

AxiTwin 100 (100x100x90)

Enabling the transition into the future

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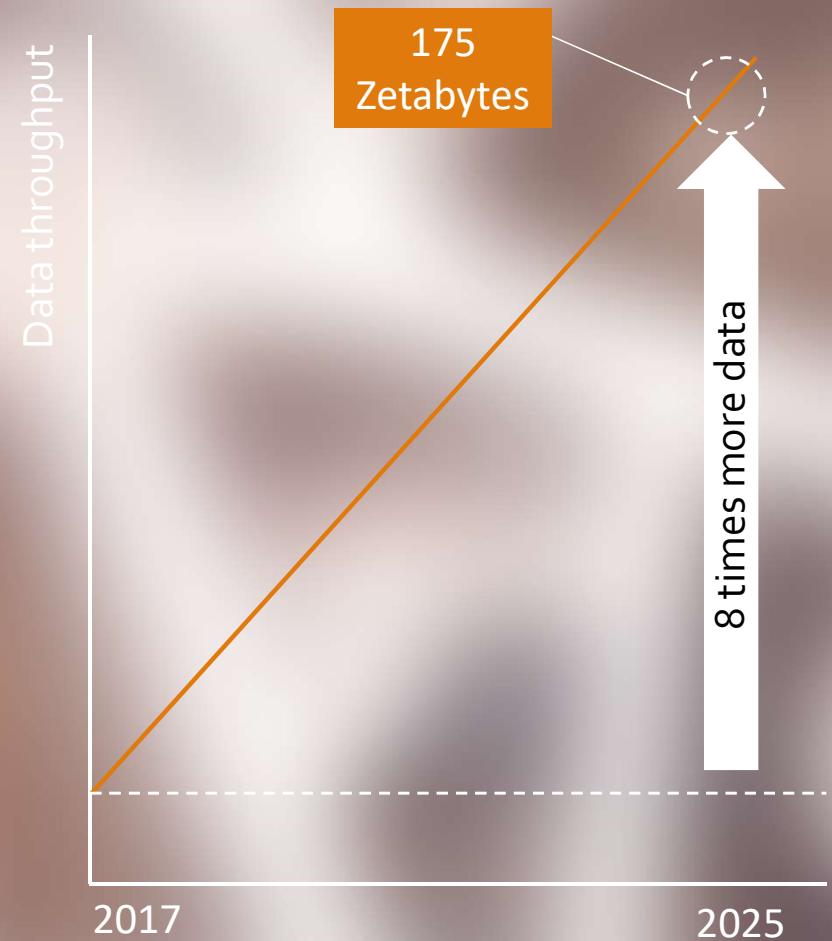
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Data throughput will significantly increase

175 Zetabytes =
175.000.000.000.000.000.000.000 Bytes

“If this amount of data were saved on conventional DVDs, the stack of data carriers would be 23 times the distance between the earth and the moon”





Perfectly harmonized

...two fans connected with an innovative flange work together by rotating in opposite directions. First stage is mainly creating the air flow....



Front





Perfectly harmonized

... the flange reduces turbulence of the first stage.
The second fan minimizes residual swirls, increases
the pressure build-up and increases efficiency.



