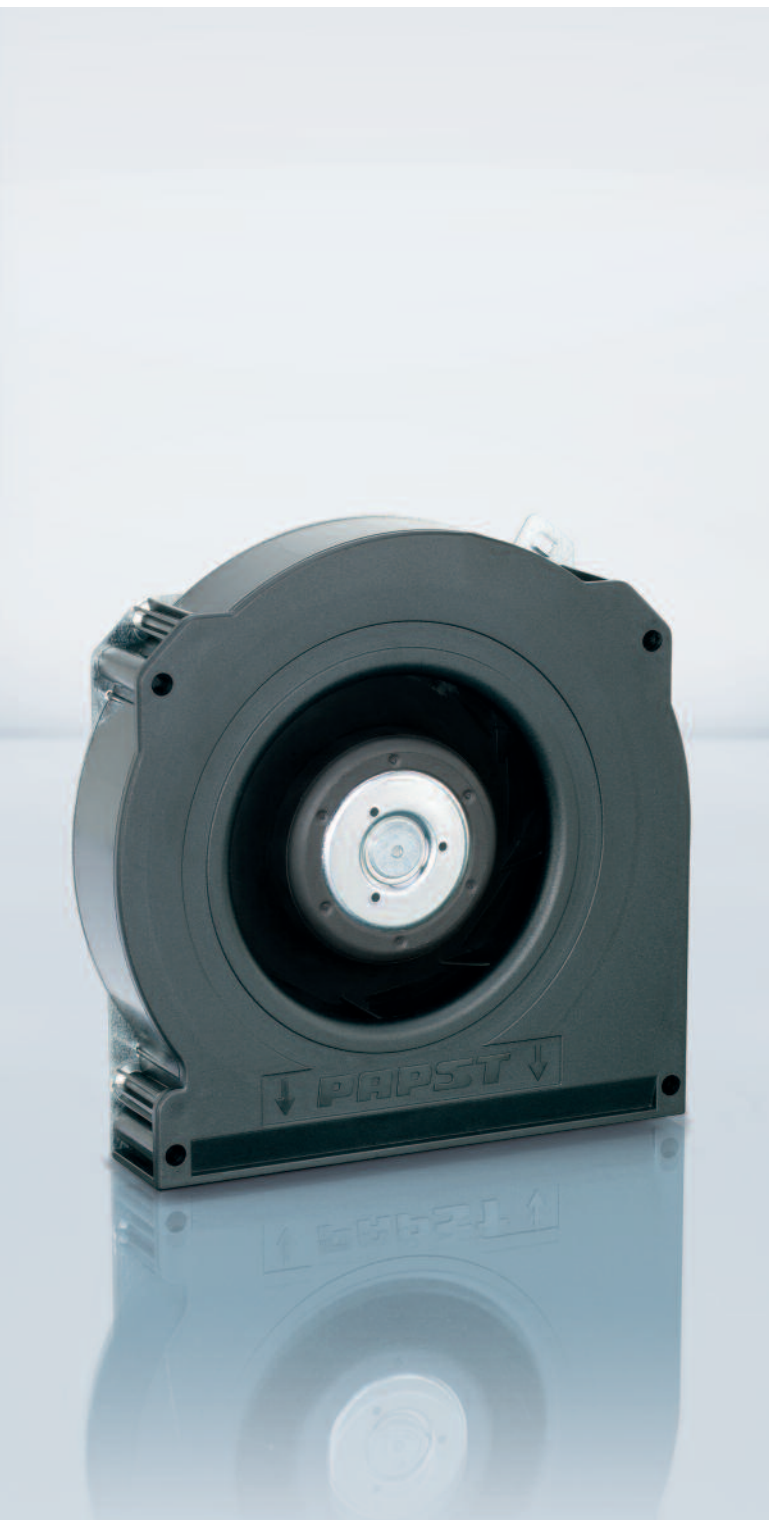


DC centrifugal fans



DC centrifugal fan overview	93
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DC centrifugal fans

Technical information



Product line

Our centrifugal product line includes fans for every application. Whether as free-running impellers with a diameter between 97 mm and 225 mm, or as assemblies in a ready-to-install, compact housing with inlet ring with an edge length between 51 mm and 270 mm. Of course, all models feature highly efficient, brushless motor technology.

Electronic protection against reverse polarity

ebm-papst DC fans have electronically commutated drives with electronic protection against reverse polarity. The electronics are integrated in the fan's impeller hub to save space.

Product life expectancy

A distinctive feature of DC fan technology is the amazing product life expectancy. The outstanding efficiency of the brushless drive results in lower heat stress for the bearings, which significantly increases the service life of the fan.

Degree of protection

DC fans with sleeve and ball bearings are powered by class E insulated motors. All ebm-papst fans conform to the requirements of degree of protection IP 20. Fans conforming to IP 54 / IP 68 and special degrees of protection are also available.

Voltage range

Many of our DC fans can be operated on voltages that are up to 50% lower and 25% higher than their nominal voltage (see voltage range in the technical tables). This allows the air performance to be adapted to the cooling requirements and the noise to be reduced, even if the fan does not have a control input.

Closed-loop speed control and monitoring

Closed-loop speed control and function monitoring are becoming increasingly important in many applications. ebm-papst offers many fans in the standard design with a control input and open-collector speed signal.

S-Force centrifugal RadiCal

The new S-Force centrifugal fans provide peak performance among fans of this type. With air flow capacity of over 1500 m³/h and a pressure increase of up to 1000 pascals, the highest heat flows are manageable. The models are extremely efficient due to the multi-pole, electronically commutated drive motors, and can be adapted individually to every application thanks to intelligent motor features. Some models use our new, highly efficient RadiCal impellers.

Centrifugal fans for DC operation

Overview of technically feasible designs

Dimension	Centrifugal fans		VDE, UL, CSA	SIMTEC sleeve bearings / ball bearings	Speed signal	Go / NoGo alarm	Alarm with speed limit	External temperature sensor	Internal temperature sensor	PWM control input	Analog control input	Multi-options control input	Moisture protection	IP >= 54	IP 68	Salt spray protection	Page
	mm	Series															P.
	105 x 59 x 79	RV 40	• ■	•	-	-	-	-	-	-	-	-	•	-	-	-	95
	□ 51 x 15	RLF 35	yes ■	•	-	-	-	-	•	-	-	-	•	-	-	-	96
	□ 76 x 27	RL 48	yes ■	•	•	•	•	•	•	•	•	-	•	-	-	-	97
	97 x 93.5 x 33	RL 65	yes ■	•	•	•	•	•	•	•	•	-	•	-	-	-	98
	□ 121 x 37	RL 90 N	yes □/■	•	•	•	•	•	•	•	•	-	•	•	•	•	99
	□ 127 x 25	RLF 100	yes ■	•	•	•	•	•	•	•	•	-	•	•	-	-	100
	□ 135 x 38	RG 90 N	yes □/■	•	•	•	•	•	•	•	•	-	•	•	•	•	101
	□ 180 x 40	RG 125 N	yes ■	•	•	•	•	•	•	•	•	-	•	•	•	•	102
NEW	□ 180 x 40	RG 140 NTD	yes ■	•	•	•	•	•	-	•	•	•	•	•	•	•	103
	□ 220 x 56	RG 160 N	yes ■	•	•	•	•	•	•	•	•	-	•	•	-	•	104
	□ 220 x 56	RG 160 NTD	yes ■	•	•	•	•	•	•	•	•	-	•	•	-	•	105
<i>S-Force</i>	□ 226 x 85	RG 190 TD	yes ■	•	•	•	•	•	•	•	•	•	•	•	-	•	106
<i>S-Force</i>	□ 270 x 99	RG 220 TD	yes ■	•	•	•	•	•	•	•	•	-	•	•	-	•	107
<i>S-Force</i>	□ 270 x 132	RG 225 TD	yes ■	•	•	•	•	•	•	•	•	-	•	•	-	•	108
<i>S-Force</i>	∅ 97 x 41	RET 97 TD	yes ■	•	•	•	•	•	•	•	•	-	•	-	-	-	109
	∅ 100 x 25	REF 100	yes ■	•	•	•	•	•	•	•	•	-	•	•	-	-	110
	∅ 101 x 52	RER 101 N	yes ■	•	•	•	•	•	•	•	•	-	•	-	-	-	111
<i>S-Force</i>	∅ 120 x 54	RER 120 TD	yes ■	•	•	•	•	•	•	•	•	-	•	-	-	-	112
	∅ 138 x 35	RER 125 N	yes ■	•	•	•	•	•	•	•	•	-	•	•	•	•	116
<i>S-Force</i>	∅ 133 x 91	RER 133 TD	yes ■	•	•	•	•	•	•	•	•	•	•	•	-	•	117
	∅ 165 x 51	RER 160 N	yes ■	•	•	•	•	•	•	•	•	-	•	•	-	•	118
<i>S-Force</i>	∅ 165 x 51	RER 160 NTD	yes ■	•	•	•	•	•	•	•	•	-	•	•	-	-	119
<i>S-Force</i>	∅ 175 x 55	REF 175 TD	yes ■	•	•	•	•	•	•	•	•	•	•	•	-	-	120
<i>S-Force</i>	∅ 175 x 69	RER 175 TD	yes ■	•	•	•	•	•	•	•	•	•	•	•	-	•	121
<i>S-Force</i>	∅ 190 x 69	RER 190 TD	yes ■	•	•	•	•	•	•	•	•	•	•	•	-	•	122
<i>S-Force</i>	∅ 220 x 71	RER 220 TD	yes ■	•	•	•	•	•	•	•	•	•	•	•	-	•	128
<i>S-Force</i>	∅ 225 x 99	RER 225 TD	yes ■	•	•	•	•	•	•	•	•	•	•	•	-	•	129
	201...413 x 50 x 48	QG 030	yes □/■	•	-	-	-	-	-	-	-	-	•	-	-	-	138

- Not yet available □ Sleeve bearings
• Available ■ Ball bearings

Please note that these special versions are not possible for all voltages and speeds, and not in all combinations. The special versions are designed for specific customers and projects. As a rule they are not available off the shelf and are subject to minimum volumes.

Please consult your customer support representative about the feasibility of your special variant.

Optional special versions (see page 12)

On the catalog pages and in the overview on page 12, we provide information about the special designs that are technically feasible in the fan series. Please note that these special versions are not possible for all voltages and speeds, and not in all combinations. The special

versions are designed for specific customers and projects and are usually not available off the shelf.

Max. 24 m³/h

DC centrifugal fans

105 x 59 x 79 mm



- **Material:** Scroll housing: GRP¹⁾
Impeller: GRP¹⁾
 - **Direction of air flow:** Axial: Intake,
Centrifugal: Exhaust
 - **Connection:** via single wires AWG 26, TR 64
 - **Highlights:** Forward-curved impeller
 - **Weight:** 100 g
- **Possible special versions:**
(See chapter DC fans - specials)
 - Speed signal
 - Moisture protection

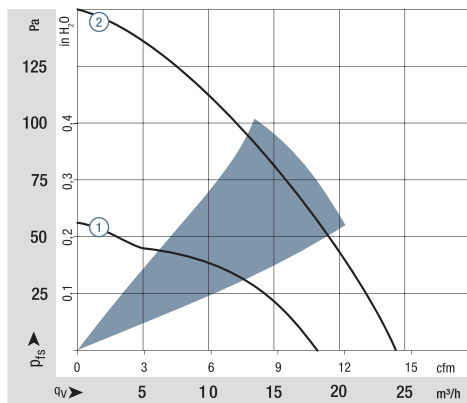
1) Fiberglass-reinforced plastic

Series RV 40

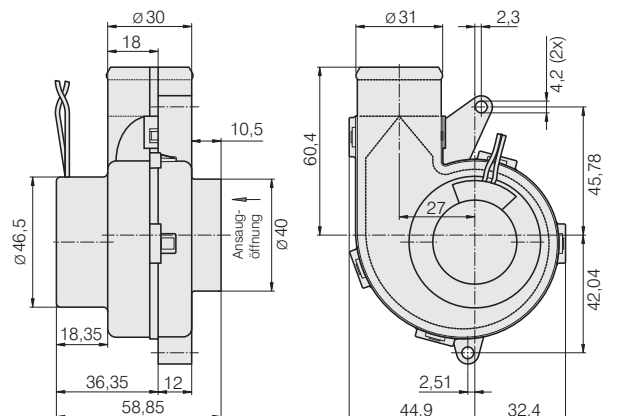
Nominal data

Type	Air flow		Nominal voltage	Voltage range		Sound power level	Sintec sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L ₁₀ (40 °C)		Curve
	m ³ /h	cfm		VDC	VDC						Bel(A)	Hours	
RV 40-18/12 L	18	10.6	12	9...16	4.0	■	2.0	3 900	-20...+70	70 000 / 35 000	117 500	①	
RV 40-18/12 H	24	14.1	12	9...16	5.0	■	4.5	4 800	-20...+70	50 000 / 25 000	85 000	②	

Subject to change



Air performance measured according to: ISO 5801.
Installation category A, without contact protection.
Noise: Total sound power level L_{wA} ISO 103002 measured on a hemisphere with a radius of 2 m; Sound pressure level L_{pA} measured at 1 m distance from fan axis.
The acoustic values are only valid for the described measurement setup and may vary depending on the installation situation.
In the event of deviation from the standard configuration, the parameters must be checked after installation!
For detailed information see <http://www.ebmpapst.com/general conditions>



Max. 9.6 m³/h

DC centrifugal fans

□ 51 x 15 mm



- **Material:** Scroll housing: GRP¹⁾
Impeller: GRP¹⁾
 - **Direction of air flow:** Axial: Intake,
Centrifugal: Exhaust
 - **Connection:** via single wires AWG 26, TR 64
 - **Highlights:** Forward-curved impeller
 - **Weight:** 40 g
- **Possible special versions:**
(See chapter DC fans - specials)
 - Speed signal - PWM control input
 - Moisture protection

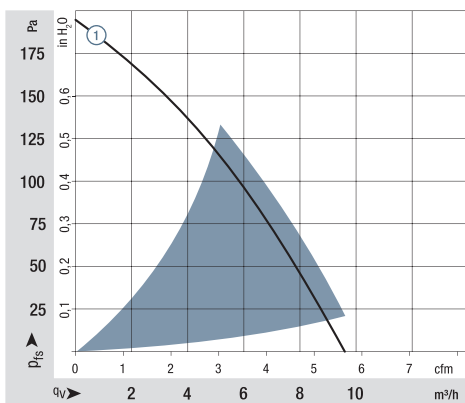
1) Fiberglass-reinforced plastic

Series RLF 35

Nominal data

Type	Air flow		Nominal voltage	Voltage range	Sound power level	Sinter sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst standard	Service life L ₁₀ (T _{max}) ebm-papst standard	Life expectancy L ₁₀ (IPC (40 °C) see page 17	Curve
	m ³ /h	cfm											
RLF 35-8/12 N	9.6	5.64	12	8...13.2	5.5	■	3.5	6 700	-20...+70	60 000 / 30 000		102 500	①
RLF 35-8/14 N	9.6	5.64	24	14...28	5.5	■	4.3	6 700	-20...+70	60 000 / 30 000		102 500	①

Subject to change



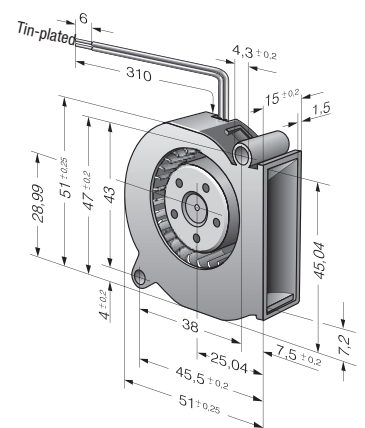
Air performance measured according to: ISO 5801.
Installation category A, without contact protection.
Noise: Total sound power level L_{WA} ISO 103002
measured on a hemisphere with a radius of 2 m.
Sound pressure level L_{PA} measured at 1 m distance
from fan axis.

The values given are applicable only under the specified
measuring conditions and may differ depending on the
installation conditions.

In the event of deviation from the standard configuration,
the parameters must be checked after installation!

For detailed information see

<http://www.ebmpapst.com/general-conditions>



Max. 28 m³/h

DC centrifugal fans

□ 76 x 27 mm



- **Material:** Scroll housing: GRP¹⁾
Impeller: GRP¹⁾
 - **Direction of air flow:** Axial: Intake,
Centrifugal: Exhaust
 - **Connection:** via single wires AWG 26, TR 64
 - **Highlights:** Forward-curved impeller
 - **Weight:** 75 g
- **Possible special versions:**
(See chapter DC fans - specials)
 - Speed signal
 - Go- / NoGo alarm
 - Alarm with speed limit
 - External temperature sensor
 - Internal temperature sensor
 - PWM control input
 - Analog control input
 - Moisture protection

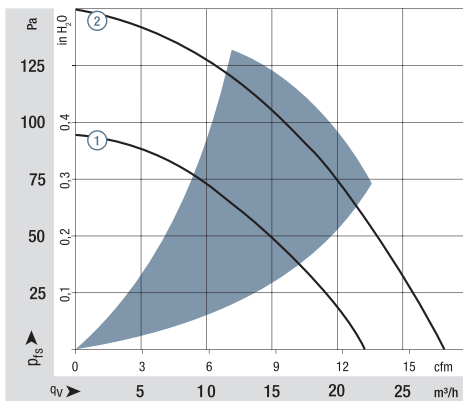
1) Fiberglass-reinforced plastic

Series RL 48

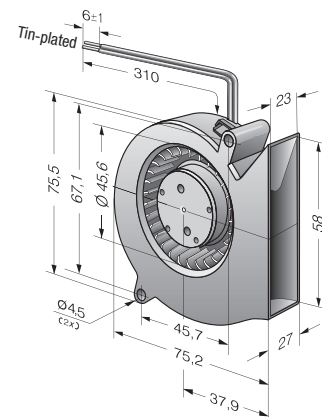
Nominal data

Type	Air flow		Nominal voltage	Voltage range		Sound power level	Sinter sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst standard	Service life L ₁₀ (T _{max}) ebm-papst standard	Life expectancy L ₁₀ IPC (40 °C) see page 17	Curve
	m ³ /h	cfm		VDC	VDC									
RL 48-19/12 ML	22	12.9	12	8...15	5.3	■	5.0	3 500	-20...+70	70 000 / 35 000	117 500	①		
RL 48-19/12	28	16.5	12	8...13.5	5.7	■	4.6	4 400	-20...+70	60 000 / 30 000	102 500	②		
RL 48-19/14 ML	22	12.9	24	18...28	5.3	■	5.0	3 500	-20...+70	70 000 / 35 000	117 500	①		
RL 48-19/14	28	16.5	24	18...26.4	5.7	■	4.4	4 400	-20...+70	60 000 / 30 000	102 500	②		

Subject to change



Air performance measured according to: ISO 5801.
Installation category A, without contact protection.
Noise: Total sound power level L_{WA} ISO 103002 measured on a hemisphere with a radius of 2 m.
Sound pressure level L_{PA} measured at 1 m distance from fan axis.
The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions.
In the event of deviation from the standard configuration, the parameters must be checked after installation!
For detailed information see <http://www.ebmpapst.com/general conditions>



Max. 61 m³/h

DC centrifugal fans

97 x 93.5 x 33 mm



- **Material:** Scroll housing: GRP¹⁾
Impeller: GRP¹⁾
 - **Direction of air flow:** Axial: Intake,
Centrifugal: Exhaust
 - **Connection:** via single wires AWG 26, TR 64
 - **Highlights:** Forward-curved impeller
 - **Weight:** 170 g
- **Possible special versions:**
(See chapter DC fans - specials):
 - Speed signal
 - Go / NoGo alarm
 - Alarm with speed limit
 - External temperature sensor
 - Internal temperature sensor
 - PWM control input
 - Analog control input
 - Moisture protection

1) Fiberglass-reinforced plastic

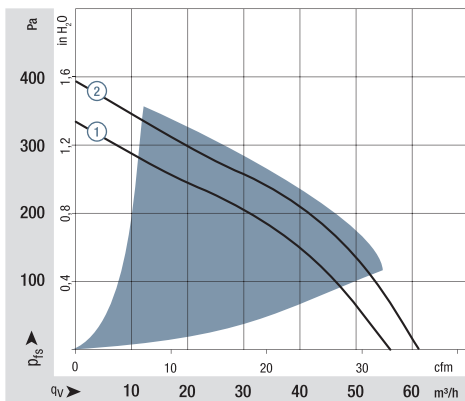
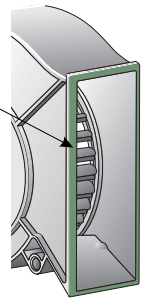
Series RL 65

Nominal data

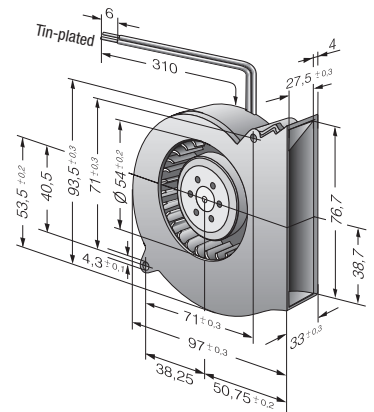
Type	Air flow		Nominal voltage	Voltage range		Sound power level	Sinter sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst standard	Service life L ₁₀ (T max) ebm-papst standard	Life expectancy L ₁₀ (IPC (40 °C) see page 17	Curve
	m ³ /h	cfm		VDC	VDC									
RL 65-21/12	56	32,9	12	6.8...13.8	6.6	■	15.0	4 500	-20...+70	60 000 / 30 000	102 500	①		
RL 65-21/12 H	61	35,8	12	6.8...13.2	6.8	■	19.2	4 900	-20...+55	55 000 / 40 000	92 500	②		
RL 65-21/14	56	32,9	24	12...26.4	6.6	■	14.0	4 500	-20...+70	60 000 / 30 000	102 500	①		
RL 65-21/14 H	61	35,8	24	12...26.4	6.8	■	18.0	4 900	-20...+60	55 000 / 35 000	92 500	②		

Subject to change

Snap-in fins for easy latch



Air performance measured according to: ISO 5801.
Installation category A, without contact protection.
Noise: Total sound power level L_{WA} ISO 103002 measured on a hemisphere with a radius of 2 m.
Sound pressure level L_{pA} measured at 1 m distance from fan axis.
The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions.
In the event of deviation from the standard configuration, the parameters must be checked after installation!
For detailed information see <http://www.ebmpapst.com/general conditions>



Max. 55 m³/h

DC centrifugal fans

□ 121 x 37 mm



- **Material:** Scroll housing: GRP¹⁾
Impeller: GRP¹⁾
Base plate: Sheet steel
 - **Direction of air flow:** Axial: Intake,
Centrifugal: Exhaust
 - **Connection:** via single wires AWG 22, TR 64
 - **Highlights:** Forward-curved impeller
 - **Weight:** 420 g
- **Possible special versions:** (See chapter DC fans - specials)
 - Speed signal
 - Go / NoGo alarm
 - Alarm with speed limit
 - External temperature sensor
 - Internal temperature sensor
 - PWM control input
 - Analog control input
 - Moisture protection
 - Salt spray protection
 - Degree of protection: IP 54 / IP 68

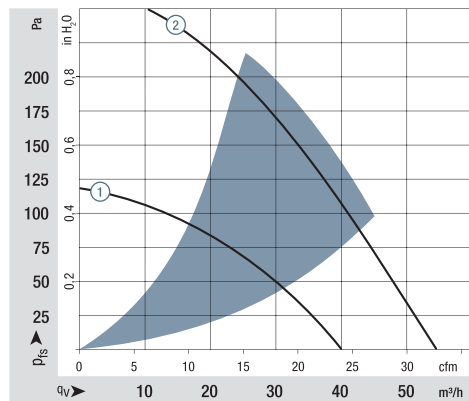
1) Fiberglass-reinforced plastic

Series RL 90 N

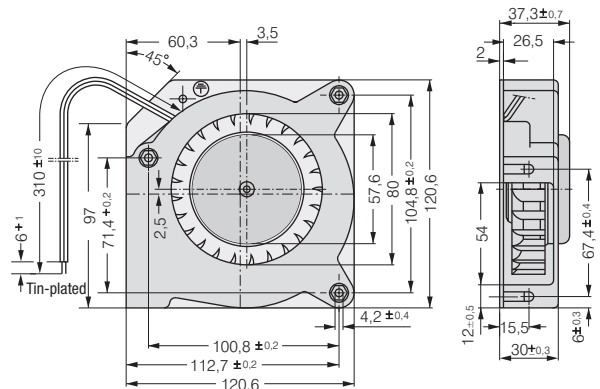
Nominal data

Type	Air flow		Nominal voltage	Voltage range		Sound power level	Sintec sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst standard	Service life L ₁₀ (T _{max}) ebm-papst standard	Life expectancy L ₁₀ IPC (40 °C) see page 17	Curve
	m ³ /h	cfm		VDC	VDC									
RL 90-18/12 N	40	23.5	12	7...15	5.8	■	6.3	2 500	-30...+75	62 500 / 27 500	105 000	①		
RL 90-18/14 NG	40	23.5	24	12...28	5.8	□	5.6	2 500	-20...+75	62 500 / 27 500	105 000	①		
RL 90-18/14 N	40	23.5	24	12...28	5.8	■	5.6	2 500	-30...+75	62 500 / 27 500	105 000	①		
RL 90-18/18 NH	55	32.4	48	36...53	6.9	■	14.7	3 500	-30...+65	32 500 / 17 500	55 000	②		

Subject to change



Air performance measured according to: ISO 5801.
Installation category A, without contact protection.
Noise: Total sound power level L_{WA} ISO 103002 measured on a hemisphere with a radius of 2 m; Sound pressure level L_{PA} measured at 1 m distance from fan axis.
The acoustic values are only valid for the described measurement setup and may vary depending on the installation situation.
In the event of deviation from the standard configuration, the parameters must be checked after installation!
For detailed information see <http://www.ebmpapst.com/general-conditions>

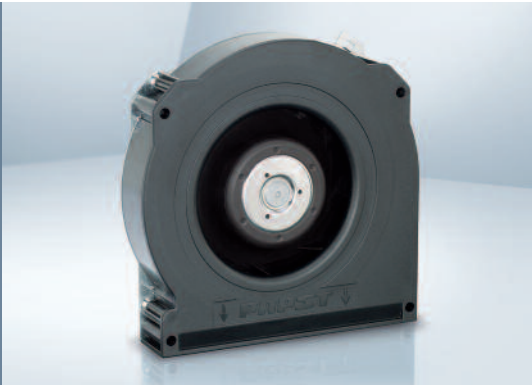


Screw clip M4 or 8-32UNC. Screw-in depth max. 12.5 min. 9.0

Max. 80 m³/h

DC centrifugal fans

□ 127 x 25 mm



- **Material:** Scroll housing: GRP¹⁾
Impeller: GRP¹⁾
Base plate: Sheet steel
 - **Direction of air flow:** Axial: Intake,
Centrifugal: Exhaust
 - **Connection:** via single wires AWG 22, TR 64
 - **Highlights:** Optional protective cap for outlet opening
Backward-curved impeller
 - **Weight:** 320 g
- **Possible special versions:** (See chapter DC fans - specials)
 - Speed signal
 - Go / NoGo alarm
 - Alarm with speed limit
 - External temperature sensor
 - Internal temperature sensor
 - PWM control input
 - Analog control input
 - Moisture protection
 - Degree of protection: IP 54

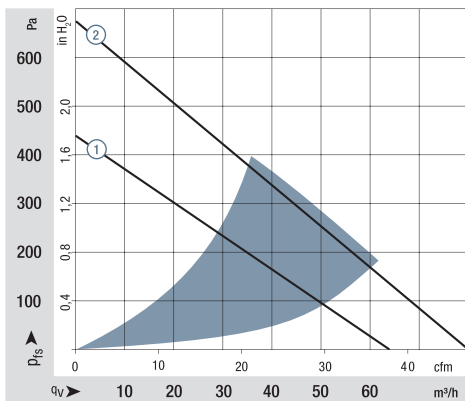
¹⁾ Fiberglass-reinforced plastic

Series RLF 100

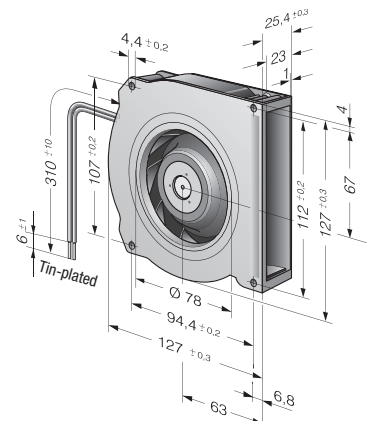
Nominal data

Type	Air flow		Nominal voltage	Voltage range		Sound power level	Sinter sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst standard	Service life L ₁₀ (T _{max}) ebm-papst standard	Life expectancy L ₁₀ (IPC (40 °C) see page 17	Curve
	m ³ /h	cfm		VDC	VDC									
RLF 100-11/12	64	37.7	12	8...15	6.4	■	8.0	5 100	-20...+75	80 000 / 30 000	135 000	①		
RLF 100-11/14	64	37.7	24	16...30	6.4	■	8.0	5 100	-20...+75	80 000 / 30 000	135 000	①		
RLF 100-11/18	64	37.7	48	36...60	6.4	■	8.6	5 100	-20...+75	80 000 / 30 000	135 000	①		
High speed models with open-collector tachometer and PWM speed control.														
RLF 100-11/12/2 HP-200	80	47.1	12	10...13.2	7.5	■	18.6	6 400	-20...+60	72 500 / 45 000	122 500	②		
RLF 100-11/18/2 HP-182	80	47.1	48	43...53	7.5	■	17.0	6 400	-20...+70	72 500 / 35 000	122 500	②		

Subject to change



Air performance measured according to: ISO 5801.
Installation category A, without contact protection.
Noise: Total sound power level L_{WA} ISO 103002 measured on a hemisphere with a radius of 2 m.
Sound pressure level L_{pA} measured at 1 m distance from fan axis.
The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions.
In the event of deviation from the standard configuration, the parameters must be checked after installation!
For detailed information see <http://www.ebmpapst.com/general conditions>



Max. 55 m³/h

DC centrifugal fans

□ 135 x 38 mm



- **Material:** Scroll housing: GRP¹⁾
Impeller: GRP¹⁾
Base plate: Sheet steel
 - **Direction of air flow:** Axial: Intake,
Centrifugal: Exhaust
 - **Connection:** Via single wires AWG 22, TR 64
48 V model: Flat plug
6.3 x 0.8 mm for ground
conductor
 - **Highlights:** Forward-curved impeller
 - **Weight:** 440 g
- **Possible special versions:**
(See chapter DC fans - specials)
 - Speed signal
 - Go / NoGo alarm
 - Alarm with speed limit
 - External temperature sensor
 - Internal temperature sensor
 - PWM control input
 - Analog control input
 - Moisture protection
 - Salt spray protection
 - Degree of protection: IP 54 / IP 68

