

INLINE TYPE

MIXED FLOW FAN

BMI SERIES



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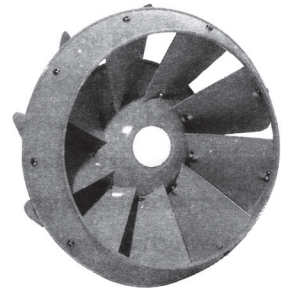
동해기연(주)는 25년 동안 아파트 건물 냉난방 및 플랜트 건설 분야를 포함한 다양한 프로젝트를 담당하고 있다.

우리는 뛰어난 능력 과 각 프로젝트에서 얻은 다양한 경험을 가진 최고의 기술자들을 보유하고 있다. 건설 회사에서 요구하는 새로운 제품과 기술을 위한 연구 개발에 지속적인 투자를 한다.

Dong Hae Engineering Co., Ltd. is in charge of various projects including apartment building and plant construction during the 25years 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)

- 원심형과 축류형 흐름을 통합한 날개구조로 주판이 약 45~55도의 경사면을 형성하고 있다.
- 유체가 45방향으로 유입후 보스면을 따라 유동한다.
- 날개수량은 9이며 폭이 넓다.
- 날개의 각은 5단계로 변경할 수 있는 구조를 갖추고 있다.
- 금형으로 제작하여 볼트 체결형 구조이며, 가벼워서 기동부하가 적다.
- Impeller forms a combination of centrifugal type flow and axial type flow, and the main plate forms about a sloping side of 45 to 55 degrees.
- Air flow circulates along boss side after inflow from a 45 degrees direction.
- The number of blades is nine and wide.
- The angle of blades is the variable structure of a five stage.
- Impeller is the structure of bolt joints, made of a die, and operational load is low because of light weight.



제품특징 (Product Features)

- 흡입구와 토출측 Guide van의 유체역학적 해석구조로 저소음이다.
- 사각 덕트 연결이 용이 하고 설치 공간이 동일 용량이 적다.
- 풍량 변동에 의한 정압의 변화는 작으며, 동력의 변화 폭도 적다.
- 가변익 날개로서 풍량 조절이 가능하며 경제적 운전이 가능하다.
- 흡입재를 통한 2차 소음감소로 동일용량 중 가장 소음이 적다.
- The guide van of inlet and outlet side of Fluid dynamical and Structural Analysis is low sound.
- The square ducts connect easily, and compared with other equal qualification fans, Installation area is small.
- The change in the pressure by the airflow fluctuation is small, and the change of shaft power is small.
- Impeller adjusts easily air Volume, and economical driving is possible.
- Compared with other equal qualification fans, sound is the most low with a secondary noise reduction through acoustic absorbent.

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 팬, 루버, 댐퍼, 에어 커튼, 공기 측정 장소, 음향 감쇠기 등의 다른 공조 시스템 구성요소도 포함합니다. 협회의 목표는 공기 유동 및 제어 산업의 번영과 공공의 이익과 성장을 촉진하는 것입니다. AMCA는 공조산업을 위해 자체 규정을 제시합니다. 팬, 댐퍼, 루버 구매자는 AMCA 국제 인증의 의미를 인식하고 있을 필요가 있습니다.



- 동해기연(주)의 원심형 팬은 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 B타입입니다. 성능 비율은 부속품 영향을 받는 것을 포함하지 않는다. 동력 비율 kW는 운전손실을 포함하지 않는다.

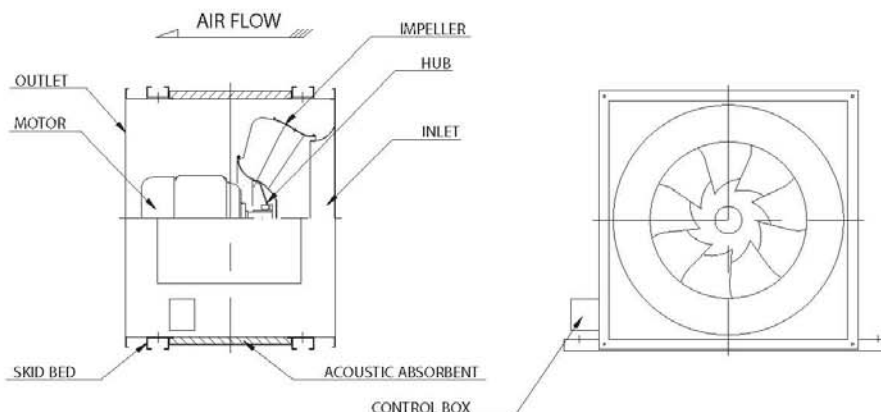
The Air Movement and Control Association (AMCA) International, Inc. is a not-for-profit international association of the world's manufacturers of related air system equipment—primarily, but not limited to: fans, louvers, dampers, air curtains, airflow measurement stations, acoustic attenuators, and other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

- 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.

