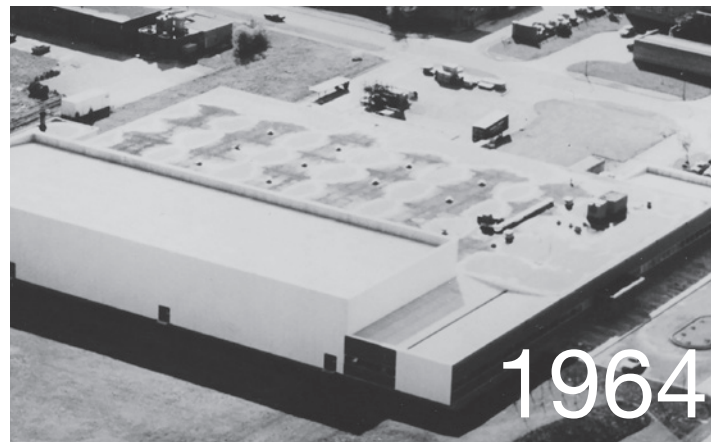
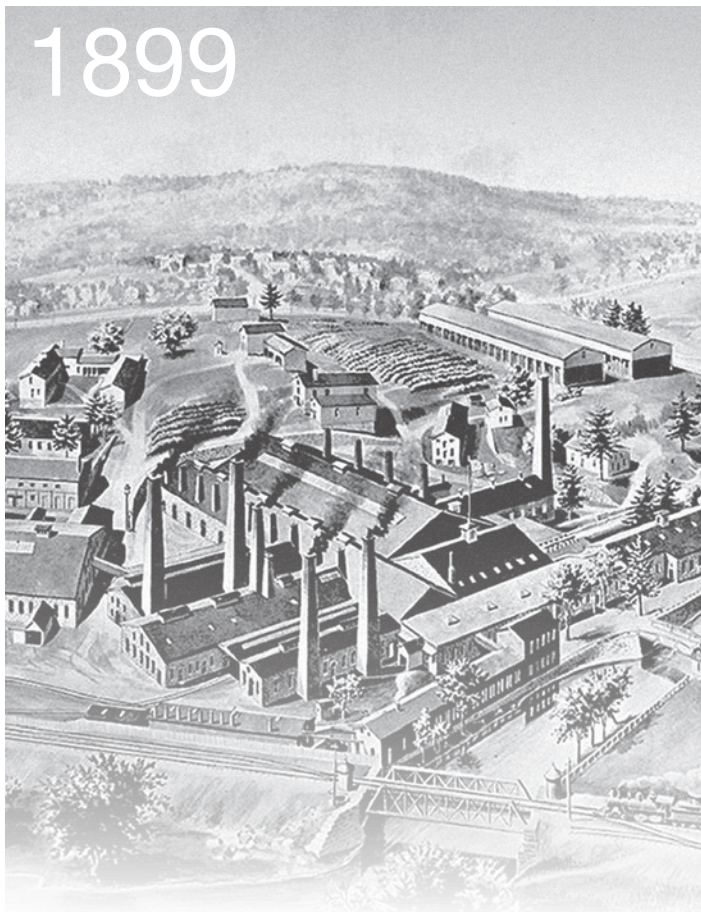


High Temperature Modulating Fans

High Efficiency





For over a century...

History

Originally formed over 100 years ago as part of the USA based Torin Corporation, and then established as a UK subsidiary in 1964; Torin have developed into an independent market leader in the supply of air-movement products, incorporating over 60 years of UK innovation.

Core Focus



Torin is a technology expert in the design, development and manufacture of centrifugal impellers, traditional AC motors and highly efficient Electronically Commutated (EC) motors.

Torin products exceed the requirements of European energy saving legislation; helping our customers to position themselves at the forefront of their markets.



Efficiency with every rotation

About us

Torin design and manufacture highly efficient AC and EC motors, motorised impellers and fans for the residential and commercial HVAC manufacturing markets worldwide.

With over 60 years experience developing and manufacturing products, we sell over 1 million units per year and manufacture from two production sites in the UK.