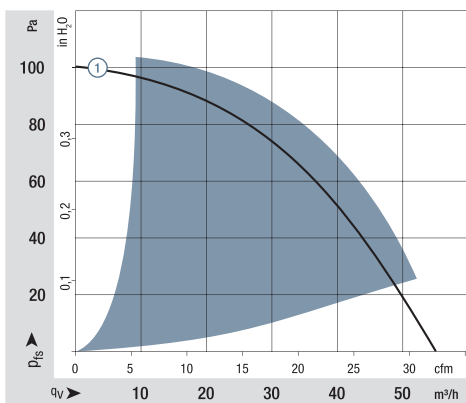
1) Fiberglass-reinforced plastic

Series RG 90 N

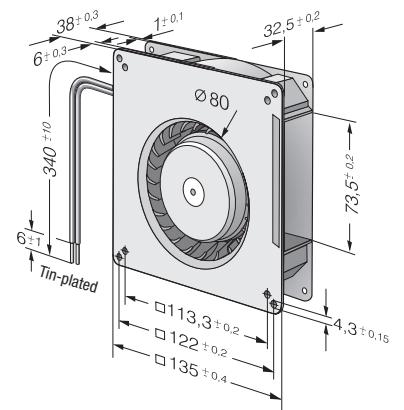
Nominal data

Type	Air flow		Nominal voltage	Voltage range		Sound power level	Sintec sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst standard	Service life L ₁₀ (T _{max}) ebm-papst standard	Life expectancy L ₁₀ IPC (40 °C) see page 17	Curve
	m ³ /h	cfm		VDC	VDC									
RG 90-18/12 N	55	32.4	12	7...15	5.5	■	6.7	2 200	-30...+75	62 500 / 27 500	105 000	①		
RG 90-18/14 NG	55	32.4	24	12...28	5.5	□	6.2	2 200	-10...+75	62 500 / 27 500	105 000	①		
RG 90-18/14 N	55	32.4	24	12...28	5.5	■	6.2	2 200	-30...+75	62 500 / 27 500	105 000	①		
RG 90-18/18 N	55	32.4	48	36...56	5.5	■	6.1	2 200	-30...+75	62 500 / 27 500	105 000	①		

Subject to change



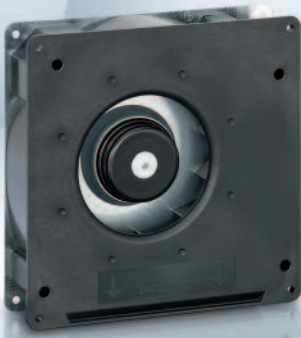
Air performance measured according to: ISO 5801.
Installation category A, without contact protection.
Noise: Total sound power level L_{WA} ISO 103002
measured on a hemisphere with a radius of 2 m.
Sound pressure level L_{PA} measured at 1 m distance
from fan axis.
The values given are applicable only under the specified
measuring conditions and may differ depending on the
installation conditions.
In the event of deviation from the standard configuration,
the parameters must be checked after installation!
For detailed information see
<http://www.ebmpapst.com/general conditions>



Max. 137 m³/h

DC centrifugal fans

□ 180 x 40 mm



- **Material:** Scroll housing: GRP¹⁾
Impeller: GRP¹⁾
Base plate: Sheet steel
 - **Direction of air flow:** Axial: Intake,
Centrifugal: Exhaust
 - **Connection:** Via single wires AWG 22, TR 64
48 V model: Flat plug
6.3 x 0.8 mm for ground
conductor
 - **Highlights:** Backward-curved impeller
 - **Weight:** 730 g
- **Possible special versions:**
(See chapter DC fans - specials)
 - Speed signal
 - Go / NoGo alarm
 - Alarm with speed limit
 - External temperature sensor
 - Internal temperature sensor
 - PWM control input
 - Analog control input
 - Moisture protection
 - Salt spray protection
 - Degree of protection: IP 54 / IP 68

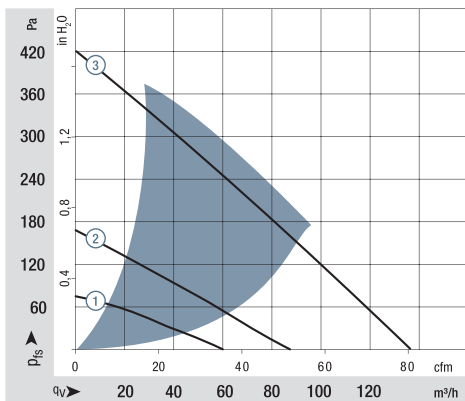
1) Fiberglass-reinforced plastic

Series RG 125 N

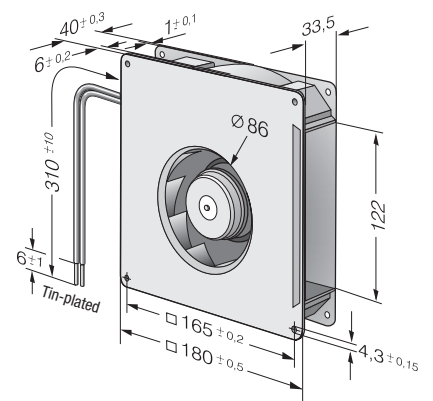
Nominal data

Type	Air flow		Nominal voltage	Voltage range	Sound power level	Sinter sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst standard	Service life L ₁₀ (T _{max}) ebm-papst standard	Life expectancy L ₁₀ (IPC (40 °C) see page 17	Curve
	m ³ /h	cfm											
RG 125-19/12 NM	60.0	35.3	12	7...15	4.8	■	2.0	1 750	-30...+75	70 000 / 30 000	117 500	117 500	①
RG 125-19/12 N	87.5	51.5	12	7...15	5.8	■	5.2	2 550	-30...+75	62 500 / 27 500	105 000	105 000	②
RG 125-19/14 NM	60.0	35.3	24	12...28	4.8	■	2.0	1 750	-30...+75	70 000 / 30 000	117 500	117 500	①
RG 125-19/14 N	87.5	51.5	24	12...28	5.8	■	4.9	2 550	-30...+75	62 500 / 27 500	105 000	105 000	②
RG 125-19/18 N	87.5	51.5	48	36...56	5.8	■	4.8	2 550	-30...+75	62 500 / 27 500	105 000	105 000	②
RG 125-19/18 NH	137	80.6	48	36...56	7.0	■	19.0	4 000	-20...+70	55 000 / 27 500	92 500	92 500	③

Subject to change



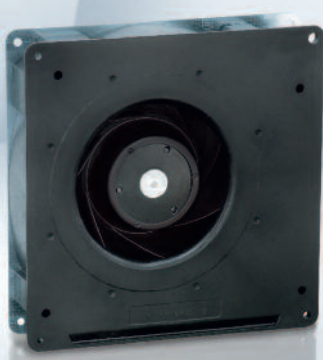
Air performance measured according to: ISO 5801.
Installation category A, without contact protection.
Noise: Total sound power level L_{WA} ISO 103002 measured on a hemisphere with a radius of 2 m.
Sound pressure level L_{pA} measured at 1 m distance from fan axis.
The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions.
In the event of deviation from the standard configuration, the parameters must be checked after installation!
For detailed information see <http://www.ebmpapst.com/general conditions>



Max. 118 m³/h

DC centrifugal fans

□ 180 x 40 mm



- **Material:** Scroll housing: GRP¹⁾
Impeller: GRP¹⁾
Base plate: Sheet steel
 - **Direction of air flow:** Axial: Intake,
Centrifugal: Exhaust
 - **Connection:** via single wires AWG 22, TR 64
 - **Highlights:** Backward-curved impeller
3-phase fan drive with special commutation electronics for extremely low-noise operation
 - **Weight:** 750 g
- **Possible special versions:** (See chapter DC fans - specials)
 - Speed signal
 - Go / No-go alarm
 - Alarm with speed limit
 - External temperature sensor
 - PWM control input
 - Analog control input
 - Multi-option control input
 - Moisture protection
 - Salt spray protection
 - Degree of protection: IP 54

1) Fiberglass-reinforced plastic

Series RG 140 NTD

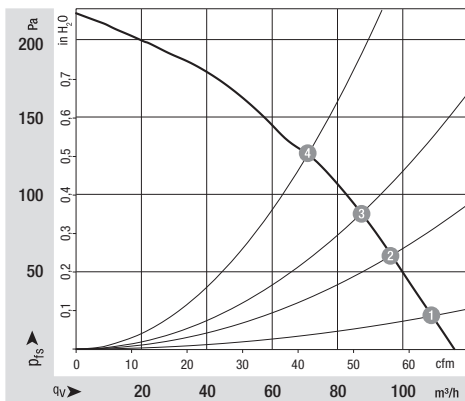
Nominal data

Type	Air flow		Nominal voltage	Voltage range	Sound power level	Sinter sleeve bearings		Power consumption	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst standard	Service life L ₁₀ (T _{max}) ebm-papst standard	Life expectancy L ₁₀ (IPC (40 °C) see page 17	Curve
	m ³ /h	cfm				VDC	VDC							
NEW RG 140-22/14 N/2 TDPU	118	69.4	24	20.4...27.6	6.0	□ / ■	■	9.3	2 500	-20...+70	62 500 / 32 500	105 000	①	

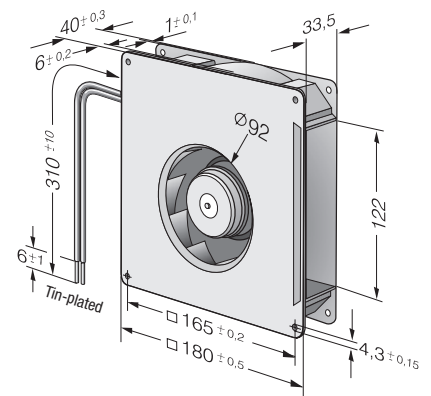
Subject to change

Higher performance levels on request.

	n rpm ⁻¹	P _{ed} W	L _{WA} dB(A)
① ①	2504	9	61
① ②	2504	9	61
① ③	2504	9	62
① ④	2504	9	64



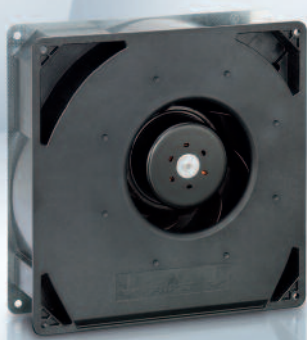
Air performance measured according to: ISO 5801.
Installation category A, without contact protection.
Noise: Total sound power level L_{WA} ISO 103002 measured on a hemisphere with a radius of 2 m.
Sound pressure level L_{pA} measured at 1 m distance from fan axis.
The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions.
In the event of deviation from the standard configuration, the parameters must be checked after installation!
For detailed information see <http://www.ebmpapst.com/general conditions>



Max. 209 m³/h

DC centrifugal fans

□ 220 x 56 mm



- **Material:** Scroll housing: GRP¹⁾
Impeller: GRP¹⁾
Base plate: Sheet steel
 - **Direction of air flow:** Axial: Intake,
Centrifugal: Exhaust
 - **Connection:** Via single wires AWG 22, TR 64
48 V model: Flat plug
6.3 x 0.8 mm for ground conductor
 - **Highlights:** Backward-curved impeller
 - **Weight:** 1.4 kg
- **Possible special versions:**
(See chapter DC fans - specials)
 - Speed signal
 - Go / NoGo alarm
 - Alarm with speed limit
 - External temperature sensor
 - Internal temperature sensor
 - PWM control input
 - Analog control input
 - Moisture protection
 - Salt spray protection
 - Degree of protection: IP 54

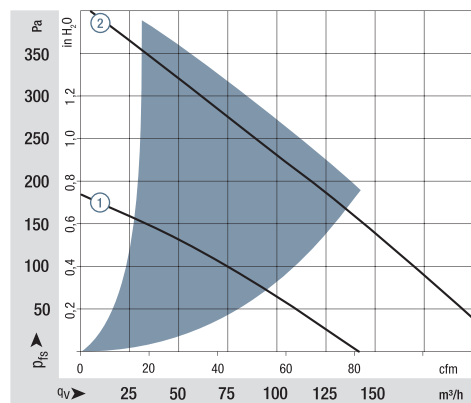
1) Fiberglass-reinforced plastic

Series RG 160 N

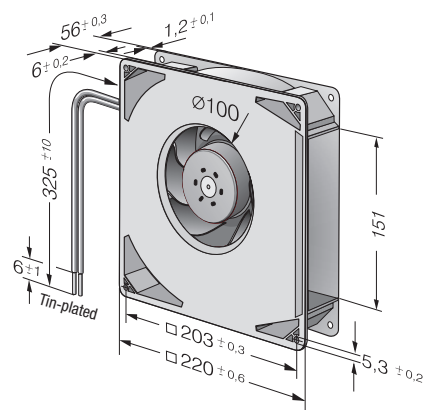
Nominal data

Type	Air flow		Nominal voltage	Voltage range		Sound power level	Sintec sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst standard	Service life L ₁₀ (T _{max}) ebm-papst standard	Life expectancy L ₁₀ IPC (40 °C) see page 17	Curve
	m ³ /h	cfm		VDC	VDC									
RG 160-28/12 NM	139	81	12	7...14	5.6	■	7.5	1 900	-20...+70	80 000 / 40 000	135 000	①		
RG 160-28/12 N	209	123	12	7.5...14	6.6	■	21.0	2 850	-20...+70	70 000 / 35 000	117 500	②		
RG 160-28/14 NM	139	81	24	12...28	5.6	■	7.0	1 900	-20...+70	80 000 / 40 000	135 000	①		
RG 160-28/14 N	209	123	24	12...28	6.6	■	20.0	2 850	-20...+70	70 000 / 35 000	117 500	②		
RG 160-28/18 N	209	123	48	28...60	6.6	■	20.0	2 850	-20...+70	70 000 / 35 000	117 500	②		

Subject to change



Air performance measured according to: ISO 5801.
Installation category A, without contact protection.
Noise: Total sound power level L_{WA} ISO 103002 measured on a hemisphere with a radius of 2 m.
Sound pressure level L_{pA} measured at 1 m distance from fan axis.
The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions.
In the event of deviation from the standard configuration, the parameters must be checked after installation!
For detailed information see <http://www.ebmpapst.com/general conditions>



Max. 444 m³/h

DC centrifugal fans

□ 220 x 56 mm



- **Material:** Scroll housing: GRP¹⁾
Impeller: GRP¹⁾
Base plate: Sheet steel
- **Direction of air flow:** Axial: Intake,
Centrifugal: Exhaust
- **Connection:** Via single wires AWG 22, TR 64
48 V model: Flat plug
6.3 x 0.8 mm for ground
conductor
- **Highlights:** Smoothly operating 3-phase
fan drive
Backward-curved impeller
- **Weight:** 1.4 kg

- **Possible special versions:**
(See chapter DC fans - specials)
 - Speed signal
 - Go / NoGo alarm
 - Alarm with speed limit
 - External temperature sensor
 - Internal temperature sensor
 - PWM control input
 - Analog control input
 - Humidity protection
 - Degree of protection: IP 54

1) Fiberglass-reinforced plastic

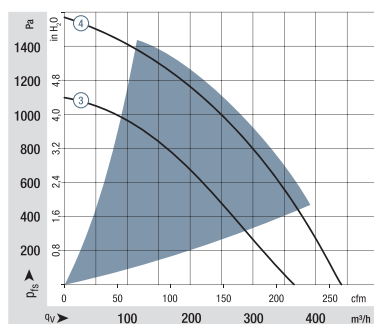
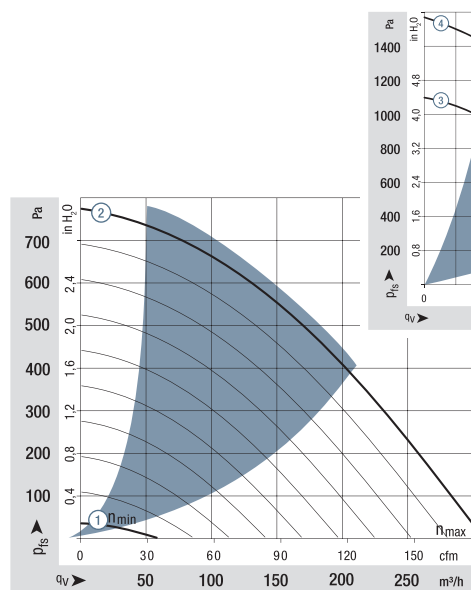
Series RG 160 NTD

Nominal data

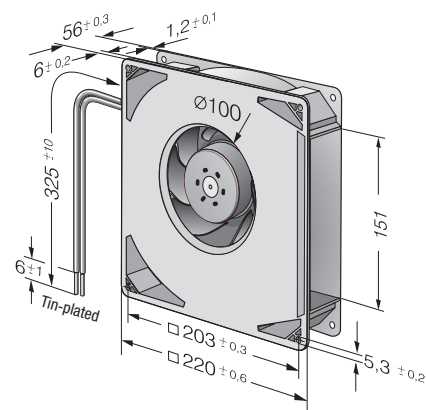
Type	Air flow		Nominal voltage		Voltage range	Sound power level	Sintec sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst standard	Service life L ₁₀ (T _{max}) ebm-papst standard	Life expectancy L ₁₀ (IPC (40 °C) see page 17	Curve
	m ³ /h	cfm	VDC	VDC										
Min. Max. RG 160-28/14 NTD...	59	34.7	24	16...28	—	7.5	■	2.0	800	-20...+60	55 000 / 35 000	92 500	①	
	308	181												②
RG 160-28/14 NTD	308	181	24	16...28	7.5	■	64	4 200	-20...+60	55 000 / 35 000	92 500	②		
RG 160-28/14 NTDH	370	218	24	16...28	7.8	■	101	5 000	-20...+60	50 000 / 32 500	85 000	③		
Min. Max. RG 160-28/18 NTD...	59	34.7	48	38...57	—	7.5	■	2.0	800	-20...+70	55 000 / 27 500	92 500	①	
	308	181												②
RG 160-28/18 N/2 TDHHP*	444	261	48	36...60	8.5	■	159	6 000	-20...+65	40 000 / 22 500	67 500	④		

Subject to change

Models RG 160-28/14 NTD... and RG 160-28/18 NTD... are available in customer-specific, custom-developed variants only. The figures indicated are technically feasible benchmark values. The fans can be specially adapted to your application with signal outputs and control inputs. *The specific service life is valid when an external capacitor is wired between the positive and negative wires. Please note the wiring suggestion.



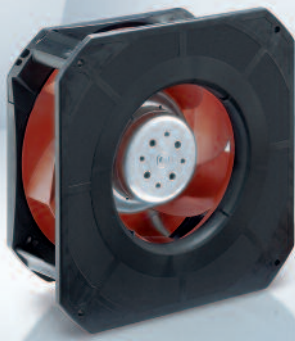
Air performance measured according to: ISO 5801. Installation category A, without contact protection. Noise: Total sound power level L_{WA} ISO 103002 measured on a hemisphere with a radius of 2 m. Sound pressure level L_{pA} measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>



Max. 930 m³/h
S-Force

DC centrifugal fans

□ 226 x 85 mm



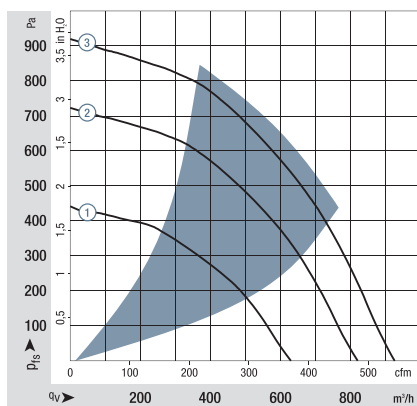
- **Material:** Scroll housing: GRP¹⁾
Impeller: GRP¹⁾
 - **Direction of air flow:** Axial: Intake,
Centrifugal: Exhaust
 - **Direction of rotation:** Clockwise, looking towards rotor
 - **Connection:** via single wires AWG 18, 20 or
AWG 22, TR 64. Speed signal
and control input AWG 22
 - **Highlights:** Highly efficient and smoothly
operating 3-phase fan drive
Backward-curved RadiCal
impeller
 - **Weight:** 1210 g
- **Possible special versions:**
(See chapter DC fans - specials)
 - Speed signal
 - Go / NoGo alarm
 - Alarm with speed limit
 - External temperature sensor
 - Internal temperature sensor
 - PWM control input
 - Analog control input
 - Multi-option control input
 - Moisture protection
 - Salt spray protection
 - Degree of protection: IP 54

¹⁾ Fiberglass-reinforced plastic

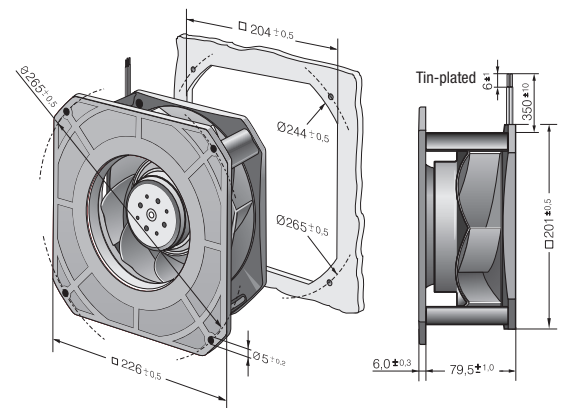
Series RG 190 TD														
Nominal data	Air flow		Nominal voltage	Voltage range		Sound power level	Sintec sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst standard	Service life L ₁₀ (T _{max}) ebm-papst standard	Life expectancy L ₁₀ IPC (40 °C) see page 17	Curve
	Type	m ³ /h		cfm	VDC									
RG 190-39/14/2 TDML0	630	371	24	16...30	7.6	■	54	3 000	-20...+60	55 000 / 35 000	92 500	①		
RG 190-39/14/2 TDMO	820	482	24	16...36	7.9	■	113	3 900	-20...+65	52 500 / 30 000	87 500	②		
RG 190-39/18/2 TDML0*	630	371	48	36...57	7.6	■	52	3 000	-20...+65	55 000 / 30 000	92 500	①		
RG 190-39/18/2 TDMO	820	482	48	36...72	7.9	■	113	3 900	-20...+65	52 500 / 30 000	87 500	②		
RG 190-39/18/2 TDO	930	547	48	36...72	8.3	■	140	4 400	-20...+65	40 000 / 22 500	67 500	③		

Subject to change
* On request

Speed control range from 800 rpm⁻¹ at 7% PWM up to nominal speed at > 90% PWM. Standstill at 0% PWM, Standstill if control cable is interrupted.



Air performance measured according to: ISO 5801. Installation category A, without contact protection. Noise: Total sound power level L_{WA} ISO 103002 measured on a hemisphere with a radius of 2 m. Sound pressure level L_{pA} measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>



Max. 1100 m³/h
S-Force

DC centrifugal fans – RadiCal

□ 270 x 99 mm



- **Material:** Scroll housing: GRP¹⁾
Impeller: GRP¹⁾
- **Direction of air flow:** Axial: Intake,
Centrifugal: Exhaust
- **Direction of rotation:** Clockwise,
looking towards rotor
- **Connection:** via single wires AWG 18, 20 or
AWG 22, TR 64. Speed signal
and control input AWG 22
- **Highlights:** Highly efficient and smoothly
operating 3-phase fan drive
Backward-curved impeller
- **Weight:** 1560 g

- **Possible special versions:**
(See chapter DC fans - specials)
 - Speed signal
 - Go / NoGo alarm
 - Alarm with speed limit
 - External temperature sensor
 - Internal temperature sensor
 - PWM control input
 - Analog control input
 - Humidity protection
 - Salt spray protection
 - Degree of protection: IP 54

1) Fiberglass-reinforced plastic

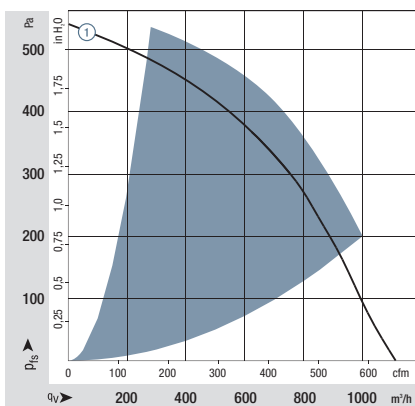
Series RG 220 TD

Nominal data

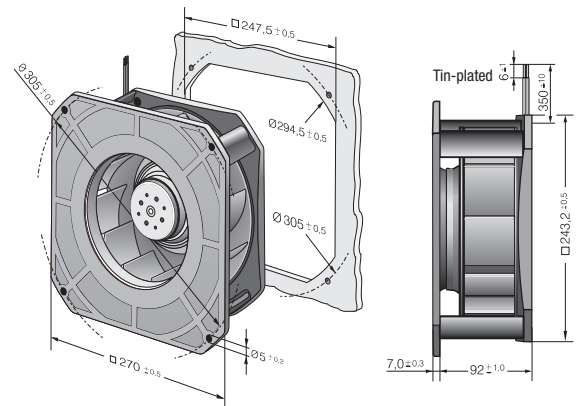
Type	Air flow		Nominal voltage	Voltage range		Sound power level	Sinter sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst standard	Service life L ₁₀ (T _{max}) ebm-papst standard	Life expectancy L ₁₀ (IPC (40 °C) see page 17	Curve
	m ³ /h	cfm		VDC	VDC									
RG 220-43/14/2 TDMO	1100	647	24	16...36	7.5	■	101	3 000	-20...+55	55 000 / 40 000	92 500	①		
RG 220-43/18/2 TDMO*	1100	647	48	36...72	7.5	■	101	3 000	-20...+55	55 000 / 40 000	92 500	①		

Subject to change
* On request

Speed control range from 800 rpm⁻¹ at 7% PWM up to nominal speed at > 90% PWM.
Standstill at 0% PWM, Standstill if control cable is interrupted.
Further types available on request.



Air performance measured according to: ISO 5801.
Installation category A, without contact protection.
Noise: Total sound power level L_{WA} ISO 103002
measured on a hemisphere with a radius of 2 m.
Sound pressure level L_{pA} measured at 1 m distance
from fan axis.
The values given are applicable only under the specified
measuring conditions and may differ depending on the
installation conditions.
In the event of deviation from the standard configuration,
the parameters must be checked after installation!
For detailed information see
<http://www.ebmpapst.com/general conditions>



Max. 1450 m³/h
S-Force

DC centrifugal fans – RadiCal

□ 270 x 119 mm



- **Material:** Scroll housing: GRP¹⁾
Impeller: GRP¹⁾
 - **Direction of air flow:** Axial: Intake, Centrifugal: Exhaust
 - **Direction of rotation:** Clockwise, looking towards rotor
 - **Connection:** via single wires AWG 18, 20 or AWG 22, TR 64. Speed signal and control input AWG 22
 - **Highlights:** Highly efficient and smoothly operating 3-phase fan drive
Backward-curved RadiCal impeller
 - **Weight:** 1750 g
- **Possible special versions:** (See chapter DC fans - specials)
 - Speed signal
 - Go / NoGo alarm
 - Alarm with speed limit
 - External temperature sensor
 - Internal temperature sensor
 - PWM control input
 - Analog control input
 - Humidity protection
 - Salt spray protection
 - Degree of protection: IP 54

1) Fiberglass-reinforced plastic

Series RG 225 TD

Nominal data

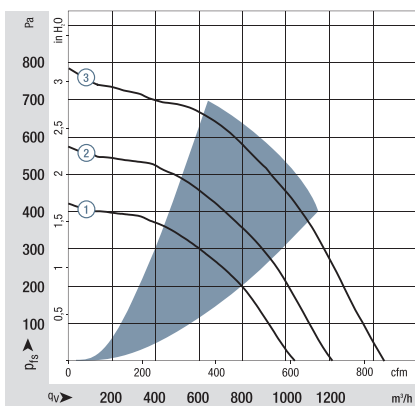
Type	Air flow		Nominal voltage	Voltage range		Sound power level	Sintec sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst standard	Service life L ₁₀ (T _{max}) ebm-papst standard	Life expectancy L ₁₀ IPC (40 °C) see page 17	Curve
	m ³ /h	cfm		VDC	VDC									
RG 225-55/14/2 TDMLO	1090	641	24	16...36	7.4	■	80	2 500	-20...+65	52 500 / 30 000	87 500	①		
RG 225-55/18/2 TDMLO*	1090	641	48	36...72	7.4	■	80	2 500	-20...+65	52 500 / 30 000	87 500	①		
RG 225-55/18/2 TDMO	1210	712	48	36...72	7.9	■	116	2 800	-20...+55	55 000 / 40 000	92 500	②		
RG 225-55/18/2 TDO	1450	853	48	36...60	8.1	■	192	3 300	-20...+40	30 000 / 30 000	50 000	③		

Subject to change

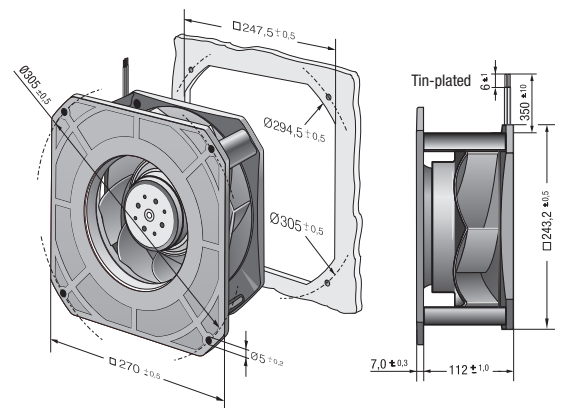
* On request

Speed control range from 800 rpm⁻¹ at 7% PWM up to nominal speed at > 90% PWM. Standstill at 0% PWM, Standstill if control cable is interrupted.

The specific service life is valid when an external capacitor is wired between the positive and negative wires. Please note the wiring suggestion.



