

HIGH PERFORMANCE SMALL WIND TURBINES

Distributed by Trentleck Pty Ltd



KINGSPAN WIND

WORLD LEADING

EXPERTS IN SMALL WIND

WHY CHOOSE A KINGSPAN SMALL WIND TURBINE?

Kingspan Wind is part of Kingspan Environmental Ltd, a global leader in distributed energy, water and environmental management. We're harnessing nature to work for you and for a better environment.

Kingspan Wind turbines are designed to last the course, having already surpassed over 25 years' successful operation around the globe*. When serviced in line with our recommendations, a 25-year product lifespan is expected. Designed, tested, certified and manufactured in Great Britain, over 90% of our supply chain and bill of materials is sourced in the UK.

Born as the result of over 30 years' research, development and innovation with installations in over 70 countries and on every continent. From rural domestic installations in the UK & Europe, remote islands in the Falklands, off-shore oil platforms in the North Sea to a world first application in Antarctica, Kingspan Wind offers unrivalled wind power solutions the world over.

Our wind turbines are recognised for their outstanding performance, durability and unrivalled run time.

The Kingspan Wind range stands out from other small wind turbines due to our unique delta rotor design, which allows our turbines to regulate their speed. As the wind gets stronger, the blades pitch and cone ensuring our turbines maintain a high output even in the fiercest storms, unlike many turbines which need to be put on brake to protect themselves during high winds.



OUR SERVICES INCLUDE:

- › Site Assessment & Feasibility
- › System Design
- › Planning Support
- › Installation & Commissioning
- › Servicing Contracts
- › Data Monitoring

* Refers to KW3 & KW6

SIMPLE DESIGN. EXCEPTIONAL PERFORMANCE.



SIMPLE. AFFORDABLE. RELIABLE.

Downwind technology with simplicity at the heart of its design – few moving parts and no gearbox!

- › NO SHUT DOWN IN HIGH WINDS
- › SELF REGULATING

Kingspan Wind Turbines are serviced at ground level thanks to our hydraulic tower system. This ensures no expensive cranes are required for installation or servicing.

- › LOW COST OF OWNERSHIP
- › QUICK SERVICE INSPECTIONS

Our Warranty covers both Parts & Labour. This comprehensive approach offers customers peace of mind on the investment!

- › CUSTOMER PROTECTION
- › PEACE OF MIND

Independently tested to IEC 61400-2, the International Standard for Small Wind Technology*

- › VERIFIED PERFORMANCE DATA
- › ELIGIBLE FOR INCENTIVES & TARIFFS

Variety of tower heights and colours available, to suit site location and local planning requirements

- › LOW VISUAL IMPACT
- › NOW AVAILABLE IN GREY

Grid friendly product range, can be connected as Single Phase, Split Phase & Three Phase options

- › SIMPLE GRID CONNECTION
- › OFF-GRID SOLUTIONS



The KW3 is the smallest turbine in the Kingspan Wind range. Ideally suited for remote access sites, small domestic properties, telecoms and off-grid applications.

Offering an unrivalled over 25-year track record, the KW3 is amongst the most sought after small wind turbines in the world.

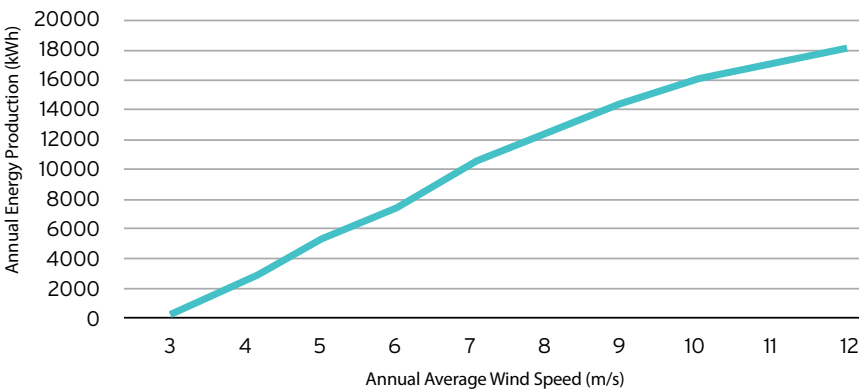
BUILD MATERIALS AND COLOURS

- › Towers: Galvanised steel
- › Blades: Glass thermoplastic composite, black or white
- › Covers: Plastic.
 - Black (RAL 9005)
 - White (RAL 9003)

