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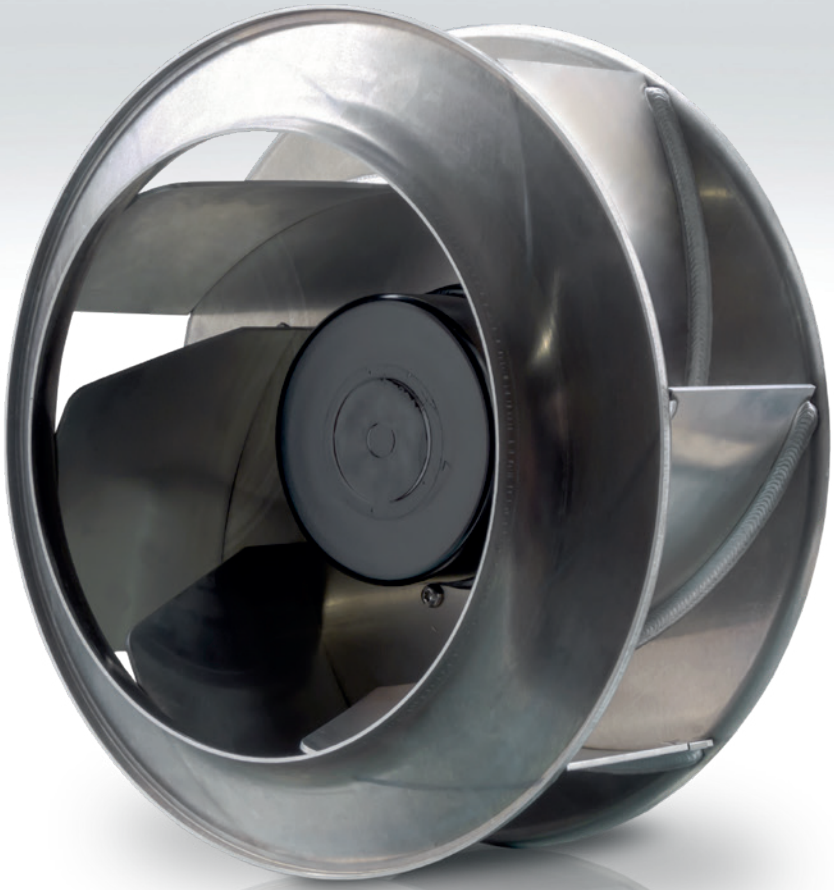
Efficiency with every rotation

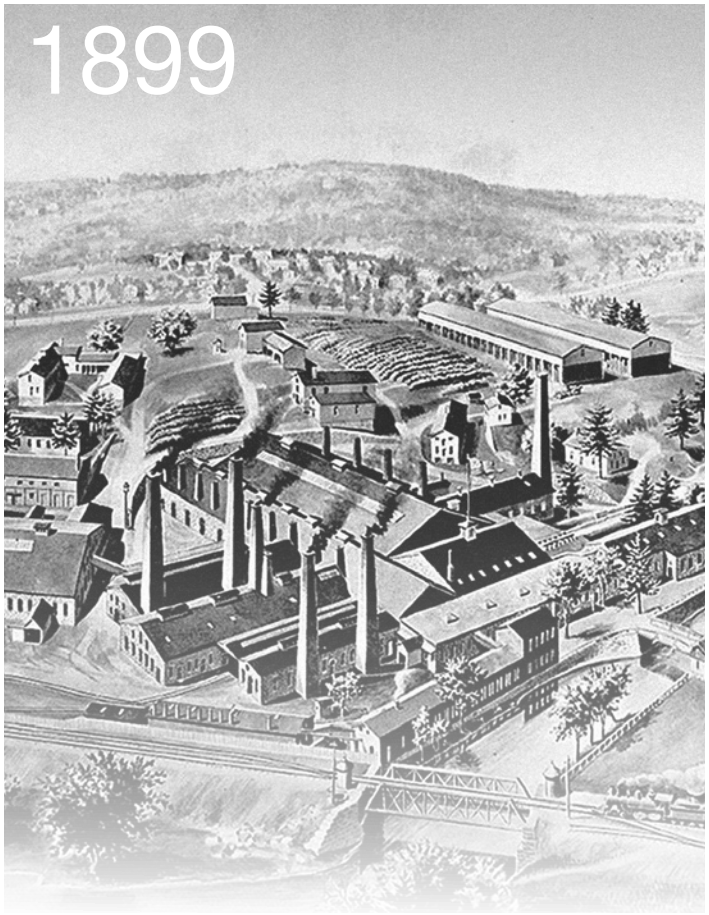


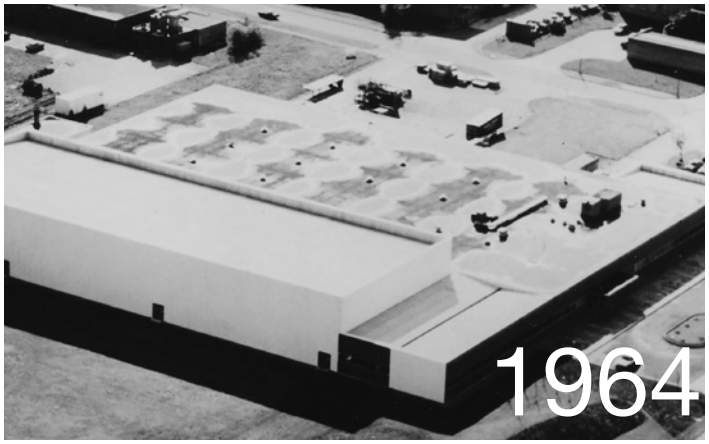
Energy Saving Technology

ErP 2015 Energy Related Products Directive COMPLIANT

High Efficiency

Motorised Impellers and Plug Fans





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

Energy Saving Technology

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.

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Efficiency with every rotation

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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

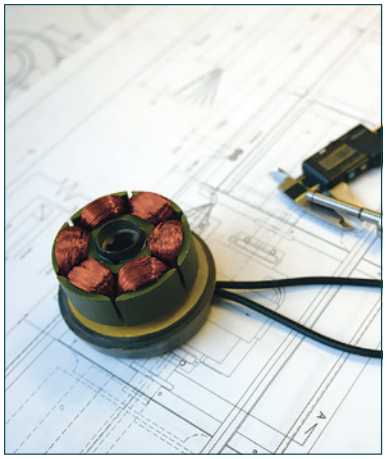
We understand the ever-changing market, therefore we offer customised product solutions to meet your exact needs. Whether you require a change to one of our standard products or by managing a truly joint development partnership to produce a product customised to meet your requirements.

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.

CERTIFIED

ISO 9001



Quality and Legislation

Torin is an ISO 9001 certified organisation. We recognise that the quality and reliability of our products, coupled with great service, form the most sought after set of purchasing criteria for our customers.

Torin is also an active member of the UK Trade Association (FETA) and the European Ventilation Industry Association (EVIA).

This ensures that Torin is at the forefront of European policy meaning regulatory challenges set by the EU are commercially and technically realistic for both our business and our customers.

