

**AHRI Certified Performance Data for LMHS Single Duct Terminal Units**

**AHRI CERTIFICATION RATING POINTS**

Inlet Size	Rated CFM	Min. Δ Ps	Discharge Data						
			Sound Power @ 1.5" Δ Ps						
			2	3	4	5	6	7	
4	150	0.100	69	64	55	51	49	44	
5	250	0.100	71	69	62	54	50	47	
6	400	0.100	71	70	62	54	50	47	
7	550	0.100	73	72	61	56	53	52	
8	700	0.100	74	71	62	58	54	51	
9	900	0.100	71	68	61	57	54	52	
10	1100	0.100	71	68	63	59	57	54	
12	1600	0.100	74	68	64	61	59	57	
14	2100	0.100	74	68	63	61	59	57	
16	2800	0.100	75	68	64	60	58	56	

**AHRI CERTIFICATION RATING POINTS**

Inlet Size	Rated CFM	Min. Δ Ps	Radiated Data						
			Sound Power @ 1.5" Δ Ps						
			2	3	4	5	6	7	
4	150	0.100	56	49	42	40	37	33	
5	250	0.100	59	52	44	39	35	31	
6	400	0.100	60	58	50	40	36	33	
7	550	0.100	60	57	51	43	39	35	
8	700	0.100	62	59	49	43	38	38	
9	900	0.100	60	56	50	42	39	35	
10	1100	0.100	58	54	50	43	38	32	
12	1600	0.100	64	58	51	46	42	36	
14	2100	0.100	60	56	47	44	41	36	
16	2800	0.100	66	62	56	49	45	42	

NOTES: All sound data is based on tests conducted in accordance with AHRI 880-11. ΔPs is the difference in static pressure from inlet to discharge. Sound power levels are in dB, re 10<sup>-12</sup> Watts. Discharge sound power is the sound emitted from the unit discharge. Radiated sound power is the sound transmitted through the casing walls. Discharge sound power has been corrected for end reflection. NC application data is from AHRI Standard 885-08 Appendix E, as a function of flow rate shown. See Krueger's selection program for specific sound data for optional liners; 1/2", dual density liner shown. See Engineering section for reductions and definitions. AHRI certification points are shown in bold, white font in the sound performance data found on page A2-22 and A2-23.



SINGLE DUCT TERMINAL UNITS

**LMHS Unit Capacities**

**SELECTION EXAMPLE - BASED ON CFM CRITERIA**

A zone exists requiring VAV control. The maximum flow is to be 500 CFM; the minimum is to be 175 CFM, based on heat requirements. Use the table to the right to select a size 6. Note that size 7 will also be capable of controlling the required amount.

**AIRFLOW CAPACITY DETAILS**

1. CFM ranges are factory set on all pressure independent pneumatic control sequences.
2. Factory set minimum CFMs are based on the controller's ability to accurately maintain flow setting. Factory will not set controls outside the ranges indicated.
3. Minimum CFM settings can be set at 0 CFM; however, ventilation requirements can be met by setting a minimum greater than zero. Krueger recommends a minimum setpoint equal to 25% of the nominal flow rating of the terminal.
4. Pressure dependent pneumatic or electric controls do not have the ability to control CFM settings. Therefore, the minimum setting is always zero. A set maximum flow rate is not possible.
5. Check the selected kW value to be sure it does not exceed the recommended 45°F temperature rise.

**Formula:**  $\Delta T = \frac{kW \times 3160}{CFM}$

Discharge temperature must not exceed 120°F.

6. The ASHRAE handbook of fundamentals states that discharge temperatures in excess of 90°F are likely to result in objectionable air temperature stratification in the space. Also, ventilation short circuiting may occur. ASHRAE Standard 62.1 limits discharge temperatures to 90°F or increasing the ventilation rate when heating from the ceiling.

