



**BLAUBERG**  
Motoren



# ZENTRI-PAC SERIES

CATALOGUE 2020



## CONTENTS

About Blauberg Group	2
Fan Motors	4
Zentri-PAC Series	6
Type Key	8
EC Centrifugal Fan	9
AC Centrifugal Fan	29
Inlet Rings	38
Electrical connection diagram	39

# **BLAUBERG**

GROUP



**Blauberg Group manufactures and sells a complete range of hi-tech energy-efficient ventilation equipment offering a balanced mix of innovative technology, contemporary design and traditional German quality.**

The group's main products include domestic fans, single-room ventilation units, heat recovery units, industrial fans and air handling units, parts and accessories for customized system configurations as well as bespoke ventilation solutions. Due to our product diversity, we do our best to meet the individual needs of our clients in various countries with the best combination of price and quality.





Blauberg Motoren was born in Munich, Germany, like own direction of fans and motors manufacturing and integral part of Blauberg Group.



Starting with manufacturing AC motors with external rotors for own needs, for now Blauberg Motoren produce wide range of motors and fans with EC and AC technology for clients all around the world. It includes axial fans, backward curved fans, forward curved fans, blowers.

We are proud to be presented in products of our clients – world famous manufactures of ventilation, heat, home appliance and other equipment, and be part of their success.



For now Blauberg Motoren have R&D (research and development) center in Munich (Germany), as well as main testing laboratories for products and factories in Germany (Munich), Ukraine (Kiev) and Poland.

Every day we are working with our passion and respect to technology and engineering to make our products better – more responsive to needs and expectations of our clients.

With traditional German quality, we are focused on developing and improving best one and newest technology – in our own manufacturing and in our products.

WE ARE CLIENT-ORIENTED COMPANY AND TRY TO BE BEST ONE FOR OUR CLIENTS IN SEGMENTS WE ARE PRESENT.

## FAN MOTORS

### THE MOTORS ARE POWERED BY DIRECT OR ALTERNATING CURRENT.

- A direct current motor is powered by a direct power supply.
- An alternating current motor is powered by an alternating power supply.

Alternating current motors are the most widely used motors because the basic electric grid in the country has alternating power supply.

### ALTERNATING CURRENT MOTORS HAVE TWO TYPES:

- **Synchronous** electric motors are alternating current motors with a rotor that rotates synchronously with a magnetic field;
- **Asynchronous** electric motors are alternating current motors with the magnetic field frequency exceeding the motor rotation speed.

## Asynchronous motors

Nowadays the asynchronous electric motors find wide application.

### Asynchronous electric motors consist of two basic components, the stator and the rotor.

The stator is a fixed motor component. On the inner side the stator has some slots for laying of three-phase cable winding that is powered by three-phase current. The rotor is a rotating part of the motor and also has slots for inserting the cable winding. The rotor and the stator are assembled of separate 0.35-0.5 mm thick electrotechnical steel pressed plates.

Separate plates are insulated from each other with a varnish layer. The air gap between the stator and the rotor is kept as low as possible: 0.3-0.35 mm for low capacity machinery and 1.0-1.5 for more powerful machinery.

Depending on the rotor design the asynchronous motors are available in short circuit modification and phased modifications. Short circuit motors are the most widely used motors because of their simple design and easy operation. The three-phase stator winding is inserted inside the slots and consists of a number of interconnected coils. Each coil consists of one or several turns which are insulated against each other and against the slot walls.

### THE ASYNCHRONOUS ELECTRIC MOTOR WITH SHORT CIRCUIT ROTOR HAS THE FOLLOWING ADVANTAGES:

- Permanent speed at various loads.
- Resistance to short-term mechanical overloads.
- Easy structure.
- Easy start-up.
- Higher  $\cos \phi$  and efficiency compared to electric motors with phased rotor.

### The design of the asynchronous electric motor with external rotor is similar to that of the standard asynchronous electric motor.

The only difference is the position of the rotor. The electric rotor motor is located inside the stator winding and the stator with turns is located in the electric motor center. This configuration provides a compact size of the ventilation unit. The electric motor shaft is carried by ball bearings fixed inside the stator and the impeller is fixed in the rotor casing. Such a design provides air cooling of the electric motor which makes it applicable for a wide temperature range. The electric motors are assembled with the impellers and are subjected to static and dynamic balancing in compliance with DIN ISO 1940. The motors have an integrated overheating protection with automatic restart.

All the motors have 100 % controllable speed range. Speed control is performed with a transformer or electronic devices. Explosionproof motors are controlled exclusively by transformers within 25% up to 100% of the rated voltage range. Speed control is performed by voltage change whereas the frequency in the grid remains the same. The electric motor speed is smoothly decreased as power voltage drops or is increased as power voltage rises. The motor can also be controlled with a frequency converter.

### ADVANTAGES OF THE ASYNCHRONOUS ELECTRIC MOTOR WITH EXTERNAL ROTOR:

- Long service life.
- Light weight and small overall dimensions.
- Easy assembly and installation.
- Aligned impeller and electric motor.
- Regulated air capacity.
- Low energy demand during start-up.



## EC motors

The electric motor with high-efficient EC motor is a synchronous direct current motor driven by an electronic commutating unit (controller). It has no friction and wearing parts as a collector or brushes, unlike the standard motor. The function of these parts is performed with the maintenance-free electronic circuit of the EC controller.

The EC technology is the state-of-the-art method for arrangement of energy saving and high efficient ventilation.

**The energy demand of EC motors is by 50% less as compared to standard motors and efficiency reaches 90%.**

These new electric motors are featured with high performance, low noise level and controllable total speed range. The electronic EC-controller enables some other smart functions, e.g. fan control according to measured temperature, pressure and other parameters.

A unique software ensures high control accuracy for fans integrated into a single network. Parameters of a single fan integrated into a common network may be centrally corrected to match the ventilation system parameters. All the system parameters are displayed online on a computer. This enables programming individual operation modes of each fan in the system. This technology enables also programming custommade settings to meet individual customer requirements.



### ADVANTAGES OF EC MOTORS:

- Efficient performance at any rotation speed of the fan, including very low speed.
- Low heat emission.
- Small overall dimensions of the unit due to external rotor design.
- Maximum fan rotation speed does not depend on frequency in the grid.
- The fan is suitable for connection both to 50 Hz and 60 Hz power mains.
- High efficiency at low rotation speed.
- Energy demand is by 1/3 less as compared to standard motors.
- Data interchange between PC and fan for parameter setting and control.
- Integration of all fans into a unified system and their centralized control.

## ZENTRI-PAC SERIES

The new line of Zentri-PAC fans embodies the philosophy of Blauberg Motoren:

**"To keep pace with the time we have to outperform and overachieve, we have to push to the forefront of science and technology, follow global trends and embark on a never-ending quest for innovation".**

Responding to the popular demand and customer feedback we have created a special series of centrifugal fans which feature backward-curved blades and benefit from improved impeller design and reliable high-performance EC motors.

The new series includes the most popular fan models, which comply with all modern aerodynamic and energy efficiency requirements with the impeller diameter ranging from 133 mm to 250 mm.

The impeller is made of a composite high-tech plastic material with fibreglass reinforcement elements for higher rigidity and stress resistance.

Specially profiled blades are the result of extensive CAD design and long hours of wind tunnel testing help reduce airflow losses and improve the aerodynamic characteristics of fans. Smooth and uniform airflow spread reduces operating noise.



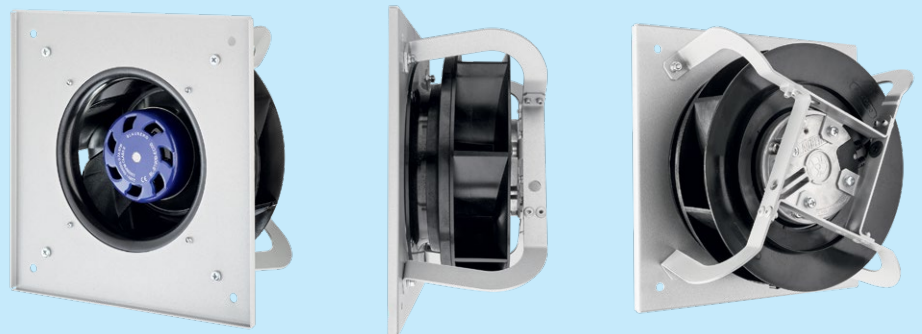


### Plug Fan casing series

For further improvement of the ease and convenience of fan installation Blauberg Motoren has come up with the latest solution, which enables using Zentri-PAC fans with Plug Fan type casings produced in-house.

#### PLUG FAN SYSTEM HAS A RANGE OF IMMEDIATE ADVANTAGES:

- Retaining an optimum air flow
- Compact footprint and space-saving design
- Convenient and simple installation
- Use and replacement of individual unit components as necessary for reduced maintenance costs
- Installation at any angle



#### ZENTRI-PAC SERIES FANS COME WITH A HOST OF BENEFITS:

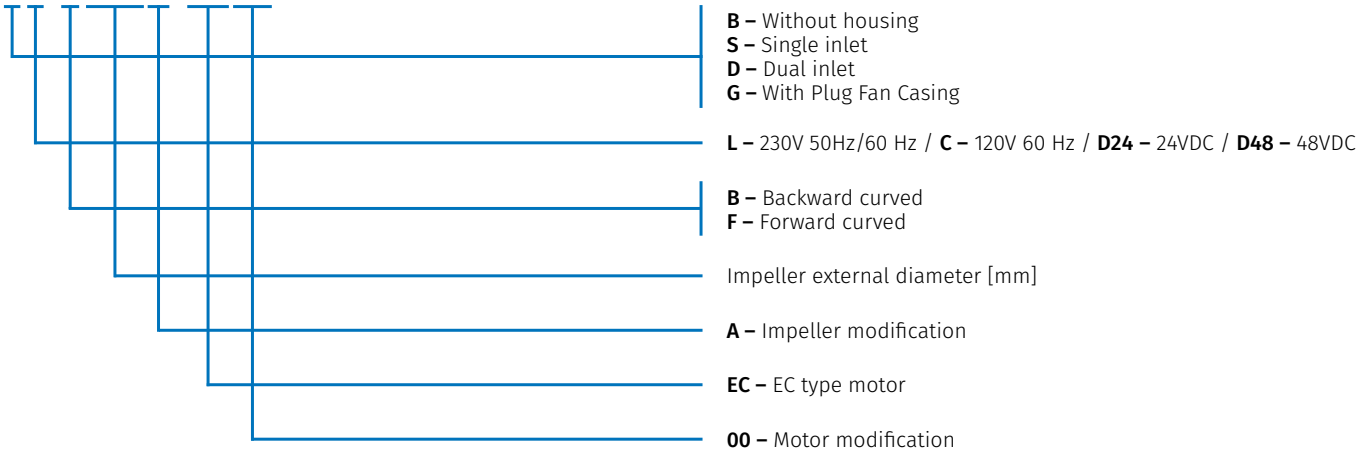
- New series of EC motors for high performance and low power consumption
- Compact footprint and easy retrofitting
- High efficiency (up to 95%)
- Control over the entire speed range for optimum performance
- Improved aerodynamic and acoustic performance thanks to the updated impellers
- Plug Fan casing system compatibility

The well-proven series of our AC fans compatible with Plug Fan casings has also received the new impellers for improved performance.

# TYPE KEY

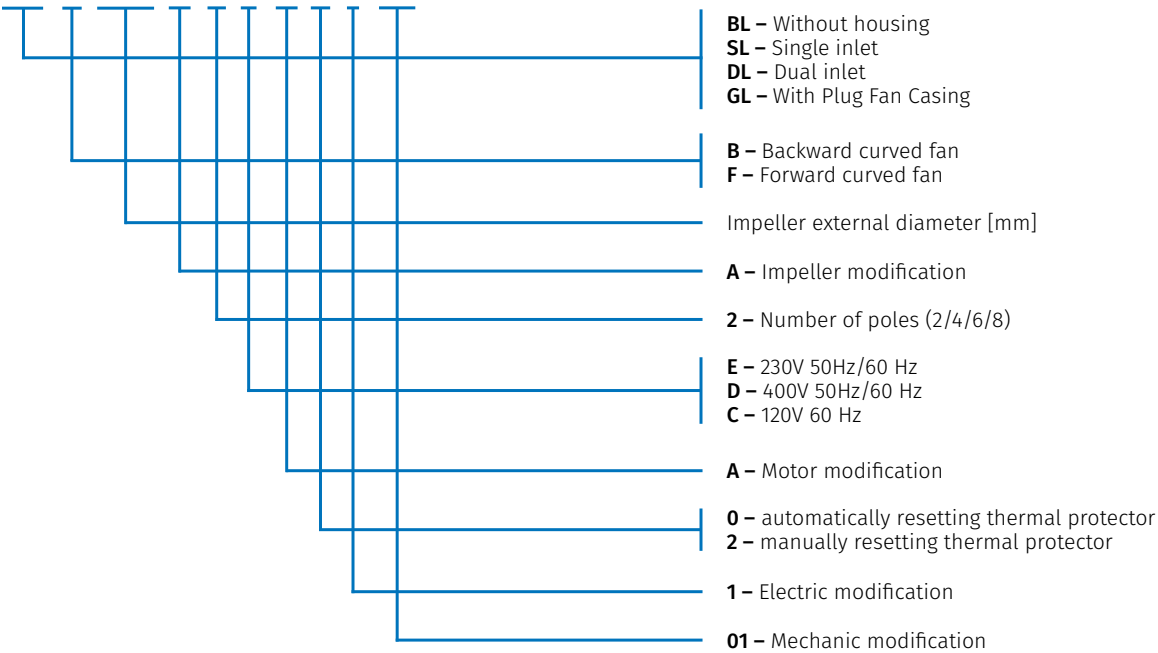
## EC fans

### BL-B190A-EC00



## AC fans

### BL-B 190 A-2 E-A 0 1-01



# EC CENTRIFUGAL FANS

Ø 133 10

Ø 175 12

Ø 190 14

Ø 220 18

Ø 225 22

Ø 250 26

# Ø 133 mm, BACKWARD CURVED

# EC CENTRIFUGAL FAN



### Features

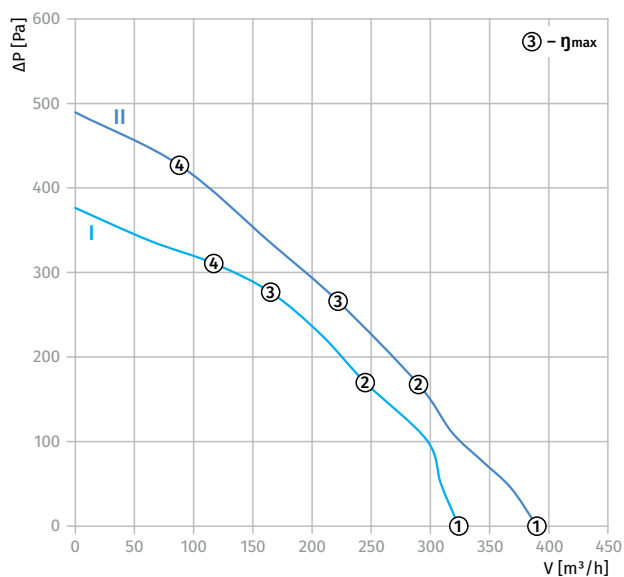
- **Materials:** Impeller – PA6+GF30  
Inlet ring – sheet steel  
Housing – sheet steel, painted grey
- **Direction of rotation:** clockwise, seen on rotor
- **Type of protection:** IP55
- **Insulation class:** B
- **Mode of operation:** S1
- **Bearing:** ball bearings
- **Motor protection:** self-resetting TOP wired internally