More than 60 years of Innovation

Since our humble beginnings on the banks of the Naugatuck river in Connecticut USA, we have come a long way changing names, continents, owners and innovating the most efficient electric motor technology. We continue to invest in our local community, British engineering and raising the profile of Torin throughout the world.

International markets

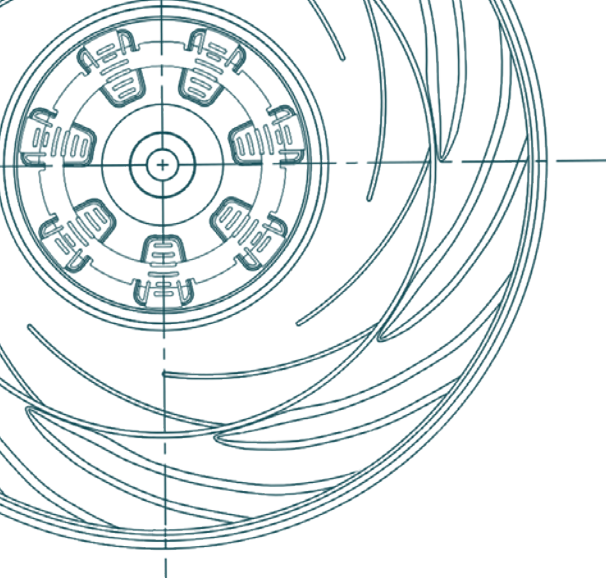
We are a truly international business with our sales evenly split between our home market in the UK and numerous export customers, all serviced by our technically competent international sales team. Support is provided by experienced product development and applications engineers backed up by an excellent research and development facility.

Customised Solutions

We understand the ever-changing market, therefore we offer customised product solutions to meet your exact needs. Whether you require a change to one of our standard products or by managing a truly joint development partnership to produce a product customised to meet your requirements.

Current examples include:

- Specific housing designs, including material thickness, mounting-hole locations and flange design.
- Lead lengths cut to size and your specified plug fitted.
- External or on-board electronics options
- Performance optimisation, including impeller and electronics design
- Licensing agreements for electronic circuitry
- Production and balancing of fans within your own product assemblies.



Why choose our High Temperature Modulating Fans?

As the need for variable speed fans, suitable for use in a fully modulating system, is becoming more of a requirement in the Commercial/Industrial Heating sector - we have developed a range of High Temperature EC driven fans.

These EC driven fans continue to offer all of the qualities of our traditional AC products but also have the added benefit of providing variable speed control by either 0-10v or PWM signal.

By using the latest EC technology, our fans also deliver best in class efficiency and whisper quiet operation.

Key Features

- ERP Compliant
- Handles hot air up to 250
- Forward curved steel impellers
- Maintenance free ball bearing motors
- Insulation class B
- Speed controllable
- Customised Solutions



Why choose us as your partner?

Our engineering teams are on hand to work with you and we encourage direct face to face contact between our engineering teams and those of our customers to ensure our combined knowledge is shared and used to your advantage.

As well as a standard range, we will work in partnership with you to develop bespoke, application specific solutions, allowing you to position yourself at the forefront of your market. If you're interested in our customised solutions, take a moment to view the services we have on offer.

CASE STUDY

Working together to revolutionise North American radiant heating technology

The demands of ErP legislation are well known in the European HVAC industry and the drive to reduce energy consumption and maximise seasonal efficiency of heating devices is at the top of most development agendas. As a leader in the design and manufacture of highly efficient centrifugal fan technology and electronically commutated (EC) motors, we have been at the forefront of providing leading edge solutions to our customers efficiency and innovation challenges.

It's great to see that our work has not gone unnoticed having been approached earlier by a new customer active in the North American radiant heating market. Whilst not driven by legislation, our customer has high ambitions for revolutionising the performance of radiant heating in North America and providing their customers with best in class solutions that offer real value over existing traditional technology.