주요용도 (Main application)

- 기계실, 전기실, 발전기실 배기용
- 소음 chamber(BSI "D" 대체품)
- 공조환기용
- 소방제연설비(가압급기용)
- 주차장(급, 배기용) 설치공간을 덕트 라인으로 유도하여 지상면적 활용에 용이하다.
- Machine room, generator room, electricity room exhaust fan
- Sound chamber (BSI "D" type alternative product)
- Air conditioning equipment
- Firefighting smoke control supply. exhaust fan (pressurized supply)
- Installation location of underground parking induce with duct line, and the ground manage practical use. (supply. exhaust fan)

Fan 구조 (Fan Structure)



How to read Air Performance Data- Typical example

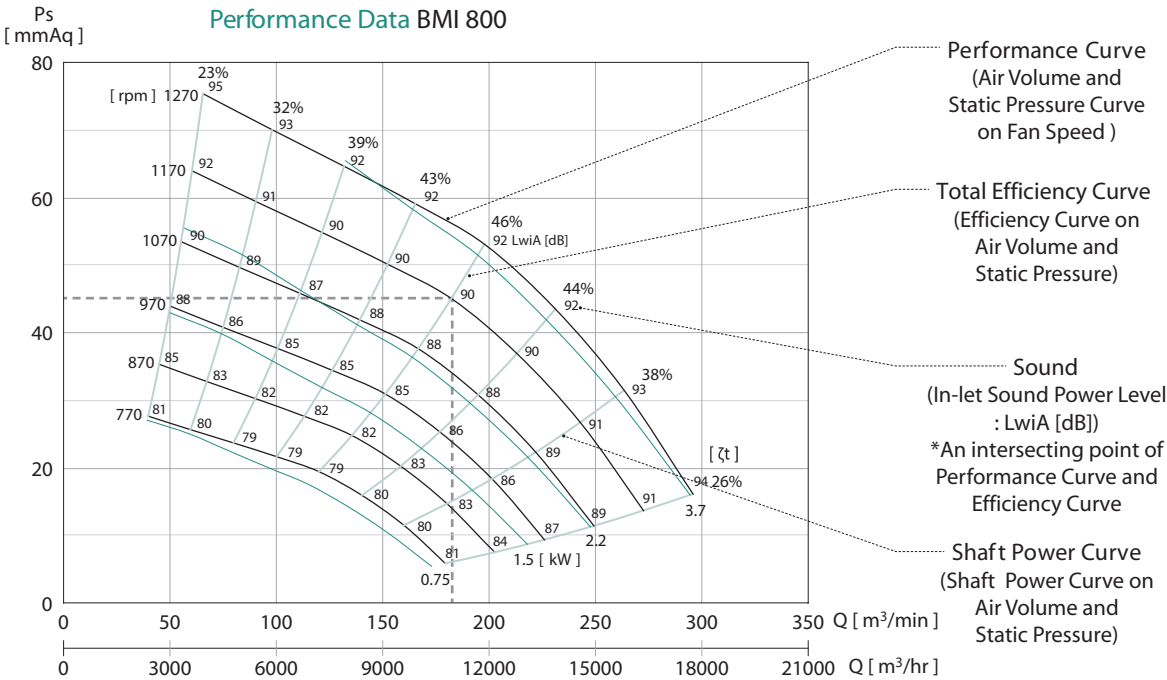
Model Reference BMI 630

Impeller Dia (mm)