### Technical data

Model	Perform. curve	Nominal voltage [VAC]	Frequency [Hz]	Speed [RPM]	Power input max [W]	Current max [A]	Sound pres. level [dB(A)]	Perm. amb. temp. [°C]	Electrical connection	Inlet ring
GL-B133A-EC-00	I	230	50/60	4200	42	0.40	65	-25 ... +60	Type "E"/p. 39	p.38
GL-B133A-EC-03	II	230	50/60	4780	62	0.52	67	-25 ... +60	Type "E"/p. 39	p.38

### PERFORMANCE CURVES

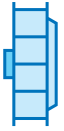


Curve	Point	n [RPM]	Pi [W]	I [A]
I	1	4105	41	0.34
	2	4085	41	0.35
	3	4200	42	0.4
	4	4115	33	0.28
II	1	4805	58	0.49
	2	4790	61	0.51
	3	4780	62	0.52
	4	4835	52	0.45

# Ø 133 mm, BACKWARD CURVED

# EC CENTRIFUGAL FAN

## Overall Dimmensions

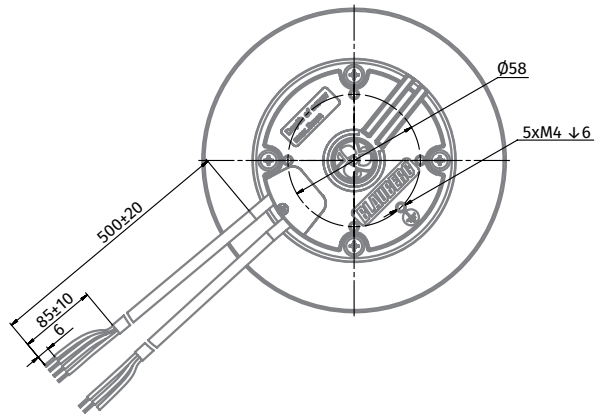
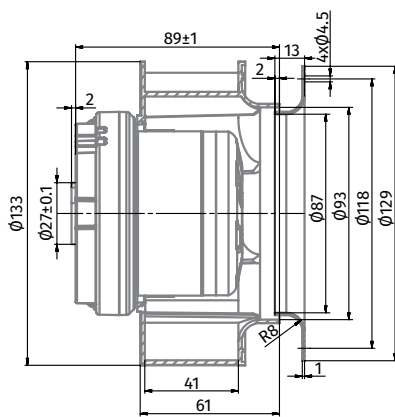


Centrifugal Fan	Weight [kg]
BL-B133A-EC-00	1
BL-B133A-EC-03	1

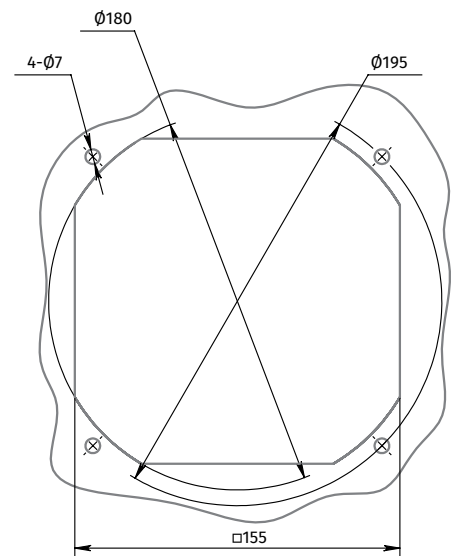
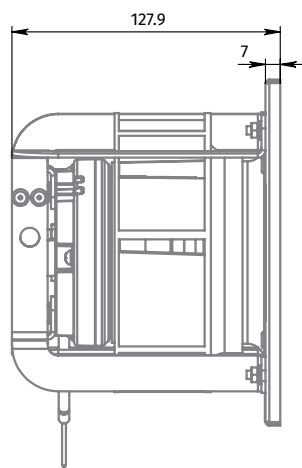
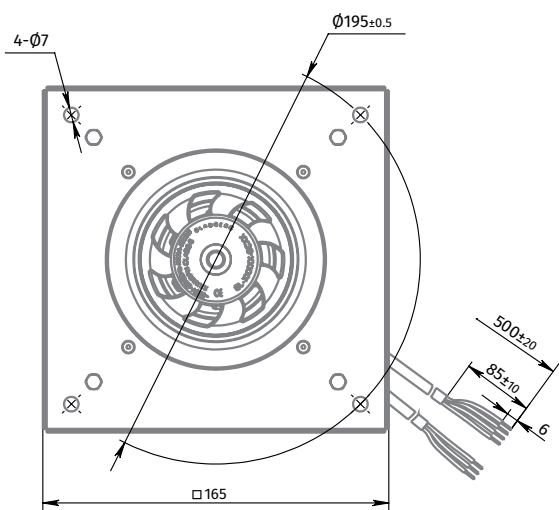


Centrifugal Fan with Plug Fan Casing	Weight [kg]
GL-B133A-EC-00	1.4
GL-B133A-EC-03	1.4

### BL-B133A-EC-00, BL-B133A-EC-03

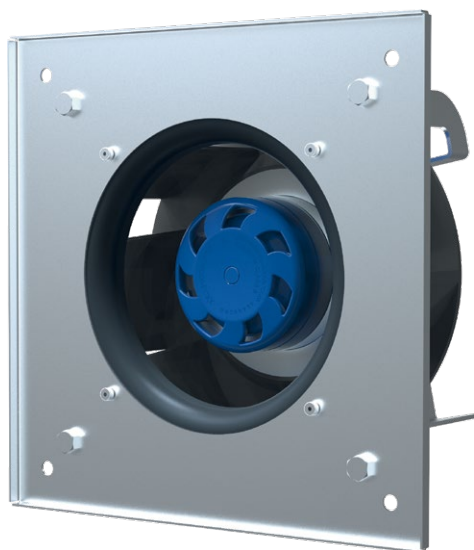


### GL-B133A-EC-00, GL-B133A-EC-03



# Ø 175 mm, BACKWARD CURVED

# EC CENTRIFUGAL FAN



### Features

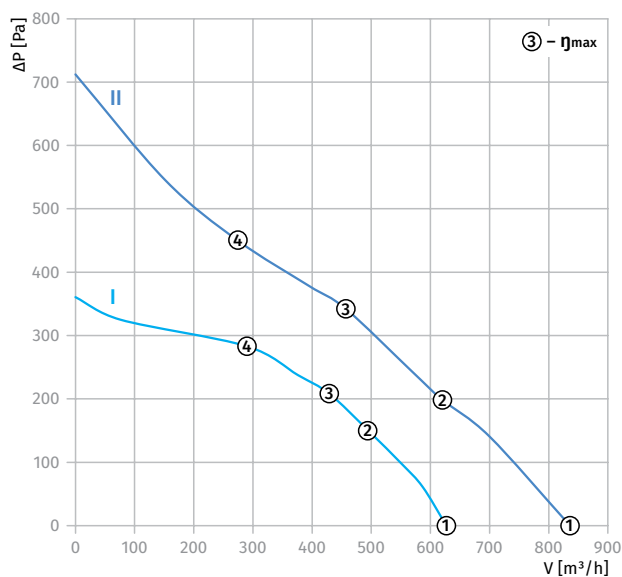
- **Materials:** Impeller – PA6+GF30  
Inlet ring – PA6+GF30  
Housing – sheet steel, painted grey
- **Direction of rotation:** clockwise, seen on rotor
- **Type of protection:** IP55
- **Insulation class:** B
- **Mode of operation:** S1
- **Bearing:** ball bearings
- **Motor protection:** self-resetting TOP wired internally



### Technical data

Model	Perform. curve	Nominal voltage [VAC]	Frequency [Hz]	Speed [RPM]	Power input max [W]	Current max [A]	Sound pres. level [dB(A)]	Perm. amb. temp. [°C]	Electrical connection	Inlet ring
GL-B175A-EC-00	I	230	50/60	3100	49	0.4	66	-25 ... +60	Type "E"/p. 39	p.38
GL-B175A-EC-03	II	230	50/60	3730	82	0.67	68	-25 ... +60	Type "E"/p. 39	p.38

### PERFORMANCE CURVES

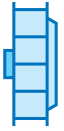


Curve	Point	n [RPM]	P <sub>i</sub> [W]	I [A]
I	1	3200	44	0.39
	2	3160	49	0.4
	3	3100	49	0.4
	4	3155	48	0.39
II	1	4015	82	0.65
	2	3750	81	0.65
	3	3730	82	0.67
	4	3845	81	0.65

# Ø 175 mm, BACKWARD CURVED

# EC CENTRIFUGAL FAN

## Overall Dimensions

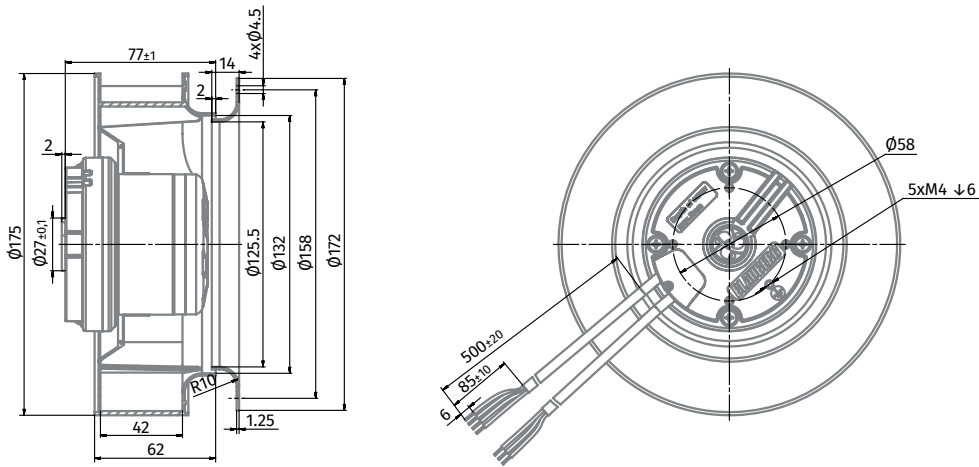


Centrifugal Fan	Weight [kg]
BL-B175A-EC-00	1.1
BL-B175A-EC-03	1.1

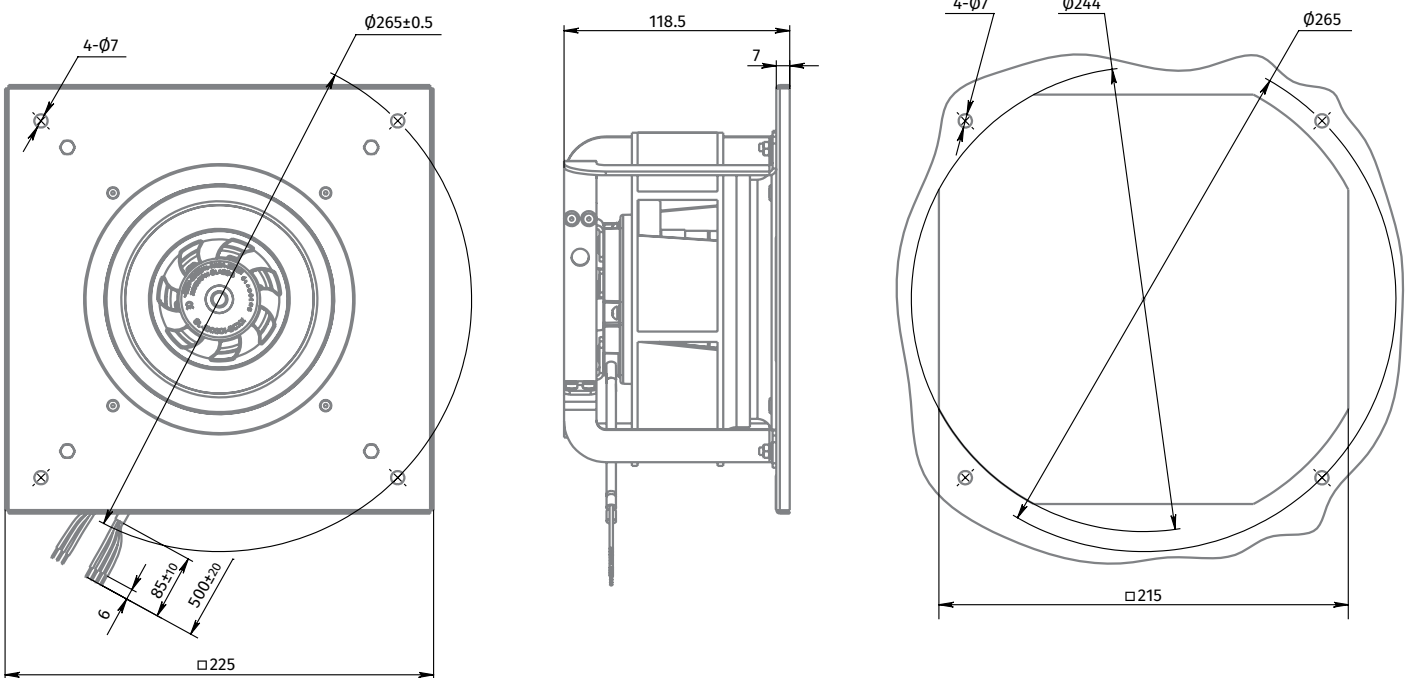


Centrifugal Fan with Plug Fan Casing	Weight [kg]
GL-B175A-EC-00	1.65
GL-B175A-EC-03	1.65