**LMHS, STANDARD UNIT CAPACITIES**

Inlet Size	Max. Primary Airflow - CFM	Min. Airflow - CFM	
		Standard*	Electric Heat **
4	230	40	55
5	360	62	85
6	515	89	110
7	700	121	140
8	920	159	190
9	1160	201	240
10	1430	248	300
12	2060	357	425
14	2800	486	580
16	3660	634	750
22	7000	1212	1800

**LMHS, LOW PROFILE UNIT CAPACITIES**

Inlet Size	Max. Primary Airflow - CFM	Min. Airflow - CFM	
		Standard*	Electric Heat **
4	230	40	55
5	360	62	85
6	515	89	110
7	700	121	140
8	920	159	190
20	2100	420	425

\* The Standard Minimum CFM value is based on a signal of 0.03" WG differential pressure of the inlet sensor. Minimum CFM may be 0. The inlet sensor is capable of reading a signal down to .01" WG. To operate unit below the Standard Minimum CFM values listed, DDC Controller must be capable to accurately read below 0.03" WG.

\*\* Electric heat based on CFM necessary to engage airflow proving safety switch. Minimum CFM of unit will depend on the kW selected for that unit.

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**LMHS Discharge Sound Performance Data**

LMHS, DISCHARGE SOUND DATA

SINGLE DUCT TERMINAL UNITS

Inlet Size	Flow Rate		Min Δ Ps		0.75" Δ Ps							Lp	1.5" Δ Ps							Lp	2.5" Δ Ps							Lp
					Octave Band Sound Power, Lw								Octave Band Sound Power, Lw								Octave Band Sound Power, Lw							
	CFM	(L/s)	"WG	(Pa)	2	3	4	5	6	7	NC	2	3	4	5	6	7	NC	2	3	4	5	6	7	NC			
4	50	(24)	0.011	(2.76)	53	41	35	34	29	25	-	54	42	39	38	33	31	-	55	43	42	41	36	35	-			
	110	(52)	0.054	(13.37)	63	56	47	43	40	34	-	64	58	51	47	44	40	<b>20</b>	65	59	53	50	47	44	<b>21</b>			
	<b>150</b>	(71)	<b>0.100</b>	(24.88)	68	62	52	47	45	38	<b>24</b>	<b>69</b>	<b>64</b>	<b>55</b>	<b>51</b>	<b>49</b>	<b>44</b>	<b>26</b>	69	65	58	54	51	48	<b>27</b>			
	230	(109)	0.235	(58.51)	73	71	58	52	51	43	<b>32</b>	74	72	62	56	55	49	<b>33</b>	75	73	64	59	57	53	<b>34</b>			
5	60	(28)	0.006	(1.43)	49	41	39	31	30	25	-	52	44	44	35	35	31	-	55	47	47	38	38	35	-			
	140	(66)	0.031	(7.80)	60	55	50	43	39	34	-	63	59	55	47	44	40	-	66	61	58	50	48	45	<b>22</b>			
	<b>250</b>	(118)	<b>0.100</b>	(24.88)	67	66	58	50	46	41	<b>25</b>	<b>71</b>	<b>69</b>	<b>62</b>	<b>54</b>	<b>50</b>	<b>47</b>	<b>29</b>	73	72	66	57	54	51	<b>32</b>			
