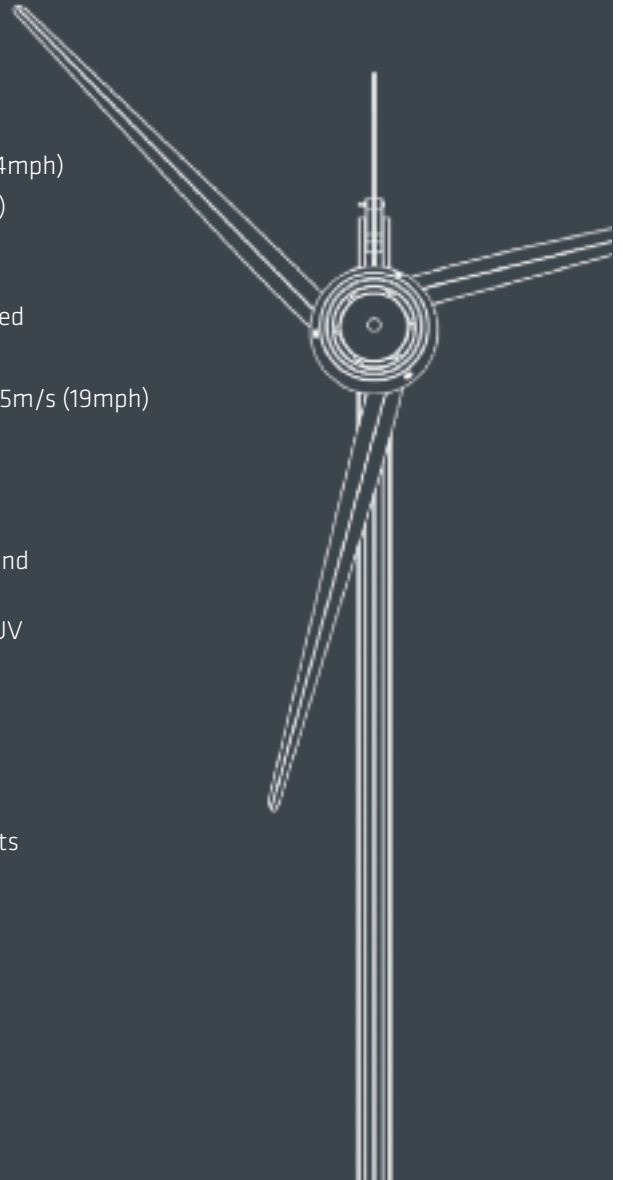
## QUIET OPERATION

- System engineered for minimum noise generation
- Advanced blade design for low noise aerodynamics and balance
- Direct drive - no gearbox noise

# EVANCE ISKRA R9000

## SPECIFICATIONS

ARCHITECTURE	Upwind, 3 bladed rotor, self regulating
RATED POWER	5kW @12m/s (26.8mph), continuous to 60m/s (134mph)
ANNUAL ENERGY YIELD	9,012 kWh with Annual Mean Wind Speed (AMWS) of 5m/s (11mph) (to IEC and BWEA Standards)
CUT-IN WIND SPEED	2.5 m/s (5.6 mph)
CUT-OUT WIND SPEED	None - continuous generation to survival wind speed
SURVIVAL WIND SPEED	60 m/s (134 mph)
IEC TURBINE CLASS	Conforms to IEC 61400 to Class II - AMWS up to 8.5m/s (19mph)
CONTROL SYSTEM	Patented Reactive Pitch™ Control
ROTOR DIAMETER	5.4m (17.7 feet)
ROTOR SPEED	200 rpm nominal, 230 rpm maximum
BLADE TYPE	Fully optimised aerofoil ensuring maximum yield and minimum noise
BLADE MATERIAL	Glass Fibre Reinforced Composite, low reflection, UV and anti-erosion coatings
GENERATOR	Patented brushless direct drive air-cored high efficiency Permanent Magnet Alternator
GEARBOX	None required. See generator
EMERGENCY BRAKING	Patented Automatic ElectroBrake™ (with manual control for servicing). No moving parts
YAW CONTROL	Passive - Tail Vane and rotor
TOWER HEIGHT	9m, 12m & 15m (30', 40', 50' & US only 80')
TOWER TYPES	Free-standing (monopole) or guyed
TOWER TOP MASS	Approx. 300kg (660lbs) complete (Excl. Tower)
DESIGN LONGEVITY	20 years minimum. Annual Service Inspection
NOISE	Lp,60m = 45dB(A). BWEA Reference Sound Level at 8m/s and 60m distance



## Data you can rely on

### Conforming to International Standards

The Evance Iskra R9000 is available only through our global network of partners who are carefully selected for their reputation for high integrity and customer care. They are fully trained by us in all aspects of siting and installation and have all the required local knowledge about incentives and regulations.

If you are interested in knowing more about the Evance Iskra R9000, or to find your nearest Evance partner, please visit our website at [www.evancewind.com](http://www.evancewind.com).

Our turbines are the most efficient turbines available in their size range, and are best suited to schools, farms, rural homes, light commercial or sites where there is sufficient land and wind to generate useful amounts of free clean energy.

Please contact us or our partners to discuss what solution is most suitable for your particular application.



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