




# FORTIS

Great in small turbines



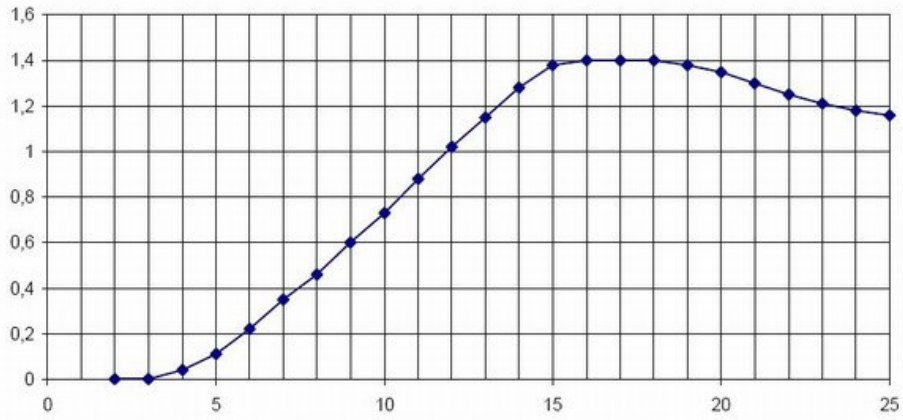
| Technical Specification Sheet  |   |  |   |
|--------------------------------|---|--|---|
|                                |    |  |  |
| Model                          | Passaat   | Montana  | Alize   |
| Type                           | Upwind rotor with variable pitch  |  |   |
| Maximum power <sup>1</sup>     | 1.4 kW  | 5.8 kW   | 10 kW   |
| Rated wind speed               | 16 m/sec  | 17 m/sec   | 13 m/sec  |
| Cut-in wind speed <sup>2</sup> | 3 m/sec   | 2,5m/sec   | 3 m/sec   |
| Output at 11m/sec              | 0.9 kW  | 3.4 kW   | 8.5 kW  |
| Rotor diameter                 | 3.12 m  | 5 m  | 7 m   |
| No. of Blades                  | 3   | 3  | 3   |
| Swept area                     | 7.65 m <sup>2</sup>   | 19.63 m <sup>2</sup>   | 38.5 m <sup>2</sup>   |
| Blade material                 | Fibreglass-reinforced epoxy   | Fibreglass-reinforced epoxy  | Fibreglass-reinforced epoxy   |
| Yaw control                    | Passive aligned by tail vane  |  |   |
| Speed regulation               | Ecliptic safety system by inclined hinged vane, 90 degree setting of tail, short circuit of generator   |  |   |
| Rated RPM                      | 180 – 775   | 120 – 450  | 25 – 300  |
| Generator Type                 | Permanent Ne-Fe-Br magnets producing 3 phase AC   |  |   |
| Battery protection             | Controller with dumpload PWM switching  |  |   |
| Battery regulator              | Available for 12v, 24v, 48v installations   | Available for 48v,120v or 240v installations                                       | Available for 120v or 240v installations  |
| Grid feed inverter             | 1 x 230v  | 1 x 230v   | 1 x 230v or 3 x 400v  |
| Tower height                   | 12 – 18 m   | 12-18 m  | 18 – 36 m   |
| Standard tower                 | 12 m guyed wire   | 18 meter guyed wire  | 24 meter guyed wire   |
| Optional tower                 | Lattice tower 15-18 m   | Free standing pole 15 – 18 m   | Free standing pole 24 m   |
| Weight                         | 75 kg   | 200 kg   | 540 kg  |
| Supplier details               | Supplier and producer of wind turbines for over 25 years with many worldwide 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. |  |   |
| Main features                  | 5 years warranty<br>Average lifetime for wind turbine is over 20 years<br>Maintenance free<br>Low cut-in wind speed<br>High performance/price ratio<br>Direct drive<br>Automatic furling safety system<br>Free standing, lattice tower or guyed pole<br>Electric brake switch |  |   |

<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

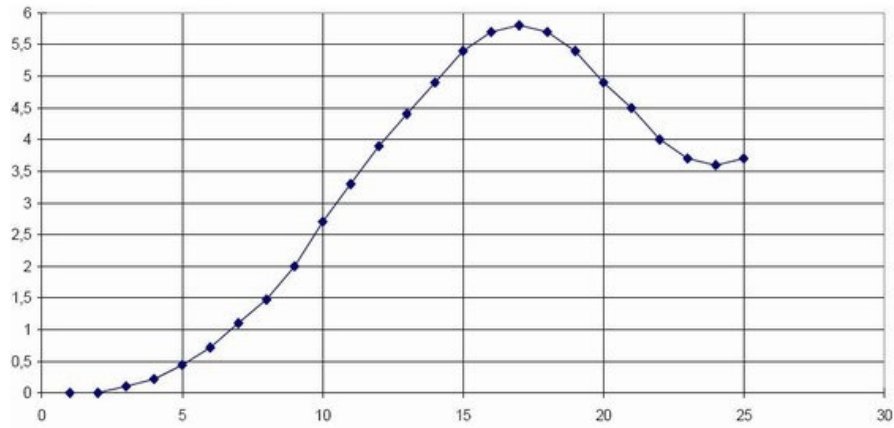
### Passaat powercurve

Rated output (kW)



### Montana powercurve

Rated capacity (kW)



### Alize powercurve

Rated capacity (kW)