Air performance measured according to: ISO 5801. Installation category A, without contact protection. Noise: Total sound power level L_{WA} ISO 103002 measured on a hemisphere with a radius of 2 m. Sound pressure level L_{pA} measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>



Max. 220 m³/h
S-Force

DC centrifugal fans

Ø 97 x 41 mm



- **Material:** Impeller: Galvanized sheet steel
 - **Direction of air flow:** Axial: Intake, Centrifugal: Exhaust
 - **Direction of rotation:** Clockwise, looking towards rotor
 - **Connection:** via single wires AWG 18, 20 or AWG 22, TR 64. Speed signal and control input AWG 22
 - **Highlights:** Highly efficient and smoothly operating 3-phase fan drive Forward-curved impeller Fan requires a scroll housing
 - **Weight:** 430 g
- **Possible special versions:** (See chapter DC fans - specials)
 - Speed signal
 - Go / NoGo alarm
 - Alarm with speed limit
 - External temperature sensor
 - Internal temperature sensor
 - PWM control input
 - Analog control input
 - Moisture protection

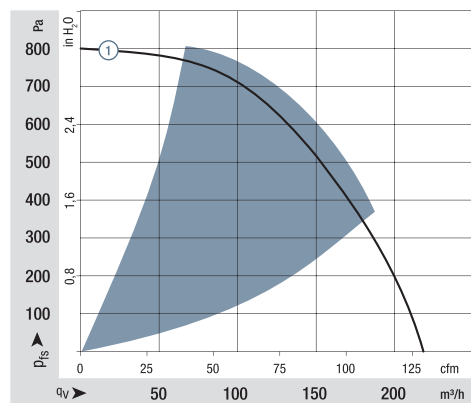
Series RET 97 TD

Nominal data

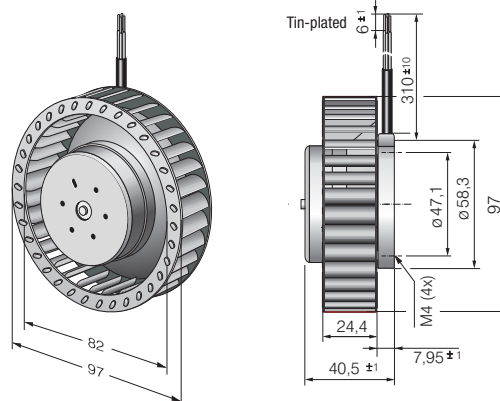
Type	Air flow		Nominal voltage	Voltage range		Sound power level	Sinter sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst standard	Service life L ₁₀ (T _{max}) ebm-papst standard	Life expectancy L ₁₀ (IPC (40 °C) see page 17	Curve
	m ³ /h	cfm		VDC	VDC									
RET 97-25/14/2 TDP	220	129	24	16...32	8.1	■	77	6 000	-20...+60	80 000 / 50 000	135 000	①		
RET 97-25/18/2 TDP	220	129	48	36...60	8.1	■	76	6 000	-20...+60	80 000 / 50 000	135 000	①		

Subject to change

Speed control range from 800 rpm⁻¹ at 7% PWM up to nominal speed at > 90% PWM.
Standstill at 0% PWM, maximum speed if control cable is interrupted.
To attain the specified service life, an external capacitor must be wired between the positive and negative wires. Please note the wiring suggestion.



Air performance measured according to: ISO 5801.
Installation category A, with ebm-papst scroll housing without contact protection.
Noise: Total sound power level L_{WA} ISO 103002 measured on a hemisphere with a radius of 2 m.
Sound pressure level L_{PA} measured at 1 m distance from fan axis.
The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions.
In the event of deviation from the standard configuration, the parameters must be checked after installation!
For detailed information see <http://www.ebmpapst.com/general conditions>



Max. 104 m³/h

DC centrifugal fans

Ø 104 x 25 mm



- **Material:** Impeller: GRP¹⁾
- **Direction of air flow:** Axial: Intake,
Centrifugal: Exhaust
- **Direction of rotation:** Clockwise,
looking towards rotor
- **Connection:** via single wires AWG 22, TR 64
- **Highlights:** Backward-curved impeller
- **Weight:** 160 g

- **Possible special versions:**
(See chapter DC fans - specials)
 - Speed signal
 - Go / NoGo alarm
 - Alarm with speed limit
 - External temperature sensor
 - Internal temperature sensor
 - PWM control input
 - Analog control input
 - Moisture protection
 - Degree of protection: IP 54

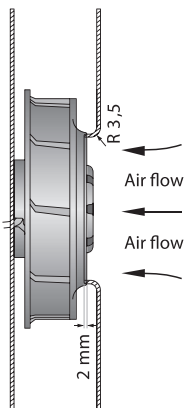
1) Fiberglass-reinforced plastic

Series REF 100

Nominal data

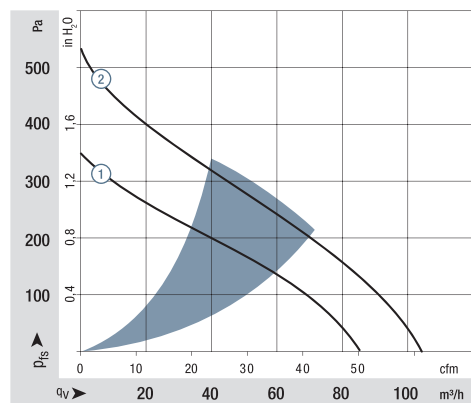
Type	Air flow		Nominal voltage	Voltage range		Sound power level	Sinter sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst standard	Service life L ₁₀ (T _{max}) ebm-papst standard	Life expectancy L ₁₀ IPC (40 °C) see page 17	Curve
	m ³ /h	cfm		VDC	VDC									
REF 100-11/12	86	50.6	12	8...15	6.3	■	7.5	5 400	-20...+75	80 000 / 30 000	135 000	①		
REF 100-11/14	86	50.6	24	16...30	6.3	■	7.5	5 400	-20...+75	80 000 / 30 000	135 000	①		
REF 100-11/18	86	50.6	48	36...60	6.3	■	8.2	5 400	-20...+75	80 000 / 30 000	135 000	①		
REF 100-11/18 H	104	61.2	48	36...56	6.9	■	14.8	6 700	-20...+70	67 500 / 32 500	115 000	②		

Subject to change

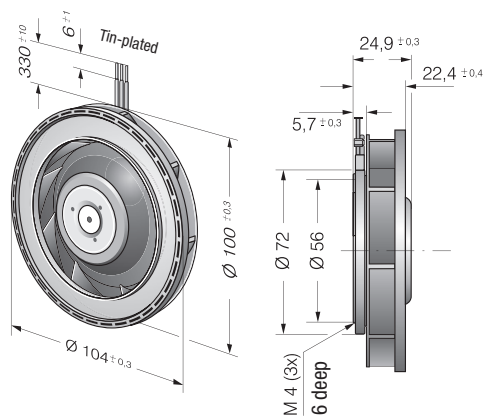


The air flow and sound level of the centrifugal fans without external housing depend on their individual installation conditions.

The stated air flow and sound level were recorded under the following measurement parameters:
Centrifugal fan mounted on a foundation plate 127 x 127 mm.
Cover plate 127 x 127 mm, with an air inlet opening Ø 70 mm, arranged concentrically to the impeller.



Air performance measured according to: ISO 5801.
Installation category A, with ebm-papst inlet ring without contact protection.
Noise: Total sound power level L_{WA} ISO 103002 measured on a hemisphere with a distance of 2 m;
Sound pressure level L_{PA} measured at 1 m distance from fan axis.
The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions.
In the event of deviation from the standard configuration, the parameters must be checked after installation!
For detailed information see <http://www.ebmpapst.com/general-conditions>



Max. 190 m³/h

DC centrifugal fans

Ø 101 x 52 mm



- **Material:** Impeller: GRP¹⁾
 - **Direction of air flow:** Axial: Intake, Centrifugal: Exhaust
 - **Direction of rotation:** Clockwise, looking towards rotor
 - **Connection:** via single wires AWG 22, TR 64
 - **Highlights:** Backward-curved impeller
 - **Weight:** 305 g
- **Possible special versions:** (See chapter DC fans - specials)
 - Speed signal
 - Go / NoGo alarm
 - Alarm with speed limit
 - External temperature sensor
 - Internal temperature sensor
 - PWM control input
 - Analog control input
 - Moisture protection

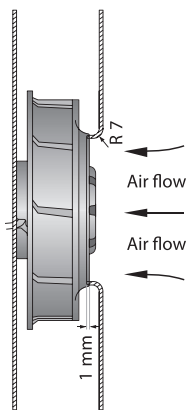
1) Fiberglass-reinforced plastic

Series RER 101 N

Nominal data

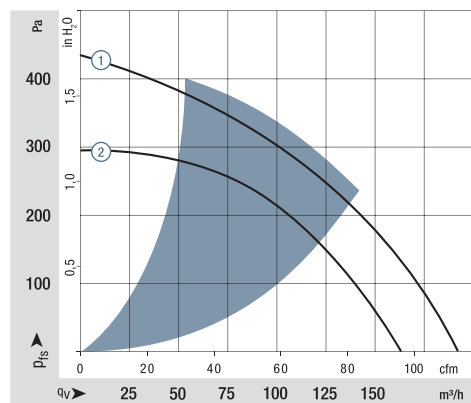
Type	Air flow		Nominal voltage	Voltage range		Sound power level	Sintec sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst standard	Service life L ₁₀ (T _{max}) ebm-papst standard	Life expectancy L ₁₀ (IPC (40 °C) see page 17	Curve
	m ³ /h	cfm		VDC	VDC									
RER 101-36/12 NH	162	95	12	9...13.6	6.9	■	13.0	5 000	-20...+70	65 000 / 32 500	110 000	②		
RER 101-36/12 NHH	190	112	12	9...13.6	7.2	■	20.5	6 000	-20...+70	60 000 / 30 000	102 500	①		
RER 101-36/14 NHH	190	112	24	18...27.2	7.2	■	22.5	6 050	-20...+70	60 000 / 30 000	102 500	①		
RER 101-36/18 NHH	190	112	48	36...60	7.2	■	19.4	5 850	-20...+70	60 000 / 30 000	102 500	①		

Subject to change

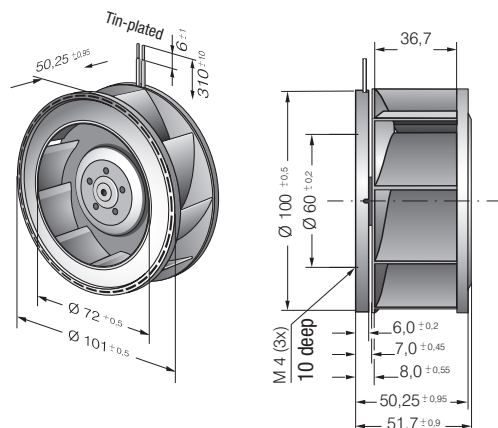


The air flow and sound level of the centrifugal fans without external housing depend on their individual installation conditions.

The stated air flow and sound level were recorded under the following measurement parameters:
Centrifugal fan mounted on a foundation plate 148 x 148 mm.
Cover plate 148 x 148 mm, with an air inlet opening Ø 66 mm, arranged concentrically to the impeller.



Air performance measured according to: ISO 5801.
Installation category A, with ebm-papst inlet ring without contact protection.
Noise: Total sound power level L_{WA} ISO 103002 measured on a hemisphere with a distance of 2 m;
Sound pressure level L_{pA} measured at 1 m distance from fan axis.
The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions.
In the event of deviation from the standard configuration, the parameters must be checked after installation!
For detailed information see <http://www.ebmpapst.com/general-conditions>



Max. 390 m³/h
S-Force

DC centrifugal fans

Ø 120 x 54 mm



- **Material:** Impeller: GRP¹⁾
- **Direction of air flow:** Axial: Intake, Centrifugal: Exhaust
- **Direction of rotation:** Clockwise, looking towards rotor
- **Connection:** via single wires AWG 18, 20 or AWG 22, TR 64. Speed signal and control input AWG 22
- **Highlights:** Highly efficient and smoothly operating 3-phase fan drive Backward-curved impeller
- **Weight:** 430 g

1) Fiberglass-reinforced plastic

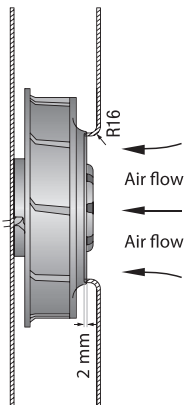
Series RER 120 TD

Nominal data	Air flow		Nominal voltage	Voltage range		Sound power level	Sinter sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst standard	Service life L ₁₀ (T _{max}) ebm-papst standard	Life expectancy L ₁₀ IPC (40 °C) see page 17	Curve
	m ³ /h	cfm		VDC	VDC									
RER 120-26/14/2 TDMP*	320	188	24	16...32	tbd	■	51	5 200	-20...+60	60 000 / 37 500	102 500	①		
RER 120-26/14/2 TDP	377	222	24	16...32	8.2	■	78	6 100	-20...+60	55 000 / 35 000	92 500	②		
RER 120-26/18/2 TDMP*	320	188	48	36...60	tbd	■	51	5 200	-20...+60	57 500 / 35 000	97 500	①		
RER 120-26/18/2 TDP	390	230	48	36...60	8.3	■	92	6 300	-20...+60	50 000 / 30 000	85 000	③		

Subject to change

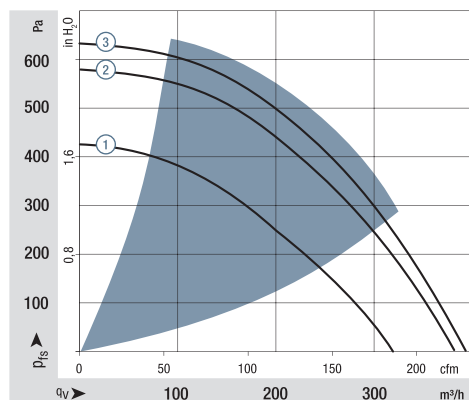
* On request

Speed control range from 800 rpm⁻¹ at 7% PWM up to nominal speed at > 90% PWM. Standstill at 0% PWM, maximum speed if control cable is interrupted.
The specific service life is valid when an external capacitor is wired between the positive and negative wires. Please note the wiring suggestion.

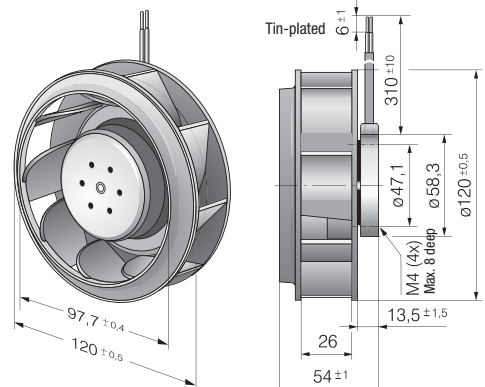


The air flow and sound level of the centrifugal fans without external housing depend on their individual installation conditions.

The stated air flow and sound level were recorded under the following measurement parameters:
Centrifugal fan mounted on a foundation plate 140 x 140 mm.
Cover plate 140 x 140 mm, with an air inlet opening Ø 94.4 mm, arranged concentrically to the impeller.



Air performance measured according to: ISO 5801.
Installation category A, with ebm-papst inlet ring without contact protection.
Noise: Total sound power level L_{WA} ISO 103002 measured on a hemisphere with a distance of 2 m;
Sound pressure level L_{PA} measured at 1 m distance from fan axis.
The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions.
In the event of deviation from the standard configuration, the parameters must be checked after installation!
For detailed information see http://www.ebmpapst.com/general_conditions





Max. 250 m³/h

DC centrifugal fans

Ø 120 mm



- **Material:** Impeller: PA 6.6 plastic, fiberglass-reinforced
Rotor: Galvanized
- **Number of blades:** 9
- **Direction of rotation:** Clockwise, looking towards rotor
- **Degree of protection:** IP 20
- **Insulation class:** "B"
- **Installation position:** Any
- **Condensation drainage holes:** None
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

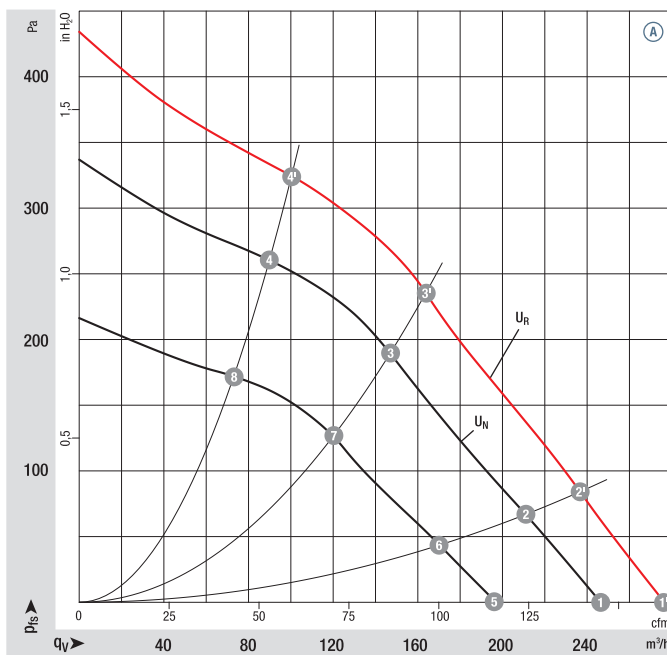
Nominal data		Curve	Nominal voltage	Nominal voltage range	Air flow	Nominal speed	Power consumption	Input current	Sound pressure level	Admissible amb. temp.	Technical features and connection diagram
Type	Motor	VDC	VDC	m ³ /h	rpm ⁻¹	W	A	dB(A)	°C		
R1G 120	M1G045-BE	Ⓐ	24	16-28	250	4060	26	1.20	62	-25..+50	p. 259 / G)
R1G 120	M1G045-BE	Ⓐ	48	36-57	250	4060	26	0.60	62	-25..+50	p. 259 / G)

Subject to change

Curves:

U_N = nominal voltage
(24 V / 48 V)

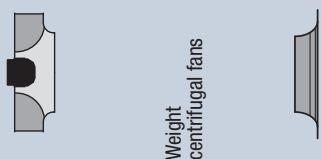
U_R = over-voltage
(28 V / 57 V)



	n	P _{ed}	L _{pA}	η _{HL}
	rpm ⁻¹	W	dB(A)	%
Ⓐ 1'	4520	36	65	—
Ⓐ 2'	4500	36	64	27
Ⓐ 3'	4540	36	61	45
Ⓐ 4'	4750	32	64	39
Ⓐ 1	4060	26	62	—
Ⓐ 2	4000	26	61	27
Ⓐ 3	4050	26	58	45
Ⓐ 4	4200	23	61	39
Ⓐ 5	3270	14	56	—
Ⓐ 6	3250	14	55	27
Ⓐ 7	3280	14	53	45
Ⓐ 8	3400	13	56	39

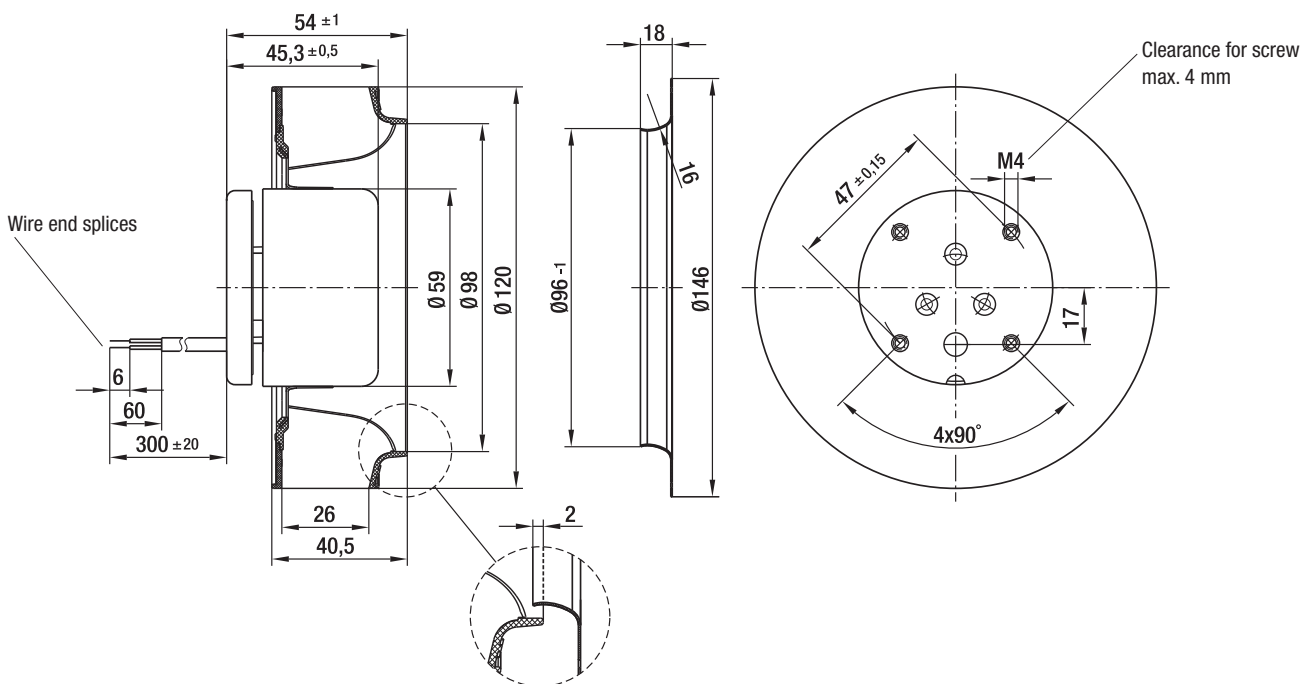
Air performance measured according to: ISO 5801, installation category A, with ebm-papst inlet ring without contact protection. Suction-side noise levels: LWA according to ISO 13347, L_{pA} measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

- **Technical features:** See connection diagram p. 259
- **Cable exit:** Axial
- **Conformity with standard(s):** EN 60950-1
- **Approvals:** EAC



Weight centrifugal fans

Centrifugal fans	kg	Inlet ring (long)
R1G 120-AD13 -02	0.5	96120-2-4013
R1G 120-AD11 -02	0.5	96120-2-4013



Max. 166 m³/h

DC centrifugal fans

Ø 138 x 35 mm

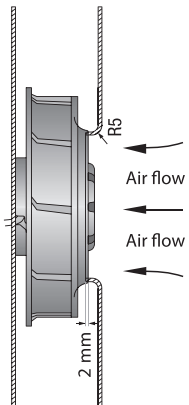


- **Material:** Impeller: GRP¹⁾
 - **Direction of air flow:** Axial: Intake, Centrifugal: Exhaust
 - **Direction of rotation:** Clockwise, looking towards rotor
 - **Connection:** via single wires AWG 22, TR 64
 - **Highlights:** Backward-curved impeller
 - **Weight:** 320 g
- **Possible special versions:** (See chapter DC fans - specials)
 - Speed signal
 - Go / NoGo alarm
 - Alarm with speed limit
 - External temperature sensor
 - Internal temperature sensor
 - PWM control input
 - Analog control input
 - Moisture protection
 - Salt spray protection
 - Degree of protection: IP 54 / IP 68

1) Fiberglass-reinforced plastic

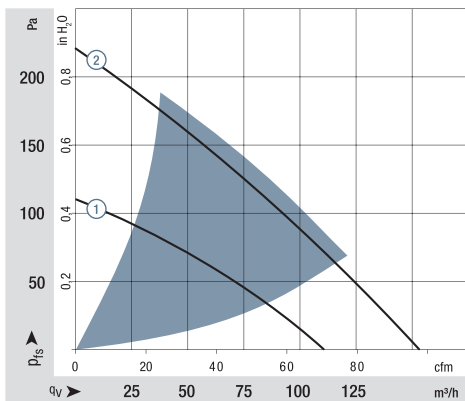
Series RER 125 N													
Nominal data	Air flow		Nominal voltage	Voltage range	Sound power level	Sinter sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst standard	Service life L ₁₀ (T _{max}) ebm-papst standard	Life expectancy L ₁₀ (IPC) (40 °C) see page 17	Curve
	m ³ /h	cfm											
RER 125-19/12 N	110	64.7	12	7...15	5.7	■	4.6	2 650	-30...+75	62 500 / 27 500	105 000	①	
RER 125-19/14 N	110	64.7	24	12...28	5.7	■	4.3	2 650	-30...+75	62 500 / 27 500	105 000	①	
RER 125-19/14 NH	166	97.7	24	12...28	7.0	■	13.0	4 000	-20...+70	55 000 / 27 500	92 500	②	
RER 125-19/18 N	110	64.7	48	36...56	5.7	■	4.2	2 650	-30...+75	62 500 / 27 500	105 000	①	

Subject to change

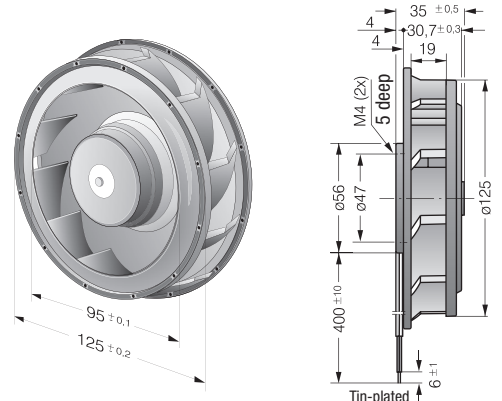


The air flow and sound level of the centrifugal fans without external housing depend on their individual installation conditions.

The stated air flow and sound level were recorded under the following measurement parameters:
Centrifugal fan mounted on a foundation plate 220 x 220 mm.
Cover plate 220 x 220 mm, with an air inlet opening Ø 86 mm, arranged concentrically to the impeller.



Air performance measured according to: ISO 5801.
Installation category A, with ebm-papst inlet ring without contact protection.
Noise: Total sound power level L_{WA} ISO 103002 measured on a hemisphere with a distance of 2 m;
Sound pressure level L_{PA} measured at 1 m distance from fan axis.
The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions.
In the event of deviation from the standard configuration, the parameters must be checked after installation!
For detailed information see <http://www.ebmpapst.com/general-conditions>



Max. 565 m³/h
S-Force

DC centrifugal fans

Ø 133 x 91 mm



- **Material:** Impeller: GRP¹⁾
 - **Direction of air flow:** Axial: Intake, Centrifugal: Exhaust
 - **Direction of rotation:** Clockwise, looking towards rotor
 - **Connection:** via single wires AWG 18, 20 or AWG 22, TR 64. Speed signal and control input AWG 22
 - **Highlights:** Highly efficient and smoothly operating 3-phase fan drive Backward-curved impeller
 - **Weight:** 890 g
- **Possible special versions:** (See chapter DC fans - specials)
 - Speed signal
 - Go / NoGo alarm
 - Alarm with speed limit
 - External temperature sensor
 - Internal temperature sensor
 - PWM control input
 - Analog control input
 - Multi-option control input
 - Moisture protection
 - Salt spray protection
 - Degree of protection: IP 54

1) Fiberglass-reinforced plastic

Series RER 133 TD

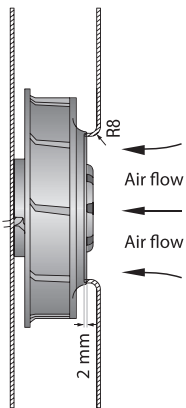
Nominal data

Type	Air flow		Nominal voltage	Voltage range		Sound power level	Sinter sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst standard	Service life L ₁₀ (T _{max}) ebm-papst standard	Life expectancy L ₁₀ IPC (40 °C) see page 17	Curve
	m ³ /h	cfm		VDC	VDC									
RER 133-41/14/2 TDMP	460	271	24	16...30	tbd	■	58	5 000	-20...+65	72 500 / 40 000	122 500	①		
RER 133-41/14/2 TDP*	565	332	24	16...36	tbd	■	90	6 000	-20...+65	70 000 / 37 500	117 500	②		
RER 133-41/18/2 TDMP*	460	271	48	36...57	tbd	■	50	5 000	-20...+65	72 500 / 40 000	122 500	①		
RER 133-41/18/2 TDP	565	332	48	36...72	8.2	■	87	6 000	-20...+65	70 000 / 37 500	117 500	②		

Subject to change

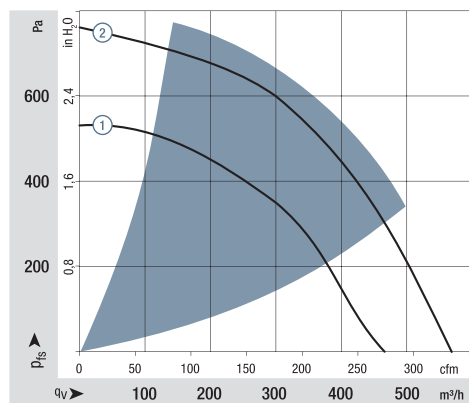
* On request

Speed control range from 800 rpm⁻¹ at 7% PWM up to nominal speed at > 90% PWM. Standstill at 0% PWM, maximum speed if control cable is interrupted.

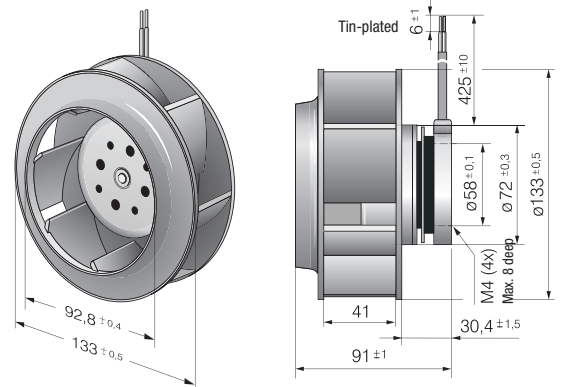


The air flow and sound level of the centrifugal fans without external housing depend on their individual installation conditions.

The stated air flow and sound level were recorded under the following measurement parameters:
Centrifugal fan mounted on a foundation plate 140 x 140 mm.
Cover plate 140 x 140 mm, with an air inlet opening Ø 87 mm, arranged concentrically to the impeller.



Air performance measured according to: ISO 5801. Installation category A, with ebm-papst inlet ring without contact protection.
Noise: Total sound power level L_{WA} ISO 103002 measured on a hemisphere with a distance of 2 m;
Sound pressure level L_{pA} measured at 1 m distance from fan axis.
The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions.
In the event of deviation from the standard configuration, the parameters must be checked after installation!
For detailed information see <http://www.ebmpapst.com/general conditions>



Max. 255 m³/h

DC centrifugal fans

Ø 165 x 51 mm



- **Material:** Impeller: GRP¹⁾
 - **Direction of air flow:** Axial: Intake,
Centrifugal: Exhaust
 - **Direction of rotation:** Counterclockwise,
looking towards rotor
 - **Connection:** via single wires AWG 22, TR 64
 - **Highlights:** Backward-curved impeller
 - **Weight:** 590 g
- **Possible special versions:**
(See chapter DC fans - specials)
 - Speed signal
 - Go / NoGo alarm
 - Alarm with speed limit
 - External temperature sensor
 - Internal temperature sensor
 - PWM control input
 - Analog control input
 - Moisture protection
 - Salt spray protection
 - Degree of protection: IP 54

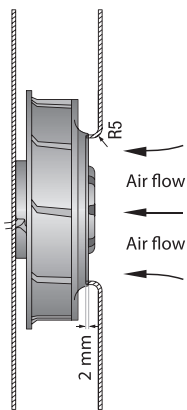
1) Fiberglass-reinforced plastic

Series RER 160 N

Nominal data

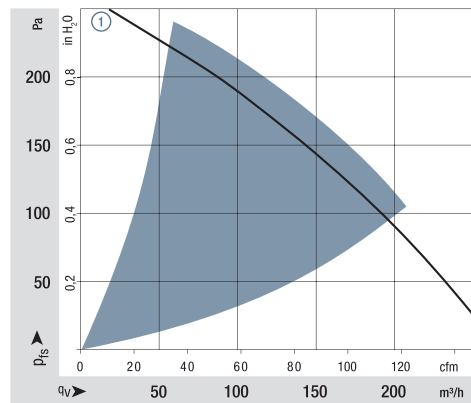
Type	Air flow		Nominal voltage	Voltage range	Sound power level	Sinter sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst standard	Service life L ₁₀ (T _{max}) ebm-papst standard	Life expectancy L ₁₀ (IPC (40 °C) see page 17	Curve
	m ³ /h	cfm											
RER 160-28/12 N	255	150	12	7...14	6.4	■	19.0	3 000	-20...+70	75 000 / 37 500	127 500	①	
RER 160-28/14 N	255	150	24	12...28	6.4	■	19.0	3 000	-20...+70	75 000 / 37 500	127 500	①	
RER 160-28/18 N	255	150	48	28...60	6.4	■	19.0	3 000	-20...+70	75 000 / 37 500	127 500	①	

Subject to change

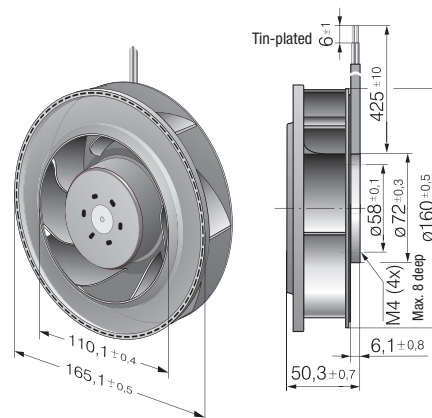


The air flow and sound level of the centrifugal fans without external housing depend on their individual installation conditions.

