NEW!

Fast-Track
Motorized Impellers

Largest selection of in-stock models to keep you on schedule

McLean®
COOLING TECHNOLOGY

A Pentair Company

Protecting Electronics. Exceeding Expectations.™

Fast-Track
Motorized Impellers

Now over 25 models in stock ready for immediate shipment

If the lead time for your motorized impellers is as much as four months, or inventory options are limited to just a few models, then the new Fast-Track impeller program from McLean Cooling Technology is the solution for you. We have the largest selection of in-stock AC- and DC-voltage motorized impellers to help keep you on schedule.

And as the leading electronics cooling manufacturer in North America, if we do not have a certain model in inventory, McLean can supply it in a matter of weeks rather than months.

When sourcing your motorized impellers from McLean Cooling Technology, you enjoy these advantages:

- In-stock motorized impellers that offer up to 1558 CFM or 2647 M^3/Hr of cool air flow
- Every impeller capable of outdoor use for reliable performance
- DC-voltage models capable of working with virtually any type of electronic controller
- Competitive prices for outstanding value
- Over 30 years of cooling expertise to help you choose the right motorized impeller

New Fast–Track motorized impellers from McLean Cooling Technology decrease development cycles and system downtime for electronics cooling engineers.

Outdoor Telecom Cabinets | Industrial Process Control | Data Networking Racks

800-896-2665
AskMcLean@Pentair.com
www.McLeanCoolingTech.com

No one gives customers more advantages than McLean

COMPACT PERFORMANCE

- Slim space-saving design compared to centrifugal blowers
- High-volume air flow up to 1558 CFM or 2647 M^3/Hr
- Quiet operation

VERSATILITY

- Models available for 115 60 hz VAC, 230 50/60 hz VAC, and 12/24/48 VDC
- Standard PWM, linear and tach output control schemes on DC-powered models
- Custom DC-voltage impeller solutions available

RELIABILITY

- Permanently lubricated double-sealed ball bearing motors
- DC brushless motor technology
- At least 40,000 hours or more of operation
- All models capable of Telcordia GR487 outdoor use such as wet, humid, salt air and extreme temperature conditions
- Every unit functionally tested before shipping

HELPFUL SERVICE

- Over 30 years of expertise in assisting customers spec the right electronics cooling products
- Extensive lab facilities for large custom applications—rapid prototyping, air flow chambers, thermal cycling, salt fog tests—delivering fast track results
- Experienced & responsive sales people

c UL us CE ISO 9001 CERTIFIED

Security Systems | Medical Equipment | Theatrical Lighting | ATM Kiosks

McLean COOLING TECHNOLOGY

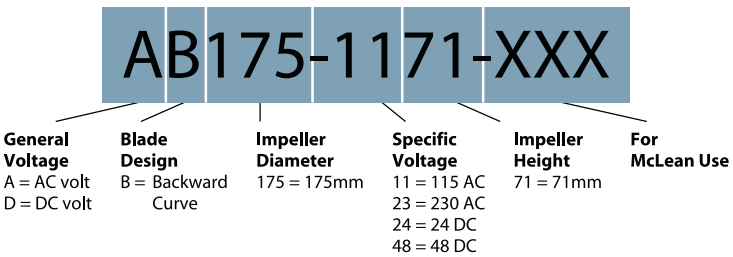
A Pentair Company

Motorized Impellers
AC-Powered

Standard Features

- Quiet, space-saving fresh air cooling
- Models that deliver 147– 1558 CFM (250 – 2647 M^3/Hr)
- Backward curved blades with high efficiency air flow
- Clockwise rotation as viewed from air intake side
- Permanently lubricated double-sealed ball bearings
- Maximum operating temperature of 122°F (50°C)
- Impeller blades made of plastic PA66, galvanized steel or aluminum
- For 115 volt AC 60 hz or 230 volt AC 50/60 hz power input with +/- 10% tolerance
- 54" lead length and capacitor included
- Optional inlet ring

New Model Number System



Performance Data (Please see pages 5-6 for performance curves)