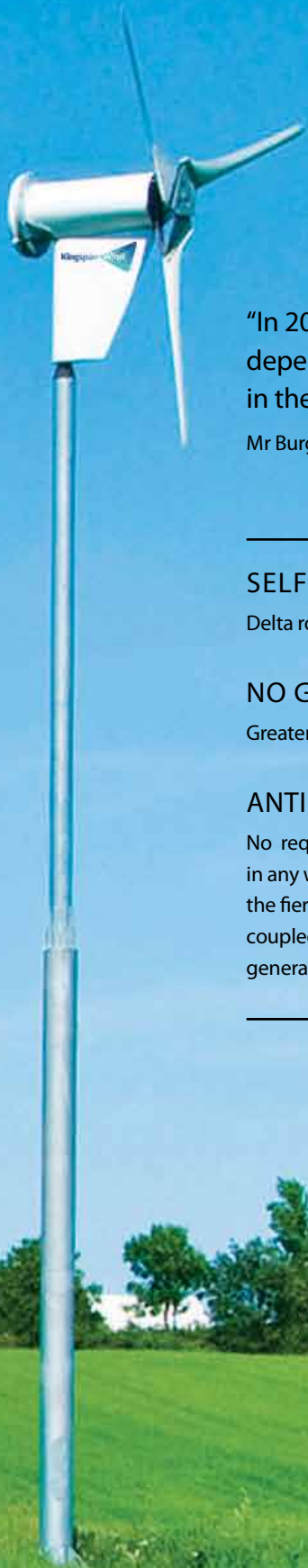
KW3 PRODUCT SPECIFICATIONS

Rated Power (1 min avg at 11 m/s)	2.5kW
Peak Power (1 min avg)	3.2kW
Reference Annual Energy (RAE)*	4,700 kWh
Applications	Telecoms stations, Unmanned off-shore oil platforms, Domestic properties
Voltages Available	24V DC / 48V DC / 300V AC
Rotor Diameter	3.9m
Tower Height	6.5m/11m
Cut in	3.5 m/s
Cut out	N/A
Survival speed	Designed to Class 1 (70 m/s)

KW3 ANNUAL ENERGY PRODUCTION*



* The AEP (Annual Energy Production) Curve demonstrates the energy the KW3 will generate on sites with a given average wind speed at hub height. The ability to calculate kWh/year allows for clear estimations of financial viability to be calculated.



“In 20 years our wind turbine has become a dependable source of power, a pillar of confidence in the changing energy marketplace”.

Mr Burgess, Isle of Mull

SELF REGULATING

Delta rotor design ensures constant energy generation.

NO GEAR BOX

Greater efficiency!.

ANTI OVER-SPEED CONTROL

No requirement to shut down in high winds. Designed to operate in any wind regime – high performance is maintained even in the fiercest storms. Our unique over-speed protection system, coupled with our delta rotor design ensures continuous energy generation.



Kingspan Wind KW6 is the most popular turbine in our range, regarded by many as the turbine of choice. Ideally suited for rural domestic, farmers, land owners and light industrial applications.

