ACmaxx

Technical Information

Progress made by ebm-papst

The best example: The ACmaxx fans from ebm-papst, which, thanks to an ingenious yet simple improvement over conventional AC fans, provide substantial benefits.
The aim in developing the new ACmaxx series was to raise the technology standard of the conventional AC fan and, in the process, facilitate the transition to the new technology by retaining the overall mounting dimensions. In short, to ensure the fans can be replaced 1:1 without any peripheral changes or changes to the voltage situation.

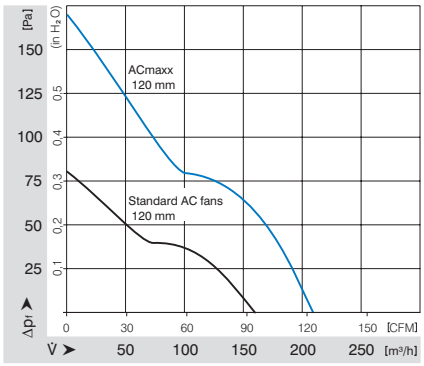
The outstanding features of ACmaxx fans:

1. Designed for all AC voltages

The ACmaxx generation of fans is designed for direct connection to all AC voltages and frequencies with no switching required, handling from 85 to 265 V AC and frequencies of 50 to 60 Hertz.
Voltage fluctuations in the power system are automatically compensated for. Its universal power supply allows for great potential savings in reduced stockholding and logistics.

2. More power, more flexibility

In contrast to conventional AC technology, the modern drive concept of this fan series is not linked to a fixed power frequency. Hence the motor speed can be increased over a wide range. As such, ACmaxx provides significantly higher air flow and increased pressure.



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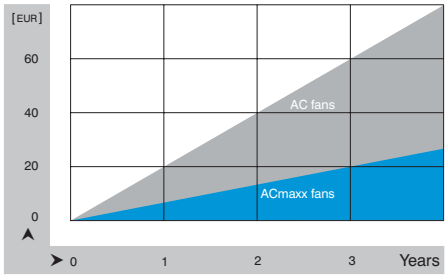
3. Highest energy efficiency

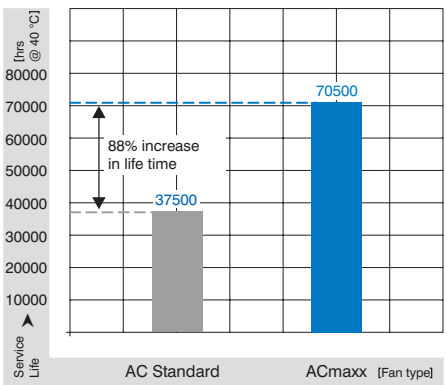
The ACmaxx drive concept is based on state-of-the-art EC technology with outstanding motor efficiency. Compared to AC fans of the same size, ACmaxx energy consumption is up to 75% lower – for higher cooling capacity! The energy difference alone means that the ACmaxx pays for itself after a few months. The savings over the entire service life, especially in systems with multiple fans, is considerable.



Energy cost comparison: Standard AC fan versus ACmaxx, at the same air performance.

4. Long service life

The ACmaxx motor efficiency is up to 75% greater than that of conventional AC fan variants. This not only saves energy, it also means less intrinsic heating in the motor. The reduced heating has a direct, positive affect on the bearing system, which is why ACmaxx fans have a service life that is up to 85% longer than conventional AC fans!
This also lengthens the service and maintenance intervals significantly. The expense of replacement fans, and even more expensive downtimes, are kept to a minimum.



5. Flexible and failsafe

The flexibility of ACmaxx is one-of-a-kind. With its intelligent features, ACmaxx can be individually adapted to the specific application: standby mode, overload mode at peak times or night reduction all the way to temperature-controlled quiet operation are all possible. From speed setting to alarm or speed signal outputs, ACmaxx offers optional interfaces with which you can quickly and easily implement operation monitoring.

You can find further information about these fan options in the "Specialized fans" chapter, starting on page 82. Or you can simply contact our application engineers to discuss your ideal ACmaxx fan.

