Meridian Test Laboratory™

ABN 23 054 687 035
Compliance testing in accordance with ISO/IEC 17025

Test Report: MTL22-006-ST

Sound Power Level Test Report for the Convair CTA250 – Low Fan Speed

For Seeley International

Meridian Test Laboratory™

TEST REPORT
Sound Power Level

Report Number .....:	MTL22-006-ST
Issue Number.....:	1
Issue Notes .....:	*First Release*
Tested by.....:	Sam Brooke
Approved by.....:	Sam Brooke
Date of Issue .....:	24/03/2022
Total number of pages.....:	6
Testing Laboratory.....:	**Meridian Test Laboratory**
Address .....:	112 O'Sullivan Beach Road, Lonsdale SA 5160, Australia
Test specification .....:	ISO 9614-02
Test location .....:	Meridian Test Laboratory (as per address above)
Test reference.....:	MTL2-003
Date of receipt of test item .....:	5/02/2021
Date(s) of performing tests .....:	5/02/2021
Customer's name .....:	**Seeley International**
Address .....:	112 O'Sullivan Beach Road, Lonsdale SA 5160, Australia

General disclaimer & notes:

The test results presented in this report relate only to the sample as received from the customer.

The sample from hereon in will be referred as the UUT (Unit Under Test).

Data provided by the customer will be clearly identified within the body of this report, and where applicable, further notes will be included if the information supplied can affect the validity of the results.

Document Template Reference: MTLF04-C – Issue 3 – 19-12-2019

UUT particulars:	
Test Item Description.....	Fixed evaporative cooler
Trade Mark	Convair
Manufacturer.....	Seeley International
Model/Type reference	CTA250
Serial number	N/A
Product sample number	SN2203-01 (Sample selected by the customer)
Power Ratings	115V / 60Hz
Dimensions (mm).....	1130 (L) x 650 (H) x 1130 (W)
Speed Setting	Low
Operating Mode ..	Cooling

Photograph of UUT .....

1. Introduction

This report presents the results and test methodology of sound power levels undertaken on evaporative Coolers. The tests were conducted at Seeley International's Lonsdale facility in accordance with ISO 9614-02:1993 (Determination of Sound Power Levels of Noise Sources Using Sound Intensity – Part 2: Measurement Using Scanning Method).

2. Acoustic Environment

a. Meridian Lab 1.
b. Low ambient sounds.
c. Sheet Metal Walls with Insulation.
d. Sheet Metal Floor with Insulation.
e. 2.2m clearance on all sides of unit.

3. Instrumentation

Equipment used to conduct this test is listed below:

Description	Model	Part No.
Brüel & Kjær Hand Held Analyser	2270	3003020
Sound Intensity Microphone Pair and Accessories	4191	2033424
Sound Intensity Probe Pre Amplifiers Head	2683	207879
Sound Intensity Probe Calibrator	4297	3085372
Sound Intensity Probe Handler	NA	NA
Sound Intensity Probe Extension	NA	NA