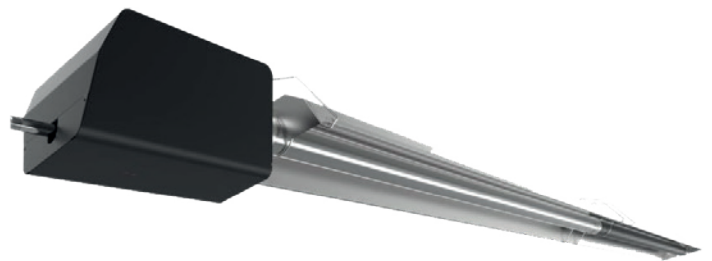
This ambition has resulted in the launch of a brand new range of radiant products with a larger BTU offering, covering larger areas and with single/ two stage and fully modulating models. They are the first radiant heat company in North America to launch a product range using EC motor technology.

The EC motors are 2/3 times more efficient in their energy consumption compared with traditional AC motors and are whisper quiet in operation. The motor, impeller and intelligent electronics are all integrated in one fan unit. The modulation capability of the fan adjusts both air and gas allowing precise control of real time demand to heat demand eliminating temperature swings and maintaining a consistent comfort level. The service life of the heater also significantly increases as on/off is no longer required

removing cold starts due to the modulating fan feature matching heat demand at all times. The fan technology has assisted our customer in launching by far the most intelligent and efficient radiant heater in their market.

North American customers seem to be reacting well with our customers demand ahead of this year's heating season significantly ahead of expectations.

Working with our customers from the onset of new product development, sharing our innovation, adapting our technology to best match our customer's application and doing so on a global basis through our commercial and engineering teams is what Torin is here for.





High Temperature Range Summary



108mm (43w)

108mm (63w)

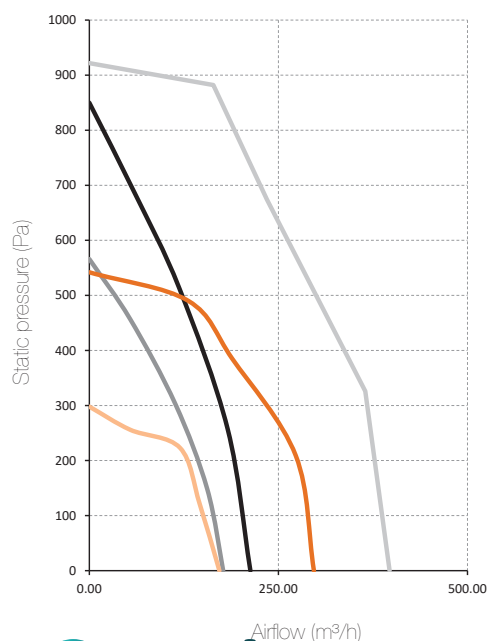
108mm (27w)

120mm (90w)

180mm (170w)

Technical Data

Supply Voltage (rms)	18-28 V DC	18-28 V DC	198-264 V AC	198-264 V AC	198 - 264 V AC
Max Airflow	177 m³/h	213 m³/h	172 m³/h	297 m³/h	868 m³/h
Max Current	1.9 A	3.0 A	0.3 A	0.58 A	1.56 A
Max Input Power	43 W	63 W	27 W	69 W	130 W
Max Speed	4089 rpm	4695 rpm	2800 rpm	3500 rpm	3000 rpm
ErP Efficiency Rating (FMEG)	NA	NA	NA	NA	NA
Ip Rating	00	00	00	20	20
Motor Insulation Class	B	B	B	B	B
Air/Gas Temperature	-20°C to +250°C	-20°C to +250°C	-20°C to +250°C	-20°C to +40°C	-20°C to +40°C
Ambient Temperature	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C	-20°C to +40°C	-20°C to +40°C
Weight	1.35 kg	1.35 kg	1.45 kg	2.6 kg	3.5 kg



Consolidated Graph - High Temp Range

- 108mm (43w)
- 108mm (63w)
- 108mm (27w)
- 120mm (90w)
- 180mm (170w)



