VHD 146
Centrifugal fan for range hoods.
Next step in evolution
VHD 146.

Aerodynamically optimized:
New robust housing with integrated protection against contact.

Enhanced energy efficiency:
Use of an EC motor with integrated electronics, infinitely variable control thanks to PWM.

One fan for all:
Suitable for a wide variety of different range hood types. Conversion from extraction to air recirculation possible.

Simple installation:
Standardized installation dimensions with 150 mm outlet diameter.

The VHD 146 is the next logical addition to the existing portfolio of range hood fans for conveying large volumes of air with medium to high pressure increase. With its high performance, the blower is well equipped to deal with even high levels of exhaust air and guarantee thoroughly clean air. The dual-inlet centrifugal fans with forward-curved fan impeller are primarily used in wall-mounted and island hoods. Integrated into a fan module they can also be assembled in a wide range of other types of hood.

The innovative scroll housing is provided as standard with integrated protection against contact on the inlet side, which greatly simplifies conversion and use in recirculating hoods, whilst reducing installation times.

The bayonet connectors on the housing permit quick and easy attachment of activated carbon filters whenever required to produce an ideal kitchen atmosphere in recirculating mode. The blower is optionally available with a non-return valve to prevent the back-flow of exhaust air and the ingress of air from outside. Thanks to the compact, space-saving design of the EC motor, the VHD 146 weighs just 1.8 kg. Pulse width modulation permits infinitely variable control of the fan speed and thus the air performance by the commutation electronics. EC technology ensures that the blower operates quietly and efficiently even with high air performance.
The new platform

VHD 146.

- Non-return flap
  - Optional available with non-return flap
  - Prevents back-flow of exhaust air and ingress of air from outside

- EC motor and electronics
  - Compact design
  - Low weight
  - Energy efficient
  - PWM for infinitely variable control
  - Quiet-running

- Fan impeller
  - Forward-curved impeller
  - Air flow up to 880 m³/h, free air
  - Robust design
  - Mounted together with the motor with optimum noise and vibration insulation

- Housing
  - Protection against contact integrated into housing
  - Integrated bayonet for fastening activated carbon filters
  - Optimized aerodynamics
  - Standardized installation dimensions: Outlet diameter 150 mm

The activated carbon filter is not included in the scope of delivery.

ebm-papst can help you make the right choice.
EC-Centrifugal fan
forward-curved, dual-intake with housing, Ø 146 mm

Material/Surface
- Impeller: PP plastic
- Housing: PP plastic

Mechanical Data
- Direction of rotation: Counter-clockwise, viewed toward rotor
- Degree of protection: IP20
- Insulation class: B
- Environmental protection class: H0
- Installation position: Any
- Mode: S1
- Motor bearing: Ball bearing
- Motor protection: Thermal overload protector (TOP) internally connected

Electrical Data
- Motor: Single-strand
- Speed controllable through PWM
- Protection class: II
- Electrical connection: Interconnection

EMC
- Immunity to interference:
  - According to EN 61000-6-2
  - Circuit feedback:
  - According to EN 61000-3-2/3
  - Interference emission:
  - According to EN 61000-6-3

Standards and Approvals
- Conformity with standards:
  - EN 60335-1, EN 60335-2-31, CE
  - Approval: VDE, EAC

### Dimensions in mm

![Diagram of the fan](image)

#### Nominal voltage 230 V AC, 50 Hz

<table>
<thead>
<tr>
<th>Operating point</th>
<th>Nominal voltage</th>
<th>Max. power consumption P</th>
<th>Current draw I</th>
<th>Sound power level LwA</th>
<th>Nominal ambient temperature °C</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1~230</td>
<td>1500</td>
<td>100</td>
<td>0.80</td>
<td>69</td>
</tr>
<tr>
<td>B</td>
<td>1~230</td>
<td>1855</td>
<td>100</td>
<td>0.80</td>
<td>68</td>
</tr>
<tr>
<td>C</td>
<td>1~230</td>
<td>2290</td>
<td>100</td>
<td>0.80</td>
<td>68</td>
</tr>
<tr>
<td>D</td>
<td>1~230</td>
<td>2555</td>
<td>92</td>
<td>0.72</td>
<td>70</td>
</tr>
</tbody>
</table>

- Blue values are nominal data in operating point with maximum load.
- Subject to technical changes.

- Measurement windpipe
- Air performance measured according to ISO 5801 installation category A.
- Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axes.
- The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

- Cable PVC 4x 0.5 mm², 4x crimped splices
- Tapping hole prepared for self-tapping screw for fastening plastics (Rinform 5 mm, clearance for screw max. 16 mm)
- A non-return valve (10000-2-4054) can be installed in the outlet
- Attaching activated carbon filters to the intakes
- Adaptation tailored to activated carbon filter such as type D186 from Resett Engineering Srl