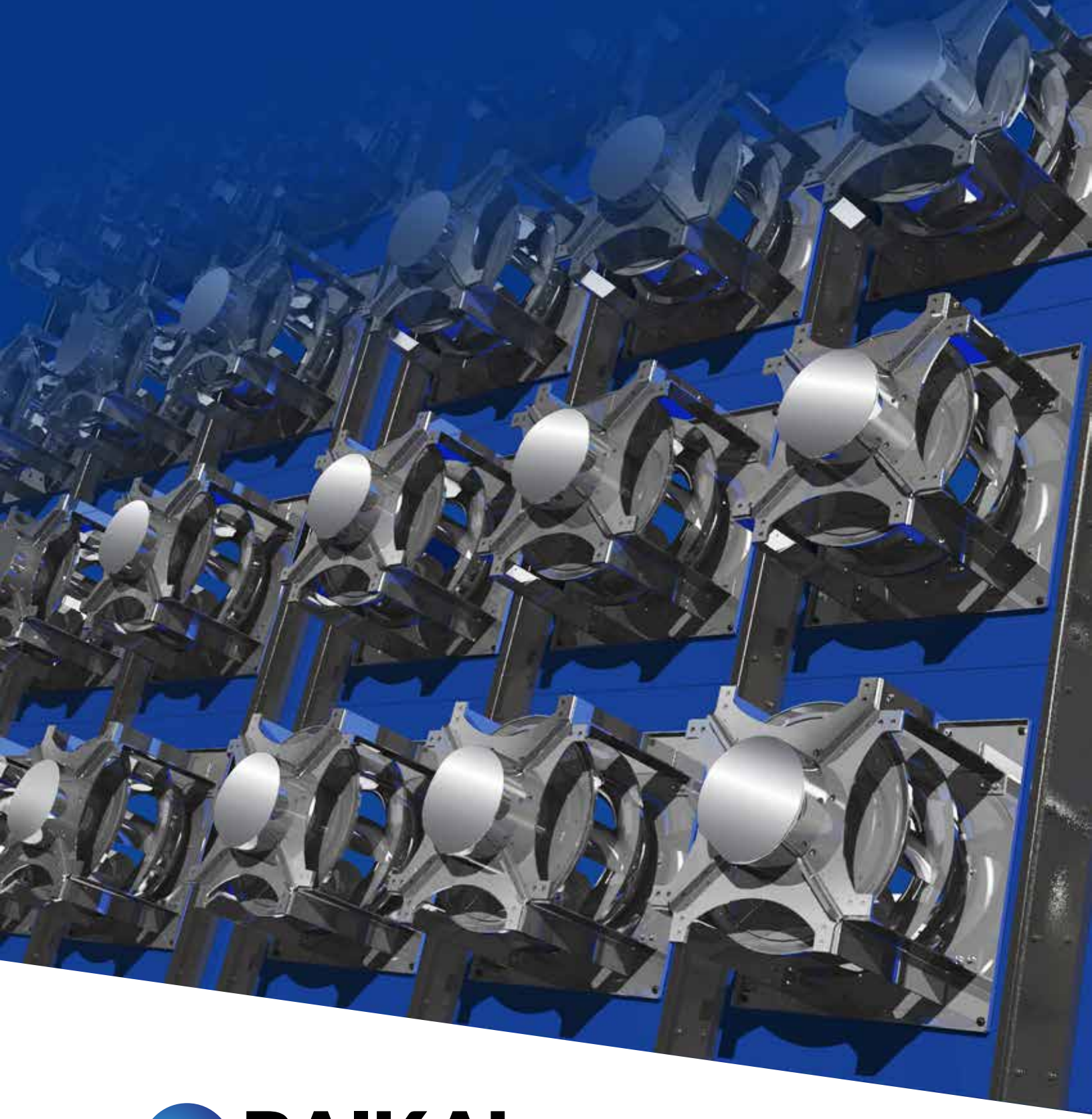

BAIKAL
MECHANICAL

MAIN CATALOG

Energy Savings with Every Revolution

Baikal Mechanical is a leader in the HVAC equipment manufacturing industry. Baikal designs and manufactures state of the art solutions that are cost effective and reliable for our customers.

Our technical team is always ready to help. No project is to big or to small. Our main office in Brooklyn, NY, is staffed with HVAC experts that can provide you with solutions that address your needs.

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Phone: (718) 499-7200
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www.baikalmechanical.com

CONTENTS

INTRODUCTION

Baikal Mechanical manufactures HVAC equipment using the latest technology. All of our custom solutions are modular in design and can be easily transported to a job site. Products are designed so that everything can be brought to a job site via a freight elevator or through a standard door opening.

We specialize in retrofits and replacements of existing equipment. We can replace broken down equipment with more energy efficient versions that are more reliable. This will save you money over time and requires less maintenance than your previous equipment.

Baikal Mechanical understands how equipment should be designed. Many engineering companies say they can design retrofit and replacement equipment. Is that what they do full time? We have engineers working for us that specialize in retrofits and replacements.

Baikal Mechanical is the first company in North America to design and build fan arrays using EC direct drive axial fans.

Baikal Mechanical is an Original Equipment Manufacturer (OEM) of custom HVAC systems and equipment including:

- **Fan walls**
- **Exhaust fans**
- **Custom Air Handling Units**
- **Negative pressure air machines**
- **Air purifiers**
- **And other related HVAC equipment used for commercial purposes**

We offer full service from engineering to installation and can create custom solutions that address your facility's needs.

Our manufacturing facility, located in Brooklyn, NY, contains hundreds of fans in multiple sizes to address your needs. Also located in our Brooklyn facility is state of the art sheet metal cutting and bending equipment. Everything we supply to our customers is manufactured by us in the USA.

Baikal can visit your facility and evaluate your needs. Based on the information that we collect during our visit, our engineering team can propose a customized solution to meets your needs.

We also offer a full line of HVAC controls that can be integrated with your buildings BMS. Wifi controls and monitoring are also available.

Baikal stands by everything we manufacture and will give you a warranty for all the new equipment and service that we provide.

EC FAN ARRAY UPGRADE ADVANTAGES

CFM Redundancy

If one fan goes down, the other fans can speed up and make up for the CFM loss until the fan is swapped out of the array.

Maintenance

Fan Walls do not require any maintenance. There are no belts, pulleys or grease to worry about.

Downtime

If an EC fan needs to be replaced, remove (8) screws and (3) wires and a new EC fan can be swapped out in 15 minutes.

Integrated VFD Technology

Speed of EC Fan Array can be adjusted without purchasing any expensive VFDs.

Lower Energy Costs

EC fans run using 20 – 35% less energy than traditional AC drive fans.

Noise Reduction

EC fans are quieter by 15 – 20% than AC drive fans.

BAIKAL MECHANICAL

FAN WALL

Traditional large AC fans can be upgraded to Baikal EC fan arrays. Baikal's EC fan array technology provides CFM redundancy and energy savings. Fan arrays provide equal air distribution across the entire width and height of an air handler unit. This is important if you want to get optimal performance out of your coils. Belts, pulleys, and AC motors no longer need to be maintained or replaced. All new EC Fans and other components will fit through a standard office door and can be brought to the upgrade site without any special rigging or cranes.

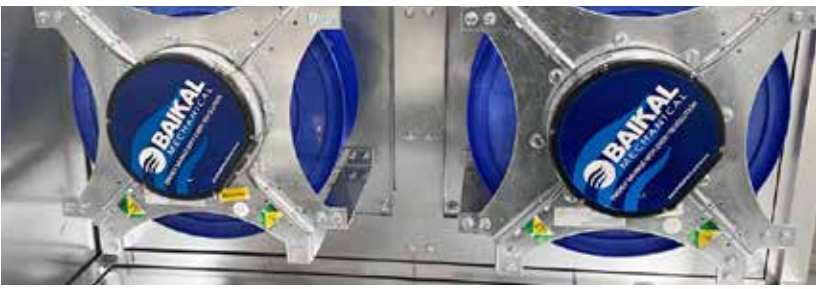
Maintenance on a large traditional AC fan is not only time consuming, but can be difficult due to the location, height, access, and size of the fan. Baikal's EC fan array technology can accommodate capacities up to 50,000 CFM.

Baikal's EC fan array provides significant improvement of air flow by creating equal air distribution through an air handler unit, coil, and ductwork. Fan walls have much lower noise and vibration levels than those of their AC fan counterparts.

CUSTOM EXHAUST FANS

Large AC exhaust fans can be replaced using custom Baikal EC exhaust fans. A new custom exhaust fan can be designed to fit any existing application. Depending on the required CFM output, fan array technology can be incorporated to provide CFM redundancy and energy savings.

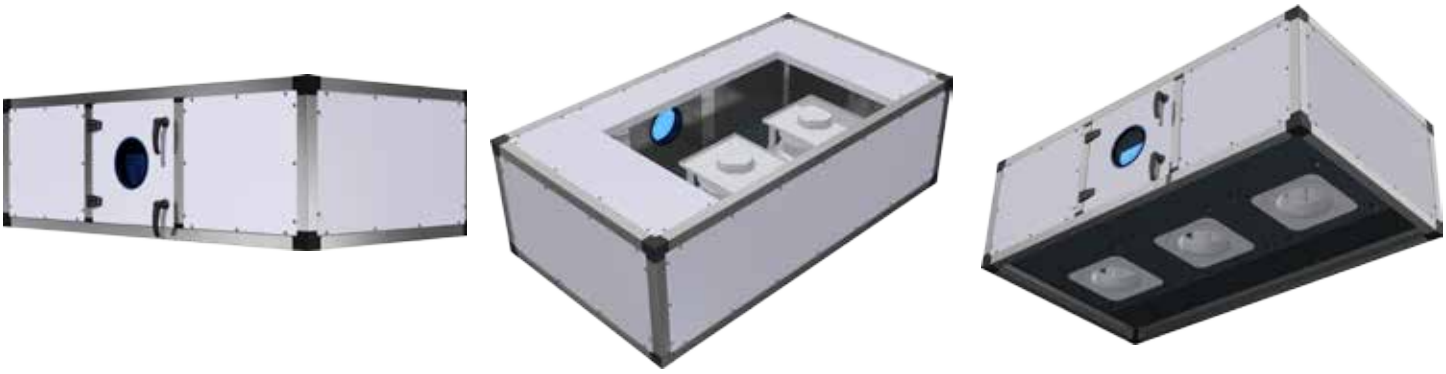
Belts, pulleys, and AC motors no longer need to be maintained or replaced. All new EC Fans and other components will fit through a standard office door and can be brought to the work site without any special rigging or cranes.





Maintenance on a traditional AC fan is not only time consuming, but can be difficult due to the location, height, access, and size of a large AC fan. Baikal's custom EC exhaust fans can accommodate capacities from 10,000 – 50,000 CFM.

Example of vertically mounted custom exhaust fan with (4) EC blowers. Output: 12,000 CFM @ 1.5" SP
Location: Roof



Example of horizontally mounted custom exhaust fan with (3) EC blowers. Output: 8,000 CFM @ 2" SP
Location: Mechanical Equipment Room

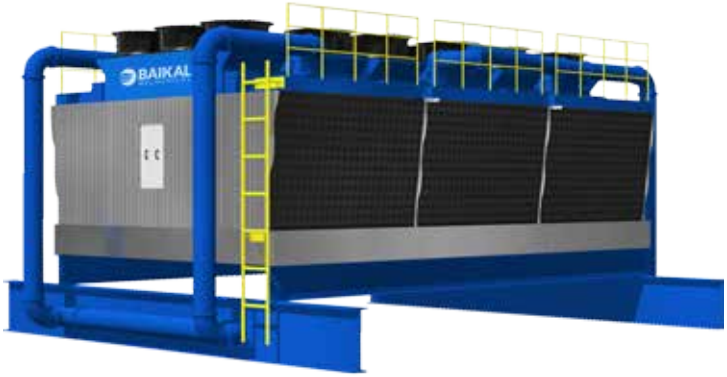
COOLING TOWERS

Crossflow and counterflow cooling towers can be upgraded to integrate Baikal EC fans onto a tower. By removing a single cell AC cooling tower fan and introducing Baikal's cooling tower EC fan array technology, CFM redundancy and energy savings now come into play. Similar to a fan wall in an air handler unit, an array of cooling tower EC fans can replace a large cooling tower single AC fan. Belts, pulleys, and AC motors no longer need to be maintained or replaced. Cooling tower fans and all other required parts will fit through a standard office door and can be brought to the job site without the need for special rigging or cranes.

Maintenance on a large traditional cooling tower AC fan is not only time consuming, but can be difficult due to the location, height, access, and size of a large cooling tower AC fan. Baikal's cooling tower EC fan array technology can accommodate cooling tower capacities from 10 – 1000 tons.

The Advantages of a Cooling Tower upgrade include:

- 30-35% Energy Savings!
- Monetary savings on PM maintenance (100% Free maintenance direct drive EC technology).
- Monetary savings on VFD maintenance. EC technology offers full VFD ability.
- Redundancy: if one fan fails, the other fans in the array will speed up to make up for the CFM loss.
- Less vibration and noise compared to traditional belt driven fans.



Example of Cooling Tower fan array – 100,000 CFM

CUSTOM AIR HANDLING UNITS

Baikal Mechanical's air handler units (AHUs) can deliver from 500 – 50,000 CFM. The AHU's use a modular design which allows us to meet your current and future needs. Modular components from Baikal can be swapped in or out to increase your capabilities. Installation costs are minimized because special rigging for the units is not required. All components can be brought to the site via stairs or elevators and do not require special crane rentals.

Baikal's AHUs increase indoor air quality, run quietly, and require minimal maintenance. The AHUs can be configured to provide the required CFM with internal static pressures up to 10". The modular design consists of easily removable panels and access doors which allow for easy maintenance.

HEPA filtration and air purification sections are available and can be provided based on your requirements. Customized control systems are available and include on-site monitoring. Baikal AHUs represent some of the most advanced systems on the market today. From EC fans to bluetooth connectivity options, Baikal Mechanical provides you with state of the art technology, performance, and reliability.

Available custom sections include:

blower, chilled water coil, hot water coil, DX coil, steam humidifier, preheat steam coil, reheat steam coil, prefilter, final filter, access, mixing box, damper, UV lights, bipolar ionizaion, etc.

Here are some pictures of typical air handler units designed and installed by Baikal Mechanical

Example of 4,000 CFM air handler unit with internal return fan, UV air purification, prefilters and final filters, chilled water cooling, hot water heating, steam humidifier for humidity control, and hoods for fresh air and spill air

BLOWER SECTION

Baikal's Blower sections incorporate EC fan array technology and provides CFM redundancy and energy savings. Fan arrays provide equal air distribution across the entire width and height of an air handler unit. This is important if you want to get optimal performance out of your coils. All new EC Fans and other components will fit through a standard office door and can be brought to the upgrade site without any special rigging or cranes.

All sections include a swing-in access door with window. Sections are constructed using aluminum extrusion and 2" double wall panels. Panels are insulated with 3lb density fiberglass. Options for the blower section include diamond plate decking and VFD control using state of the art technology. Unlike typical AC motor VFD cabinets which can be very large in size, the Baikal speed controller is approximately 6" wide x 4" tall x 3" deep and can be integrated into a small electrical enclosure.

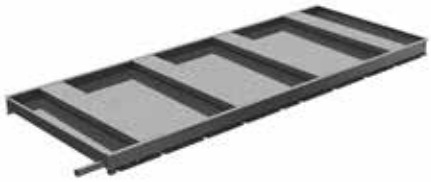
Controller for Fan Array

WATER COIL SECTION

Baikal can size a new chilled or hot water coil for you if needed. We can replace any existing water coil with a new coil that is equal in performance or better. Our chilled water and hot water sections are provided with sloped stainless steel drain pans which prevent condensate from the coil going onto the floor or spreading to other sections of the air handler unit. Options for chilled water coil sections include mist eliminators which can be integrated onto the coil face to prevent water carry over past the drain pan when air is traveling through a coil at excessive speeds. We only use coil suppliers located in the USA. Chilled water sections also provide for access to both side of the coil (front and back).

Our chilled water and hot water sections are constructed using aluminum extrusion and 2” double wall panels. Panels are insulated with 3lb density fiberglass.

Example of chilled water coil section with coil, drain pan, and access door



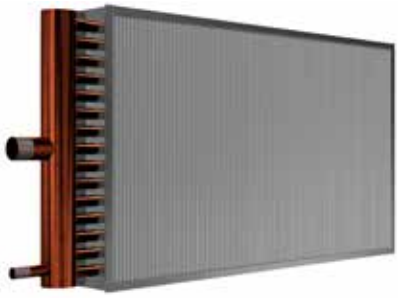
Example of drain pan included with water coil section

STEAM COIL SECTION

Baikal Mechanical can size a new steam coil for you if needed. Our in house experts can replace any steam coil you have and give you a new coil that is equal in performance or better. Our steam coil sections are provided with a sheet metal track that the coil is slide onto. Blocking panels are then installed around the coil to prevent air from going around the coil.

Steam coil sections are constructed using aluminum extrusion and 2” double wall panels. Panels are insulated with 3lb density fiberglass.

Steam coil section



Steam coil

HUMIDIFICATION SECTION

Humidifier sections add moisture into the air. When there is not enough moisture in the air, a humidifier can add moisture into the air stream, increasing the humidity level of the air supplied by the air handler unit.

Humidifiers also reduce static electricity in the air. Humidifer sections are provided with sloped drain pans which prevent condensation from going onto the floor.

Our humidifier sections are constructed using aluminum extrusion and 2” double wall panels. Panels are insulated with 3lb density fiberglass.

Section with steam humidifier on top of drain pan

AIR PURIFICATION SECTION

Baikal Mechanical can manufacture sections that eliminate pathogens, viruses, and mold in the air stream. Through the use of ultraviolet light and/or needlepoint bi-polar ionization, DNA based airborne contaminants such as bacteria, viruses, and mold spores can be eliminated. Filters trap dust, pollen and other particles but in order to remove harmful bacteria and viruses from the air stream you need to either use needlepoint bi-polar ionization or ultraviolet light. An additional benefit of ultraviolet light and needle point bi-polar ionization is that your coils remain clean which reduces maintenance costs, increases equipment life and removes odors from the air.

Air Purification sections are constructed using aluminum extrusion and 2” double wall panels. Panels are insulated with 3lb density fiberglass.