	360	(170)	0.207	(51.60)	72	72	63	55	50	45	<b>31</b>	76	75	67	59	55	51	<b>35</b>	78	78	70	62	58	55	<b>38</b>			
6	100	(47)	0.006	(1.56)	51	47	35	31	33	29	-	55	52	40	35	38	36	-	57	56	44	39	42	41	-			
	250	(118)	0.039	(9.72)	62	59	49	44	41	36	-	66	64	54	48	46	43	<b>23</b>	68	68	58	51	50	48	<b>28</b>			
	<b>400</b>	(189)	<b>0.100</b>	(24.88)	68	65	56	50	45	40	<b>23</b>	<b>71</b>	<b>70</b>	<b>62</b>	<b>54</b>	<b>50</b>	<b>47</b>	<b>29</b>	74	74	66	57	54	52	<b>33</b>			
	520	(245)	0.169	(42.05)	71	68	60	54	47	43	<b>27</b>	74	73	66	58	53	50	<b>33</b>	77	77	70	61	57	55	<b>37</b>			
7	120	(57)	0.005	(1.18)	56	54	33	28	32	32	-	60	60	39	32	38	40	-	63	65	43	34	43	45	<b>25</b>			
	330	(156)	0.036	(8.96)	65	61	48	44	42	41	-	69	68	54	48	48	48	<b>27</b>	72	73	58	50	52	54	<b>32</b>			
	<b>550</b>	(260)	<b>0.100</b>	(24.88)	69	65	56	53	47	45	<b>23</b>	<b>73</b>	<b>72</b>	<b>61</b>	<b>56</b>	<b>53</b>	<b>52</b>	<b>31</b>	76	76	66	59	57	58	<b>37</b>			
	700	(330)	0.162	(40.31)	71	67	59	57	49	47	<b>24</b>	75	73	65	60	55	54	<b>32</b>	78	78	69	62	59	60	<b>38</b>			
8	160	(76)	0.005	(1.30)	57	51	42	34	37	33	-	60	57	48	39	42	40	-	62	61	53	42	47	45	-			
	440	(208)	0.040	(9.83)	66	61	52	47	45	41	-	69	67	58	52	51	48	<b>25</b>	72	71	62	55	55	53	<b>30</b>			
	<b>700</b>	(330)	<b>0.100</b>	(24.88)	70	66	56	53	49	44	<b>24</b>	<b>74</b>	<b>71</b>	<b>62</b>	<b>58</b>	<b>54</b>	<b>51</b>	<b>31</b>	76	76	67	61	58	56	<b>36</b>			
	920	(434)	0.173	(42.98)	73	68	59	56	51	46	<b>26</b>	76	74	65	61	57	53	<b>33</b>	78	78	69	64	61	58	<b>38</b>			
9	200	(94)	0.005	(1.23)	50	46	35	32	35	35	-	53	51	39	36	40	42	-	55	54	43	39	44	46	-			
	550	(260)	0.037	(9.29)	62	57	49	46	44	42	-	65	62	54	50	50	48	-	67	66	57	53	53	53	<b>24</b>			
	<b>900</b>	(425)	<b>0.100</b>	(24.88)	68	63	56	53	49	46	-	<b>71</b>	<b>68</b>	<b>61</b>	<b>57</b>	<b>54</b>	<b>52</b>	<b>25</b>	73	71	64	59	58	56	<b>30</b>			
	1160	(547)	0.166	(41.34)	72	66	60	56	52	47	<b>23</b>	74	71	65	60	57	53	<b>29</b>	76	74	68	63	60	58	<b>33</b>			
10	250	(118)	0.005	(1.29)	50	48	40	38	39	37	-	53	53	45	42	45	43	-	55	57	48	45	49	48	-			
	700	(330)	0.040	(10.08)	62	58	52	49	48	45	-	65	63	57	54	53	51	<b>21</b>	68	67	61	57	57	55	<b>26</b>			
