**AIR-TERM GRAVITEC THERMODYNAMIC NATURAL VENTILATION SPECIFICATION FOR WALL LOUVER TYPE AWL-ALUMINIUM**

**Diagram Description:**
- **Dimensions:**
  - Dimension "C": 6" (6"
  - Dimension "D": 11"

**Table:**

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Tag</th>
<th>Quantity</th>
<th>2&quot; Wide Opening (L)</th>
<th>3&quot; Wide Opening (R)</th>
<th>4&quot; Wide Opening (R)</th>
<th>5&quot; Wide Opening (L)</th>
<th>6&quot; Wide Opening (L)</th>
<th>7&quot; Wide Opening (L)</th>
<th>8&quot; Wide Opening (L)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

**Options:**

**Comments:**

**Optional Actuator:**

**Special Finish:**

- **Frame:** 6" Deep Channel, 0.125" Thickness
  - 6063-T5 Extruded Aluminium Alloy
- **Blades:** 0.125" Thickness 6063-T5 Extruded Aluminium Alloy
- **Finish:** Mill
- **Screen:** (Optional) located on exterior
- **Axles:** 1/2" Diameter Aluminium
- **Bearings:** Delrin Bushing
- **Linkage:** Aluminium High Bracket
- **Drumming:** 1) Actuator (Mechanical) or 2) Locking Device (Manual)

**Date:** [Date]
**AT-Code:** [Code]
**Project:** [Project Name]
**Client:** [Client Name]
**Consulting Engineers:** [Consulting Engineers]
**Order No.:** [Order Number]

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**AIR-TERM INC.**

**www.air-therm.com**

*DESIGN TO ENNE PRINTED: REVISIONS AND ERRORS TO BE NOTIFIED*
TECHNICAL SPECIFICATIONS:

- Maximum panel size: 96” (height) x 68”
- Dimensions “A” (width) and “B” (height) are opening size. Louvers are made 1/4”
- Percent free area: 90%
- Free area velocity at beginning point of water penetration: 0.01 oz H2O/sq.ft.: 1.09 ft/min (5.43 m/s)
- Air volume flow rate at beginning point of water penetration: 4 ft x 4 ft unit: 6.75 cfm (3.19 cum/s)
- Pressure drop at beginning point of water penetration: 0.12 in H2O (0.040 kPa)
- Industrial quality hardware.

AIRFLOW RESISTANCE
(Standard Air - .075 lbs/cu. ft.)

Louver Performance Ratings
Free Area Chart - 90° Open
(Given in sq. feet and sq. m)

<table>
<thead>
<tr>
<th>WIDTH (in. and mm)</th>
<th>24</th>
<th>36</th>
<th>48</th>
<th>60</th>
<th>67</th>
</tr>
</thead>
<tbody>
<tr>
<td>61 (150)</td>
<td>3.6</td>
<td>5.4</td>
<td>7.2</td>
<td>9.0</td>
<td>11.1</td>
</tr>
<tr>
<td>61.4 (156)</td>
<td>0.53</td>
<td>0.54</td>
<td>0.67</td>
<td>0.84</td>
<td>0.93</td>
</tr>
<tr>
<td>61.4 (156)</td>
<td>0.50</td>
<td>0.75</td>
<td>1.00</td>
<td>1.25</td>
<td>1.40</td>
</tr>
<tr>
<td>61.9 (158)</td>
<td>0.67</td>
<td>1.06</td>
<td>1.34</td>
<td>1.67</td>
<td>1.87</td>
</tr>
<tr>
<td>62 (157)</td>
<td>0.84</td>
<td>1.25</td>
<td>1.67</td>
<td>2.09</td>
<td>2.33</td>
</tr>
<tr>
<td>63 (160)</td>
<td>0.90</td>
<td>1.31</td>
<td>1.80</td>
<td>2.25</td>
<td>2.51</td>
</tr>
<tr>
<td>64 (163)</td>
<td>1.00</td>
<td>1.54</td>
<td>2.01</td>
<td>2.51</td>
<td>2.80</td>
</tr>
<tr>
<td>65 (165)</td>
<td>1.26</td>
<td>1.83</td>
<td>2.52</td>
<td>3.15</td>
<td>3.52</td>
</tr>
<tr>
<td>66 (168)</td>
<td>1.17</td>
<td>1.74</td>
<td>2.34</td>
<td>2.93</td>
<td>3.27</td>
</tr>
<tr>
<td>66 (168)</td>
<td>1.44</td>
<td>2.14</td>
<td>2.88</td>
<td>3.60</td>
<td>4.02</td>
</tr>
<tr>
<td>68 (173)</td>
<td>1.34</td>
<td>2.01</td>
<td>2.67</td>
<td>3.34</td>
<td>3.73</td>
</tr>
</tbody>
</table>

