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ANEMOMETER CALIBRATION REPORT

Test Date: 7 October 2009 ***Revision No: 0***

Customer Information
NRG Systems, Inc.
110 Riggs Road
Hinesburg, VT 05461
USA

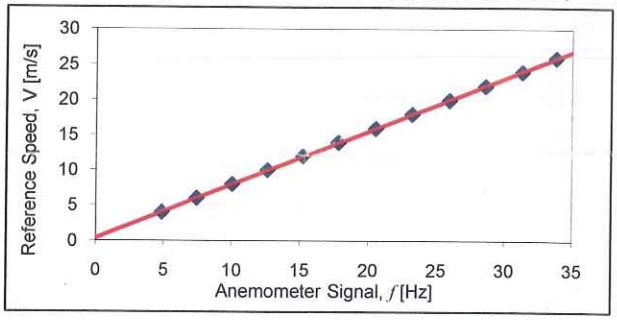
Instrument Under Test (IUT)
Model No: NRG #40
Serial No: 179500130133
Output: AC Sine Wave
Test Procedure: OTECH-CP-001

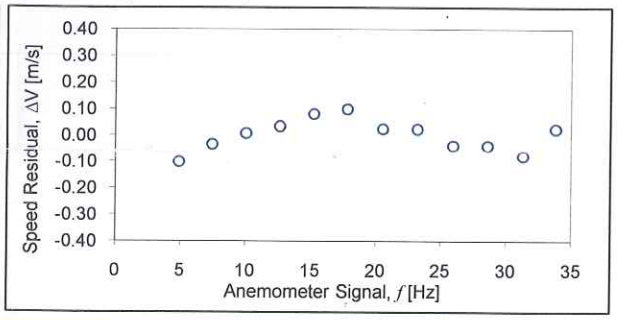
Wind Tunnel Test Facility
Otech Tunnel ID: WT1C
Type: Eiffel (open circuit, suction)
Test Section Size: 0.61 m x 0.61 m x 1.22 m
Manufacturer: Engineering Laboratory Design, Inc.

Data Acquisition
Hardware: National Instruments CDAQ-9172 USB 2.0 chassis with NI 9205 32-chan 16-bit AI module
Software: National Instruments LabVIEW 8.5
Signal Reduction Method for IUT: FFT to determine frequency

Measuring Equipment
Reference Speed: Four United Sensor Type PA Pitot-static tubes sensed by an MKS Barotron Type 220D Differential Pressure Transducer (NIST traceable)
Amb. Pressure: Setra Model 270 Barometer (NIST traceable)
Amb. Temperature: OMEGA HX94 SS Probe (NIST traceable)
Relative Humidity: OMEGA HX94 SS Probe (NIST traceable)

Test Conditions
Reference Speed Position Correction = 1
Reference Speed Blockage Correction = 1
Mean Ambient Pressure = 100,942 Pa
Mean Ambient Temperature = 23.7 deg C
Mean Relative Humidity = 26.2% RH
Mean Density = 1.1814 kg/cubic meter





Transfer Function Test Results: **V [m/s] = 0.756 f [Hz] + 0.39**

r = 0.99996 std. err. estimate = 0.0634 m/s


Note: Generic photo of test set-up

Reference Speed [m/s]	Anemometer Output [Hz]	Residual [m/s]	Ref. Speed Uncertainty
3.980	4.879	-0.102	0.505%
7.991	10.038	0.008	0.478%
11.987	15.227	0.081	0.473%
15.956	20.551	0.025	0.472%
19.971	25.945	-0.039	0.472%
23.977	31.297	-0.079	0.461%
25.966	33.790	0.025	0.468%
21.969	28.590	-0.040	0.470%
17.965	23.209	0.024	0.468%
13.968	17.824	0.099	0.486%
9.977	12.631	0.034	0.469%
5.989	7.447	-0.034	0.485%

Approved By: Rachael Coquilla, Chief Engineer

References available upon request.

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