The stated air flow and sound level were recorded under the following measurement parameters:
Centrifugal fan mounted on a foundation plate
260 x 260 mm.
Cover plate 260 x 260 mm, with an air inlet opening
Ø 100 mm, arranged concentrically to the impeller.



Air performance measured according to: ISO 5801.
Installation category A, with ebm-papst inlet ring without contact protection.
Noise: Total sound power level L_{WA} ISO 103002 measured on a hemisphere with a distance of 2 m;
Sound pressure level L_{PA} measured at 1 m distance from fan axis.
The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions.
In the event of deviation from the standard configuration, the parameters must be checked after installation!
For detailed information see <http://www.ebmpapst.com/general-conditions>



Max. 360 m³/h
S-Force

DC centrifugal fans

Ø 165 x 51 mm



- **Material:** Impeller: GRP¹⁾
 - **Direction of air flow:** Axial: Intake, Centrifugal: Exhaust
 - **Direction of rotation:** Clockwise, looking towards rotor
 - **Connection:** via single wires AWG 22, TR 64
 - **Highlights:** Highly efficient and smoothly operating 3-phase fan drive
Backward-curved impeller
 - **Weight:** 590 g
- **Possible special versions:** (See chapter DC fans - specials)
 - Speed signal
 - Go / NoGo alarm
 - Alarm with speed limit
 - External temperature sensor
 - Internal temperature sensor
 - PWM control input
 - Analog control input
 - Humidity protection
 - Degree of protection: IP 54

1) Fiberglass-reinforced plastic

Series RER 160 NTD

Nominal data

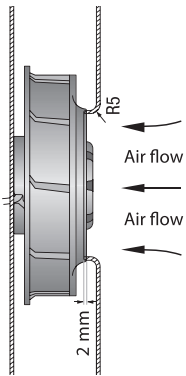
Type	Air flow		Nominal voltage	Voltage range		Sound power level	Sinter sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst standard	Service life L ₁₀ (T _{max}) ebm-papst standard	Life expectancy L ₁₀ IPC (40 °C) see page 17	Curve
	m ³ /h	cfm		VDC	VDC									
RER 160-28/14 NTD...	360	211	24	16...28	7.4	■	51	4 200	-20...+60	55 000 / 27 500	92 500	②		
RER 160-28/18 NTD...	360	211	48	38...57	7.4	■	48	4 200	-20...+70	55 000 / 27 500	92 500	①		

Subject to change

Model RER 160-28/18 NTD... is available in customer-specific, custom-developed variant only.

The figures indicated are technically feasible benchmark values. The fans can be specially adapted to your application with signal outputs and control inputs.

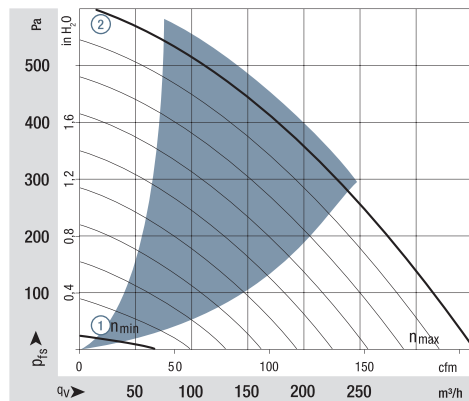
* The specific service life is valid when an external capacitor is wired between the positive and negative wires. Please note the wiring suggestion.



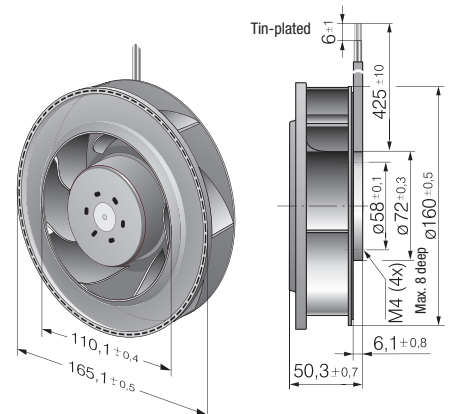
The air flow and sound level of the centrifugal fans without external housing depend on their individual installation conditions.

The stated air flow and sound level were recorded under the following measurement parameters:
Centrifugal fan mounted on a foundation plate 260 x 260 mm.

Cover plate 260 x 260 mm, with an air inlet opening Ø 100 mm, arranged concentrically to the impeller.



Air performance measured according to: ISO 5801.
Installation category A, with ebm-papst inlet ring without contact protection.
Noise: Total sound power level L_{WA} ISO 103002 measured on a hemisphere with a distance of 2 m;
Sound pressure level L_{pA} measured at 1 m distance from fan axis.
The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions.
In the event of deviation from the standard configuration, the parameters must be checked after installation!
For detailed information see <http://www.ebmpapst.com/general conditions>



Max. 800 m³/h
S-Force

DC centrifugal fans

Ø 175 x 55 mm



- **Material:** Impeller: Galvanized sheet steel
 - **Direction of air flow:** Axial: Intake, Centrifugal: Exhaust
 - **Direction of rotation:** Clockwise, looking towards rotor
 - **Connection:** via single wires AWG 18, 20 or AWG 22, TR 64. Speed signal and control input AWG 22
 - **Highlights:** Highly efficient and smoothly operating 3-phase fan drive Backward-curved impeller
 - **Weight:** 930 g
- **Possible special versions:** (See chapter DC fans - specials)
 - Speed signal
 - Go / NoGo alarm
 - Alarm with speed limit
 - External temperature sensor
 - Internal temperature sensor
 - PWM control input
 - Analog control input
 - Multi-option control input
 - Humidity protection
 - Degree of protection: IP 54

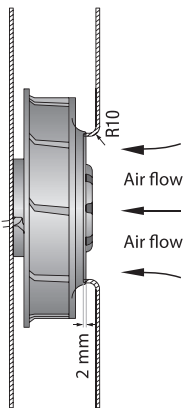
Series RER 175 TD

Nominal data

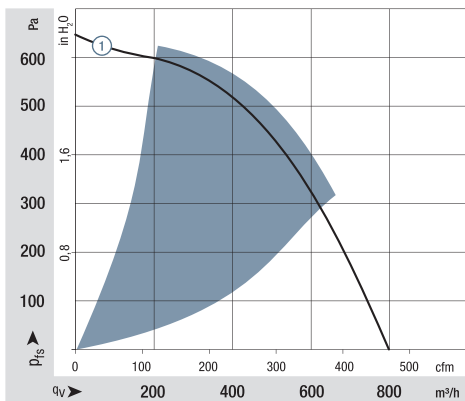
Type	Air flow		Nominal voltage	Voltage range		Sound power level	Sintec sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst standard	Service life L ₁₀ (T _{max}) ebm-papst standard	Life expectancy L ₁₀ (IPC (40 °C) see page 17	Curve
	m ³ /h	cfm		VDC	VDC									
REF 175-30/18/2 TDP	800	470	48	36 ... 72	8.3	■	144	4 400	-20...+60	65 000 / 37 500	110 000	①		

Subject to change

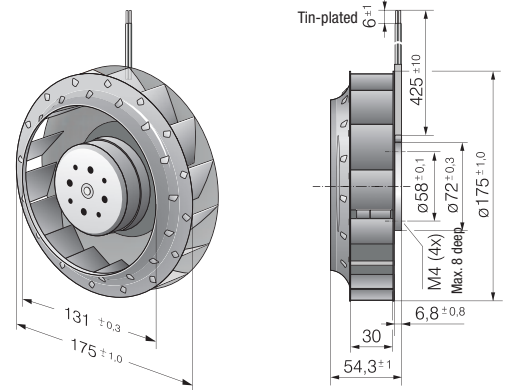
Speed control range from 800 rpm⁻¹ at 7% PWM up to nominal speed at > 90% PWM. Standstill at 0% PWM, maximum speed if control cable is interrupted.



The air flow and sound level of the centrifugal fans without external housing depend on their individual installation conditions. The stated air flow and sound level were recorded under the following measurement parameters:
Centrifugal fan mounted on a foundation plate 180 x 180 mm.
Cover plate 180 x 180 mm, with an air inlet opening Ø 125.5 mm, arranged concentrically to the impeller.



Air performance measured according to: ISO 5801. Installation category A, with ebm-papst inlet ring without contact protection.
Noise: Total sound power level L_{WA} ISO 103002 measured on a hemisphere with a distance of 2 m; Sound pressure level L_{PA} measured at 1 m distance from fan axis.
The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions.
In the event of deviation from the standard configuration, the parameters must be checked after installation!
For detailed information see <http://www.ebmpapst.com/general conditions>



Max. 980 m³/h
S-Force

DC centrifugal fans

Ø 175 x 69 mm



- **Material:** Impeller: GRP¹⁾
 - **Direction of air flow:** Axial: Intake, Centrifugal: Exhaust
 - **Direction of rotation:** Clockwise, looking towards rotor
 - **Connection:** Via single wires AWG 18, 20 or AWG 22, TR 64, speed signal and control input AWG 22
 - **Highlights:** Highly efficient and smoothly operating 3-phase fan drive Backward-curved impeller
 - **Weight:** 775 g
- Possible special versions:**
(See chapter DC fans - specials)
- Speed signal
 - Go / NoGo alarm
 - Alarm with speed limit
 - External temperature sensor
 - Internal temperature sensor
 - PWM control input
 - Analog control input
 - Multi-option control input
 - Moisture protection
 - Salt spray protection
 - Degree of protection: IP 54

1) Fiberglass-reinforced plastic

Series RER 175 TD

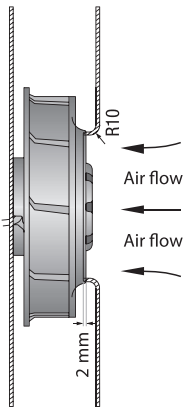
Nominal data

Type	Air flow		Nominal voltage	Voltage range		Sound power level	Sinter sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst standard	Service life L ₁₀ (T _{max}) ebm-papst standard	Life expectancy L ₁₀ IPC (40 °C) see page 17	Curve
	m ³ /h	cfm		VDC	VDC									
RER 175-42/14/2 TDMLP	600	353	24	16...30	7.3	■	48	3 400	-20...+65	72 500 / 40 000	122 500	①		
RER 175-42/14/2 TDMP	865	509	24	16...36	8.2	■	110	4 800	-20...+65	70 000 / 40 000	117 500	②		
RER 175-42/18/2 TDMLP	600	353	48	36...57	7.3	■	46	3 400	-20...+65	72 500 / 40 000	122 500	①		
RER 175-42/18/2 TDMP*	865	509	48	36...72	8.2	■	110	4 800	-20...+65	70 000 / 40 000	117 500	②		
RER 175-42/18/2 TDP	980	577	48	36...72	8.5	■	166	5 400	-20...+65	60 000 / 32 500	102 500	③		

Subject to change

* On request

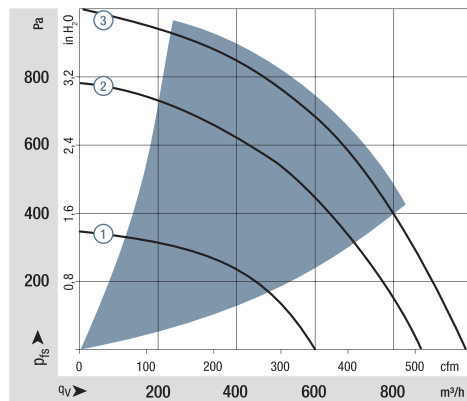
Speed control range from 800 rpm⁻¹ at 7% PWM up to nominal speed at > 90% PWM.
Standstill at 0% PWM, maximum speed if control cable is interrupted.



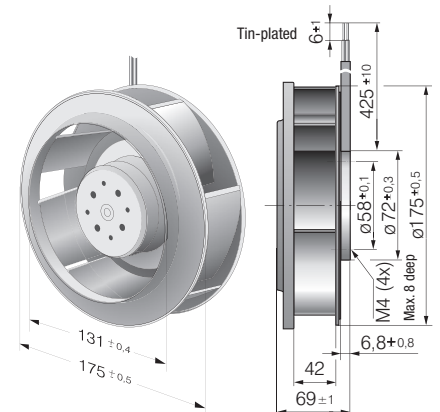
The air flow and sound level of the centrifugal fans without external housing depend on their individual installation conditions.

The stated air flow and sound level were recorded under the following measurement parameters:
Centrifugal fan mounted on a foundation plate
180 x 180 mm.

Cover plate 180 x 180 mm, with an air inlet opening
Ø 125.5 mm, arranged concentrically to the impeller.



Air performance measured according to: ISO 5801.
Installation category A, with ebm-papst inlet ring without contact protection.
Noise: Total sound power level L_{WA} ISO 103002 measured on a hemisphere with a distance of 2 m;
Sound pressure level L_{PA} measured at 1 m distance from fan axis.
The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions.
In the event of deviation from the standard configuration, the parameters must be checked after installation!
For detailed information see
<http://www.ebmpapst.com/general-conditions>



Max. 970 m³/h
S-Force

DC centrifugal fans – RadiCal

Ø 190 x 69 mm



- **Material:** Impeller: GRP¹⁾
 - **Direction of air flow:** Axial: Intake, Centrifugal: Exhaust
 - **Direction of rotation:** Clockwise, looking towards rotor
 - **Connection:** Via single wires AWG 18, 20 or AWG 22, TR 64, speed signal and control input AWG 22
 - **Highlights:** Highly efficient and smoothly operating 3-phase fan drive Backward-curved RadiCal impeller
 - **Weight:** 870 g
- **Possible special versions:** (See chapter DC fans - specials)
 - Speed signal
 - Go / NoGo alarm
 - Alarm with speed limit
 - External temperature sensor
 - Internal temperature sensor
 - PWM control input
 - Analog control input
 - Multi-option control input
 - Moisture protection
 - Salt spray protection
 - Degree of protection: IP 54

1) Fiberglass-reinforced plastic

Series RER 190 TD

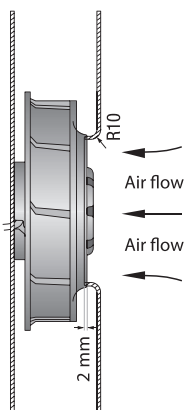
Nominal data

Type	Air flow		Nominal voltage	Voltage range		Sound power level	Sintec sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst standard	Service life L ₁₀ (T max) ebm-papst standard	Life expectancy L ₁₀ (IPC (40 °C) see page 17	Curve
	m ³ /h	cfm		VDC	VDC									
RER 190-39/14/2 TDML0	650	382	24	16...30	7.6	■	58	3 000	-20...+60	55 000 / 35 000	92 500	①		
RER 190-39/14/2 TDM0	860	506	24	16...36	7.9	■	110	3 900	-20...+65	52 500 / 30 000	87 500	②		
RER 190-39/18/2 TDML0*	650	382	48	36...57	7.6	■	56	3 000	-20...+65	55 000 / 30 000	92 500	①		
RER 190-39/18/2 TDM0*	860	506	48	36...72	7.9	■	105	3 900	-20...+65	52 500 / 30 000	87 500	②		
RER 190-39/18/2 TD0	970	571	48	36...72	8.3	■	148	4 400	-20...+65	40 000 / 22 500	67 500	③		

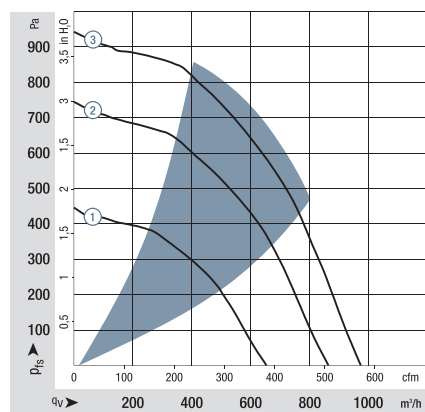
Subject to change

* On request

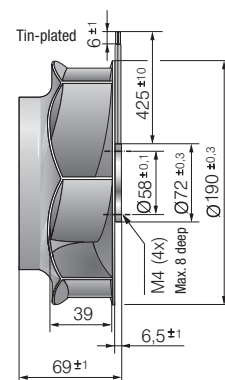
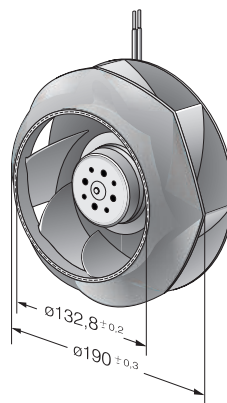
Speed control range from 800 rpm⁻¹ at 7% PWM up to nominal speed at > 90% PWM.
Standstill at 0% PWM, Standstill if control cable is interrupted.



The air flow and sound level of the centrifugal fans without external housing depend on their individual installation conditions.
The stated air flow and sound level were recorded under the following measurement parameters:
Centrifugal fan mounted on a foundation plate 195 x 195 mm.
Cover plate 195 x 195 mm, with an air inlet opening Ø 125.5 mm, arranged concentrically to the impeller.



Air performance measured according to: ISO 5801.
Installation category A, with ebm-papst inlet ring without contact protection.
Noise: Total sound power level L_{WA}
ISO 103002 measured on a hemisphere with a distance of 2 m;
Sound pressure level L_{pA} measured at 1 m distance from fan axis.
The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions.
In the event of deviation from the standard configuration, the parameters must be checked after installation!
For detailed information see
<http://www.ebmpapst.com/general conditions>

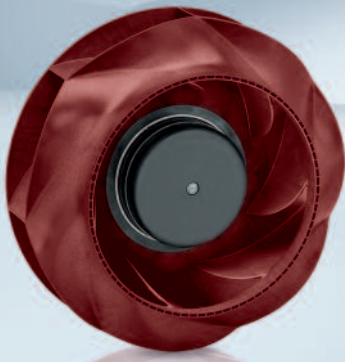




Max. 930 m³/h

DC centrifugal fans – RadiCal

Ø 190 mm

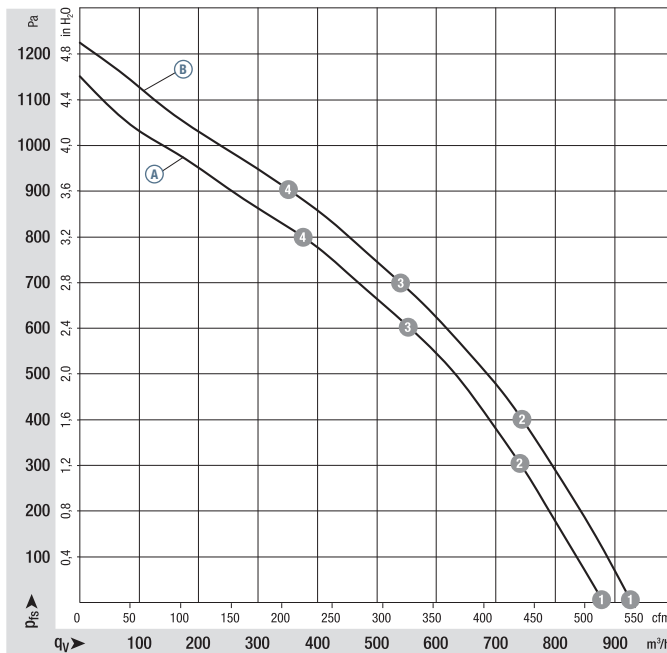


- **Material:** Impeller: PA plastic
Rotor: Painted black
- **Number of blades:** 7
- **Direction of rotation:** Clockwise, looking towards rotor
- **Degree of protection:** IP 44, depending on installation and position
- **Insulation class:** "B"
- **Installation position:** Any
- **Condensation drainage holes:** None
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

Nominal data		Curve	Nominal voltage	Nominal voltage range	Air flow	Nominal speed	Power consumption	Input current	Sound pressure level	Admissible amb. temp.	Technical features and connection diagram
Type	Motor	VDC	VDC	m ³ /h	rpm ⁻¹	W	A	dB(A)	°C		
R3G 190	M3G 074-CF	Ⓐ	24	16-28	880	4570	180	7.50	76	-25..+60	p. 262 / J5)
R3G 190	M3G 074-CF	Ⓑ	48	36-57	930	4800	192	4.00	76	-25..+60	p. 262 / J5)

Subject to change

Curves:



	n	P _{ed}	I	L _{WA}
	rpm ⁻¹	W	A	dB(A)
Ⓐ 1	4570	180	7.50	84
Ⓐ 2	4525	188	7.83	79
Ⓐ 3	4435	199	8.34	77
Ⓐ 4	4520	191	7.96	81
Ⓑ 1	4800	192	4.00	84
Ⓑ 2	4690	212	4.41	80
Ⓑ 3	4640	221	4.60	79
Ⓑ 4	4740	205	4.28	81

Air performance measured according to: ISO 5801, Installation category A, with ebm-papst inlet ring without contact protection. Suction-side noise levels: LWA according to ISO 13347, L_{vA} measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

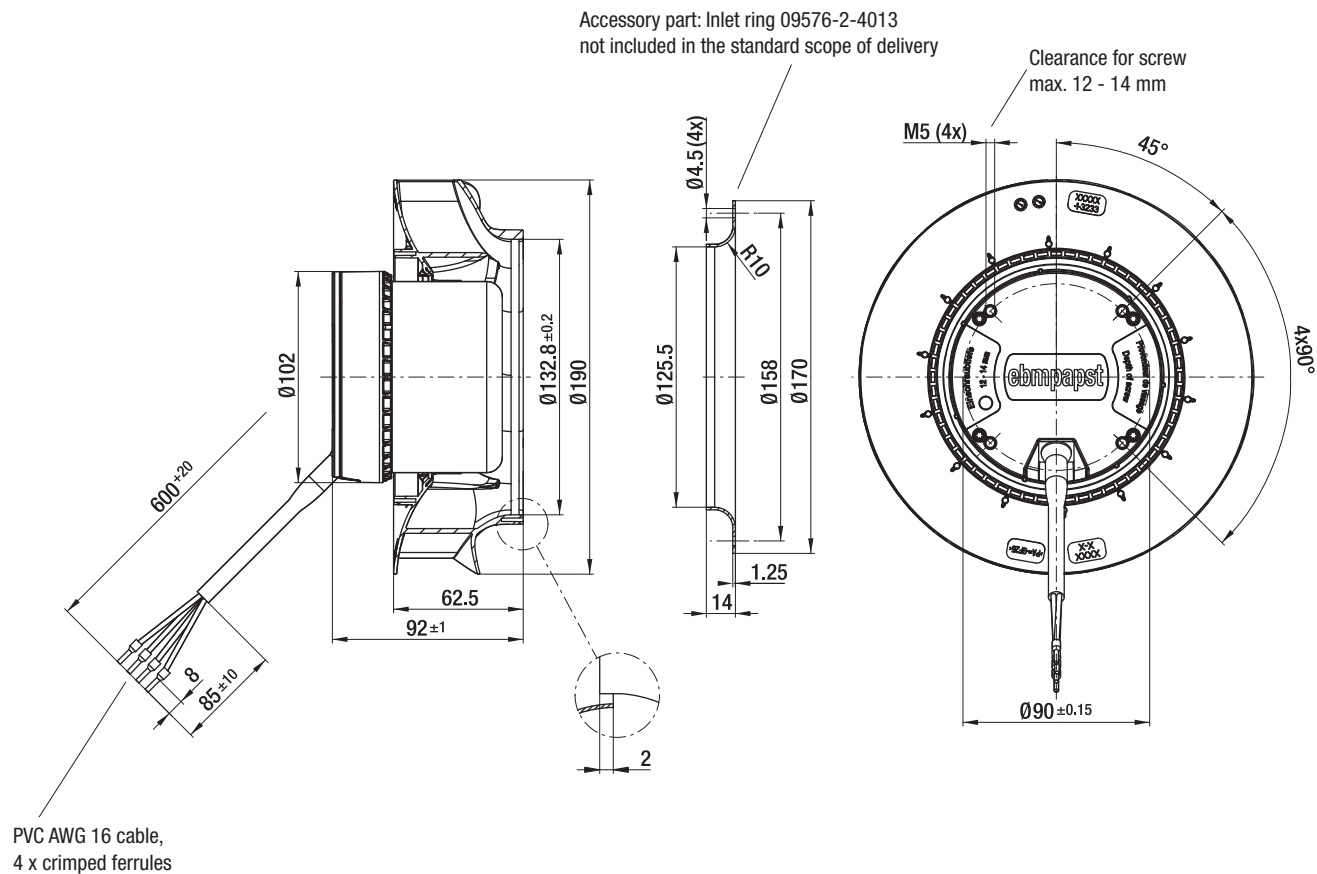
- **Technical features:** See connection diagram p. 262
- **Cable exit:** Variable
- **Conformity with standard(s):** EN 60950-1
- **Approvals:** EAC



Weight centrifugal fans



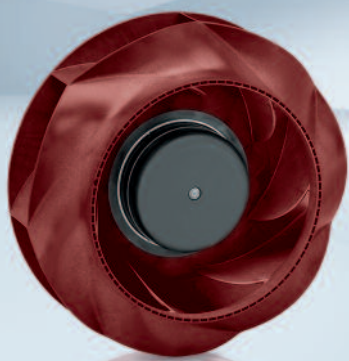
Centrifugal fans	kg	Inlet ring
R3G 190-RN38 -01	1.9	09576-2-4013
R3G 190-RN99 -02	1.9	09576-2-4013



Max. 1215 m³/h

DC centrifugal fans – RadiCal

Ø 220 mm

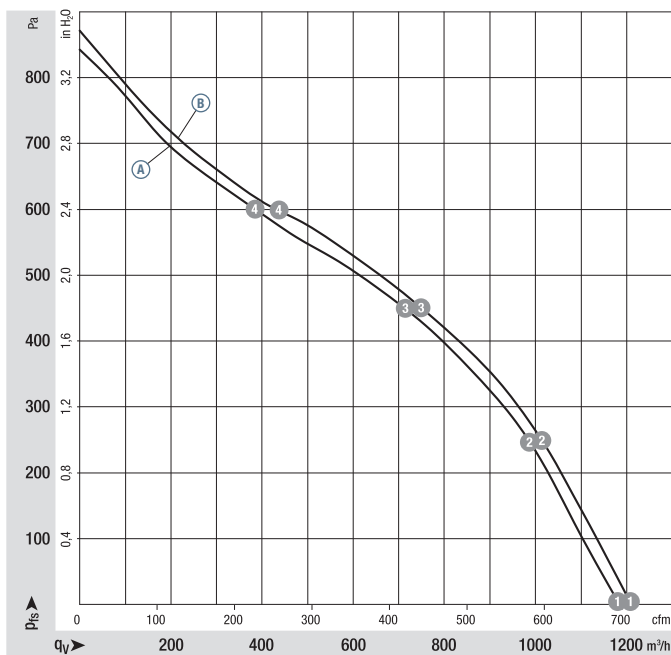


- **Material:** Impeller: PA plastic
Rotor: Painted black
- **Number of blades:** 7
- **Direction of rotation:** Clockwise, looking towards rotor
- **Degree of protection:** IP 44, depending on installation and position
- **Insulation class:** "B"
- **Installation position:** Any
- **Condensation drainage holes:** None
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

Nominal data		Curve	Nominal voltage	Nominal voltage range	Air flow	Nominal speed	Power consumption	Input current	Sound pressure level	Admissible amb. temp.	Technical features and connection diagram
Type	Motor	VDC	VDC	m ³ /h	rpm ⁻¹	W	A	dB(A)	°C		
R3G 220	M3G 074-CF	Ⓐ	24	16-28	1200	3460	157	6.50	73	-25...+60	p. 262 / J5)
R3G 220	M3G 074-CF	Ⓑ	48	36-57	1215	3510	160	3.40	73	-25...+60	p. 262 / J5)

Subject to change

Curves:



	n rpm ⁻¹	P _{ed} W	I A	L _{WA} dB(A)
Ⓐ ①	3460	157	6.50	81
Ⓐ ②	3420	171	7.11	77
Ⓐ ③	3360	182	7.59	74
Ⓐ ④	3455	168	6.97	79
Ⓑ ①	3510	160	3.40	81
Ⓑ ②	3450	168	3.50	77
Ⓑ ③	3385	178	3.71	74
Ⓑ ④	3460	167	3.47	79

Air performance measured according to: ISO 5801, Installation category A, with ebm-papst inlet ring without contact protection. Suction-side noise levels: LWA according to ISO 13347, L_{vA} measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

- **Technical features:** See connection diagram p. 262
- **Cable exit:** Variable
- **Conformity with standard(s):** EN 60950-1
- **Approvals:** EAC