Section with UV lights

FILTRATION SECTION

Filtration sections can be manufactured that contain pleated filters, bag filters, and Hepa filter options. Depending upon the location of the filter section, custom filter racks can be designed to allow the filters to slide in and out of the filter rack or they can be made to allow the filters to be installed and removed by snapping the filters into place from behind the filter rack. Depending upon which style of filter rack is appropriate for the application, an access door can be located to allow for removal and replacement of the filters.

Filters ranging from Merv 8 to Merv 20 (Hepa Filter) can be designed into a custom filtration section. Filtration sections are constructed using aluminum extrusion and 2” double wall panels. Panels are insulated with 3lb density fiberglass.

Section with Merv 8 pleated filters

Pleated filters

Example of Hepa filters installed in a filter frame from the back.
Filters are snapped into the frame by pushing them in from the back side

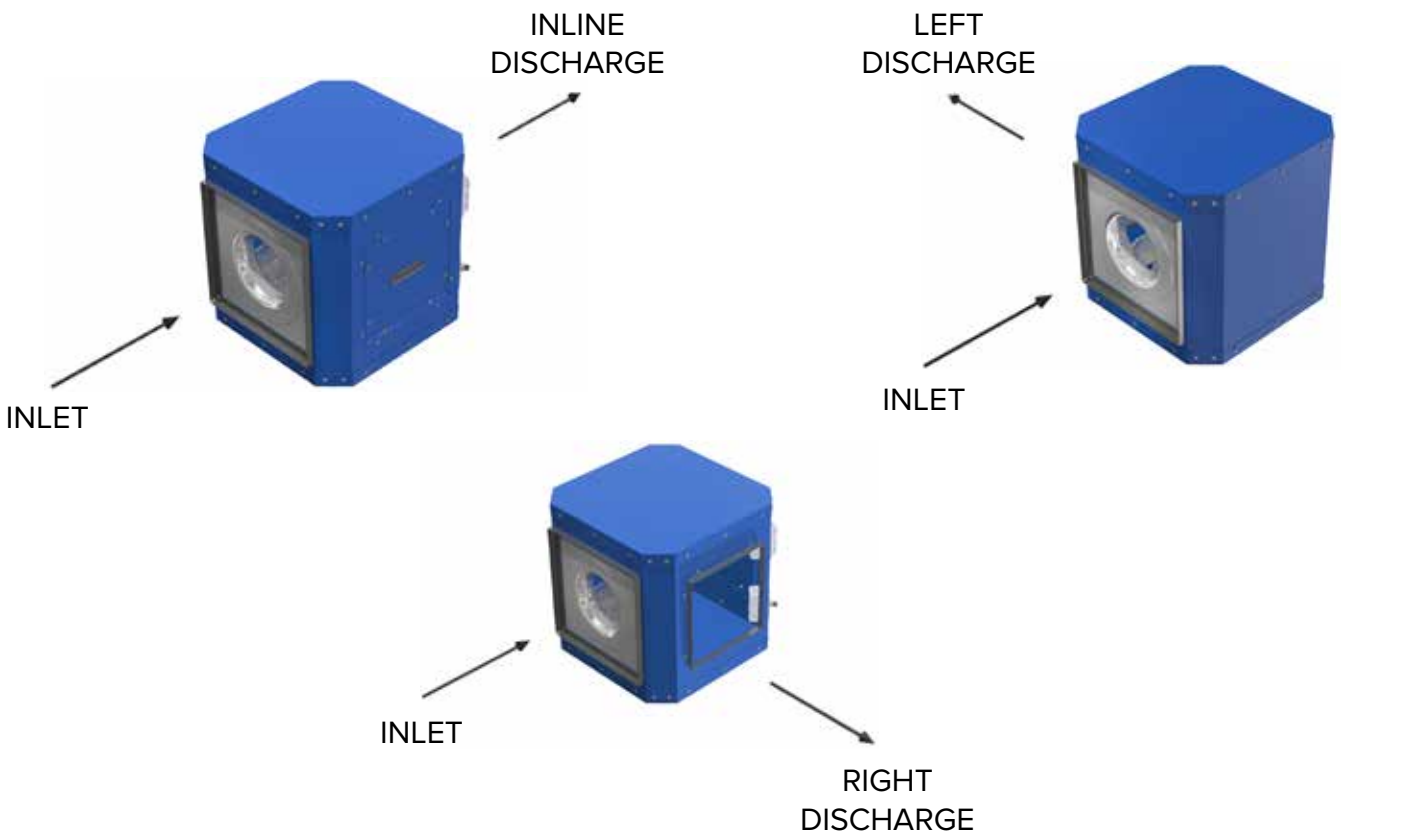
Hepa filter

Bag filter array

EXHAUST FANS

Baikal Mechanical manufactures custom BKL-EZA direct drive exhaust fans that represent the leading edge in energy efficient products. These fans can be used in-line with existing duct work for supply and exhaust applications. They produce superior CFM output at lower amperages (lower running costs) and are more efficient and quieter than traditional belt drive fans. They can provide static pressure up to 2in wg (1,000 Pa) with flow capacities up to 9,000 CFM (15,291 m3/hr).

These fans can be installed horizontally, vertically, or at any angle required to mate up with existing ductwork. Exhaust options includes left, right, top, bottom and front sides. Multiple exhaust directions are possible with the BKL-EZA direct drive fan and can easily be configured to meet any customer need or requirement.



Baikal Mechanical fans consist of single inlet, backwards-curved, high efficiency impellers made of high strength ZAmid composite material. ZAmid is microbially inert and is suitable for stricter hygiene requirements as well as clean rooms. The impellers have been designed and optimized using computational fluid dynamics (CFD) to maximize airflow output.

The fan inlet cone is airflow optimized and equipped with an air volume measuring system (pressure sensing ring). The fan is driven by an electronically commutated motor (EC-Motor) with external rotor and integrated electronics. The integration of the electronics in the motor allows a simple connection of the power and control lines. The fan consists of a motor-impeller with installed inlet cone and electronic control unit (ECU). The motor is manufactured with maintenance-free ball bearings both side closed with long-term lubrication.

EXHAUST FAN CONSTRUCTION FEATURES

- Fan housings are constructed of aluminum.
  (Stainless steel construction is optional for all model sizes).
- All fan housings are powder coated which prevents rust and adds to aesthetic appearance.
- Maintenance and service door provides easy access to fan, variable speed control, and power wiring.
- Discharge can be configured in any direction per application. (ex: left, right, top, or mushroom style)
- Direct drive EC motor provides efficient transfer of power to fan.
- Fan operates quieter than traditional direct drive fans due less friction and moving components.
- Manual variable speed control is included on all models and allows for the adjustment of air flow for system balancing.
- All wiring and electronics are NEC compliant and UL certified.

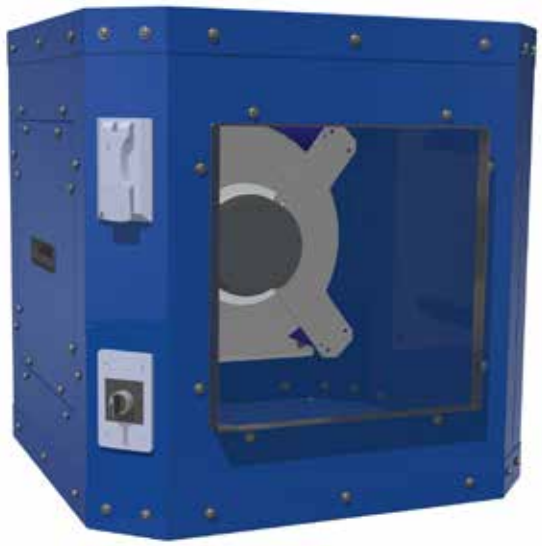
EXHAUST FAN OPTIONS:

- Vibration isolators are available for floor mounted or ceiling installations.
- Backdraft dampers.
- Digital/Remote variable speed controllers (Wifi) are available as additional options.
- Outlet grills.
- Configurable output – side panels can removed/added to direct airflow (left, right, top, bottom, front).
- Special order powder coat colors are available upon request.

UL Certification
Baikal Mechanical fans carry the UL label, 705 (ZACT), listed under File#E482457. Check Underwriters Laboratories Re-Examination Service for specific units listed.

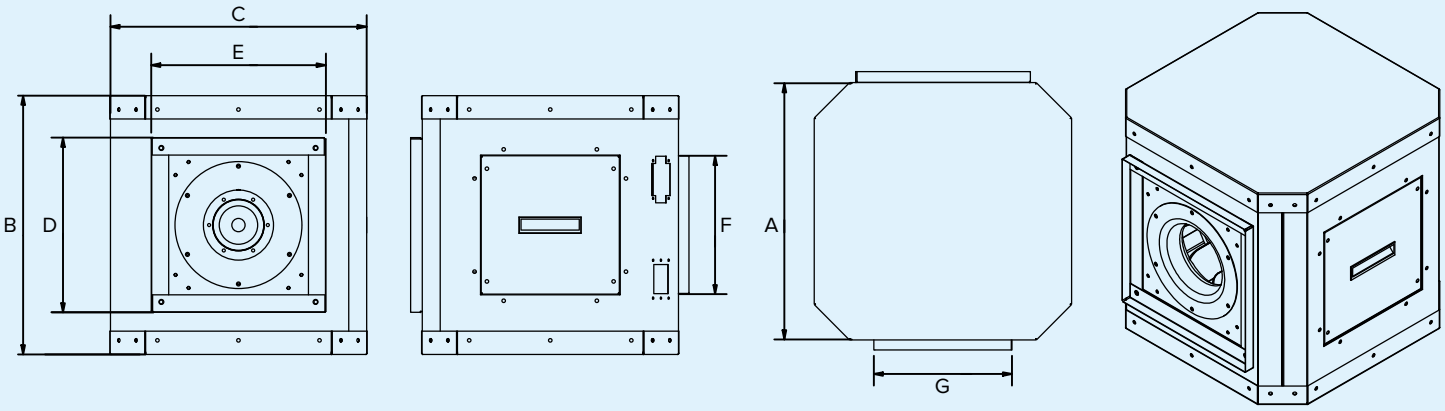
PLENUM-EXHAUST FANS

Baikal Mechanical fans can be installed horizontally, vertically, or at any angle required to mate up with existing ductwork. These fans can be installed on a roof or in a Mechanical Equipment Room (MER).



Model's name		Main supply	Unit dimensions						
Box type	Fan type		A	B	C	D	E	F	G
BKL-EZA-25	250-110-1-115265	1~ 110V 60 Hz	22	22 1/4	22	15	15	12	12
BKL-EZA-31-35	315-110-1-115267	1~ 110V 60 Hz	26	26 1/4	26	18	18	16	16
	315-208-1-113674	1~ 208V 60 Hz	26	26 1/4	26	19	19	16	16
	315-208-3-114911	3~ 208V 60 Hz	26	26 1/4	26	18	18	16	16
	315-208-1-114857	1~ 208V 60 Hz	26	26 1/4	26	18	18	16	16
	315-480-3-114914	3~ 480V 60 Hz	26	26 1/4	26	18	18	16	16
	355-208-1-114539	1~ 208V 60 Hz	26	26 1/4	26	20	20	16	16
	355-208-3-114540	3~ 208V 60 Hz	26	26 1/4	26	20	20	16	16
	355-208-3-182251	3~ 208V 60 Hz	26	26 1/4	26	20	20	16	16
BKL-EZA-40-45	400-480-3-114720	3~ 480V 60 Hz	24	28 1/4	30	23	23	20	14
	450-208-1-114548	1~ 208V 60 Hz	24	28 1/4	30	24	24	20	14
	450-208-3-115484	3~ 208V 60 Hz	24	28 1/4	30	24	24	28	14
BKL-EZA-50-56	500-208-3-114651	3~ 208V 60 Hz	30	34 3/8	36	26	24	24	18
	560-208-3-114655	3~ 208V 60 Hz	30	34 3/8	36	28	28	24	18
	560-480-3-114726	3~ 208V 60 Hz	30	34 3/8	36	28	28	24	18

*Fan performance curves begin on page 27



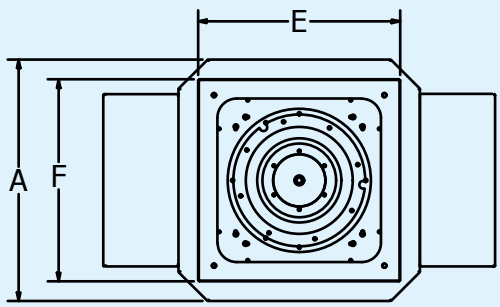
Front Side Top Isometric

MUSHROOM FANS

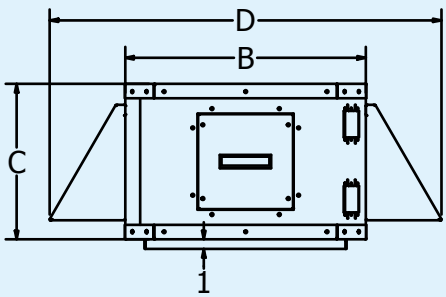
Baikal Mechanical fans are for roof top applications and can mate with existing ductwork and/ or roof curb.

Model's name		Main supply	Unit dimensions					
Box type	Fan type		A	B	C	C	E	F
BKL-MZA-25	250-110-1-115265	1~ 110V 60 Hz	20	20	15	34 1/2	16	16
BKL-MZA-31-35	315-110-1-115267	1~ 110V 60 Hz	25	25	16 1/4	40 3/4	20	20
	315-208-1-113674	1~ 208V 60 Hz	25	25	16 1/4	40 3/4	20	20
	315-208-3-114911	3~ 208V 60 Hz	25	25	16 1/4	40 3/4	20	20
	315-208-1-114857	1~ 208V 60 Hz	25	25	16 1/4	40 3/4	20	20
	315-480-3-114914	3~ 480V 60 Hz	25	25	16 1/4	40 3/4	20	20
	355-208-1-114539	1~ 208V 60 Hz	25	25	16 1/4	40 3/4	21	21
	355-208-3-114540	3~ 208V 60 Hz	25	25	16 1/4	40 3/4	21	21
	355-208-3-182251	3~ 208V 60 Hz	25	25	16 1/4	40 3/4	21	21
BKL-MZA-40-45	400-480-3-114720	3~ 480V 60 Hz	28	28	18 1/4	46	24	24
	450-208-1-114548	1~ 208V 60 Hz	28	28	18 1/4	46	24	24
	450-208-3-115484	3~ 208V 60 Hz	28	28	18 1/4	46	24	24
BKL-MZA-50-56	500-208-3-114651	3~ 208V 60 Hz	33	33	22 1/4	55 1/4	28	28
	560-208-3-114655	3~ 208V 60 Hz	33	33	22 1/4	55 1/4	28	28
	560-480-3-114726	3~ 208V 60 Hz	33	33	22 1/4	55 1/4	28	28

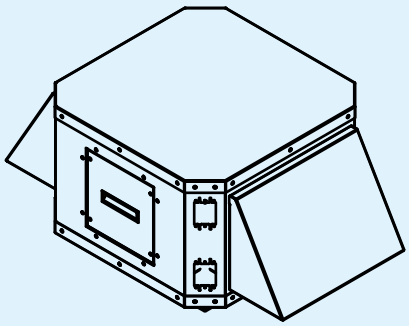
*Fan performance curves begin on page 27



Front



Side



Isometric

FAN PERFORMANCE

All Baikal fans use German direct drive EC motors (Electronically Commutated) technology. They are 15-20% more efficient than traditional direct drive fans using AC motors and 20-30% more efficient than traditional belt driven fans. Baikal fans have soft startup and VFD (Variable Frequency Drive) ability. Baikal offers a full line of the latest HVAC control systems (from Europe and U.S.). For institutional and industrial HVAC markets, Baikal offers PLC touch screen controllers (BMS compatible) depending on the application.

For labs and other critical areas, Baikal offers differential pressure controllers that maintain CFM output based on specific static pressure or airflow parameters. Every one of our fans is 100% maintenance free. The bearings inside the EC motors are rated to last 40,000 hours. You will never have to worry about greasing bearings or changing belts in our fans.

Every one of our fans is 100% maintenance free. The bearings inside the EC motors are rated to last 40,000 hours. You will never have to worry about greasing bearings or changing belts in our fans.
Description:

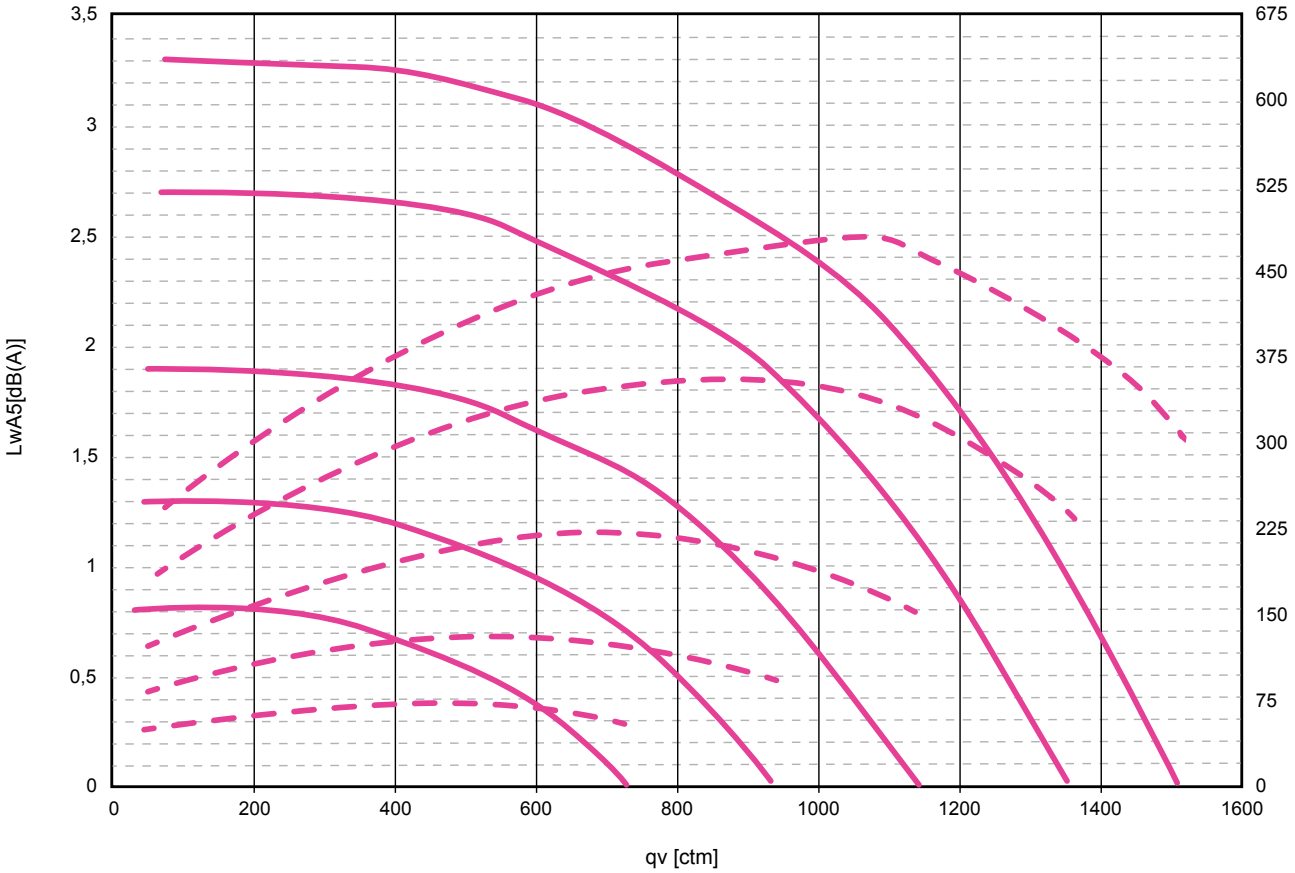
- All the motors are direct drive EC.
- Fan Speed is variable through the use of Potentiometer (provided with fan) or through the use of an external 0-10 volt signal.
- Bolted supporting structure made of aluminum sheet metal.
- Impellers are made from Aluminum or plastic.
- Inlet ring designed for optimum air flow, made of galvanized steel sheet with measuring device for determination of flow rate.
- Permissible ambient temperature range: 0 deg F to +140 deg F.