High Temperature Fans

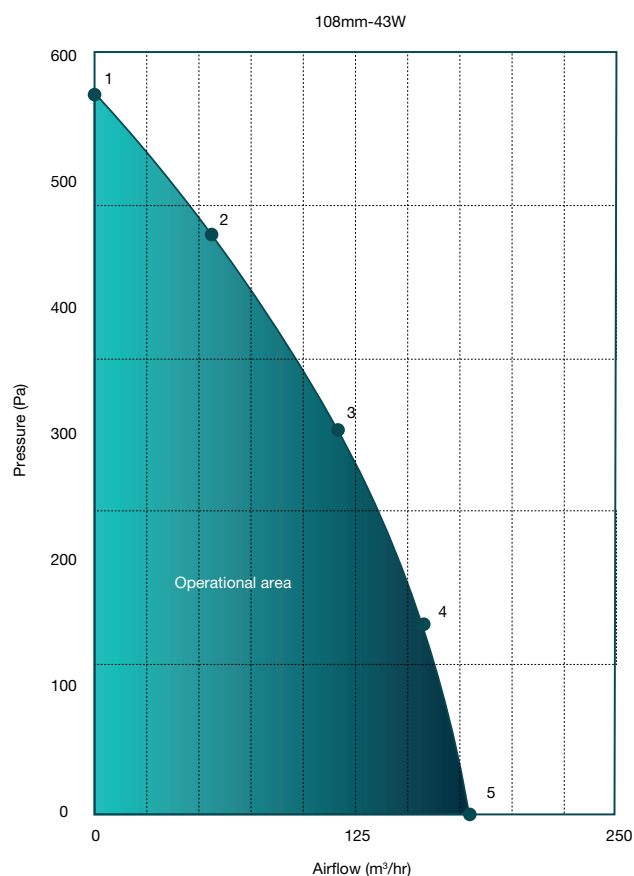
108mm (43w)

Technical Data

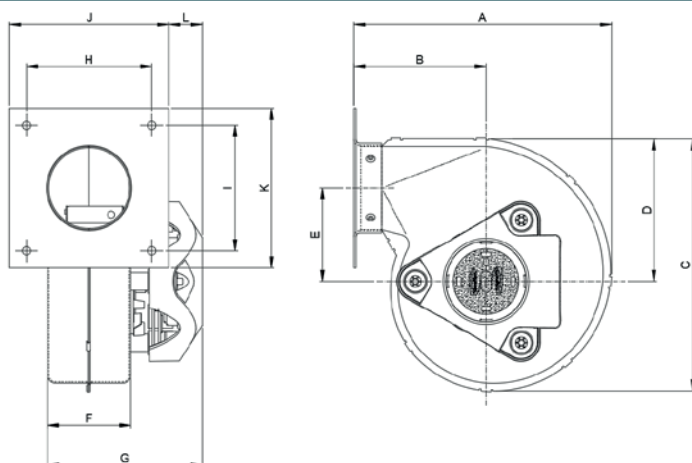
Supply Voltage (rms)	18-28 V DC
Max Airflow	177 m³/h
Max Current	1.9 A
Max Input Power	43 W
Max Speed	4089 rpm
ErP Efficiency Rating (FMEG)	NA
IP Rating	00
Motor Insulation Class	B
Air/Gas Temperature	-20°C to + 250°C
Ambient Temperature	-20°C to + 70°C
Weight	1.35 kg

Performance Data

Data Point	Static Pressure (Pa)	Airflow (m³/h)	Current (A)	Speed (rpm)	Power (W)
1	566	0	1.21	4089	23.6
2	457	54	1.33	3834	28.9
3	302	114	1.69	3308	39.0
4	148	156	1.88	2944	43.4
5	0	177	1.81	2553	41.9



Tested in accordance with ISO 5801. Installation method - type A.