Back

Noise and efficiency optimized design



Reduced overlapping of aerodynamic geometries

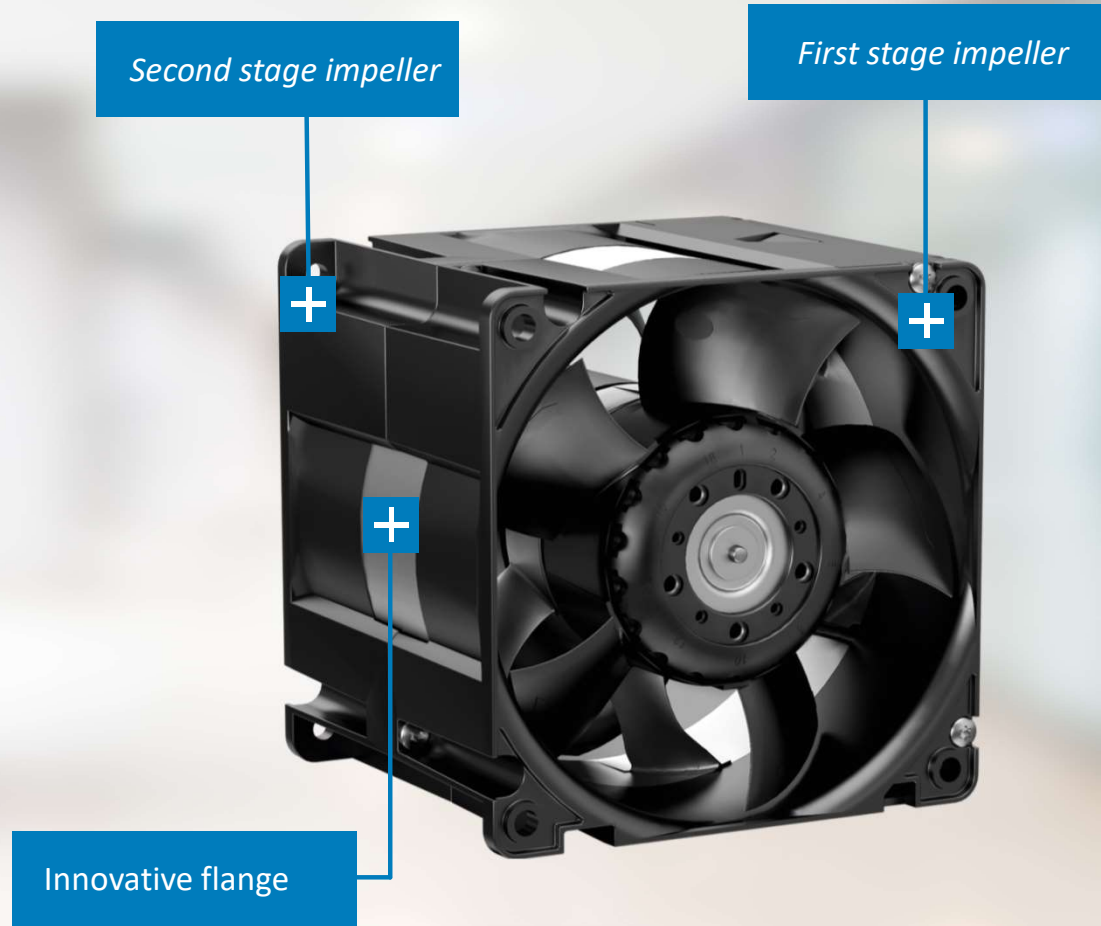
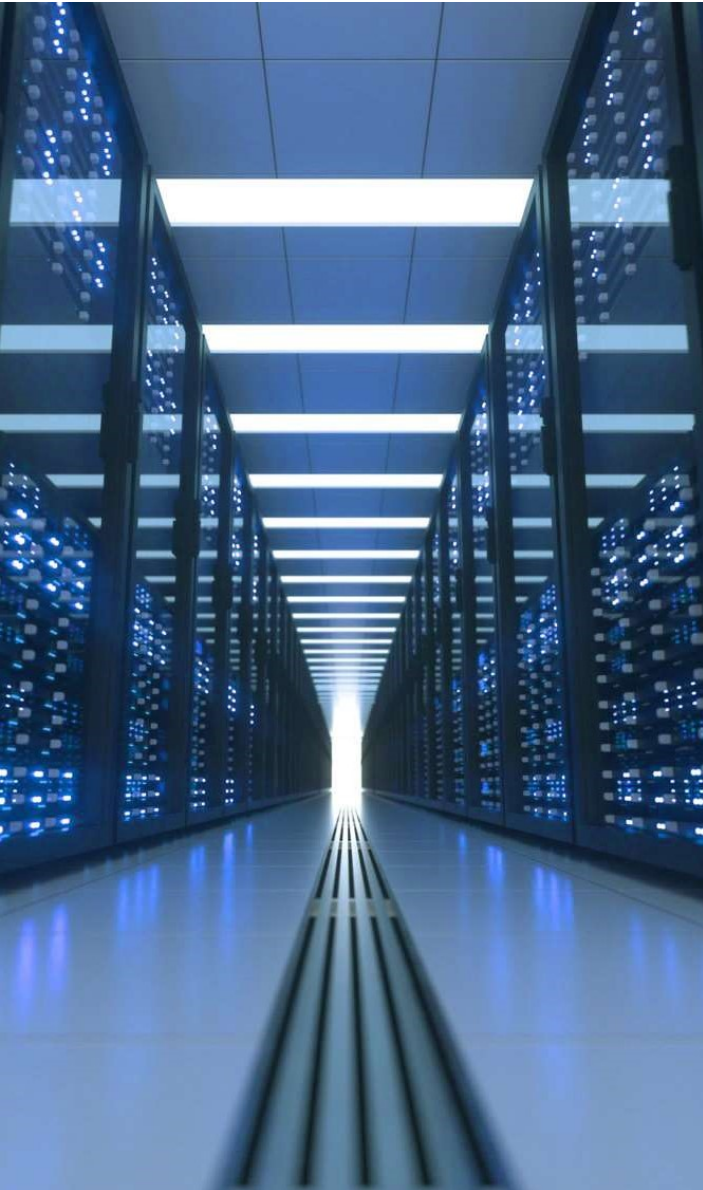
First stage (5 blades)