250-110-1-115265

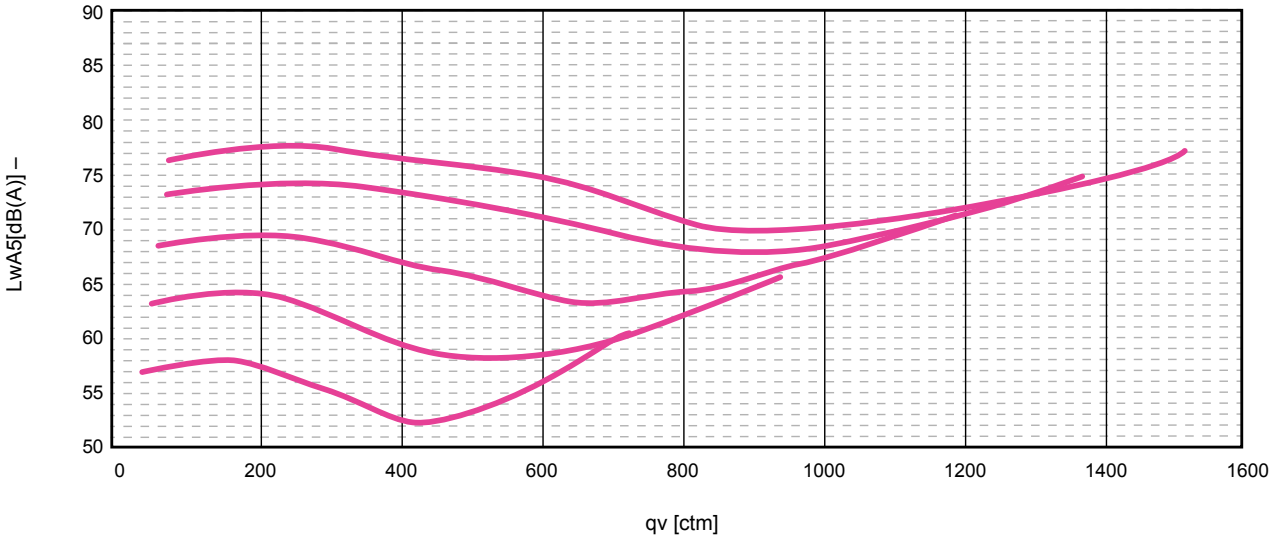
Technical data

Motor type	Impeller size, mm	Impeller material	Main power supply	Nominal values			Weight, kg	k-factor nozzle pres. (k)
				Power, kW	Current, A	Fan speed, rpm		
EC	250	Composite	1~ 110V 60 Hz	0.48	4.80 - 3.70	3030	11	73

Airflow - Pressure. Power Input.



Airflow - Acoustics.

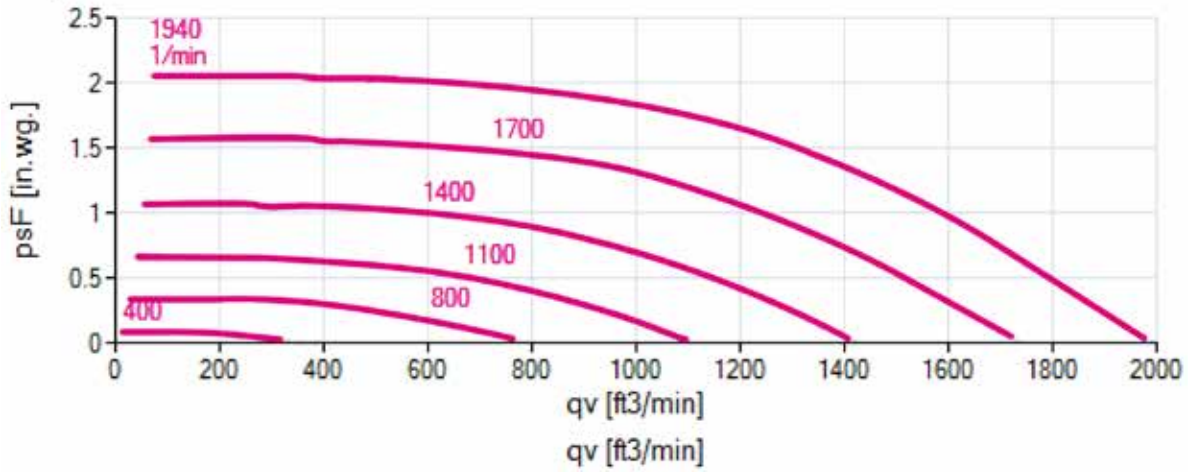


315-110-1-115267

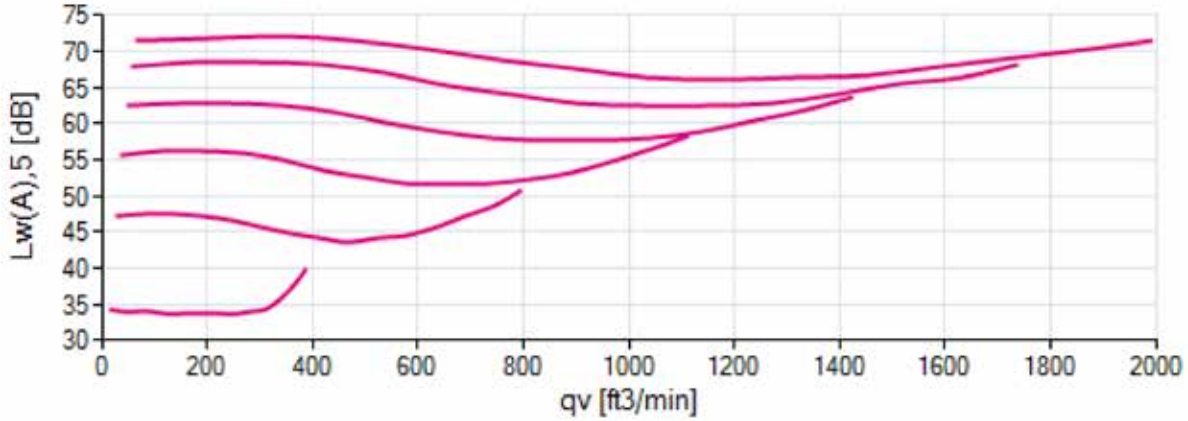
Technical data

Motor type	Impeller size, mm	Impeller material	Main power supply	Nominal values			Weight, kg	k-factor nozzle pres. (k)
				Power, kW	Current, A	Fan speed, rpm		
EC	315	Composite	1~ 110V 60 Hz	0.39	3.90 - 3.00	1940	12	95

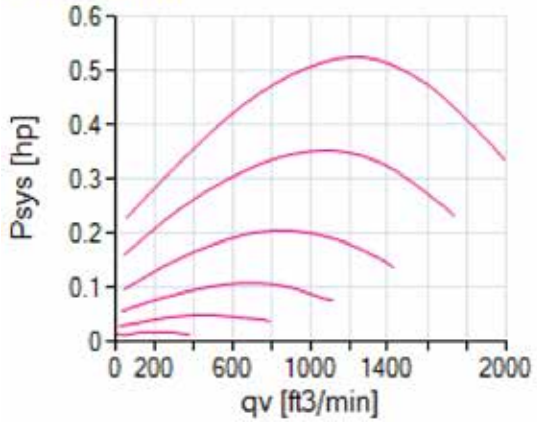
Air performance



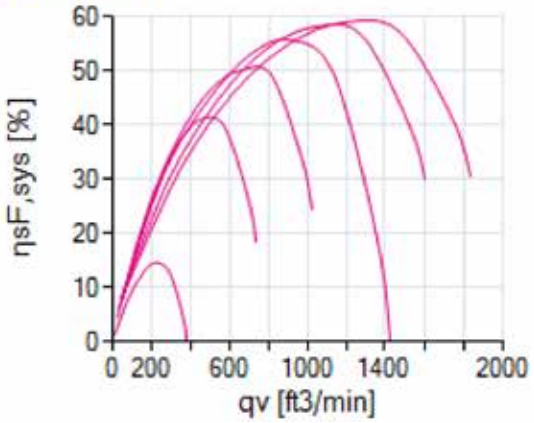
Acoustics



Power input



Efficiency

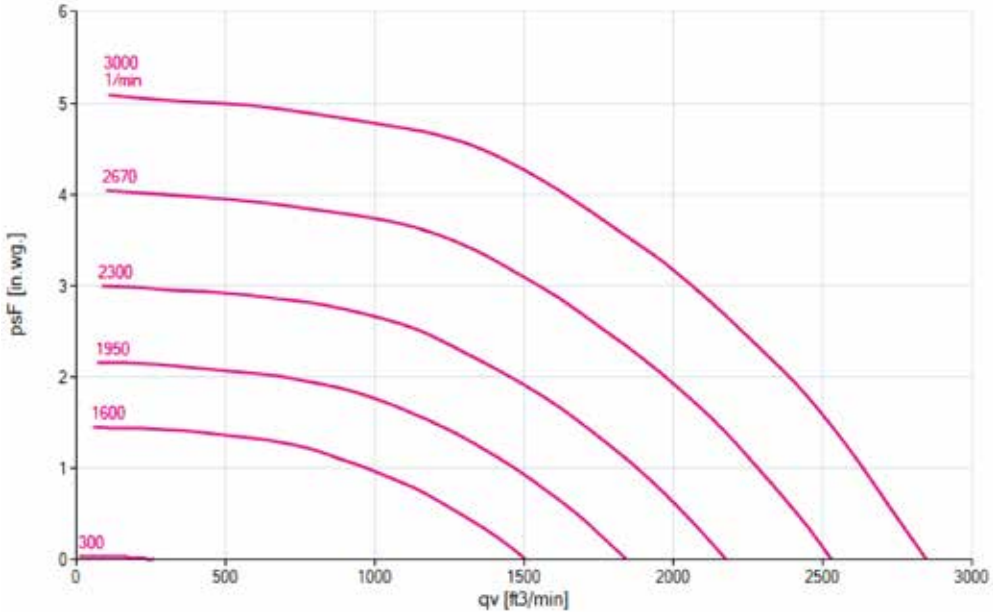


315-208-1-113674

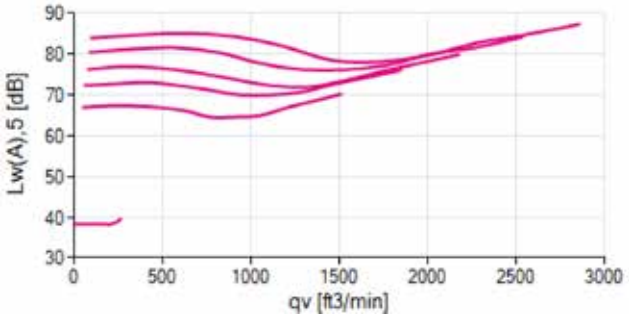
Technical data

Motor type	Impeller size, mm	Impeller material	Main power supply	Nominal values			Weight, kg	k-factor nozzle pres. (k)
				Power, kW	Current, A	Fan speed, rpm		
EC	315	Aluminum	1~ 208V 60 Hz	1.35	6.90 - 5.00	3000	19.8	95

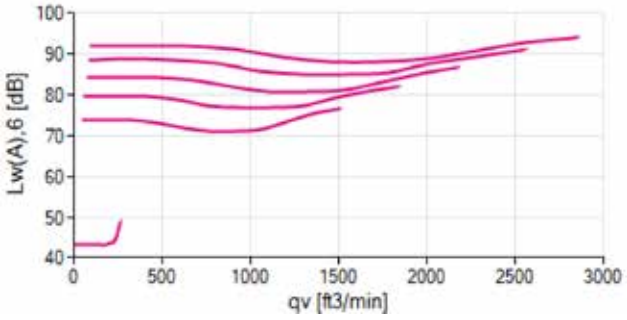
air performance p_{sF}



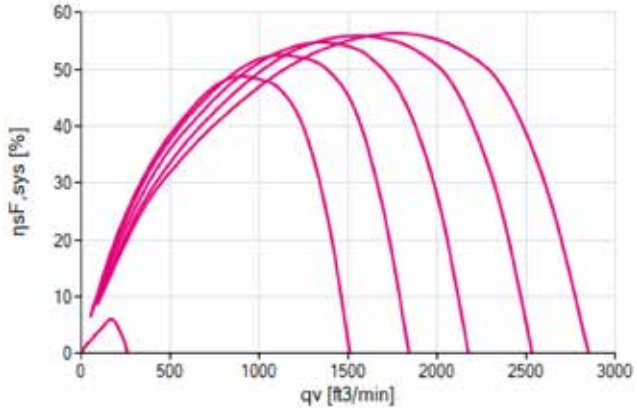
acoustics ($L_{w(A),5}$)



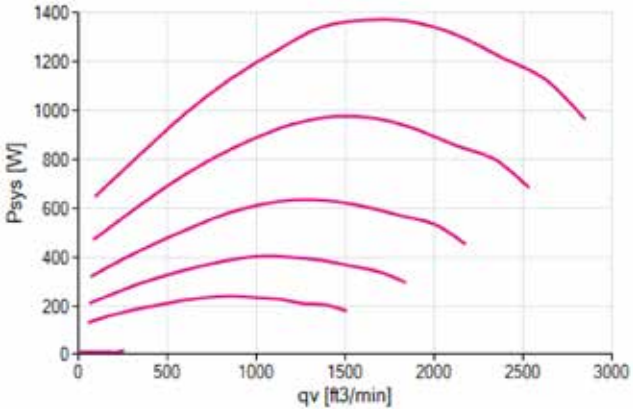
acoustics ($L_{w(A),6}$)



efficiency grade $\eta_{sF,sys}$



power input P_{sys}

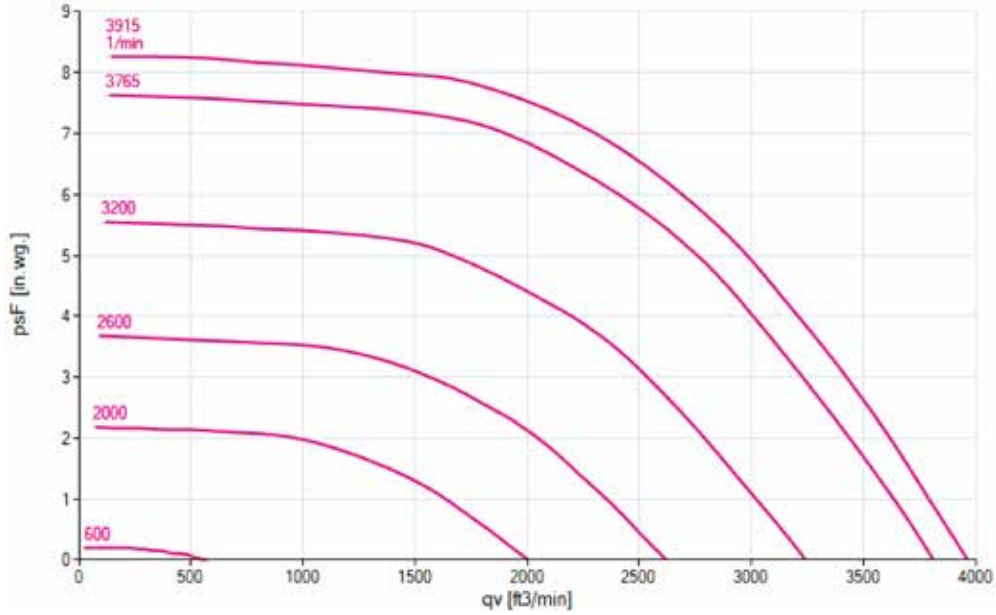


315-208-3-114911

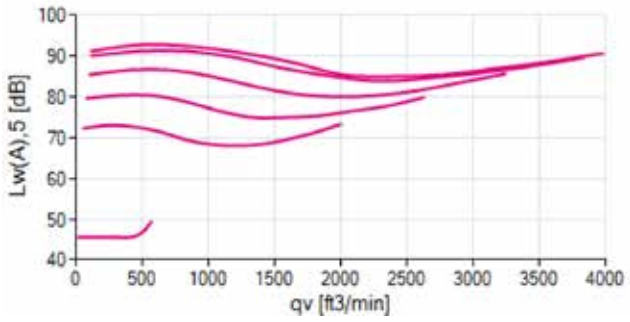
Technical data

Motor type	Impeller size, mm	Impeller material	Main power supply	Nominal values			Weight, kg	k-factor nozzle pres. (k)
				Power, kW	Current, A	Fan speed, rpm		
EC	315	Composite	3~ 208V 60 Hz	3.09	9.80 - 8.20	3910	18	95