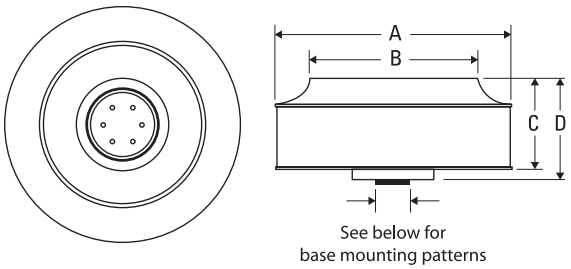
Model		Dia	Power Draw			Free Air Flow			Static Pressure		Weight		Inventory
New #	Old #	mm	Voltage	Hz	Watts	CFM	M^3/Hr	RPM	in H_2O	Pa	Lbs	Kg	In Stock
AB133-1196-701		133	115	60	30	173	294	3150	0.84	209	2	0.8	Yes
AB133-2396-701		133	230	50/60	28/30	147/173	250/294	2725/3150	0.60/0.84	149/209	2	0.8	Yes
AB175-1171-701		175	115	60	44	294	500	2875	1.08	269	2	0.9	Yes
AB175-2371-701		175	230	50/60	39/44	255/294	433/500	2515/2875	0.83/1.08	207/269	2	0.9	Yes
AB190-1169-901	2B190-115S0	190	115	60	109	384	652	2930	1.75	436	3	1.4	Yes
AB190-2369-901	2B190-230S0	190	230	50/60	87/109	343/384	583/652	2600/2930	1.31/1.75	326/436	3	1.4	Yes
AB220-1171-901	2B220-115S0	223	115	60	120	608	1033	2600	1.78	443	4	1.6	Yes
AB220-2371-901	2B220-230S0	223	230	50/60	95/120	564/608	958/1033	2400/2600	1.43/1.78	356/443	4	1.6	Yes
AB225-1110-901	2B225-115S0	225	115	60	195	834	1417	3100	2.67	665	4	1.6	Yes
AB225-2310-901	2B225-230S0	225	230	50/60	147/195	712/834	1210/1417	2800/3100	1.91/2.67	476/665	4	1.6	Yes
AB250-1199-901		251	115	60	246	846	1437	2760	2.33	580	6	2.9	Yes
AB250-2399-901		251	230	50/60	174/246	794/846	1349/1437	2600/2760	1.98/2.33	493/580	6	2.9	Yes
AB280-1193-901		281	115	60	313	1033	1755	2850	2.83	705	7	3.3	Yes
AB280-2393-901		281	230	50/60	220/313	939/1033	1595/1755	2600/2850	2.32/2.83	578/705	7	3.3	Yes
AB320-1116-101		318	115	60	161	1244	2114	1600	1.48	369	8	3.8	Yes
AB320-2316-101		318	230	50/60	117/161	1095/1244	1860/2114	1400/1600	1.08/1.48	269/369	8	3.8	Yes
AB355-1117-101		359	115	60	172	1558	2647	1590	1.99	496	10	4.9	Yes
AB355-2317-101		359	230	50/60	172/250	1398/1558	2375/2647	1400/1590	1.48/1.99	369/496	10	4.9	Yes

In-stock availability not guaranteed due to spikes in customer demand.
Free air flow and static pressure listed at 60 hz. See Performance Curves for complete details.
UL pending for AB355 models.

ISO 9001 CERTIFIED

800-896-2665
AskMcLean@Pentair.com
www.McLeanCoolingTech.com

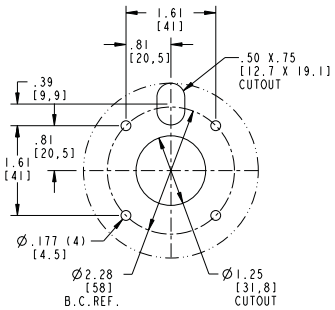
Impeller Dimensions



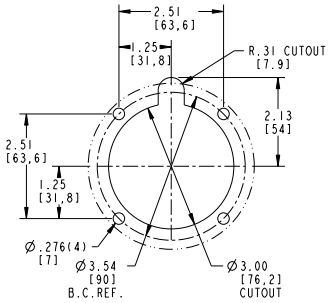
Model	Diameter (A)		Diameter (B)		Height (C)		Height (D)	
New #	in	mm	in	mm	in	mm	in	mm
AB133	5.24	133	3.67	93	2.36	60	3.78	96
AB175	6.89	175	5.16	131	2.44	62	2.80	71
AB190	7.48	190	5.16	131	2.44	62	2.70	69
AB220	8.78	223	6.36	162	2.52	64	2.80	71
AB225	8.86	225	6.06	154	3.50	89	4.21	107
AB250	9.88	251	6.85	174	3.36	85	3.90	99
AB280	11.06	281	7.48	190	3.24	82	3.64	93
AB320	12.52	318	8.66	220	5.51	140	6.10	155
AB355	14.13	359	9.84	250	5.79	147	6.50	165

Visit **www.McLeanCoolingTech.com** to download 2D or 3D CAD renderings to use in your system design.

