Contents

날개형상 Impeller Shape .................................................. 3
제품특징 Product Characteristic ........................................ 3
AMCA Seal 정보 AMCA Seal Information ................................ 3
주요용도 Main Application .................................................. 4
Fan 구조 Fan Structure ...................................................... 4
Fan 선정 방법 Fan Select Method ......................................... 5
성능곡선 Performance Data ................................................ 6
치수표 Overall Dimension .................................................. 15
Dong Hae Engineering Co., Ltd. is in charge of various projects including apartment building and plant construction during the 25 years of working in the field of HVAC. We hold the best engineers who have high ability and various experiences in each project. We are doing continuous investment on R&D for new technology and product, according to the needs of various construction enterprises.

**날개형상 (Impeller Shape)**

- 날개 각의 길이가 길고 폭이 좁다.
- 날개의 각이 회전방향의 횡단면으로 교선을 이루고 있다. (회전면)
- 날개 매수가 타기 종 높다.
- The length of blades is long and narrow.
- The side of blades curves in the rear of rotation direction. (cross section of Airfoil)
- Fewer blades than other product

**제품특징 (Product Features)**

- 동일 공량과 정압 차원에서 기장 효율이 높다.
- 회전면을 통해 원활한 유동량가 flow 구성으로 고속 회전시에도 저소음이다.
- 공량 변동에 의한 공량의 변화가 적기 좋은데, 등급의 변화는 없다.
- Suction vane damper의 설치로 원활한 공량조절이 가능하며 효율적인 에너지관리가 용이하다.
- Compared with other centrifugal fans, Efficiency is very high on the same airflow and pressure condition.
- Providing a smooth flow at high speed at the time of low noise, through the cross section of airfoil.
- The change of wind pressure by the airflow fluctuation is small, and the change of shaft power is never.
- It adjusts easily air and pressure as installation of Suction Vane damper and manages easily efficient of energy.

**AMCA Seal 정보 (AMCA Seal Information)**

국제 공기 유동 및 제어 협회(AMCA)는 세계 공조 시스템 설비 제조업체의 비영리 협회입니다. 또한, 협회는 산업용, 상업용, 주거용 시장의 편, 루버, 램프, 메이커트, 공기 측정 장소, 응향 감소기 등의 다른 공조 시스템 구성요소도 포함합니다.

협회의 목표는 공기 유동 및 제어 산업의 변형과 공공의 이익과 성장을 추구하는 것입니다. AMCA는 공조산업을 위해 자체 규정을 제시합니다. 편, 램프, 루버 구매자는 AMCA 국제 인증의 약속을 인식하고 있을 필요가 있습니다.
Dong Hae Engineering Co., Ltd. certifies that the Centrifugal Fans shown here in is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program. Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories). Power rating kW does not include transmission losses.

Dong Hae기연의 원심형 휀은 인증에 근거하여 AMCA SEAL이 부착됩니다. 표시된 등급은 AMCA 발행물 211과 AMCA 발행물 311과 AMCA 등급인증 프로그램(AMCA CRP) 필요조건에 따라 실험 및 절차가 진행되는 것을 근거로 한다. 표시된 성능은 흡입구, 덕트 토출구로 설치된 B타입니다. 성능 비율은 부속품 영향을 받는 것을 포함하지 않는다. 동력 비율 kW는 운전손실을 포함하지 않는다.

The Air Movement and Control Association (AMCA) International, Inc. is a not-for-profit international association of the world’s manufacturers of related air system equipment—primarily, but not limited to: fans, louvers, dampers, air curtains, airflow measurement stations, acoustic attenuators, and other air system components for the industrial, commercial and residential markets.

The association’s mission is to promote the health and growth of the air movement and control industry consistent with the interest of the public. AMCA International is a valuable resource and a strong means of self-regulation for our industry. People who buy and specify fans, dampers, and louvers need to be aware of the value of the AMCA International seal.