NOTE:
Openings that require multiple louver panels in both width and height will require internal structural supports. It is recommended that large openings be divided with structural members so that the louveres span either width or height with a single panel. Unusually high wind loading may require structural supports on non-multiple wide and multiple high assemblies. Structural supports and mounting accessories are not supplied by Air-Therm Inc.
EXTRUDED ALUMINIUM, 6" DEEP, 40° ADJUSTABLE LOUVERS

- FRAME: 6" DEEP CHANEL, 0.125" THICKNESS 6063-T5 EXTRUDED ALUMINIUM ALLOY.
- BLADES: 0.125" THICKNESS 6063-T5 EXTRUDE ALUMINIUM ALLOY.
- FINISH: MILL
- SCREEN: (OPTIONAL) LOCATED ON EXTERIOR
- AXLES: 1/2" DIAMETER ALUMINIUM
- BEARINGS: DELRIN BUSHING
- LINKAGE: PLATED STEEL HIGH BRACKET, 5/16" DIA.
  PLATED STEEL LINKAGE ROD
- DRIVING: ACTUATOR (MECHANICAL) OR CHAIN (MANUAL)

- MAXIMUM PANEL SIZE: 96" (HEIGHT) x 60" (WIDTH)
- MINIMUM PANEL SIZE: 12" x 12"
- DIMENSIONS "A" (WIDTH) AND "B" (HEIGHT) ARE OPENING SIZE. LOUVERS ARE MADE 1/4" UNDERSIZE
- INDUSTRIAL QUALITY HARDWARE.

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LEAKAGE:
We have shown two leakage values. The higher values are without seals, lower values are with operational blade and jamb seals. Values shown are at 1 in. wg differential pressure.

OPERATING FORCE FACTOR:
Louvers are normally operated by applying a force to the blade to blade linkage whereas dampers are driven through the blade axes. Because of this fact, simple operating torques cannot be published.
EXTRUDED ALUMINIUM, 6" DEEP, 45° FIXED STATIONARY LOUVERS

- **FRAME:** 6" DEEP CHANEL, 0.125" THICKNESS 6063-T5 EXTRUDED ALUMINIUM ALLOY.

- **BLADES:** 0.125" THICKNESS 6063-T5 EXTRUDE ALUMINIUM ALLOY.

- **FINISH:** MILL

- **SCREEN:** (OPTIONAL) LOCATED ON EXTERIOR

- **MAXIMUM PANEL SIZE:** 96" (HEIGHT) x 144" (WIDTH)
- **MINIMUM PANEL SIZE:** 12" x 12"

- **DIMENSIONS** "A" (WIDTH) AND "B" (HEIGHT) ARE OPENING SIZE. LOUVERS ARE MADE 1/4" UNDERSIZE.

- **PANELS OVER 48" WIDE WILL HAVE A VERTICAL INTERIOR BLADE SUPPORT AT CENTER OF PANELS.**
- **PANELS OVER 96" WIDE WILL HAVE TWO VERTICAL INTERIOR BLADE SUPPORTS**

- **INDUSTRIAL QUALITY HARDWARE.**

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**Water Penetration:** 0.01 oz. (3.0 g.) at 646 fpm (3.28 m/s) recommended free area velocity

**Pressure Drop:** 0.07 in. wg. (17.5 Pa) at 646 fpm (3.28 m/s) and 5220 SCFM (2.46 cm/s)

**Free Area:** 8.08 sq ft (0.751 sq m) = 50% for 48" X 48" (1.22 m X 1.22 m) test size

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**PRESSURE DROP**

<table>
<thead>
<tr>
<th>WIDTH (in.)</th>
<th>12</th>
<th>24</th>
<th>36</th>
<th>48</th>
<th>60</th>
<th>72</th>
<th>96</th>
<th>120</th>
<th>144</th>
</tr>
</thead>
<tbody>
<tr>
<td>VELOCITY (fpm)</td>
<td>200</td>
<td>400</td>
<td>600</td>
<td>800</td>
<td>1000</td>
<td>1200</td>
<td>1400</td>
<td>1600</td>
<td>1800</td>
</tr>
</tbody>
</table>

**LOUVER FREE AREA IN SQUARE FEET (sq. ft)**

<table>
<thead>
<tr>
<th>HEIGHT (ft)</th>
<th>12</th>
<th>24</th>
<th>36</th>
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<th>96</th>
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<td>800</td>
<td>1000</td>
<td>1200</td>
<td>1400</td>
<td>1600</td>
<td>1800</td>
</tr>
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**LOUVER WATER PENETRATION**

Both maximum recommended free area velocity and beginning of water penetration are 646 fpm at standard air - 0.076 lbs/cu ft

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