Overview
The ICEFREE3V vane is an electrically heated potentiometer wind-direction sensor designed for ice-prone sites. With an applied excitation voltage, a ratiometric dc voltage output is produced. The ICEFREE3V is manufactured by Renewable NRG Systems and has an 8 m (26 ft) cable.

Detailed Description
The ICEFREE3V senses wind direction using a potentiometer. With the precision excitation voltage from the data logger applied to the potentiometer element, the output signal is an analog voltage that is directly proportional to the azimuth of the wind direction.

Wiring Information
Gray Cable
- Red - Excitation +

Red Cable
- Black - Reference
- White - Signal
- Shield - Shield

Specifications
- Mechanical Range: 360°
- Electrical Range: 352° (8° open)
- Potentiometer Linearity: Within 1%
- Potentiometer Resistance: 0 to 10 kΩ
- Operating Temperature Range: -40 to +80°C
- Operating Humidity Range: 0 to 100% RH
- Supply Voltage: 24 V ac/dc
- Supply Current Inrush: 8 A (maximum)
- Supply Current Steady State: 1 A at 20°C, 4 A under maximum thermal load (head frozen in clear ice then powered on)
- Body Diameter: 7.0 cm (2.75 in.)

For comprehensive details, visit: www.campbellsci.com/icefree3v
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
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<tbody>
<tr>
<td>Swept Diameter</td>
<td>21.2 cm (8.38 in.)</td>
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<tr>
<td>Center-to-Tail Radius</td>
<td>10.6 cm (4.19 in.)</td>
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<tr>
<td>Cable Length</td>
<td>8 m (26 ft)</td>
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<tr>
<td>Overall Assembly Height</td>
<td>23.9 cm (9.41 in.)</td>
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<tr>
<td>Weight</td>
<td>1.58 kg (2 lb)</td>
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