Models AB133 thru AB280



Models AB320 / AB355

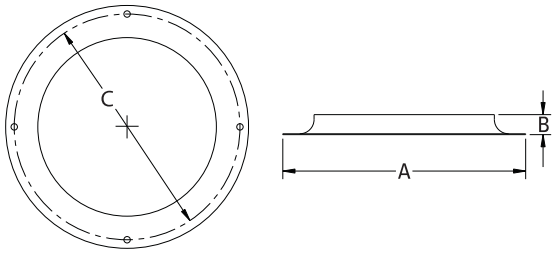


Base Mounting Patterns

For models AB133 thru AB280:
4 Holes on 2.28" (58.0 mm)
bolt circle diameter.
M4 x 5mm max thread depth.
1.25" (31.8 mm) dia. cutout

For models AB320 and AB355:
4 Holes on 3.54" (90.0 mm)
bolt circle diameter.
M6 x 12mm max thread depth.
3.00" (76.2 mm) dia. cutout.

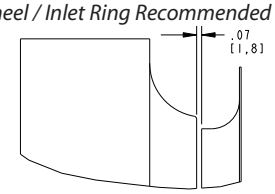
Inlet Ring Dimensions



Impeller	Inlet Ring	Diameter (A)		Height (B)		Mounting (C)*	
New #	Part #	in	mm	in	mm	in	mm
AB133	10-1072-120	5.08	129	0.51	13	4.65	118
AB175	10-1072-121	6.69	170	0.55	14	6.22	158
AB190	10-1072-121	6.69	170	0.55	14	6.22	158
AB220	10-1072-123	9.92	252	0.83	21	9.29	236
AB225	10-1072-124	8.78	223	1.10	28	8.30	211
AB250	10-1072-125	10.04	255	1.30	33	9.45	240
AB280	10-1072-126	11.02	280	1.38	35	10.24	260
AB320	10-1072-127	11.81	300	1.06	27	11.02	280
AB355	10-1072-129	13.78	350	1.22	31	12.80	325

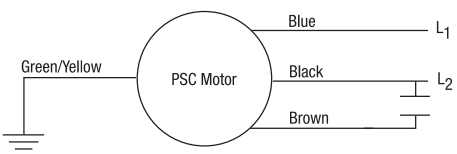
Impeller & Inlet Ring Interface

Wheel / Inlet Ring Recommended Gap



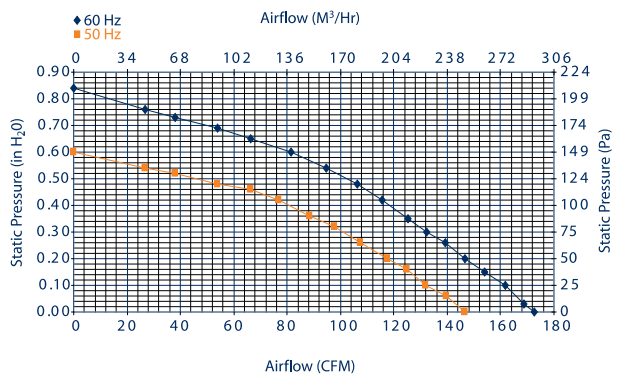
***Bolt Circle Diameter** *for equally spaced holes listed:*
Holes are .177" (4.5 mm) each.
All inlet rings have 4 holes, except for 10-1072-123 which has 3 holes and 10-1072-129 which has 6 holes.

Motor Wiring

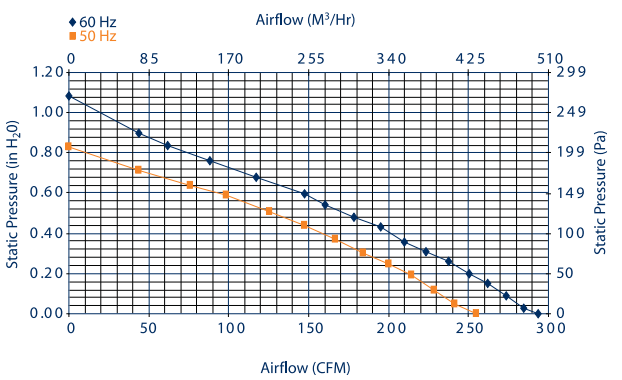


Performance Curves (Air Flow with Inlet Ring)