6. Security

- Safety UL and CSA.
  VDE 0805 / EN60950 approvals applied for.
  VDE 0700 / EN60335 on request.
- Our fans have the CE mark of conformity
- EMV protection

  > EN61000-4-4 Level 1 (1 kV)B
  > EN61000-4-2 Level 8 kV/15 kV
  > EN61000-4-3
  > EN61000-4-6
  > EN61000-4-8
  > EN55022 Class B

7. Environment

- Optional: improved humidity protection or Protection Class IP 54

NEW TYPE

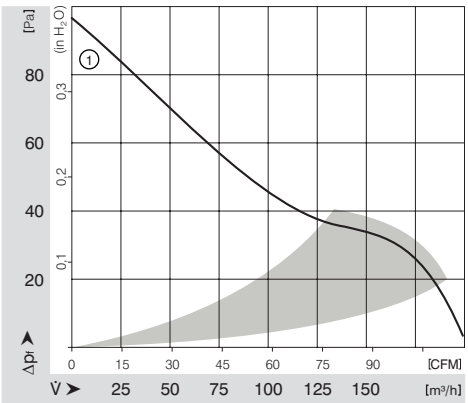
ACmaxx Axial Fans

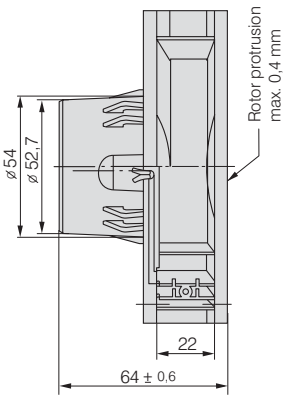
Series AC 4300 119 x 119 x 32 mm

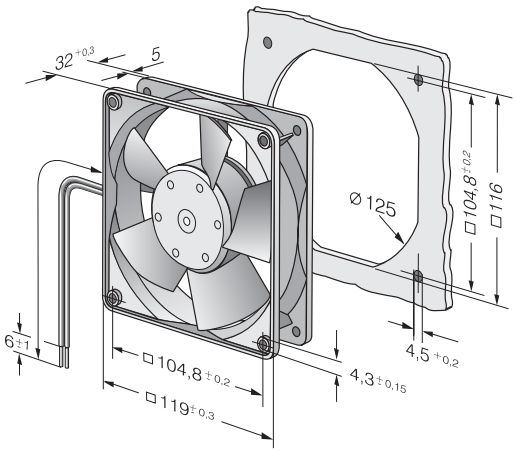
- Fans with electronically commutated external rotor motor for connection to AC voltage.
- With electronic protection against locked rotor and overloading.
- Fan of fibreglass reinforced plastic. PBTP housing, PA impeller.
- Air exhaust over struts. Rotational direction CW looking at rotor.
- Electrical connection via leads AWG 22. Stripped and tinned ends.
- Open-loop speed control, sensor and alarm signals, and protection against environmental influences are available upon request.
- Masse 325 g.

Nominal data	Air Flow	Air Flow	Nominal Voltage	Frequenzy	Voltage Range	Noise		Sintec-Sleeve Bearings Ball Bearings	Power Input	Nominal Speed	Temperature Range	Service Life L_{10} at 40 °C	at t_{max}	curve
Type	**m³/h**	**CFM**	**V**	**Hz**	**V AC**	**dB(A)**	**Bel**	**□/■**	**Watt**	**min⁻¹**	**°C**	**Hours**	**Hours**	
AC 4300 H	204	120	**115 / 230**	**50 / 60**	85 ... 265	51	6.4	■	11	3 400	-20...+70	45 000 / 22 500		1

Extended speed monitoring on request.







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ACmaxx Axial Fans

Series AC 6200 N 172 ø x 51 mm

- Fans with electronically commutated external rotor motor.
- With electronic protection against locked rotor and overloading; electronic motor current limitation in the startup phase and when rotor is blocked.
- Metal fan housing, impeller of fibreglass reinforced plastic PA.
- Air exhaust over struts. Rotational direction CCW looking at rotor.
- Electrical connection via leads AWG 22. Housing with ground lug M4 x 8 (TORX). 48 V DC with screws.
- Open-loop speed control, sensor and alarm signals, and protection against environmental influences are available upon request.
- Mass 900 g.

Nominal data	Air Flow	Air Flow	Nominal Voltage	Frequenzy	Voltage Range	Noise		Sintec-Sleeve Bearings Ball Bearings	Power Input	Nominal Speed	Temperature Range	Service Life L_{10} at 40 °C	at t_{max}	curve
Type	**m³/h**	**CFM**	**V**	**Hz**	**V AC**	**dB(A)**	**Bel**	**□/■**	**Watt**	**min⁻¹**	**°C**	**Hours**	**Hours**	
AC 6200 NM	350	206	**115 / 230**	**50 / 60**	85 ... 265	50	5.7	■	14	2 850	-20...+70	80 000 / 40 000		1

Extended speed monitoring on request.