### BL-B175A-EC-00, BL-B175A-EC-03



### GL-B175A-EC-00, GL-B175A-EC-03



Ø 133

Ø 175

Ø 190

Ø 220

Ø 225

Ø 250

Ø 190

Ø 220

Ø 225

Ø 250

# Ø 190 mm, BACKWARD CURVED

# EC CENTRIFUGAL FAN



### Features

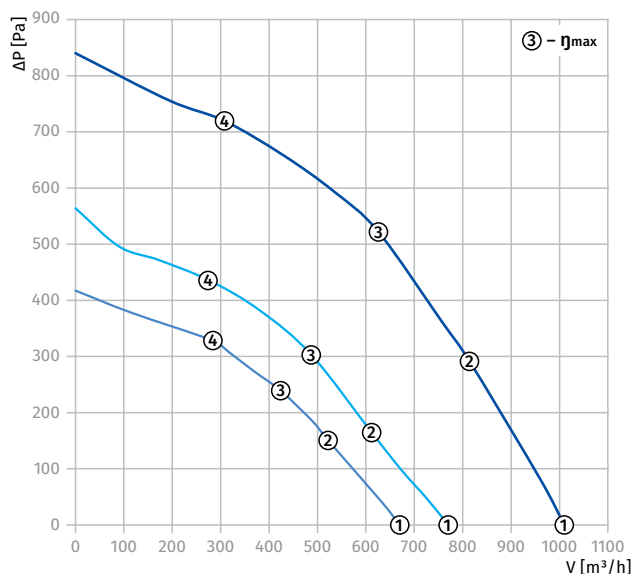
- **Materials:** Impeller – PA6+GF30  
Inlet ring – PA6+GF30  
Housing – sheet steel, painted grey
- **Direction of rotation:** clockwise, seen on rotor
- **Type of protection:** IP55
- **Insulation class:** B
- **Mode of operation:** S1
- **Bearing:** ball bearings
- **Motor protection:** self-resetting TOP wired internally



### Technical data

Model	Perform. curve	Nominal voltage [VAC]	Frequency [Hz]	Speed [RPM]	Power input max [W]	Current max [A]	Sound pres. level [dB(A)]	Perm. amb. temp. [°C]	Electrical connection	Inlet ring
GL-B190B-EC-00	I	230	50/60	3300	87	0.7	72	-25 ... +60	Type "E"/p. 39	p.38
GL-B190B-EC-01	II	230	50/60	3000	64	0.5	71	-25 ... +60	Type "E"/p. 39	p.38
GL-B190B-EC-03	III	230	50/60	4100	170	1.3	72	-25 ... +60	Type "E"/p. 39	p.38

### PERFORMANCE CURVES



Curve	Point	n [RPM]	Pi [W]	I [A]
I	1	3340	82	0.67
	2	3310	85	0.69
	3	3300	87	0.7
	4	3280	86	0.7
II	1	2990	59	0.47
	2	2960	62	0.48
	3	3000	64	0.5
	4	2965	62	0.49
III	1	4210	151	1.12
	2	4170	167	1.23
	3	4100	170	1.3
	4	4220	151	1.13



# Ø 190 MM, BACKWARD CURVED

# EC CENTRIFUGAL FAN

## Overall Dimensions

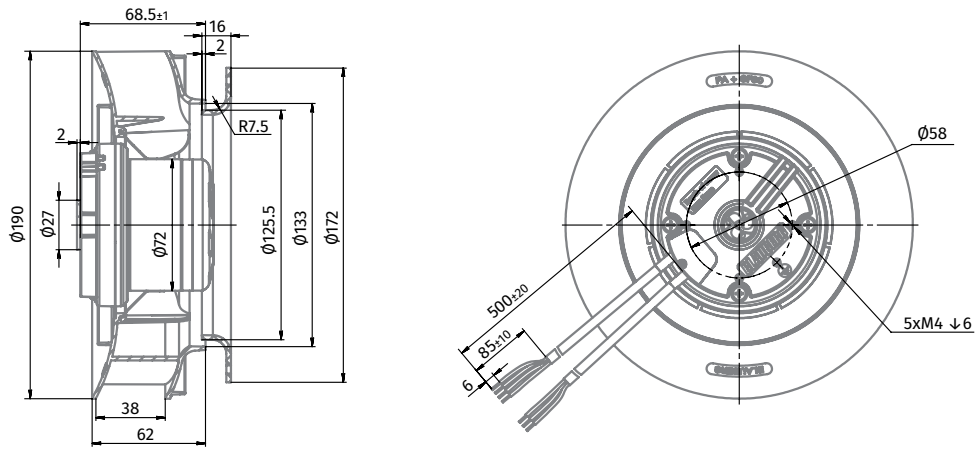


Centrifugal Fan	Weight [kg]
BL-B190B-EC-00	1.1
BL-B190B-EC-01	1.1
BL-B190B-EC-03	1.65

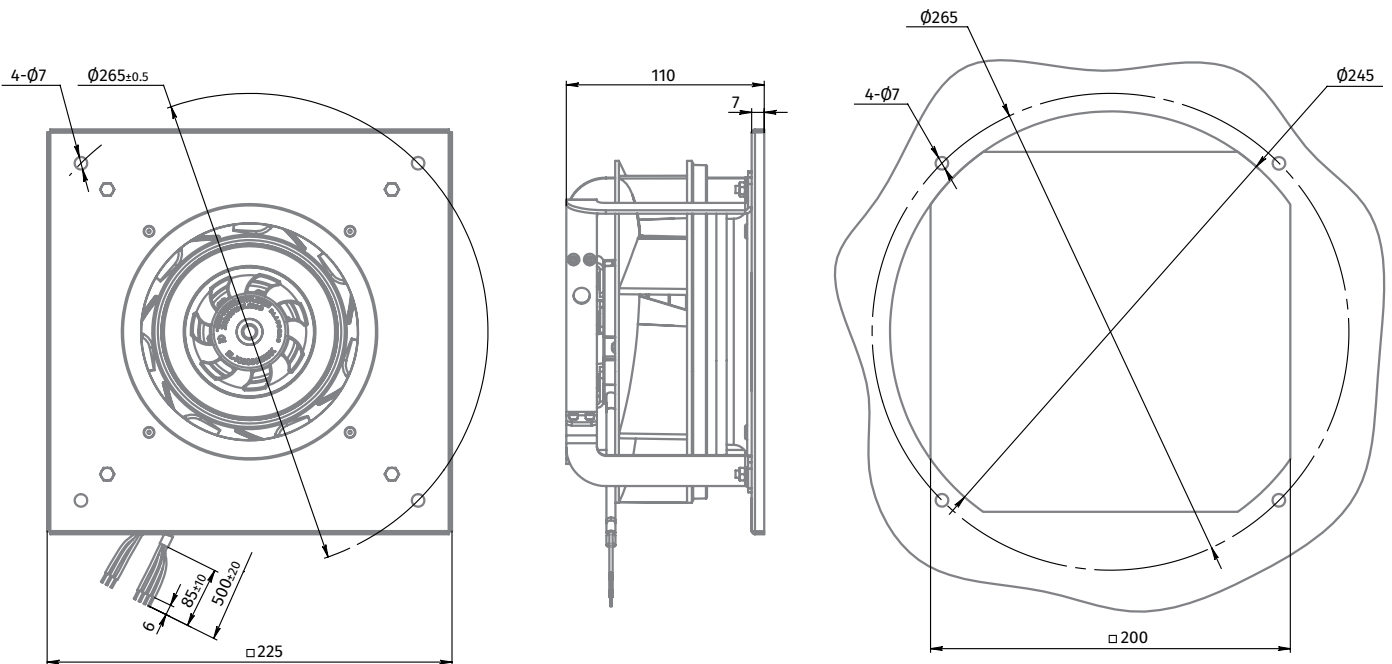


Centrifugal Fan with Plug Fan Casing	Weight [kg]
GL-B190B-EC-00	1.75
GL-B190B-EC-01	1.75
GL-B190B-EC-03	2.3

### BL-B190B-EC-00, BL-B190B-EC-01



### GL-B190B-EC-00, GL-B190B-EC-01



Ø 133

Ø 175

Ø 190

Ø 220

Ø 225

Ø 250

Ø 190

Ø 220

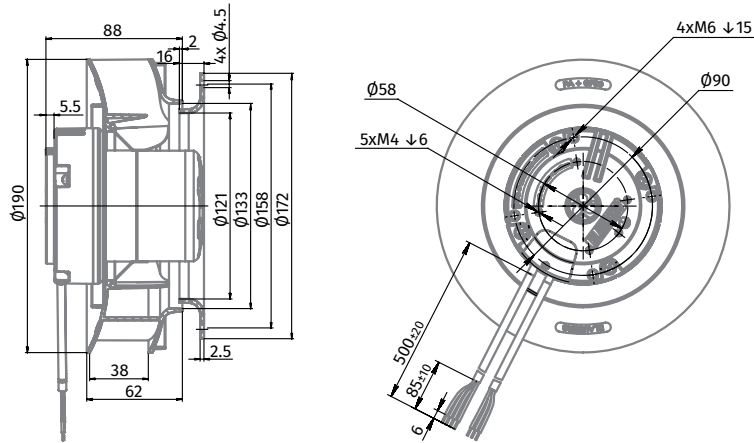
Ø 225

Ø 250

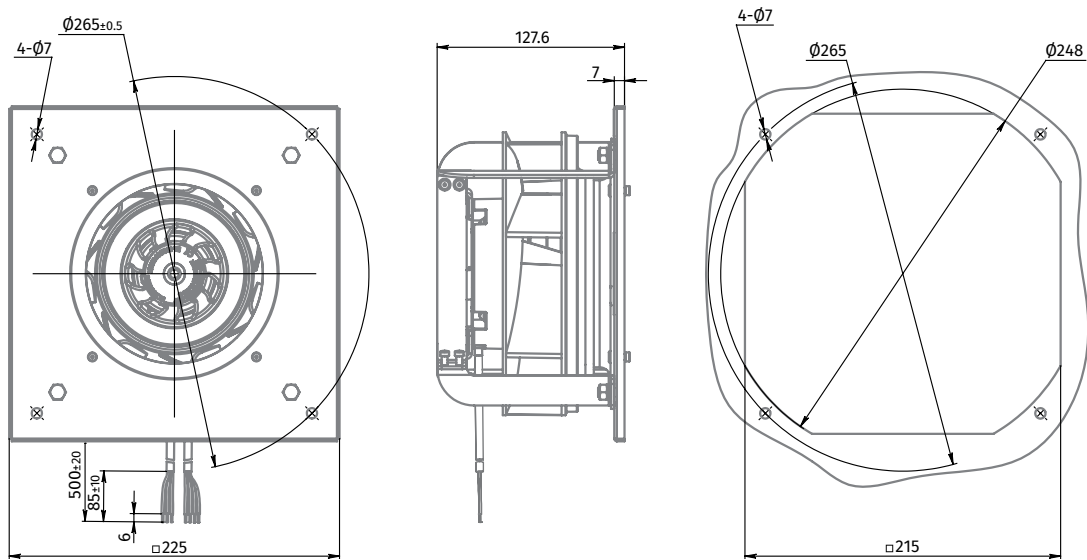
Ø 190 mm, BACKWARD CURVED

EC CENTRIFUGAL FAN

BL-B190B-EC-03



GL-B190B-EC-03



Ø 133

Ø 175

Ø 190

Ø 220

Ø 225

Ø 250

Ø 190

Ø 220

Ø 225

Ø 250

# Ø 220 MM, BACKWARD CURVED

# EC CENTRIFUGAL FAN



### Features

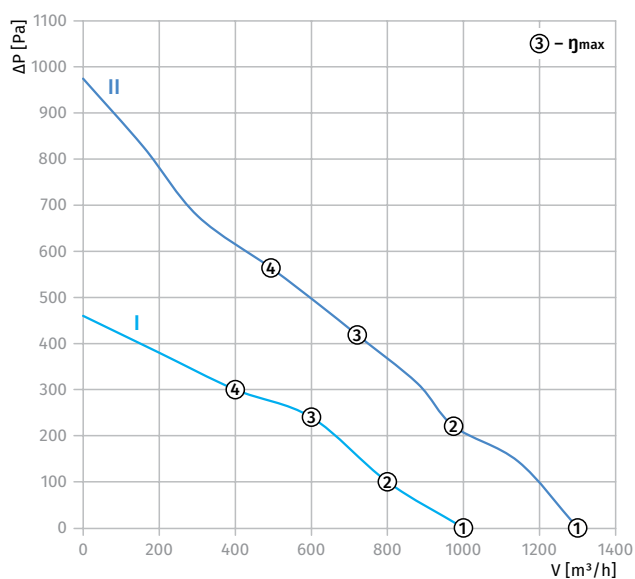
- **Materials:** Impeller – PA6+GF30  
Inlet ring – PA6+GF30  
Housing – sheet steel, painted grey
- **Direction of rotation:** clockwise, seen on rotor
- **Type of protection:** IP55
- **Insulation class:** B
- **Mode of operation:** S1
- **Bearing:** ball bearings
- **Motor protection:** self-resetting TOP wired internally