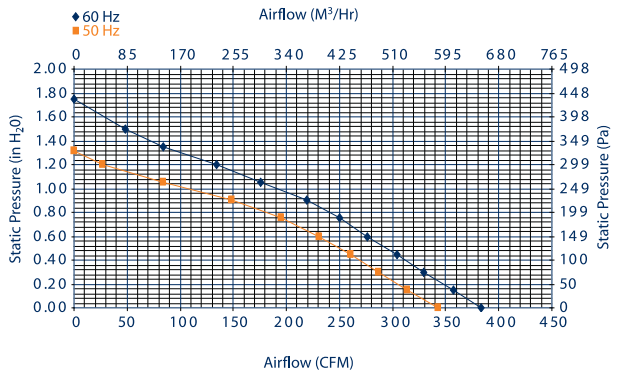
AB133



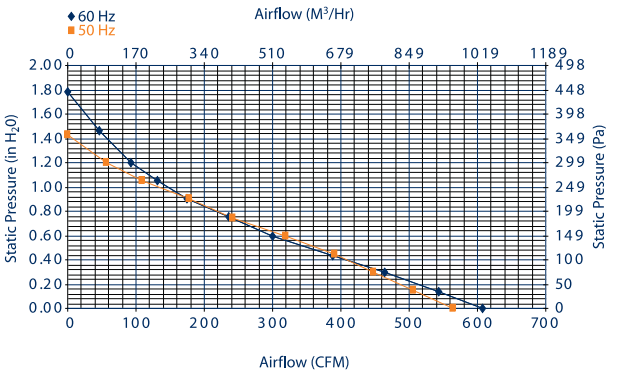
AB175



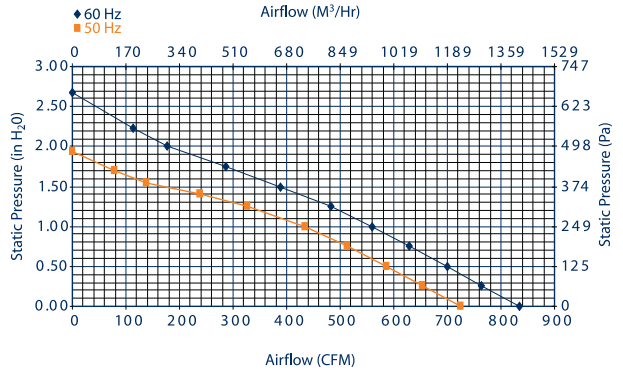
AB190



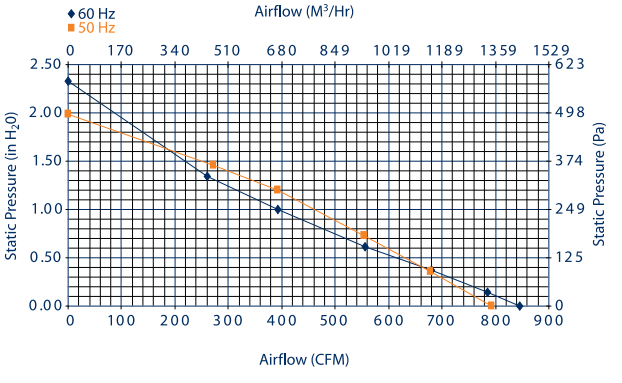
AB220



AB225

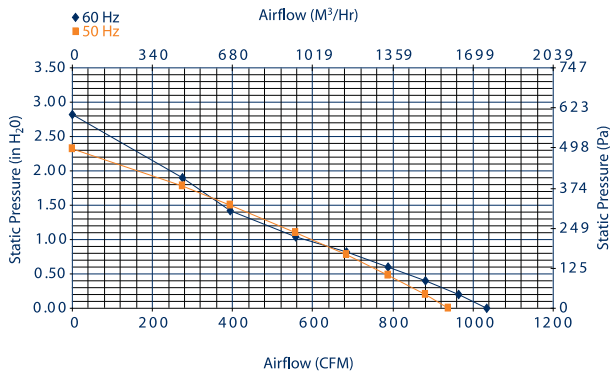


AB250

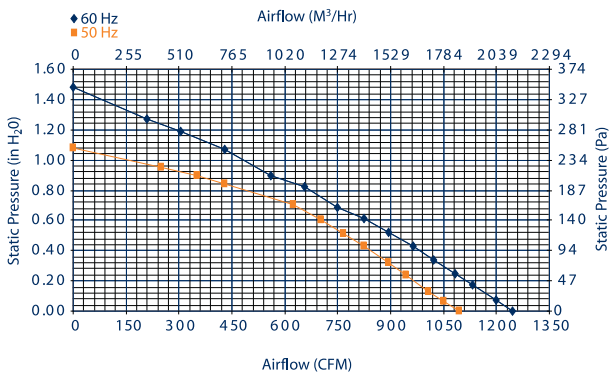


800-896-2665
AskMcLean@Pentair.com
www.McLeanCoolingTech.com

AB280

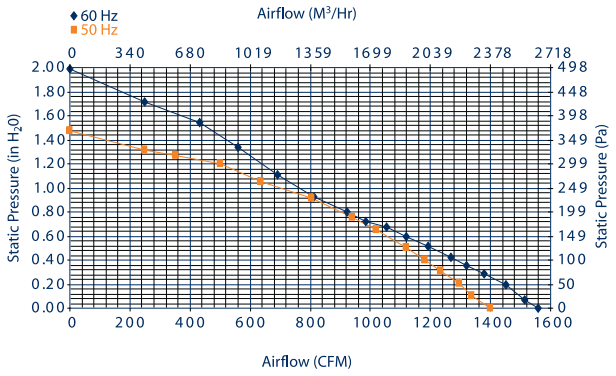


AB320



Note: Without inlet ring, assume 5% reduction in air flow.