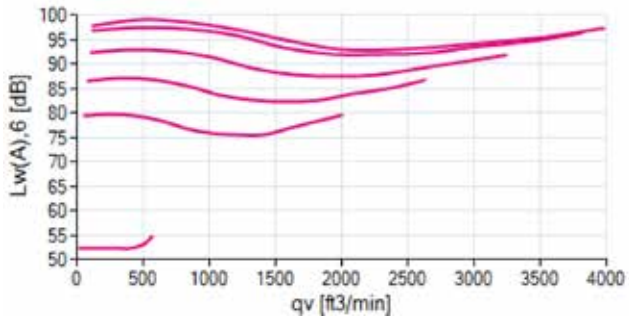
air performance p_{sF}



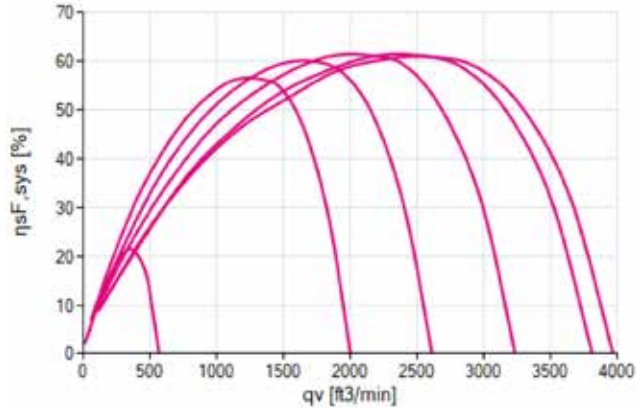
acoustics ($L_{w(A),5}$)



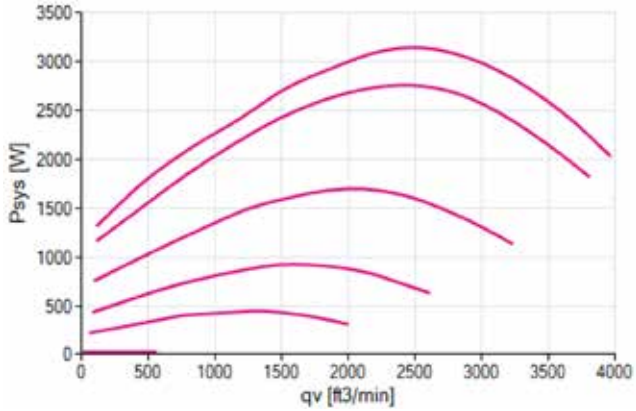
acoustics ($L_{w(A),6}$)



efficiency grade $\eta_{sF,sys}$



power input P_{sys}

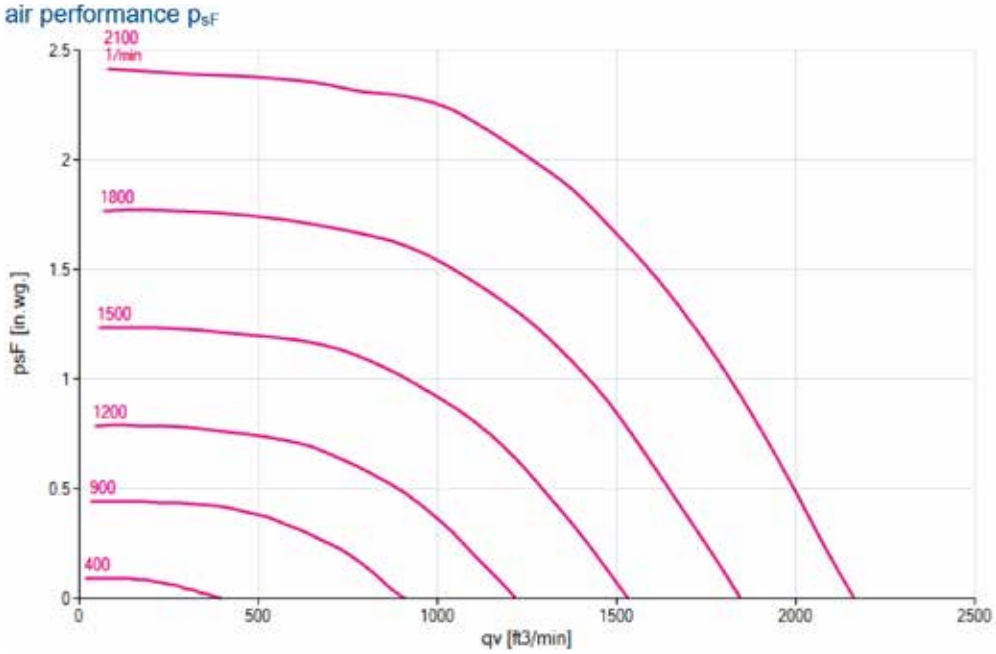


315-208-1-114857

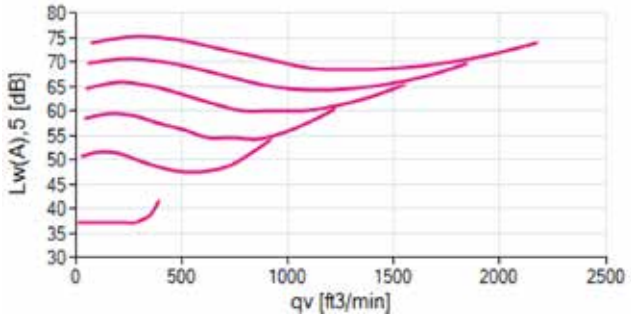
Technical data

Motor type	Impeller size, mm	Impeller material	Main power supply	Nominal values			Weight, kg	k-factor nozzle pres. (k)
				Power, kW	Current, A	Fan speed, rpm		
EC	315	Aluminum	3~ 208V 60 Hz	1.35	6.90 - 5.00	3000	19.8	95

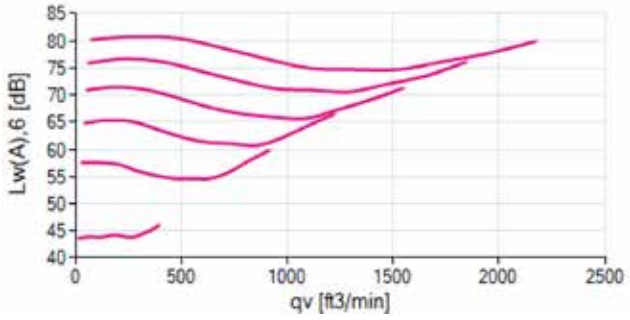
air performance p_{sF}



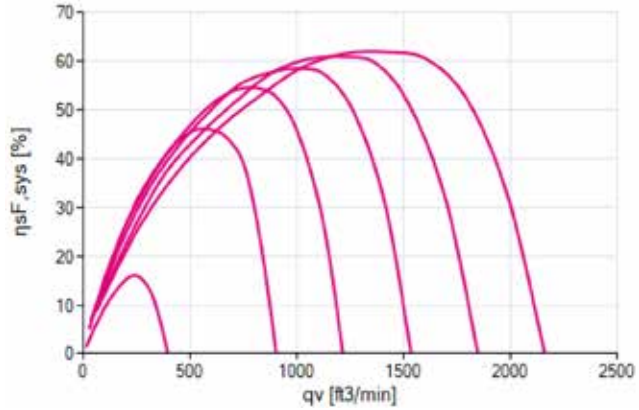
acoustics ($L_{w(A),5}$)



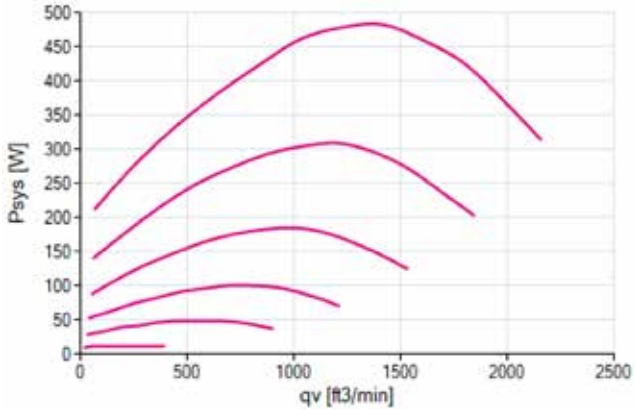
acoustics ($L_{w(A),6}$)



efficiency grade $\eta_{sF,sys}$



power input P_{sys}

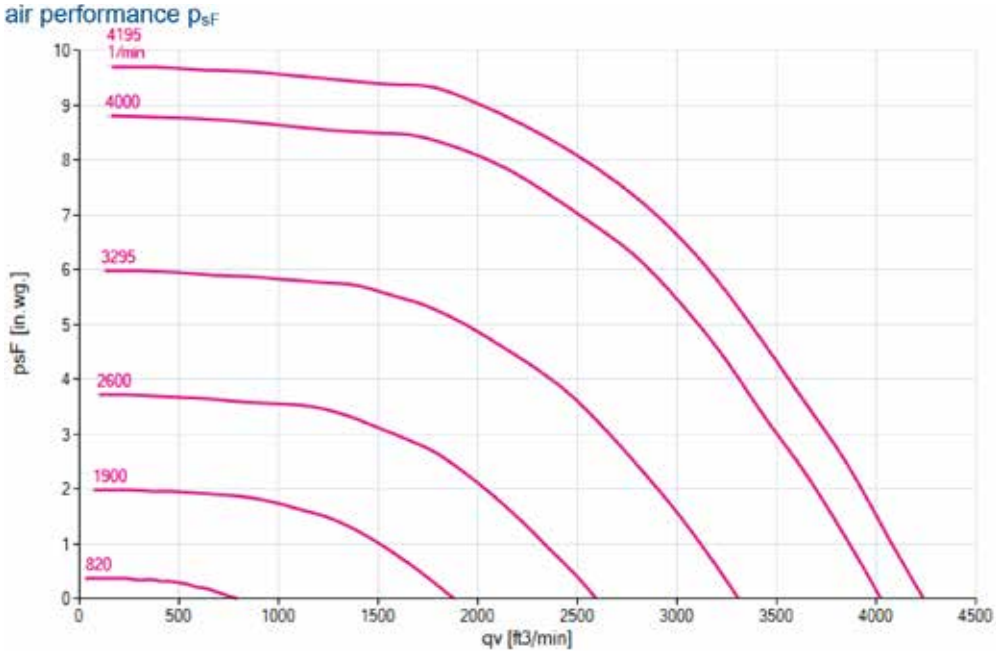


315-480-3-114914

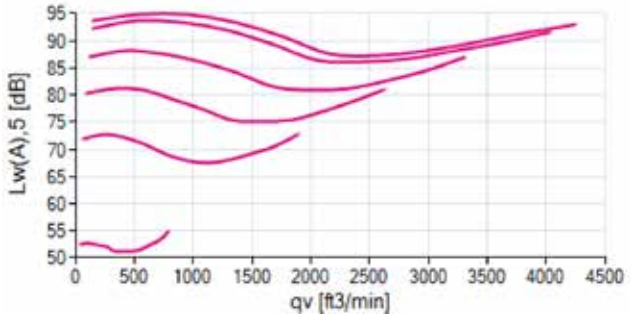
Technical data

Motor type	Impeller size, mm	Impeller material	Main power supply	Nominal values			Weight, kg	k-factor nozzle pres. (k)
				Power, kW	Current, A	Fan speed, rpm		
EC	315	Composite	3~ 480V 60 Hz	3.90	6.20 - 5.00	4200	20	95

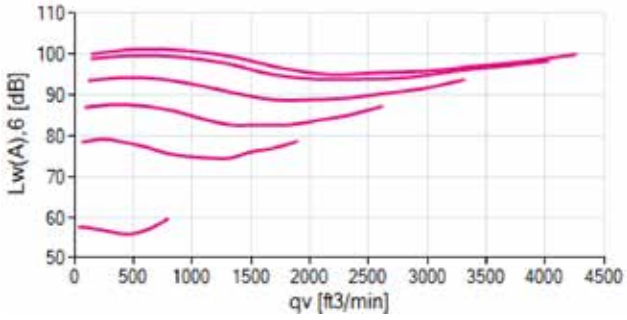
air performance p_{sF}



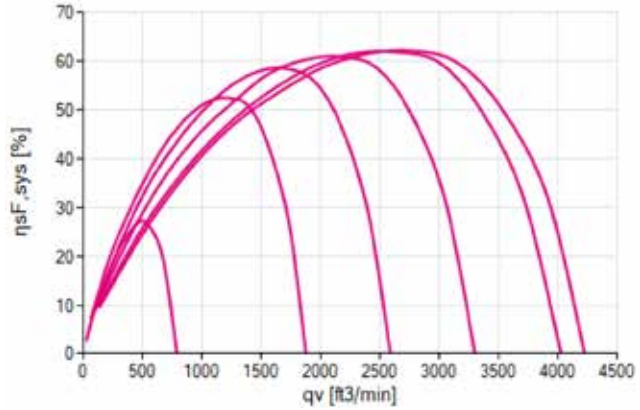
acoustics ($L_{w(A),5}$)



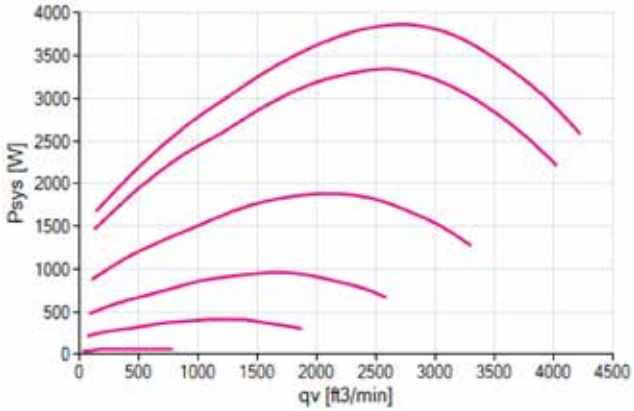
acoustics ($L_{w(A),6}$)



efficiency grade $\eta_{sF,sys}$



power input P_{sys}

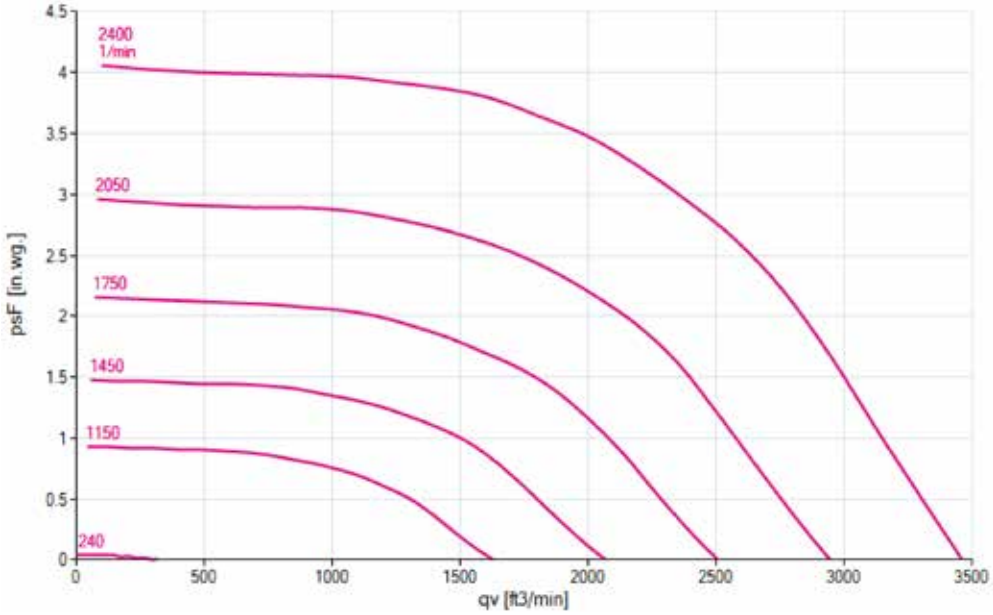


355-208-1-114539

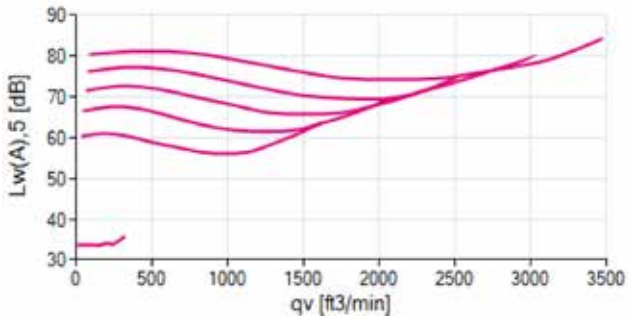
Technical data

Motor type	Impeller size, mm	Impeller material	Main power supply	Nominal values			Weight, kg	k-factor nozzle pres. (k)
				Power, kW	Current, A	Fan speed, rpm		
EC	315	Aluminum	1~ 208V 60 Hz	1.35	6.90 - 5.00	3000	19.8	95

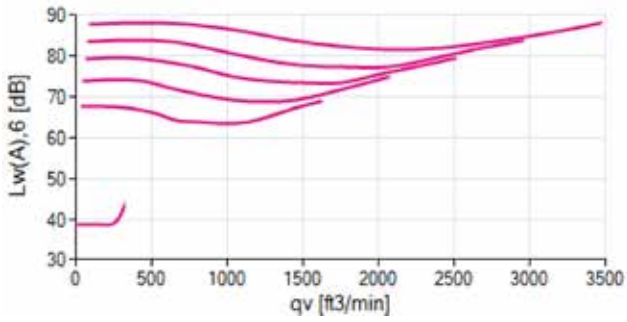
air performance p_{sF}



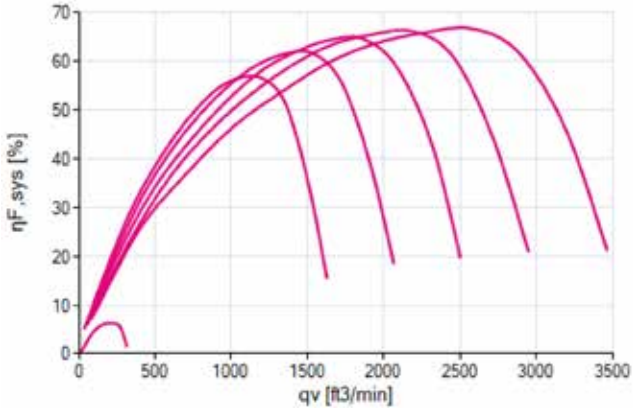
acoustics ($L_{w(A),5}$)