### Technical data

Model	Perform. curve	Nominal voltage [VAC]	Frequency [Hz]	Speed [RPM]	Power input max [W]	Current max [A]	Sound pres. level [dB(A)]	Perm. amb. temp. [°C]	Electrical connection	Inlet ring
GL-B220C-EC-00	I	230	50/60	2400	86	0.7	70	-25 ... +60	Type "E"/p. 39	p.38
GL-B220C-EC-01	II	230	50/60	3200	165	1.1	72	-25 ... +60	Type "E"/p. 39	p.38

### PERFORMANCE CURVES

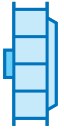


Curve	Point	n [RPM]	Pi [W]	I [A]
I	1	2600	79	0.65
	2	2450	84	0.69
	3	2400	86	0.70
	4	2520	78	0.65
II	1	3350	165	1.10
	2	3260	165	1.10
	3	3200	165	1.10
	4	3310	165	1.10

# Ø 220 MM, BACKWARD CURVED

# EC CENTRIFUGAL FAN

## Overall Dimensions

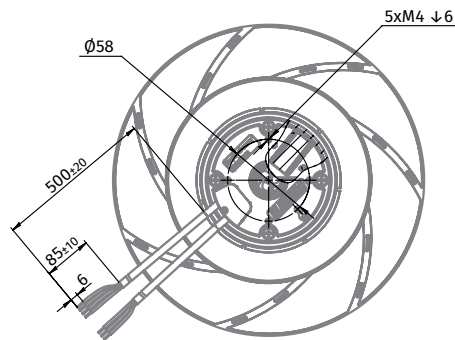
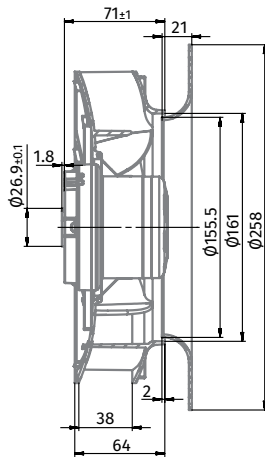


Centrifugal Fan	Weight [kg]
BL-B220C-EC-00	1.15
BL-B220C-EC-01	1.7

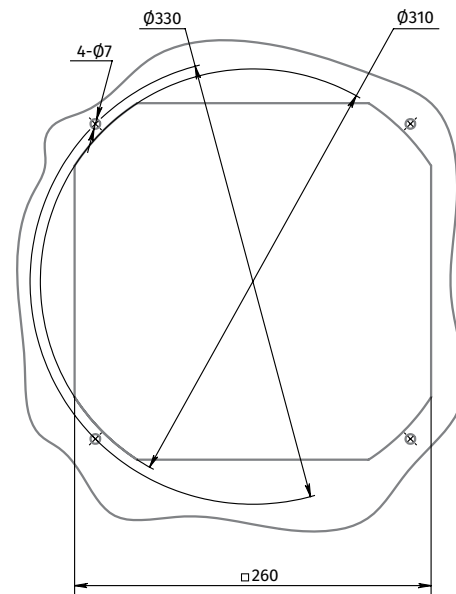
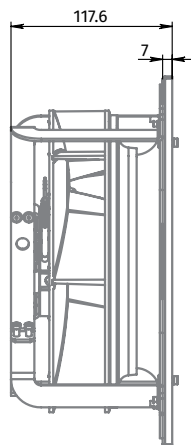
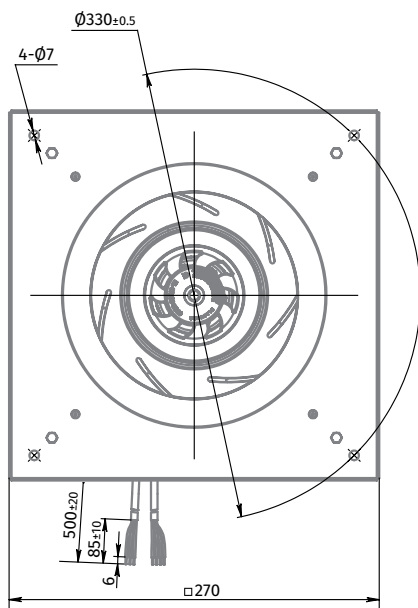


Centrifugal Fan with Plug Fan Casing	Weight [kg]
GL-B220C-EC-00	2
GL-B220C-EC-01	2.55

### BL-B220C-EC-00



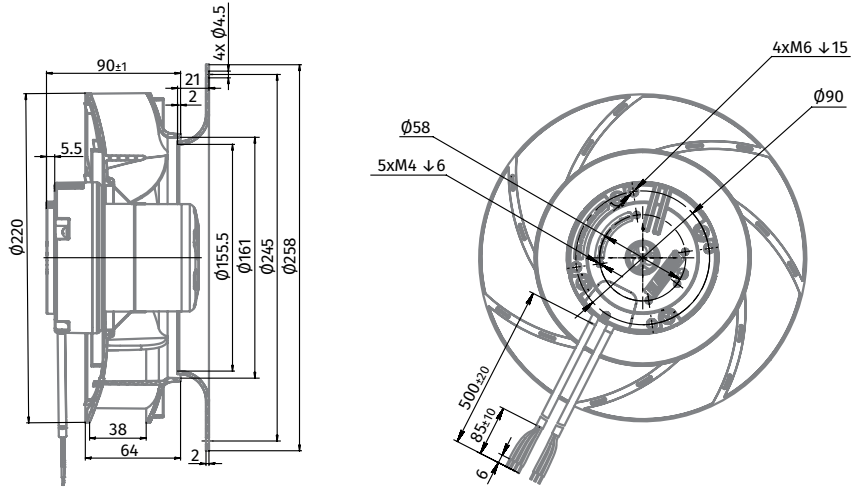
### GL-B220C-EC-00



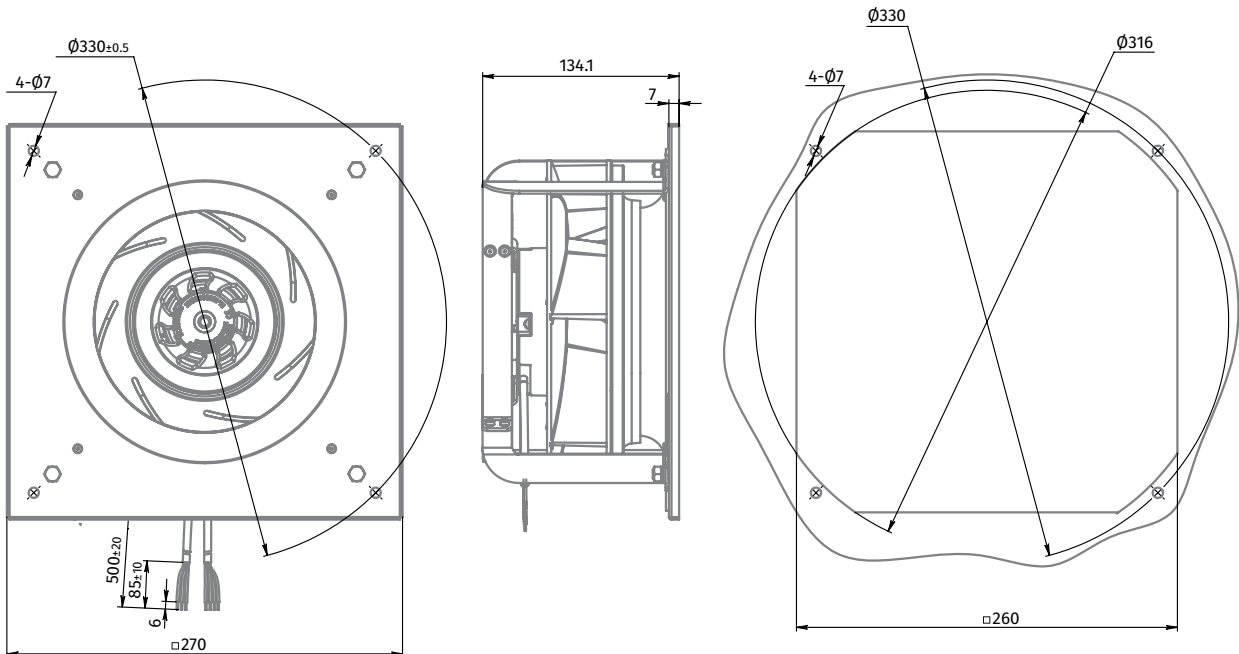
Ø 220 mm, BACKWARD CURVED

EC CENTRIFUGAL FAN

BL-B220C-EC-01



GL-B220C-EC-01



Ø 133

Ø 175

Ø 190

Ø 220

Ø 225

Ø 250

Ø 190

Ø 220

Ø 225

Ø 250

# Ø 225 MM, BACKWARD CURVED

# EC CENTRIFUGAL FAN



### Features

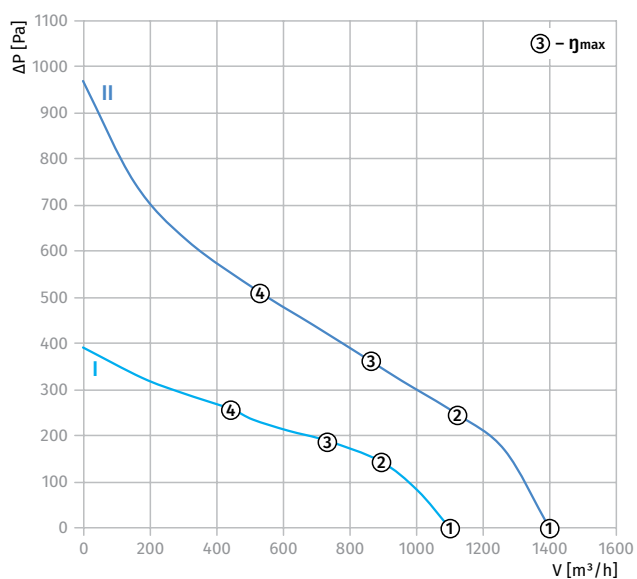
- **Materials:** Impeller – PA6+GF30  
Inlet ring – PA6+GF30  
Housing – sheet steel, painted grey
- **Direction of rotation:** clockwise, seen on rotor
- **Type of protection:** IP55
- **Insulation class:** B
- **Mode of operation:** S1
- **Bearing:** ball bearings
- **Motor protection:** self-resetting TOP wired internally



### Technical data

Model	Perform. curve	Nominal voltage [VAC]	Frequency [Hz]	Speed [RPM]	Power input max [W]	Current max [A]	Sound pres. level [dB(A)]	Perm. amb. temp. [°C]	Electrical connection	Inlet ring
GL-B225D-EC-00	I	230	50/60	2100	85	0.7	68	-25 ... +60	Type "E"/p. 39	p.38
GL-B225D-EC-01	II	230	50/60	3800	165	1.1	72	-25 ... +60	Type "E"/p. 39	p.38

### PERFORMANCE CURVES



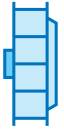
Curve	Point	n [RPM]	Pi [W]	I [A]
I	1	2270	79	0.63
	2	2255	82	0.65
	3	2100	85	0.7
	4	2210	84	0.67
II	1	3005	165	1.1
	2	2880	165	1.1
	3	3800	165	1.1
	4	3500	165	1.1