AB355



Cooling Engineering Assistance

For help specifying motorized impellers, visit **www.McLeanCoolingTech.com** to use our Product Selection Tool or read our white paper.

Motorized Impellers
DC-Powered

Standard Features

- Quiet, space-saving fresh air cooling
- Models that deliver 115 – 1100 CFM (195 – 1875 M^3/Hr)
- Backward curved blades with high-efficiency air flow
- Clockwise rotation as viewed from air intake side
- Brushless DC motor for excellent control
- Permanently lubricated double-sealed ball bearings
- Maximum operating temperature of 149°F (65°C)
- Impeller blade made of plastic PA66 or galvanized steel
- Capable of working with PWM (Pulse Width Modulation), linear and 5 volt (2 pulse per rev) tach output controls for variable speed operation
- 24 volt DC or 48 volt DC & select 12 volt DC models
- Reverse polarity protected
- Every unit functionally tested before shipping
- Optional inlet ring and wire connections
- Custom solutions available, including additional 12 volt DC models

New Model Number System

DB133-4891-XXX

General Voltage	Blade Design	Impeller Diameter	Specific Voltage	Impeller Height	For McLean Use
D = DC volt A = AC volt	B = Backward Curve	133 = 133mm	24 = 24 DC 48 = 48 DC 11 = 115 AC 23 = 230 AC	91 = 91mm	

Performance Data (Please see pages 9-10 for performance curves)

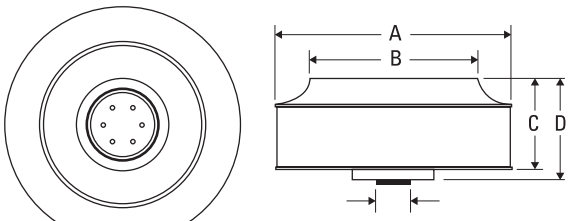
Model		Dia	Power Draw		Free Air Flow			Static Pressure		Weight		Inventory
New #	Old #	mm	Voltage	Watts	CFM	M^3/Hr	RPM	in H_2O	Pa	Lbs	Kg	In Stock
DB102-1254-401	DB400-1220	102	12	25	115	195	4500	1.9	473	1	0.5	No*
DB102-2454-401	DB400-2420	102	24	25	115	195	4500	1.9	473	1	0.5	No*
DB102-4854-401	DB400-4820	102	48	25	115	195	4500	1.9	473	1	0.5	No*
DB133-1242-401	DB508-1218	133	12	18	115	195	3200	1.2	286	2	0.9	No*
DB133-2442-401	DB508-2418	133	24	18	115	195	3200	1.2	286	2	0.9	No*
DB133-4842-401	DB508-4818	133	48	18	115	195	3200	1.2	286	2	0.9	No*
DB133-2491-701	DB508-2425	133	24	38	220	373	4600	1.6	399	2	0.9	Yes
DB133-4891-701	DB508-4825	133	48	38	220	373	4600	1.6	399	2	0.9	Yes
DB175-2455-701	DB628-2418	175	24	50	305	518	3800	2.3	573	3	1.4	Yes
DB175-4855-701	DB628-4818	175	48	50	305	518	3800	2.3	573	3	1.4	Yes
DB175-2469-701	DB628-2425	175	24	54	360	611	3450	1.8	448	3	1.4	Yes
DB175-4869-701	DB628-4825	175	48	54	360	611	3450	1.8	448	3	1.4	Yes
DB220-2471-701	DB824-2425	220	24	75	565	960	2950	2.0	498	4	1.8	Yes
DB220-4871-701	DB824-4825	220	48	75	565	960	2950	2.0	498	4	1.8	Yes
DB250-2485-901	DB928-2430	252	24	110	850	1450	2800	2.4	598	5	2.3	No*
DB250-4885-901	DB928-4830	252	48	110	850	1450	2800	2.4	598	5	2.3	No*
DB250-2411-901	DB928-2439	252	24	150	1050	1790	2625	2.5	623	5	2.3	No*
DB250-4811-901	DB928-4839	252	48	150	1050	1790	2625	2.5	623	5	2.3	No*
DB280-2491-901	DB1100-2432	280	24	145	1100	1875	2500	1.8	448	5	2.3	No*
DB280-4891-901	DB1100-4832	280	48	145	1100	1875	2500	1.8	448	5	2.3	No*

In-stock availability not guaranteed due to spikes in customer demand.
*Available Spring 2010. Please consult with your McLean sales representative.