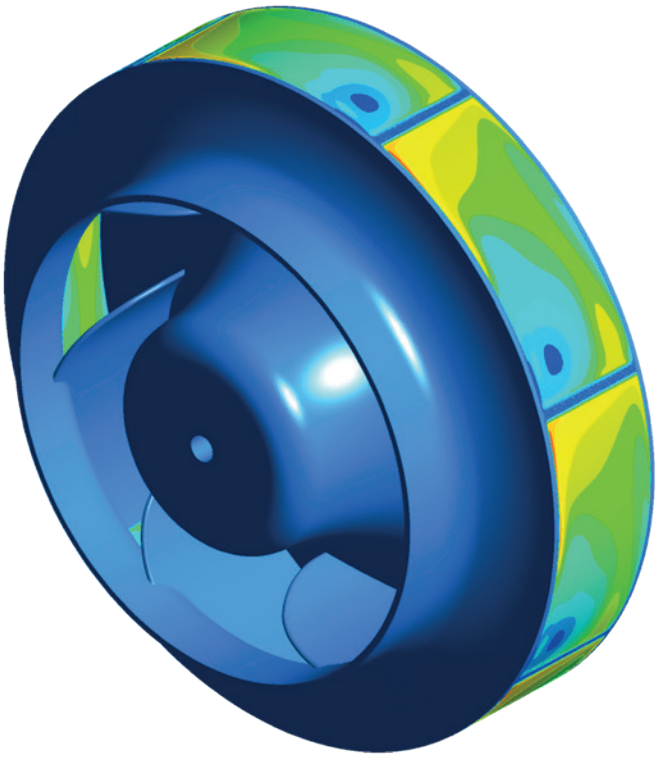
EVIA
European Ventilation Industry Association

Technology Partners

Torin is proud to partner with the customer base on custom designs, co-developments and technology licence agreements. Understanding the needs of customers, legislation that affects the various industries, whilst creating value and innovation is at the very heart of business for Torin.

Expertise in aerodynamic design, EC motor technology, drive technology, efficiency and acoustics, plus our willingness to share this knowledge has positioned Torin as the partner of choice for energy-efficient air movement solutions.

This is all underpinned by an extensive team of product development and applications engineers, combined with an exceptional research and development facility.



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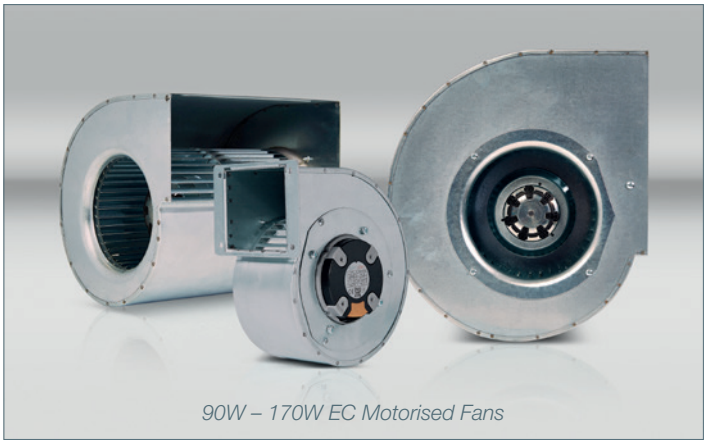
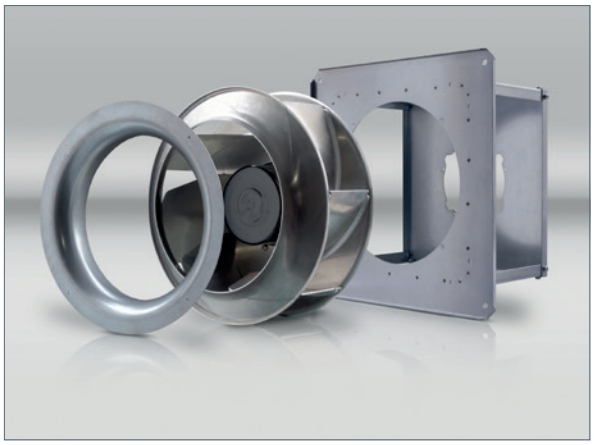
Efficiency with every rotation

90W – 170W EC Motorised Impellers



90W – 170W EC Motorised Fans



EC Centrifugal Fan Pedigree

Torin started manufacturing EC centrifugal motorised impellers and fans in the late 1990's and we celebrated selling our one-millionth EC product to the European ventilation industry in 2013. We have since opened our EC Manufacturing & Technology Centre which acts as the centre of excellence for everything EC. This new state-of-the-art facility has benefitted from an investment exceeding £2m and houses the production of highly efficient EC motor, fan and blower products.

The Revolution **360** range utilises the latest three-phase technology, ensuring best-in-class efficiency levels as well as whisper quiet operation. These are fundamental considerations when selecting your partner for air movement projects.

The newly expanded Revolution **360** range now caters for motor powers of up to 1 kW, impeller diameters of 400 mm and is also available in a plug fan mounting configuration.

The new additions to the range are suitable for heating, ventilation and cooling applications for use within commercial installations. This builds on the strong position Revolution **360** enjoys within the residential sector. The highly intelligent EC motor ensures that an optimal mix of air-performance, noise and efficiency is delivered.

Energy Saving Technology

The Revolution **360** range also exceeds the requirements of the eco-design regulations.

“Most importantly, our expertise is centred on understanding a fan’s specific performance in each application, however complex that application is.”

Why make Torin your partner of choice?

We want our customers to always get the best from their products, so your requirements are paramount to us. You can benefit from a flexible & tailored set of services on offer.

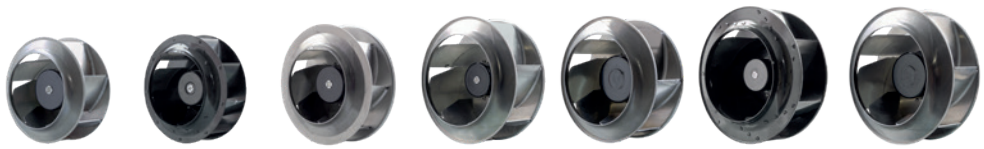
Current examples include:

- 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

Typical Specifications & Features

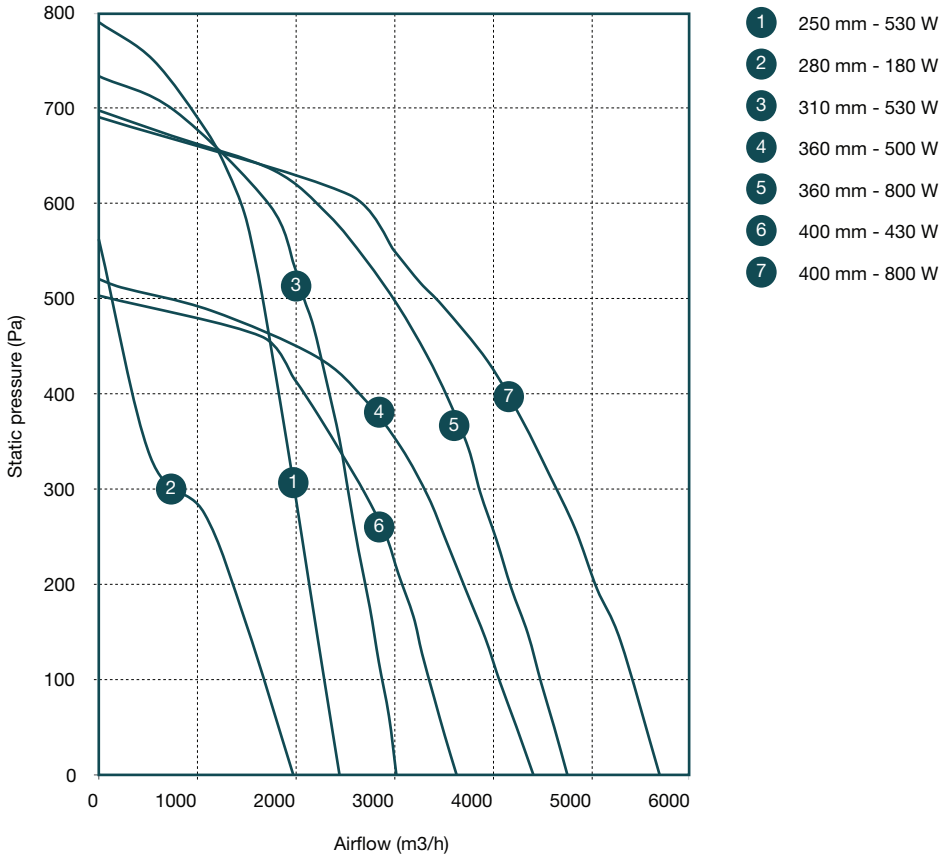
Technical Data	
Mode of Operation	Continuous
Supply Voltage (rms)	200 ~ 277 V ac
Supply Phase	1 ~
Supply Frequency Range	50/60 Hz
Control Input	0-10 V dc / PWM, RS485
Control Output	10 V dc max 10 mA, RS485
Dielectric Strength	1.5 kV dc / 2.2 kV ac
Leakage Current	≤3.5 mA
Protection	Locked rotor
Motor Protection	Over temperature protected
Motor Insulation Class	B
IP Rating	54
Operational Ambient Temperature Range	-25 °C to +60 °C
Material	
– Impeller – Rotor Cup – Electronics Enclosure – Inlet Ring	Aluminium SPCC Die-Cast Aluminium Galvanised Steel
Motor Mounting	Horizontal / Vertical
Bearings	Ball bearings
Balance Grade	G6.3
Approvals	CE
EMC	
– Immunity – Emissions – Harmonics	EN61000-6-1 EN61000-6-3 EN61000-3-2/3
LVD	
– Electrical Safety	EN60335-1, EN60335-2-80

