





# FORTIS

Great in small turbines



Technical Specification Sheet				
Rating: 1.4kW 10kW				
<b>Model</b>	<b>Espada</b>	<b>Passaat</b>	<b>Montana</b>	<b>Alize</b>
<b>Type</b>	Upwind rotor with variable pitch			
<b>Maximum power<sup>1</sup></b>	800 Watt	1.4 kW	5.8 kW	10 kW
<b>Rated wind speed</b>	17 m/sec	16 m/sec	17 m/sec	13 m/sec
<b>Cut-in wind speed<sup>2</sup></b>	3 m/sec	3 m/sec	2,5m/sec	3 m/sec
<b>Output at 10 m/sec</b>	480 Watt	0,95 kW	2.7 kW	6.6 kW
<b>Rotor diameter</b>	2.2 m	3.12 m	5 m	7 m
<b>No. of Blades</b>	2	3	3	3
<b>Swept area</b>	3.8 m <sup>2</sup>	7.65 m <sup>2</sup>	19.63 m <sup>2</sup>	38.5 m <sup>2</sup>
<b>Blade material</b>	Fibreglass-reinforced epoxy	Fibreglass-reinforced epoxy	Fibreglass-reinforced epoxy	Fibreglass-reinforced epoxy
<b>Yaw control</b>	Passive aligned by tail vane			
<b>Speed regulation</b>	Ecliptic safety system by inclined hinged vane, 90 degree setting of tail, short circuit of generator			
<b>Rated RPM</b>	240 - 1000	180 775	120 450	25 300
<b>Generator Type</b>	Permanent Ne-Fe-Br magnets producing 3 phase AC			
<b>Battery size</b>	12v, 24v, 48v or 120v			
<b>Battery protection</b>	Controller with dumpload PWM switching			
<b>Battery regulator</b>	Available for 12v, 24v, 48v or 120v installations			
<b>Grid feed inverter</b>	1 x 230v	1 x 230v	1 x 230v	1 x 230v or 3 x 400v
<b>Tower height</b>	12 18 m	12 18 m	12-18 m	18 36 m
<b>Standard tower</b>	12 m guyed wire	12 m guyed wire	18 meter guyed wire	24 meter guyed wire
<b>Optional tower</b>	Lattice tower 15-18 m	Lattice tower 15-18 m	Free standing pole 15 18 m	Free standing pole 24 m
<b>Weight</b>	52 kg	75 kg	200 kg	540 kg
<b>Supplier details</b>	Supplier and producer of wind turbines for over 25 years with many world wide installations. Working in close corporation with Dutch Technical Universities, Colleges and the Netherlands Energy Research Foundation ensures they are at the forefront of wind turbine design.			
<b>Main features</b>	5 years guarantee <ul style="list-style-type: none"> <li>• Average lifetime for wind turbine is over 20 years</li> <li>• Maintenance free</li> <li>• Wind turbines from 800 Watt up to 30 kW (Fortis Boreas 30 kW information on request)</li> <li>• Low cut-in wind speed</li> <li>• High performance/price ratio</li> <li>• Direct drive</li> <li>• Automatic furling safety system</li> <li>• Free standing, lattice tower or guyed pole</li> <li>• Electric brake switch</li> </ul>			

<sup>1</sup> Maximum power output at the rated wind speed

<sup>2</sup> 1 metre/second = 2.24 miles per hour = 3.6 kilometres per hour