	<b>1100</b>	(519)	<b>0.100</b>	(24.88)	68	63	58	54	51	48	-	<b>71</b>	<b>68</b>	<b>63</b>	<b>59</b>	<b>57</b>	<b>54</b>	<b>26</b>	73	72	67	62	61	58	<b>30</b>			
	1450	(684)	0.174	(43.24)	71	66	61	58	53	50	<b>23</b>	74	71	66	62	59	56	<b>29</b>	77	74	70	65	63	61	<b>33</b>			
12	400	(189)	0.006	(1.56)	52	47	39	42	42	42	-	56	52	43	46	47	48	-	58	56	46	50	50	52	-			
	1000	(472)	0.039	(9.72)	64	58	53	52	50	48	-	68	63	57	56	55	54	-	70	67	60	60	58	58	<b>24</b>			
	<b>1600</b>	(755)	<b>0.100</b>	(24.88)	71	63	60	57	54	51	<b>22</b>	<b>74</b>	<b>68</b>	<b>64</b>	<b>61</b>	<b>59</b>	<b>57</b>	<b>26</b>	77	72	67	65	62	61	<b>30</b>			
	2060	(972)	0.166	(41.25)	74	66	63	59	56	52	<b>26</b>	78	71	68	64	61	58	<b>30</b>	80	75	71	67	64	63	<b>34</b>			
14	480	(227)	0.005	(1.30)	47	44	33	39	38	40	-	50	48	37	43	42	46	-	52	52	39	46	45	50	-			
	1375	(649)	0.043	(10.67)	64	58	53	52	50	48	-	67	62	56	56	54	54	-	69	65	58	59	57	58	<b>22</b>			
	<b>2100</b>	(991)	<b>0.100</b>	(24.88)	71	63	60	58	55	52	<b>22</b>	<b>74</b>	<b>68</b>	<b>63</b>	<b>61</b>	<b>59</b>	<b>57</b>	<b>26</b>	76	71	66	64	62	62	<b>29</b>			
	2800	(1321)	0.178	(44.24)	75	67	66	61	58	54	<b>28</b>	78	71	69	65	62	60	<b>32</b>	81	75	71	68	65	64	<b>35</b>			
16	630	(297)	0.005	(1.26)	41	37	22	31	30	29	-	44	41	26	34	35	34	-	47	45	28	37	38	38	-			
	1775	(838)	0.040	(10.00)	62	55	49	48	46	44	-	65	60	52	52	51	50	-	68	63	55	55	54	54	-			
	<b>2800</b>	(1321)	<b>0.100</b>	(24.88)	71	63	60	56	53	51	<b>23</b>	<b>75</b>	<b>68</b>	<b>64</b>	<b>60</b>	<b>58</b>	<b>56</b>	<b>27</b>	77	71	66	63	61	60	<b>30</b>			
	3660	(1727)	0.171	(42.52)	77	68	67	61	58	55	<b>30</b>	80	72	71	64	62	60	<b>34</b>	83	76	73	67	65	64	<b>37</b>			
22	1200	(566)	0.005	(1.27)	67	57	55	50	46	38	-	73	65	58	55	51	44	<b>25</b>	78	70	60	59	55	49	<b>31</b>			
	3300	(1557)	0.039	(9.64)	78	69	71	65	61	56	<b>31</b>	84	77	73	70	67	62	<b>39</b>	88	82	76	74	71	67	<b>44</b>			
	5300	(2501)	0.100	(24.86)	83	75	78	72	69	65	<b>37</b>	89	82	81	77	74	71	<b>45</b>	93	88	83	81	78	76	<b>51</b>			
	7000	(3304)	0.174	(43.37)	86	78	82	76	73	70	<b>41</b>	92	86	85	81	78	76	<b>49</b>	96	91	87	85	82	81	<b>54</b>			