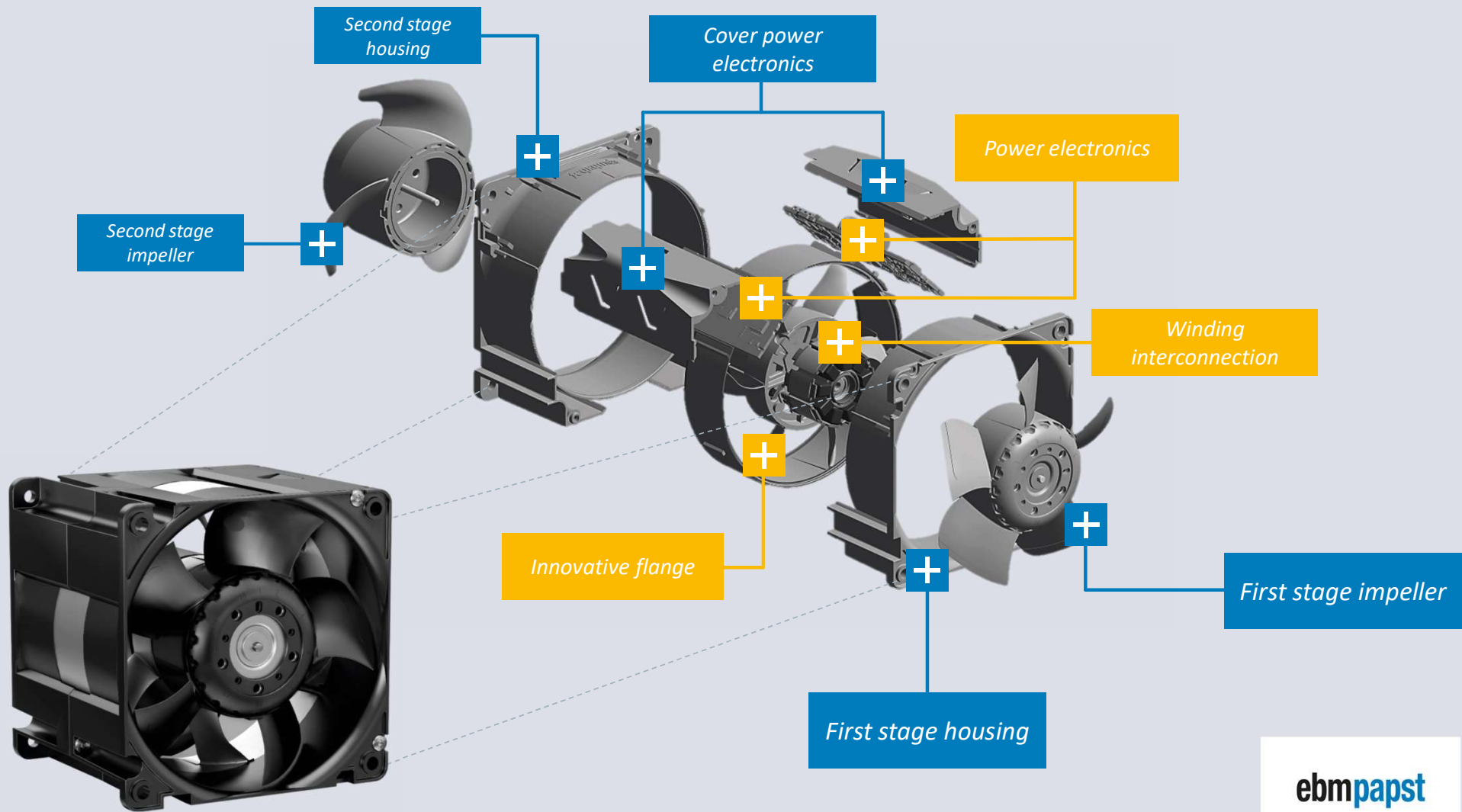
- to maximize air volume

Second stage (3 blades)