ISO 9001 CERTIFIED

800-896-2665
AskMcLean@Pentair.com
www.McLeanCoolingTech.com

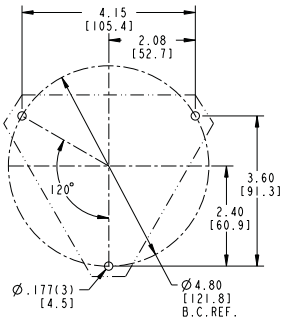
Impeller Dimensions



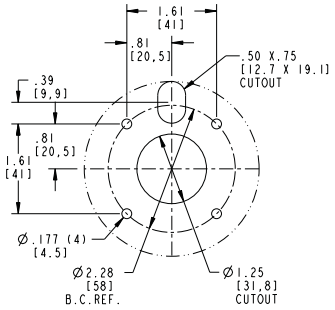
Model		Diameter (A)		Diameter (B)		Height (C)		Height (D)	
New #	Old #	in	mm	in	mm	in	mm	in	mm
DB102-XX54	DB400-XX20	4.00	102	2.80	71	1.78	45	2.13	54
DB133-XX42	DB508-XX18	5.25	133	3.70	94	1.35	34	1.65	42
DB133-XX91	DB508-XX25	5.25	133	3.70	94	2.35	60	3.58	91
DB175-XX55	DB628-XX18	6.89	175	5.16	131	1.87	48	2.15	55
DB175-XX69	DB628-XX25	6.89	175	5.16	131	2.46	63	2.70	69
DB220-XX71	DB824-XX25	8.66	220	6.28	160	2.47	63	2.80	71
DB250-XX85	DB928-XX30	9.92	252	6.77	172	2.89	73	3.33	85
DB250-XX11	DB928-XX39	9.92	252	6.77	172	3.91	99	4.33	110
DB280-XX91	DB1100-XX32	11.10	280	7.52	191	3.20	82	3.60	91

Visit **www.McLeanCoolingTech.com** to download 2D or 3D CAD renderings to use in your system design.

Models DB102 thru DB133-XX42



Models DB133-XX91 thru DB280



Base Mounting Patterns

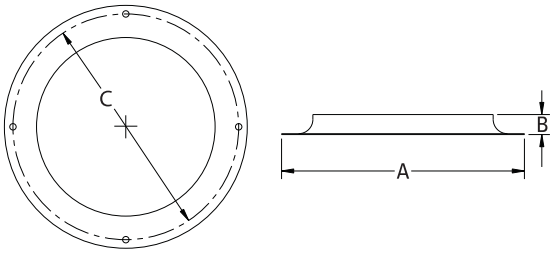
For models DB102-XX54 and DB133-XX42:

3 Holes on 4.795" (121.8 mm)
bolt circle diameter.
M4 x 5mm max thread depth.

For all other models:

4 Holes on 2.28" (58.0 mm)
bolt circle diameter.
M4 x 5mm max thread depth.

Inlet Ring Dimensions



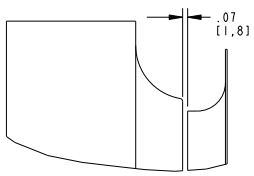
Impeller	Inlet Ring	Diameter (A)		Height (B)		Mounting (C)*	
New #	Part #	in	mm	in	mm	in	mm
DB102	M-16922	3.72	94	0.13	3	3.40	86
DB133	10-1072-120	5.08	129	0.51	13	4.65	118
DB175	10-1072-121	6.69	170	0.55	14	6.22	158
DB220	10-1072-123	9.92	252	0.83	21	9.29	236
DB250	10-1072-125	10.04	255	1.30	33	9.45	240
DB280	10-1072-126	11.02	280	1.38	35	10.24	260

***Bolt Circle Diameter** *for equally spaced holes listed:*

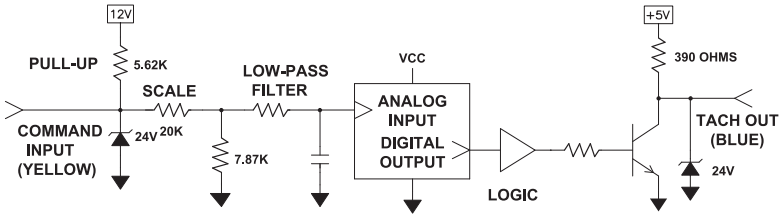
Holes are .177" (4.5 mm) each.
All inlet rings have 4 holes, except for 10-1072-123 which has 3 holes.