# Ø 225 MM, BACKWARD CURVED

# EC CENTRIFUGAL FAN

## Overall Dimensions

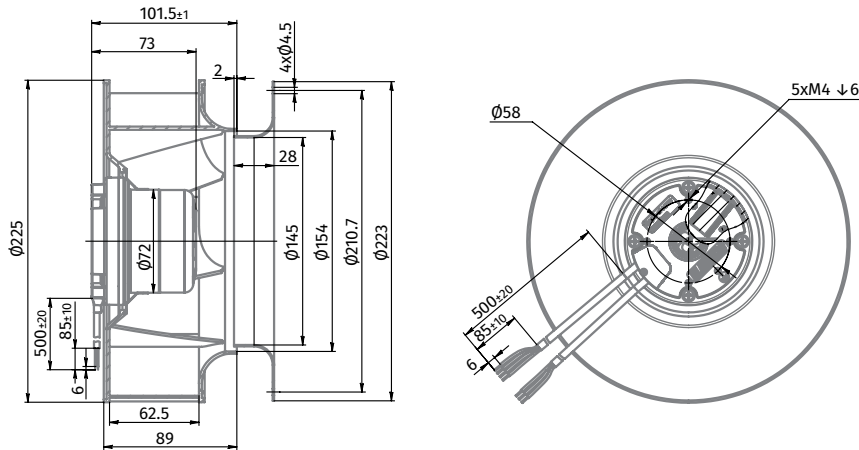


Centrifugal Fan	Weight [kg]
BL-B225D-EC-00	1.3
BL-B225D-EC-01	1.85

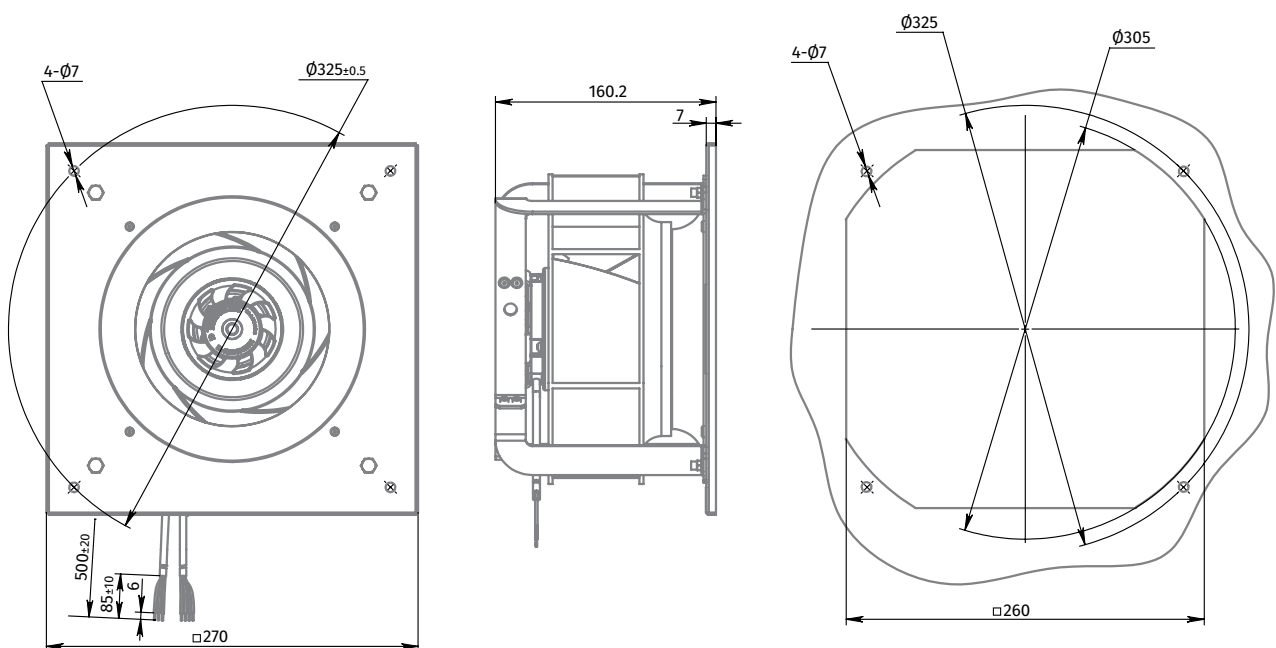


Centrifugal Fan with Plug Fan Casing	Weight [kg]
GL-B225D-EC-00	2.20
GL-B225D-EC-01	2.75

### BL-B225D-EC-00



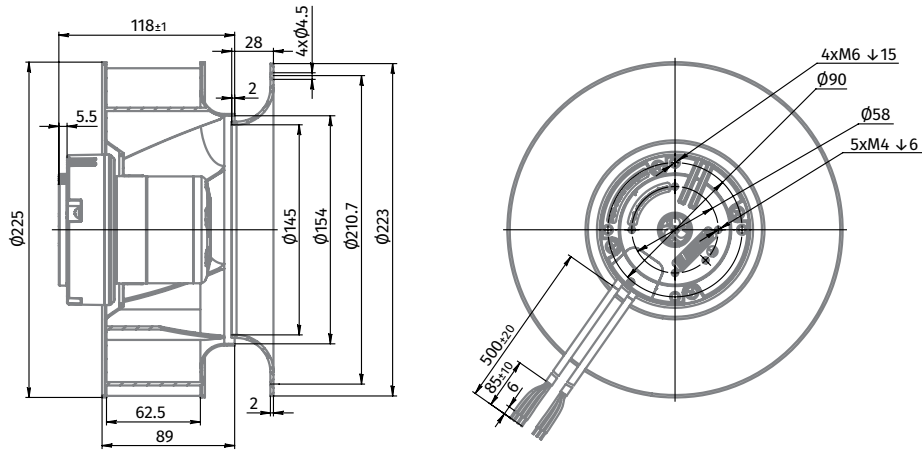
### GL-B225D-EC-00



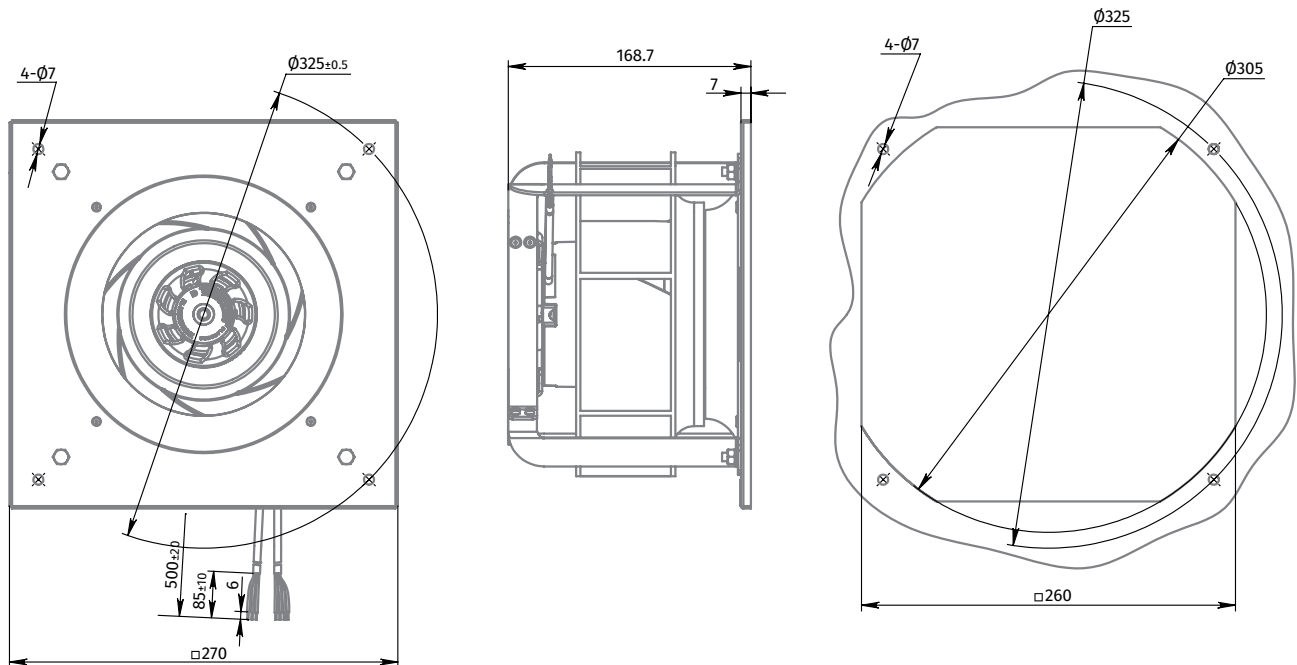
Ø 225 MM, BACKWARD CURVED

EC CENTRIFUGAL FAN

BL-B225D-EC-01



GL-B225D-EC-01



Ø 133

Ø 175

Ø 190

Ø 220

Ø 225

Ø 250

Ø 190

Ø 220

Ø 225

Ø 250

# Ø 250 MM, BACKWARD CURVED

# EC CENTRIFUGAL FAN



### Features

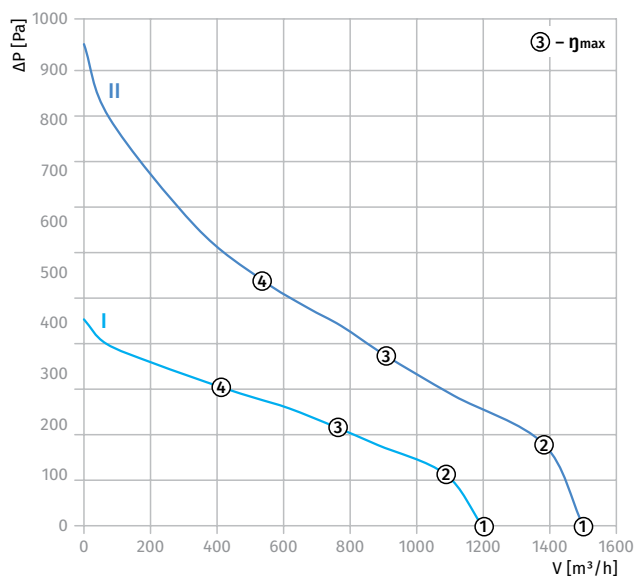
- **Materials:** Impeller – PA6+GF30  
Inlet ring – PA6+GF30  
Housing – sheet steel, painted grey
- **Direction of rotation:** clockwise, seen on rotor
- **Type of protection:** IP55
- **Insulation class:** B
- **Mode of operation:** S1
- **Bearing:** ball bearings
- **Motor protection:** self-resetting TOP wired internally



### Technical data

Model	Perform. curve	Nominal voltage [VAC]	Frequency [Hz]	Speed [RPM]	Power input max [W]	Current max [A]	Sound pres. level [dB(A)]	Perm. amb. temp. [°C]	Electrical connection	Inlet ring
GL-B250B-EC-00	I	230	50/60	1800	85	0.7	72	-25 ... +60	Type "E"/p. 39	p.38
GL-B250B-EC-01	II	230	50/60	2800	162	1.2	72	-25 ... +60	Type "E"/p. 39	p.38

### PERFORMANCE CURVES

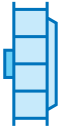


Curve	Point	n [RPM]	Pi [W]	I [A]
I	1	1970	82	0.66
	2	1910	83	0.67
	3	1800	85	0.7
	4	1950	80	0.66
II	1	2560	160	1.20
	2	2510	161	1.20
	3	2800	162	1.20
	4	2585	159	1.20

# Ø 250 MM, BACKWARD CURVED

# EC CENTRIFUGAL FAN

## Overall Dimensions

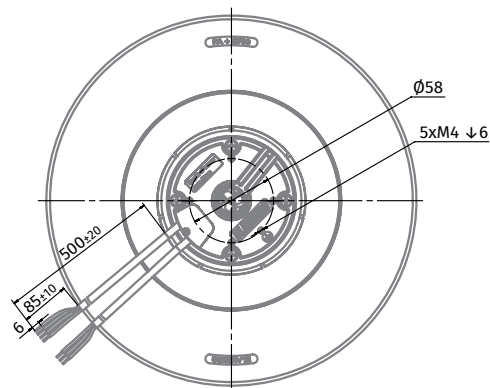
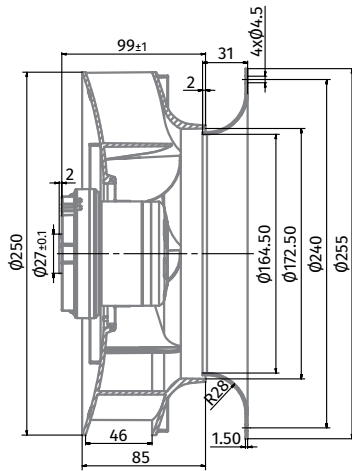


Centrifugal Fan	Weight [kg]
BL-B250B-EC-00	1.3
BL-B250B-EC-01	1.85

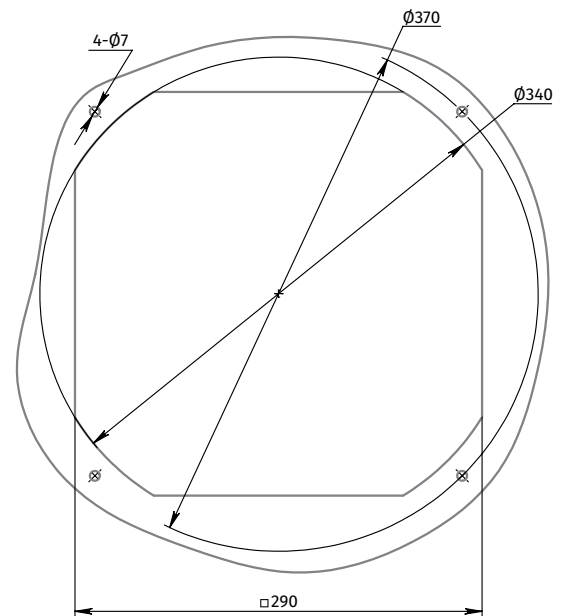
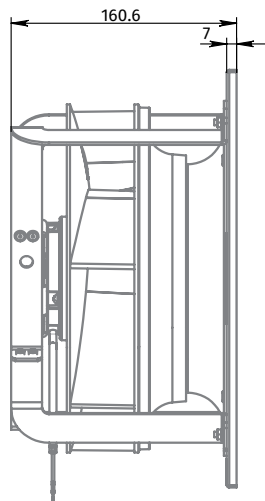
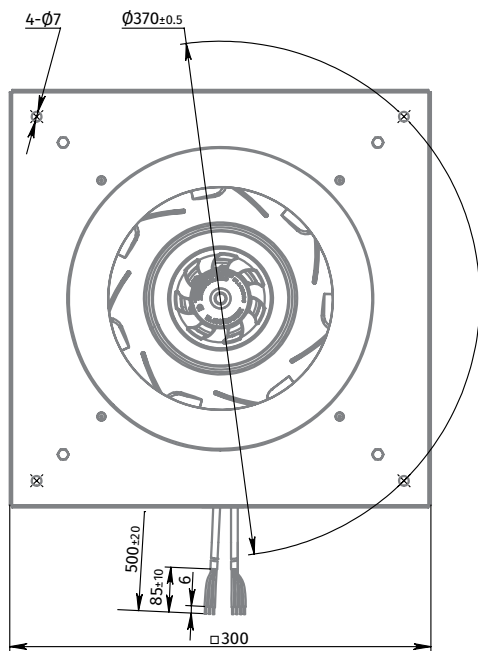


