Tangential blowers
QL 80 / QL 100
As a leader in technologies for ventilation and drive engineering, 
ebm-papst is in demand as an engineering partner in many sectors. 
With over 15,000 different products, we provide the right solution 
for just about any challenge. Our fans and drives are reliable, quiet 
and energy-efficient.

Six reasons that make us the ideal partner:

Our systems expertise.
You want the best solution for every project. The entire ventilation 
system must thus be considered as a whole. And that’s what we 
do – with motor technology that sets standards, sophisticated 
electronics and aerodynamic designs – all from a single source 
and perfectly matched.

Our spirit of invention.
We are also always able to develop customized solutions for you 
with our versatile team of over 600 engineers and technicians.

Our lead in technology.
We are pioneers and leaders in the development of high-efficiency 
EC technology. Already today almost our entire product range is 
also available with GreenTech EC technology. The list of benefits is 
long: higher efficiency, low maintenance, longer service life, sound 
reduction, intelligent control characteristics and incomparable 
energy efficiency.

Proximity to our customers.
ebm-papst owns 57 sales offices worldwide, of which 47 are subs-
sidiaries with an extensive network of sales representatives and 
distributors. You will always have a local contact, someone who 
speaks your language and knows your market.

Our standard of quality.
Our quality management is uncompromising, at every step in every 
process. This is underscored by our certification according to 
international standards including DIN EN ISO 9001, ISO/TS 16949-2 
and DIN EN ISO 14001.

Our sustainable approach.
Assuming responsibility for the environment, for our employees and 
for society is an integral part of our corporate philosophy. We develop 
products with an eye to maximum environmental compatibility, in 
particular resource-preserving production methods. We promote 
environmental awareness among our young staff and are actively 
involved in sporting, cultural activities and education. That’s what 
makes us a leading company – and an ideal partner for you.
Reliable, durable and extremely quiet – the outstanding features of tangential blowers from ebm-papst. For decades, they have been tried and tested in a wide variety of applications that require the specific characteristics of a flat fan design. Depending on the application, tangential blowers with EC motors have become increasingly popular, for example when high efficiency and stepless modulating are required. EC tangential blowers feature many other beneficial properties that make equally high-performance and energy-efficient end products a reality. Frequently, this provides critical competitive advantages.

**ebm-papst tangential blowers:**
**one principle, virtually limitless applications**
The tangential flow principle is suitable for an extremely wide variety of applications that require an air supply over a wide surface. The very flat design of our products, and the resulting ease of integration, even into tight installation situations, is a result of the mostly small ratio of the shaft diameter to the shaft length. The large intake and discharge cross-section allows a high air flow at low flow rates. ebm-papst tangential blowers also feature a long thrust range and very low noise levels.

**ebm-papst EC technology:**
**a plus in output, efficiency and more ...**
Moving air intelligently, minimizing energy consumption, maximizing output: you can do all of this and more with EC technology from ebm-papst. Our tangential blowers with EC motors save money and natural resources thanks to their high efficiency, continuously variable controllability over analog or digital inputs, long, maintenance-free service life and robustness. In addition, they are extremely quiet in operation. Furthermore, GreenTech EC technology enables cost-effective integration of both simple and complex controls.
ebm-papst tangential blowers are capable of almost anything...

Applications
- Heating (fireplaces, floor convectors)
- Air conditioning (ceiling heating and cooling cassettes, air humidifiers, air curtains)
- Commercial and residential cooling (bottle coolers, refrigerated counters)
- Telecommunication (electronics cooling)
- Health care (diagnostic devices, x-ray devices, incubators)
- Office equipment (copy machines, printers)
- Gastronomy (refrigerated counters, commercial dishwashers)
**Tangential blowers with electronically commutated direct current motors**
- With external commutation electronics
- Vibration-cushioned suspension
- Blower speed adjustable through PWM signal, or through 0 - 10 V analog voltage signal (see page 7)
- Impeller diameter: 80 mm
- Mounting position: horizontal; vertical with motor on the bottom on request
- Permissible ambient temperature electronics: 0 - 50 °C
- Degree of protection: IP00 (electronics), IP54 (motor) possible
- Protection class I
- Overload protected by software class B
- Controlled speed

### Nominal data

<table>
<thead>
<tr>
<th>Type</th>
<th>Part number</th>
<th>V</th>
<th>m³/h</th>
<th>Pa</th>
<th>W</th>
<th>min⁻¹</th>
<th>°C</th>
<th>°C</th>
<th>Dimensions in mm</th>
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<td>0  - 60</td>
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</tbody>
</table>

**Characteristics**

- **Nominal voltage (AC)**: 220-240 V
- **Air flow**: 800 m³/h
- **Max. pressure increase**: 45 Pa
- **Max. power input**: 38 W
- **Speed**: 1500 min⁻¹
- **Permissible ambient temperature (motor)**: 0 - 60 °C
- **Permissible medium temperature**: 0 - 70 °C

**Dimensions in mm**

- **a**: 616
- **b**: 545
- **c**: 520

**Nominal data**

- **Type**: QL80
- **Part number**: 55669.01010
- **Nominal voltage**: 220-240 V
- **Air flow**: 800 m³/h
- **Max. pressure increase**: 45 Pa
- **Max. power input**: 38 W
- **Speed**: 1500 min⁻¹
- **Permissible ambient temperature (motor)**: 0 - 60 °C
- **Permissible medium temperature**: 0 - 70 °C

**Diagram**

- The blower has 12 fastening holes Ø 7 on each side.
- Required minimum distance: 20 mm
- For compliance with permissible ambient temperature, provide for sufficient air circulation around the electronic box.
Tangential blowers with electronically commutated direct current motors

- With external commutation electronics
- Vibration-cushioned suspension
- Blower speed adjustable through PWM signal, or through 0 - 10 V analog voltage signal (see page 7)
- Impeller diameter: 100 mm
- Mounting position: horizontal; vertical with motor on the bottom on request
- Permissible ambient temperature electronics: 0 - 50 °C
- Degree of protection: IP00 (electronics), IP54 (motor) possible
- Protection class I
- Overload protected by software class B
- Controlled speed

### Nominal data

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<th>Permissible medium temperature (°C)</th>
<th>Dimensions in mm</th>
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<td>1500</td>
<td>0 - 60</td>
<td>-15 - 80</td>
<td>936 860 820</td>
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</tbody>
</table>

### Dimensions in mm

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<thead>
<tr>
<th></th>
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<th>b</th>
<th>c</th>
</tr>
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<td>QL100/8000-BG4320</td>
<td>936</td>
<td>860</td>
<td>820</td>
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</tbody>
</table>

Required minimum distance: 20 mm
For compliance with permissible ambient temperature, provide for sufficient air circulation around the electronic box.

12 fastening holes Ø 9 on each side

Power supply: Y
Interface: Z
Characteristics curve, electrical interfaces and connectors

**Interface Z**

Coding of the PCB fits to edge connector:
e.g. MPW7238-004-061-960-000-00-G (Fa. Stocko)
Part number for mating connector: 24310.45066

3 = control - in
2 = speed - out
1 = Vcc - out

**Characteristic curve QL 100**

![Characteristic curve QL 100](image)

**Power supply Y**

Coding of the PCB fits to edge connector:
e.g. MPW9590-03-EG05-000-960-000-00 (Fa. Stocko)
Part number for mating connector: 24310.45065

3 = PE
2 = N
1 = L

**Characteristic curve QL 80**

![Characteristic curve QL 80](image)