Dimensions (mm)

A	185.2	G	111.3
B	95.0	H	90.0
C	181.0	I	90.0
D	102.4	J	114.5
E	67.0	K	114.5
F	59.8	L	24.1



High Temperature Fans

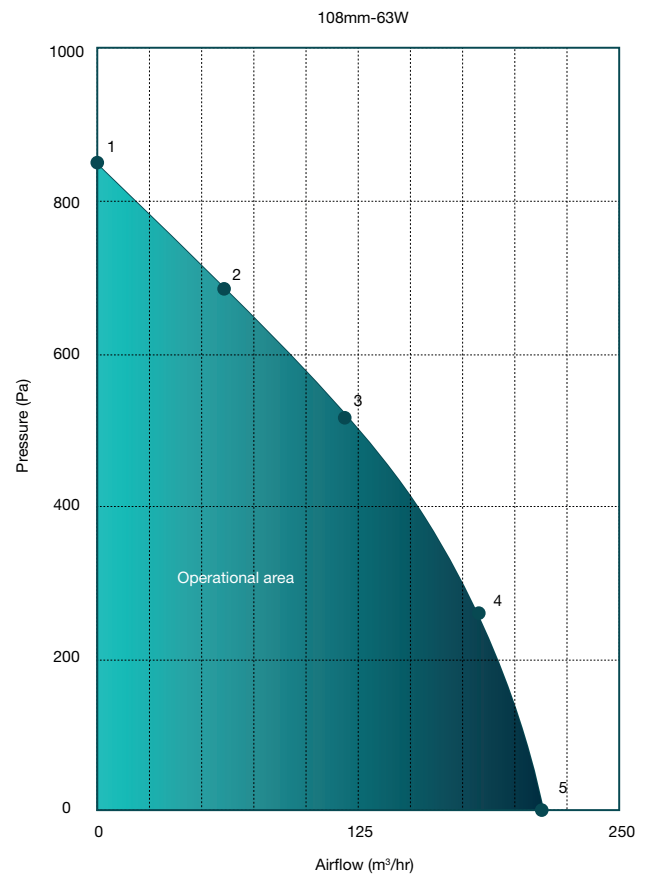
108mm (63w)

Technical Data

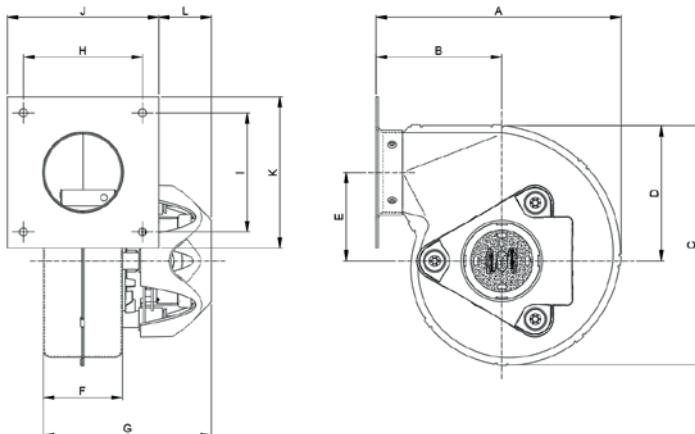
Supply Voltage (rms)	18-28 V DC
Max Airflow	213 m³/h
Max Current	3.0 A
Max Input Power	63 W
Max Speed	4695 rpm
ErP Efficiency Rating (FMEG)	NA
IP Rating	00
Motor Insulation Class	B
Air/Gas Temperature	-20°C to + 250°C
Ambient Temperature	-20°C to + 70°C
Weight	1.35 kg

Performance Data

Data Point	Static Pressure (Pa)	Airflow (m³/h)	Current (A)	Speed (rpm)	Power (W)
1	850	0	1.67	4695	37.0
2	686	60	1.97	4413	43.0
3	513	119	2.58	4015	55.9
4	257	183	2.83	3375	62.4
5	0	213	2.48	2720	55.2



Tested in accordance with ISO 5801. Installation method - type A.



