## **DL Acoustics**

## Research & Consulting in Acoustics

14301 Middletown Lane Westminster, CA 92683 Voice/Fax 714.373.3050 dlubman@dlacoustics.com

7/27/2018

Dr. Dave Gorman National Director HC HVAC Sales AIRSYS North America 915 De La Vina St, Santa Barbara, CA 93101

Subject: Sound Level Determination of an AIRSYS Heat Pump

Installed in a Goleta CA School District Classroom

DL Acoustics has determined the A-Weighted sound levels of a wall-mounted heat pump in a typical furnished but unoccupied\* relocatable (e.g., "portable") classroom in the Goleta, CA School District. The unit tested is identified below.

Manufacturer: Airsys Refrigeration Engineering Technology

Product Name: COM4T

Model: CV36H2A-AWAXX Serial Number: F20218050077

Name and Location of School: Hollister Elementary, 4950 Anita Lane, Santa Barbara CA, 93111

A-Weighted sound level determinations are reported for the following four operating modes:

Modes of Operation for A-Weighted Sound Level Determinations

- (1) high-speed, cooling mode
- (2) low speed, cooling mode
- (3) ventilation fan only (no cooling or heating)
- (4) unit off (classroom ambient noise only)

# **Table of Results**

Operating Mode	Measured LAeq (includes room ambient noise)	Calculated LAeq (Corrected for room ambient noise)
High speed fan Cooling mode	40.5 dBA	39.3 dBA
Low speed fan Cooling mode	37.0 dBA	36.7 dBA
Fan on compressor off	35.2 dBA	34.6 dBA
Room ambient noise Unit off	24.4 dBA	-

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### **Microphone location**

A tripod mounted 1/4" microphone was positioned 5 ft. above the classroom floor, 10 ft. from the unit face, on a line parallel to the floor that passes through the geometrical center of the unit's fan.

#### Calibration

Calibrated measuring instruments employed were: Bruel & Kjaer (B&K) 2270 sound analyzer, 1/4" B&K microphone, B&K model 4231 field calibrator. Apparatus is calibrated annually by a qualified independent third party. Calibration documents are available for inspection at DL Acoustics.

If you have any questions about this report please don't hesitate to contact me by phone at (714) 373-3050 or by email at dlubman@dlacoustics.com.

Sincerely yours,

David Lubman, FASA, FINCE
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