Weight
centrifugal fans



Centrifugal fans

kg

Inlet ring

R3G 220-RN12 -01

1.9

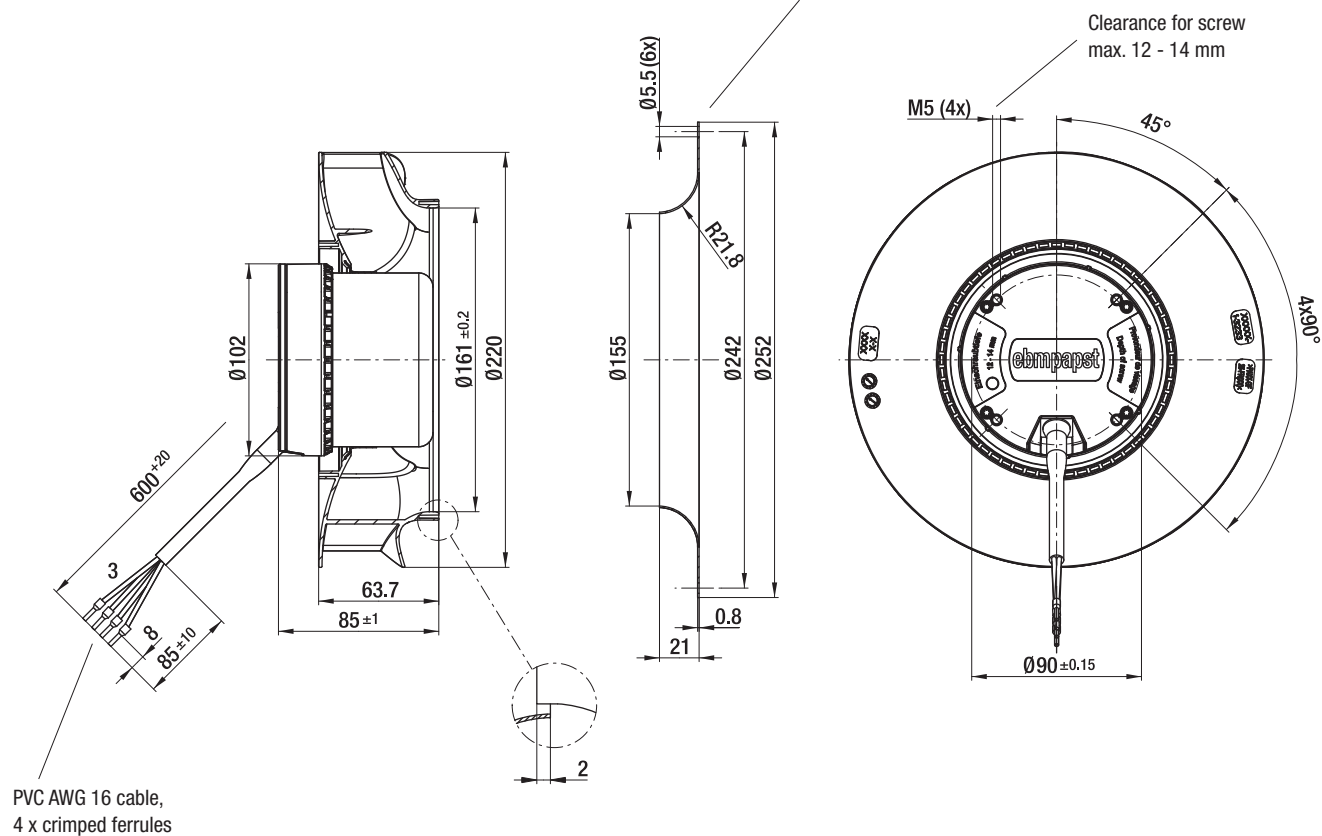
09609-2-4013

R3G 220-RNB6 -02

1.9

09609-2-4013

Accessory part: Inlet ring 09609-2-4013
not included in the standard scope of delivery



Max. 1250 m³/h
S-Force

DC centrifugal fans – RadiCal

Ø 221 x 71 mm



- **Material:** Impeller: GRP¹⁾
 - **Direction of air flow:** Axial: Intake, Centrifugal: Exhaust
 - **Direction of rotation:** Clockwise, looking towards rotor
 - **Connection:** Via single wires AWG 18, 20 or AWG 22, TR 64, speed signal and control input AWG 22
 - **Highlights:** Highly efficient and smoothly operating 3-phase fan drive
Backward-curved impeller
 - **Weight:** 940 g
- **Possible special versions:** (See chapter DC fans - specials)
 - Speed signal
 - Go / NoGo alarm
 - Alarm with speed limit
 - External temperature sensor
 - Internal temperature sensor
 - PWM control input
 - Analog control input
 - Multi-option control input
 - Humidity protection
 - Salt spray protection
 - Degree of protection: IP 54

1) Fiberglass-reinforced plastic

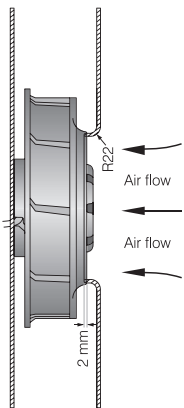
Series RER 220 TD

Nominal data

Type	Air flow		Nominal voltage	Voltage range		Sound power level	Sinter sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst standard	Service life L ₁₀ (T _{max}) ebm-papst standard	Life expectancy L ₁₀ IPC (40 °C) see page 17	Curve
	m ³ /h	cfm		VDC	VDC									
RER 220-43/14/2 TDMO*	1063	625	24	16...36	tbd	■	110	3 000	-20...+55		65 000 / 45 000	110 000	①	
RER 220-43/18/2 TDMO	1063	625	48	36...72	tbd	■	110	3 000	-20...+55		65 000 / 45 000	110 000	①	
RER 220-43/18/2 TDO	1250	735	48	36...72	tbd	■	160	3 500	-20...+55		60 000 / 42 500	102 500	②	

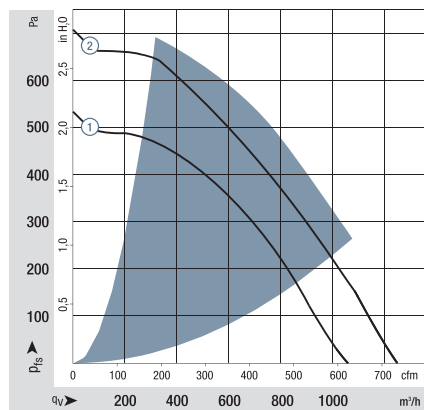
Subject to change
* On request

Speed control range from 800 rpm⁻¹ at 7% PWM up to nominal speed at > 90% PWM.
Standstill at 0% PWM, Standstill if control cable is interrupted.

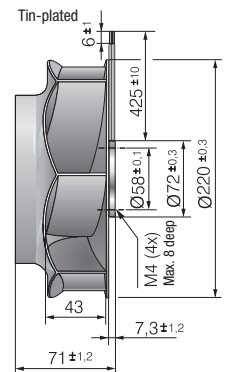
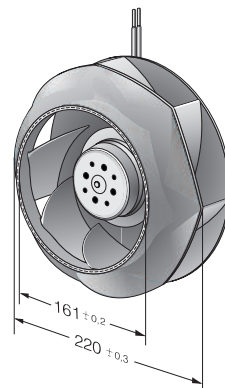


The air flow and sound level of the centrifugal fans without external housing depend on their individual installation conditions.

The stated air flow and sound level were recorded under the following measurement parameters:
Centrifugal fan mounted on a foundation plate 230 x 230 mm.
Cover plate 230 x 230 mm, with an air inlet opening Ø 155 mm, arranged concentrically to the impeller.



Air performance measured according to: ISO 5801.
Installation category A, with ebm-papst inlet ring without contact protection.
Noise: Total sound power level LWA ISO 103002 measured on a hemisphere with a distance of 2 m.
Sound pressure level LpA measured at 1 m distance from fan axis.
The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions.
In the event of deviation from the standard configuration, the parameters must be checked after installation!
For detailed information see <http://www.ebmpapst.com/general conditions>



Max. 1600 m³/h
S-Force

DC centrifugal fans

Ø 225 x 99 mm



- **Material:** Impeller: GRP¹⁾
 - **Direction of air flow:** Axial: Intake, Centrifugal: Exhaust
 - **Direction of rotation:** Clockwise, looking towards rotor
 - **Connection:** Via single wires AWG 18, 20 or AWG 22, TR 64, speed signal and control input AWG 22
 - **Highlights:** Highly efficient and smoothly operating 3-phase fan drive Backward-curved impeller
 - **Weight:** 1030 g
- **Possible special versions:** (See chapter DC fans - specials)
 - Speed signal
 - Go / NoGo alarm
 - Alarm with speed limit
 - External temperature sensor
 - Internal temperature sensor
 - PWM control input
 - Analog control input
 - Multi-option control input
 - Humidity protection
 - Salt spray protection
 - Degree of protection: IP 54

1) Fiberglass-reinforced plastic

Series RER 225 TD

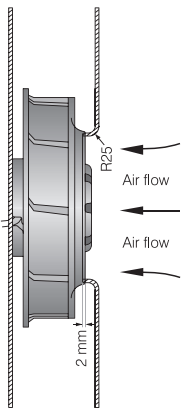
Nominal data

Type	Air flow		Nominal voltage	Voltage range		Sound power level	Sinter sleeve bearings Ball bearings		Power consumption	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst standard	Service life L ₁₀ (T _{max}) ebm-papst standard	Life expectancy L ₁₀ (IPC (40 °C) see page 17	Curve
	m ³ /h	cfm		VDC	VDC		Bel(A)	■ / ■							
RER 225-63/18/2 TDMLO	1190	700	48	36...72	7.2	■	77	2 500	-20...+55	70 000 / 50 000	122 500	①			
RER 225-63/18/2 TDMO	1340	789	48	36...72	7.8	■	108	2 800	-20...+55	55 000 / 40 000	92 500	②			
RER 225-63/18/2 TDO	1600	941	48	36...72	8.1	■	163	3 300	-20...+55	52 500 / 37 500	87 500	③			

Subject to change

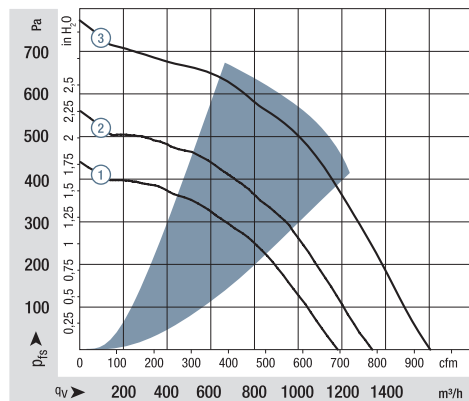
Speed control range from 800 rpm⁻¹ at 7% PWM up to nominal speed at > 90% PWM.

Standstill at 0% PWM, Type O: Standstill if control cable is interrupted. Type P: Maximum speed if control cable is interrupted.

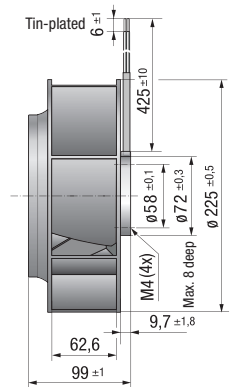
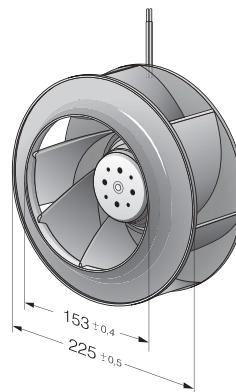


The air flow and sound level of the centrifugal fans without external housing depend on their individual installation conditions.

The stated air flow and sound level were recorded under the following measurement parameters:
Centrifugal fan mounted on a foundation plate 230 x 230 mm.
Cover plate 230 x 230 mm, with an air inlet opening Ø 146 mm, arranged concentrically to the impeller.



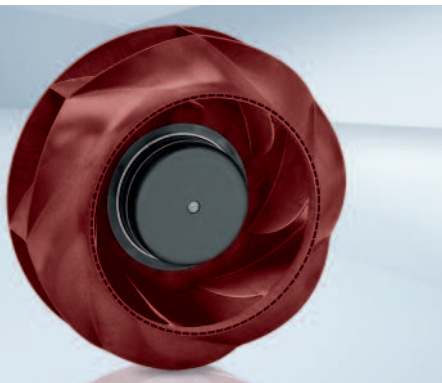
Air performance measured according to: ISO 5801.
Installation category A, with ebm-papst inlet ring without contact protection.
Noise: Total sound power level LWA ISO 103002 measured on a hemisphere with a distance of 2 m.
Sound pressure level LpA measured at 1 m distance from fan axis.
The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions.
In the event of deviation from the standard configuration, the parameters must be checked after installation!
For detailed information see <http://www.ebmpapst.com/general-conditions>



Max. 1340 m³/h

DC centrifugal fans – RadiCal

Ø 225 mm

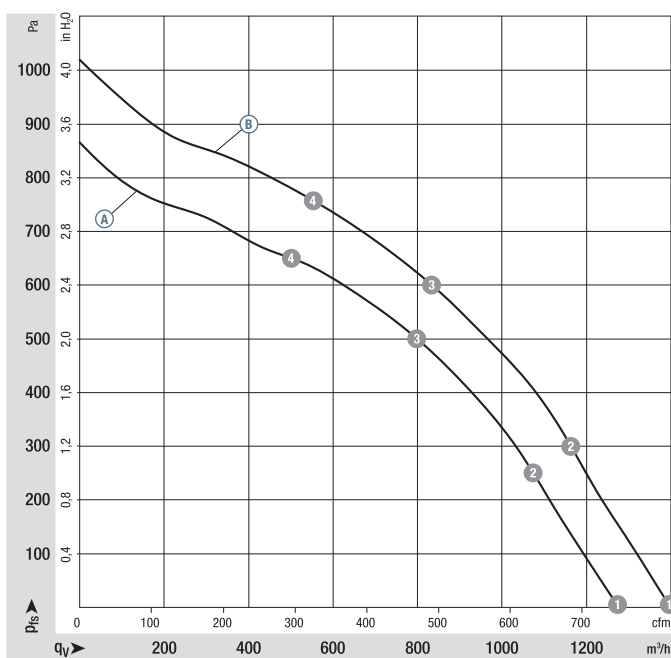


- **Material:** Impeller: PA plastic
Rotor: Painted black
- **Number of blades:** 7
- **Direction of rotation:** Clockwise, looking towards rotor
- **Degree of protection:** IP 44, depending on installation and position
- **Insulation class:** "B"
- **Installation position:** Any
- **Condensation drainage holes:** None
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

Nominal data		Curve	Nominal voltage	Nominal voltage range	Air flow	Nominal speed	Power consumption	Input current	Sound pressure level	Admissible amb. temp.	Technical features and connection diagram
Type	Motor	VDC	VDC	m ³ /h	rpm ⁻¹	W	A	dB(A)	°C		
R3G 225	M3G 074-CF	Ⓐ	24	16-28	1300	3270	205	8.50	75	-25...+60	p. 262 / J5)
R3G 225	M3G 074-CF	Ⓑ	48	36-57	1340	3400	230	4.80	73	-25...+60	p. 262 / J5)

Subject to change

Curves:



	n	P _{ed}	I	L _{WA}
	rpm ⁻¹	W	A	dB(A)
Ⓐ 1	3270	205	8.50	81
Ⓐ 2	3200	208	8.66	78
Ⓐ 3	3185	213	8.88	74
Ⓐ 4	3260	194	8.02	77
Ⓑ 1	3400	230	4.80	83
Ⓑ 2	3440	257	5.35	80
Ⓑ 3	3435	260	5.43	76
Ⓑ 4	3500	239	4.97	78

Air performance measured according to: ISO 5801, Installation category A, with ebm-papst inlet ring without contact protection. Suction-side noise levels: L_{WA} according to ISO 13347, L_{vA} measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

- **Technical features:** See connection diagram p. 262
- **Cable exit:** Variable
- **Conformity with standard(s):** EN 60950-1
- **Approvals:** EAC

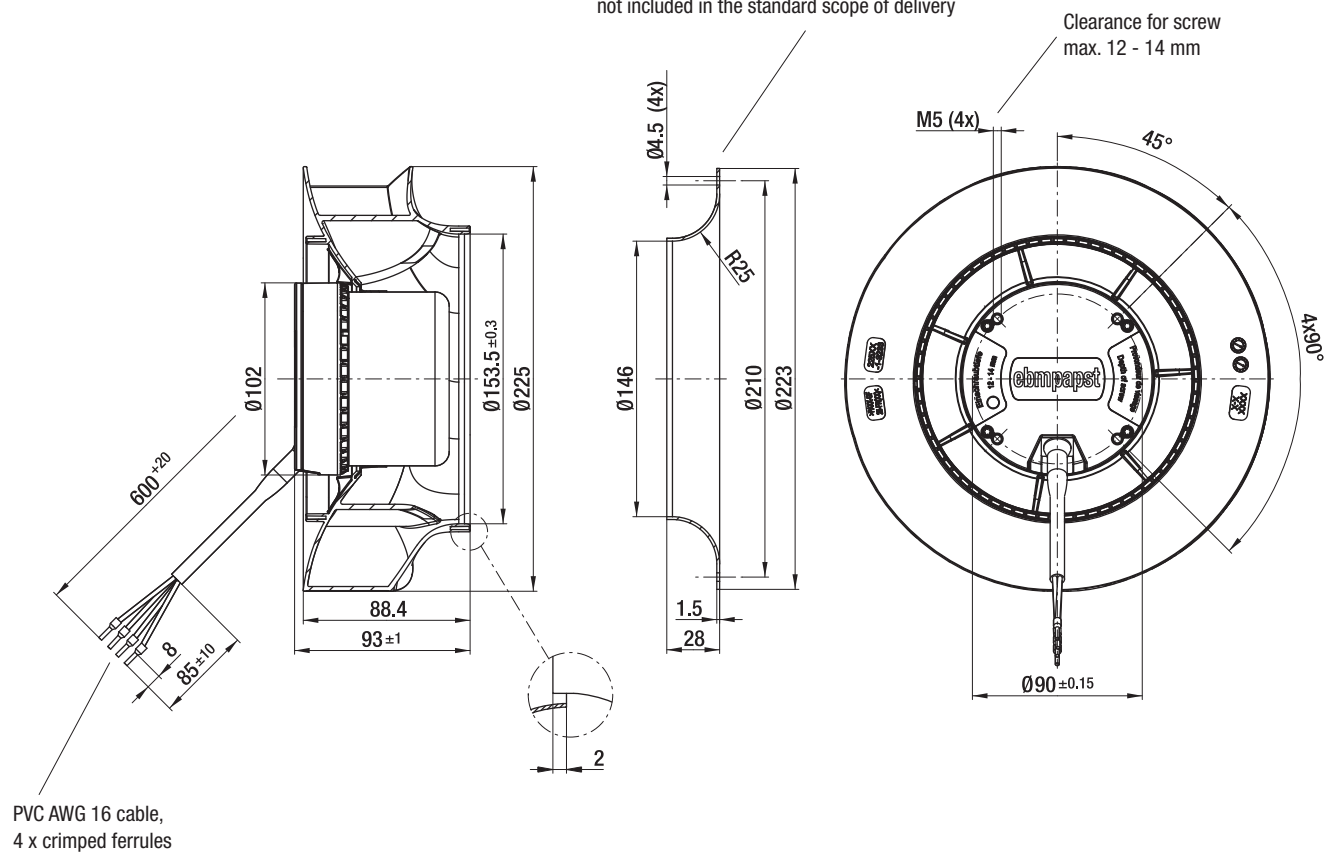


Weight centrifugal fans



Centrifugal fans	kg	Inlet ring
R3G 225-RN28 -01	2.1	96358-2-4013
R3G 225-RN18 -02	2.1	96358-2-4013

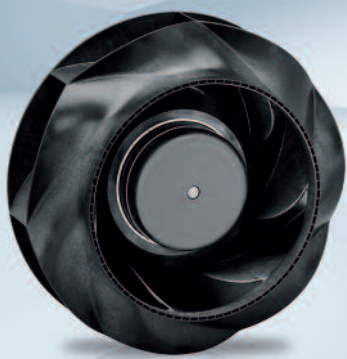
Accessory part: Inlet ring 96358-2-4013
not included in the standard scope of delivery



Max. 1640 m³/h

DC centrifugal fans – RadiCal

Ø 250 mm

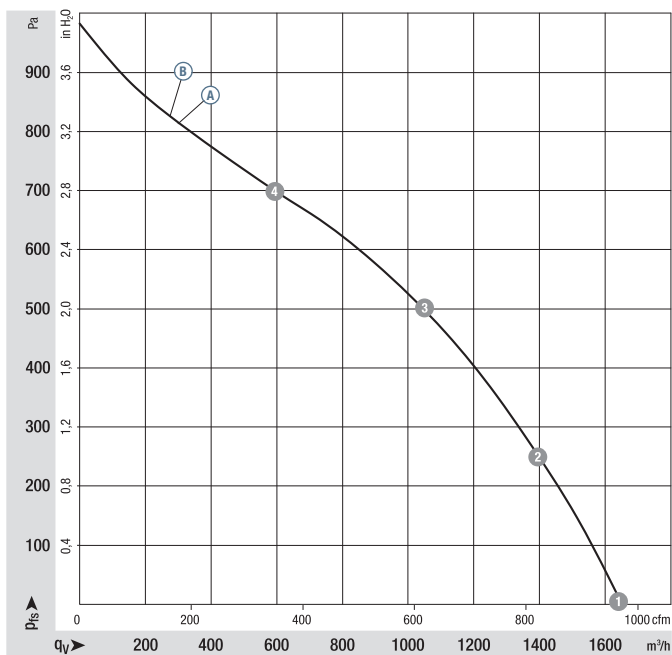


- **Material:** Impeller: PA plastic
Rotor: Painted black
- **Number of blades:** 7
- **Direction of rotation:** Clockwise, looking towards rotor
- **Degree of protection:** IP 44, depending on installation and position
- **Insulation class:** "B"
- **Installation position:** Any
- **Condensation drainage holes:** None
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

Nominal data		Curve	Nominal voltage	Nominal voltage range	Air flow	Nominal speed	Power consumption	Input current	Sound pressure level	Admissible amb. temp.	Technical features and connection diagram
Type	Motor	VDC	VDC	m ³ /h	rpm ⁻¹	W	A	dB(A)	°C		
R3G 250	M3G 074-CF	Ⓐ	24	16-28	1505	2850	175	7.20	73	-25...+60	p. 262 / J5)
R3G 250	M3G 074-CF	Ⓑ	48	36-57	1640	3100	230	4.80	73	-25...+60	p. 262 / J5)

Subject to change

Curves:



	n rpm ⁻¹	P _{ed} W	I A	L _{WA} dB(A)
Ⓐ 1	2850	175	7.20	81
Ⓐ 2	3075	260	10.80	77
Ⓐ 3	3035	276	11.45	75
Ⓐ 4	3095	256	10.66	75
Ⓑ 1	3100	230	4.80	81
Ⓑ 2	3065	249	5.20	77
Ⓑ 3	3025	266	5.55	75
Ⓑ 4	3090	244	5.09	78

Air performance measured according to: ISO 5801, Installation category A, with ebm-papst inlet ring without contact protection. Suction-side noise levels: L_{WA} according to ISO 13347, L_{WA} measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

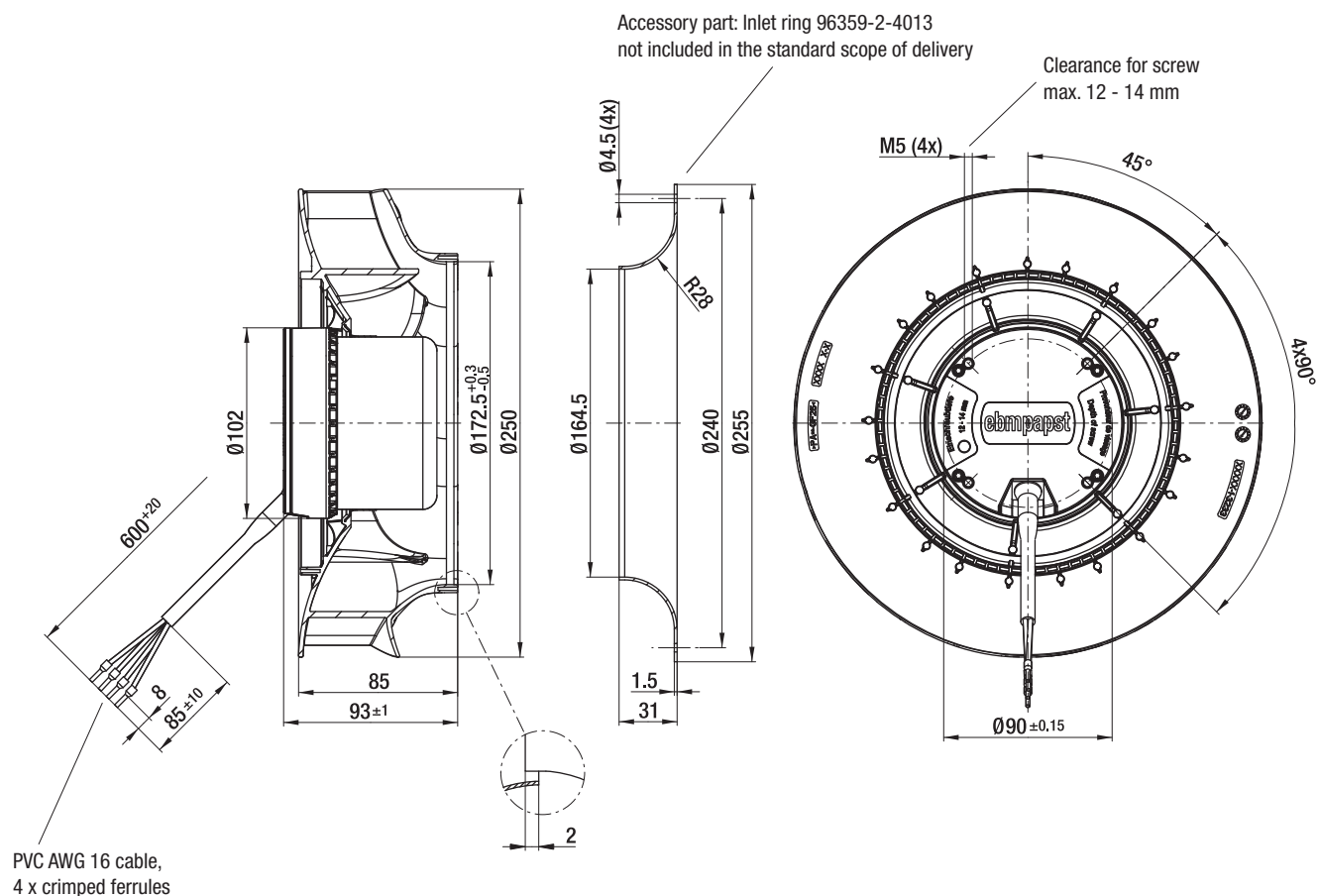
- **Technical features:** See connection diagram p. 262
- **Cable exit:** Variable
- **Conformity with standard(s):** EN 60950-1
- **Approvals:** EAC



Weight centrifugal fans



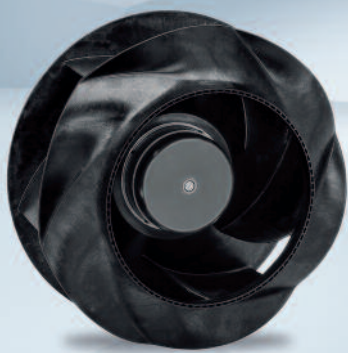
Centrifugal fans	kg	Inlet ring
R3G 250-RN46 -01	2.1	96359-2-4013
R3G 250-RNB5 -02	2.1	96359-2-4013



Max. 2190 m³/h

DC centrifugal fans – RadiCal

Ø 280 mm

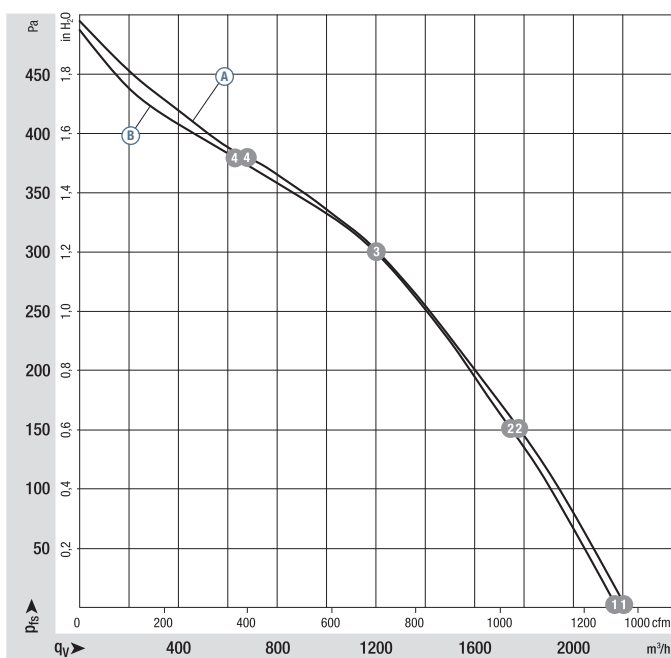


- **Material:** Impeller: PP plastic
Rotor: Painted black
- **Number of blades:** 6
- **Direction of rotation:** Clockwise, looking towards rotor
- **Degree of protection:** IP 44, depending on installation and position
- **Insulation class:** "B"
- **Installation position:** Any
- **Condensation drainage holes:** None
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

Nominal data		Curve	Nominal voltage	Nominal voltage range	Air flow	Nominal speed	Power consumption	Input current	Sound pressure level	Admissible amb. temp.	Technical features and connection diagram
Type	Motor	VDC	VDC	m ³ /h	rpm ⁻¹	W	A	dB(A)	°C		
R3G 280	M3G 074-CF	Ⓐ	24	16-28	2190	1900	142	5.90	67	-25...+60	p. 262 / J5)
R3G 280	M3G 074-CF	Ⓑ	48	36-57	2160	1910	140	2.90	67	-25...+60	p. 262 / J5)

Subject to change

Curves:



	n rpm ⁻¹	P _{ed} W	I A	L _{WA} dB(A)
Ⓐ 1	1900	142	5.90	74
Ⓐ 2	1870	162	6.76	67
Ⓐ 3	1840	173	7.21	64
Ⓐ 4	1905	153	6.36	68
Ⓑ 1	1910	140	2.90	74
Ⓑ 2	1845	158	3.30	67
Ⓑ 3	1830	163	3.40	64
Ⓑ 4	1900	141	2.93	68

Air performance measured according to: ISO 5801, Installation category A, with ebm-papst inlet ring without contact protection. Suction-side noise levels: L_{WA} according to ISO 13347, L_{pA} measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

- **Technical features:** See connection diagram p. 262
- **Cable exit:** Variable
- **Conformity with standard(s):** EN 60950-1
- **Approvals:** EAC