NOTES: Discharge sound power is the sound emitted from the unit discharge. All sound data is based on tests conducted in accordance with AHRI 880-11 and corrected for end reflection. Sound power levels are in dB, re 10<sup>-12</sup> Watts. ΔPs is the difference in static pressure from inlet to discharge. NC application data is from AHRI Standard 885-08 Appendix E, as a function of flow rate shown. AHRI certification points are shown in bold, white font. For a complete list of AHRI certified data, see page A2-4. All other data points listed are application ratings outside the scope of the Certification Program. See Krueger's selection program for specific sound data for optional liners; 1/2", dual density liner shown. Dash indicates a NC is less than 20. See Engineering section for reductions and definitions.

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**LMHS Radiated Sound Performance Data**
**LMHS, RADIATED SOUND DATA**

Inlet Size	Flow Rate		Min Δ Ps		0.75" Δ Ps							Lp	1.5" Δ Ps							Lp	2.5" Δ Ps							Lp
					Octave Band Sound Power, Lw								Octave Band Sound Power, Lw								Octave Band Sound Power, Lw							
					2	3	4	5	6	7	NC		2	3	4	5	6	7	NC		2	3	4	5	6	7	NC	
4	50 (24)	0.011 (2.76)	37	28	24	23	17	10	-	38	29	27	25	19	15	-	38	30	30	27	21	18	-					
	110 (52)	0.054 (13.37)	50	42	34	33	30	23	-	51	43	38	35	32	28	-	51	45	40	37	34	31	-					
	<b>150 (71)</b>	<b>0.100 (24.88)</b>	55	47	39	37	35	29	-	<b>56 49 42 40 37 33</b>	-	56	50	45	41	39	37	-	56	50	45	41	39	37	-			
	230 (109)	0.235 (58.51)	62	55	45	43	42	36	<b>24</b>	62	57	48	45	44	40	<b>26</b>	63	58	51	47	46	44	<b>27</b>					
5	60 (28)	0.006 (1.43)	38	21	17	12	8	6	-	43	26	22	15	11	12	-	47	30	26	18	14	17	-					
	140 (66)	0.031 (7.80)	47	36	30	26	22	17	-	52	41	35	29	25	23	-	56	45	39	32	28	28	-					
	<b>250 (118)</b>	<b>0.100 (24.88)</b>	53	47	39	36	31	25	-	<b>59 52 44 39 35 31</b>	<b>20</b>	62	55	47	41	38	36	<b>25</b>	62	55	47	41	38	36	<b>25</b>			
	360 (170)	0.207 (51.60)	57	53	44	42	37	30	<b>21</b>	62	58	49	45	41	36	<b>27</b>	66	62	53	47	44	41	<b>31</b>					
6	100 (47)	0.006 (1.56)	43	35	24	15	10	6	-	46	40	28	20	16	13	-	49	44	31	24	20	19	-					
	250 (118)	0.039 (9.72)	52	47	38	28	23	19	-	56	52	43	33	29	26	-	58	55	46	37	33	32	<b>24</b>					
	<b>400 (189)</b>	<b>0.100 (24.88)</b>	57	53	46	35	30	26	<b>21</b>	<b>60 58 50 40 36 33</b>	<b>27</b>	63	61	53	43	40	38	<b>31</b>	63	61	53	43	40	38	<b>31</b>			
	520 (245)	0.169 (42.05)	60	56	50	39	34	29	<b>25</b>	63	61	54	43	39	37	<b>30</b>	65	64	57	47	43	42	<b>35</b>					
7	120 (57)	0.005 (1.18)	38	42	25	17	12	7	-	42	47	31	21	16	14	-	44	51	35	24	19	19	-					
	330 (156)	0.036 (8.96)	50	48	38	31	27	22	-	54	54	44	36	31	28	<b>22</b>	57	58	49	39	34	33	<b>27</b>					
	<b>550 (260)</b>	<b>0.100 (24.88)</b>	56	52	45	39	34	29	-	<b>60 57 51 43 39 35</b>	<b>26</b>	63	61	55	46	42	40	<b>31</b>	63	61	55	46	42	40	<b>31</b>			
	700 (330)	0.162 (40.31)	59	53	48	42	38	32	<b>23</b>	63	59	54	46	42	38	<b>29</b>	66	63	59	50	45	43	<b>34</b>					
8	160 (76)	0.005 (1.30)	45	39	27	22	18	16	-	48	45	34	27	23	23	-	50	49	39	30	27	28	-					
	440 (208)	0.040 (9.83)	55	49	38	33	28	26	-	58	54	45	38	33	33	<b>23</b>	60	59	50	41	37	38	<b>28</b>					
	<b>700 (330)</b>	<b>0.100 (24.88)</b>	59	53	43	38	32	31	<b>21</b>	<b>62 59 49 43 38 38</b>	<b>28</b>	64	63	55	46	41	43	<b>33</b>	64	63	55	46	41	43	<b>33</b>			
	920 (434)	0.173 (42.98)	62	56	45	41	35	34	<b>24</b>	65	62	52	46	40	41	<b>31</b>	67	66	57	49	44	46	<b>37</b>					
9	200 (94)	0.005 (1.23)	38	36	21	22	21	19	-	42	42	26	26	26	27	-	44	47	29	29	30	33	-					