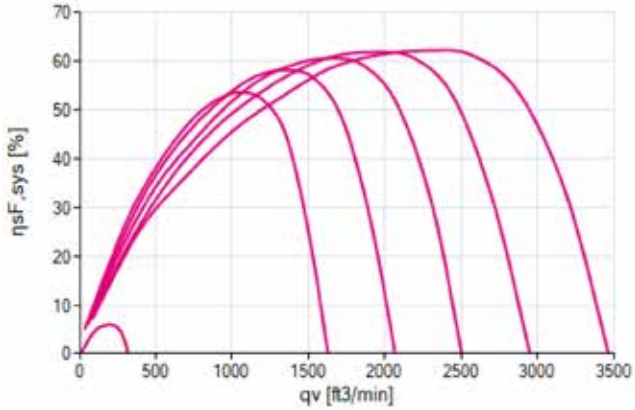
acoustics ($L_{w(A),6}$)



efficiency grade $\eta_{F,sys}$



efficiency grade $\eta_{sF,sys}$

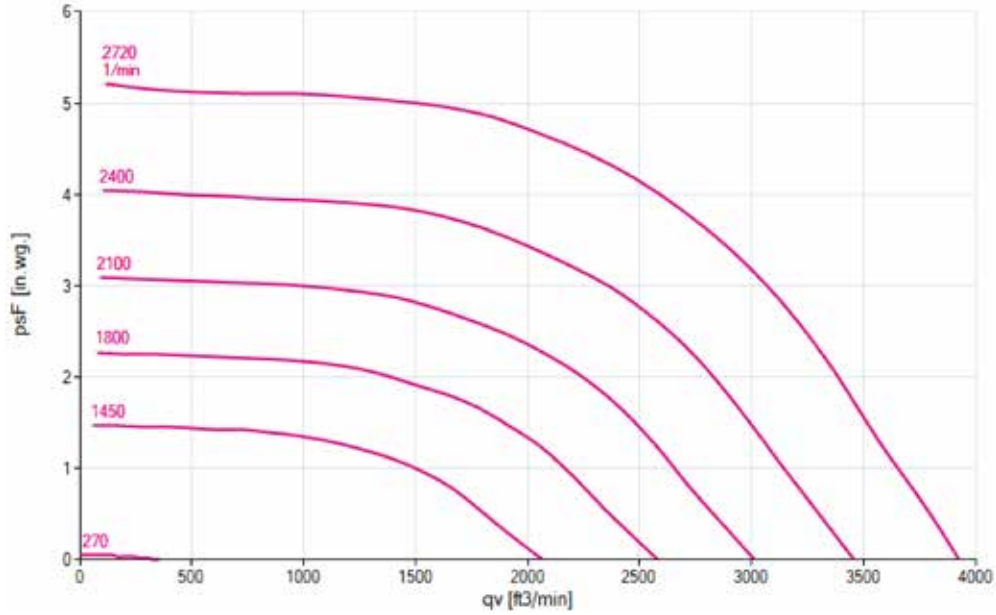


355-208-3-114540

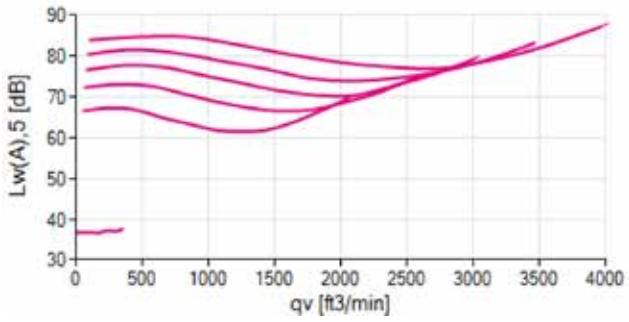
Technical data

Motor type	Impeller size, mm	Impeller material	Main power supply	Nominal values			Weight, kg	k-factor nozzle pres. (k)
				Power, kW	Current, A	Fan speed, rpm		
EC	355	Composite	3~ 208V 60 Hz	1.9	5.80 - 4.80	2720	18	121

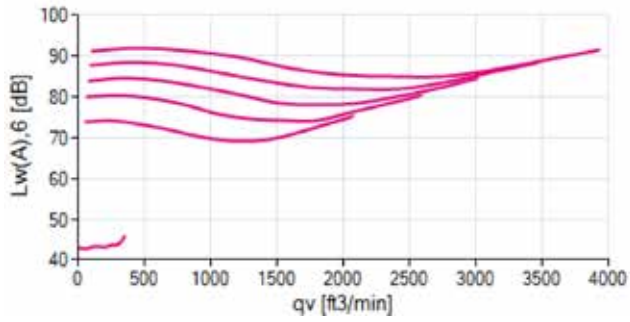
air performance p_{sF}



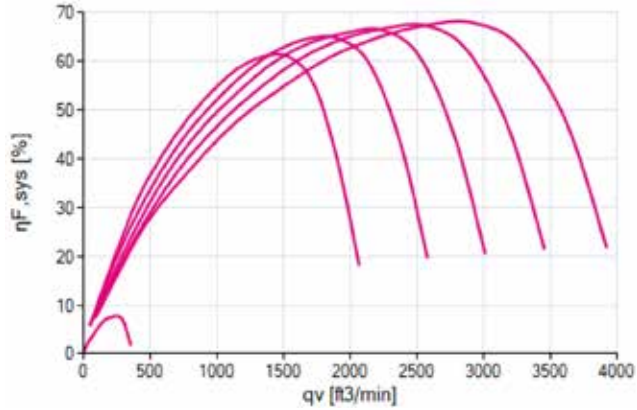
acoustics ($L_{w(A),5}$)



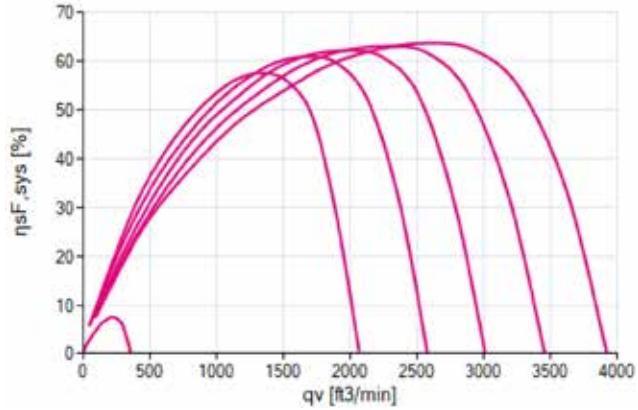
acoustics ($L_{w(A),6}$)



efficiency grade $\eta_{F,sys}$



efficiency grade $\eta_{sF,sys}$

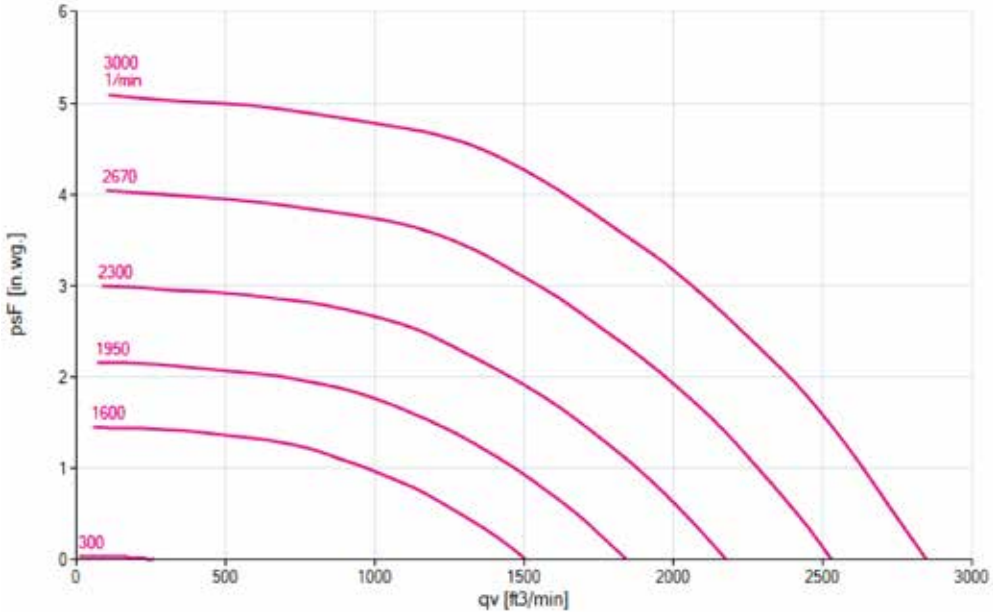


355-208-3-182251

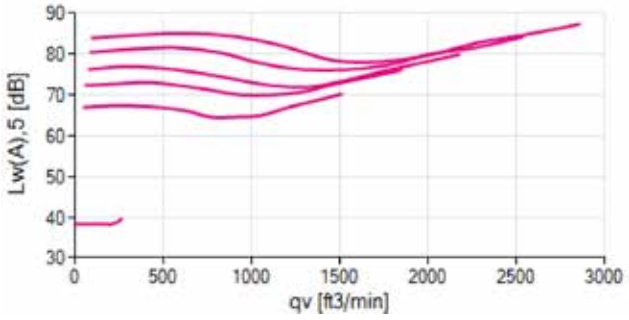
Technical data

Motor type	Impeller size, mm	Impeller material	Main power supply	Nominal values			Weight, kg	k-factor nozzle pres. (k)
				Power, kW	Current, A	Fan speed, rpm		
EC	315	Aluminum	3~ 208V 60 Hz	1.35	6.90 - 5.00	3000	19.8	95

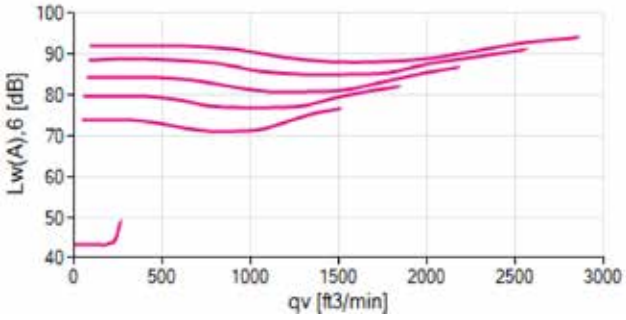
air performance p_{sF}



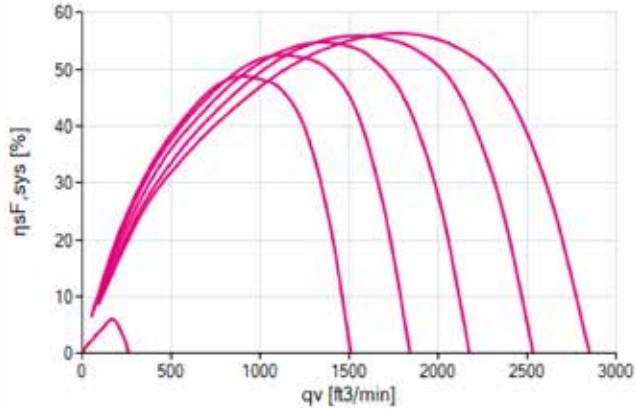
acoustics ($L_{w(A),5}$)



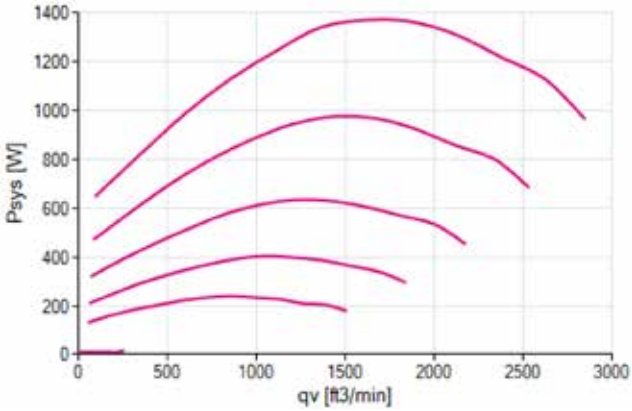
acoustics ($L_{w(A),6}$)



efficiency grade $\eta_{sF,sys}$



power input P_{sys}

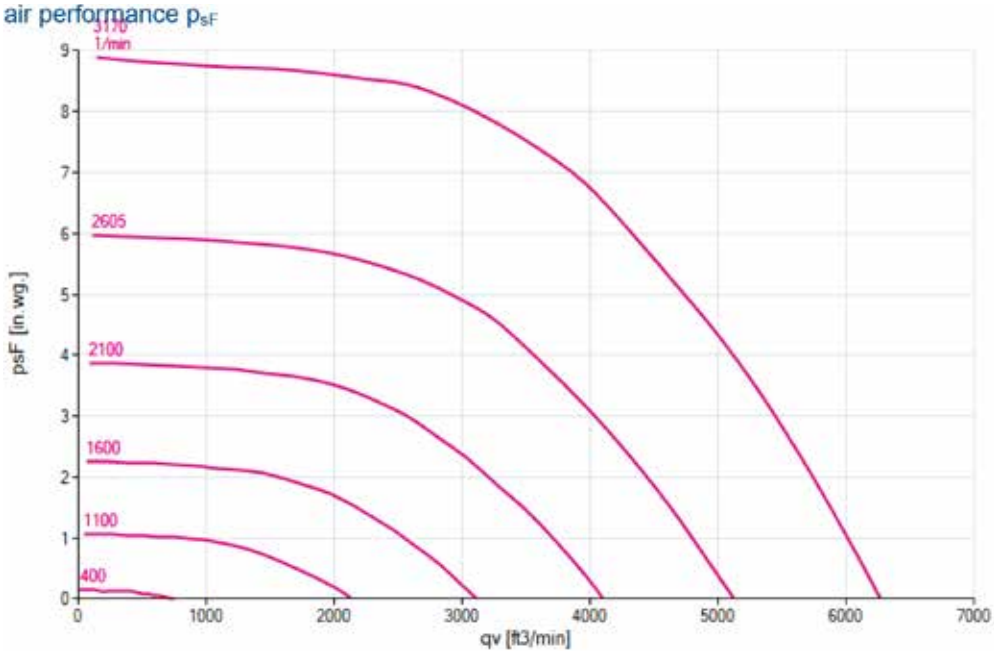


400-480-3-114720

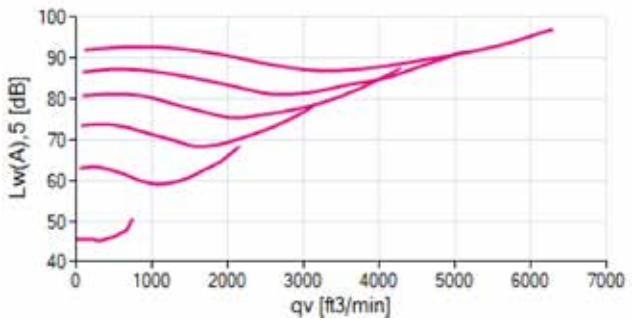
Technical data

Motor type	Impeller size, mm	Impeller material	Main power supply	Nominal values			Weight, kg	k-factor nozzle pres. (k)
				Power, kW	Current, A	Fan speed, rpm		
EC	400	Composite	3~ 480V 60 Hz	5.6	9.00 - 7.10	3170	37	154

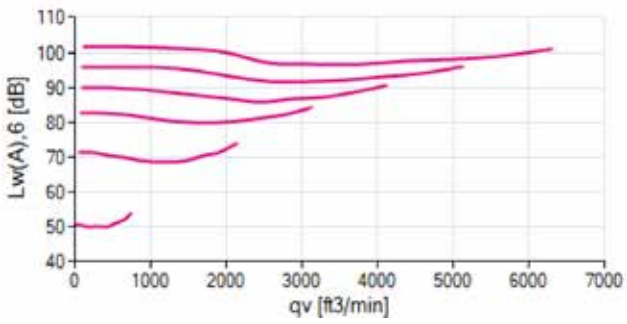
air performance p_{sF}



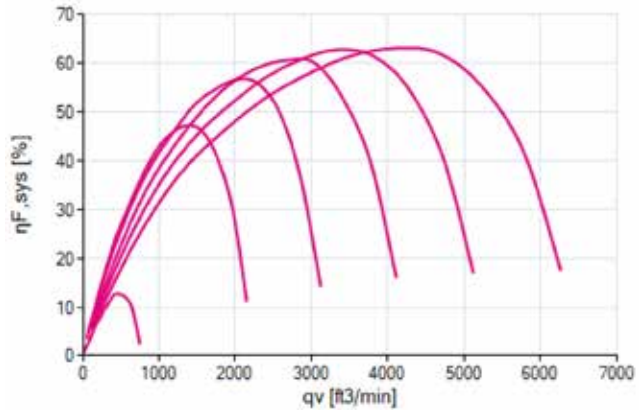
acoustics ($L_{w(A),5}$)