Weight centrifugal fans



Centrifugal fans

kg

Inlet ring

R3G 280-RN30 -01

2.4

28000-2-4013

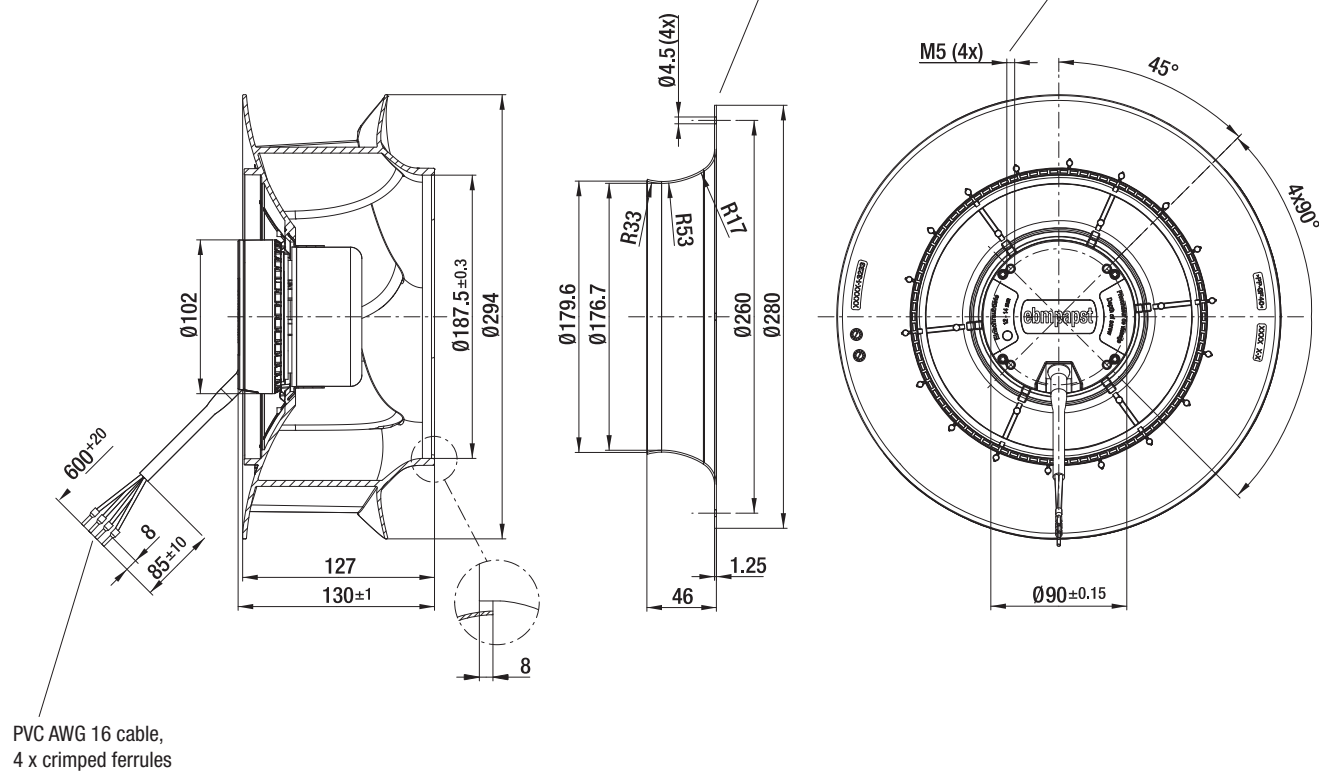
R3G 280-RNB1 -02

2.4

28000-2-4013

Accessory part: Inlet ring 28000-2-4013
not included in the standard scope of delivery

Clearance for screw
max. 12 - 14 mm



Max. 2380 m³/h

DC centrifugal fans – RadiCal

Ø 310 mm

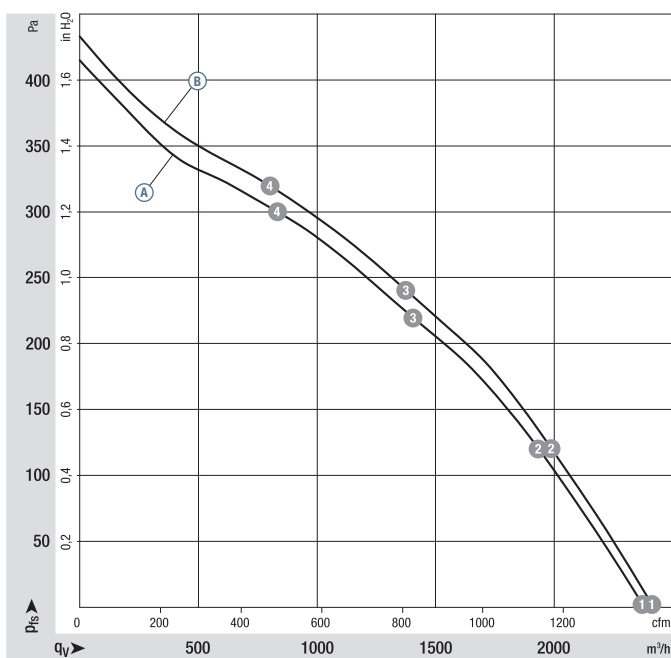


- **Material:** Impeller: PP plastic
Rotor: Painted black
- **Number of blades:** 6
- **Direction of rotation:** Clockwise, looking towards rotor
- **Degree of protection:** IP 44, depending on installation and position
- **Insulation class:** "B"
- **Installation position:** Any
- **Condensation drainage holes:** None
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

Nominal data		Curve	Nominal voltage	Nominal voltage range	Air flow	Nominal speed	Power consumption	Input current	Sound pressure level	Admissible amb. temp.	Technical features and connection diagram
Type	Motor	VDC	VDC	m ³ /h	rpm ⁻¹	W	A	dB(A)	°C		
R3G 310	M3G 074-CF	Ⓐ	24	16-28	2310	1580	108	4.50	64	-25...+60	p. 262 / J5)
R3G 310	M3G 074-CF	Ⓑ	48	36-57	2380	1620	123	2.60	64	-25...+60	p. 262 / J5)

Subject to change

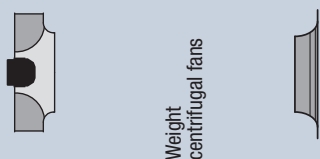
Curves:



	n rpm ⁻¹	P _{ed} W	I A	L _{WA} dB(A)
Ⓐ 1	1580	108	4.50	70
Ⓐ 2	1540	145	6.03	67
Ⓐ 3	1520	152	6.34	63
Ⓐ 4	1550	143	5.95	65
Ⓑ 1	1620	123	2.60	70
Ⓑ 2	1570	147	3.07	66
Ⓑ 3	1545	156	3.26	63
Ⓑ 4	1580	144	3.01	66

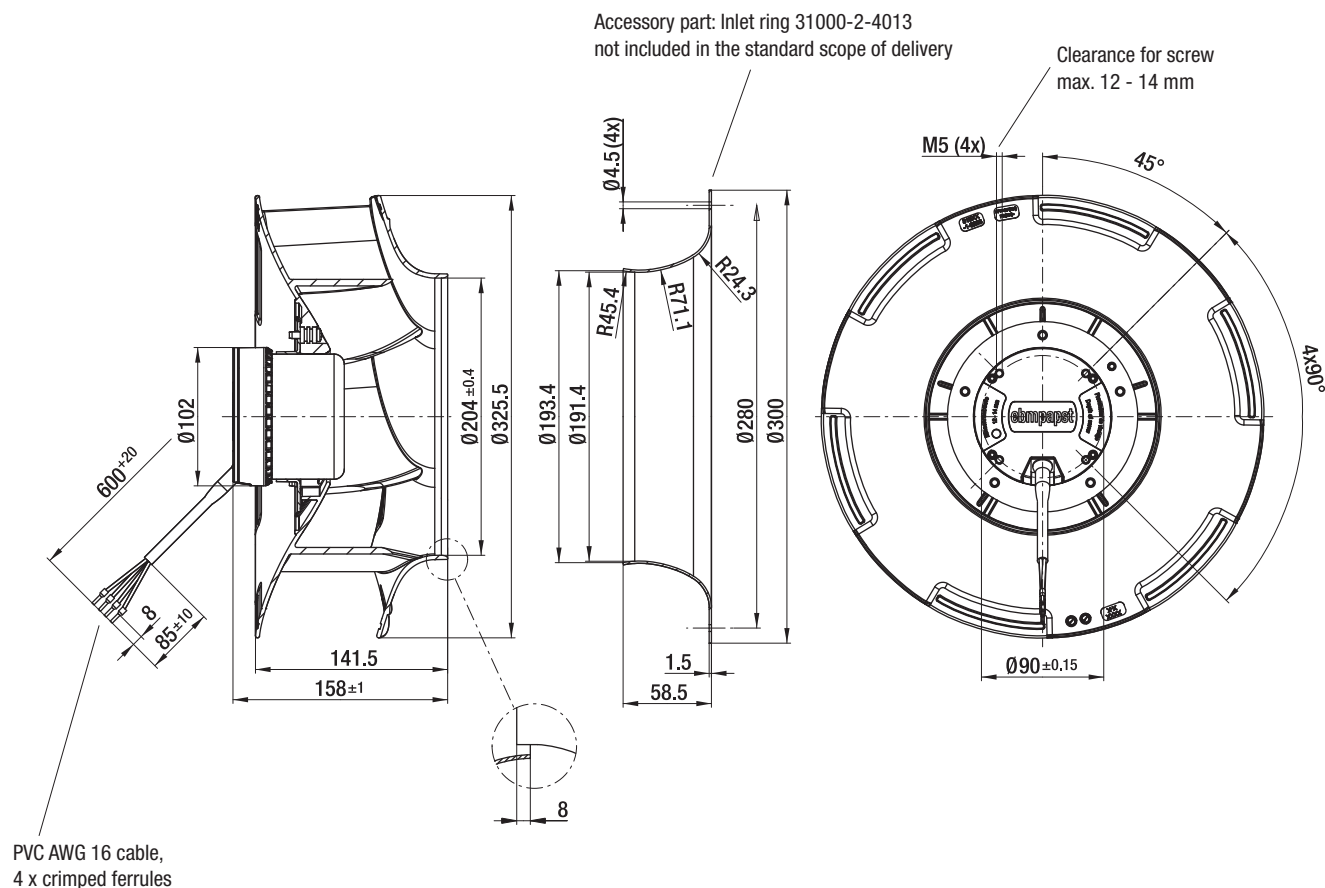
Air performance measured according to: ISO 5801, Installation category A, with ebm-papst inlet ring without contact protection. Suction-side noise levels: L_{WA} according to ISO 13347, L_{vA} measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

- **Technical features:** See connection diagram p. 262
- **Cable exit:** Variable
- **Conformity with standard(s):** EN 60950-1
- **Approvals:** EAC



Weight centrifugal fans

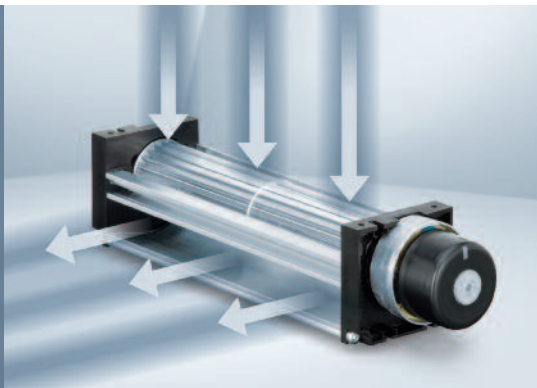
Centrifugal fans	kg	Inlet ring
R3G 310-RN99 -01	2.8	31000-2-4013
R3G 310-RN98 -02	2.8	31000-2-4013



Max. 155 m³/h

DC tangential fans

201...413 x 50 x 48 mm



- **Material:** Housing: Aluminum
Housing side parts: Plastic
Impeller: Aluminum
- **Direction of air flow:** See photo
- **Connection:** via single wires AWG 24, TR 64
- **Highlights:** Motor with ball bearing system
Impeller retaining plate with sleeve bearing
- **Weight:** 235 / 290 / 380 / 415 g
- **Possible special versions:** (See chapter DC fans - specials)
 - Speed signal
 - Moisture protection

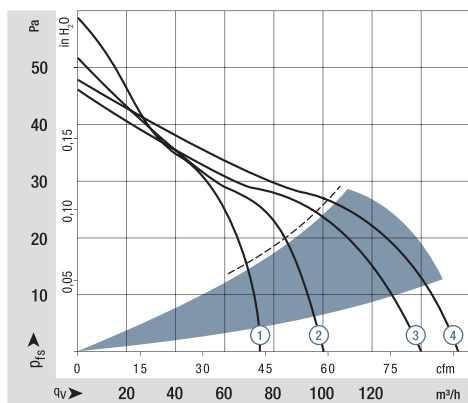
Series QG 030														
Nominal data	Air flow		Nominal voltage	Voltage range	Sound pressure level	Sound power level	Sinter sleeve bearings		Power consumption	Temperature range	Service life L ₁₀ (40 °C) ebm-papst standard	Service life L ₁₀ (T _{max}) ebm-papst standard	Life expectancy L ₁₀ IPC (40 °C) see page 17	Curve
	Type	m ³ /h					cfm	VDC						
QG 030-148/12	75	44	12	8...14	49	5.7	□/■	6.2	-20...+60	30 000 / 20 000	50 000	①		
QG 030-198/12	100	59	12	8...14	51	5.8	□/■	8,0	-20...+60	30 000 / 20 000	50 000	②		
QG 030-303/12	140	82	12	8...14	51	5.8	□/■	8.7	-20...+60	30 000 / 20 000	50 000	③		
QG 030-353/12	155	91	12	8...14	51	5.9	□/■	9.6	-20...+60	30 000 / 20 000	50 000	④		
QG 030-148/14	75	44	24	16...28	49	5.7	□/■	6.2	-20...+60	30 000 / 20 000	50 000	①		
QG 030-198/14	100	59	24	16...28	51	5.8	□/■	8.0	-20...+60	30 000 / 20 000	50 000	②		
QG 030-303/14	140	82	24	16...28	51	5.8	□/■	8.7	-20...+60	30 000 / 20 000	50 000	③		
QG 030-353/14	155	91	24	16...28	51	5.9	□/■	9.6	-20...+60	30 000 / 20 000	50 000	④		

Subject to change

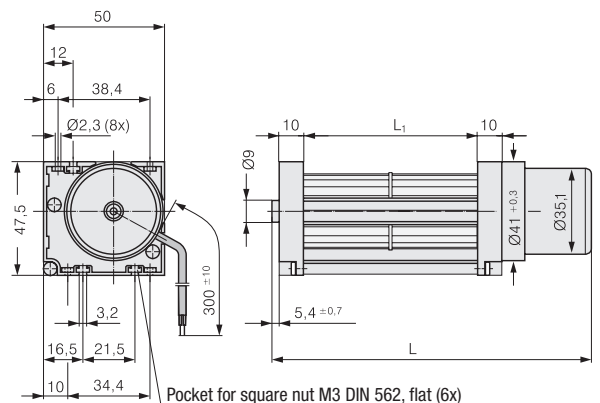
The values for service life were recorded with the fan installed horizontally.

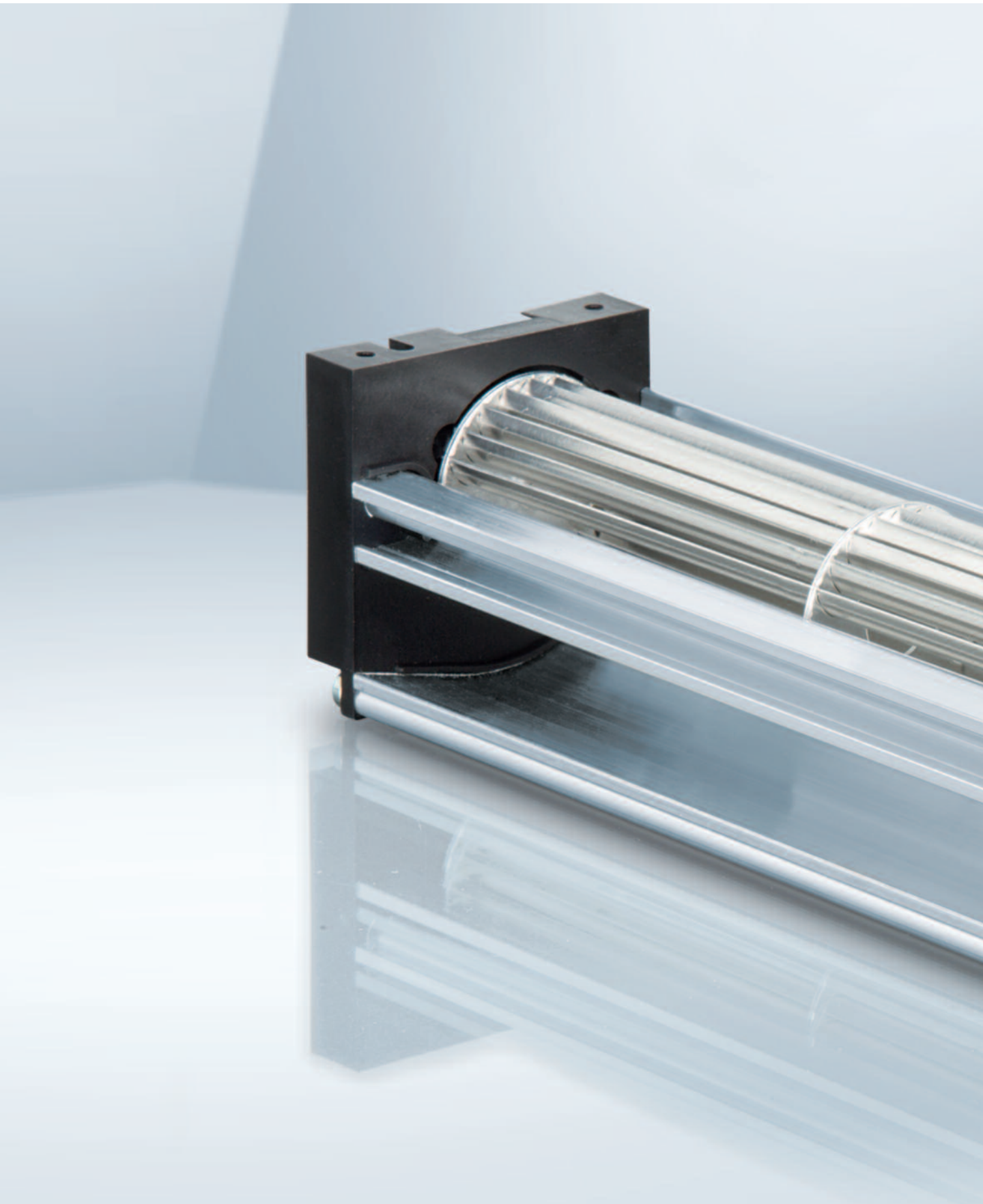
Type	Dimension:	L	L ₁	Mass
QG 030-148/ ..		203.4 ^{+1.5}	148	235 g
QG 030-198/ ..		260.4 ^{+1.5}	198	290 g
QG 030-303/ ..		365.4 ^{+1.5}	303	380 g
QG 030-353/ ..		415.4 ^{+1.5}	353	415 g

----- Tangential fans are suitable only for operation with high air flow and low back-pressure.



Air performance measured according to: ISO 5801.
Installation category A, without contact protection.
Noise: Total sound power level LWA ISO 103002 measured on a hemisphere with a radius of 2 m.
Sound pressure level LpA measured at 1 m distance to fan axis.
The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions.
In the event of deviation from the standard configuration, the parameters must be checked after installation!
For detailed information see <http://www.ebmpapst.com/general conditions>

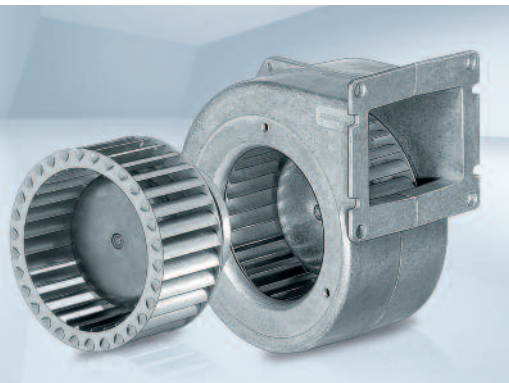




Max. 95 m³/h

DC centrifugal fans and blowers

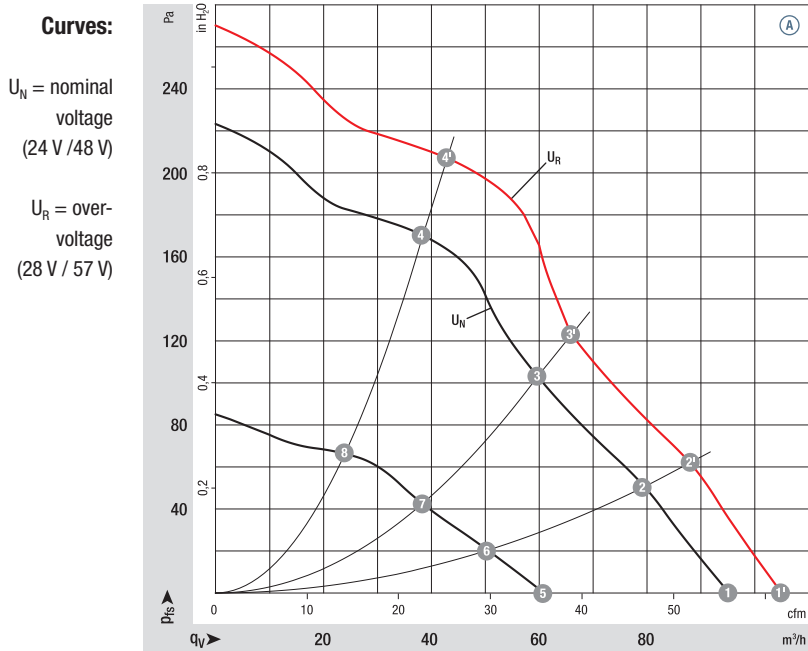
Ø 85 mm



- **Material:** Housing: Die-cast aluminum
Impeller: Hot-dip galvanized sheet steel
Rotor: Galvanized
- **Direction of rotation:** Clockwise, looking towards rotor
- **Degree of protection:** IP 22
- **Insulation class:** "B"
- **Installation position:** Any
- **Condensation drainage holes:** None
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

Nominal data		Curve	Nominal voltage		Air flow	Nominal speed	Power consumption	Input current	Sound pressure level	Min. back-pressure	Admissible amb. temp.	Technical features and connection diagram
Type	Motor		VDC	VDC	m ³ /h	rpm ⁻¹	W	A	dB(A)	Pa	°C	
*1G 085	M1G045-BE	Ⓐ	24	16-28	95	2850	14	0.64	57	0	-25...+60	p. 259 / G)
*1G 085	M1G045-BE	Ⓐ	48	36-57	95	2850	14	0.32	57	0	-25...+60	p. 259 / G)

Subject to change



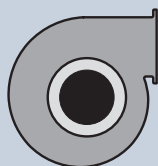
	n	P _{ed}	L _{pA}	η _{IL}
	rpm ⁻¹	W	dB(A)	%
Ⓐ 1'	3180	19	59	—
Ⓐ 2'	3300	16	57	28
Ⓐ 3'	3500	15	57	32
Ⓐ 4'	3800	12	57	37
Ⓐ 1	2850	14	57	—
Ⓐ 2	3000	12	55	28
Ⓐ 3	3180	11	55	32
Ⓐ 4	3400	9	54	37
Ⓐ 5	1890	5	46	—
Ⓐ 6	1970	4	44	25
Ⓐ 7	2070	4	44	30
Ⓐ 8	2170	3	42	33

Air performance measured according to: ISO 5801, installation category A, with ebm-papst scroll housing without contact protection. Suction-side noise levels: L_{pA} according to ISO 13347, L_{pA} measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

- **Technical features:** See connection diagram p. 259
- **Cable exit:** Axial
- **Conformity with standard(s):** EN 60950-1
- **Approvals:** EAC



Weight centrifugal fans



Weight centrifugal blowers

Centrifugal fans

kg

Centrifugal blowers with flange

kg

R1G 085-AB05 -01

0.5

G1G 085-AB05 -01

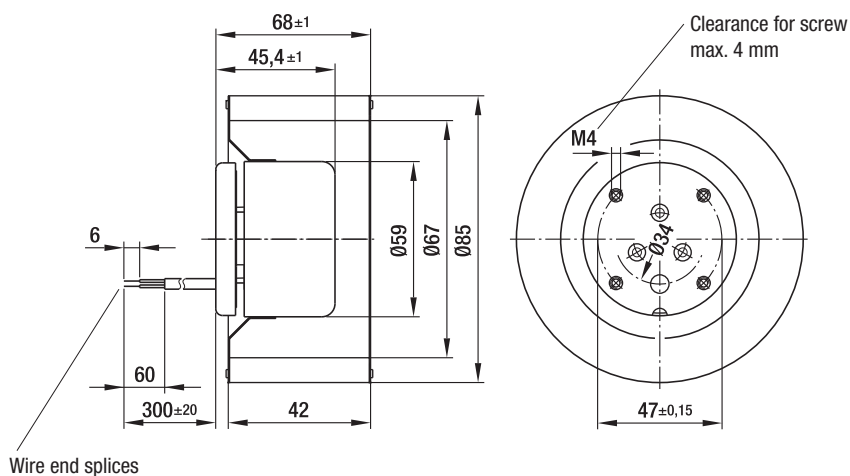
0.8

R1G 085-AB07 -01

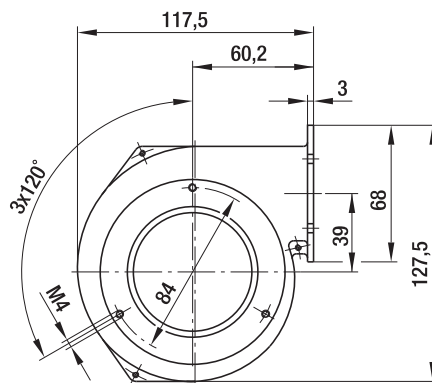
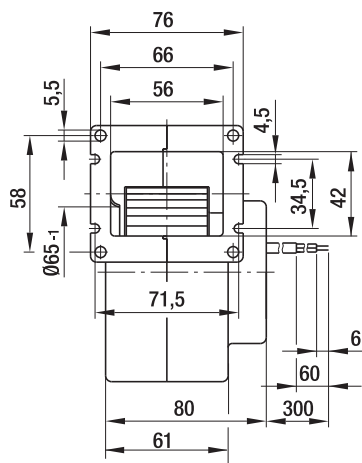
0.5

G1G 085-AB07 -01

0.8



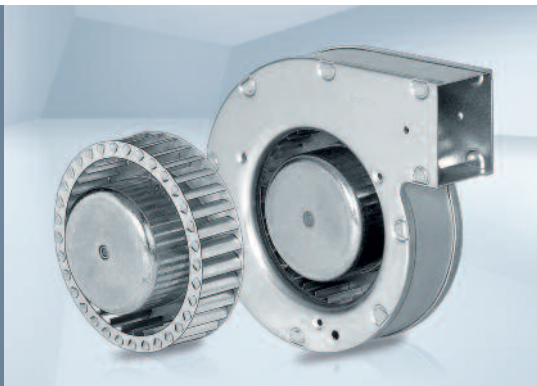
Wire end splices



Max. 95 m³/h

DC centrifugal fans and blowers

Ø 97 mm



- **Material:** Housing: Hot-dip galvanized sheet steel
Impeller: Hot-dip galvanized sheet steel
Rotor: Galvanized
- **Direction of rotation:** Clockwise, looking towards rotor
- **Degree of protection:** IP 22
- **Insulation class:** "B"
- **Installation position:** Any
- **Condensation drainage holes:** None
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

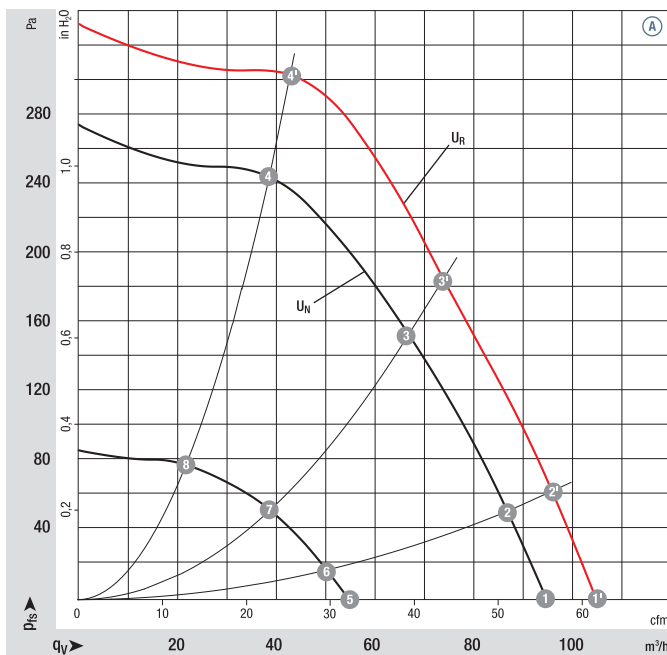
Nominal data		Curve	Nominal voltage		Air flow	Nominal speed	Power consumption	Input current	Sound pressure level	Min. back-pressure	Admissible amb. temp.	Technical features and connection diagram
Type	Motor	VDC	VDC	m ³ /h	rpm ⁻¹	W	A	dB(A)	Pa	°C		
*1G 097	M1G045-BE	Ⓐ	24	16-28	95	2650	16	0.75	59	0	-25...+60	p. 259 / G)
*1G 097	M1G045-BE	Ⓐ	48	36-57	95	2650	16	0.38	59	0	-25...+60	p. 259 / G)

Subject to change

Curves:

U_N = nominal voltage
(24 V / 48 V)

U_R = over-voltage
(28 V / 57 V)



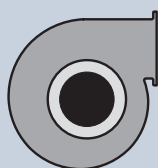
	n	P _{ed}	L _{pA}	η _{IL}
	rpm ⁻¹	W	dB(A)	%
Ⓐ 1'	2920	22	62	—
Ⓐ 2'	3030	21	61	41
Ⓐ 3'	3300	17	59	48
Ⓐ 4'	3700	13	58	48
Ⓐ 1	2650	16	59	—
Ⓐ 2	2730	15	58	41
Ⓐ 3	2960	13	56	48
Ⓐ 4	3290	10	55	48
Ⓐ 5	1615	4	45	—
Ⓐ 6	1650	4	45	38
Ⓐ 7	1745	4	43	46
Ⓐ 8	1880	3	42	47

Air performance measured according to: ISO 5801, installation category A, with ebm-papst scroll housing without contact protection. Suction-side noise levels: L_{WA} according to ISO 13347, L_{pA} measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

- **Technical features:** See connection diagram p. 259
- **Cable exit:** Axial
- **Conformity with standard(s):** EN 60950-1
- **Approvals:** EAC



Weight centrifugal fans



Weight centrifugal blowers

Centrifugal fans

kg

Centrifugal blowers with flange

kg

R1G 097-AA05 -01

0.5

G1G 097-AA05 -01

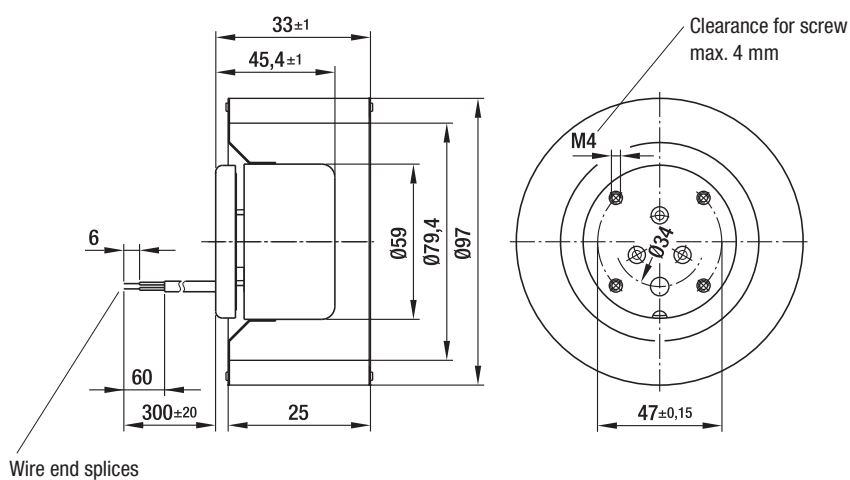
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R1G 097-AA07 -01

