PROVEN
ENERGY
ESTABLISHED IN 1980

Proven 35-2
Planning Support Document
Certification number TUV NEL 0003

APPROVED PRODUCT
MCS
Certified by TUV NEL

Contents

Introduction

This document is intended as an aid to complete planning applications. It includes product information normally required for UK planning applications.

For additional information please contact your local Proven Energy reseller or email info@provenenergy.com.

Product specifications

Rotor
Type: Downwind, 360 degrees free yawing
Speed control: Self-regulating
Blades: 3 blades, passive coning and pitch control
Rotor diameter: 8.5m
Rated speed: 11m/s
Rotor thrust: 26kN

Generator
Type: Brushless permanent magnet, direct drive
Output: Grid connect

Tower
Type: Self-supporting monopole
Hub height: 15m, 20m and 25m (hinged or hydraulic tower)

Pad foundation
4.80m x 4.80m x 1.00m
(Root option also available)

Weights
Wind turbine: 1450kg

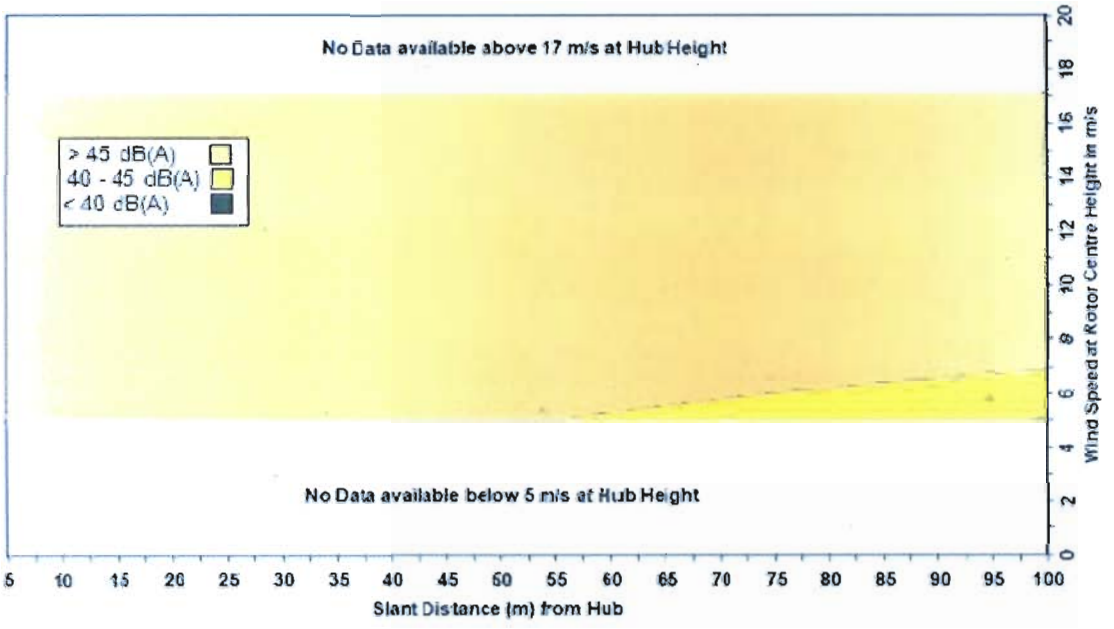
Performance
Cut-in wind speed: 3.5m/s
Max wind speed (survival): 54m/s
RAE: 23,200kWh as certified by TUV NEL (at 5m/s measured at hub height)

Build materials and colours
Frame:	Galvanised steel, grey (not visible)
Blades:	Glass thermoplastic composite, black or white
Covers:	Plastic. Black (RAL 9005) or White (RAL 9003)
Towers:	Galvanised steel, grey

Noise report

The following noise map is a declaration of the sound power level, including noise slope tested according to BWEA standard 29th Feb 2008 which amends IEC 61400-11 for the purposes of acoustic testing of small wind turbines.

Acoustic Noise Levels				
Turbine Make:	Proven Energy Ltd	**Model:**	P35-2	
NOISE EMISSION LEVEL				**NOISE PENALTY**
Sound Power $L_{Wd,8m/s}$	**95.9 dB(A)**	**Noise Slope, SdB (dB/m/s)**	**2.68**	**NO**



HM 2284/R1

Tested and Issued by
Hayes McKenzie Partnership Ltd.
September 2010

A full report is available upon request from info@provenenergy.com. The Proven Energy re-seller can support interpretation of this report.

Aviation

All wind turbines have the potential to be detected by radar systems, and in some cases this can cause problems for the providers of air traffic control services, such as the local civilian or military airport, or NATS En Route.

The best solution is to ensure there is no radar line-of-sight from the upper tip of the wind turbine to the radar. In the event that the wind turbine site is in radar line-of-sight to an airport radar, Proven Energy recommends you discuss the siting with the airport authority early in the planning process. The airport authority can often advise how best you may mitigate the impact of the wind turbine, so early discussion is recommended. Similar early discussions will also assist in identifying any MoD or NATS En Route concerns.

It is worth noting that the presence of other wind turbines does not automatically mean an application is acceptable, as cumulative impact may also be an issue.