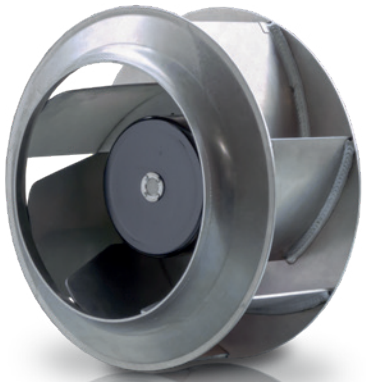
Motorised Impellers & Plug Fans
range summary

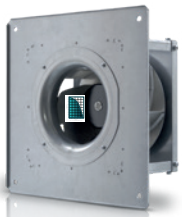


	250 mm 530 W	280 mm 180 W	310 mm 530 W	360 mm 500 W	360 mm 800 W	400 mm 430 W	400 mm 800 W
Technical Data							
Supply Voltage (rms)	200 ~ 277	200 ~ 277	200 ~ 277	200 ~ 277	200 ~ 277	200 ~ 277	200 ~ 277
Max. Airflow	2440 m³/h	1972 m³/h	3016 m³/h	4408 m³/h	4755 m³/h	3635 m³/h	5693 m³/h
Max. Current	3.5 A	1.0 A	3.5 A	3.6 A	4.0 A	3.1 A	4.0 A
Max. Input Power	530 W	180 W	530 W	500 W	800 W	430 W	800 W
Inrush Current (t=25 °C) Cold Start Hot Start	 24.0 A 43.4 A	 15.4 A 35.1 A	 24.0 A 43.4 A	 24.0 A 43.4 A	 24.8 A 39.7 A	 24.0 A 43.4 A	 24.8 A 39.7 A
Max. Speed	3050 rpm	1850 rpm	2500 rpm	1730 rpm	2030 rpm	1500 rpm	1760 rpm
Erp Efficiency Rating (FMEG)	67	70	76	73	71	76	76
IP Rating	54	54	54	54	54	54	54
Motor Insulation Class	B	B	B	B	B	B	B
Operational Ambient Temperature Range	-25 °C to +60 °C	-25 °C to +60 °C	-25 °C to +60 °C	-25 °C to +60 °C	-25 °C to +60 °C	-25 °C to +60 °C	-25 °C to +60 °C
Weight	5.3 kg	3.2 kg	6.3 kg	7.1 kg	10.5 kg	7.2 kg	11.3 kg
Standard Direction of Rotation	Clockwise	Clockwise	Clockwise	Clockwise	Clockwise	Clockwise	Clockwise
Number of Blades	7	9	7	7	7	7	7

Motorised Impellers & Plug Fans
Consolidated Graph - Test Power Supply: 230 V 50 Hz







High Efficiency motorised impellers & plug fans

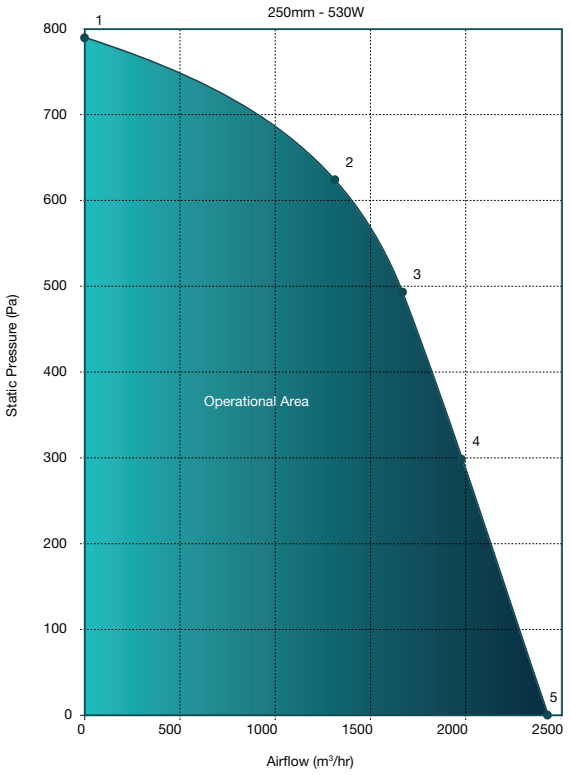
250 mm - 530 W

Technical Data

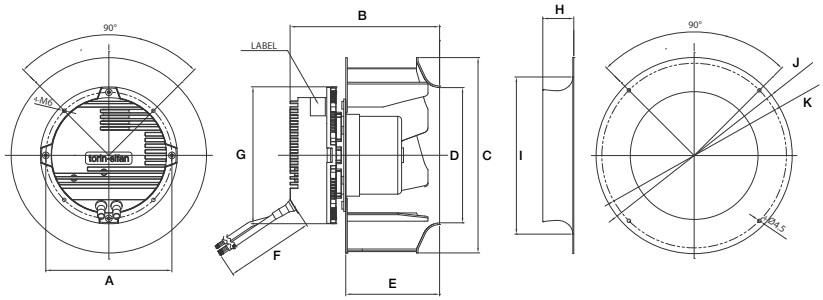
Supply Voltage (rms)	200 ~ 277
Max Airflow	2440 m³/h
Max Current	3.5 A
Max Input Power	530 W
Max Speed	3050 rpm
ErP Efficiency Rating (FMEG)	67
IP Rating	54
Motor Insulation Class	B
Temperature Range	-25 °C to +60 °C
Weight	5.3 kg
Direction of Rotation	Clockwise
Number of Blades	7

Performance Data

Data point	Static Pressure (Pa)	Airflow (m³/h)	Current (A)	Speed (rpm)	Power (W)	Noise (Lp - dBA)
1	796	0	2.24	3046	290	-
2	639	1303	3.03	3045	488	74.5
3	493	1678	3.11	3046	500	73.5
4	295	1993	2.79	3049	449	75.0
5	0	2440	2.33	3044	375	79.0



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



Dimensions (mm)