Dimensions (mm)

A	185.2	G	127.1
B	95.0	H	90.0
C	181.0	I	90.0
D	102.4	J	114.5
E	67.0	K	114.5
F	59.8	L	39.9



High Temperature Fans

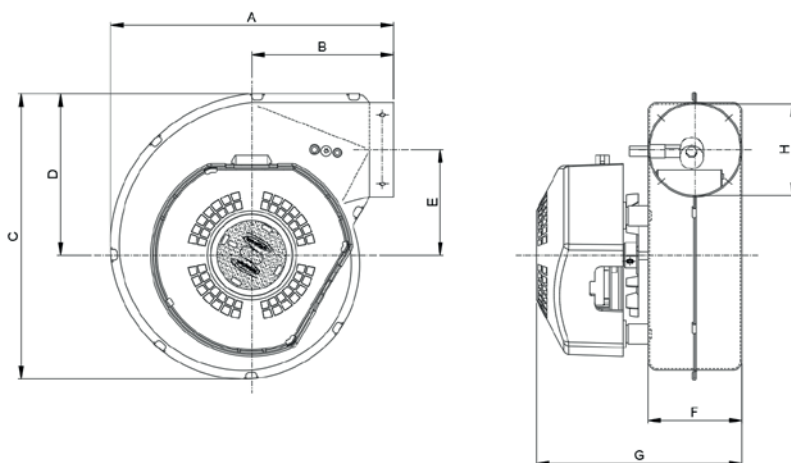
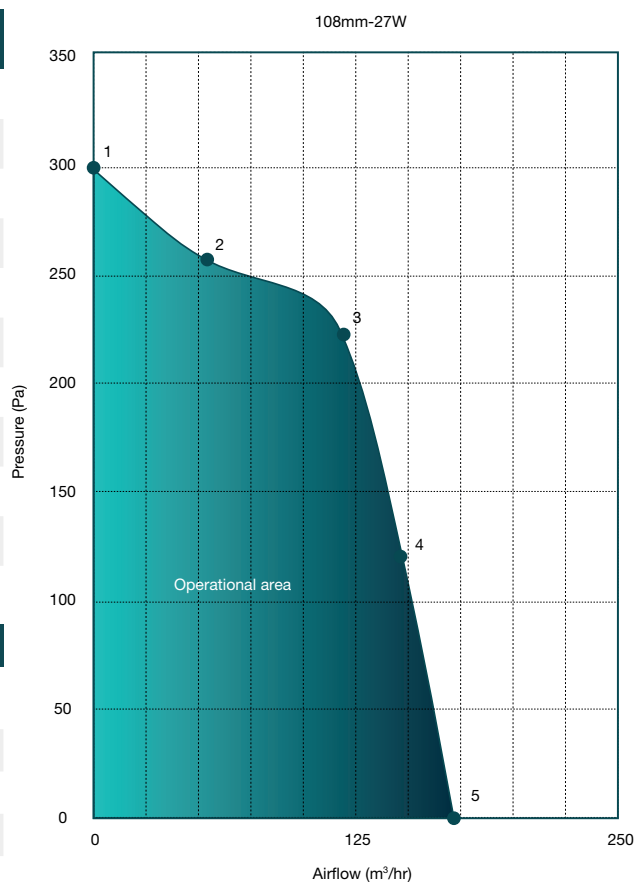
108mm (27w)

Technical Data

Supply Voltage (rms)	198-264 V AC
Max Airflow	172 m³/h
Max Current	0.3 A
Max Input Power	27 W
Max Speed	2800 rpm
ErP Efficiency Rating (FMEG)	NA
IP Rating	00
Motor Insulation Class	B
Air/Gas Temperature	-20°C to + 250°C
Ambient Temperature	-20°C to + 70°C
Weight	1.45 kg

Performance Data

Data Point	Static Pressure (Pa)	Airflow (m³/h)	Current (A)	Speed (rpm)	Power (W)
1	298	0	0.24	2801	16.8
2	256	54	0.25	2801	19.5
3	223	120	0.30	2801	27.0
4	121	146	0.29	2425	25.1
5	0	172	0.28	1985	23.2



Dimensions (mm)