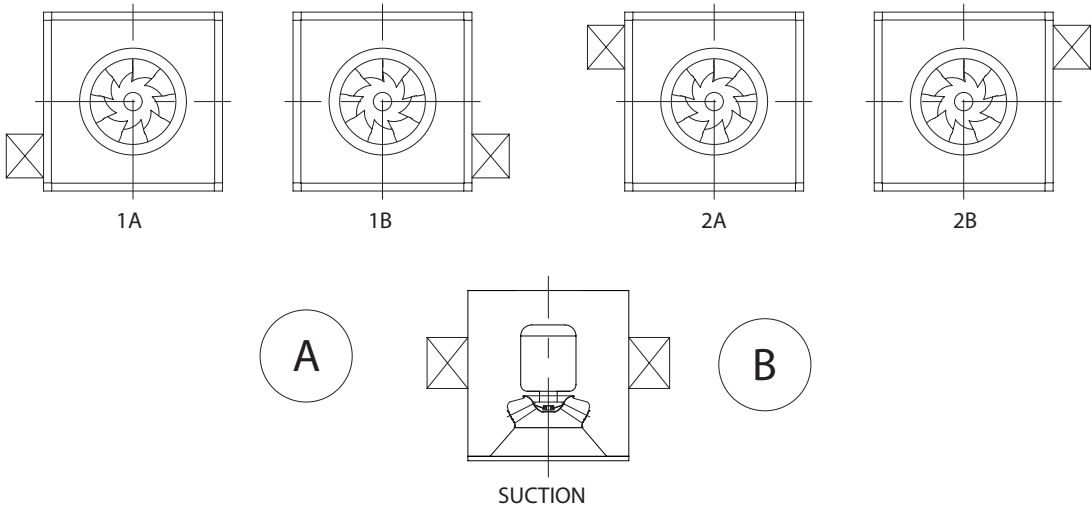
FAN Series (Mixed Flow Fan)

ex)

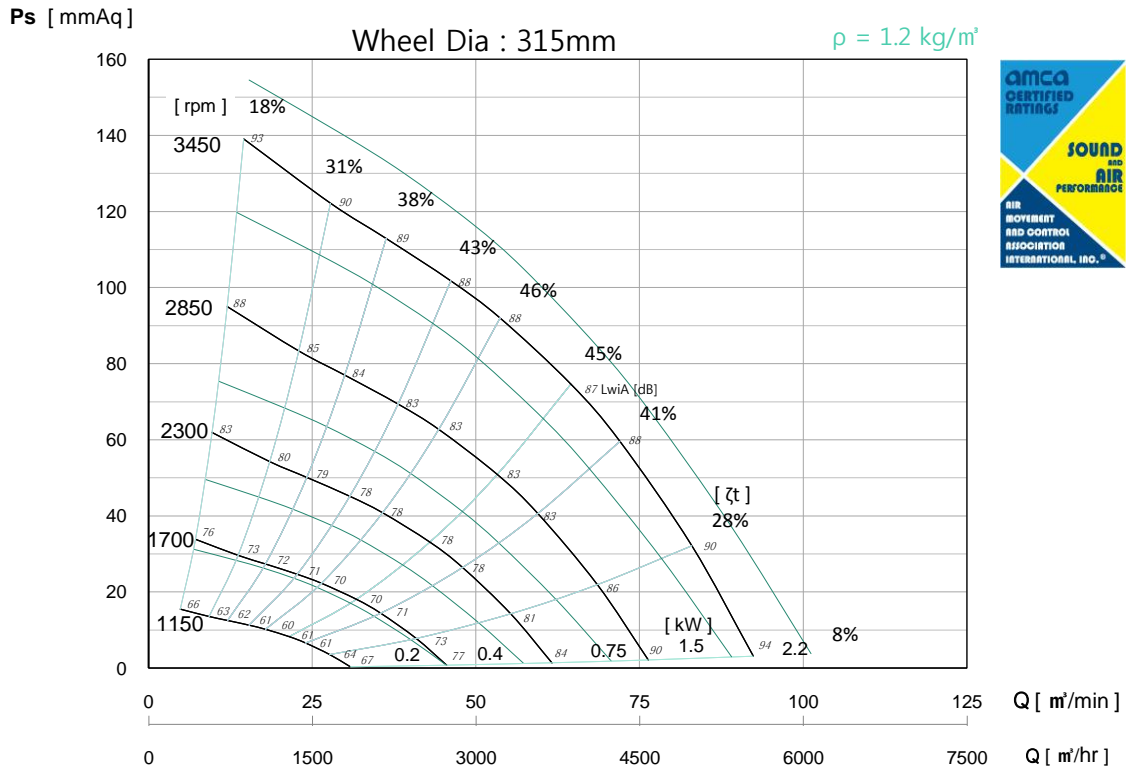
Air Volume	Static Pressure	Fan Speed	Total Efficiency	Shaft Power	Sound
182 CMM	45 mmAq	1170 rpm	46%	3.0 kW	90 dB