- to maximize the pressure (2/3 of the pressure are created in second stage)
- Matching counter part of first stage to further reduce swirls
- Sickled geometry to optimize noise
- Reduced surface to optimize efficiency







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The Flange

*more than a spacer...
is patented engineering...*

+ **Compact**

*Only one flange for two fans with
double sided bearing tube and
integrated guide vanes*

+ **Less swirls**

+ **Contributes to better efficiency**

+ **Less noise**

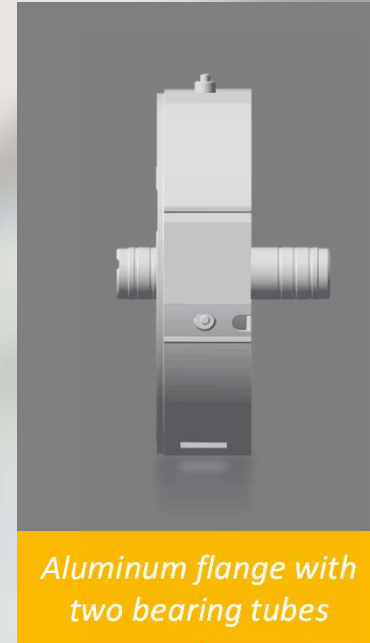
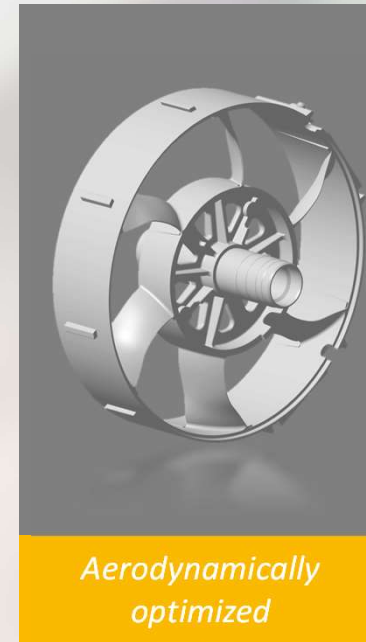
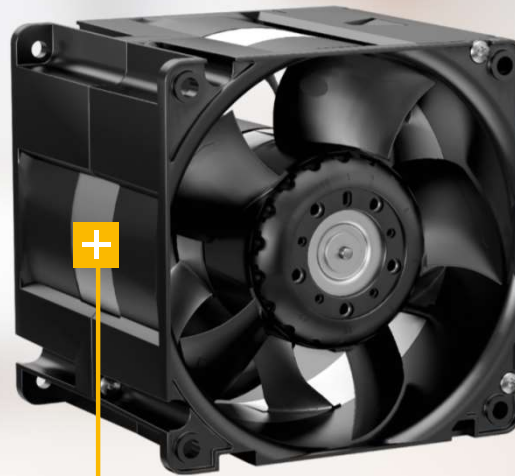
*Optimized , laminar air flow
between first and second stage fan*

+ **Aluminum made**

*Higher stiffness and optimized heat
dissipation*

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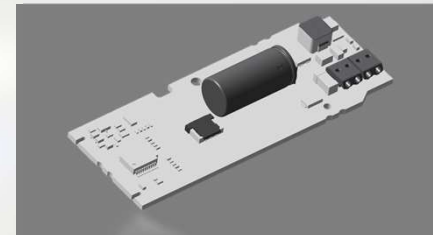
The Electronics