A	PCD 164	G	178
B	194.4	H	40.1
C	254	I	204.3
D	175.8	J	255
E	122	K	PCD 240
F	480		

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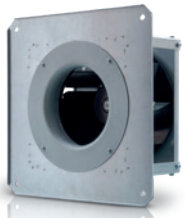
Efficiency with every rotation



High Efficiency motorised impellers & plug fans

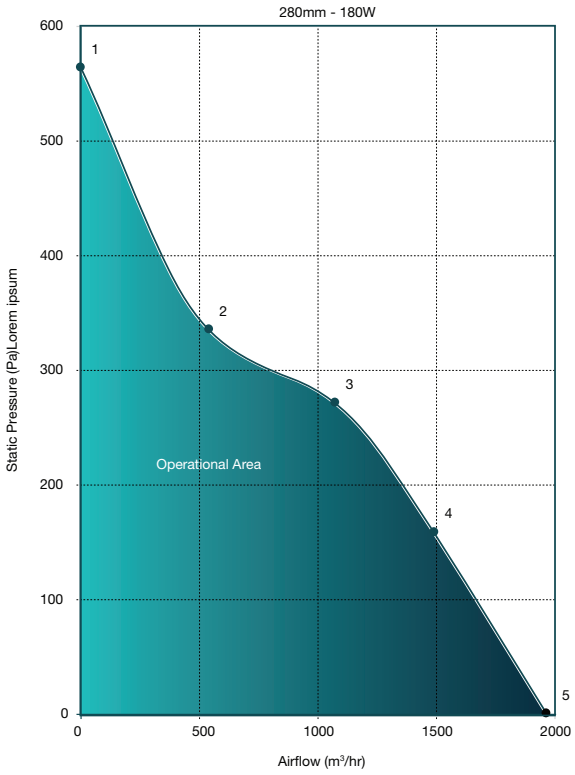
280 mm - 180 W

Technical Data

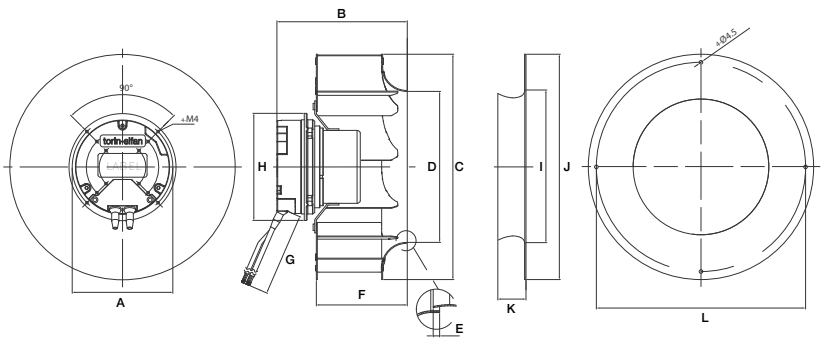
Supply Voltage (rms)	200 ~ 277
Max Airflow	1972 m³/h
Max Current	1.0 A
Max Input Power	180 W
Max Speed	1850 rpm
ErP Efficiency Rating (FMEG)	70
IP Rating	54
Motor Insulation Class	B
Temperature Range	-25 °C to +60 °C
Weight	3.2 kg
Direction of Rotation	Clockwise
Number of Blades	9

Performance Data

Data point	Static Pressure (Pa)	Airflow (m³/h)	Current (A)	Speed (rpm)	Power (W)	Noise (Lp - dBA)
1	565	0	0.52	1838	95	-
2	336	521	0.70	1847	139	67.5
3	276	1069	0.92	1838	178	64.5
4	159	1495	0.84	1843	170	69.0
5	0	1972	0.60	1850	141	72.0

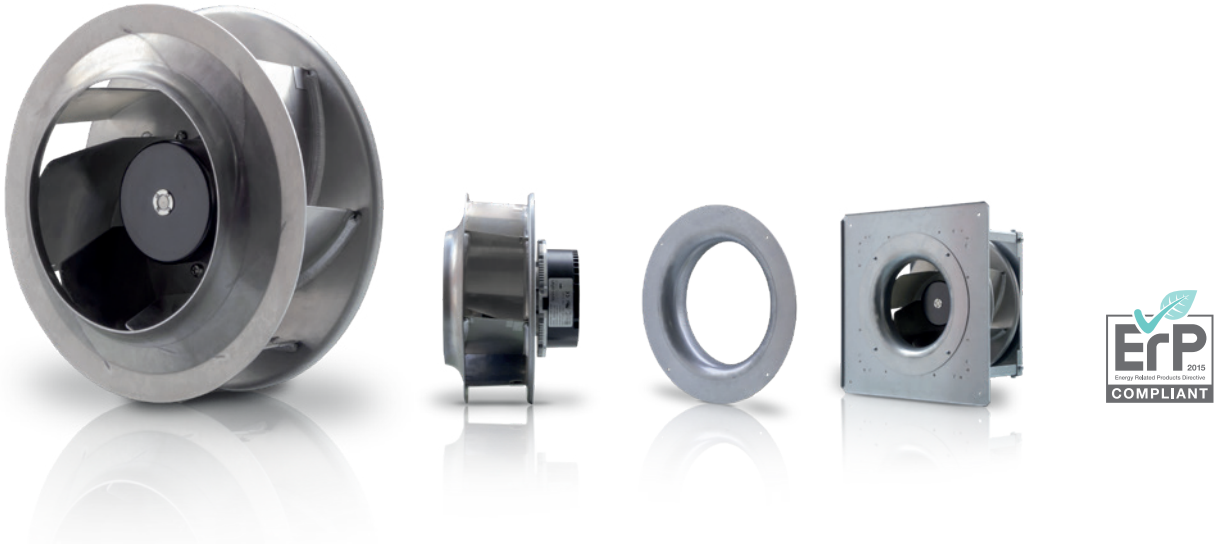


Tested in accordance with ISO 5801. Installation method - type A.



Dimensions (mm)