Fan Control Box Position

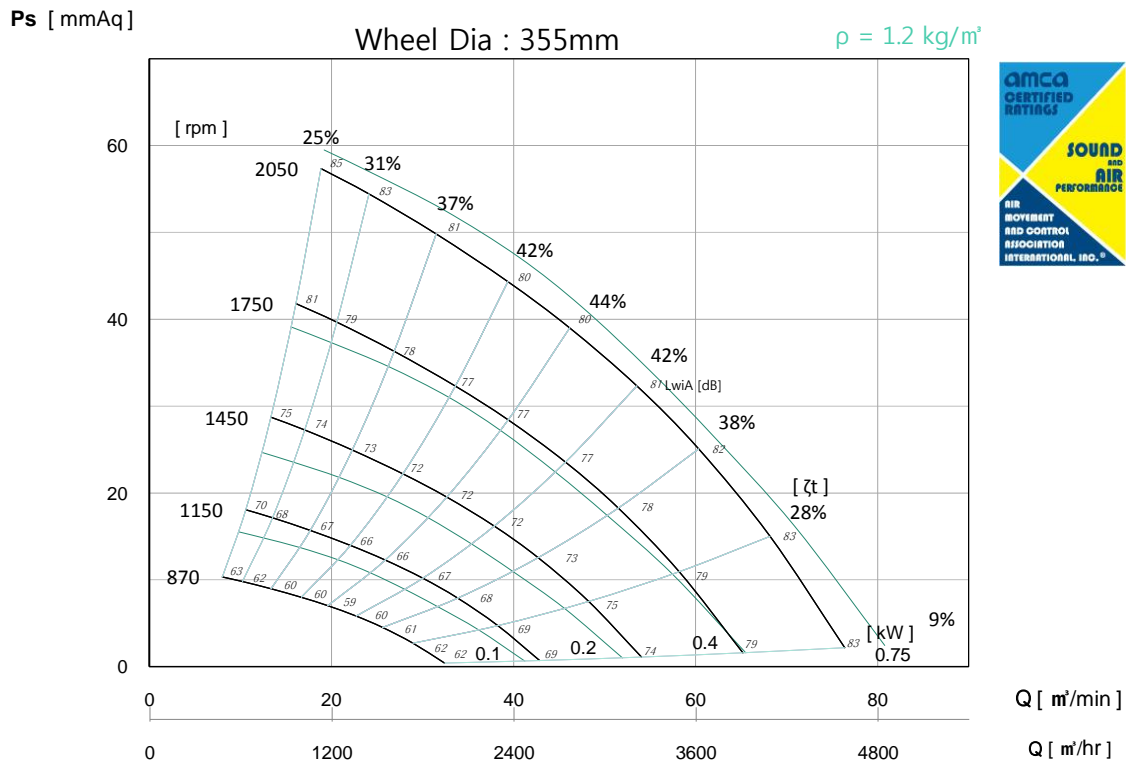


Performance Data BMI 400



- 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 BMI 450



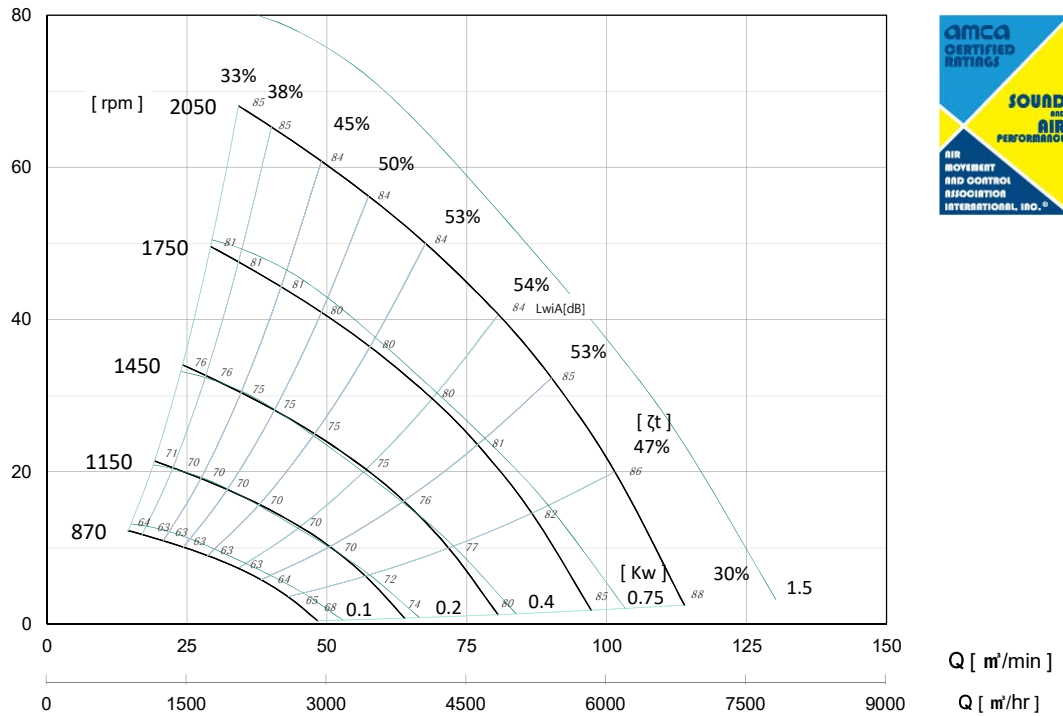
- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances(accessories).
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values 