.... thought into a new direction

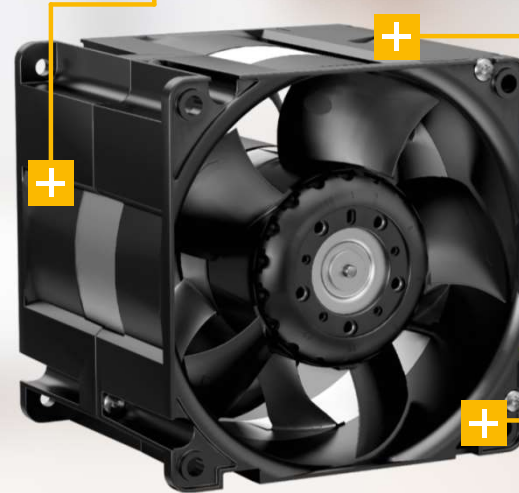
- + One power electronics for each fan stage
- + Smart cooling of power electronics by using aluminum flange
- + Single fans just with winding interconnection PCB



Winding interconnection 1



Power electronics



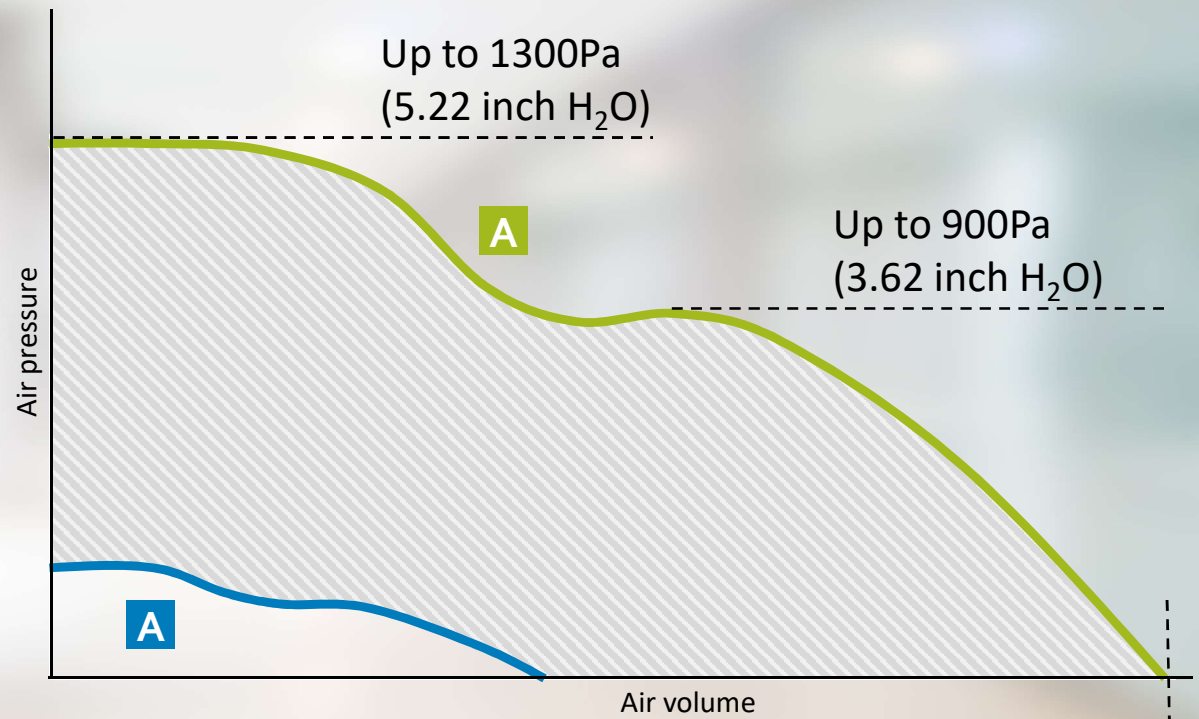
Winding interconnection 2

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AxiTwin 100



A 5000rpm (40% speed)

B 11000rpm (100% speed)

Up to 536m³/h
(315cfm)



- + Powerful**
thanks to 3-phase motor technology
- + Redundancy grants operational safety**
- + Noise optimized**
thanks to optimized impeller and housing design combined with a new motor technology
- + Universally approved**
VDE, UL/CSA, CE, CCC
- + Innovative compact design**
reduction of turbulances and increase of efficiency
- + Options**
*Humidity protection, Speed control (PWM or analog),
Output signals (tacho signals, alarm signals)*
- + Suitable and efficient**
*Dimensions 100x100 allows the optimal use of the construction space and thus
maximum and uniform cooling performance of a 19" rack*