Impeller & Inlet Ring Interface

Wheel / Inlet Ring Recommended Gap



Impeller Speed Control Interface



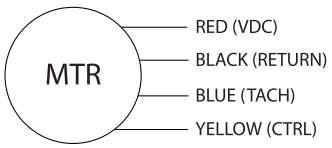
DC Impellers can be speed controlled via the yellow input lead in either of two ways:

1. 250 Hz to 4kHz 10 VDC PWM signal.
2. 0 to 10 VDC analog signal (linear control).

Command input (1 - 10 VDC) corresponds linearly from zero to max bus voltage applied to the motor. Command input must be above 1 VDC before any measurable voltage is applied to the motor. The applied voltage is roughly proportional to the motor speed.

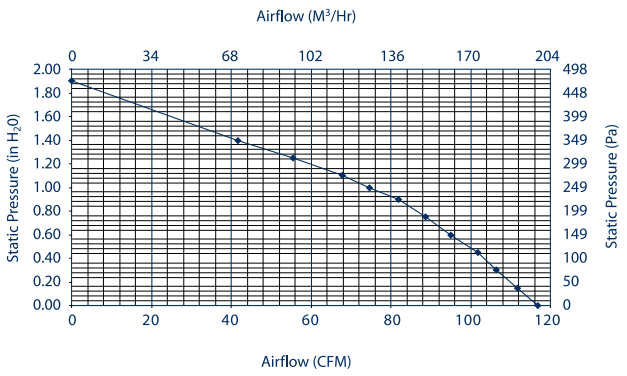
With the yellow lead left open, the impeller will run at full speed.
With the yellow lead connected to the black lead, the impeller will stop.
The blue lead produces a 5 VDC Tach output, 2 pulses per revolution.
Input voltage tolerance is ±25%.

Motor Wiring

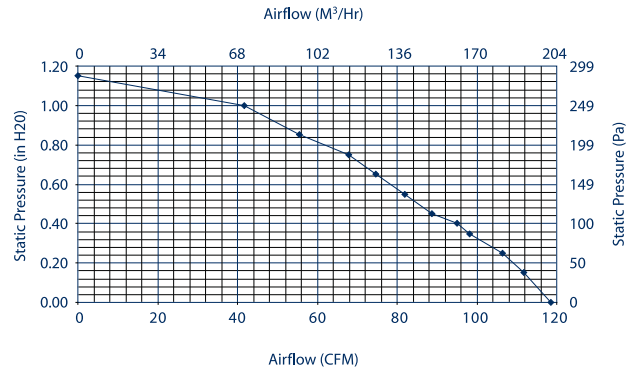


Performance Curves (Air Flow with Inlet Ring)

