Application and Design

EHH-601DE is a Florida Product Approved and Miami-Dade Approved stationary horizontal blade wind driven rain extruded aluminum louver designed to protect air intake and exhaust openings in building exterior walls. EHH-601DE is tested in accordance with AMCA 500-L Air Performance, Water Penetration and Wind Driven Rain. In addition, louvers shall pass AMCA 540 Test Method for Louvers Impacted by Wind Borne Debris (Basic Protection, Missile Level D and Enhanced Protection, Missile Level E). EHH-601DE is licensed to bear the AMCA seal allowing design professionals to select and apply with confidence. EHH-601DE is tested and approved per the following Florida test protocols: TAS 201 (Large Missile Impact), TAS 202 (Uniform Static Air Pressure) and TAS 203 (Cyclic Wind Loading). Per Miami-Dade EHH-601DE may be installed in locations where the space behind the louver is designed to accept water penetration and houses water resistant/water proof equipment, components or supplies.

Standard Construction

Frame . . . . . . Heavy gauge extruded aluminum, 6 in. x 0.081 in. nominal wall thickness, front 1.5 in. flange (optional on channel frame installation)
Blades . . . . . . Horizontal rain resistant style, heavy gauge extruded aluminum, 0.081 in. nominal wall thickness, positioned on approximately 2 in. blade spacing
Construction . . . . Mechanically Fastened
Birdscreen . . . . 3/4 in. x 0.051 in. flattened expanded aluminum in removable frame, inside mount (rear), mill finish only
Finish . . . . . . . Mill
Sill Pan . . . . . . 0.063 formed aluminum

Minimum Rough Opening Size . . . . 12 in. W x 7 in. H
Maximum Rough Opening Size
Channel Frame . . . . 48.75 in. W x 48.50 in. H
Flange/Sleeve . . . . 48.5 in. W x 48.50 in. H

Options (at additional cost)
- Factory attached VCD-40 control damper
- A variety of bird and insect screens
- Flange Frame (Channel Frame Installation)
- Mounting Sleeve
- Blank-off panel
- Filter rack
- Security bars
- A variety of architectural finishes including:
  - Clear anodize
  - Integral color anodize
  - Baked enamel
  - Kynar

Channel Frame Installation (default)

Flange/Sleeve Installation (optional)
Wind-Driven Rain Performance

<table>
<thead>
<tr>
<th>Test Size</th>
<th>Free Area Velocity (fpm)</th>
<th>Ventilation Air Core Velocity (fpm)</th>
<th>Water Penetration</th>
</tr>
</thead>
<tbody>
<tr>
<td>48 in. x 48 in.</td>
<td>75 mm/h (3 in./hr) Rainfall &amp; 13 m/s (29 mph) Wind Velocity</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>202 mm/h (8 in./hr) Rainfall &amp; 22 m/s (50 mph) Wind Velocity</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Discharge Loss Coefficient Class (Intake) = 2

Weather louvers shall be classified by their ability to reject simulated rain. The table shows different classifications based on the maximum simulated rain penetration per square meter (square feet) of louver. Water penetration rating at a given louver face velocity is determined by the water penetration while the louver is subjected to a selected simulated rainfall rate and wind velocity.

Airflow Resistance (Standard Air -.075 lb/ft³)

The AMCA Water Penetration Test provides a method for comparing various louver models and designs as to their efficiency in resisting the penetration of rainfall under specific laboratory test conditions. The beginning point of water penetration is defined as that velocity where the water penetration curve projects through 0.01 oz. of water (penetration) per sq. ft. of louver free area.

The beginning point of water penetration for Model EHH-601DE is above 1250 fpm free area velocity. These performance ratings do not guarantee a louver to be weather-proof or stormproof and should be used in combination with other factors including good engineering judgement in selecting louvers.

Note: AMCA licensed performance data shown herein pertains only to the louver and does not include effects of the factory attached VCD-40 damper.
## Free Area Chart (sq. ft.)

