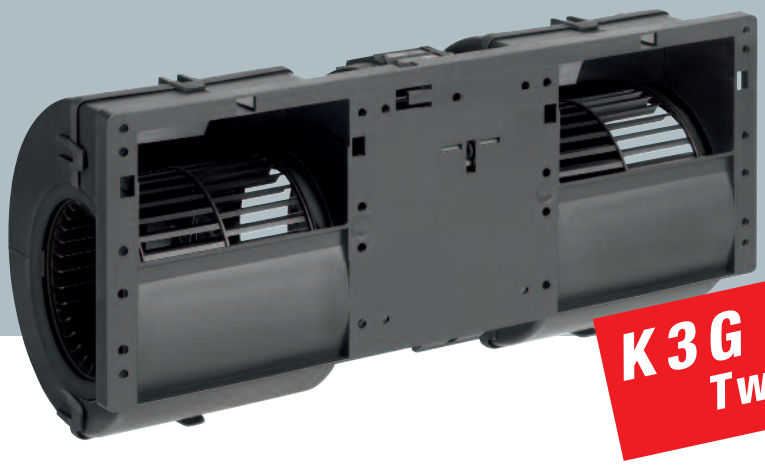
New Automotive design

Brushless
twin centrifugal blower



K3G 097 "High-Power"
Twin centrifugal blower

Power-geared line at top quality

For many years, ebm-papst BL-DC axial fans and BL-DC twin centrifugal blowers have been successfully in use as pioneering designs in the air-conditioning of commercial vehicles. As such, they not only meet the rising demands for more comfort, e.g. in busses and other commercial vehicles, they also operate without wear-and-tear over a very long period due to their brushless design. Without maintenance and without additional servicing. This success spurs us on to have our blowers achieve even better maximum performance.

Customers want blowers to be more and more powerful without losing any of their mechanical compatibility. Knowing this, ebm-papst set about developing a new blower line based on high energy-efficiency. Their new double centrifugal blowers of the "High-Power" line with high efficiency and minimum energy consumption have opened the doors to another dimension. A new electronic design combined with modified and optimally matched air inlet nozzles makes the electric output of these automotive blowers improve by almost two thirds while the installation space required remains the same.

The capacity of these new products far surpasses the market standard and allows customers to realise hitherto undreamt off possibilities, e.g. in air-conditioning, heating and ventilation. With extremely compact installation space and even at high back-pressure, the power packs can handle amazingly high amounts of air.

As a matter of course, however, there is no compromise in terms of durability and reliability with this new blower line. In practical use, the blowers have a guaranteed service life of well over 25,000 operating hours. This way, they fully comply with requirements for longer and longer maintenance intervals with commercial vehicles. Customers may safely rely on proven and top ebm-papst quality. Long years of experience and expertise as well as using state-of-the-art and highly integrated power electronics make sure of this.

As with all other ebm-papst blowers, these high-power blowers are simple to operate and handle, are maintenance-free and come with all the functions that the market defines as relevant. The blowers are continuously and precisely speed-adjustable, have reverse polarity protection, and come with a diagnosis output.
To comply with EMC specifications for the automotive industry, all blowers have a high level of radio interference suppression. The integrated load-dump protection makes sure the blower is unharmed by voltage peaks in the vehicle power system. Together with its wide operation temperature range as well as its excellent shock and vibration strength, this new line based on brushless ebm-papst technology is set to make you conquer new fields of applications.

Main applications

- **Air-conditioning systems in busses**
- **Transport refrigeration systems**
- **Cabin air-conditioning for tractors, trucks and other commercial vehicles**

Principal advantages and characteristics

- **More than 25,000 operating hours**
- **Variable speed control**
- **Diagnosis output (open collector, fan good/fan bad)**
- **High efficiency**
- **Low noise emission**
- **Integrated electronics**
- **High level of radio interference suppression**
- **Complies with e1 approval according to 2006/28/EG**
- **Tested according to automotive specifications**