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 BMI 500

Ps [mmAq]

Wheel Dia : 400mm

$\rho = 1.2 \text{ kg/m}^3$



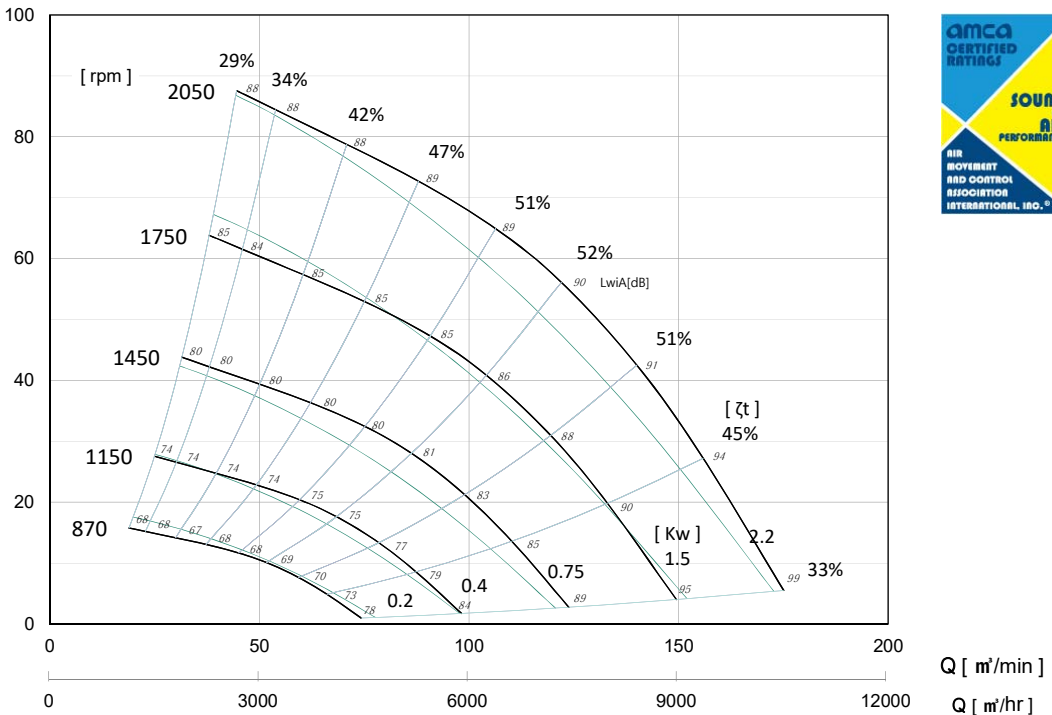
- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances(accessories). Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values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