Centrifugal Fan with Plug Fan Casing	Weight [kg]
GL-B250B-EC-00	2.4
GL-B250B-EC-01	2.9

### BL-B250B-EC-00



### GL-B250B-EC-00



Ø 133

Ø 175

Ø 190

Ø 220

Ø 225

Ø 250

Ø 190

Ø 220

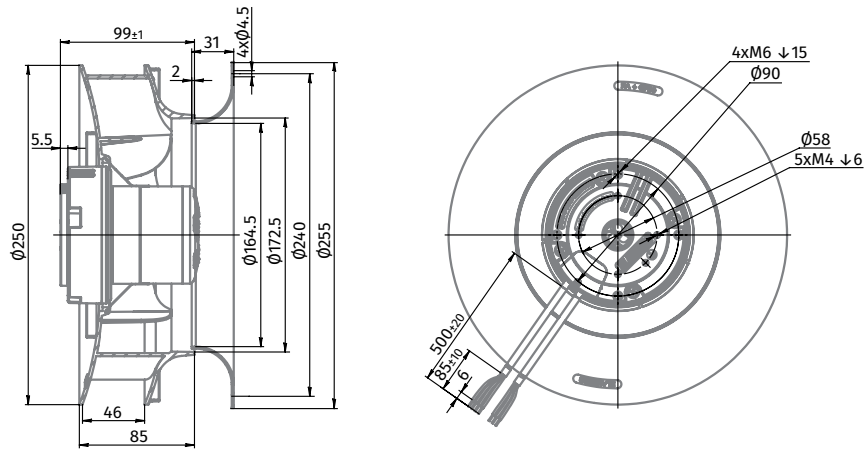
Ø 225

Ø 250

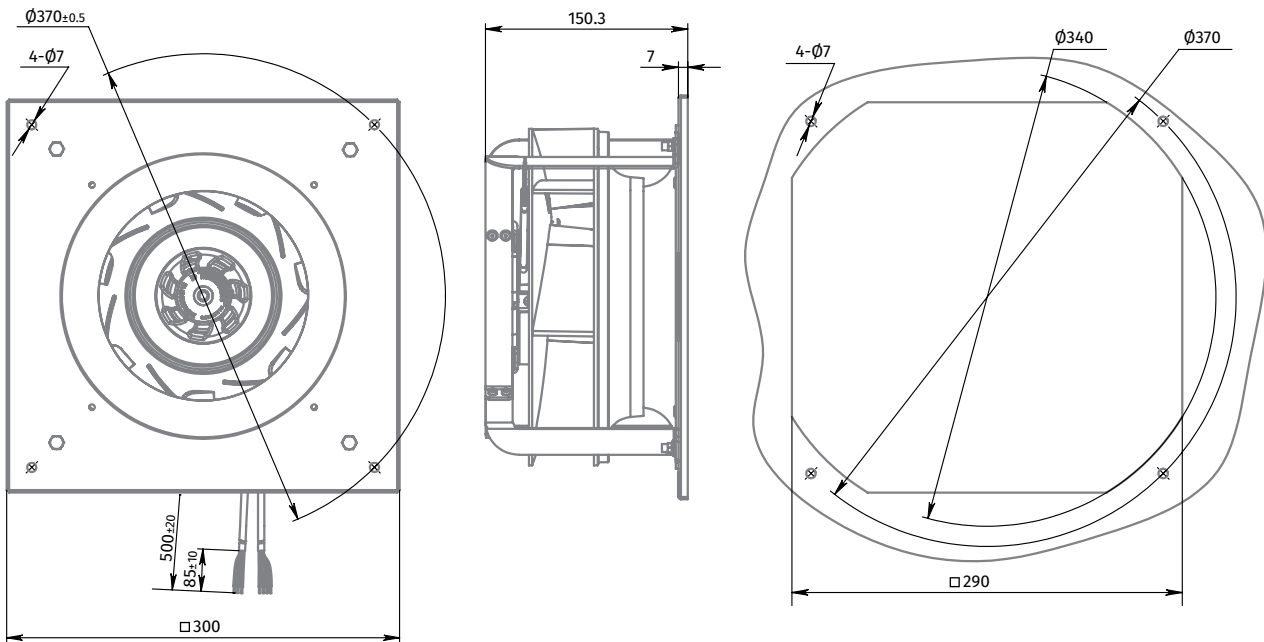
Ø 250 MM, BACKWARD CURVED

EC CENTRIFUGAL FAN

BL-B250B-EC-01



GL-B250B-EC-01



# AC CENTRIFUGAL FANS

Ø 190 30

Ø 220 32

Ø 225 34

Ø 250 36

Ø 190 mm, BACKWARD CURVED

AC CENTRIFUGAL FAN



**Features**

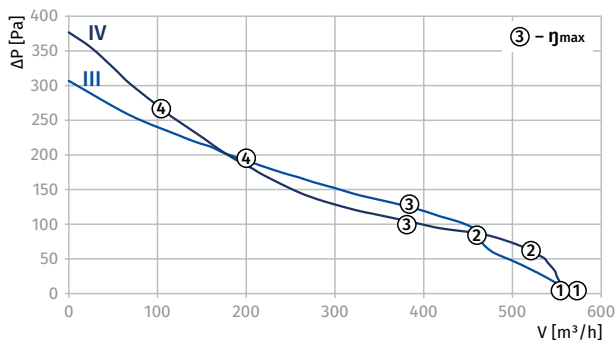
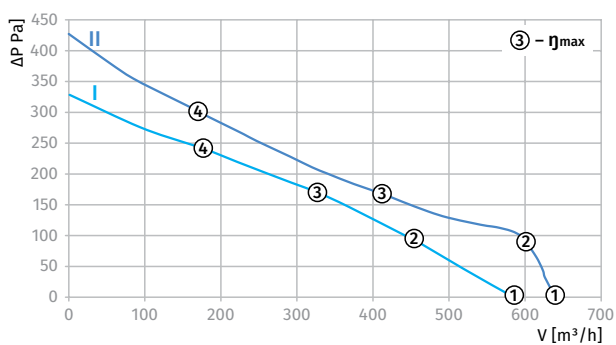
- **Materials:** Impeller – PA6+GF30  
Inlet ring – PA6+GF30  
Housing – sheet steel, painted grey
- **Direction of rotation:** clockwise, seen on rotor
- **Type of protection:** IP44
- **Insulation class:** B
- **Mode of operation:** continuous operation (S1)
- **Bearing:** ball bearings
- **Motor protection:** self-resetting TOP wired internally



**Technical data**

Model	Perform. curve	Nominal voltage [VAC]	Frequency [Hz]	Speed [RPM]	Power input max [W]	Current max [A]	Sound pres. level [dB(A)]	Perm. amb. temp. [°C]	Capacitor / Capacitor voltage [µF] / [VDB]	Electrical connection	Inlet ring
GL-B190A-2E-A01-01	I	230	50	2700	61	0.3	62	-25 ... +50	1.5/450	Type "A"/p. 39	p.38
	II	230	60	3000	80	0.4	64	-25 ... +50	1.5/450	Type "A"/p. 39	p.38
GL-B190A-2E-A02-01	III	230	50	2600	63	0.3	60	-25 ... +50	1.0/450	Type "A"/p. 39	p.38
	IV	230	60	3000	74	0.33	65	-25 ... +50	1.0/450	Type "A"/p. 39	p.38

**PERFORMANCE CURVES**



Curve	Point	n [RPM]	Pi [W]	I [A]
I	1	2510	59	0.27
	2	2470	60	0.28
	3	2700	61	0.30
	4	2665	60	0.28
II	1	2735	76	0.36
	2	2630	78	0.38
	3	3000	80	0.40
	4	2750	74	0.39
III	1	2500	59	0.30
	2	2470	59	0.29
	3	2600	63	0.30
	4	2440	60	0.29
IV	1	2780	68	0.30
	2	2800	71	0.30
	3	3000	74	0.33
	4	2920	72	0.28



# Ø 190 mm, BACKWARD CURVED

# AC CENTRIFUGAL FAN

## Overall Dimensions

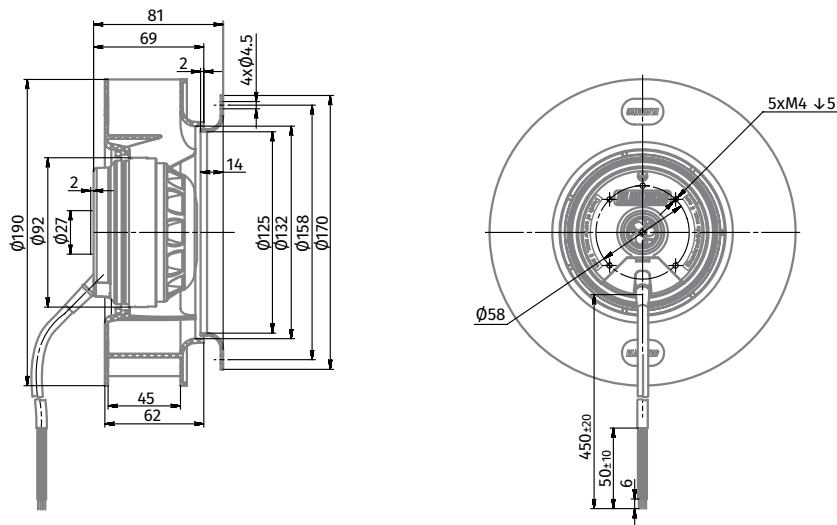


Centrifugal Fan	Weight [kg]
BL-B190A-2E-A01-01	1.40
BL-B190A-2E-A02-01	1.40

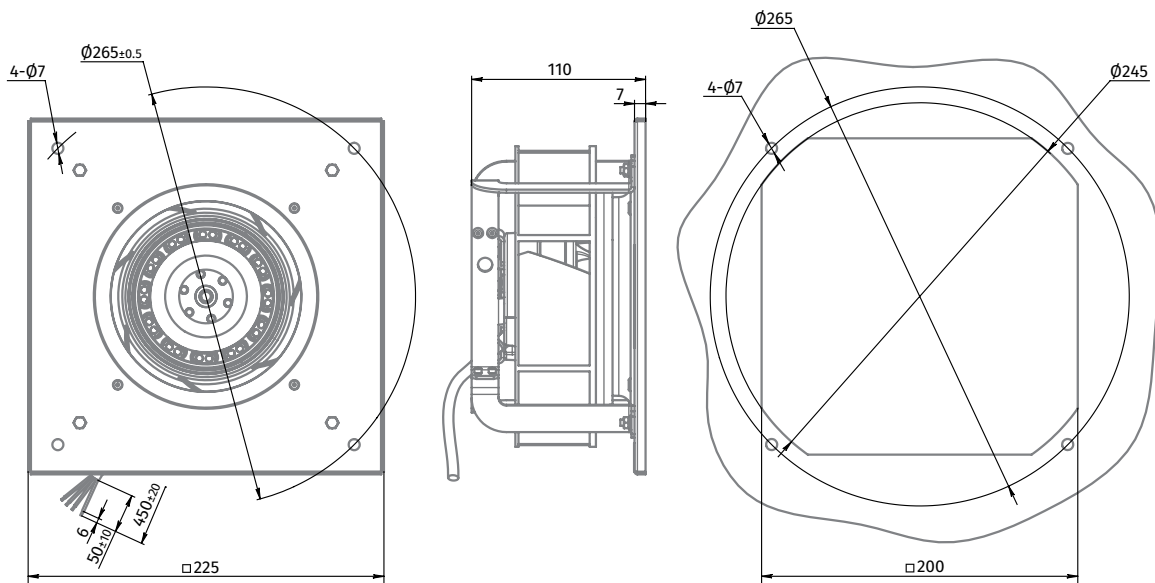


Centrifugal Fan with Plug Fan Casing	Weight [kg]
GL-B190A-2E-A01-01	2.10
GL-B190A-2E-A02-01	2.10

### BL-B190A-2E-A01-01, BL-B190A-2E-A02-01



### GL-B190A-2E-A01-01, GL-B190A-2E-A02-01



Ø 220 mm, BACKWARD CURVED

AC CENTRIFUGAL FAN



**Features**

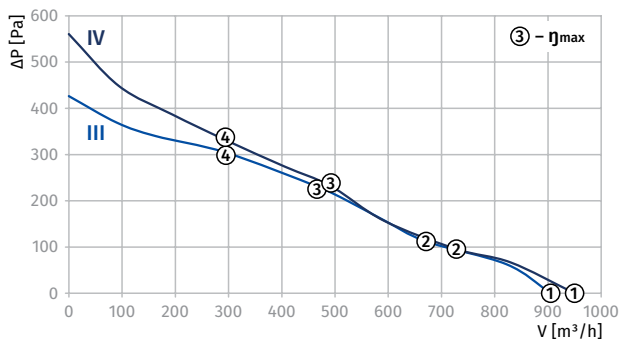
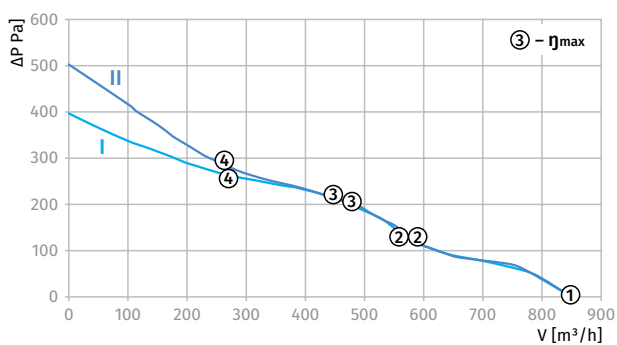
- **Materials:** Impeller – PA6+GF30  
Inlet ring – PA6+GF30  
Housing – sheet steel, painted grey
- **Direction of rotation:** clockwise, seen on rotor
- **Type of protection:** IP44
- **Insulation class:** B
- **Mode of operation:** continuous operation (S1)
- **Bearing:** ball bearings
- **Motor protection:** self-resetting TOP wired internally