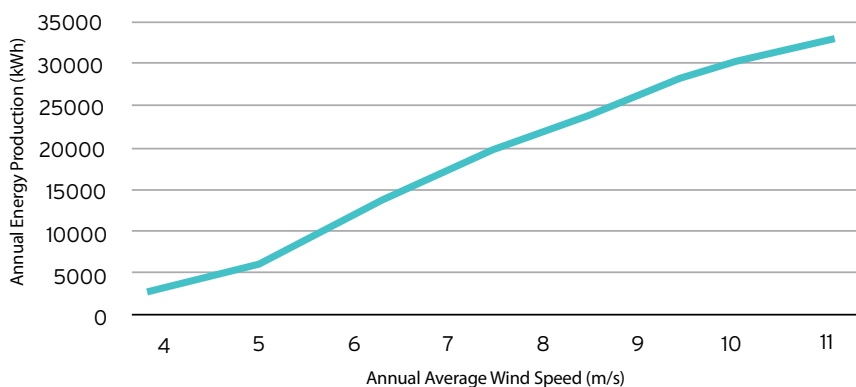
The KW6 is fully certified under the Microgeneration Certification Scheme (MCS), therefore eligible for Feed-in Tariffs and Regional Incentives.

KW6 PRODUCT SPECIFICATION

Peak Power	6.1kW**
Reference Annual Energy (RAE)*	8,949 kWh
Applications	Rural Domestic, Smallholding, Agricultural, Commercial, Telecoms, Public Sector, Remote Islands
Solutions	Grid Tied, Battery Charging, 48V DC – 300V DC, Direct Heating
Grid Connection Options	Single / Dual / Three Phase
Architecture	Downwind, 3 Bladed, Self Regulating
Rotor	5.6m diameter, 200RPM at Rated Power. Thrust 10kN
Blade Material	Glass Thermoplastic Composite
Generator Type	Brushless Direct Drive Permanent Magnet
Tower Heights	9m / 11m / 15m / 20m (Taper Fit Monopole - Hydraulic Options Available)
Foundation Options	Pad / Root / Rock Anchor Options
Cut In Speed	3.5 m/s
Cut Out Speed	None – Continuous Operation
Survival Wind Speed	Independently Tested to Class 2 (59.5m/s)
Warranty	5-Year Standard
Cold Climate Options	Available on Request

* RAE is annual energy production at 5m/s. **Rated Power 5.2kW (1min average at 11m/s)

KW6 ANNUAL ENERGY PRODUCTION



BUILD MATERIALS AND COLOURS

- › Towers: Galvanised steel, grey.
- › Blades: Glass thermoplastic composite, black, white or grey.
- › Covers: Plastic.
 - Black (RAL 9005)
 - White (RAL 9003)
 - Grey (RAL 7000)

KW6 G-CONNECT (G83 SYSTEM)

Grid capacity in many regions of the UK can be restrictive for consumers wishing to install renewable technologies. With this problem becoming more commonplace, we have developed, tested and gained DNO approval for our new KW6 G-Connect G83 system which allows consumers to install our 6kW wind turbine to single phase connections without the need for network approval.

The KW6 G-Connect system connects 3.68kW to the national grid whilst diverting the additional 2.32kW of power to an off-grid source which can be selected specifically to each consumer's requirements.

- › 6kW of metered generation.
- › Advanced control system offers full on-site usage.
- › Further reduces the need for fossil fuels.
- › No need for a grid connection application.



Product Certification Number TUV0008



“Since commissioning of my Kingspan KW6 turbine, the generation has been exceptional and I am very pleased with the results.”

Mr Fletcher, Isle of Skye

SELF REGULATING

Delta rotor design ensures constant energy generation

MINIMAL VISUAL IMPACT

Grey RAL7000 adopted - grey now preferred with planners and EHO's when applying for the necessary planning consents.

NO GEAR BOX

Greater efficiency!

ANTI OVER-SPEED CONTROL

No requirement to shut down in high winds. Designed to operate in any wind regime – high performance is maintained even in the fiercest storms. Our unique over-speed protection system, coupled with our delta rotor design ensures continuous energy generation.