- Semiconductor equipment, Hume hood exhaust fan
- Clean room booth supply, exhaust fan
- A.H.U and such air conditioning equipment
- The drying equipment and The nuclear power plant, The local ventilation
- Subway film of oil supply, exhaust fan, Air washer fan
- The diverse general industrial compulsion blower equipment
How to read Air Performance Data-Typical example

Model Reference  
**BAI 630 D**

**Double Suction**

**Impeller Dia (mm)**

**FAN Series (Air foil Fan)**

<table>
<thead>
<tr>
<th>ex) Air Volume</th>
<th>Static Pressure</th>
<th>Fan Speed</th>
<th>Total Efficiency</th>
<th>Shaft Power</th>
<th>Sound</th>
</tr>
</thead>
<tbody>
<tr>
<td>377 CMM</td>
<td>153 mmAq</td>
<td>1770 rpm</td>
<td>79%</td>
<td>12.4 kW</td>
<td>93 dB</td>
</tr>
</tbody>
</table>

**Performance Data BAI 630 D**

**Performance Curve**  
(Air Volume and Static Pressure Curve on Fan Speed)

**Total Efficiency Curve**  
(Efficiency Curve on Air Volume and Static Pressure)

**Sound**  
(Inlet Sound Power Level : LwiA [dB])

*An intersecting point of Performance Curve and Efficiency Curve

**Shaft Power Curve**  
(Shaft Power Curve on Air Volume and Static Pressure)

팬 회전 과 토출방향 (Fan Rotation and Discharge)

팬의 회전과 토출방향은 AMCA 표준 99-2406-03에 따릅니다.
회전방향은 팬의 구동 측으로부터 결정됩니다.

The rotation and discharge of the fan is in accordance with AMCA standard 99-2406-03.
The direction of rotation is determined from the drive side of the fan:

**모터 위치 (Motor Position)**

 벨트 구동 원심형 팬의 모터 방향은 AMCA 표준 99-2407-03에 따릅니다.
모터의 위치는 팬의 구동측 면과 지정된 위치인 W,X,Y,Z로 결정됩니다.

The position of the motor for belt drive centrifugal fan is in accordance with AMCA standard 99-2407-03.
Location of motor is determined by facing the drive side of fan and designating the positions by letters W, X, Y, or Z.
Performance Data BAI 315 D

Wheel Dia: 315mm  \( \rho = 1.2 \text{ kg/m}^3 \)

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwiA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.

Performance Data BAI 355 D

Wheel Dia: 355mm  \( \rho = 1.2 \text{ kg/m}^3 \)

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwiA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.
Performance Data **BAI 400 D**

Wheel Dia : 400mm  \( \rho = 1.2 \text{ kg/m}^3 \)

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwiA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.

<table>
<thead>
<tr>
<th>Q [ m³/min ]</th>
<th>0</th>
<th>30</th>
<th>60</th>
<th>90</th>
<th>120</th>
<th>150</th>
<th>180</th>
<th>210</th>
<th>240</th>
<th>270</th>
<th>300</th>
</tr>
</thead>
<tbody>
<tr>
<td>LwiA [dB]</td>
<td>750</td>
<td>980</td>
<td>1210</td>
<td>1440</td>
<td>1670</td>
<td>1900</td>
<td>2130</td>
<td>2360</td>
<td>2590</td>
<td>2820</td>
<td>3050</td>
</tr>
</tbody>
</table>

| rpm | 3395 | 3180 | 2970 | 2760 | 2550 | 2340 | 2130 | 1920 | 1710 | 1500 | 1290 |

<table>
<thead>
<tr>
<th>Q [ m³/hr ]</th>
<th>0</th>
<th>3000</th>
<th>6000</th>
<th>9000</th>
<th>12000</th>
<th>15000</th>
<th>18000</th>
</tr>
</thead>
<tbody>
<tr>
<td>LwiA [dB]</td>
<td>750</td>
<td>980</td>
<td>1210</td>
<td>1440</td>
<td>1670</td>
<td>1900</td>
<td>2130</td>
</tr>
</tbody>
</table>

---

Performance Data **BAI 450 D**

Wheel Dia : 450mm  \( \rho = 1.2 \text{ kg/m}^3 \)

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwiA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.