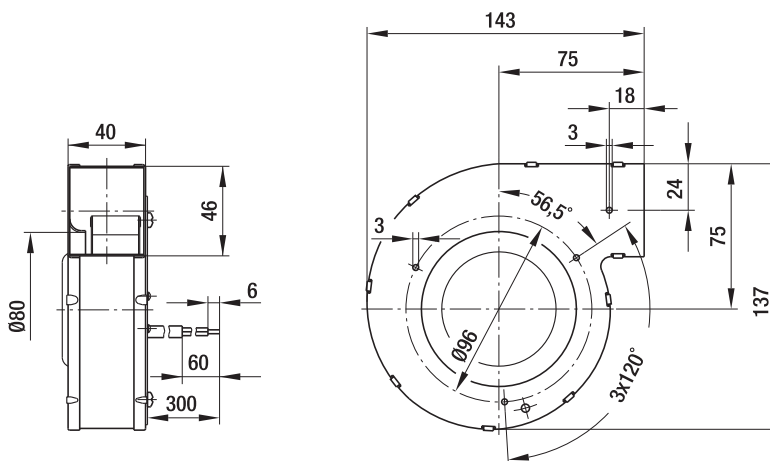
0.5

G1G 097-AA07 -01

0.8



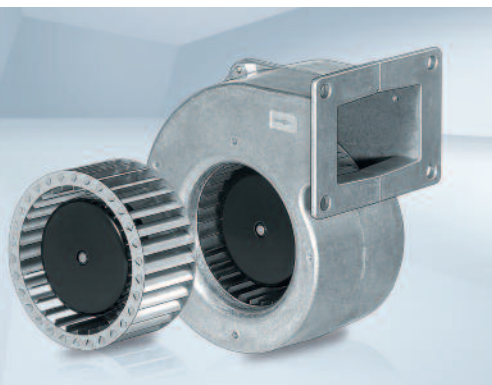
Wire end splices



Max. 200 m³/h

DC centrifugal fans and blowers

Ø 108 mm



- **Material:** Housing: Die-cast aluminum
Impeller: Hot-dip galvanized sheet steel
Rotor: Painted black
- **Direction of rotation:** Clockwise, looking towards rotor
- **Degree of protection:** IP 22
- **Insulation class:** "B"
- **Installation position:** Any
- **Condensation drainage holes:** None
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

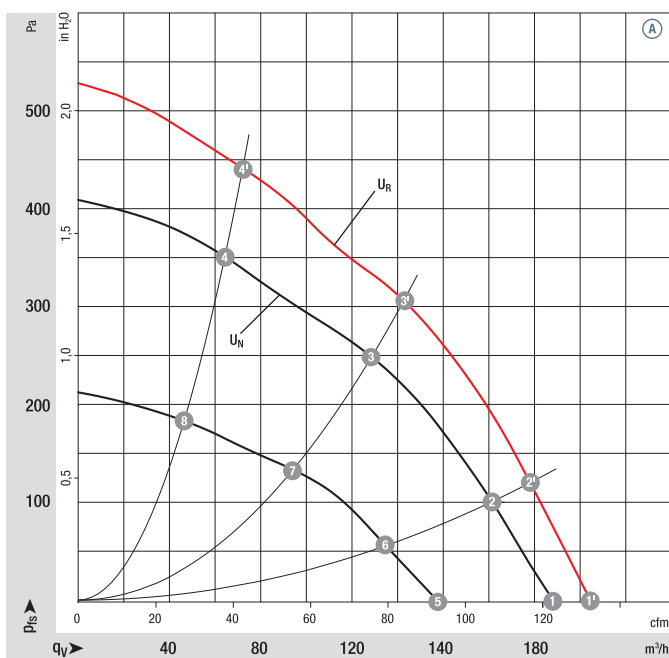
Nominal data		Curve	Nominal voltage		Air flow	Nominal speed	Power consumption	Input current	Sound pressure level	Min. back-pressure	Admissible amb. temp.	Technical features and connection diagram
Type	Motor		VDC	VDC	m ³ /h	rpm ⁻¹	W	A	dB(A)	Pa	°C	
*1G 108	M1G055-BD	Ⓐ	24	16-28	200	3000	42	2.00	65	0	-25...+60	p. 259 / G)
*1G 108	M1G055-BD	Ⓐ	48	36-57	200	3000	42	1.00	65	0	-25...+60	p. 259 / G)

Subject to change

Curves:

U_N = nominal voltage
(24 V / 48 V)

U_R = over-voltage
(28 V / 57 V)



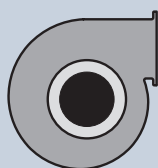
	n rpm ⁻¹	P _{ed} W	L _{pA} dB(A)	η _{IL} %
Ⓐ 1'	3230	55	67	—
Ⓐ 2'	3410	52	66	33
Ⓐ 3'	3800	43	65	41
Ⓐ 4'	4100	35	64	33
Ⓐ 1	3000	42	65	—
Ⓐ 2	3140	40	64	33
Ⓐ 3	3420	32	63	41
Ⓐ 4	3690	26	63	33
Ⓐ 5	2300	20	61	—
Ⓐ 6	2380	17	58	33
Ⓐ 7	2550	14	55	41
Ⓐ 8	2720	11	55	33

Air performance measured according to: ISO 5801, Installation category A, with ebm-papst scroll housing without contact protection. Suction-side noise levels: L_{WA} according to ISO 13347, L_{pA} measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

- **Technical features:** See connection diagram p. 259
- **Cable exit:** Axial
- **Protection class:** I
- **Conformity with standard(s):** EN 60950-1
- **Approvals:** Ⓐ (24 VDC) UL, CSA, Ⓐ (48 VDC) CCC

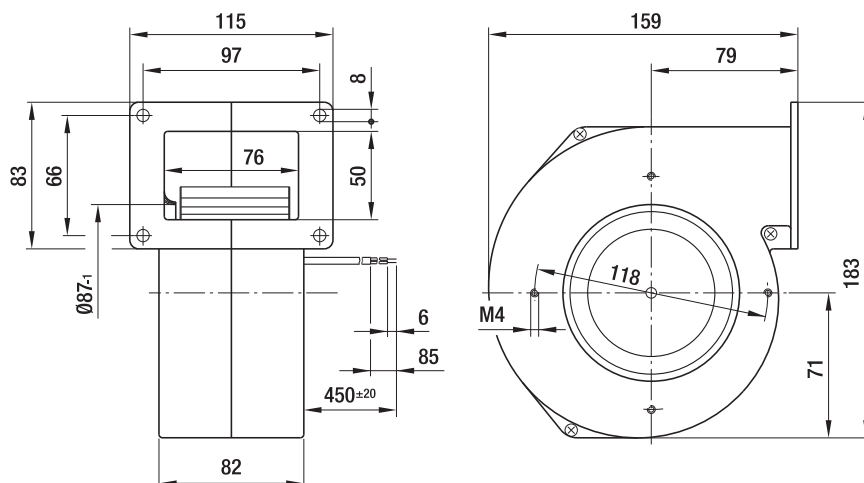
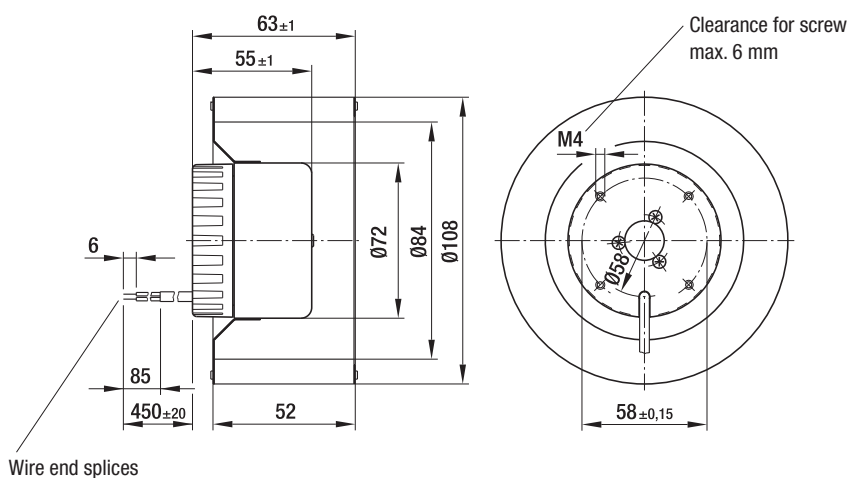


Weight centrifugal fans



Weight centrifugal blowers

Centrifugal fans	kg	Centrifugal blowers with flange	kg
R1G 108-AB17 -02	0.7	G1G 108-AB17 -02	1.4
R1G 108-AB41 -02	0.7	G1G 108-AB41 -02	1.4



Max. 255 m³/h

DC centrifugal fans and blowers

Ø 120 mm



- **Material:** Housing: Die-cast aluminum
Impeller: Hot-dip galvanized sheet steel
Rotor: Galvanized
- **Direction of rotation:** Clockwise, looking towards rotor
- **Degree of protection:** IP 22
- **Insulation class:** "B"
- **Installation position:** Any
- **Condensation drainage holes:** None
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

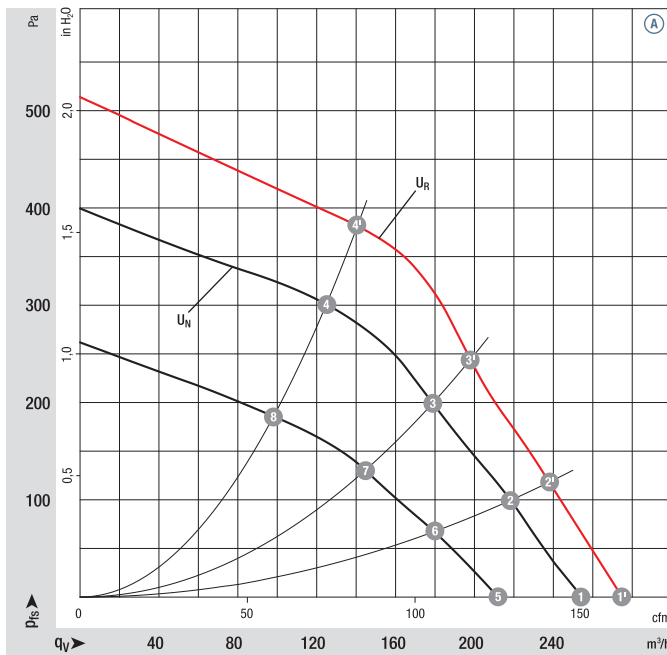
Nominal data		Curve	Nominal voltage		Air flow	Nominal speed	Power consumption	Input current	Sound pressure level	Min. back-pressure	Admissible amb. temp.	Technical features and connection diagram
Type	Motor		VDC	VDC	m ³ /h	rpm ⁻¹	W	A	dB(A)	Pa	°C	
*1G 120	M1G055-BD	Ⓐ	24	16-28	255	2200	40	1.90	62	0	-25...+60	p. 259 / G)
*1G 120	M1G055-BD	Ⓐ	48	36-57	255	2200	40	0.95	62	0	-25...+60	p. 259 / G)

Subject to change

Curves:

U_N = nominal voltage
(24 V / 48 V)

U_R = over-voltage
(28 V / 57 V)



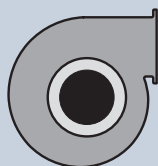
	n rpm ⁻¹	P _{ed} W	L _{pA} dB(A)	η _{IL} %
Ⓐ 1'	2410	50	63	—
Ⓐ 2'	2620	47	62	58
Ⓐ 3'	2870	44	61	60
Ⓐ 4'	3200	36	62	55
Ⓐ 1	2200	40	62	—
Ⓐ 2	2410	36	60	59
Ⓐ 3	2600	32	58	62
Ⓐ 4	2880	25	58	55
Ⓐ 5	1870	24	55	—
Ⓐ 6	1990	21	54	58
Ⓐ 7	2100	18	53	61
Ⓐ 8	2310	14	54	54

Air performance measured according to: ISO 5801, installation category A, with ebm-papst scroll housing without contact protection. Suction-side noise levels: L_{WA} according to ISO 13347, L_{pA} measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

- **Technical features:** See connection diagram p. 259
- **Cable exit:** Axial
- **Protection class:** I
- **Conformity with standard(s):** EN 60950-1
- **Approvals:** Ⓐ (24 VDC) UL, CSA, Ⓐ (48 VDC) CCC

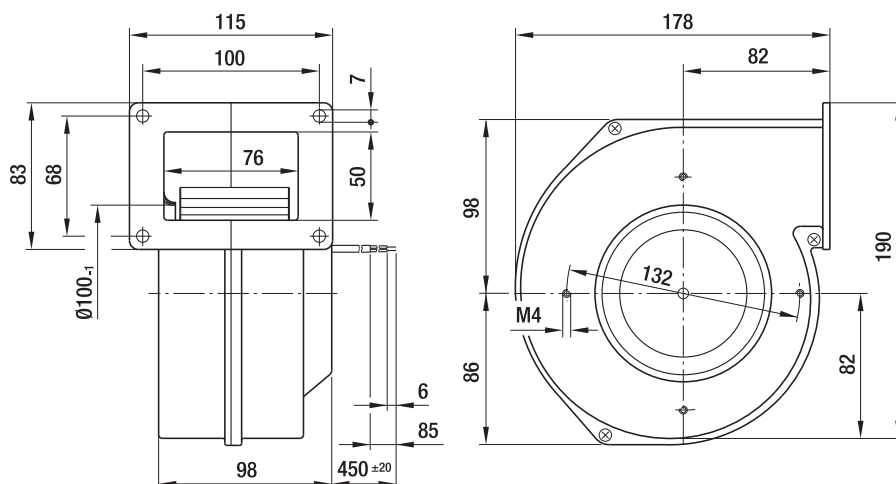
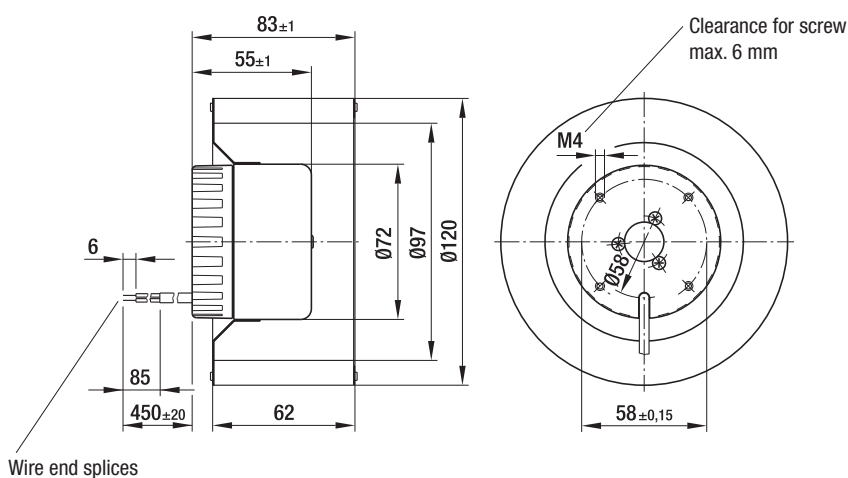


Weight centrifugal fans



Weight centrifugal blowers

Centrifugal fans	kg	Centrifugal blowers with flange	kg
R1G 120-AB67 -02	0.8	G1G 120-AB67 -02	1.6
R1G 120-AB71 -02	0.8	G1G 120-AB71 -02	1.6



Max. 225 m³/h

DC centrifugal fans and blowers

Ø 133 mm



- **Material:** Housing: Hot-dip galvanized sheet steel
Impeller: Hot-dip galvanized sheet steel
Rotor: Galvanized
- **Direction of rotation:** Clockwise, looking towards rotor
- **Degree of protection:** IP 22
- **Insulation class:** "B"
- **Installation position:** Any
- **Condensation drainage holes:** None
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

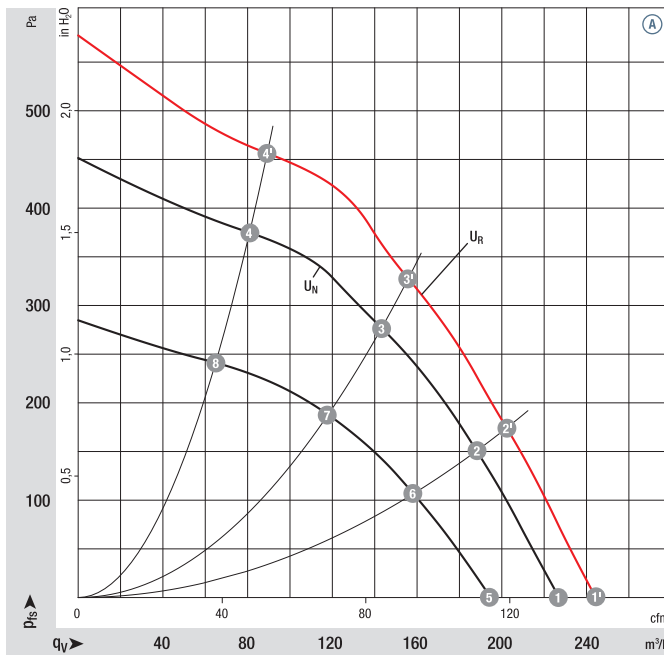
Nominal data		Curve	Nominal voltage		Air flow	Nominal speed	Power consumption	Input current	Sound pressure level	Min. back-pressure	Admissible amb. temp.	Technical features and connection diagram
Type	Motor		VDC	VDC	m ³ /h	rpm ⁻¹	W	A	dB(A)	Pa	°C	
*1G 133	M1G055-BD	Ⓐ	24	16-28	225	2000	40	2.20	64	0	-25...+60	p. 259 / G)
*1G 133	M1G055-BD	Ⓐ	48	36-57	225	2000	40	1.10	64	0	-25...+60	p. 259 / G)

Subject to change

Curves:

U_N = nominal voltage
(24 V / 48 V)

U_R = over-voltage
(28 V / 57 V)



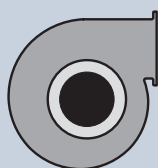
	n	P _{ed}	L _{pA}	η _{IL}
	rpm ⁻¹	W	dB(A)	%
Ⓐ 1'	2170	57	66	—
Ⓐ 2'	2410	51	66	47
Ⓐ 3'	2750	44	64	49
Ⓐ 4'	3200	36	66	32
Ⓐ 1	2000	45	64	—
Ⓐ 2	2230	40	64	49
Ⓐ 3	2540	35	62	51
Ⓐ 4	2920	27	63	33
Ⓐ 5	1750	28	60	—
Ⓐ 6	1910	24	59	50
Ⓐ 7	2120	20	58	53
Ⓐ 8	2370	15	59	35

Air performance measured according to: ISO 5801, Installation category A, with ebm-papst scroll housing without contact protection. Suction-side noise levels: L_{WA} according to ISO 13347, L_{pA} measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

- **Technical features:** See connection diagram p. 259
- **Cable exit:** Lateral
- **Protection class:** I
- **Conformity with standard(s):** EN 60950-1
- **Approvals:** Ⓐ (24 VDC) UL, CSA, Ⓐ (48 VDC) CCC

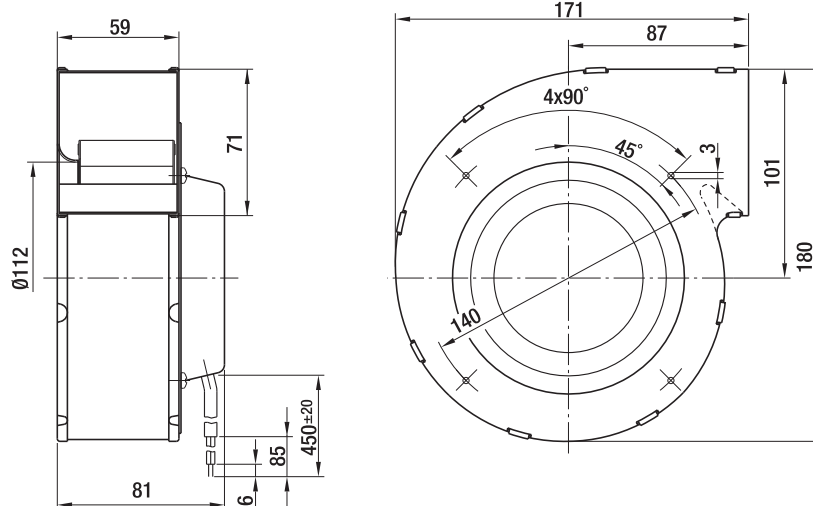
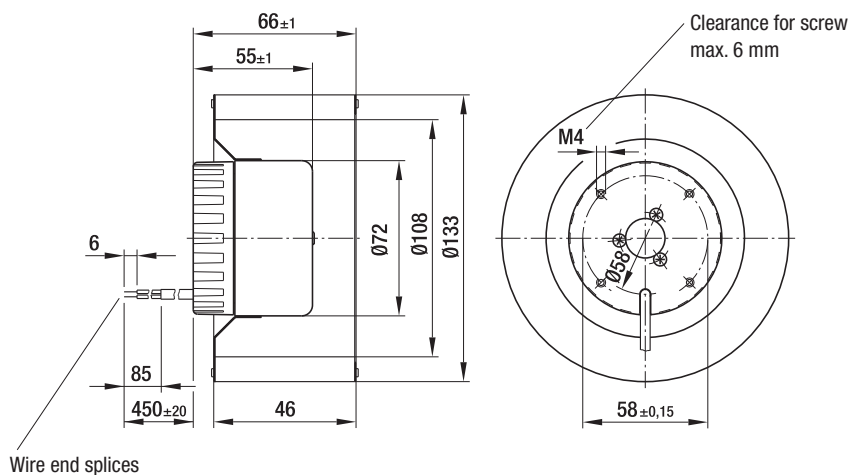


Weight centrifugal fans



Weight centrifugal blowers

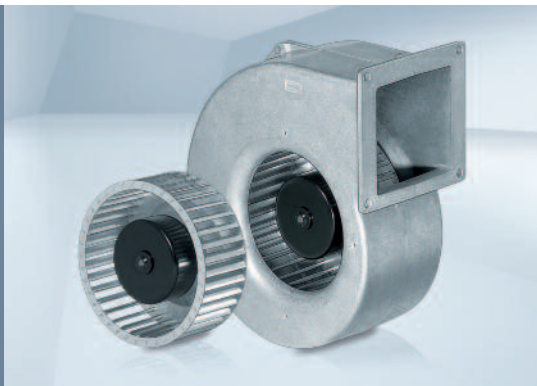
Centrifugal fans	kg	Centrifugal blowers with flange	kg
R1G 133-AE19 -02	0.7	G1G 133-DE19 -02	1.3
R1G 133-AE03 -02	0.7	G1G 133-DE03 -02	1.3



Max. 410 m³/h

DC centrifugal fans and blowers

Ø 140 mm



- **Material:** Housing: Die-cast aluminum
Impeller: Hot-dip galvanized sheet steel
Rotor: Painted black
- **Direction of rotation:** Clockwise, looking towards rotor
- **Degree of protection:** IP 22
- **Insulation class:** "B"
- **Installation position:** Any
- **Condensation drainage holes:** None
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

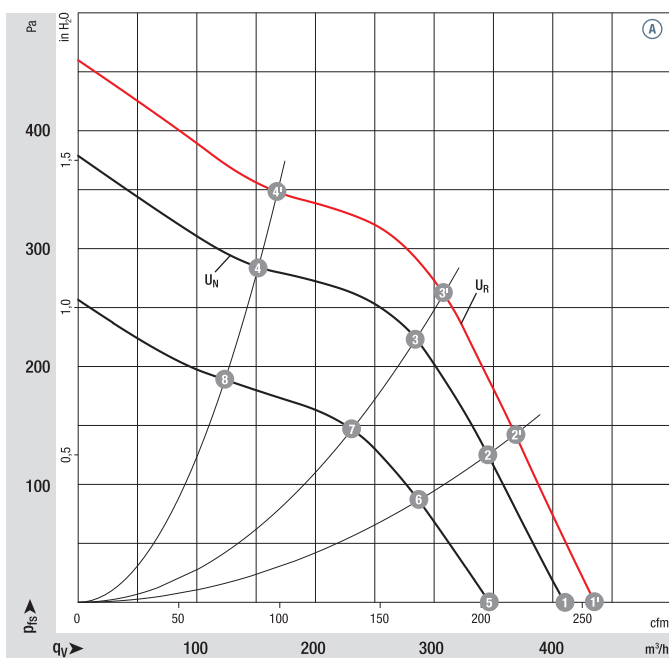
Nominal data		Curve	Nominal voltage	Nominal voltage range	Air flow	Nominal speed	Power consumption	Input current	Sound pressure level	Min. back-pressure	Admissible amb. temp.	Technical features and connection diagram
Type	Motor		VDC	VDC	m ³ /h	rpm ⁻¹	W	A	dB(A)	Pa	°C	
*1G 140	M1G055-BD	Ⓐ	24	16-28	400	1750	54	2.50	63	0	-25...+60	p. 259 / G)
*1G 140	M1G055-BD	Ⓐ	48	36-57	410	1750	54	1.30	63	0	-25...+60	p. 259 / G)

Subject to change

Curves:

U_N = nominal voltage
(24 V / 48 V)

U_R = over-voltage
(28 V / 57 V)



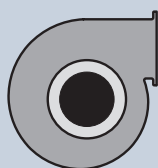
	n	P _{ed}	L _{pA}	η _{HL}
	rpm ⁻¹	W	dB(A)	%
Ⓐ 1'	1850	65	64	—
Ⓐ 2'	2020	61	61	50
Ⓐ 3'	2200	57	59	54
Ⓐ 4'	2550	43	60	40
Ⓐ 1	1750	54	63	—
Ⓐ 2	1900	50	59	51
Ⓐ 3	2030	45	58	54
Ⓐ 4	2310	32	58	40
Ⓐ 5	1500	34	60	—
Ⓐ 6	1580	29	56	50
Ⓐ 7	1670	25	54	53
Ⓐ 8	1880	19	53	41

Air performance measured according to: ISO 5801, Installation category A, with ebm-papst scroll housing without contact protection. Suction-side noise levels: L_{WA} according to ISO 13347, L_{PA} measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

- **Technical features:** See connection diagram p. 259
- **Cable exit:** Axial
- **Protection class:** I
- **Conformity with standard(s):** EN 60950-1
- **Approvals:** Ⓐ (48 VDC) CCC

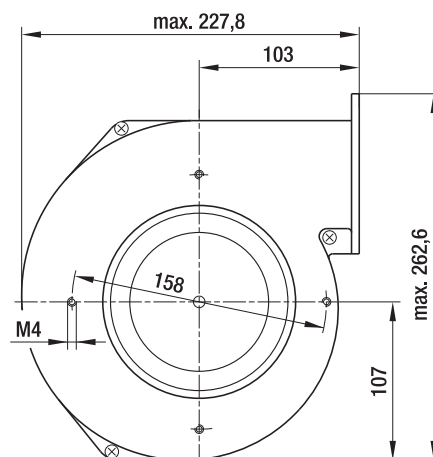
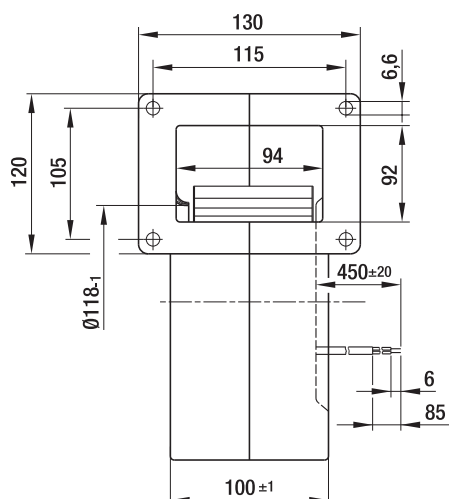
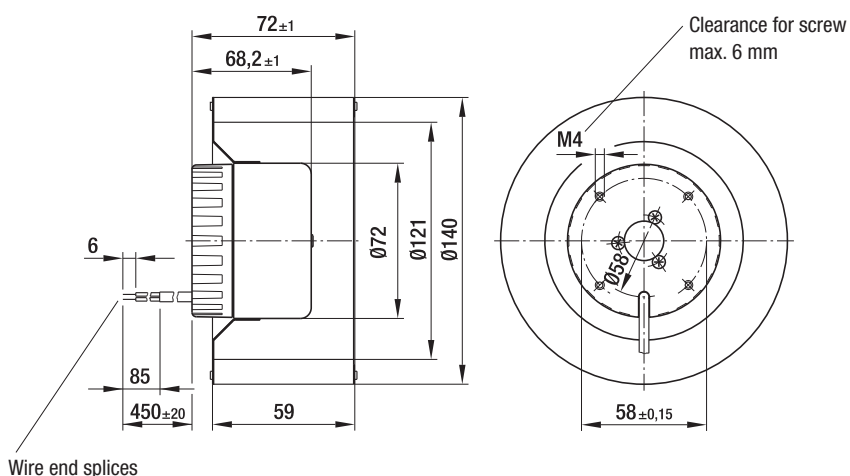


Weight centrifugal fans



Weight centrifugal blowers

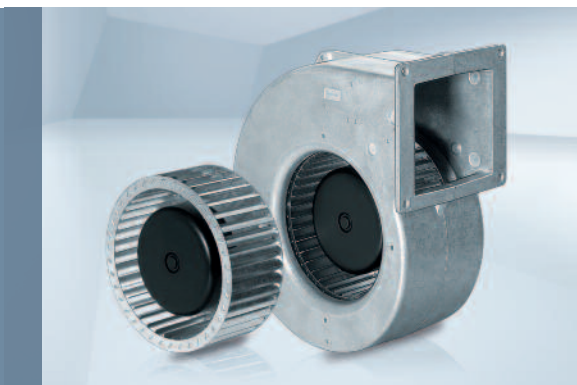
Centrifugal fans	kg	Centrifugal blowers with flange	kg
R1G 140-AV17 -02	1.0	G1G 140-AV17 -02	2.3
R1G 140-AV21 -02	1.0	G1G 140-AV21 -02	2.3



Max. 470 m³/h

DC centrifugal fans and blowers

Ø 146 mm



- **Material:** Housing: Die-cast aluminum
Impeller: Hot-dip galvanized sheet steel
Rotor: Painted black
- **Direction of rotation:** Clockwise, looking towards rotor
- **Degree of protection:** IP 42
- **Insulation class:** "B"
- **Installation position:** Any
- **Condensation drainage holes:** None
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