KW15

The KW15 has been designed and rigorously tested to ensure simple, affordable and responsible energy generation for land owners, farmers, developers and community projects all over the world.

UK's first small wind turbine independently certified to Class 1 Standards.

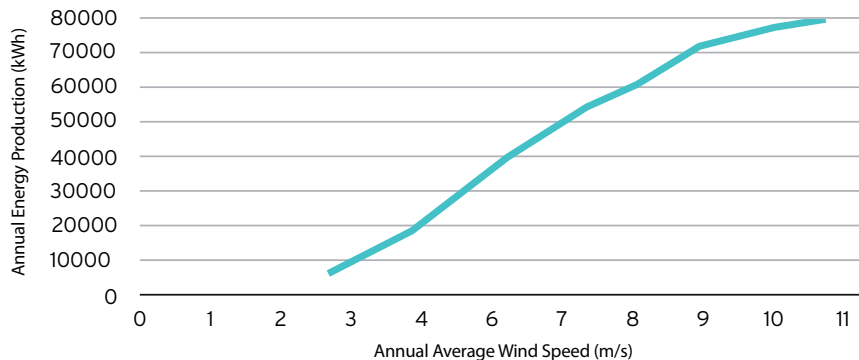
KW15 PRODUCT SPECIFICATIONS

Peak Power	15.7 kW
Reference Annual Energy (RAE)	26,558 kWh @ 5m/s
Applications	Smallholding, Agricultural, Commercial, Telecoms,
Public Sector, Industrial, Remote Islands	Grid Tied, Battery Charging, 48V DC – 300V DC, Direct Heating
Solutions	Grid Tied, 300V DC
Grid Connection Options	Single / Dual / Three Phase / Off-Grid
Architecture	Downwind, 3 Bladed, Self-Regulating
Rotor	9.8m diameter, 155RPM at Rated Power.
Blade Material	Thermoset with Carbon Spar
Generator Type	Brushless Direct Drive Permanent Magnet
Tower Heights	15m / 20m (Taper Fit Monopole - Hydraulic Options Available)
Foundation Options	Pad / Root / Rock Anchor Options
Cut In Speed	3 m/s
Cut Out Speed	None – Continuous Operation
Survival Wind Speed	Independently Tested to Class 1 (70m/s)
Warranty	5-Year Standard

BUILD MATERIALS AND COLOURS

- › Frame: Galvanised steel, grey (not visible).
- › Towers: Galvanised steel, grey.
- › Blades: Glass thermoplastic composite, grey.
- › Covers: Plastic.
Grey (RAL 7035)

KW15 ANNUAL ENERGY PRODUCTION



Product Certification Number INT WT21394

“Renewable UK is delighted that Kingspan have achieved MCS accreditation for their 15kW wind turbine (...) and we are pleased that another model has been made available to this unique market”.

Louisa Coursey, RenewableUK

FULLY INTEGRATED CONTROL SYSTEM

Easy and cost-effective installation.

INTELLIGENT TURBINE CONTROL

The KW15 incorporates four levels of rotor speed control to ensure that the turbine operates responsibly in all wind conditions - the advanced inverter constantly monitors the voltage and RPM of the turbine. Dynamic loading allows the KW15 to maintain its most efficient RPM in any wind regime.

ELECTRO-MECHANICAL FAIL-SAFE BRAKING

Fail-safe electro-mechanical braking mechanism (monitored and controlled by the inverter).

MINIMAL VISUAL IMPACT

Grey RAL7035 adopted = now preferred with planners and EHO's when applying for the necessary planning consents.

ANTI OVER-SPEED CONTROL

No requirement to shut down in high winds. Designed to operate in any wind regime – high performance is maintained even in the fiercest storms. Our unique over-speed protection system, coupled with our delta rotor design ensures continuous energy generation.

NO GEAR BOX

Greater efficiency!