**Technical data**

Model	Perform. curve	Nominal voltage [VAC]	Frequency [Hz]	Speed [RPM]	Power input max [W]	Current max [A]	Sound pres. level [dB(A)]	Perm. amb. temp. [°C]	Capacitor / Capacitor voltage [µF] / [VDB]	Electrical connection	Inlet ring
GL-B220B-2E-A01-01	I	230	50	2500	97	0.43	69	-25 ... +40	2/450	Type "A"/p. 39	p.38
	II	230	60	2800	110	0.48	70	-25 ... +40	2/450	Type "A"/p. 39	p.38
GL-B220B-2E-B01-01	III	230	50	2600	111	0.5	70	-25 ... +50	2/450	Type "A"/p. 39	p.38
	IV	230	60	3000	139	0.6	71	-25 ... +50	2/450	Type "A"/p. 39	p.38

**PERFORMANCE CURVES**

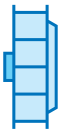


Curve	Point	n [RPM]	Pi [W]	I [A]
I	1	2170	94	0.40
	2	2280	96	0.42
	3	2500	97	0.43
	4	2450	95	0.42
II	1	2700	104	0.44
	2	2640	108	0.47
	3	2800	110	0.48
	4	2790	102	0.45
III	1	2510	108	0.43
	2	2470	106	0.47
	3	2600	111	0.50
	4	2510	110	0.43
IV	1	2905	133	0.53
	2	2880	139	0.57
	3	3000	139	0.60
	4	2915	136	0.51

# Ø 220 MM, BACKWARD CURVED

# AC CENTRIFUGAL FAN

## Overall Dimensions

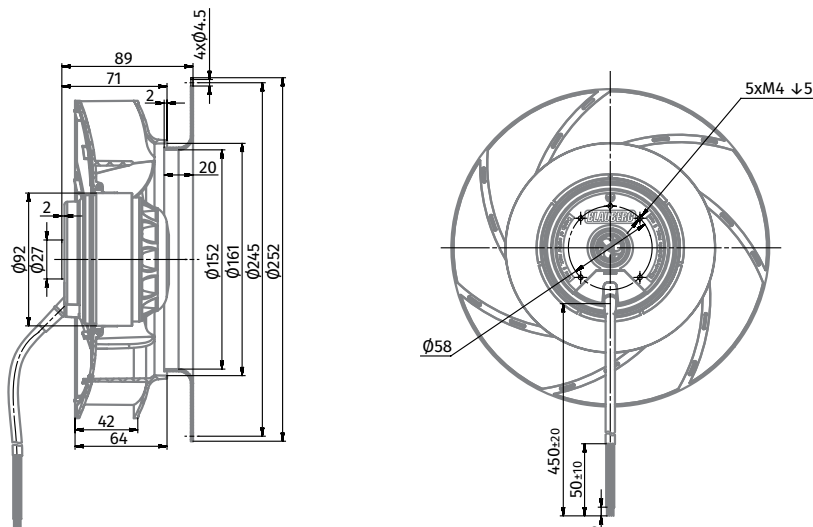


Centrifugal Fan	Weight [kg]
BL-B220B-2E-A01-01	1.30
BL-B220B-2E-B01-01	1.30

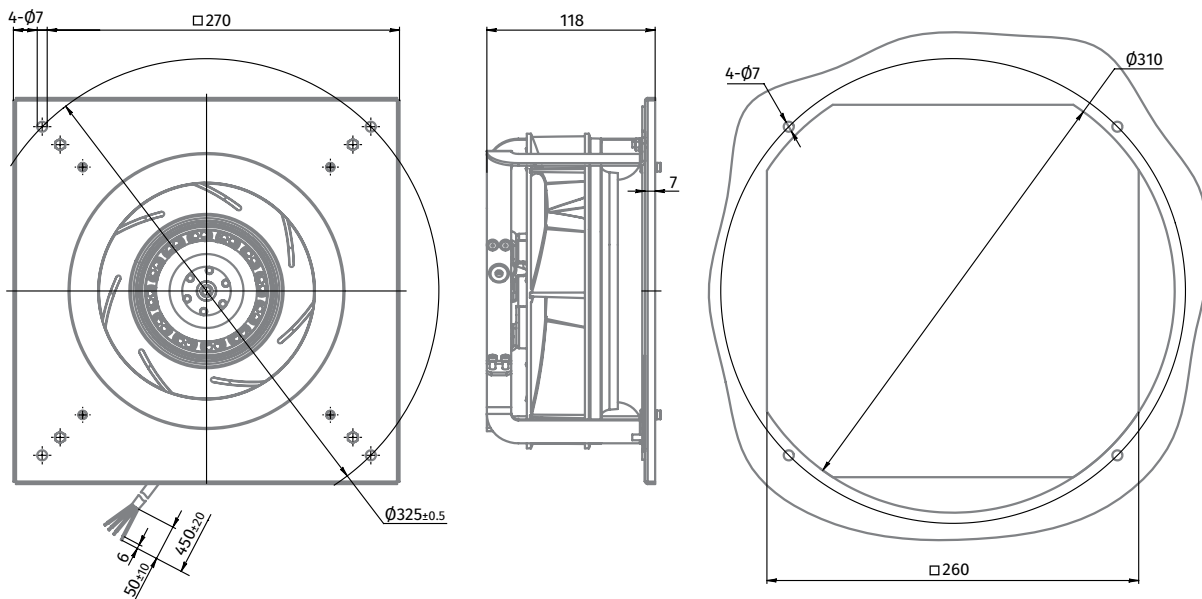


Centrifugal Fan with Plug Fan Casing	Weight [kg]
GL-B220B-2E-A01-01	2.15
GL-B220B-2E-B01-01	2.15

### BL-B220B-2E-A01-01, BL-B220B-2E-B01-01



### GL-B220B-2E-A01-01, GL-B220B-2E-B01-01



Ø 133

Ø 175

Ø 190

Ø 220

Ø 225

Ø 250

Ø 190

Ø 220

Ø 225

Ø 250

# Ø 225 MM, BACKWARD CURVED

# AC CENTRIFUGAL FAN



### Features

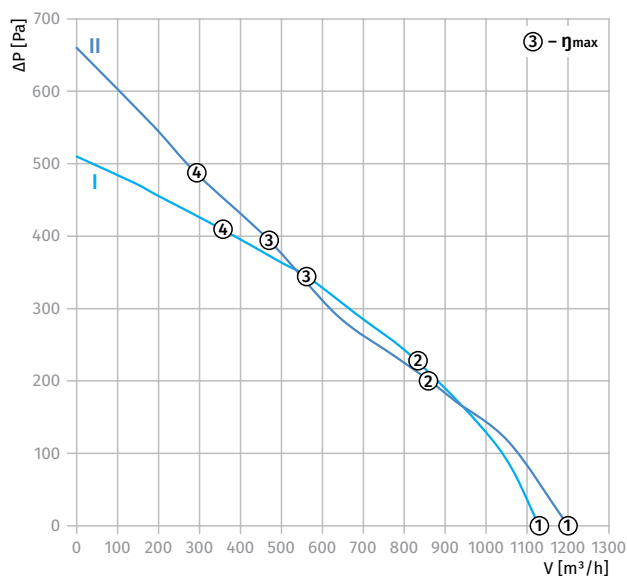
- **Materials:** Impeller – PA6+GF30  
Inlet ring – PA6+GF30  
Housing – galvanized steel
- **Direction of rotation:** clockwise, seen on rotor
- **Type of protection:** IP44
- **Insulation class:** F
- **Mode of operation:** continuous operation (S1)
- **Bearing:** ball bearings
- **Motor protection:** self-resetting TOP wired internally



### Technical data

Model	Perform. curve	Nominal voltage [VAC]	Frequency [Hz]	Speed [RPM]	Power input max [W]	Current max [A]	Sound pres. level [dB(A)]	Perm. amb. temp. [°C]	Capacitor / Capacitor voltage [µF] / [VDB]	Electrical connection	Inlet ring
GL-B225G-2E-C01-01	I	230	50	2700	145	0.60	70	-25 ... +60	3.5/450	Type "A"/p. 39	p.38
	II	230	60	3100	186	0.80	71	-25 ... +60	3.5/450	Type "A"/p. 39	p.38

### PERFORMANCE CURVES



Curve	Point	n [RPM]	Pi [W]	I [A]
I	1	2580	139	0.58
	2	2670	138	0.59
	3	2700	145	0.60
	4	2680	141	0.56
II	1	3005	180	0.74
	2	2930	182	0.77
	3	3100	186	0.80
	4	3040	183	0.76

# Ø 225 MM, BACKWARD CURVED

# AC CENTRIFUGAL FAN

## Overall Dimensions

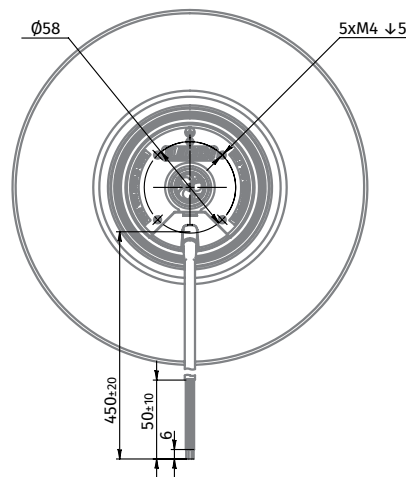
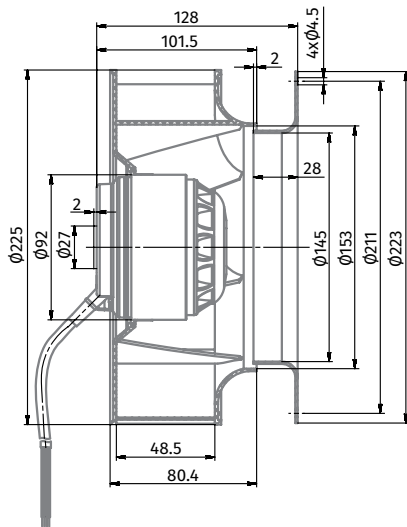


Centrifugal Fan	Weight [kg]
BL-B225G-2E-C01-01	2.35

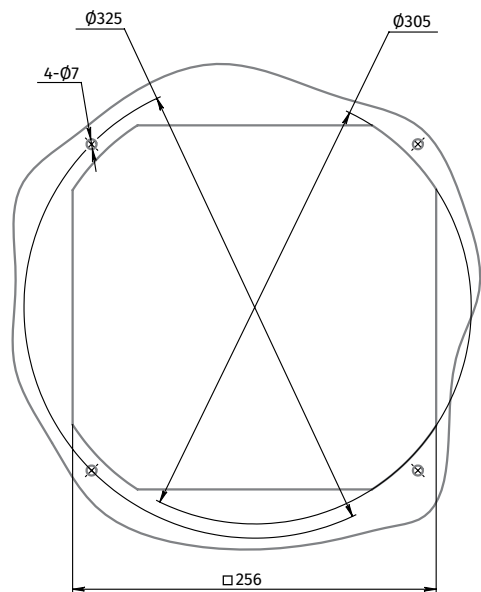
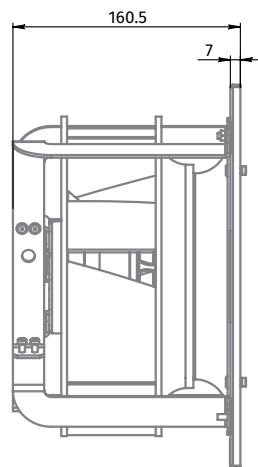
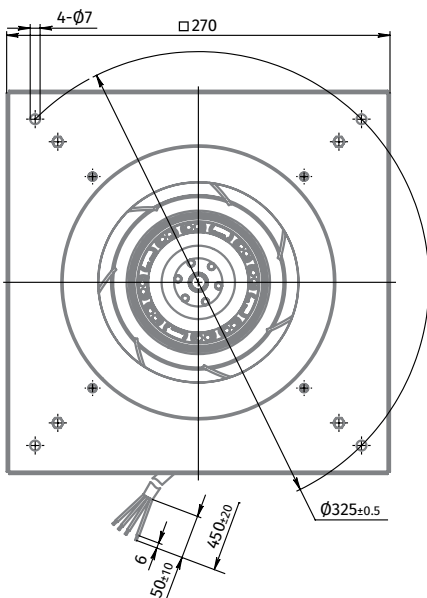


