



WIND TURBINES

400ⁱ (3kW)

Available in 48*, 110, 200 and 300 VDC

- Charging batteries
- Power water pumps
- Use for resistance heating
- Telecommunication sites
- Power the national grid
- Wind solution for hybrid installations

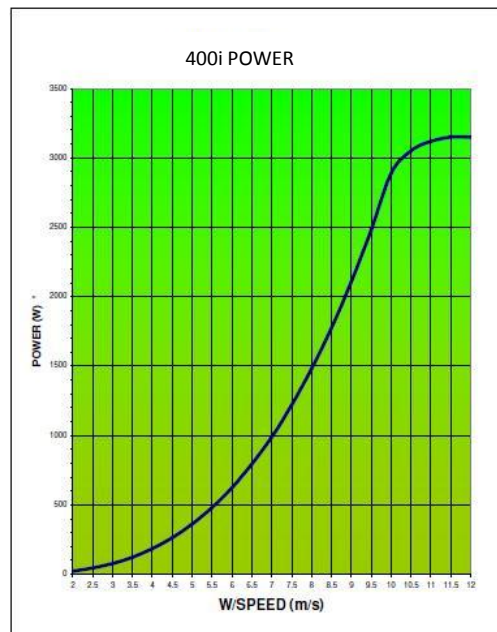


The e400ⁱ is the latest development in the Kestrel range. The completely new 120 pole single axial flux direct drive alternator incorporates three main shaft bearings for long service life. The e400ⁱ maintains rated output in excess wind speeds using Kestrel patented blade pitch control. The e400ⁱ therefore gives an optimum energy harvest with no cut out wind speed. This Kestrel, like the other models optimises low wind and stays in complete control whether loaded or unloaded during excessive wind speeds.

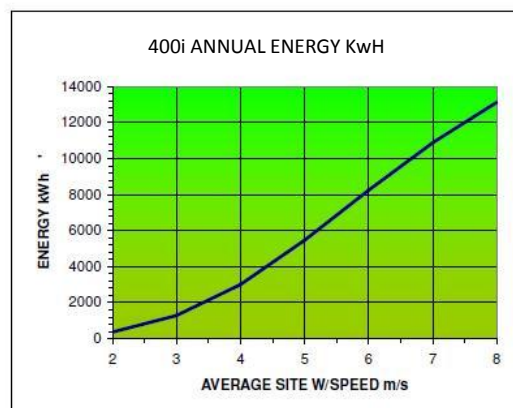
400i PERFORMANCE GRAPHS

NEW EDP 3kW 3 BLADE ROTOR

Average ws m/s	Power bin Wdc
2	23
2.5	45
3	78
3.5	123
4	185
4.5	263
5	361
5.5	481
6	624
6.5	794
7	991
7.5	1219
8	1480
8.5	1775
9	2108
9.5	2479
10	2891
10.5	3050
11	3120
11.5	3150
12	3150



W/SPEED m/s	INLAND WB=2 ANNUAL
2	373
3	1284
4	3006
5	5469
6	8237
7	10879
8	13127



Technical Specifications 400ⁱ (3kW)

Peak Output Power	Wind speed >11m/s	3200W
Power Output 3000W	Wind speed of 11m/s and sea level	11m/s
Rotational Speed	Rotor rpm at rated output	520rpm
Cut in Wind Speed	Wind speed for charging output	2.5m/s
Cut out Wind Speed	Maximum wind speed	N/A
Rotor Diameter	Diameter of swept area	4m
Swept Area	Area of rotor	12.5sq m
Number of Blades	Dual aerodynamic profile	3
Blade Type	Moulded glass fibre epoxy resin	Aerofoil
Lateral Thrust	Horizontal force vector at 10m/s	1500N
Passive Speed Control	Passive Blade Pitching	520rpm
Tower Top Mass	Total wind turbine mass	230kg
Rated Sound Level	Sound emission at 5m/s	<40dB at 100m, <45dB at 60m
Protection	Protected from moisture and dust	IP55
Generator Type	Polyphase brushless permanent magnet	PM 12ph
Output Voltage	Standardised DC output	48, 110, 250Vdc
Warranty	Terms and conditions apply	2 years (extendable)
Routine Maintenance	Subject to prevailing wind power class	Periodic visual inspection

Annual Energy Output:

Annual Energy (kWh) on a 12m tower at sea level

Wind speed (m/s)	48V and 200V
2	158
3 (<i>Johannesburg</i>)	612
4 (<i>Durban</i>)	1368
5 (<i>CapeTown</i>)	2290
6	3238
7 (<i>Pilgrim's Rest</i>)	4108
8	4836

Specifications may vary with continuing development and innovation