Thank you

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AxiTwin 100

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Description

Characteristic curve

Nominal data

Drawing



- + New developed flow geometry
- + New three-phase motor concept
- + Counterwise rotating impellers
- + 2 independent drives (Redundancy)
- + Highly efficient
- + Air flow direction: Exhaust over struts
- + Rotational direction: Counterclockwise, looking towards rotor
- + Material Housing: Plastic (PC+ABS)
- + Material Impeller: Plastic (PA)
- + Center flange: Die-cast aluminum

optional

- + PWM speed control
- + Analogue speed control
- + Speed signal
- + Alarm signal
- + Humidity protection

AxiTwin 100

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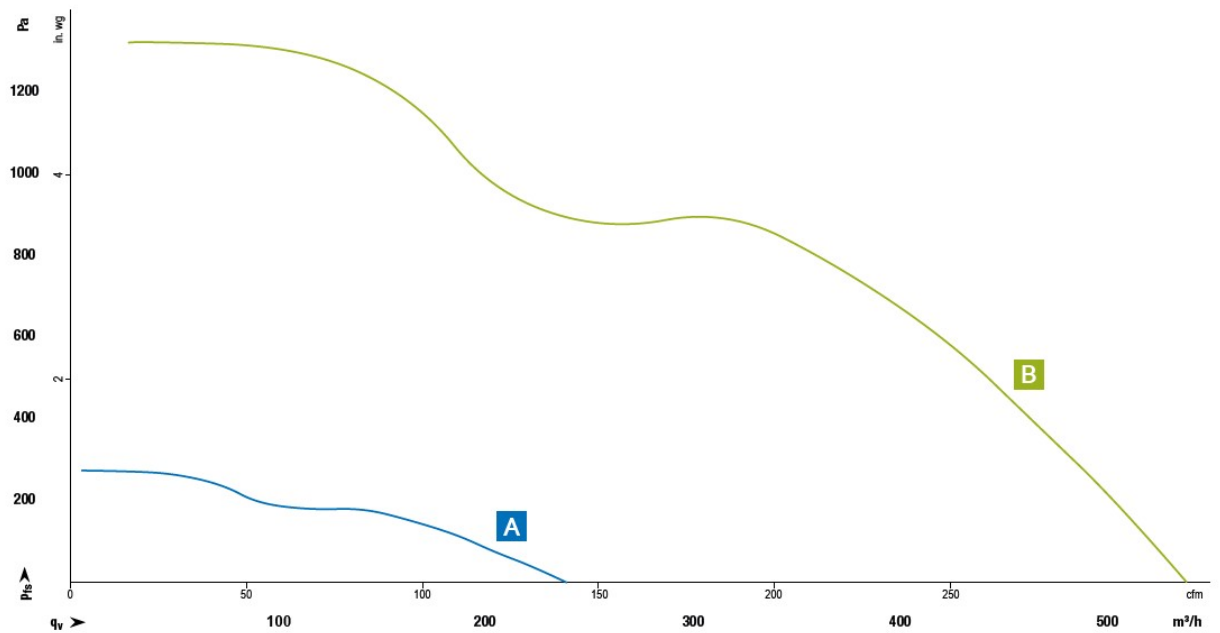
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Description

Characteristic curve

Nominal data

Drawing



AxiTwin 100

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Description

Characteristic curve

Nominal data

Drawing



Air flow

Air flow

Nominal voltage

Voltage range

Sound power level

Sound pressure

Power consumption

max.
power consumption

Nominal speed
stage 1

Nominal speed
stage 2

Temperature range

Weight

Service life L10_{40°C}
acc. IPC 9591

Approvals

Type

Part no.

m³/h

cfm

VDC

VDC

Bel (A)

dB(A)

Watt

Watt

rpm

rpm

°C

g

hours

UL, CSA, VDE, CCC,
CE

VWE0100TUGCS 8315100209

48 36...60

-20...70°C

600

142500

A

40% speed

240

141

7,1

65

22

45

5000

4000

142500

B

100% speed

536

315

9,0

82

127

220

11000

9000

117500

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Description

Characteristic curve

Nominal data

Drawing