Performance Data BMI 550

Ps [mmAq]

Wheel Dia : 450mm

$\rho = 1.2 \text{ kg/m}^3$



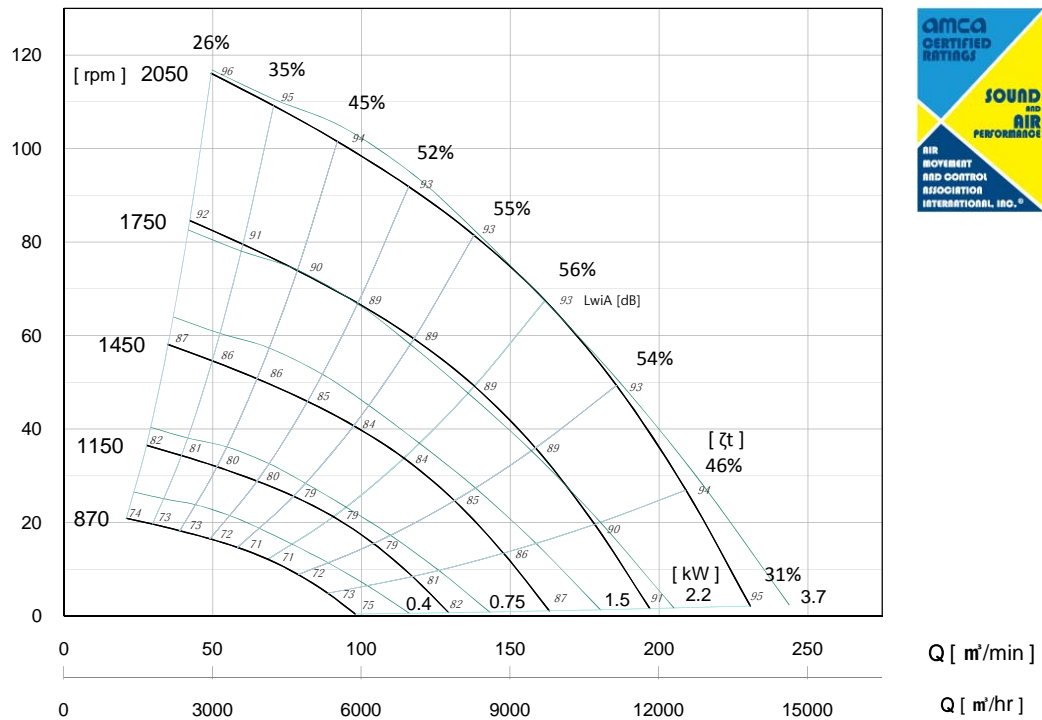
- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances(accessories). Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values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

Performance Data BMI 650

Ps [mmAq]

Wheel Dia : 500mm

$\rho = 1.2 \text{ kg/m}^3$



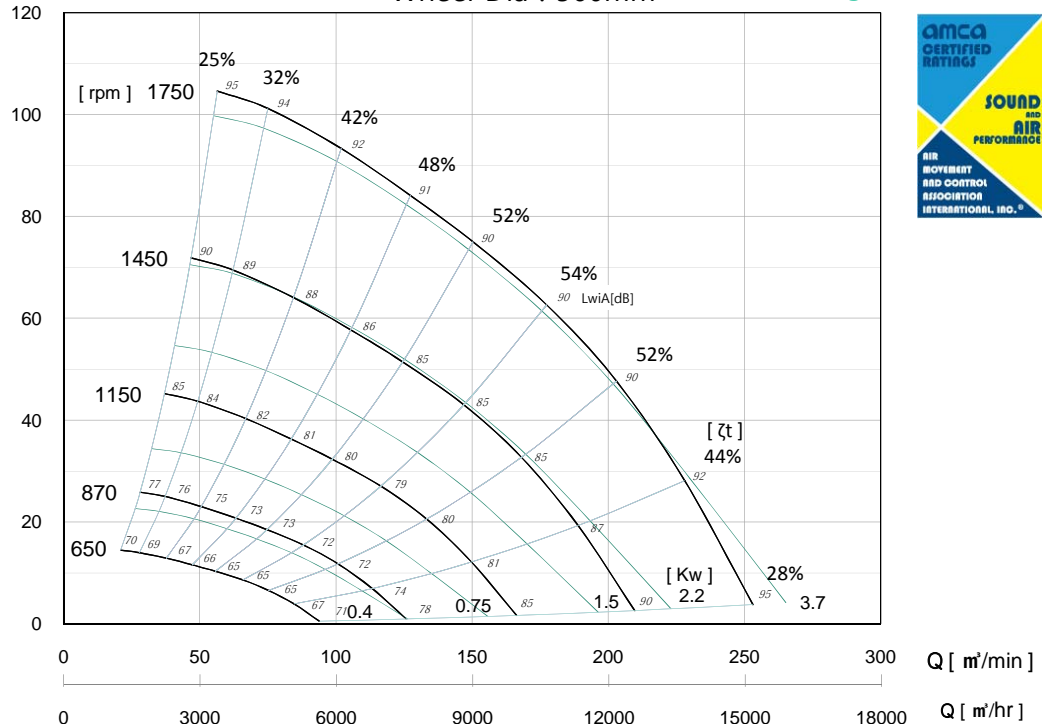
- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances(accessories).
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values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

