### Data Set Properties

**Report Created:** 9/10/2012 13:30 using Windographer 2.4.6  
**Filter Settings:** <Unflagged data>, Synthesized

<table>
<thead>
<tr>
<th>Variable</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Latitude</td>
<td>N 39° 32' 1.741&quot;</td>
</tr>
<tr>
<td>Longitude</td>
<td>W 105° 0' 38.639&quot;</td>
</tr>
<tr>
<td>Elevation</td>
<td>1745 m</td>
</tr>
<tr>
<td>Start date</td>
<td>9/28/2011 11:30</td>
</tr>
<tr>
<td>End date</td>
<td>6/5/2012 14:10</td>
</tr>
<tr>
<td>Duration</td>
<td>8.3 months</td>
</tr>
<tr>
<td>Length of time step</td>
<td>10 minutes</td>
</tr>
<tr>
<td>Calm threshold</td>
<td>0 m/s</td>
</tr>
<tr>
<td>Mean temperature</td>
<td>3.67 °C</td>
</tr>
<tr>
<td>Mean pressure</td>
<td>82.09 kPa</td>
</tr>
<tr>
<td>Mean air density</td>
<td>1.033 kg/m³</td>
</tr>
<tr>
<td>Power density at 50m</td>
<td>52 W/m²</td>
</tr>
<tr>
<td>Wind power class</td>
<td>1 (Poor)</td>
</tr>
<tr>
<td>Power law exponent</td>
<td>0.13</td>
</tr>
<tr>
<td>Surface roughness</td>
<td>0.008 m</td>
</tr>
<tr>
<td>Roughness class</td>
<td>0.74</td>
</tr>
<tr>
<td>Roughness description</td>
<td>Lawn grass</td>
</tr>
</tbody>
</table>
Wind Speed and Direction

Monthly Wind Speed Profile

Diurnal Wind Speed Profile

Probability Distribution Function

Wind Frequency Rose (18.3 m)

Mean Wind Speed (30.5 m)

Total Wind Energy (30.5 m)
Wind Shear

Vertical Wind Shear Profile

Mean Wind Speed (m/s)

Height Above Ground (m)

Daily Wind Shear Profile

Power Law Exponent

Hour

Monthly Wind Shear Profile

Power Law Exponent

Angle
Turbulence Intensity

Turbulence Intensity at 10.5 m

Representative TI
Mean TI

Turbulence Intensity at 10.5 m

Turbulence Intensity at 10.5 m

Representative TI
Mean TI

Turbulence Intensity at 10.5 m

0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7

Wind Speed (m/s)

Hour of Day
0 6 12 18 24
### Data Column Properties

<table>
<thead>
<tr>
<th>Number</th>
<th>Label</th>
<th>Units</th>
<th>Height</th>
<th>Possible Records</th>
<th>Valid Records</th>
<th>Recovery Rate (%)</th>
<th>Mean</th>
<th>Min</th>
<th>Max</th>
<th>Std. Dev</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>WS10.5</td>
<td>m/s</td>
<td>10.5 m</td>
<td>36,160</td>
<td>35,793</td>
<td>98.99</td>
<td>2.94</td>
<td>0.30</td>
<td>13.20</td>
<td>1.65</td>
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<td>2</td>
<td>WS10.5_SD</td>
<td>m/s</td>
<td>10.5 m</td>
<td>36,160</td>
<td>35,793</td>
<td>98.99</td>
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<td>0.00</td>
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<tr>
<td>3</td>
<td>WD10.5</td>
<td>°</td>
<td>18.3 m</td>
<td>36,160</td>
<td>35,106</td>
<td>97.09</td>
<td>152.7</td>
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<td>345.0</td>
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<td>Synthesized 30.5 m</td>
<td>m/s</td>
<td>30.5 m</td>
<td>36,160</td>
<td>35,793</td>
<td>98.99</td>
<td>3.38</td>
<td>0.34</td>
<td>15.16</td>
<td>1.89</td>
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<tr>
<td>5</td>
<td>Air Density</td>
<td>kg/m³</td>
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<td>36,160</td>
<td>36,160</td>
<td>100.00</td>
<td>1.033</td>
<td>1.033</td>
<td>1.033</td>
<td>0.000</td>
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<td>6</td>
<td>WS10.5_TI</td>
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<td></td>
<td>36,160</td>
<td>35,793</td>
<td>98.99</td>
<td>0.308</td>
<td>0.00</td>
<td>1.387</td>
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<td>7</td>
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<td>35,793</td>
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<tr>
<td>8</td>
<td>WS10.5 WPD</td>
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<td>36,160</td>
<td>35,793</td>
<td>98.99</td>
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Report Settings

Report Created: 9/10/2012 13:35 using Windographer 2.4.6
Report Period: September 2011

Wind Speed Data

Wind Direction Data
Wind Speed Data

Wind Direction Data
Report Settings

Report Created: 9/10/2012 13:39 using Windographer 2.4.6
Report Period: November 2011

Wind Speed Data

Wind Direction Data
Report Settings

Report Created: 9/10/2012 13:38 using Windographer 2.4.6
Report Period: January 2012

Wind Speed Data

Wind Direction Data
**Report Settings**

Report Created: 9/10/2012 13:38 using Windographer 2.4.6  
Report Period: February 2012

**Wind Speed Data**

![Wind Speed Data Chart]

**Wind Direction Data**

![Wind Direction Data Chart]
Report Settings

Report Created: 9/10/2012 13:37 using Windographer 2.4.6
Report Period: March 2012

Wind Speed Data

Wind Direction Data
Report Settings

Report Created: 9/10/2012 13:37 using Windographer 2.4.6
Report Period: April 2012

Wind Speed Data

Wind Direction Data

Report Settings
Report Created: 9/10/2012 13:37 using Windographer 2.4.6
Report Period: May 2012

Wind Speed Data

Wind Direction Data
Report Settings

Report Created: 9/10/2012 13:37 using Windographer 2.4.6
Report Period: June 2012

Wind Speed Data

Wind Direction Data