4. Measurement Setup & Procedure

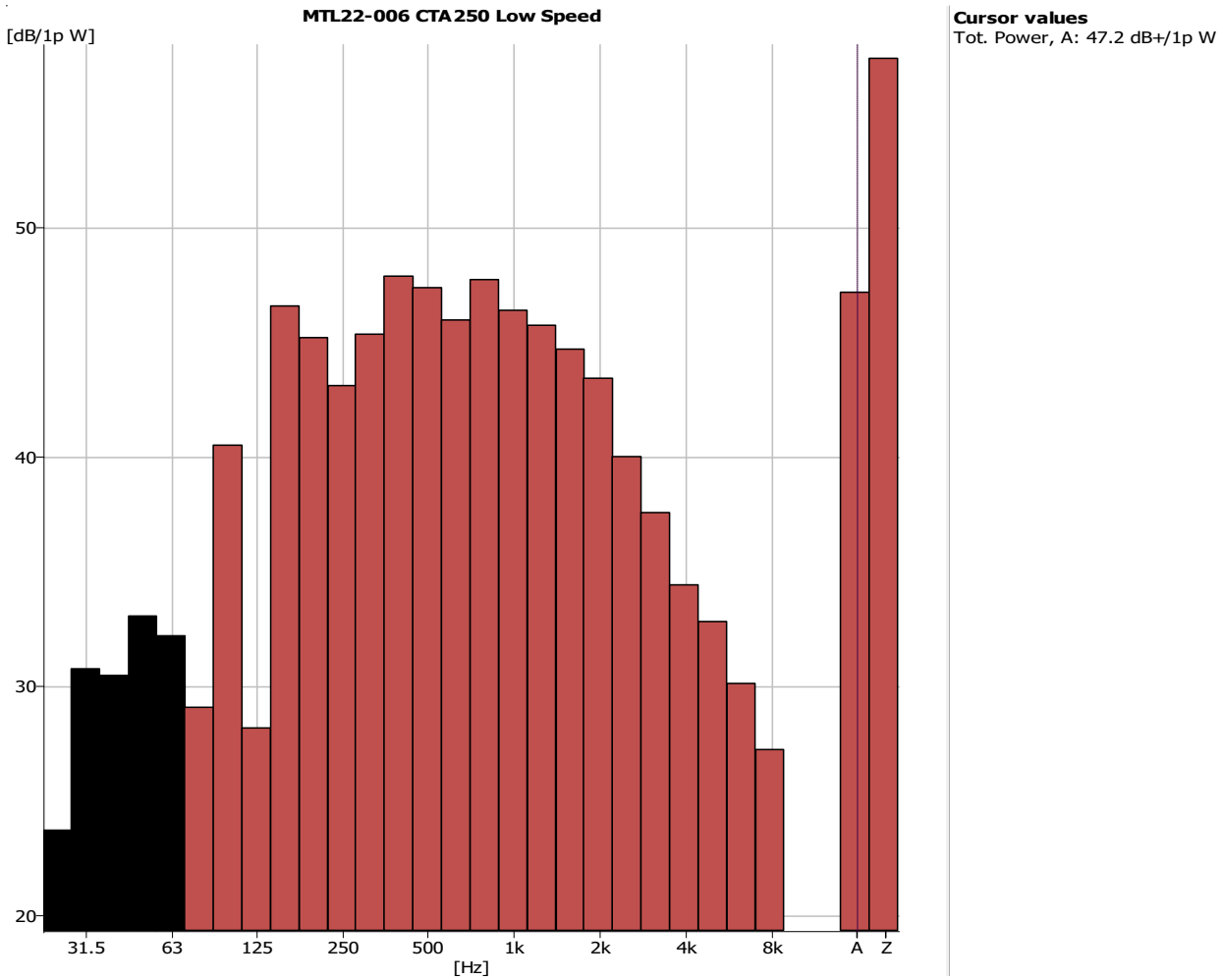
The Meridian Test Laboratory Procedure MTLP35 (for Sound Testing) was followed for this testing. A summary of this procedure is listed below.

a. Ensure the unit is powered and the water turned on.
b. Allowed 1 Hour to stabilize.
c. Selected suitable equipment configuration for test.
d. Ensure the sound meter is calibrated.
e. Take two (35 second) sound measurements for each face of the unit except the bottom, holding intensity probe parallel to unit at a distance of 1 meter while performing the scanning pattern (Note: Probe was supported via an antenna)
f. When all sides have been measured, check the validity of the results using the Sound Meter software. Generate a report if acceptable, or repeat testing if the results are not acceptable.

The UUT (Cooler) was setup as per the photo below:

The cooler was installed with the fan motor shown below:

5. Test Results



Spd	Air inlet Sound Power Level (dB(A) re 1 pW) Third Octave Band Centre Frequency																				Total
	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz	1 kHz	1.25 kHz	1.6 kHz	2 kHz	2.5 kHz	3.2 kHz	4 kHz	5 kHz	6.3 kHz	8 kHz	10 kHz	
Low	41	28	47	45	43.1	45	48	47	46	48	46	46	45	43	40	38	34	33	30	27	19	47

Operational Speed	Air inlet Sound Power Level (dB(A) re 1 pW) Octave Band Centre Frequency							Total Sound Power Level
	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	dB(A) re 1pW
Low Speed	48	49	52	52	48	40	32	47

END OF REPORT