Performance Data BMI 700

Ps [mmAq]

Wheel Dia : 560mm

$\rho = 1.2 \text{ kg/m}^3$



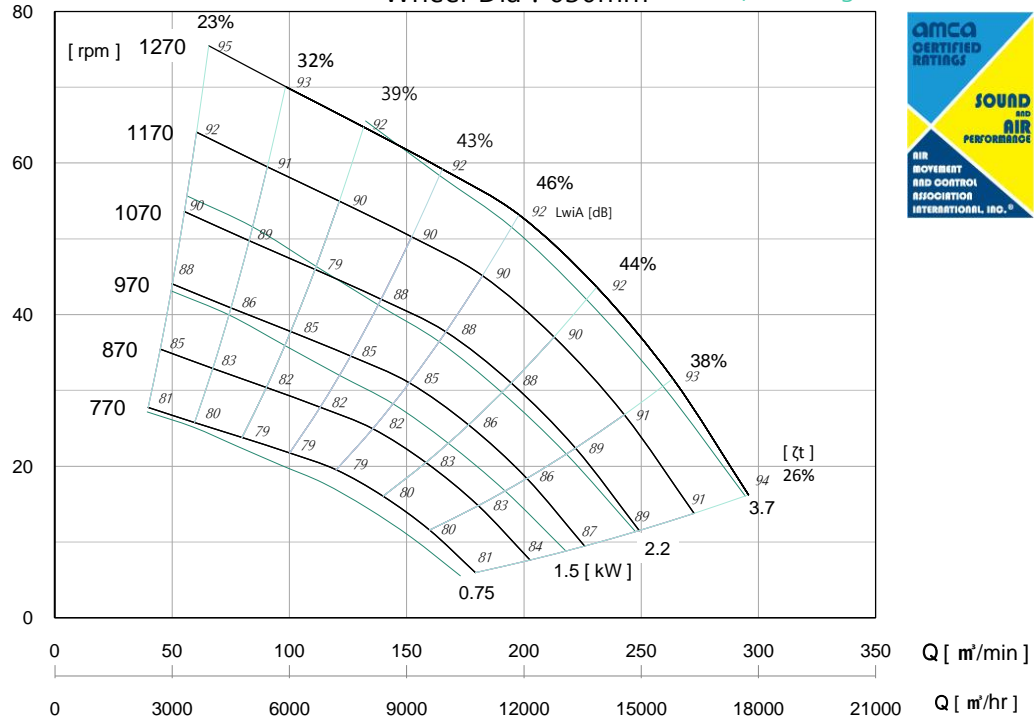
- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances(accessories).
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values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

Performance Data **BMI 800**

Ps [mmAq]