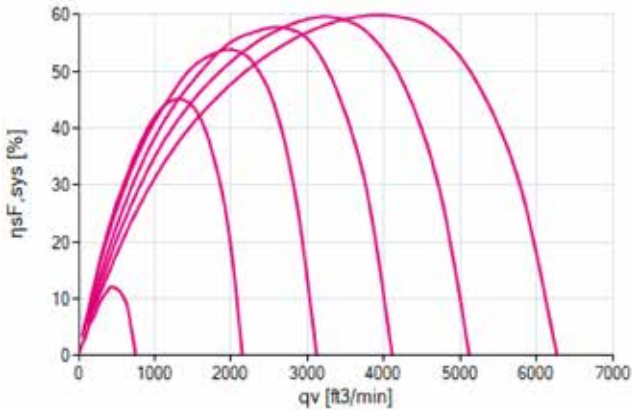
acoustics ($L_{w(A),6}$)



efficiency grade $\eta_{F,sys}$



efficiency grade $\eta_{sF,sys}$

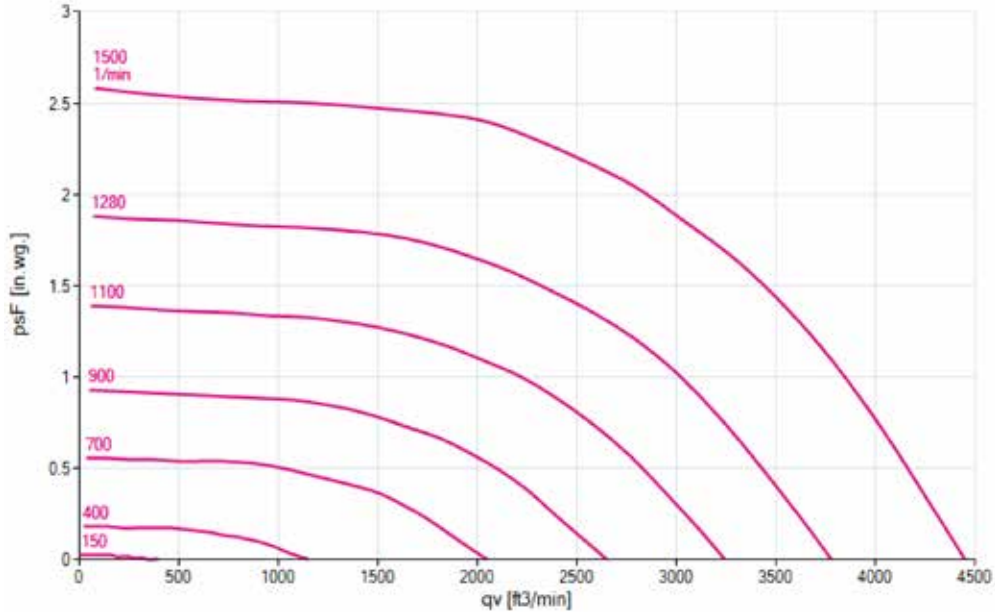


450-208-1-114548

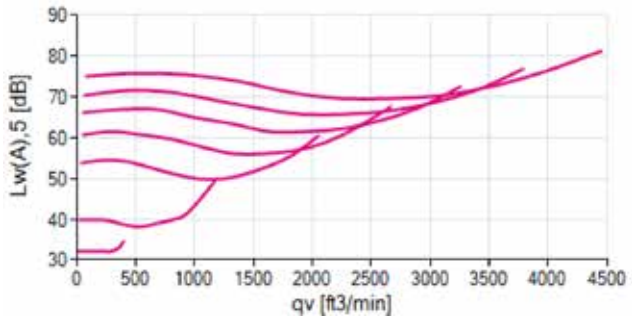
Technical data

Motor type	Impeller size, mm	Impeller material	Main power supply	Nominal values			Weight, kg	k-factor nozzle pres. (k)
				Power, kW	Current, A	Fan speed, rpm		
EC	450	Composite	1~ 208V 60 Hz	1.05	5.80 - 4.20	1500	32	197

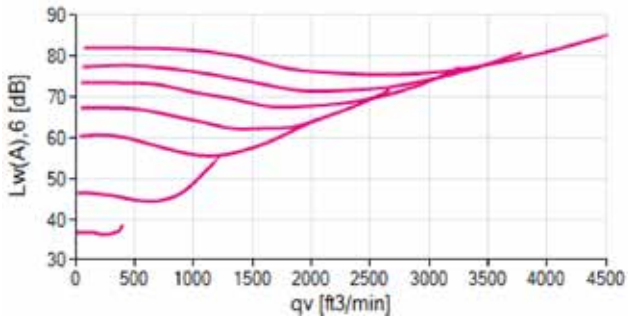
air performance p_{sF}



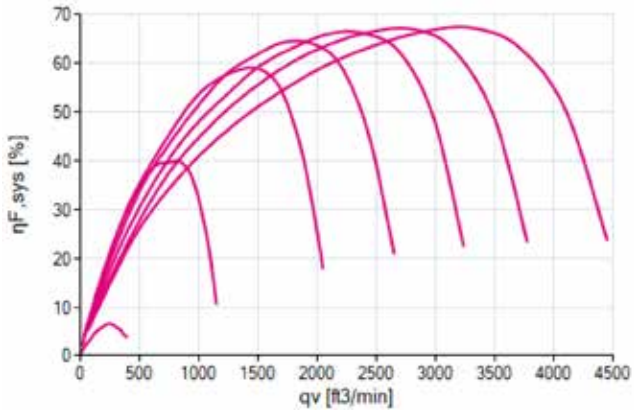
acoustics ($L_{w(A),5}$)



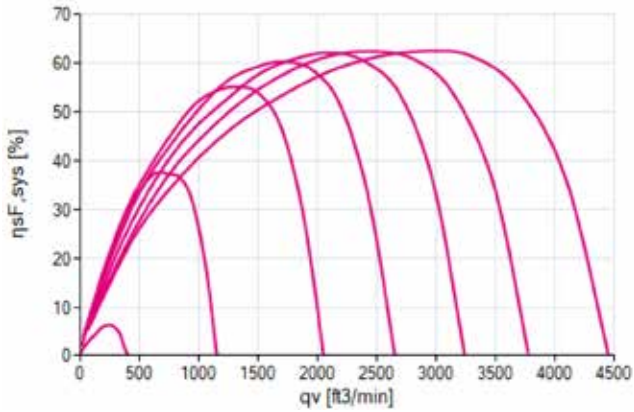
acoustics ($L_{w(A),6}$)



efficiency grade $\eta_{F,sys}$



efficiency grade $\eta_{sF,sys}$

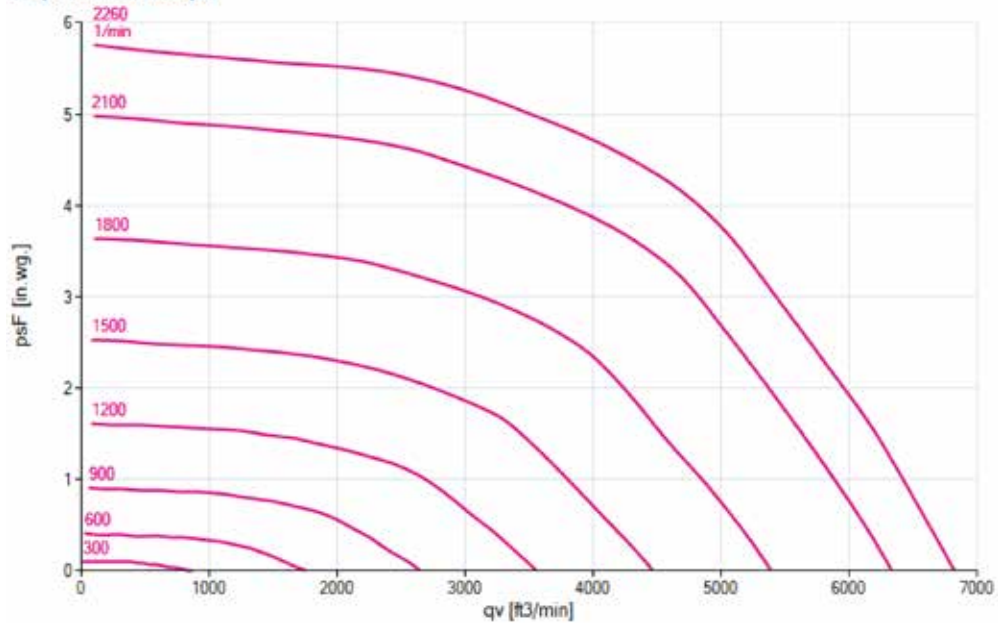


450-208-3-115484

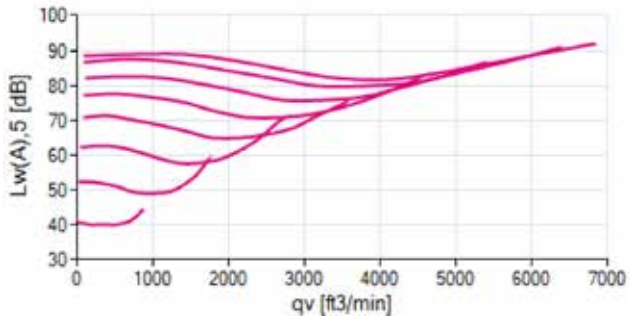
Technical data

Motor type	Impeller size, mm	Impeller material	Main power supply	Nominal values			Weight, kg	k-factor nozzle pres. (k)
				Power, kW	Current, A	Fan speed, rpm		
EC	450	Composite	3~ 208V 60 Hz	3.60	11.00 - 9.20	2260	42	197

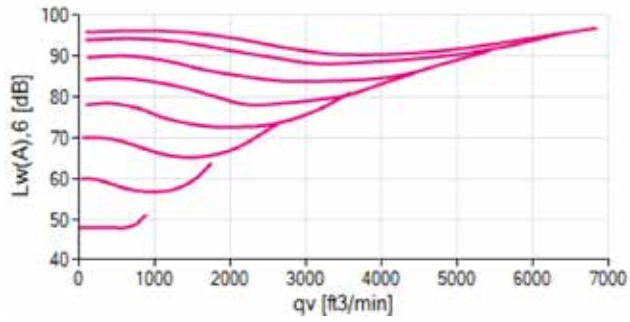
air performance p_{sF}



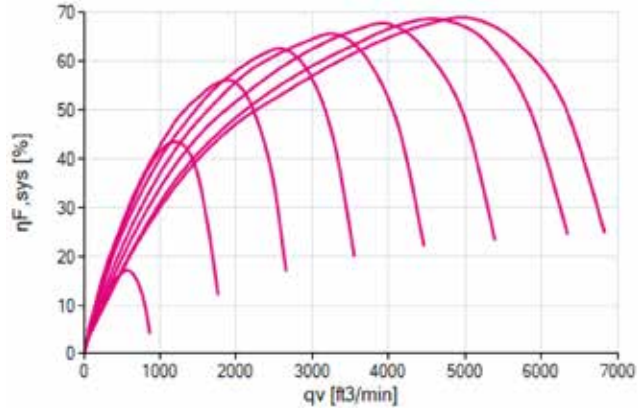
acoustics ($L_{w(A),5}$)



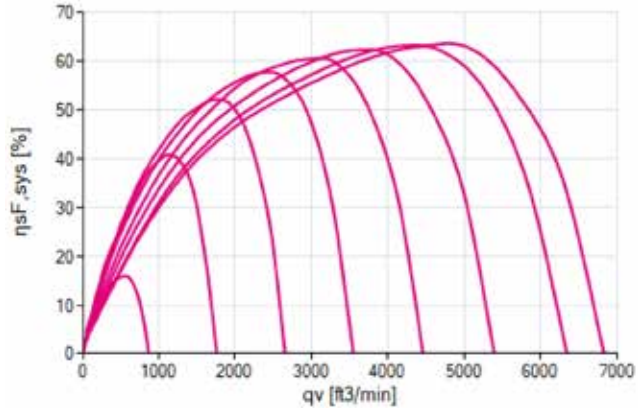
acoustics ($L_{w(A),6}$)



efficiency grade $\eta_{F,sys}$



efficiency grade $\eta_{sF,sys}$

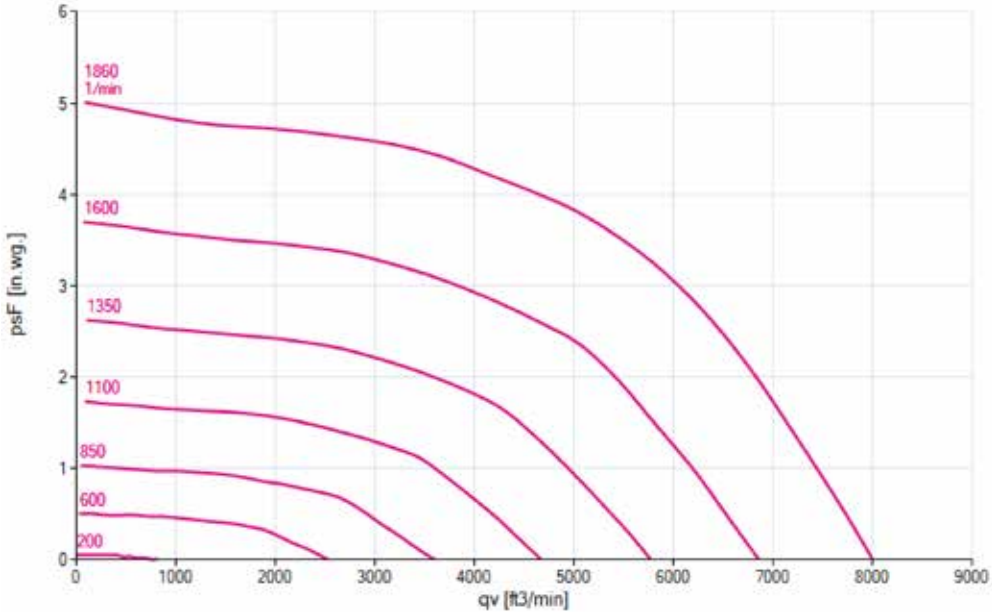


500-208-3-114651

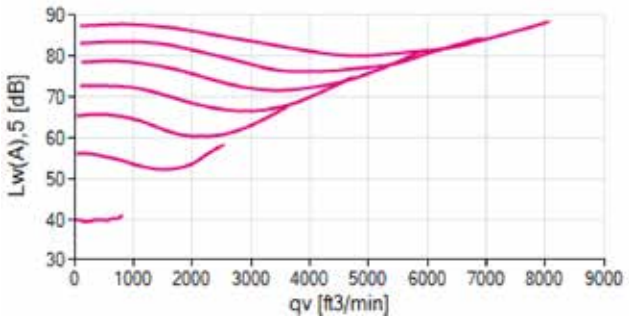
Technical data

Motor type	Impeller size, mm	Impeller material	Main power supply	Nominal values			Weight, kg	k-factor nozzle pres. (k)
				Power, kW	Current, A	Fan speed, rpm		
EC	500	Composite	3~ 208V 60 Hz	3.60	11.00 - 9.20	1860	47	252

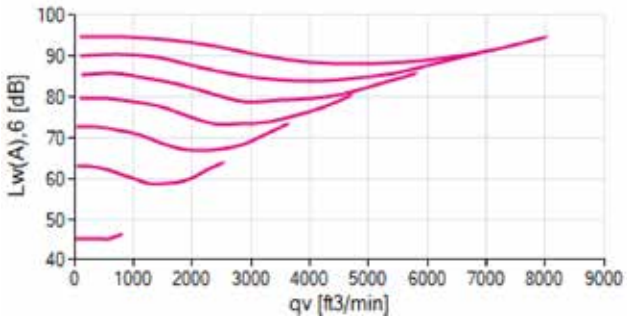
air performance p_{sF}



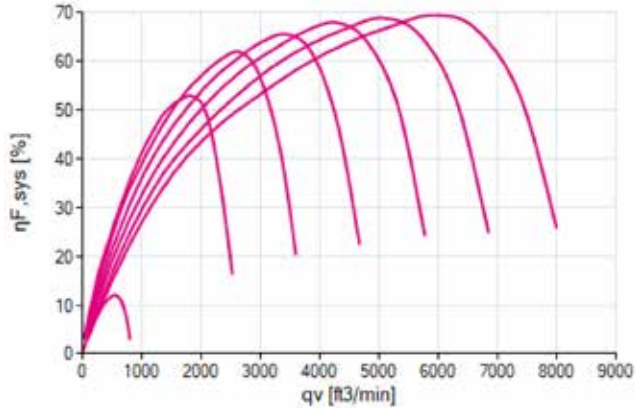
acoustics ($L_{w(A),5}$)



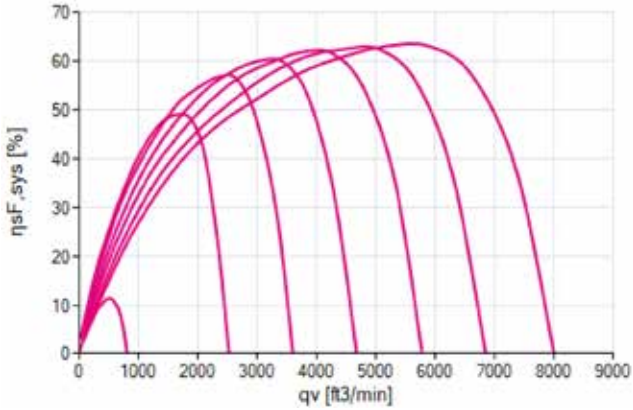
acoustics ($L_{w(A),6}$)



efficiency grade $\eta_{F,sys}$



efficiency grade $\eta_{sF,sys}$

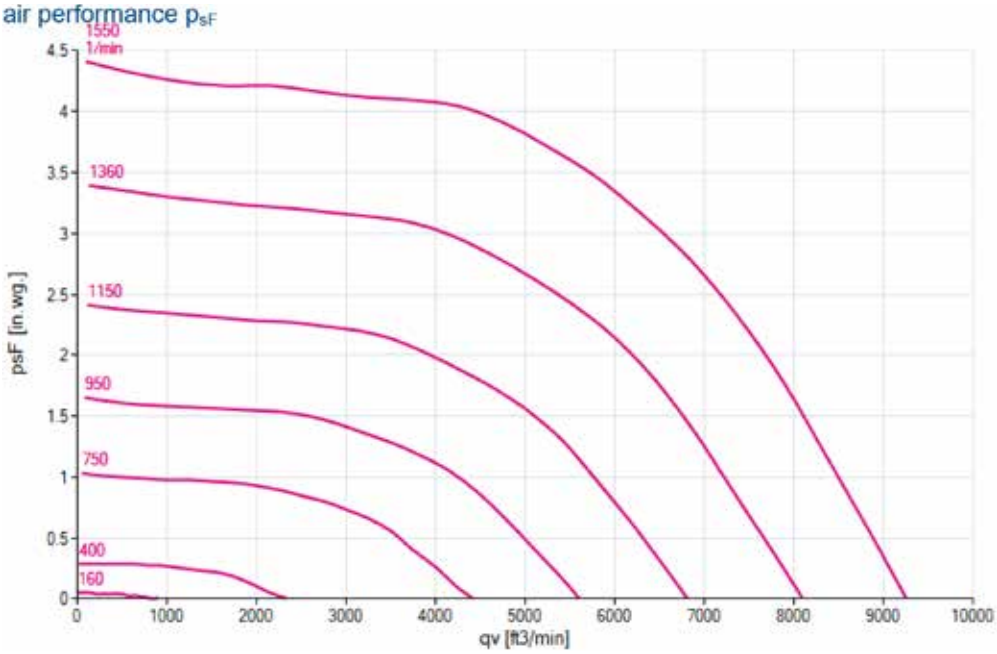


560-208-3-114655

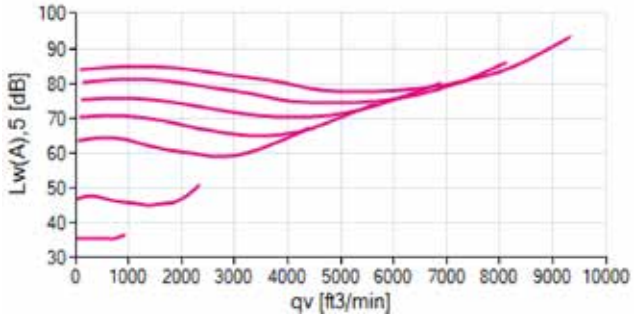
Technical data

Motor type	Impeller size, mm	Impeller material	Main power supply	Nominal values			Weight, kg	k-factor nozzle pres. (k)
				Power, kW	Current, A	Fan speed, rpm		
EC	560	Composite	3~ 208V 60 Hz	3.60	11.00 - 9.20	1550	58	308