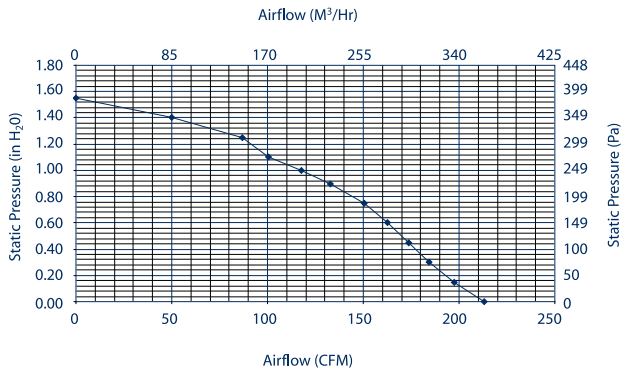
DB102-XX54



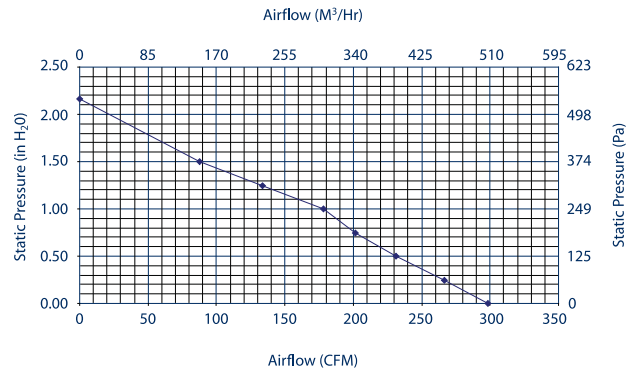
DB133-XX42



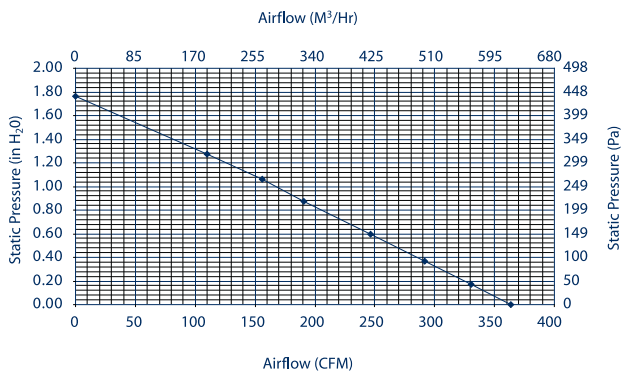
DB133-XX91



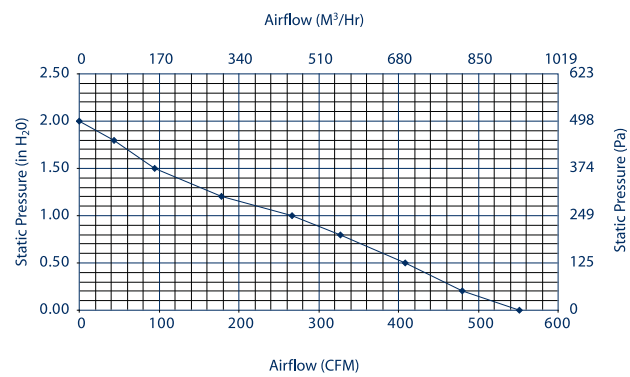
DB175-XX55



DB175-XX69

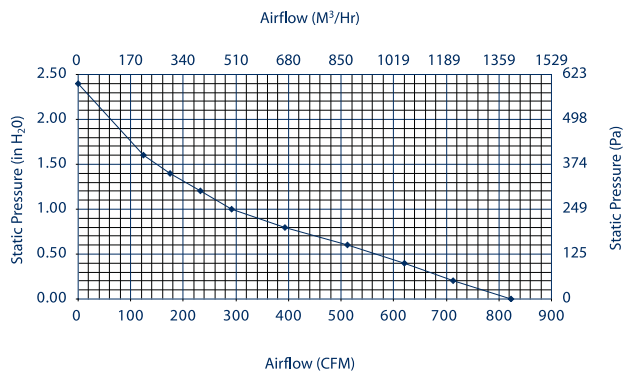


DB220-XX71

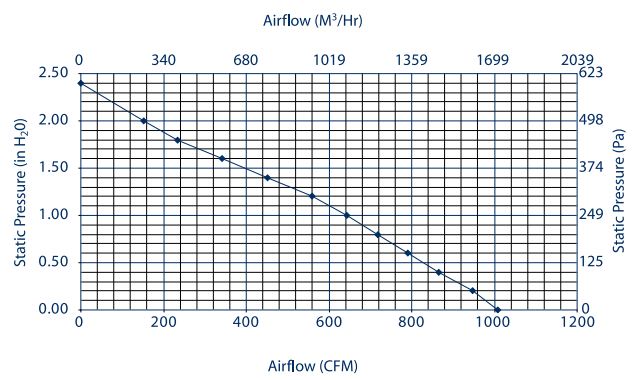


800-896-2665
AskMcLean@Pentair.com
www.McLeanCoolingTech.com

DB250-XX85

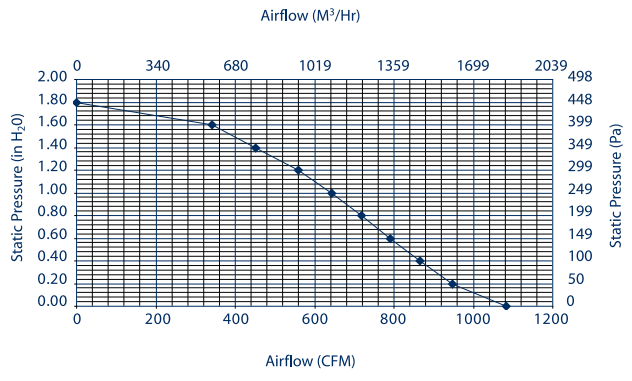


DB250-XX11



Note: Without inlet ring, assume 5% reduction in air flow.

DB280-XX91



Cooling Engineering Assistance

For help specifying motorized impellers, visit **www.McLeanCoolingTech.com** to use our Product Selection Tool or read our white paper.

Protecting Electronics.
Exceeding Expectations.™

McLean®
COOLING TECHNOLOGY

A Pentair Company

11611 Business Park Blvd N
Champlin, MN 55316 USA
763-323-9200
800-896-2665
AskMcLean@Pentair.com

Visit www.McLeanCoolingTech.com