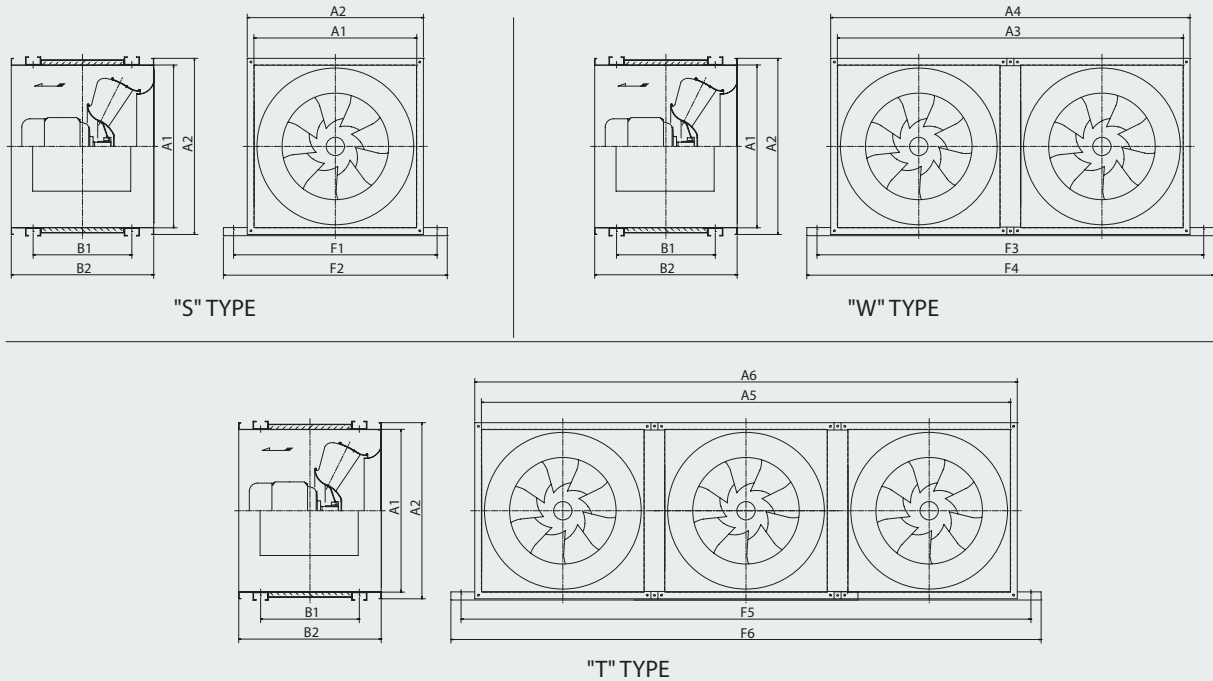
Wheel Dia : 630mm

$\rho = 1.2 \text{ kg/m}^3$



- 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 LwA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.

OVERALL DIMENSION - BMI SERIES



"S" TYPE

Fan Model		BMI 400S	BMI 450S	BMI 500S	BMI 550S	BMI 650S	BMI 700S	BMI 800S
Inlet & Outlet	A1	400	450	500	550	650	700	800
	A2	466	516	566	616	716	766	866
Side Length	B1	294	294	314	364	364	414	494
	B2	480	480	500	550	550	600	700
Hole Interval	F1	600	650	700	750	850	900	1000
FAN Base	F2	700	750	800	850	950	1000	1100

"W" TYPE

Fan Model		BMI 400W	BMI 450W	BMI 500W	BMI 550W	BMI 650W	BMI 700W	BMI 800W
Inlet & Outlet	A3	900	1000	1100	1200	1400	1500	1700
	A4	966	1066	1166	1266	1466	1566	1766
Side Length	B1	294	294	314	364	364	414	494
	B2	480	480	500	550	550	600	700
Hole Interval	F3	1100	1200	1300	1400	1600	1700	1900
FAN Base	F4	1200	1300	1400	1500	1700	1800	2000

* A1,A2,B1,B2의 치수는 "S" TYPE과 동일

"T" TYPE

Fan Model		BMI 400T	BMI 450T	BMI 500T	BMI 550T	BMI 650T	BMI 700T	BMI 800T
Inlet & Outlet	A5	1400	1550	1700	1850	2150	2300	2600
	A6	1466	1616	1766	1916	2216	2366	2666
Side Length	B1	294	294	314	364	364	414	494
	B2	480	480	500	550	550	600	700
Hole Interval	F5	1600	1750	1900	2050	2350	2500	2800
FAN Base	F6	1700	1850	2000	2150	2450	2600	2900



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