A	PCD 125	G	550
B	162	H	133
C	280	I	189.6
D	187.6	J	280
E	2	K	35
F	113	L	PCD 260



High Efficiency motorised impellers & plug fans

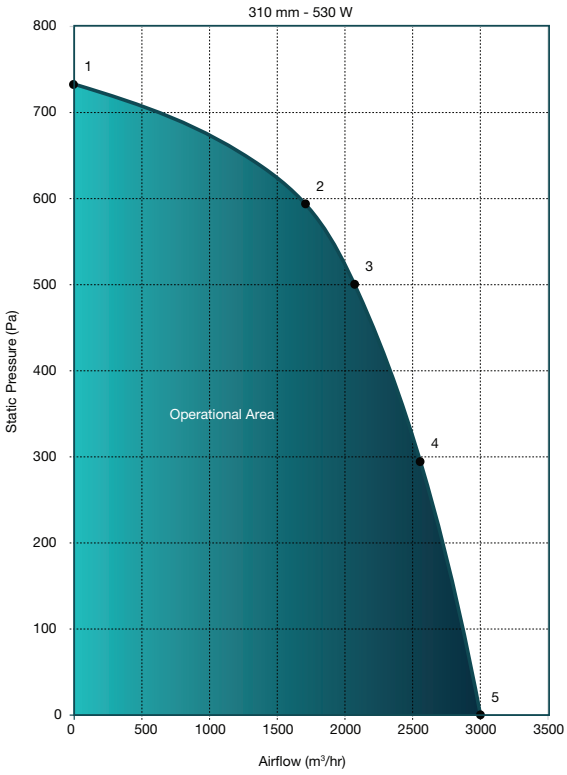
310 mm - 530 W

Technical Data

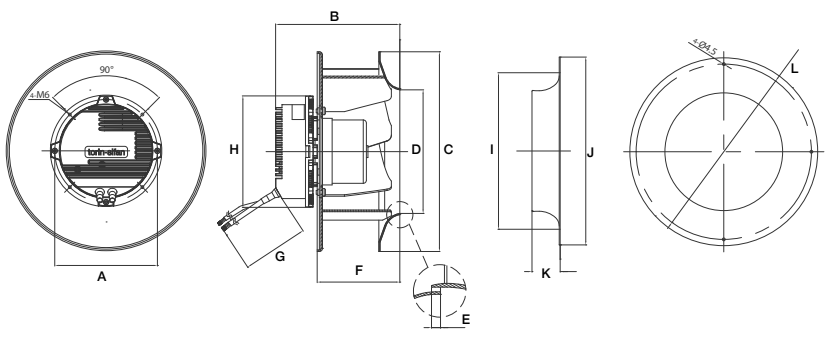
Supply Voltage (rms)	200 ~ 277
Max Airflow	3016 m³/h
Max Current	3.5 A
Max Input Power	530 W
Max Speed	2500 rpm
ErP Efficiency Rating (FMEG)	76
IP Rating	54
Motor Insulation Class	B
Temperature Range	-25 °C to +60 °C
Weight	6.3 kg
Direction of Rotation	Clockwise
Number of Blades	7

Performance Data

Data point	Static Pressure (Pa)	Airflow (m³/h)	Current (A)	Speed (rpm)	Power (W)	Noise (Lp - dBA)
1	734	0	2.29	2496	275	-
2	598	1731	3.12	2500	512	74.0
3	500	2079	3.11	2496	510	73.0
4	294	2533	2.81	2503	461	73.0
5	0	3016	2.31	2500	373	74.5



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



Dimensions (mm)

A	PCD 164	G	480
B	198.4	H	178
C	319	I	250
D	197.4	J	300
E	3	K	45
F	132	L	PCD 280

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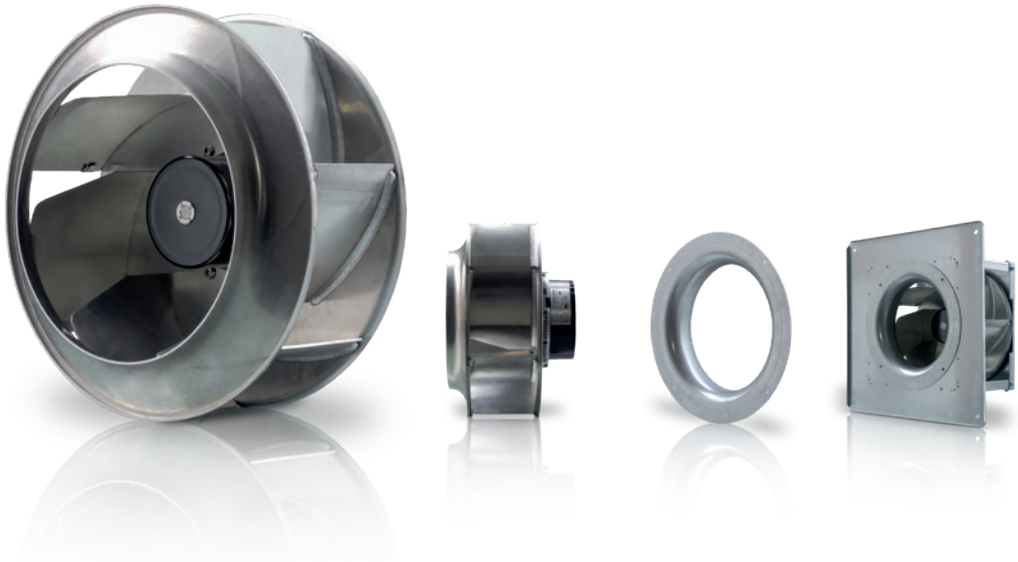
Efficiency with every rotation



High Efficiency motorised impellers & plug fans

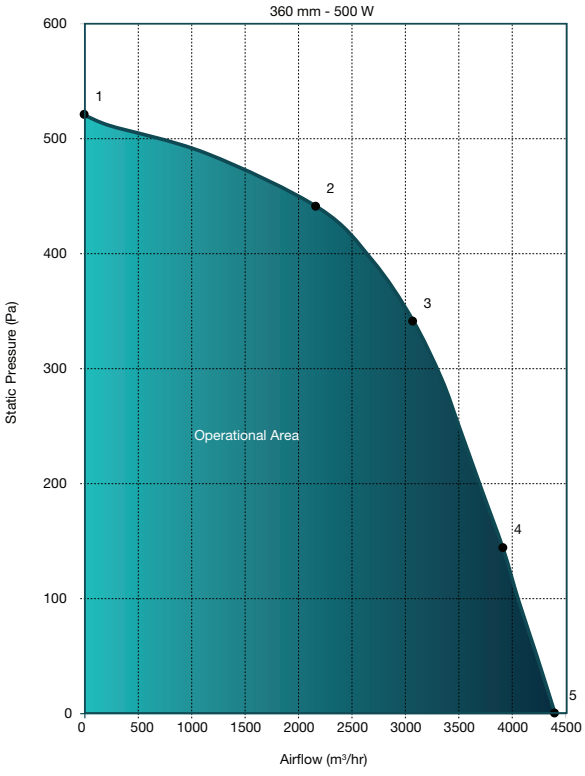
360 mm - 500 W

Technical Data

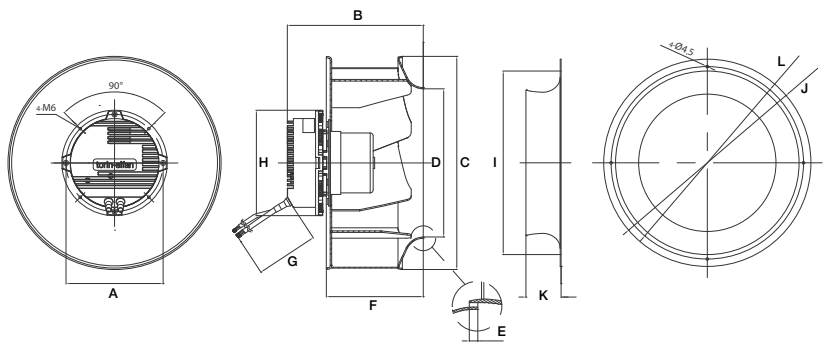
Supply Voltage (rms)	200 ~ 277
Max Airflow	4408 m³/h
Max Current	3.6 A
Max Input Power	500 W
Max Speed	1730 rpm
ErP Efficiency Rating (FMEG)	73
IP Rating	54
Motor Insulation Class	B
Temperature Range	-25 °C to +60 °C
Weight	7.1 kg
Direction of Rotation	Clockwise
Number of Blades	7

Performance Data

Data point	Static Pressure (Pa)	Airflow (m³/h)	Current (A)	Speed (rpm)	Power (W)	Noise (Lp - dBA)
1	522	0	1.91	1721	273	-
2	441	2200	2.97	1721	500	68.0
3	345	3065	3.09	1721	500	67.5
4	144	3920	2.55	1725	430	69.5
5	0	4408	2.03	1722	340	71.5

