

Ampair® 10 kW wind turbine

TECHNICAL SPECIFICATIONS

MCS certified product

Eligible for Feed-in-tariffs

Generates power continuously from below 3 m/s

Simple robust design

Tested in the strongest IEC class I wind conditions

Suitable for coastal locations

Multiple tower options

Models for grid connection, battery charging, or direct heating

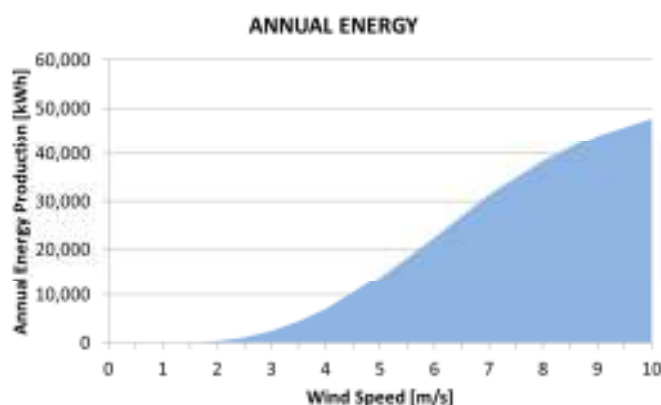
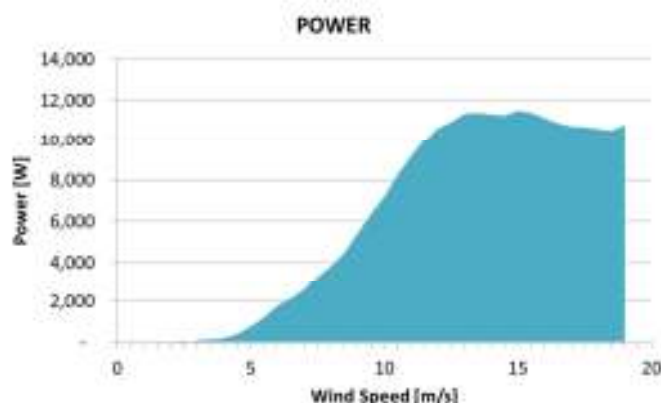


Technical Specifications

Reference Power	9.17 kW at 11.0 m/s (24.6 mph)
Maximum Power	11.48 kW at 15.0 m/s (33.5 mph)
Annual Energy Prod'n	13,971 kWh at 5m/s (11.2 mph) (per IEC, MCS, AWEA, RUK standards)
Rotor Diameter	6.4 m (21.0 ft)
Rotor Swept Area	32.15 m ² (346 ft ²)
Weight	420 kg (926 lb) for nacelle + blades
Type	Upwind 3-bladed HAWT
Control	Passive side-furling and current limiting reactor (choke) with PWM dump load
Direction of Rotation	Clockwise looking downwind
Blades	3 fibreglass reinforced composite
Rotor Speed Range	Design operating 194rpm at 14m/s; maximum 792 rpm
Sound Power Level	88.5 dB(A) at 8 m/s; slope 1.58 dB/m/s
Generator	Permanent magnet brushless
Gearbox	None (direct drive)
Yaw Control	Passive
AC Grid Feeding	Inverter connection for: single phase 220-240V; 50 or 60Hz split phase 440-480V; 50 or 60Hz three phase 380-415V; 50 or 60Hz
DC Battery Charging	120 Vdc
Heating Option	With grid feed model or stand-alone
Braking System	Manually activated furling cable plus dump load and electrical shorting brake
Cut-in Wind Speed	2.95 m/s (6.6 mph)
Reference Wind Speed	11.0 m/s (24.6 mph)
Cut-out Wind Speed	None – continuous generation to survival wind speed
Survival Wind Speed	Tested for IEC class I: V _{ref} (10-min avg) 50 m/s (112 mph) V ₅₀ (3-sec gust) 70 m/s (156 mph)
Manufactured	In the UK by Ampair
Introduced	1984
Certification	MCS certification by BRE (per IEC 61400-2; -12-1; -14)
Warranty	5 years per Ampair Terms & Conditions



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Tower options:

Base hinged tilting monopoles with hydraulic raise/lower: 15 m (49 ft), 18 m (59 ft)

Base hinged tilting monopoles with ginpole winch raise/lower: 15 m (49 ft), 18 m (59 ft)

Guyed tubular with ginpole winch: 18m, 24m, 30m

Ampair

3A Carmavy Road, Crumlin
Co Antrim, BT29 4TF, UK

T. +44 (0) 028 9445 2437

W. www.ampair.com

E. sales@ampair.com

Data taken from MCS Summary Report

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