A	179.6	G	130.7
B	90.0	H	58.0
C	181.0		
D	102.4		
E	67.0		
F	59.8		



EC High Temperature Fans

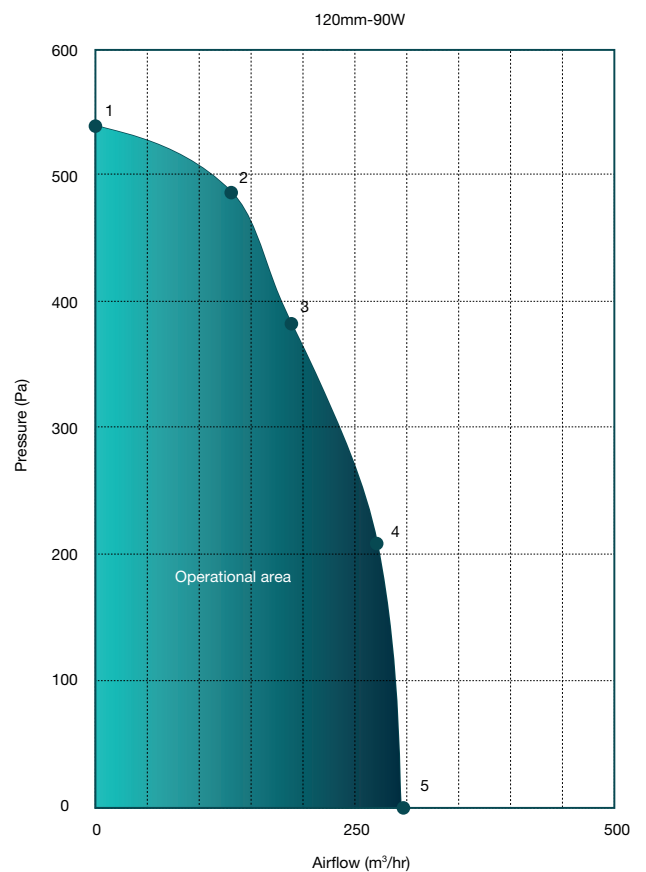
120mm (90w)

Technical Data

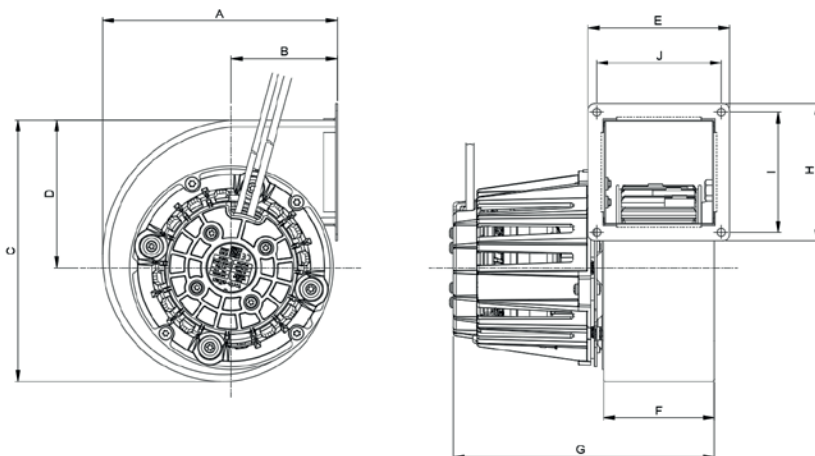
Supply Voltage (rms)	198-264 V AC
Max Airflow	297 m³/h
Max Current	0.58 A
Max Input Power	69 W
Max Speed	3500 rpm
ErP Efficiency Rating (FMEG)	57
IP Rating	20
Motor Insulation Class	B
Temperature Range	-20°C to + 40°C
Weight	2.6 kg

Performance Data

Data Point	Static Pressure (Pa)	Airflow (m³/h)	Current (A)	Speed (rpm)	Power (W)
1	542	0	0.30	3505	34.2
2	490	131	0.44	3505	51.3
3	385	189	0.52	3135	61.2
4	209	273	0.55	2672	64.6
5	0	297	0.58	2369	68.1



Tested in accordance with ISO 5801. Installation method - type A.