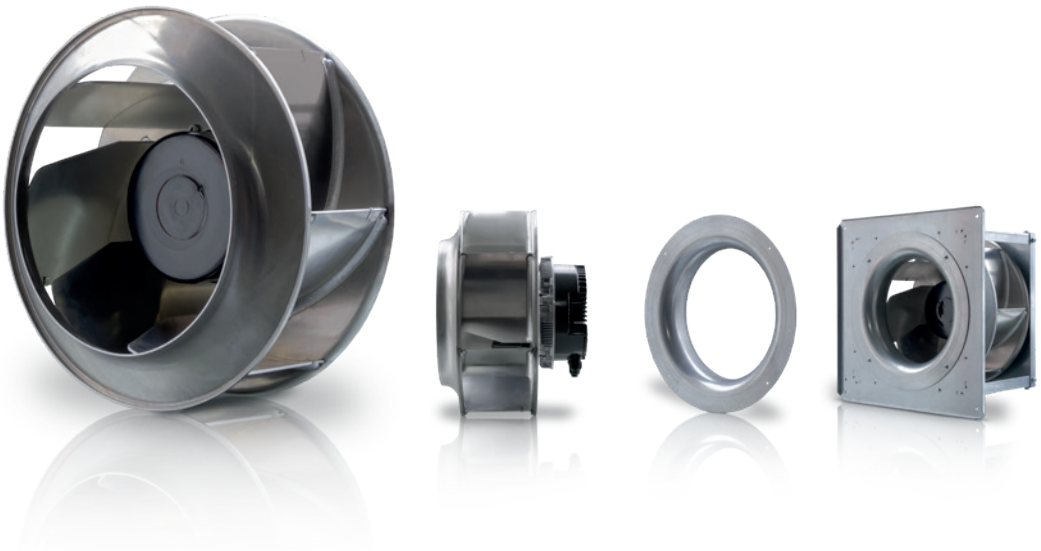


Tested in accordance with ISO 5801. Installation method - type A.



Dimensions (mm)

A	PCD 164	G	480
B	229.6	H	178
C	360	I	310
D	250.3	J	350
E	3.6	K	59.4
F	163.7	L	PCD 325



High Efficiency motorised impellers & plug fans

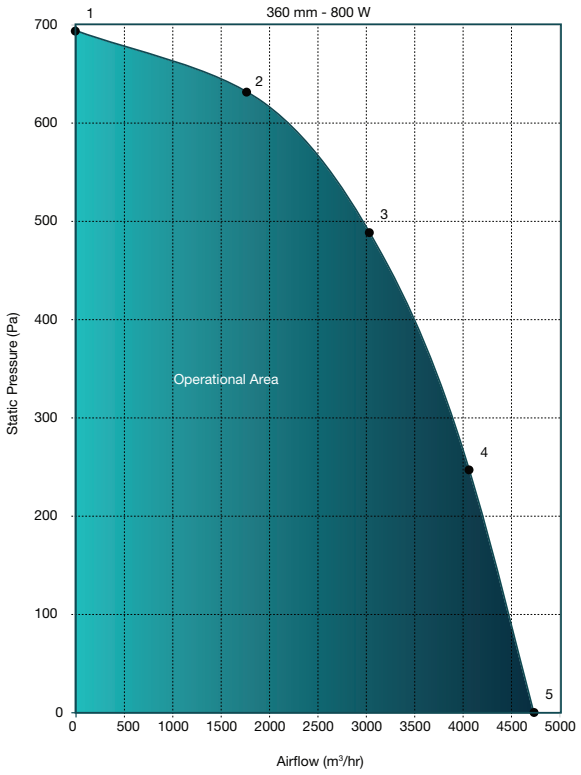
360 mm - 800 W

Technical Data

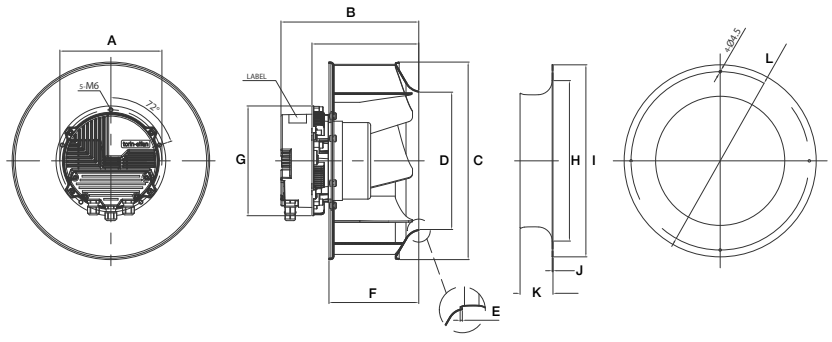
Supply Voltage (rms)	200 ~ 277
Max Airflow	4755 m³/h
Max Current	4.0 A
Max Input Power	800 W
Max Speed	2030 rpm
ErP Efficiency Rating (FMEG)	71
IP Rating	54
Motor Insulation Class	B
Temperature Range	-25 °C to +60 °C
Weight	10.5 kg
Direction of Rotation	Clockwise
Number of Blades	7

Performance Data

Data point	Static Pressure (Pa)	Airflow (m³/h)	Current (A)	Speed (rpm)	Power (W)	Noise (Lp - dBA)
1	697	0	2.29	2029	415	-
2	634	1774	2.99	2032	681	72.0
3	492	3034	3.32	2019	755	70.5
4	246	4035	3.00	2024	683	71.0
5	0	4755	2.36	2027	532	78.5



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



Dimensions (mm)

A	PCD 186	G	200
B	251.2	H	292.5
C	360	I	350
D	250.3	J	1.5
E	4	K	59.4
F	163.7	L	PCD 325

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Efficiency with every rotation

High Efficiency motorised impellers & plug fans

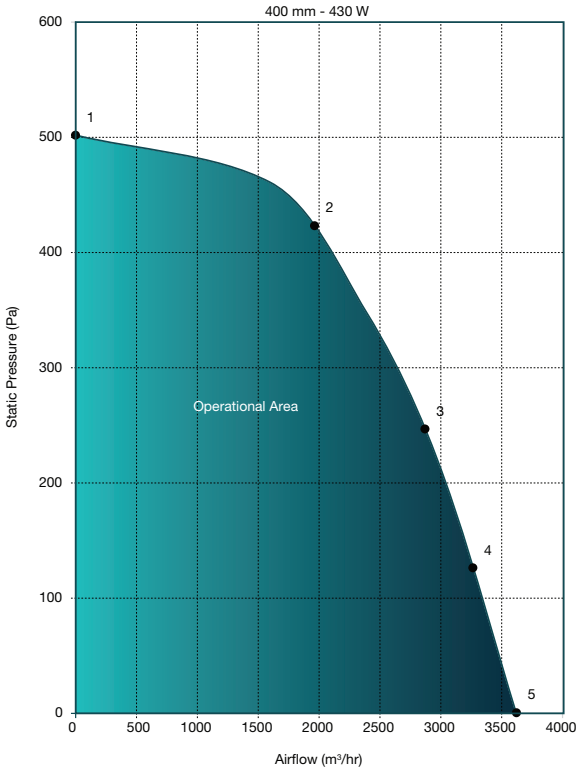
400 mm - 430 W

Technical Data

Supply Voltage (rms)	200 ~ 277
Max Airflow	3635 m³/h
Max Current	3.1 A
Max Input Power	430 W
Max Speed	1500 rpm
ErP Efficiency Rating (FMEG)	76
IP Rating	54
Motor Insulation Class	B
Temperature Range	-25 °C to +60 °C
Weight	7.2 kg
Direction of Rotation	Clockwise
Number of Blades	7

Performance Data

Data point	Static Pressure (Pa)	Airflow (m³/h)	Current (A)	Speed (rpm)	Power (W)	Noise (Lp - dBA)
1	504	0	1.34	1502	217	-
2	417	1984	2.51	1482	424	70.0
3	252	2916	2.43	1502	412	71.0
4	128	3284	1.94	1499	328	72.0
5	0	3635	1.47	1499	248	76.0