	550 (260)	0.037 (9.29)	50	45	38	33	30	24	-	54	51	42	37	35	32	-	56	56	45	40	39	38	<b>25</b>					
	<b>900 (425)</b>	<b>0.100 (24.88)</b>	56	49	46	38	34	27	-	<b>60 56 50 42 39 35</b>	<b>24</b>	62	60	53	45	43	41	<b>30</b>	62	60	53	45	43	41	<b>30</b>			
	1160 (547)	0.166 (41.34)	59	52	50	41	37	28	<b>24</b>	63	58	54	45	42	36	<b>28</b>	65	63	57	48	46	42	<b>32</b>					
10	250 (118)	0.005 (1.29)	33	33	17	16	11	3	-	39	39	21	20	19	14	-	43	44	23	24	25	23	-					
	700 (330)	0.040 (10.08)	46	43	37	31	24	15	-	52	50	41	36	32	27	-	56	54	44	40	38	35	<b>23</b>					
	<b>1100 (519)</b>	<b>0.100 (24.88)</b>	52	48	46	38	30	21	<b>20</b>	<b>58 54 50 43 38 32</b>	<b>24</b>	62	59	52	46	44	41	<b>28</b>	62	59	52	46	44	41	<b>28</b>			
	1450 (684)	0.174 (43.24)	55	51	52	42	33	24	<b>26</b>	61	57	55	47	42	36	<b>30</b>	66	62	58	51	48	44	<b>33</b>					
12	400 (189)	0.006 (1.56)	42	44	29	24	20	15	-	46	49	33	28	24	20	-	50	53	37	31	28	25	<b>21</b>					
	1000 (472)	0.039 (9.72)	54	50	41	36	32	25	-	58	55	45	40	36	31	<b>23</b>	61	58	48	43	40	35	<b>27</b>					
	<b>1600 (755)</b>	<b>0.100 (24.88)</b>	60	53	47	42	38	31	<b>22</b>	<b>64 58 51 46 42 36</b>	<b>28</b>	67	61	54	49	46	41	<b>32</b>	67	61	54	49	46	41	<b>32</b>			
	2060 (972)	0.166 (41.25)	63	55	50	45	41	33	<b>26</b>	67	59	54	49	46	39	<b>32</b>	71	63	58	52	49	43	<b>36</b>					
14	480 (227)	0.005 (1.30)	35	35	19	24	21	18	-	39	40	22	27	24	22	-	43	44	25	30	27	26	-					
	1375 (649)	0.043 (10.67)	50	46	37	36	33	28	-	54	51	40	39	37	32	-	58	55	43	42	39	36	<b>24</b>					
	<b>2100 (991)</b>	<b>0.100 (24.88)</b>	56	51	44	41	38	32	-	<b>60 56 47 44 41 36</b>	<b>25</b>	64	60	50	47	44	40	<b>29</b>	64	60	50	47	44	40	<b>29</b>			
	2800 (1321)	0.178 (44.24)	60	54	49	44	41	34	<b>23</b>	65	59	52	48	45	39	<b>28</b>	68	63	55	50	47	42	<b>33</b>					
16	630 (297)	0.005 (1.26)	38	36	29	28	25	22	-	43	43	34	33	32	30	-	47	48	38	37	38	36	-					
	1775 (838)	0.040 (10.00)	54	49	44	39	34	30	-	59	56	49	44	41	38	<b>25</b>	62	61	53	48	47	44	<b>31</b>					
	<b>2800 (1321)</b>	<b>0.100 (24.88)</b>	60	55	51	44	38	34	<b>25</b>	<b>66 62 56 49 45 42</b>	<b>31</b>	69	67	60	53	51	48	<b>38</b>	69	67	60	53	51	48	<b>38</b>			
	3660 (1727)	0.171 (42.52)	64	58	55	47	41	36	<b>30</b>	70	65	60	52	48	44	<b>36</b>	73	70	64	55	53	50	<b>42</b>					
22	1200 (566)	0.005 (1.27)	51	50	41	42	39	37	-	56	55	51	49	44	41	<b>25</b>	59	59	58	54	48	44	<b>33</b>					
	3300 (1557)	0.039 (9.64)	65	61	55	53	51	47	<b>30</b>	69	66	65	60	56	51	<b>41</b>	73	69	73	66	60	54	<b>49</b>					
	5300 (2501)	0.100 (24.86)	71	66	62	58	56	52	<b>37</b>	76	71	72	66	61	56	<b>48</b>	79	74	79	71	65	59	<b>56</b>					
	7000 (3304)	0.174 (43.37)	75	69	66	62	59	55	<b>42</b>	80	74	76	69	65	59	<b>52</b>	83	77	83	74	69	61	<b>60</b>					

NOTES: Radiated sound power is the sound transmitted through the casing walls. All sound data is based on tests conducted in accordance with AHRI 880-11. Sound power levels are in dB, re 10<sup>-12</sup> Watts. ΔPs is the difference in static pressure from inlet to discharge. NC application data is from AHRI Standard 885-08 Appendix E, as a function of flow rate shown. AHRI certification points are shown in bold, white font. For a complete list of AHRI certified data, see page A2-4. All other data points listed are application ratings outside the scope of the Certification Program. See Krueger's selection program for specific sound data for optional liners; 1/2", dual density liner shown. Dash indicates a NC is less than 20. See Engineering section for reductions and definitions.