Dimensions (mm)

A	170.7	G	189.9
B	77.0	H	100.0
C	190.0	I	87.3
D	107.4	J	90.5
E	103.0		
F	80.8		



High Temperature Fans

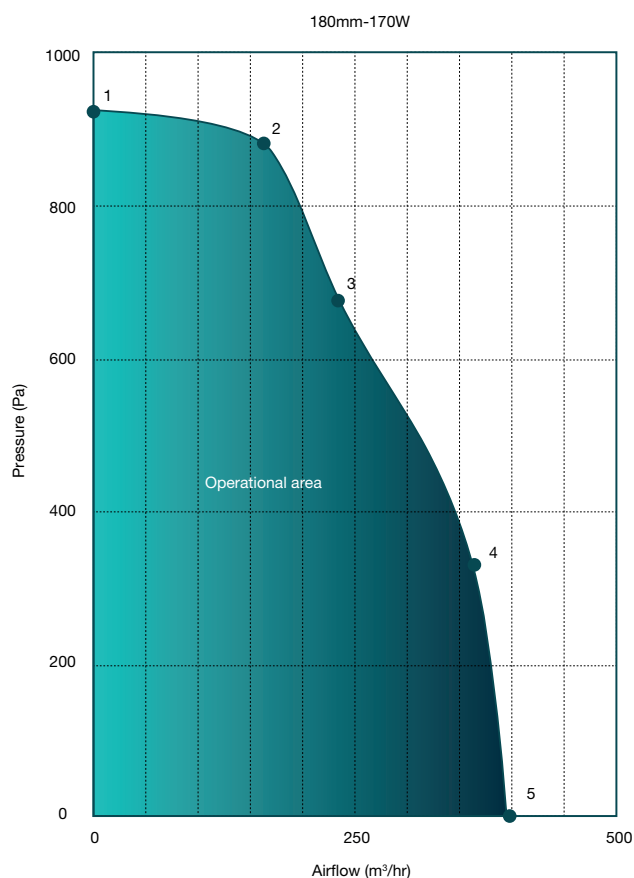
180mm (170w)

Technical Data

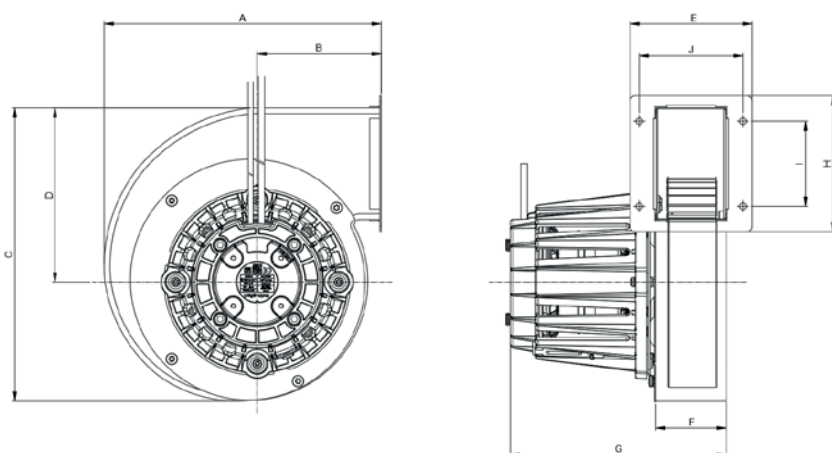
Supply Voltage (rms)	198-264 V AC
Max Airflow	397 m³/h
Max Current	1.2 A
Max Input Power	130 W
Max Speed	3000 rpm
ErP Efficiency Rating (FMEG)	53
IP Rating	20
Motor Insulation Class	B
Temperature Range	-20°C to +40°C
Weight	3.5 kg

Performance Data

Data Point	Static Pressure (Pa)	Airflow (m³/h)	Current (A)	Speed (rpm)	Power (W)
1	922	0	0.84	3000	91.7
2	882	164	1.07	3000	117.8
3	674	235	1.16	2721	129.3
4	326	365	1.16	2229	128.8
5	0	397	1.07	1866	118.2



Tested in accordance with ISO 5801. Installation method - type A.



Dimensions (mm)

A	237.9	G	185.6
B	106.5	H	117
C	251.4	I	73
D	149.4	J	89
E	105		
F	60.8		



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