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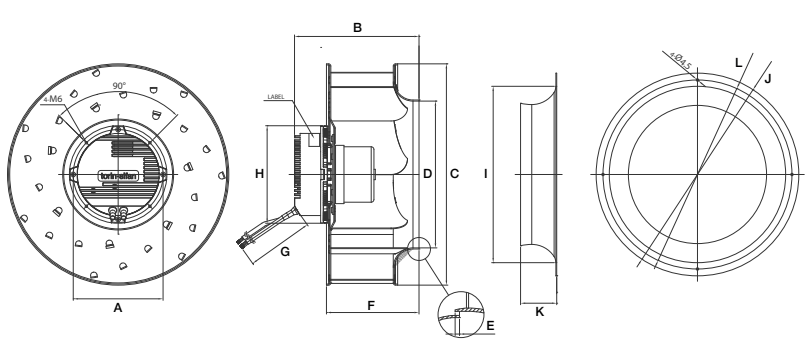
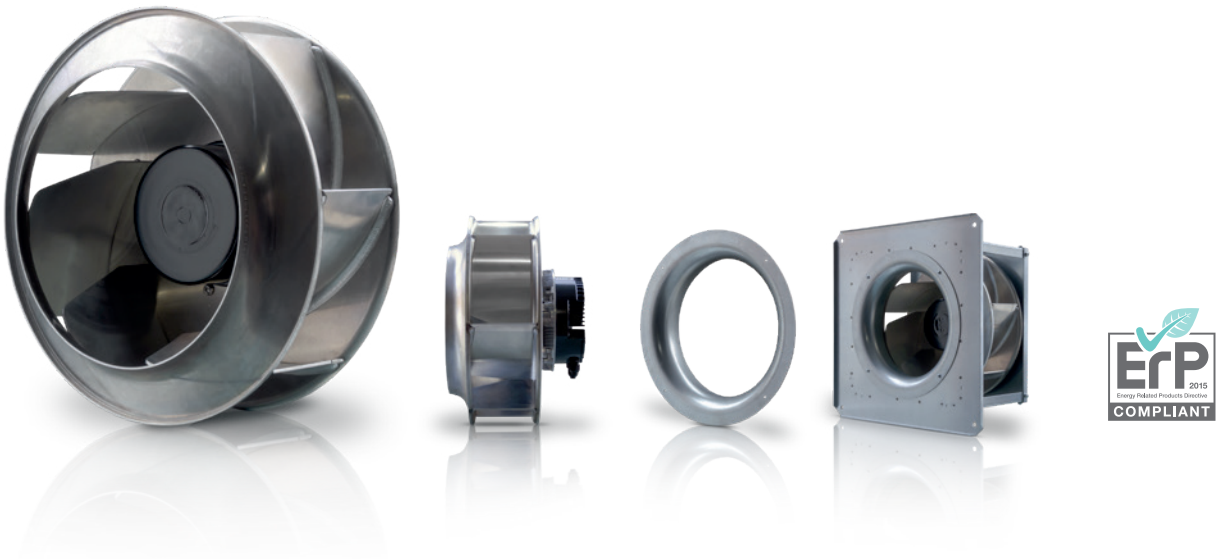


Dimensions (mm)

A	PCD 164	G	480
B	227.3	H	178
C	404	I	322
D	268	J	370
E	4	K	66
F	169	L	PCD 345



High Efficiency motorised impellers & plug fans

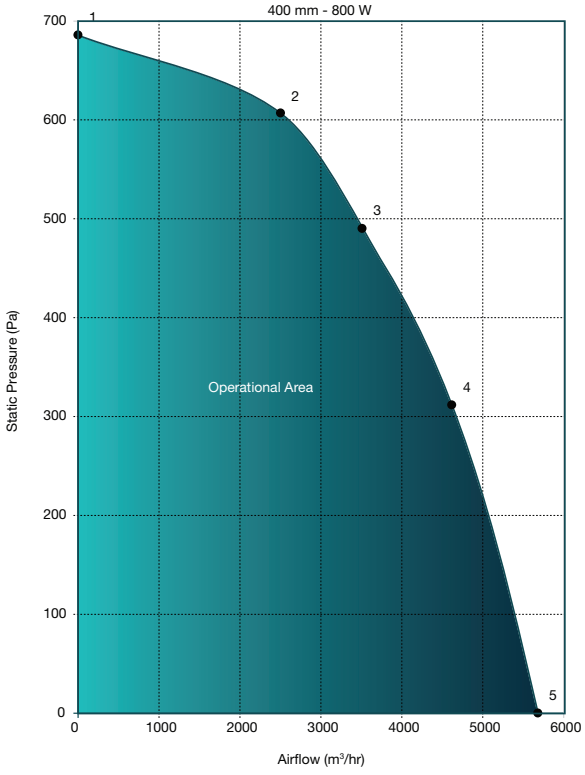
400 mm - 800 W

Technical Data

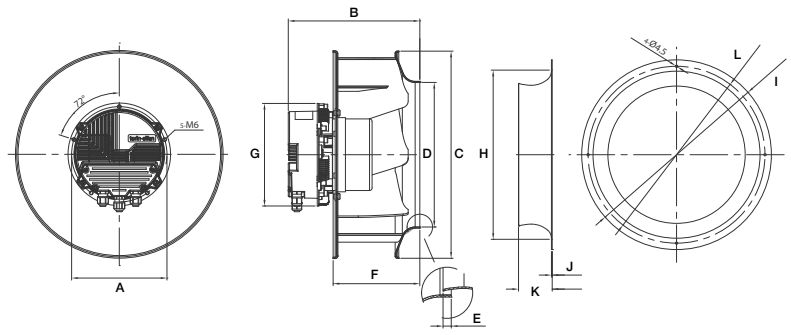
Supply Voltage (rms)	200 ~ 277
Max Airflow	5693 m³/h
Max Current	4.0 A
Max Input Power	800 W
Max Speed	1760 rpm
ErP Efficiency Rating (FMEG)	76
IP Rating	54
Motor Insulation Class	B
Temperature Range	-25 °C to +60 °C
Weight	11.3 kg
Direction of Rotation	Clockwise
Number of Blades	7

Performance Data

Data point	Static Pressure (Pa)	Airflow (m³/h)	Current (A)	Speed (rpm)	Power (W)	Noise (Lp - dBA)
1	690	0	2.27	1751	472	-
2	608	2543	3.37	1760	767	72.0
3	491	3493	3.51	1744	800	71.0
4	316	4569	3.40	1750	775	71.0
5	0	5693	2.34	1750	530	77.5



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



Dimensions (mm)

A	PCD 186	G	200
B	256.6	H	330
C	404	I	370
D	282	J	1.5
E	4	K	65.7
F	169.1	L	PCD 345

torin

Efficiency with every rotation

Motorised Impellers & Plug Fans
mounting enclosures

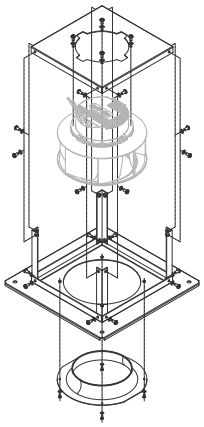
Production Pedigree

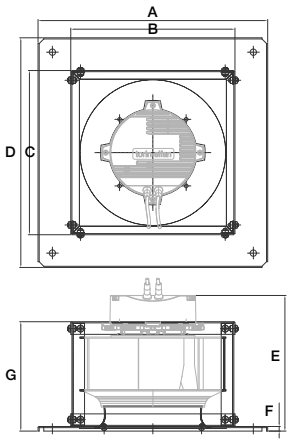
Torin also manufactures the full range of optional plug fan mounting enclosures.