Centrifugal Fan with Plug Fan Casing	Weight [kg]
GL-B225G-2E-C01-01	3.25

### BL-B225G-2E-C01-01

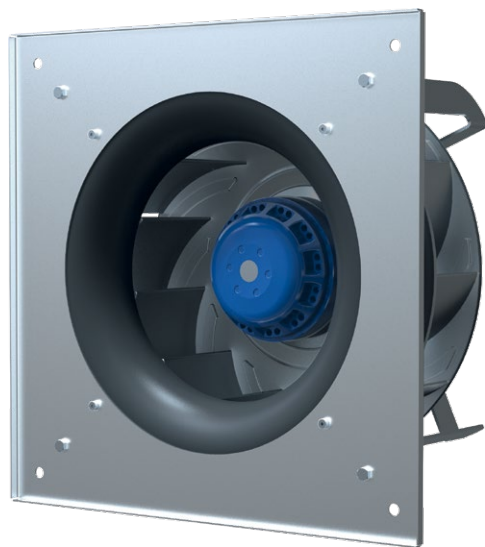


### GL-B225G-2E-C01-01



# Ø 250 MM, BACKWARD CURVED

# AC CENTRIFUGAL FAN



### Features

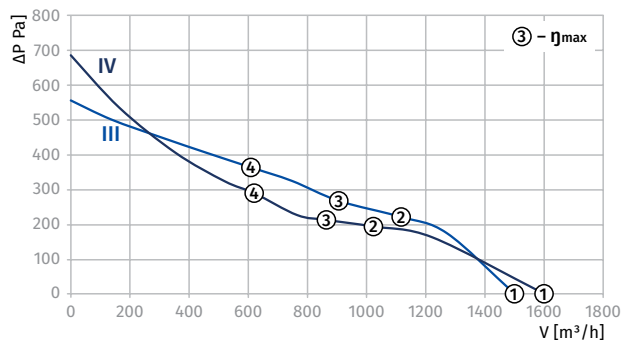
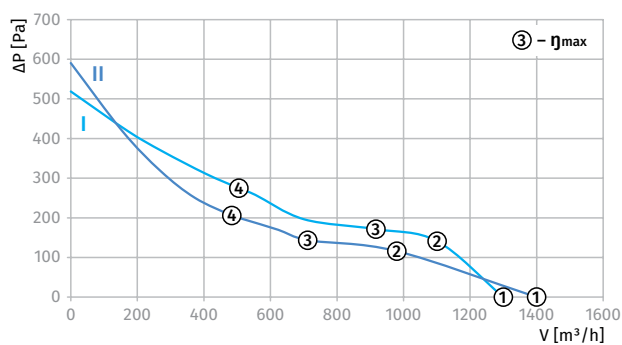
- **Materials:** Impeller – PA6+GF30+galvanized steel  
Inlet ring– PA6+GF30  
Housing – sheet steel, painted grey
- **Direction of rotation:** clockwise, seen on rotor
- **Type of protection:** IP44
- **Insulation class:** B
- **Mode of operation:** continuous operation (S1)
- **Bearing:** ball bearings
- **Motor protection:** self-resetting TOP wired internally



### Technical data

Model	Perform. curve	Nominal voltage [VAC]	Frequency [Hz]	Speed [RPM]	Power input max [W]	Current max [A]	Sound pres. level [dB(A)]	Perm. amb. temp. [°C]	Capacitor / Capacitor voltage [µF] / [VDB]	Electrical connection	Inlet ring
GL-B250A-2E-C01-01	I	230	50	2600	204	0.90	69	-25 ... +50	3.0/450	Type "A"/p. 39	p.38
	II	230	60	2800	219	1	70	-25 ... +50	3.0/450	Type "A"/p. 39	p.38
GL-B250A-2E-D01-01	III	230	50	2700	223	0.97	70	-25 ... +50	4.0/450	Type "A"/p. 39	p.38
	IV	230	60	3000	261	1.14	71	-25 ... +50	4.0/450	Type "A"/p. 39	p.38

### PERFORMANCE CURVES

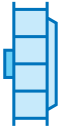


Curve	Point	n [RPM]	Pi [W]	I [A]
I	1	2450	198	0.85
	2	2560	196	0.86
	3	2600	204	0.90
	4	2540	195	0.87
II	1	2780	210	0.95
	2	2700	215	0.97
	3	2800	219	1.00
	4	2780	218	0.92
III	1	2640	215	0.92
	2	2620	219	0.95
	3	2700	223	0.97
	4	2690	217	0.93
IV	1	2970	252	1.08
	2	2900	259	1.10
	3	3000	261	1.14
	4	2910	260	1.07

# Ø 250 MM, BACKWARD CURVED

# AC CENTRIFUGAL FAN

## Overall Dimensions

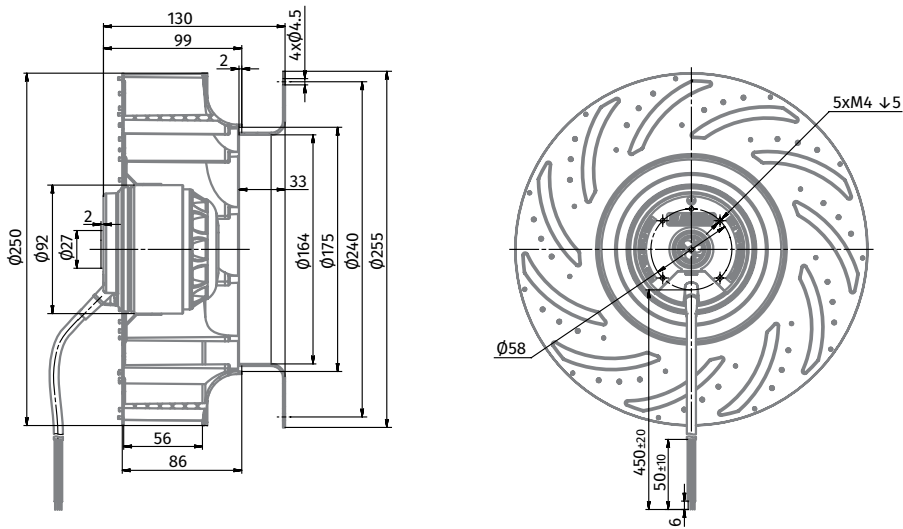


Centrifugal Fan	Weight [kg]
BL-B250A-2E-C01-01	2.60
BL-B250A-2E-D01-01	2.90

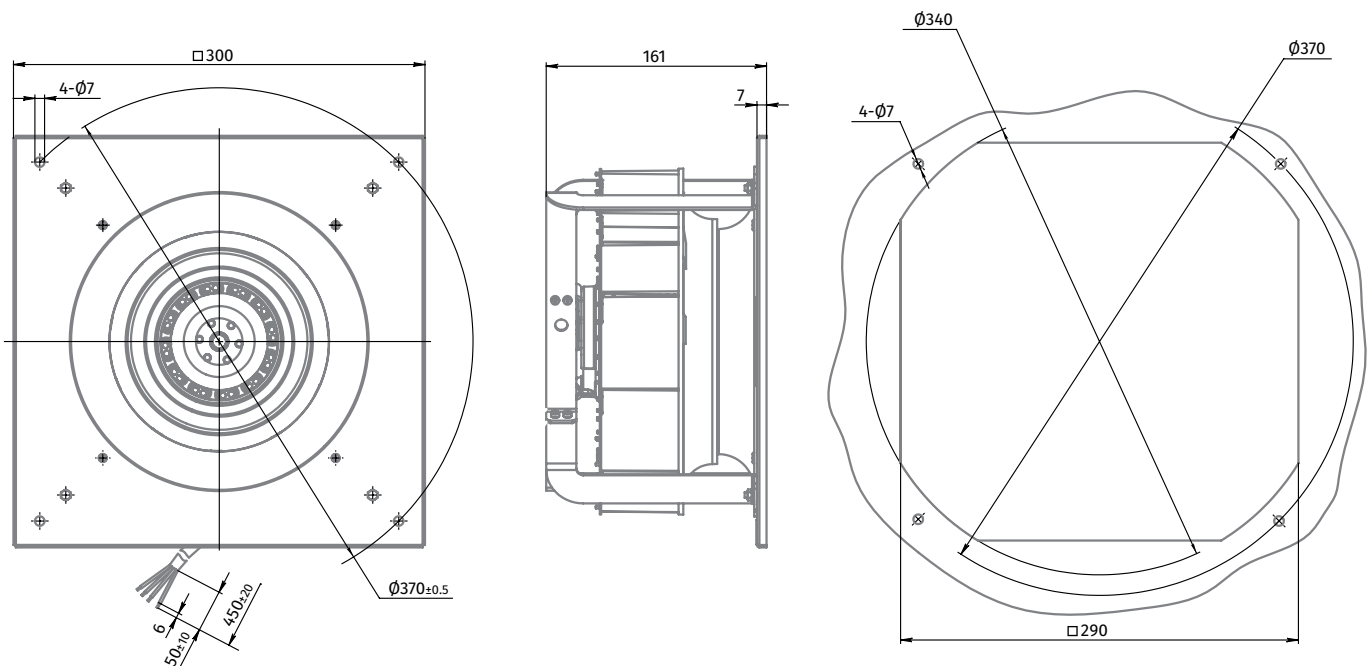


Centrifugal Fan with Plug Fan Casing	Weight [kg]
GL-B250A-2E-C01-01	3.65
GL-B250A-2E-D01-01	3.95

### BL-B250A-2E-C01-01, BL-B250A-2E-D01-01



### GL-B250A-2E-C01-01, GL-B250A-2E-D01-01



Ø 133

Ø 175

Ø 190

Ø 220

Ø 225

Ø 250

Ø 190

Ø 220

Ø 225

Ø 250

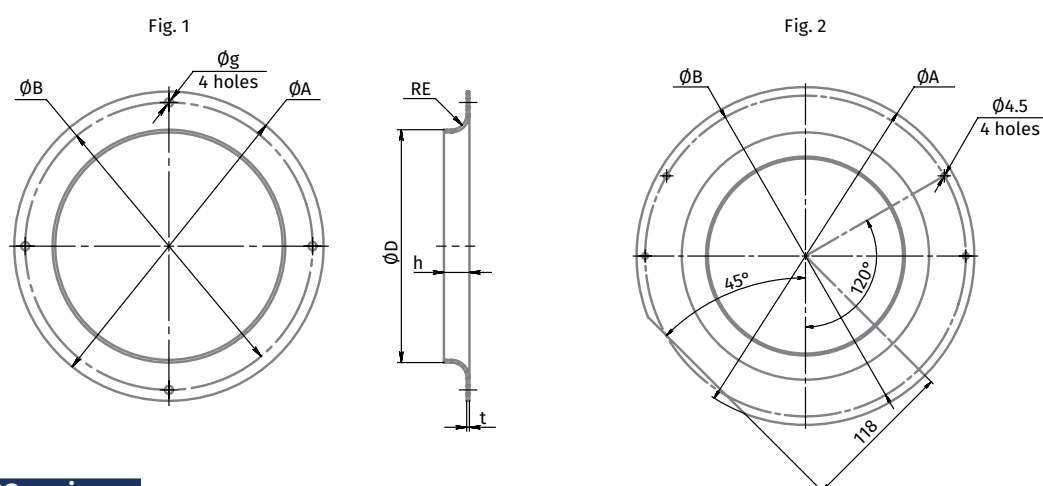
# INLET RINGS

## Inlet rings IR-PA series

- For backward curved blade impellers
- Made of high quality plastic

### OVERALL DIMENSIONS [MM]

BLAUBERG Inlet ring	BLABERG Impeller size	A	B	C	D	RE	h	t	g	Fig.
IR 190BC PA	190	172	158	120.5	125.5	10	15.9	2.5	4.5	1
IR 220BC PA	220	258	245	149	153	20	21	2.0	4.5	2
IR 225BC PA	225	223	210.7	141	145	25	28	2.0	4.5	1
IR 250BC PA	250	255	240	160	164	28	31	2.0	4.5	1

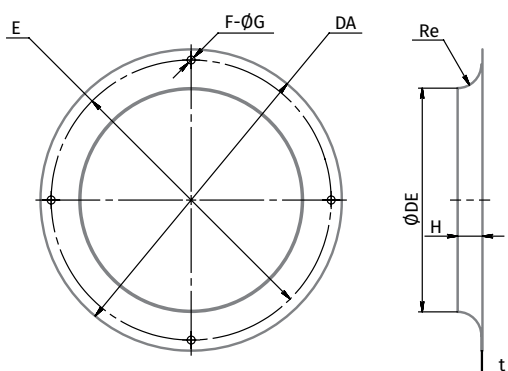


## Inlet rings IR-GS series

- For backward curved blade impellers
- Made of galvanized steel

### OVERALL DIMENSIONS [MM]

BLAUBERG Inlet ring	BLABERG Impeller size	DA	E	DE	Re	F-ØG	h	t
IR 190BC GS	190	170	158	125	10	4-Ø4.5	14	0.6
IR 220BC GS	220	252	236	152	22	4-Ø4.5	21	0.6
IR 225BC GS	225	223	210.7	145	21	4-Ø4.5	28	1.5
IR 250BC GS	250	255	240	164	18	4-Ø4.5	33	1.5

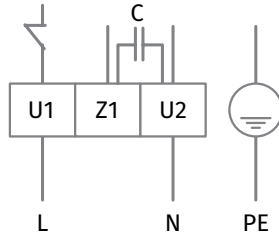




# ELECTRICAL CONNECTION DIAGRAM

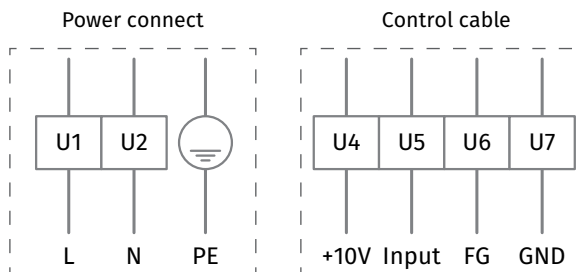
## Type "A"

- U1 Blue
- U2 Black
- Z1 Brown
- PE Green/Yellow



## Type "E"

- U1 Brown
- U2 Blue
- PE Green/Yellow
- U4 Red
- U5 Yellow
- U6 White
- U7 Blue







**Blauberg Group**  
Aidenbachstr. 52  
D-81379 Munich  
Tel.: +49 (0)89 231 66 620  
Fax: +49 (0)89 780 69 521

[sales@blauberg-motoren.com](mailto:sales@blauberg-motoren.com)  
[blauberg-motoren.com](http://blauberg-motoren.com)

Technical changes reserved.  
Illustrations and texts are non-binding.

07/2020