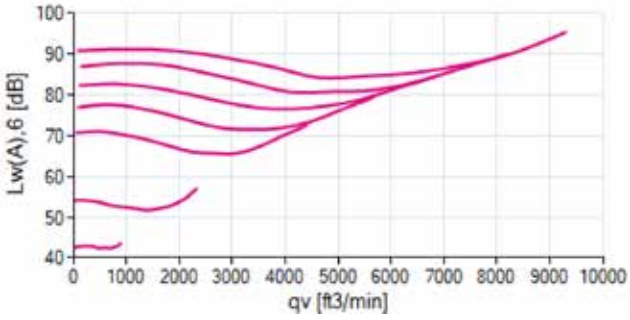
air performance p_{sF}



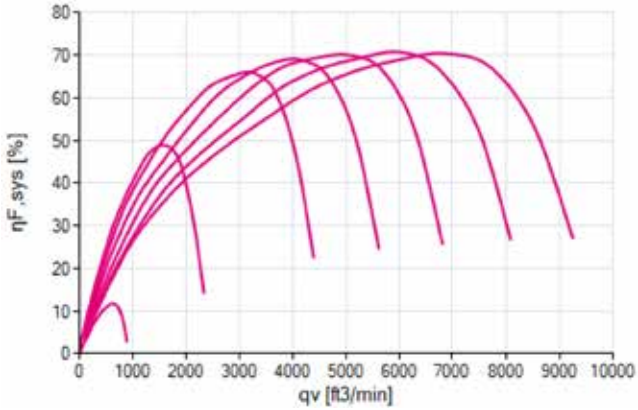
acoustics ($L_{w(A),5}$)



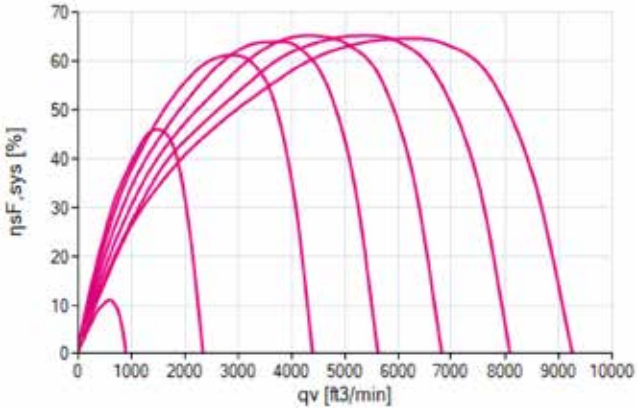
acoustics ($L_{w(A),6}$)



efficiency grade $\eta_{F,sys}$



efficiency grade $\eta_{sF,sys}$

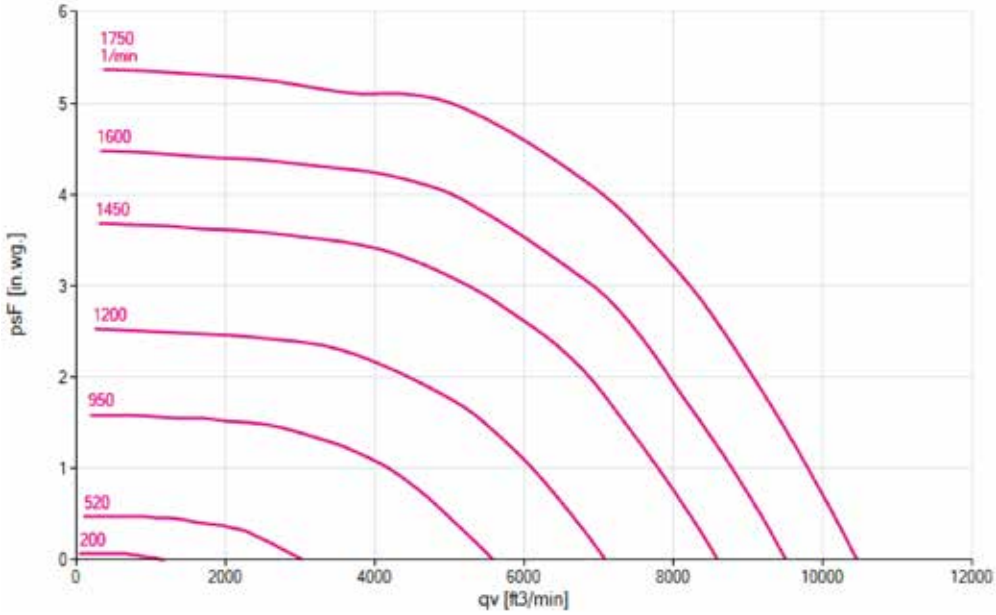


560-480-3-114726

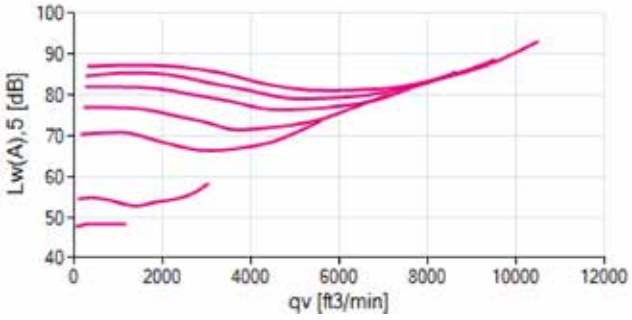
Technical data

Motor type	Impeller size, mm	Impeller material	Main power supply	Nominal values			Weight, kg	k-factor nozzle pres. (k)
				Power, kW	Current, A	Fan speed, rpm		
EC	560	Composite	3~ 480V 60 Hz	5.00	8.00 - 6.40	1750	63	308

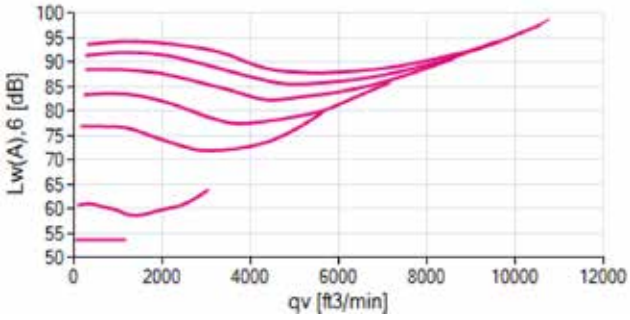
air performance p_{sF}



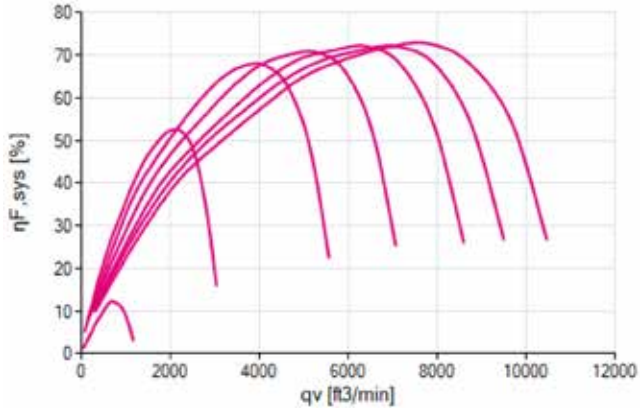
acoustics ($L_{w(A),5}$)



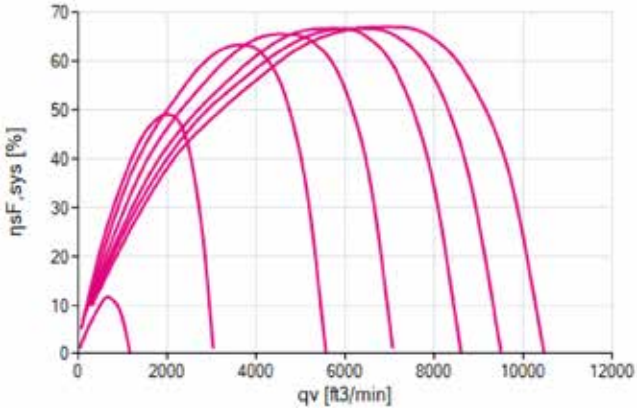
acoustics ($L_{w(A),6}$)



efficiency grade $\eta_{F,sys}$



efficiency grade $\eta_{sF,sys}$



WINDOW HEPA FILTER FAN (NEGATIVE PRESSURE)

BKL-WHF-250-110-1-1

BKL-WHF-250-110-1-1 can draw up to 600 cubic feet of air per minute through a 99.97% HEPA filter. This unit can negatively pressurize a room and exhaust filtered air to an outside area. Unit can be mounted through a window similar to how a window AC unit would be mounted in a house. The unit can also be bolted to a ceiling. Custom adapter window mounting plates (sized to your window opening) are available upon request.

A quiet motor inside the unit operates using a standard 120-volt plug and includes a multi-speed control switch to maintain desired airflow.

BKL-WHF-250-110-1-1:

- Easy access filter replacement
- Front air intake with purified air exhausted through 2 stages of filtration
- Unit dimensions: 15”; tall x 34”; wide by 24”; deep (without hood)
- Hospital-grade cord set plugs into any standard 120 volt three-prong electrical outlet
- Multiple mounting configurations
- Weight – 50 lbs including filters

Configuration:
In room recirculation air purifier or exhaust fan with two stages of filtration. Airflow up to 600 CFM for recommended filtration level.

Baikal BKL-WHF-250-110-1-1 includes:
- 12” x 24” x 2” Merv 8 Prefilter;
- 12” x 24” x 2” Hepa Filter (captures 99.97% of particles that are 0.3 microns in size from the air that passes through the filter);
- Efficient direct drive EC blower;
- Backdraft damper prevents air from outside the window from entering the room.

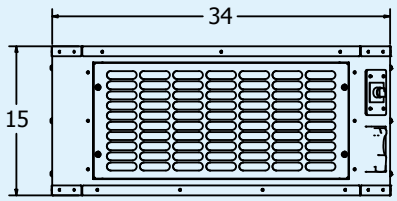
Options:
- Optional custom window adapter panels available to connect a unit to a window (sized to your window opening).

CONFIGURATION:

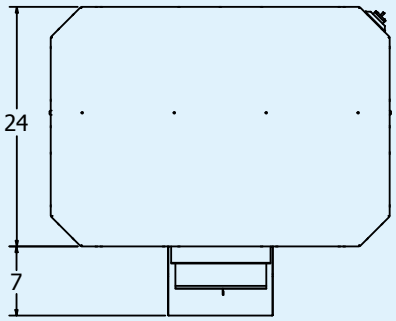
Height	**15 in**
Width	**34 in**
Depth	**24 in**
Weight	**50 lbs**
Minimum Ambient Operating	**0 F**
Maximum Ambient Operating	**140 F**

TECHNICAL DATA:

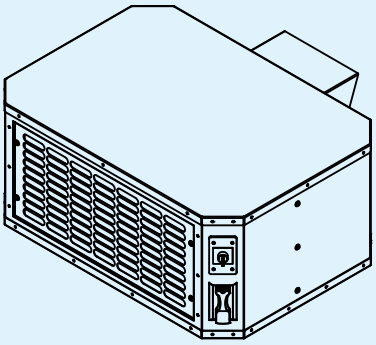
Operating Voltage	**120 Volts**
Frequency	**50/60 Hz**
Power	**480 Watts (max)**



Front



Top

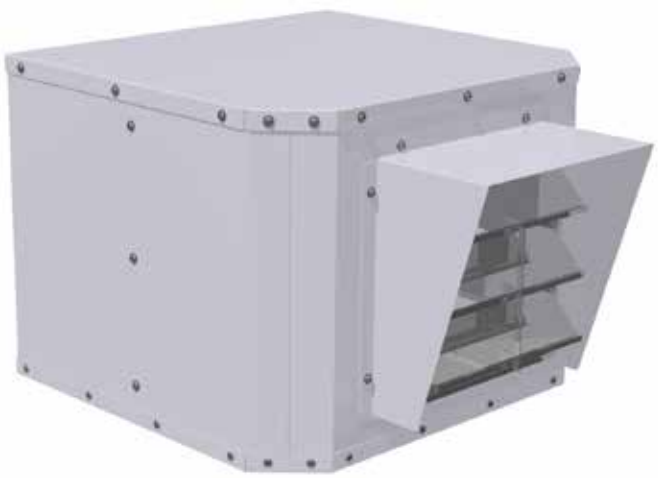

Isometric

WINDOW HEPA FILTER FAN (NEGATIVE PRESSURE)

BKL-WHF-250-110-1-2

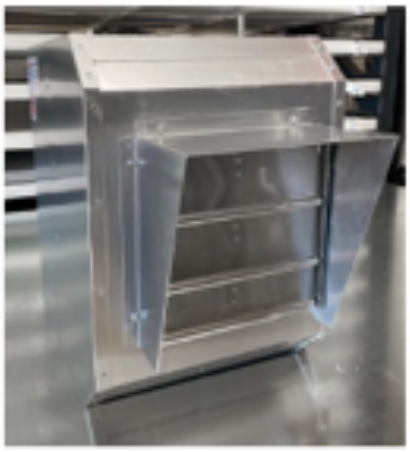
BKL-WHF-250-110-1-2 can draw up to 600 cubic feet of air per minute through a 99.97% HEPA filter. This unit can negatively pressurize a room and exhaust filtered air to an outside area.

This unit is mounted through a window similar to how a window AC unit would be mounted in a house. Custom adapter window mounting plates (sized to your window opening) are available upon request. A quiet EC fan operates inside the unit. The unit uses a 120-volt electrical plug and includes a multispeed control switch to maintain desired airflow.



Features:

- Easy access filter replacement
- Front air intake with purified air exhausted through 2 stages of filtration
- Unit dimensions: 18” tall x 24” wide by 23 1/4” deep
- Hospital grade cord plugs into any standard 120-volt three-prong electrical outlet
- Weight – 50 lbs including filters



Configuration:
In room recirculation air purifier or exhaust fan with two stages of filtration. Airflow up to 600 CFM for recommended filtration level.

BKL-WHF-250-110-1-2 includes:
- 16” x 16” x 2” Merv 8 Prefilter;
- 16” x 16” x 2” Hepa Filter (captures 99.97% of particles that are 0.3 microns in size from the air that passes through the filter);
- Efficient direct drive EC blower;
- Backdraft damper that prevents fresh air draft.

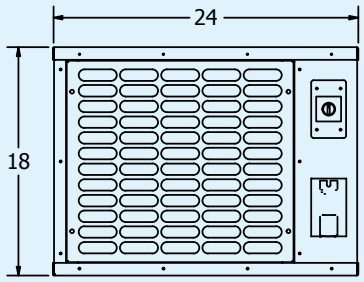
Options:
- **Optional window adapter panels available to connect a unit with a window (sized to your window opening).**

CONFIGURATION:

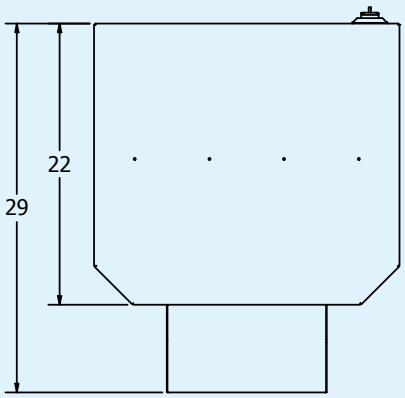
Height	**18 in**
Width	**24 in**
Depth	**22 in**
Weight	**50 lbs**
Minimum Ambient Operating	**0 F**
Maximum Ambient Operating	**140 F**

TECHNICAL DATA:

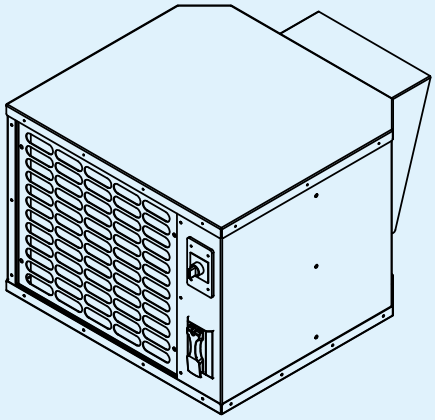
Operating Voltage	**120 Volts**
Frequency	**50/60 Hz**
Power	**480 Watts (max)**



Front



Top


Isometric

PORTABLE HEPA FILTER FAN (NEGATIVE PRESSURE)

BKL-PHF-250-110-1-1

BKL-PHF-250-110-1-1 can draw up to 600 cubic feet of air per minute through a 99.97% HEPA filter.

This unit can act as an in-room recirculating air purifier or it can be configured to exhaust filtered air from negatively pressurized isolation areas. The unit is portable, plugs into a standard 120 volt outlet, and includes a multispeed control switch to maintain the desired airflow.

Features:

- Easy access filter replacement;
- Front air intake with purified air exhausted through 2 stages of filtration;
- Unit dimensions: 45” tall (include casters) x 20” wide by 20” deep;
- The hospital-grade cord set plugs into any standard 120 volt three-prong electrical outlet;
- Weighs 67 lbs including filters and casters.

Configuration:
In room recirculation air purifier or exhaust fan with two stages of filtration. Airflow up to 600 CFM for recommended filtration level.

BKL-PHF-250-110-1-1 includes:
- 16” x 16” x 2” Merv 8 Prefilter;
- 16” x 16” x 2” Hepa Filter (captures 99.97% of particles that are 0.3 microns in size from the air that passes through the filter);
- Efficient direct drive EC blower (Max. Capacity - 1200 CFM).

