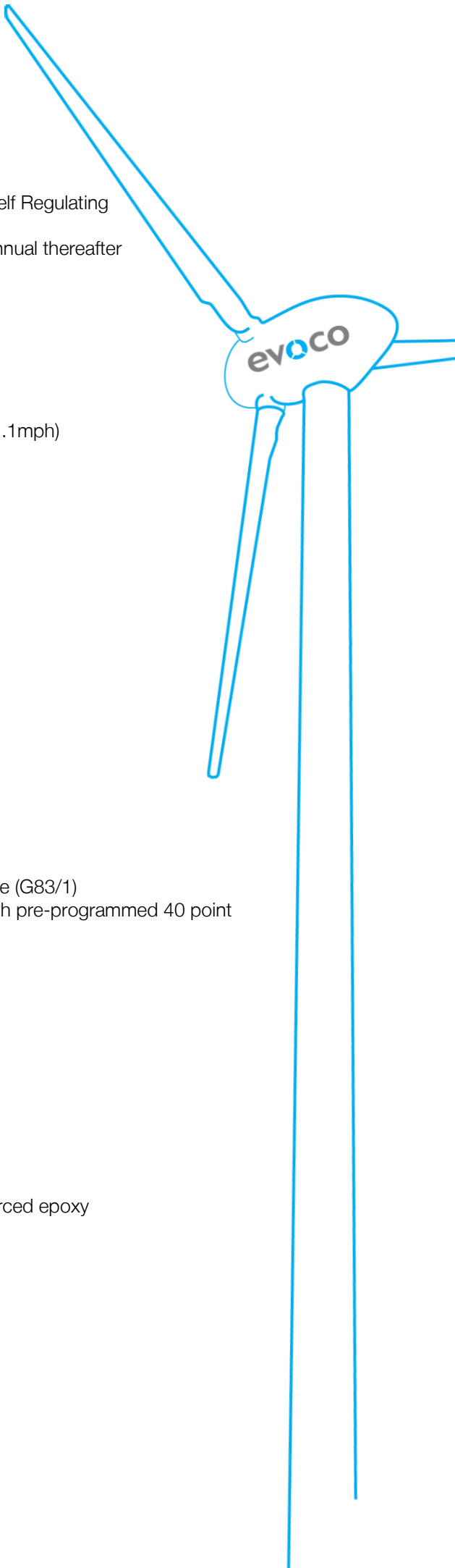
Technical Specification Evoco 10kw



General

Turbine Type:	Downwind Horizontal Axis, Self Regulating
Life expectancy	20 years
Service/maintenance	Initial 3 month inspection / Annual thereafter
Nominal power	10 kW
Cut in wind speed	< 3 m/s (<6.7mph)
Nominal wind speed	10 m/s (22.2mph)
Survival wind speed	59.5 m/s (132mph)
Passive power regulation	Pitch to Stall
Safety	Manual Pitch Control Electrical Brake
Noise emission	<54dB @ 60m and 5m/s* (11.1mph)
Warranty	5 years standard

Estimated Annual Generation

5m/s – 19,000kwh

6m/s – 28,500kwh

7m/s – 37,000kwh

Standards

CE, BS EN 61400, BS7671, BS 5760-7, G-83/1
MCS Product Certification

Electrical

Grid voltage	230V/400V ±10% (1ph/3ph)
Grid frequency	50/60Hz ±3Hz
# Phases	Single (G59/1) or Three-Phase (G83/1)
Converter type	Custom Grid Tied Inverter with pre-programmed 40 point power curve
Control System	Overvoltage Control System

Rotor

Number of blades	3
Diameter	9.6 m
Position	Downwind
Swept area	72 m^2
Speed	Variable 0 – 120rpm @ 10kw
Power regulation	Passive Pitch
Blade length	4.75m
Construction	Carbon and glass fibre reinforced epoxy

Generator

Gearbox	None
Generator	Brushless PMG
Voltage:	0-500V
Frequency	Variable

Tower Options

12m

Type	Tubular – hydraulic tilt up
Number of sections	3
Tower height	12m
Material	Hot dip galvanised steel

15m

Type	Tubular - hydraulic tilt up
Number of sections	4
Tower height	15m
Material	Hot dip galvanised steel

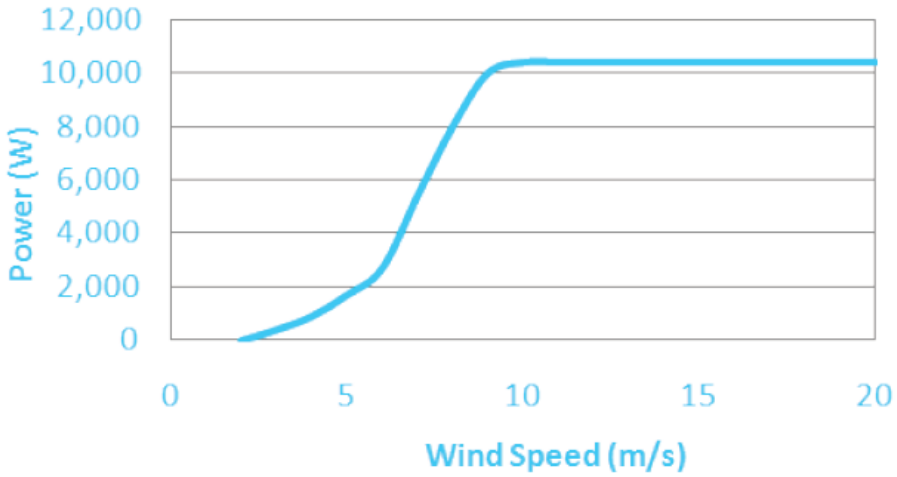
18m

T.B.C	Please call for details

Weights

Nacelle excluding rotor	460	kg
Rotor	375	kg
Blades (each)	50	kg
12m Tower		
Base Section	280	kg
Lower Section	1135	kg
Top Section	650	kg
15m Tower		
Base Section	366	kg
Lower Section	1150	kg
Middle Section	942	kg
Top Section	583	kg

Power Curve



Provisional power curve – Pre-MCS. This power curve has been measured as closely to BS61400/12. This will be updated upon release of MCS approved power curve.

* Full noise report will be available following MCS noise testing