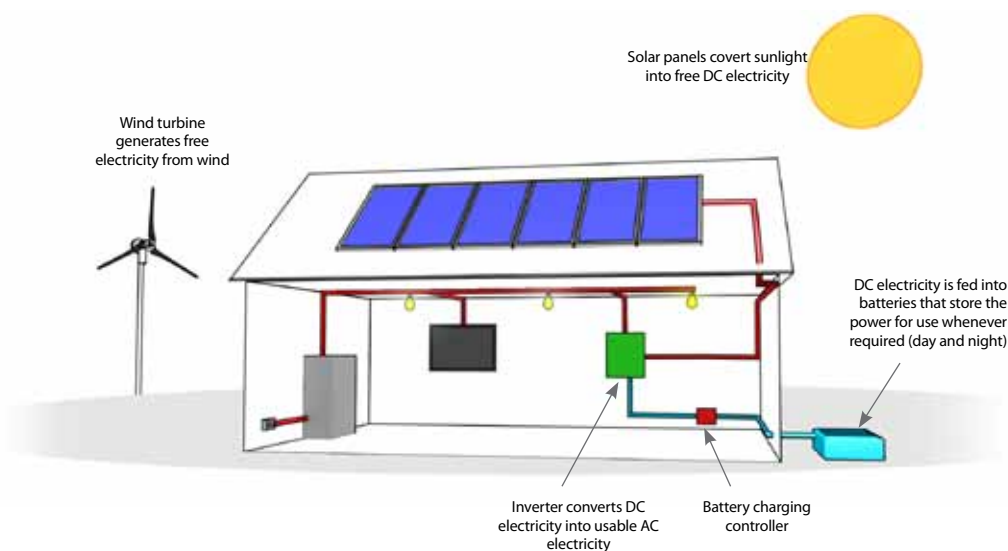
OFF-GRID POWER SOLUTIONS

At Kingspan Wind we offer unrivalled expertise in off-grid power generation. Our turbine systems can be designed as battery charge, mini- and micro-grids, energy storage or to provide hot water to a whole host of applications. Often allowing total independence from the national grid, our wind turbines, available in a variety of tower height options, are ideally positioned to power rural properties, businesses and homes.

If you are currently living off the main grid, rely on environmentally unfriendly and expensive diesel generators or would like to become independent, it is a perfect moment to consider installation of our wind turbine.

Our expert team can design and specify the most appropriate system to your needs, including hybrid systems which can incorporate solar PV or back up diesel generators. We also co-ordinate the design and installation of your system with local installers to ensure our customers are supported with local service provision.

- › On-site energy generation.
- › Low service and maintenance requirements.
- › Provide independence of national grid.
- › Cost efficient alternative to diesel generators.
- › Hybrid systems available.



OPTIONAL EXTRAS

CONNECT & PROTECT INSURANCE

For the ultimate peace of mind, all our customers can purchase 'Connect & Protect' Insurance for their Kingspan Wind turbines.

The policy gives our customers a comprehensive wind turbine insurance package, offering protection in the unlikely event of breakdown, damage and loss of revenue cover (Feed-in-Tariff payments).

- › PROTECT YOUR INVESTMENT
- › ONCE YOU'RE CONNECTED, YOU'RE PROTECTED
- › NO HIDDEN CHARGES
- › INSURANCE COVERS THE ENTIRE INSTALLATION

DATA LOGGING

Our latest optional add-on, Data Logging, enables you to check your turbine's performance remotely – on your laptop, iPad or a smart phone – whilst you're at work, on holiday or away from your property.

Using the same software, businesses can check on energy output, performance and carbon reduction with ESOS approved monitoring.

- › AVAILABLE AS GSM OR ETHERNET
- › DATA LOGGING CAN BE PROVIDED TO SUIT A VARIETY OF APPLICATIONS
- › CUSTOMISED DASHBOARDS AVAILABLE FOR ALL CLIENT TYPES



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Installer Certification Number MCS 1500