<table>
<thead>
<tr>
<th>Louver Height Inches</th>
<th>12</th>
<th>18</th>
<th>24</th>
<th>30</th>
<th>36</th>
<th>42</th>
<th>48</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>0.07</td>
<td>0.12</td>
<td>0.17</td>
<td>0.21</td>
<td>0.26</td>
<td>0.31</td>
<td>0.36</td>
</tr>
<tr>
<td>12</td>
<td>0.23</td>
<td>0.38</td>
<td>0.53</td>
<td>0.67</td>
<td>0.82</td>
<td>0.97</td>
<td>1.12</td>
</tr>
<tr>
<td>18</td>
<td>0.47</td>
<td>0.77</td>
<td>1.07</td>
<td>1.36</td>
<td>1.66</td>
<td>1.96</td>
<td>2.26</td>
</tr>
<tr>
<td>24</td>
<td>0.71</td>
<td>1.16</td>
<td>1.61</td>
<td>2.05</td>
<td>2.50</td>
<td>2.95</td>
<td>3.40</td>
</tr>
<tr>
<td>30</td>
<td>0.95</td>
<td>1.55</td>
<td>2.15</td>
<td>2.74</td>
<td>3.34</td>
<td>3.94</td>
<td>4.54</td>
</tr>
<tr>
<td>36</td>
<td>1.11</td>
<td>1.81</td>
<td>2.50</td>
<td>3.20</td>
<td>3.90</td>
<td>4.60</td>
<td>5.30</td>
</tr>
<tr>
<td>42</td>
<td>1.35</td>
<td>2.19</td>
<td>3.04</td>
<td>3.89</td>
<td>4.74</td>
<td>5.59</td>
<td>6.44</td>
</tr>
<tr>
<td>48</td>
<td>1.58</td>
<td>2.58</td>
<td>3.58</td>
<td>4.58</td>
<td>5.58</td>
<td>6.58</td>
<td>7.58</td>
</tr>
</tbody>
</table>

## Core Area Chart (sq. ft.)

<table>
<thead>
<tr>
<th>Louver Height Inches</th>
<th>12</th>
<th>18</th>
<th>24</th>
<th>30</th>
<th>36</th>
<th>42</th>
<th>48</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>0.20</td>
<td>0.32</td>
<td>0.45</td>
<td>0.57</td>
<td>0.70</td>
<td>0.82</td>
<td>0.95</td>
</tr>
<tr>
<td>12</td>
<td>0.53</td>
<td>0.86</td>
<td>1.19</td>
<td>1.53</td>
<td>1.86</td>
<td>2.19</td>
<td>2.53</td>
</tr>
<tr>
<td>18</td>
<td>0.92</td>
<td>1.51</td>
<td>2.09</td>
<td>2.67</td>
<td>3.26</td>
<td>3.84</td>
<td>4.42</td>
</tr>
<tr>
<td>24</td>
<td>1.32</td>
<td>2.15</td>
<td>2.99</td>
<td>3.82</td>
<td>4.65</td>
<td>5.49</td>
<td>6.32</td>
</tr>
<tr>
<td>30</td>
<td>1.72</td>
<td>2.80</td>
<td>3.88</td>
<td>4.97</td>
<td>6.05</td>
<td>7.13</td>
<td>8.22</td>
</tr>
<tr>
<td>36</td>
<td>2.11</td>
<td>3.44</td>
<td>4.78</td>
<td>6.11</td>
<td>7.44</td>
<td>8.78</td>
<td>10.11</td>
</tr>
<tr>
<td>42</td>
<td>2.51</td>
<td>4.09</td>
<td>5.67</td>
<td>7.26</td>
<td>8.84</td>
<td>10.42</td>
<td>12.01</td>
</tr>
<tr>
<td>48</td>
<td>2.90</td>
<td>4.74</td>
<td>6.57</td>
<td>8.40</td>
<td>10.24</td>
<td>12.07</td>
<td>13.90</td>
</tr>
</tbody>
</table>

## Building Condition/Substrate Limitations

### Channel Installation
- All steel substrate should be min. 16 Ga. FY= 33 KSI
- All concrete substrate shall be min. 2000 PSI
- All concrete masonry shall be ASTM C90, Type II, grout-filled
- All wood substrate shall be G= 0.42 density or better
- All aluminum substrate shall be min 0.125 in. thick FY=16 KSI

### Flange/Sleeve Installation
- Any substrate acceptable that is capable of withstanding imposed loads.
Maximum Wind-load: +/-150 PSF

**Flange/Sleeve Installation (optional)**
- Min. Structure Depth
  - 6.0 in.
- Max. Structure Depth
  - 10.5 in. (12 in. sleeve)
  - 14.5 in. (16 in. sleeve)

**Channel Frame Installation (default)**
- Min. Structure Depth
  - 6.8 in. (wood substrate)
  - 5.9 in. (steel substrate)
  - 5.8 in. (aluminum substrate)
  - 6.3 in. (concrete substrate)
  - 7.3 in. (CMU substrate)
- Max. Structure Depth
  - unlimited
For additional information reference the Installation, Operation and Maintenance (IOM) manuals.