Housing a number of high-speed and conventional power presses, ranging up to 150 tonne capacity, coupled with CNC punching machines, the Torin press and welding shops are well equipped to provide the ancillary equipment, supporting standard products.

All of the SPCC, galvanised sheet-steel metal components that make up the plug fan mounting enclosures are produced in-house, prior to being engineered together, allowing us to complete the assembly to the exacting quality standards that our customers have come to expect.

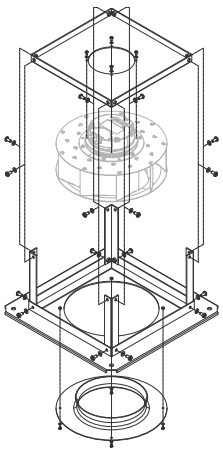
250 mm - 530 W enclosure

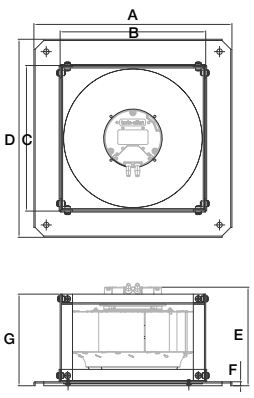




Dimensions (mm)	
A	400
B	286
C	286
D	400
E	236
F	8
G	191

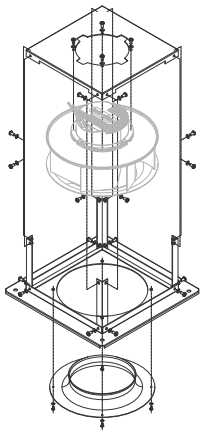
280 mm - 180 W enclosure

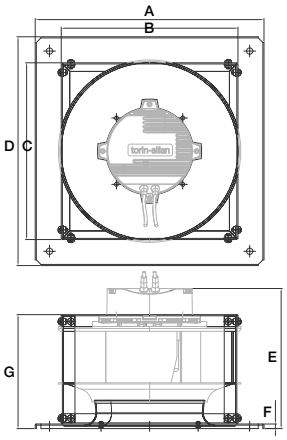




Dimensions (mm)	
A	400
B	294
C	294
D	400
E	199
F	8
G	185

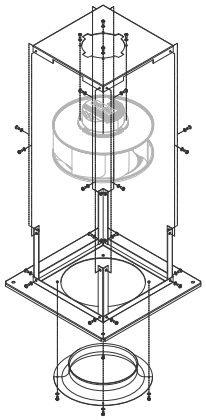
310 mm - 530 W enclosure

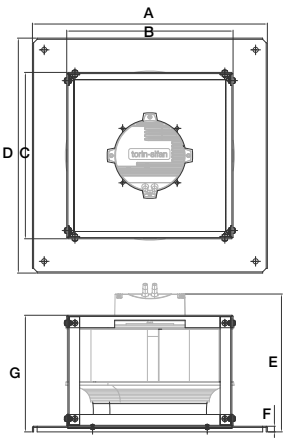




Dimensions (mm)	
A	400
B	309
C	309
D	400
E	245
F	8
G	199

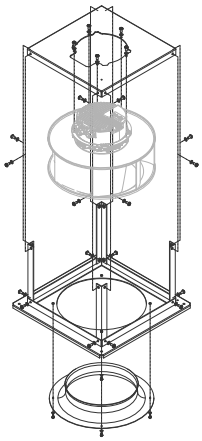
360 mm - 500 W enclosure

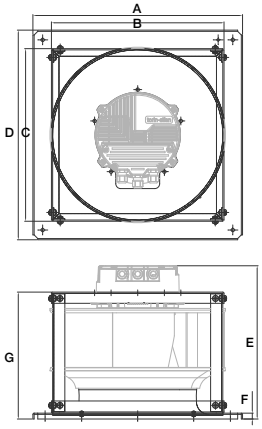




Dimensions (mm)	
A	500
B	354
C	354
D	500
E	293
F	12
G	248

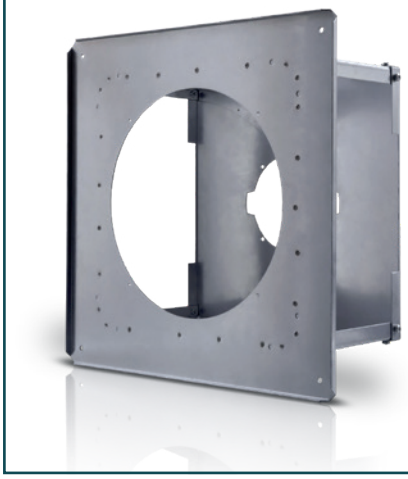
360 mm - 800 W enclosure

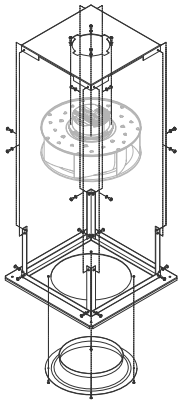


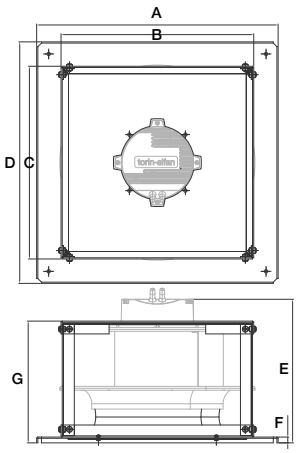


Dimensions (mm)	
A	430
B	354
C	354
D	430
E	314
F	12
G	260

400 mm - 430 W enclosure

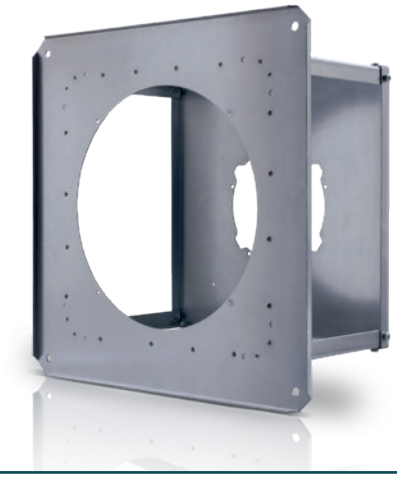


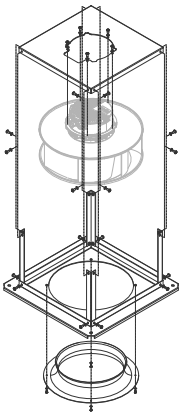


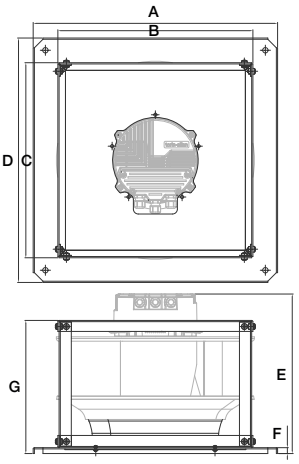


Dimensions (mm)	
A	500
B	399
C	399
D	500
E	297
F	12
G	252

400 mm - 800 W enclosure







Dimensions (mm)	
A	500
B	399
C	399
D	500
E	326
F	12
G	272

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Efficiency with every rotation

Torin, Drakes Way, Greenbridge, Swindon, Wiltshire, United Kingdom. SN3 3JB

Tel	Fax	Email
+44 (0) 1793 524291	+44 (0) 1793 486570	sales@torin.co.uk

www.torin.co.uk