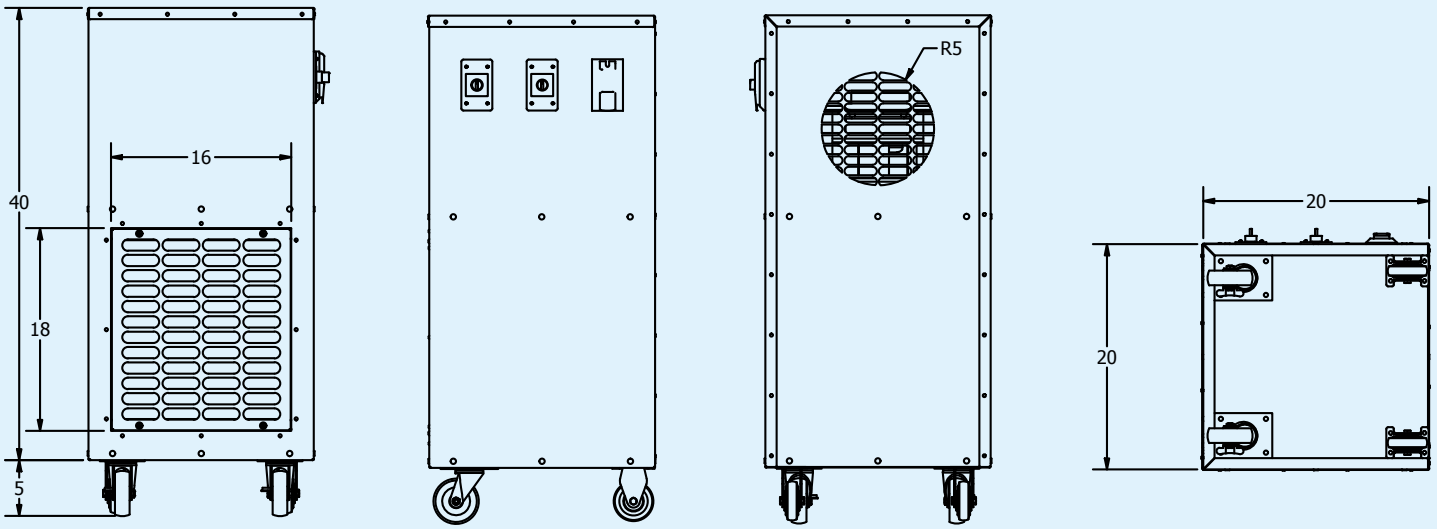
Options:
- Bipolar ionization system - Ions increase airborne pathogen particle size which increases filtration performance.
- Optional window adapter panels available to connect flexible ductwork.

CONFIGURATION:

Height	45 in
Width	20 in
Depth	20 in
Weight	67 lbs
Minimum Ambient Operating	0 F
Maximum Ambient Operating	140 F

TECHNICAL DATA:

Operating Voltage	120 Volts
Frequency	50/60 Hz
Power	480 Watts (max)



PORTABLE AIR PURIFIER 500

BKL-AP-500-110-1-1 can draw up to 500 cubic feet of air per minute through a 99.97% HEPA filter.

This unit is an in-room recirculating air purifier. The unit is portable, plugs into a standard 120 volt outlet, and includes a multispeed control switch to maintain the desired airflow.

Features:
- Easy access filter replacement;
- Front air intake with purified air exhausted through 2 stages of filtration;
- Unit dimensions: 35” tall (include casters) x 18” wide by 18” deep;
- The hospital-grade cord set plugs into any standard 120 volt three-prong electrical outlet;
- Weighs 45 lbs including filters and casters.

Configuration:
In room recirculation air purifier with two stages of filtration.
Airflow up to 500 CFM for recommended filtration level.

BKL-AP-500-110-1-1 includes:
- 16” x 16” x 2” Merv 8 Prefilter;
- 16” x 16” x 2” Hepa Filter (captures 99.97% of particles that are 0.3 microns in size from the air that passes through the filter);
- Efficient direct drive EC blower (Max. Capacity - 500 CFM).

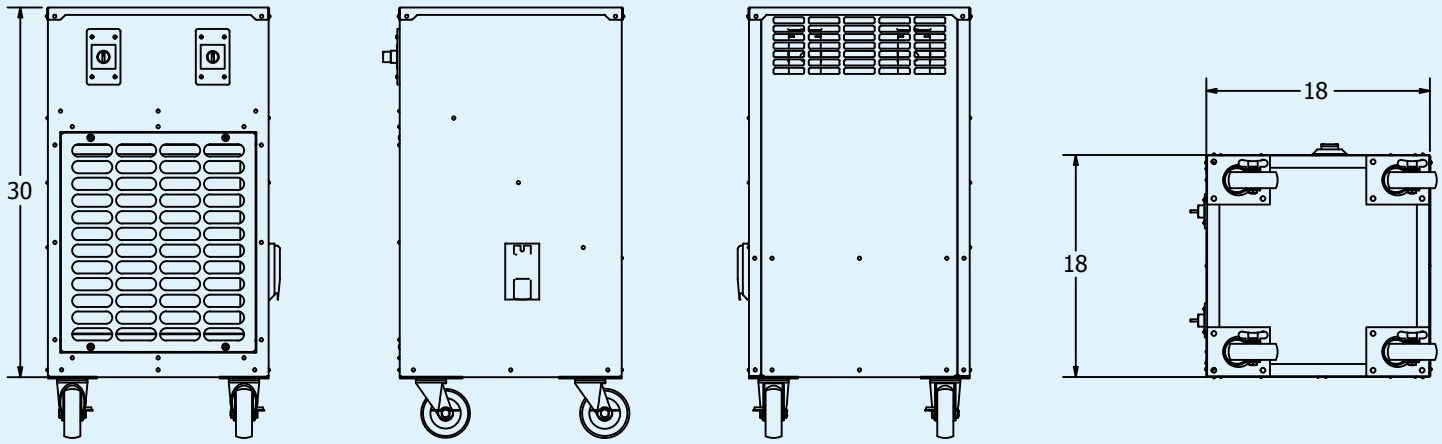
Options:
- Bipolar ionization system – Ions increase airborne pathogen particle size which increases filtration performance.

CONFIGURATION:

Height	35 in
Width	18 in
Depth	18 in
Weight	45 lbs
Minimum Ambient Operating	0 F
Maximum Ambient Operating	140 F

TECHNICAL DATA:

Operating Voltage	120 Volts
Frequency	50/60 Hz
Power	480 Watts (max)



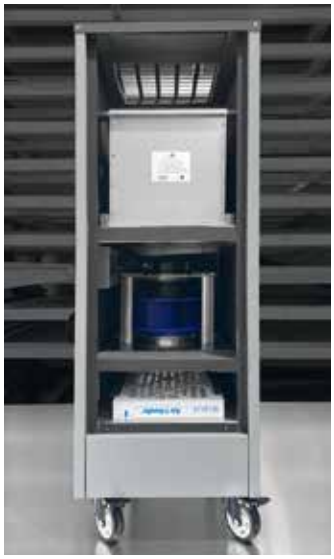
PORTABLE AIR PURIFIER 1000

BKL-PHF-110-1-2 can draw up to 1000 cubic feet of air per minute through a 99.97% HEPA filter.

This unit can act as an in-room recirculating air purifier or it can be configured to exhaust filtered air from negatively pressurized isolation areas. The unit is portable, plugs into a standard 120 volt outlet, and includes a multispeed control switch to maintain the desired airflow.

Features:

- Easy access filter replacement;
- Front air intake with purified air exhausted through 2 stages of filtration;
- Unit dimensions: 50” tall (includes casters) x 27” wide by 18” deep;
- The hospital-grade cord set plugs into any standard 120 volt three-prong electrical outlet;
- Weighs 125 lbs including filters and casters.



Configuration:
In room recirculation air purifier or exhaust fan with two stages of filtration.
Airflow up to 1000 CFM for recommended filtration level.

BKL-PHF-250-110-1-2 includes:
- 12” x 24” x 2” Merv 8 Prefilter;
- 12” x 24” x 12” Hepa Filter (captures 99.97% of particles that are 0.3 microns in size from the air that passes through the filter);
- Efficient Direct Drive EC blower (Max. Capacity - 1200 CFM).

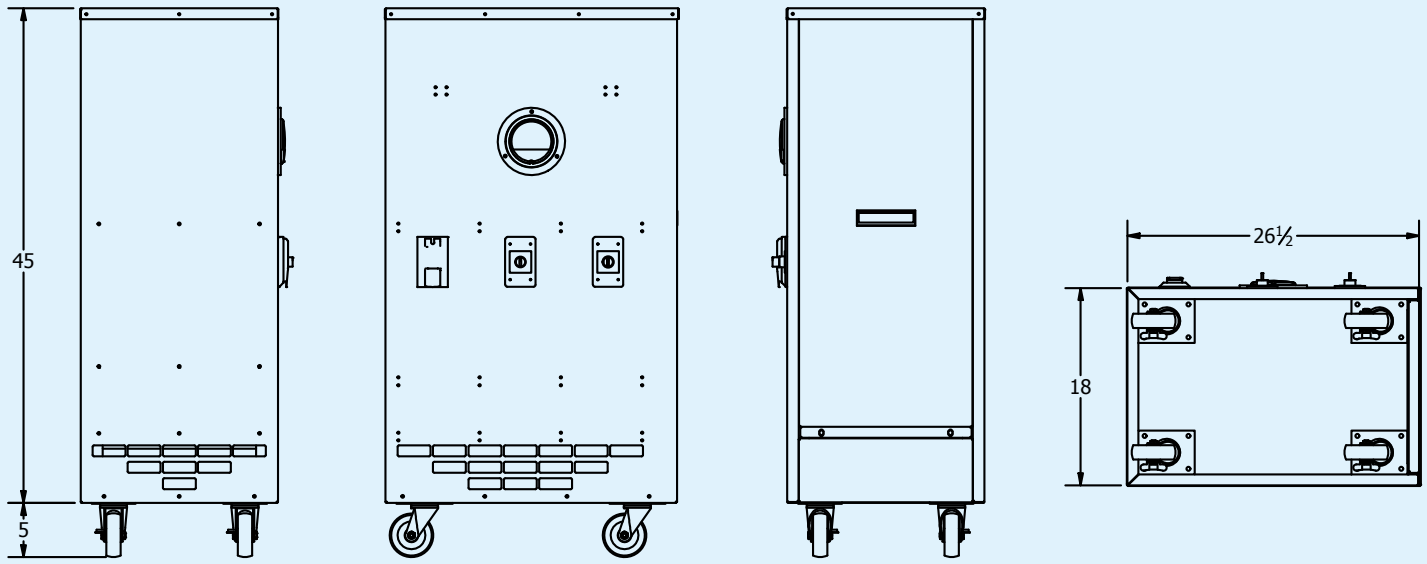
Options:
- Bipolar ionization system – Ions increase airborne pathogen particle size which increases filtration performance.

CONFIGURATION:

Height	**50 in**
Width	**27 in**
Depth	**18 in**
Weight	**125 lbs**
Minimum Ambient Operating	**0 F**
Maximum Ambient Operating	**140 F**

TECHNICAL DATA:

Operating Voltage	**120 Volts**
Frequency	**50/60 Hz**
Power	**480 Watts (max)**



WALL MOUNTED AIR PURIFIER 500

BKL-WAP-500-110-1-1 can draw up to 500 cubic feet of air per minute through a 99.97% HEPA filter.

This unit is an in-room recirculating air purifier. The unit mounts to a wall, plugs into a standard 120 volt outlet, and includes a multispeed control switch to maintain the desired airflow.

Features:

- Easy access filter replacement.
- Front air intake with purified air (Hepa filtration) exhausted through sides of unit.
- Unit dimensions: 20” tall x 27” wide by 12” deep.
- The hospital-grade cord set plugs into any standard 120 volt three-prong electrical outlet.
- Weighs 25 lbs including filters.

Capacity:	500 CFM*
Fan box type:	Wall Mounted Hepa Filter (16x16) fan unit
Power:	1 x (RRMuG9 250/50R (120V) Q-13A-7-1)
Filter:	16” x 16” x 2” Hepa Filter (capture 99.97% of particles that are 0.3 microns in size from the air that passes through the filter)

Voltage	**120 V**
Frequency	**60 Hz**
Power	**0.150 kW(1)**

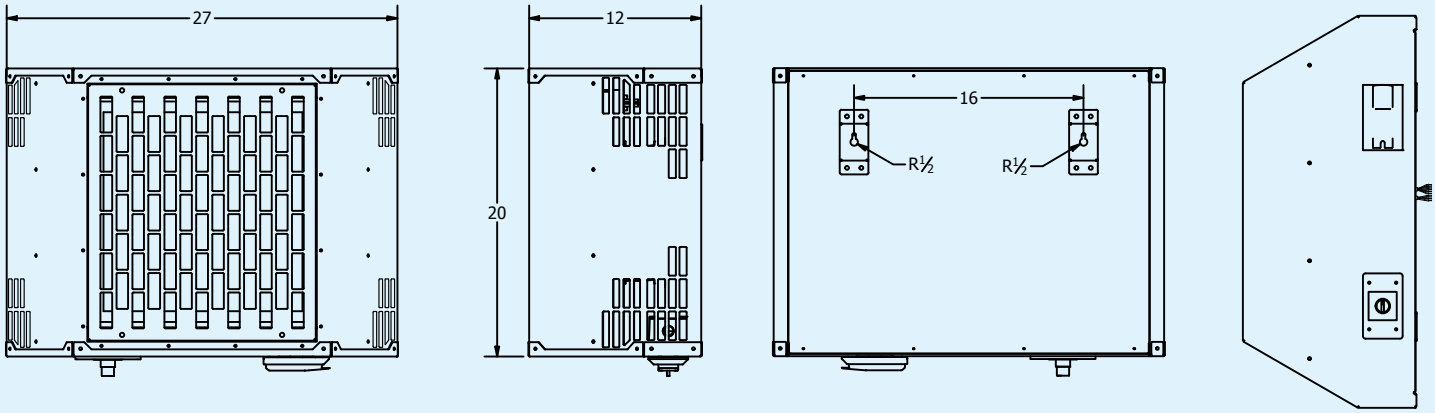
(1) at optimal efficiency point

Configuration:

In room recirculation air purifier with Hepa filtration. Airflow up to 500 CFM for recommended filtration level.

BKL-WAP-500-110-1-1 includes:

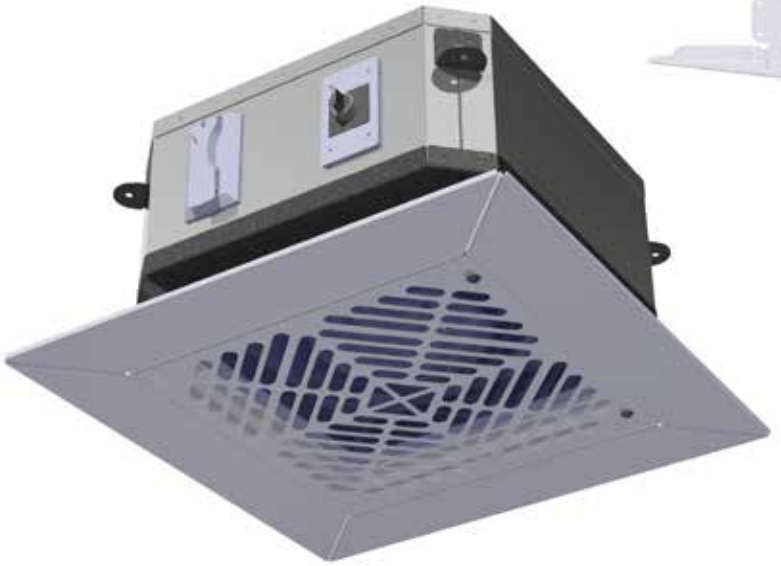
Bipolar ionization system – Ions increase airborne pathogen particle size which increases filtration performance.



CEILING MOUNTED AIR PURIFIER 500

BKL-CAP-500-110-1-1 can draw up to 500 cubic feet of air per minute through a 99.97% HEPA filter.

This unit is an in-room recirculating air purifier. The unit mounts to a wall, plugs into a standard 120 volt outlet, and includes a multispeed control switch to maintain the desired airflow.



Features:

- Easy access filter replacement.
- Front air intake with purified air (Hepa filtration) exhausted through sides of unit.
- Unit dimensions: 20” tall x 27” wide by 12” deep.
- The hospital-grade cord set plugs into any standard 120 volt three-prong electrical outlet.
- Weighs 25 lbs including filters.

Capacity:	500 CFM*
Fan box type:	Ceiling Mounted Hepa Filter (16x16) fan unit
Power:	1 x (RRMuG9 250/50R (120V) Q-13A-7-1)
Filter:	16” x 16” x 2” Hepa Filter (capture 99.97% of particles that are 0.3 microns in size from the air that passes through the filter)

Voltage	**120 V**
Frequency	**60 Hz**
Power	**0.150 kW(1)**

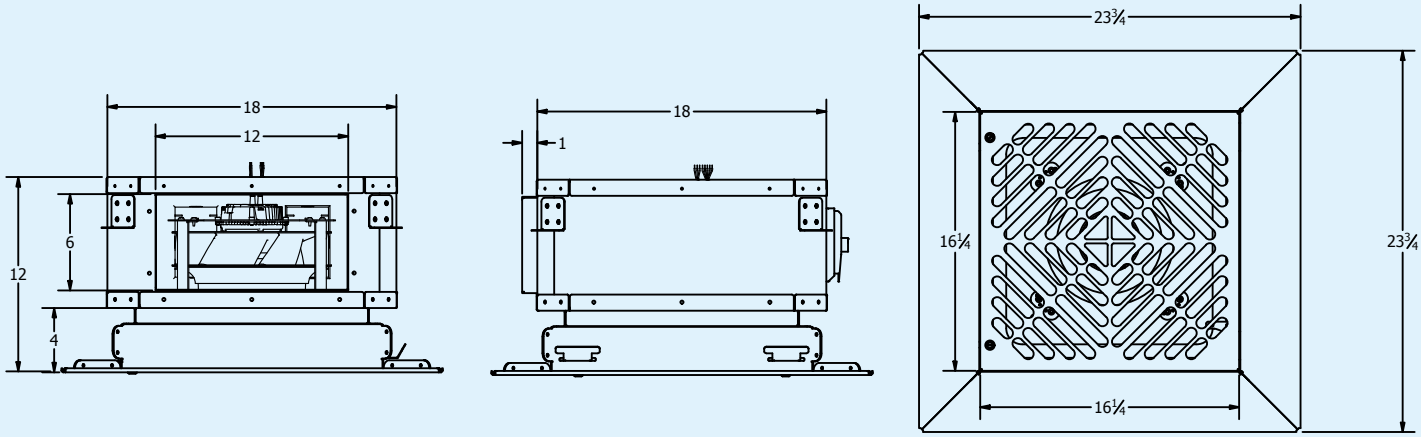
(1) at optimal efficiency point

Configuration:

In room recirculation air purifier or exhaust fan with Hepa filtration.

BKL-CAP-500-110-1-1 includes:

- Bipolar ionization system – Ions increase airborne pathogen particle size which increases filtration performance.



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