<table>
<thead>
<tr>
<th>Q [ m³/min ]</th>
<th>0</th>
<th>30</th>
<th>60</th>
<th>90</th>
<th>120</th>
<th>150</th>
<th>180</th>
<th>210</th>
<th>240</th>
<th>270</th>
<th>300</th>
</tr>
</thead>
<tbody>
<tr>
<td>LwiA [dB]</td>
<td>750</td>
<td>980</td>
<td>1210</td>
<td>1440</td>
<td>1670</td>
<td>1900</td>
<td>2130</td>
<td>2360</td>
<td>2590</td>
<td>2820</td>
<td>3050</td>
</tr>
</tbody>
</table>

| rpm | 3020 | 2810 | 2600 | 2390 | 2180 | 1970 | 1760 | 1550 | 1340 | 1130 | 920 |

<table>
<thead>
<tr>
<th>Q [ m³/hr ]</th>
<th>0</th>
<th>3000</th>
<th>6000</th>
<th>9000</th>
<th>12000</th>
<th>15000</th>
<th>18000</th>
</tr>
</thead>
<tbody>
<tr>
<td>LwiA [dB]</td>
<td>750</td>
<td>980</td>
<td>1210</td>
<td>1440</td>
<td>1670</td>
<td>1900</td>
<td>2130</td>
</tr>
</tbody>
</table>

---

Dong Hae Engineering Co., LTD.
**Performance Data BAI 500 D**

Wheel Dia : 500mm  \( \rho = 1.2 \text{ kg/m}^3 \)

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwaA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.

---

**Performance Data BAI 560 D**

Wheel Dia : 560mm  \( \rho = 1.2 \text{ kg/m}^3 \)

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwaA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.
Performance Data BAI 630 D

Wheel Dia: 630mm

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwiA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.

Performance Data BAI 710 D

Wheel Dia: 710mm

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwiA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.
Performance Data BAI 800 D

Wheel Dia: 800mm

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwiA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.

Performance Data BAI 900 D

Wheel Dia: 900mm

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwiA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.
Performance Data BAI 1000 D

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwiA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.

Performance Data BAI 1120 D

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwiA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.
Performance Data BAI 1250 D

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwiA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.

Performance Data BAI 1400 D

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwiA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.
Performance Data **BAI 1600 D**

Wheel Dia: 1600mm

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.

---

Performance Data **BAI 1800 D**

Wheel Dia: 1800mm

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.
Performance Data BAI 2000 D

- Wheel Dia: 2000mm
- ρ = 1.2 kg/m³

Performance Data BAI 2240 D

- Wheel Dia: 2240mm
- ρ = 1.2 kg/m³

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwiA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.
## OVERALL DIMENSION - BAI “D” SERIES

<table>
<thead>
<tr>
<th>Fan Model</th>
<th>BAI 315D</th>
<th>BAI 355D</th>
<th>BAI 400D</th>
<th>BAI 450D</th>
<th>BAI 500D</th>
<th>BAI 560D</th>
<th>BAI 630D</th>
<th>BAI 710D</th>
<th>BAI 800D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inlet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Width</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Center Height</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outlet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outlet Length</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Side Length</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FAN Base (G2+M)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Height</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fan Model</th>
<th>BAI 900D</th>
<th>BAI 1000D</th>
<th>BAI 1120D</th>
<th>BAI 1250D</th>
<th>BAI 1400D</th>
<th>BAI 1600D</th>
<th>BAI 1800D</th>
<th>BAI 2000D</th>
<th>BAI 2240D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inlet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Width</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Center Height</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outlet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outlet Length</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Side Length</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FAN Base (G2+M)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Height</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Motor Base</th>
<th>Fr. No.</th>
<th>80M</th>
<th>90L</th>
<th>100L</th>
<th>112M</th>
<th>132S</th>
<th>132M</th>
<th>160M</th>
<th>160L</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>390</td>
<td>390</td>
<td>390</td>
<td>460</td>
<td>460</td>
<td>460</td>
<td>510</td>
<td>510</td>
</tr>
<tr>
<td></td>
<td>Fr. No.</td>
<td>180M</td>
<td>180L</td>
<td>200L</td>
<td>225S</td>
<td>250S</td>
<td>250M</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>650</td>
<td>650</td>
<td>750</td>
<td>750</td>
<td>890</td>
<td>890</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
서울사무소
서울특별시 영등포구 여의도동 45-20 동북D/D 10F
Tel : 02-785-0381(代)
Fax: 02-785-0872
Homepage : www.fansys.com
E-Mail : strong@fansys.com

공 장
인천광역시 남동구 고잔동 652-8 남동공단104B – 9L
Tel : 032-811-0036(代)
Fax: 032-811-0038
Homepage : www.fansys.com
E-Mail : donghae@fansys.com