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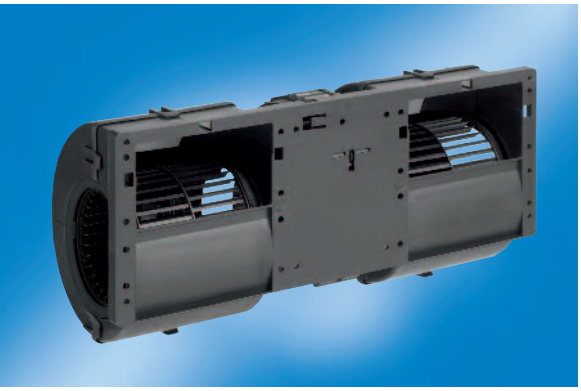
EC twin centrifugal blower

with brushless DC-motor, Ø 097



- **Material:** scroll housing made of plastic PP - colour: black (corresponding to UL 94 HB), impeller made of plastic PA
- **Connector plug:** 4-pole connection lead (450 mm) with plug Delphi Metri-Pack 280*
- **Bearings:** mainentance-free ball bearings on both sides
- **Motor protection:** over-temperature protection, locked-rotor protection, load dump, under-voltage detection
- **EMC-directives:** Complies with e1 approval according to 2006/28/EG
- **Insulation class:** "B" according to EN 60335-1
- **Type of protection:** IP 24 KM

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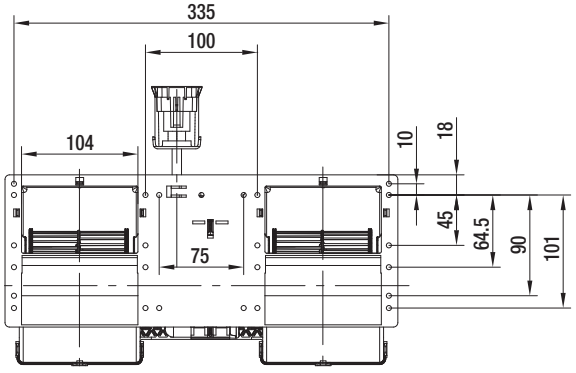
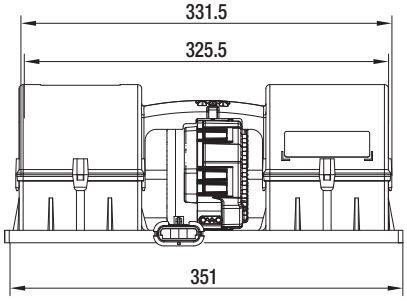
Nominal data

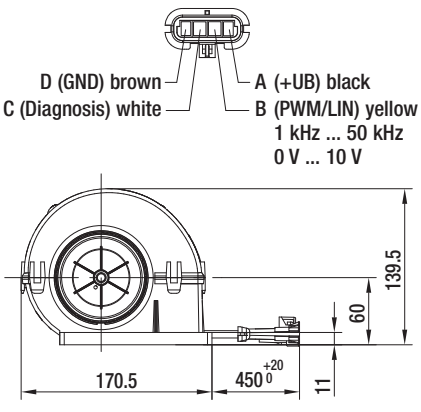
Type	Motor	Characteristic	Voltage VDC	Voltage range VDC	Air flow m³/h	Speed/rpm min⁻¹	Power input W	Current draw A	Noise level dB(A)	Perm. amb. temp. °C	Mass kg
K3G 097-AK68 -85	M3G074-CF	Ⓐ	26	16-32	1500	4570	700	27.0	75	-40..+60[1]	2.4

subject to alterations

[1] Short-term operation at up to 85°C possible

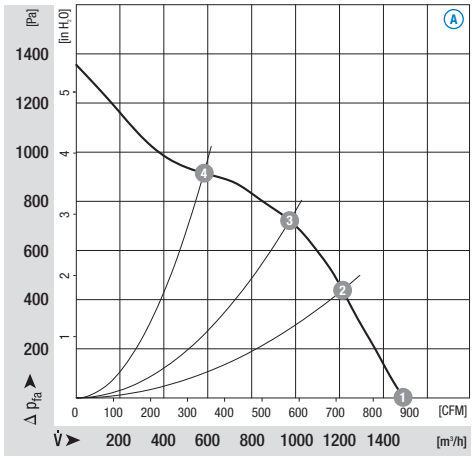






		n [min⁻¹]	P_1 [W]	I [A]	Lp_A [dB(A)]
Ⓐ	1	4570	700	27.0	75
Ⓐ	2	5050	614	23.5	74
Ⓐ	3	5390	528	20.3	74
Ⓐ	4	5730	367	14.1	74

Characteristic



***Bushing on customer side:**

Housing:	Delphi 12129565
Secondary Lock:	Delphi 15300016 (TPA lock)
Terminals:	Delphi 12077411 Delphi 12077413
Seals:	Delphi 15324981 Delphi 15324985

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