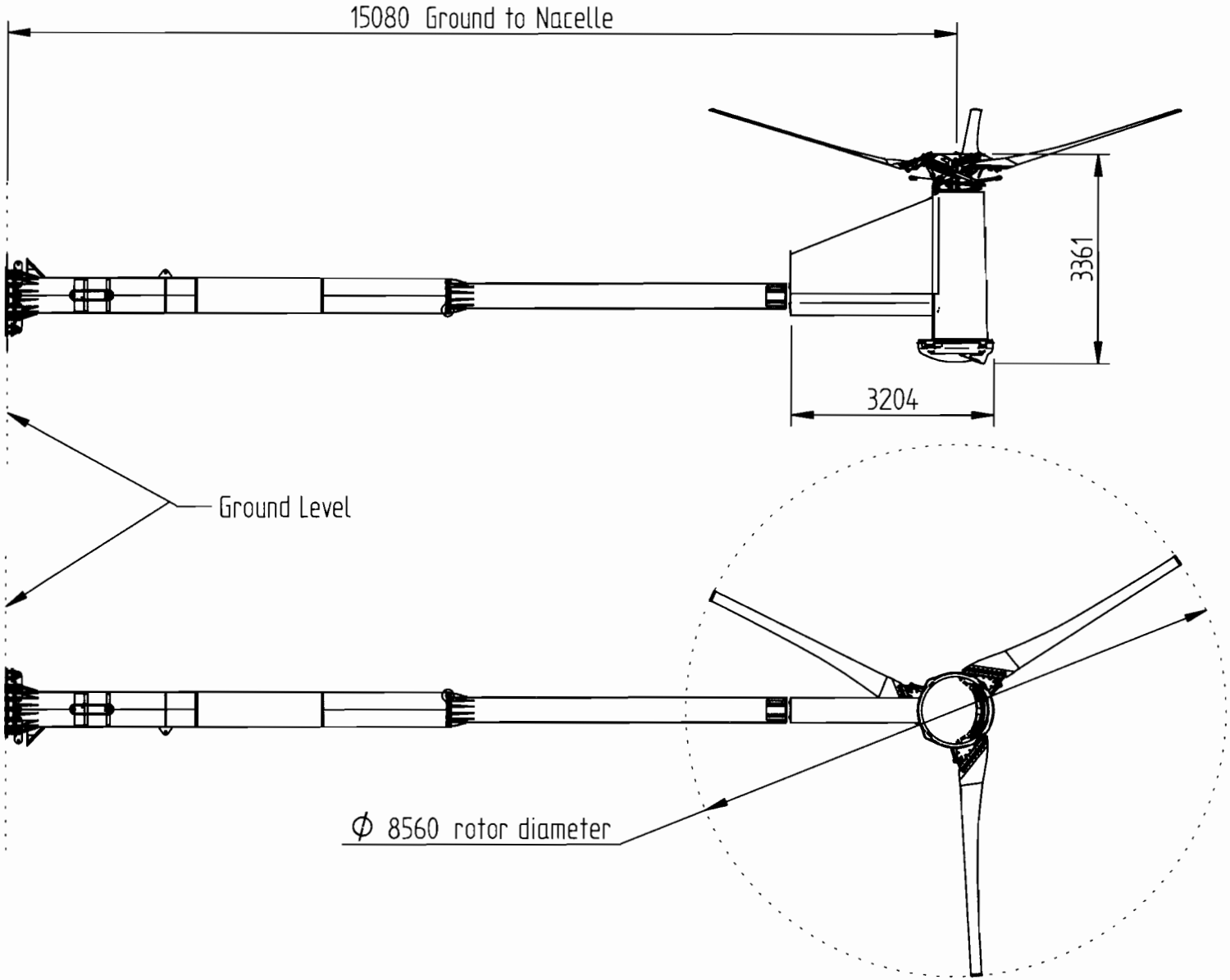
Siting

Siting and installation of your wind turbine must comply with "Installing small wind-powered electricity generating systems" (CE72) and "Microgeneration Installation Standard" (MIS 3003) which reflect the industry's best practice.

Energy Saving Trust publication "Installing small wind-powered electricity generating systems" (CE72) can be downloaded from:
http://www.energysavingtrust.org.uk/Global-Data/Publications/Installing-small-wind-powered-electricity-generating-systems-CE72

The Microgeneration Certification Scheme publication "Microgeneration Installation Standard" (MIS 3003) can be downloaded from:
http://www.microgenerationcertification.org/installers/installers/installer-standards

Technical drawings



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NOTE:
DOCUMENT FOR REFERENCE ONLY.
CHECK SHEET SIZE AND DRAWING SCALE BEFORE PRINTING.

WHEN PRINTING PDF ENSURE PRINT SCALE IN PRINTER PROPERTIES IS SET TO OFF OR TO NONE

WEIGHTS:
Tower = 2032.4Kg
Turbine Head = 1440Kg
COLOUR
Tower and Frame - Galvanised Grey
Covers - White, RAL9003
Black, RAL9005

REV.	DESCRIPTION	DATE	ECR	GRID REF.	ENG	SNR. ENG.

REVISION HISTORY

GENERAL NOTES
DEBURR ALL SHARP EDGES
WELD SYMBOLS TO B.S.499 PRT 2C
WELDING TO BS EN 1011-2
GALVANISING OF COMPONENTS TO CONFORM TO BS EN ISO 1461

PROVEN
PROVEN ENERGY

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN MILLIMETERS
ANGLES ±0.1°
1 PL ±0.1 2 PL ±0.01

Proj. Ang.

Proven Energy Ltd. Wardhead Park Stewarton KA3 5LH
Scotland Tel +44 (0)1560 485570 info@provenenergy.com

	NAME	DATE
DRAWN	SC	08/06/10
CHECKED	A McN	10/06/10
DWG NO	P35-2 Planning	SIZE A4 / REV A
SCALE	WEIGHT N/A	SHEET 3 OF 5

TITLE: Planning Model Proven 35-2 on Flange Bolted 15m Tower

Material | Finish

Customer No.

Released for PLANNING