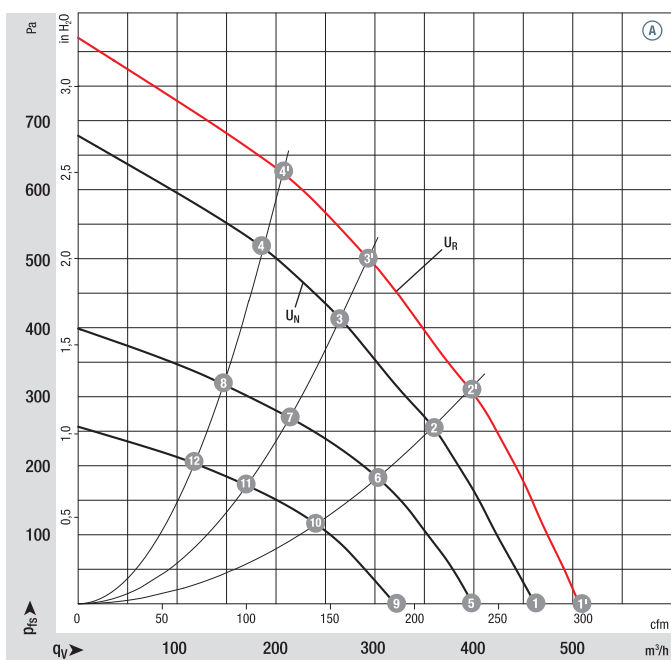
Nominal data		Curve	Nominal voltage	Nominal voltage range	Air flow	Nominal speed	Power consumption	Input current	Sound pressure level	Min. back-pressure	Admissible amb. temp.	Technical features and connection diagram
Type	Motor		VDC	VDC	m ³ /h	rpm ⁻¹	W	A	dB(A)	Pa	°C	
*1G 146	M1G074-BF	Ⓐ	24	16-28	470	2200	100	5.00	68	0	-25...+60	p. 259 / G)
*1G 146	M1G074-BF	Ⓐ	48	36-57	465	2150	100	2.60	67	0	-25...+60	p. 259 / G)

Subject to change

Curves:

U_N = nominal voltage
(24 V / 48 V)

U_R = over-voltage
(28 V / 57 V)



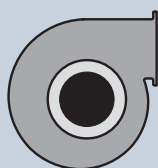
	n	P _{ed}	L _{pA}	η _{IL}
	rpm ⁻¹	W	dB(A)	%
Ⓐ 1'	2400	140	70	—
Ⓐ 2'	2650	130	67	45
Ⓐ 3'	3000	110	66	49
Ⓐ 4'	3300	100	67	45
Ⓐ 1	2200	100	68	—
Ⓐ 2	2445	90	65	46
Ⓐ 3	2750	84	64	49
Ⓐ 4	3025	77	65	45
Ⓐ 5	1890	68	63	—
Ⓐ 6	2075	57	60	46
Ⓐ 7	2250	48	61	49
Ⓐ 8	2335	41	61	45
Ⓐ 9	1520	37	59	—
Ⓐ 10	1670	32	55	46
Ⓐ 11	1815	27	55	49
Ⓐ 12	1920	23	55	45

Air performance measured according to: ISO 5801, Installation category A, with ebm-papst scroll housing without contact protection. Suction-side noise levels: L_{WA} according to ISO 13347, L_{pA} measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

- **Technical features:** See connection diagram p. 259
- **Cable exit:** Axial
- **Protection class:** I
- **Conformity with standard(s):** EN 60950-1
- **Approvals:** UL, CSA, CCC (only centrifugal blowers)

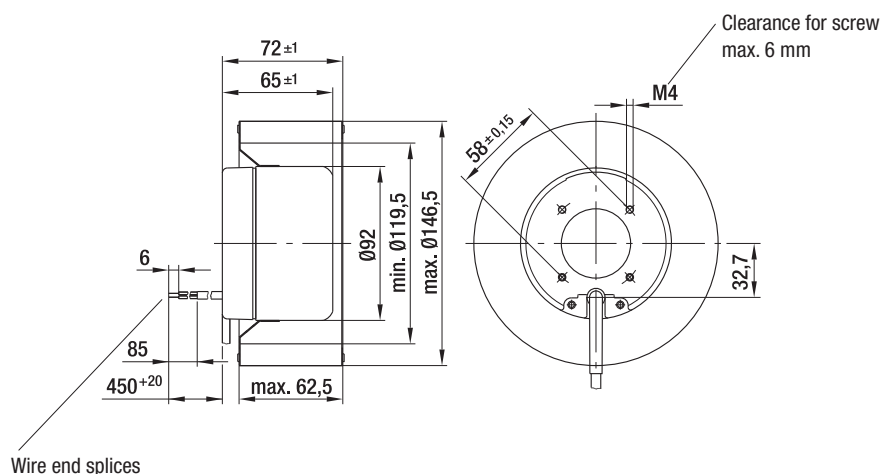


Weight centrifugal fans

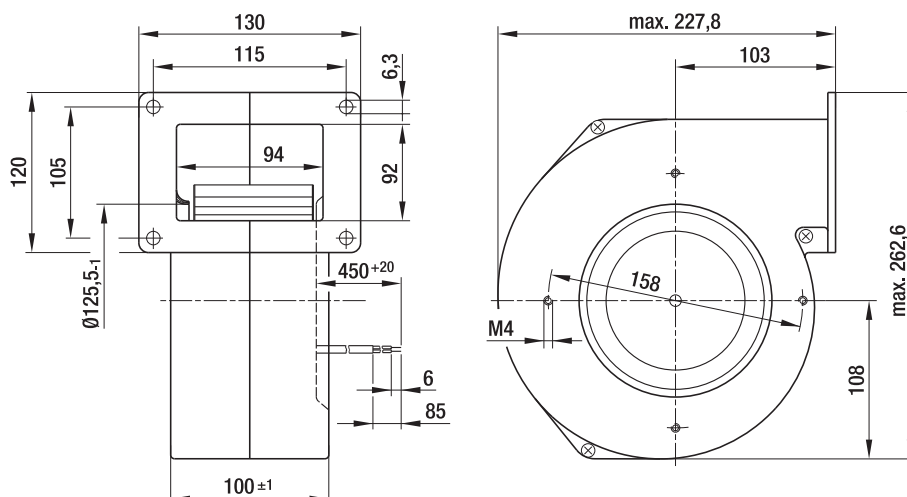


Weight centrifugal blowers

Centrifugal fans	kg	Centrifugal blowers with flange	kg
R1G 146-AA07 -52	1.4	G1G 146-BA07 -52	2.8
R1G 146-AA11 -52	1.4	G1G 146-BA11 -52	2.8



Wire end splices



Max. 505 m³/h

DC centrifugal fans and blowers

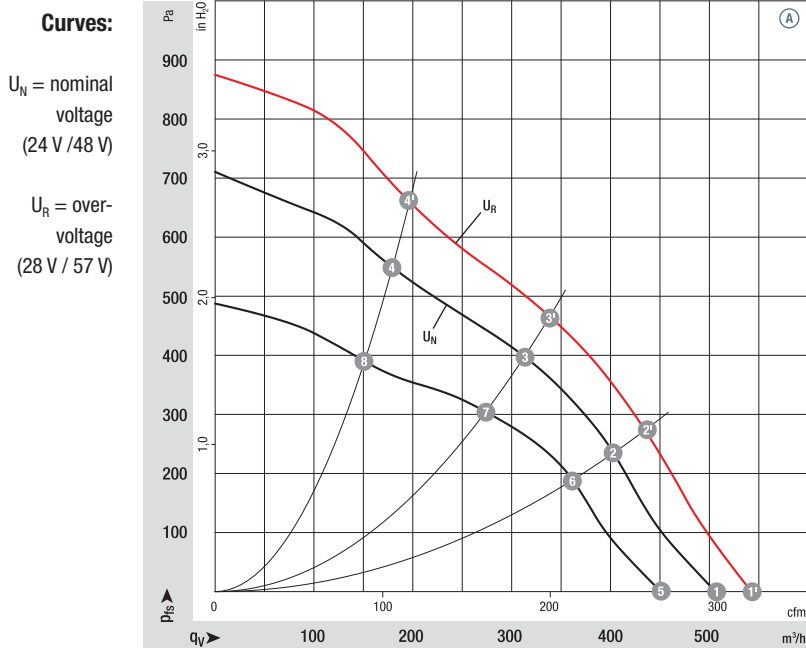
Ø 160 mm



- **Material:** Housing: Die-cast aluminum
Impeller: Hot-dip galvanized sheet steel
Rotor: Painted black
- **Direction of rotation:** Clockwise, looking towards rotor
- **Degree of protection:** IP 42
- **Insulation class:** "B"
- **Installation position:** Any
- **Condensation drainage holes:** None
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

Nominal data		Curve	Nominal voltage	Nominal voltage range	Air flow	Nominal speed	Power consumption	Input current	Sound pressure level	Min. back-pressure	Admissible amb. temp.	Technical features and connection diagram
Type	Motor		VDC	VDC	m ³ /h	rpm ⁻¹	W	A	dB(A)	Pa	°C	
*1G 160	M1G074-BF	Ⓐ	24	16-28	505	1750	105	5.80	67	0	-25...+60	p. 259 / G)
*1G 160	M1G074-BF	Ⓐ	48	36-57	505	1750	105	2.90	67	0	-25...+60	p. 259 / G)

Subject to change



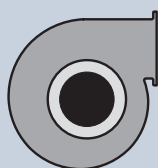
	n rpm ⁻¹	P _{ed} W	L _{pA} dB(A)	η _{HL} %
Ⓐ 1'	1890	134	68	—
Ⓐ 2'	2200	118	67	52
Ⓐ 3'	2500	110	67	57
Ⓐ 4'	2900	102	69	52
Ⓐ 1	1750	105	67	—
Ⓐ 2	2030	95	66	52
Ⓐ 3	2270	90	65	57
Ⓐ 4	2550	81	67	44
Ⓐ 5	1580	72	62	—
Ⓐ 6	1810	66	62	52
Ⓐ 7	2000	58	62	57
Ⓐ 8	2200	48	63	54

Air performance measured according to: ISO 5801, Installation category A, with ebm-papst scroll housing without contact protection. Suction-side noise levels: L_{WA} according to ISO 13347, L_{pA} measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

- **Technical features:** See connection diagram p. 259
- **Cable exit:** Axial
- **Protection class:** I
- **Conformity with standard(s):** EN 60950-1
- **Approvals:** UL, CSA

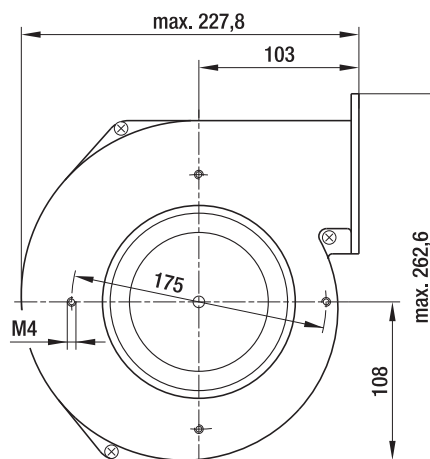
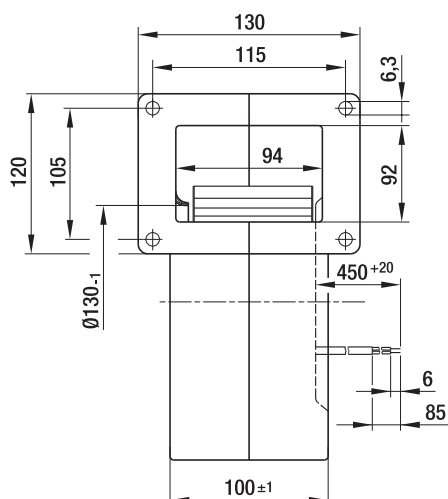
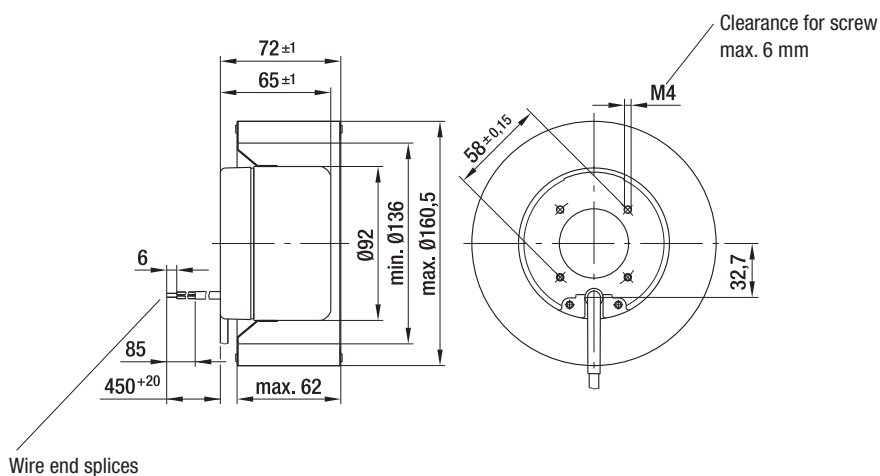


Weight centrifugal fans



Weight centrifugal blowers

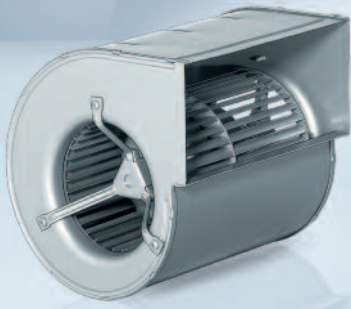
Centrifugal fans	kg	Centrifugal blowers with flange	kg
R1G 160-AH29 -52	1.4	G1G 160-BH29 -52	2.8
R1G 160-AH39 -52	1.4	G1G 160-BH39 -52	2.8



Max. 700 m³/h

DC centrifugal blowers

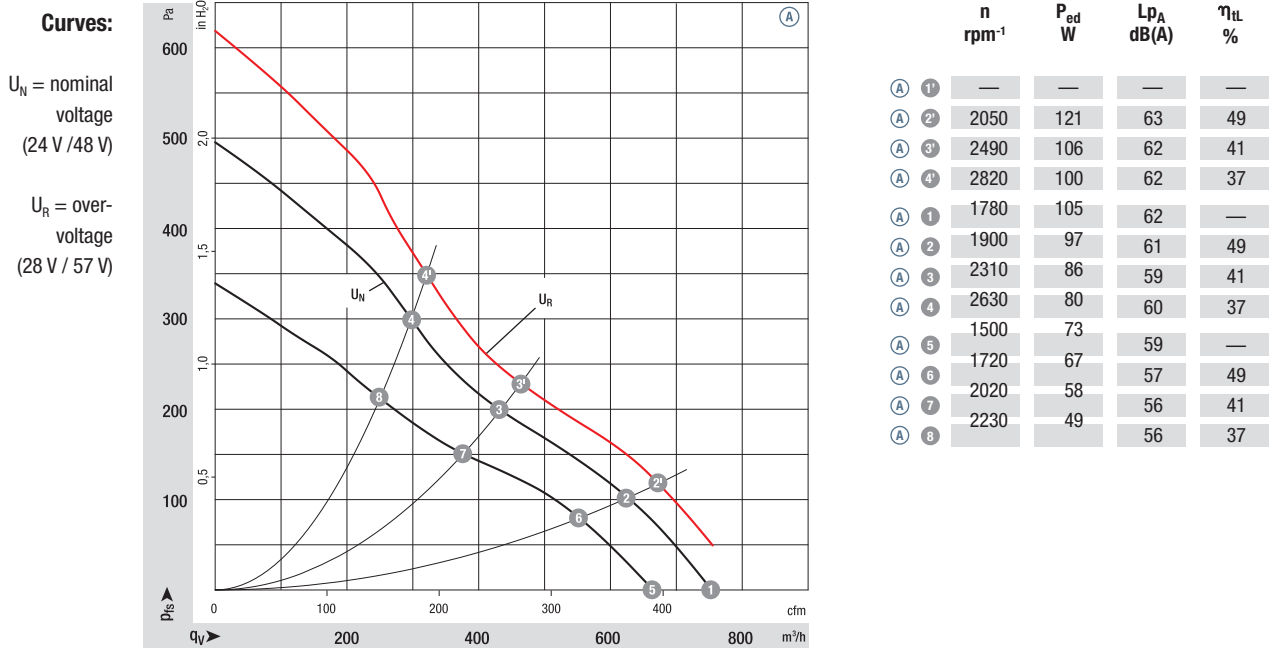
Ø 133 mm



- **Material:** Housing: Galvanized sheet steel
Impeller: Galvanized sheet steel
Rotor: Painted black
- **Direction of rotation:** Clockwise, looking towards rotor
- **Degree of protection:** IP 42
- **Insulation class:** "B"
- **Installation position:** Any
- **Condensation drainage holes:** None
- **Mode of operation:** Continuous operation (S1)
- **Design:** SAL motor mounted with vibration damping on both sides
- **Bearings:** Maintenance-free ball bearings

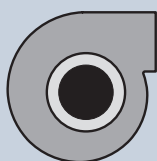
Nominal data		Curve	Nominal voltage		Air flow	Nominal speed	Power consumption	Input current	Sound pressure level	Min. back-pressure	Admissible amb. temp.	Technical features and connection diagram
Type	Motor		VDC	VDC	m ³ /h	rpm ⁻¹	W	A	dB(A)	Pa	°C	
D1G 133	M1G074-BF	Ⓐ	24	16-28	700	1780	105	5.60	62	50	-25...+60	p. 259 / G)
D1G 133	M1G074-BF	Ⓐ	48	36-57	700	1780	105	2.80	62	50	-25...+60	p. 259 / G)

Subject to change



Air performance measured according to: ISO 5801, Installation category A, with ebm-papst scroll housing without contact protection. Suction-side noise levels: L_{WA} according to ISO 13347, L_{pA} measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

- **Technical features:** See connection diagram p. 259
- **Cable exit:** Variable
- **Protection class:** I
- **Conformity with standard(s):** EN 60950-1
- **Approvals:** UL, CSA; Ⓢ (48 VDC) also CCC



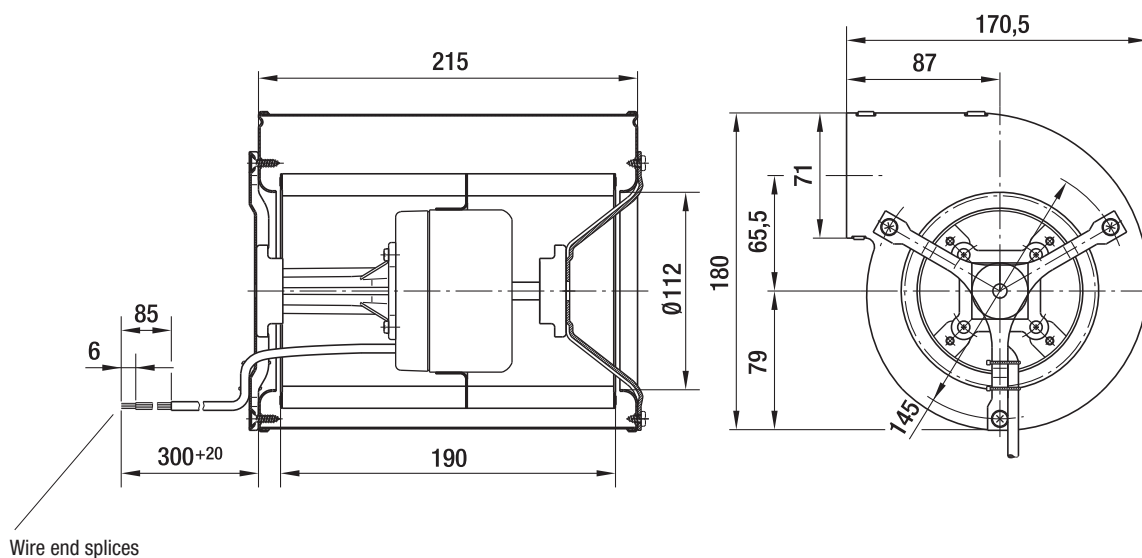
Weight centrifugal blowers

Centrifugal blowers without flange

kg

D1G 133-AB29 -52 3.3

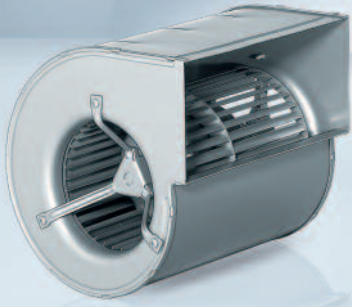
D1G 133-AB39 -52 3.3



Max. 1020 m³/h

DC centrifugal blowers

Ø 133 mm



- **Material:** Housing: Galvanized sheet steel
Impeller: Galvanized sheet steel
Rotor: Painted black
- **Direction of rotation:** Clockwise, looking towards rotor
- **Degree of protection:** IP 42
- **Insulation class:** "B"
- **Installation position:** Any
- **Condensation drainage holes:** None
- **Mode of operation:** Continuous operation (S1)
- **Design:** SAL motor mounted with vibration damping on both sides
- **Bearings:** Maintenance-free ball bearings

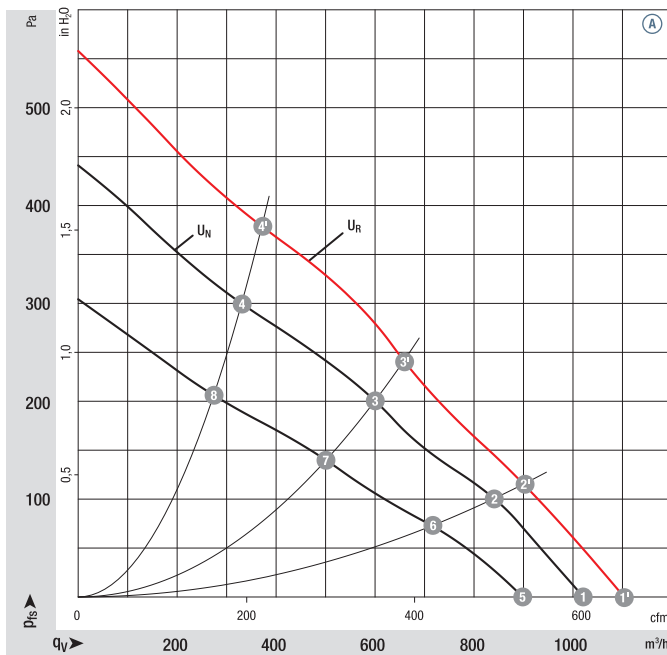
Nominal data		Curve	Nominal voltage		Nominal voltage range	Air flow	Nominal speed	Power consumption	Input current	Sound pressure level	Min. back-pressure	Admissible amb. temp.	Technical features and connection diagram
Type	Motor		VDC	VDC		m ³ /h	rpm ⁻¹	W	A	dB(A)	Pa	°C	
D1G 133	M1G074-BF	Ⓐ	24	16-28		1020	1580	118	6.00	64	0	-25...+60	p. 259 / G)
D1G 133	M1G074-BF	Ⓐ	48	36-57		1020	1580	118	3.00	64	0	-25...+60	p. 259 / G)

Subject to change

Curves:

U_N = nominal voltage
(24 V / 48 V)

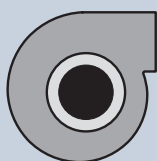
U_R = over-voltage
(28 V / 57 V)



	n rpm ⁻¹	P _{ed} W	L _{pA} dB(A)	η _{IL} %
Ⓐ 1'	1700	145	65	—
Ⓐ 2'	1930	133	62	38
Ⓐ 3'	2290	122	59	41
Ⓐ 4'	2700	99	61	32
Ⓐ 1	1580	118	64	—
Ⓐ 2	1790	107	61	38
Ⓐ 3	2100	95	57	41
Ⓐ 4	2410	73	58	32
Ⓐ 5	1400	78	60	—
Ⓐ 6	1580	70	56	38
Ⓐ 7	1760	56	53	41
Ⓐ 8	2000	44	53	32

Air performance measured according to: ISO 5801, Installation category A, with ebm-papst scroll housing without contact protection. Suction-side noise levels: L_{WA} according to ISO 13347, L_{PA} measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

- **Technical features:** See connection diagram p. 259
- **EMC (24 VDC):** Interference emission acc. to EN 55022, class B
Immunity to interference acc. to EN 61000-6-2
- **Cable exit:** Variable
- **Protection class:** I
- **Conformity with standard(s):** EN 60950-1
- **Approvals:** UL, CSA

Weight
centrifugal blowersCentrifugal blowers
without flange

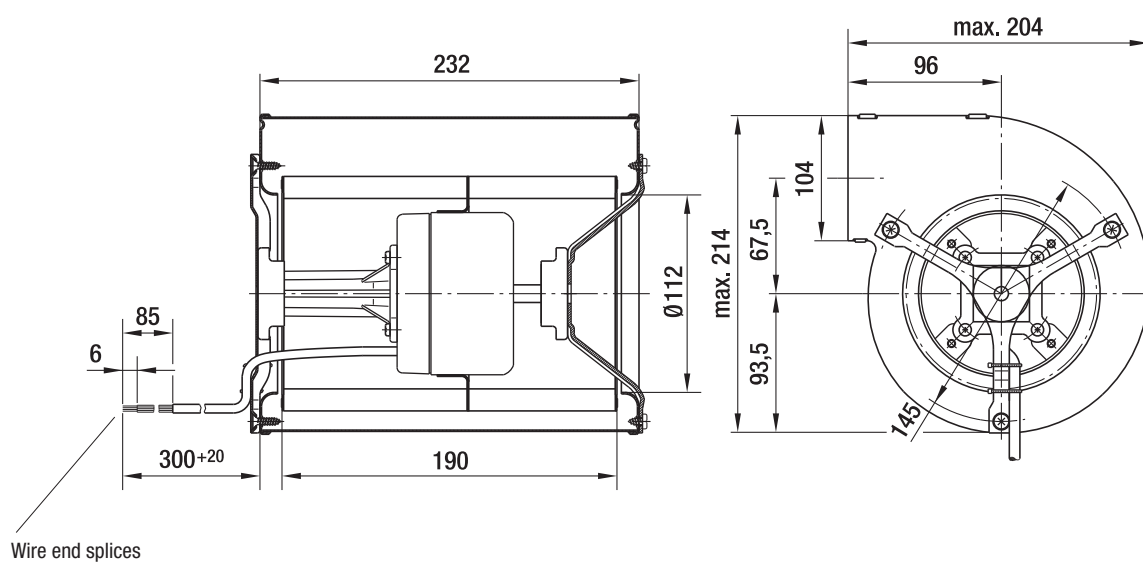
kg

D1G 133-DC13 -52

3.4

D1G 133-DC17 -52

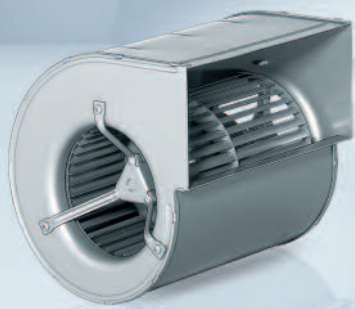
3.4



Max. 1000 m³/h

DC centrifugal blowers

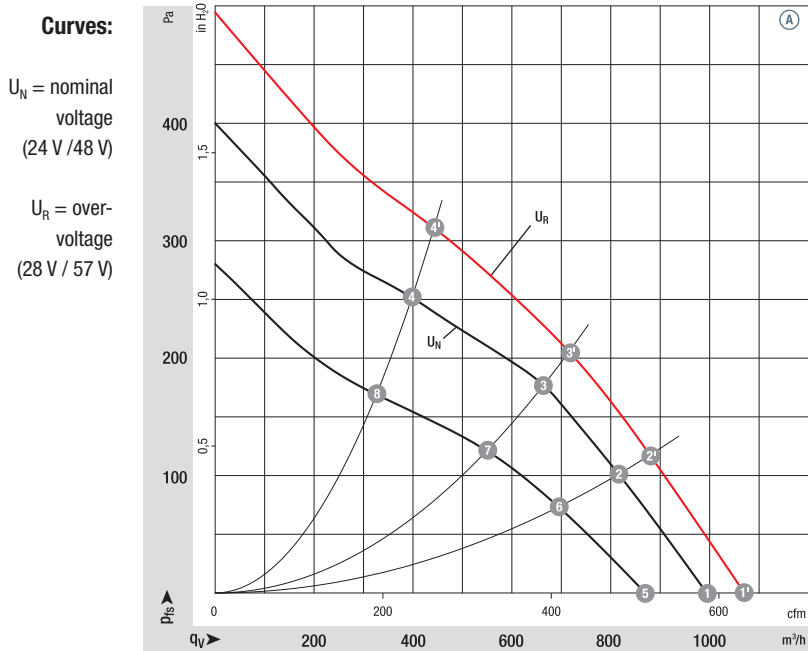
Ø 146 mm



- **Material:** Housing: Galvanized sheet steel
Impeller: Galvanized sheet steel
Rotor: Painted black
- **Direction of rotation:** Clockwise, looking towards rotor
- **Degree of protection:** IP 42
- **Insulation class:** "B"
- **Installation position:** Any
- **Condensation drainage holes:** None
- **Mode of operation:** Continuous operation (S1)
- **Design:** SAL motor mounted with vibration damping on both sides
- **Bearings:** Maintenance-free ball bearings

Nominal data		Curve	Nominal voltage		Air flow	Nominal speed	Power consumption	Input current	Sound pressure level	Min. back-pressure	Admissible amb. temp.	Technical features and connection diagram
Type	Motor		VDC	VDC	m ³ /h	rpm ⁻¹	W	A	dB(A)	Pa	°C	
D1G 146	M1G 074-CF	Ⓐ	24	16-28	1000	1350	105	5.10	61	0	-25...+60	p. 259 / G)
D1G 146	M1G 074-CF	Ⓐ	48	36-57	1000	1350	105	2.60	61	0	-25...+60	p. 259 / G)

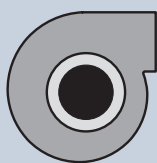
Subject to change



	n	P _{ed}	L _{pA}	η _{IL}
	rpm ⁻¹	W	dB(A)	%
Ⓐ 1'	1460	129	63	—
Ⓐ 2'	1680	119	60	53
Ⓐ 3'	1890	111	58	61
Ⓐ 4'	2240	95	59	55
Ⓐ 1	1350	105	61	—
Ⓐ 2	1570	95	58	53
Ⓐ 3	1750	88	56	61
Ⓐ 4	2010	70	57	55
Ⓐ 5	1210	70	56	—
Ⓐ 6	1360	60	54	53
Ⓐ 7	1460	53	52	61
Ⓐ 8	1670	42	51	55

Air performance measured according to: ISO 5801, installation category A, with ebm-papst scroll housing without contact protection. Suction-side noise levels: L_{WA} according to ISO 13347, L_{pA} measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

- **Technical features:** See connection diagram p. 259
- **EMC (24 VDC):** Interference emission acc. to EN 55022, class B
Immunity to interference acc. to EN 61000-6-2
- **Cable exit:** Variable
- **Protection class:** I
- **Conformity with standard(s):** EN 60950-1
- **Approvals:** UL, CSA

Weight
centrifugal blowersCentrifugal blowers
without flange

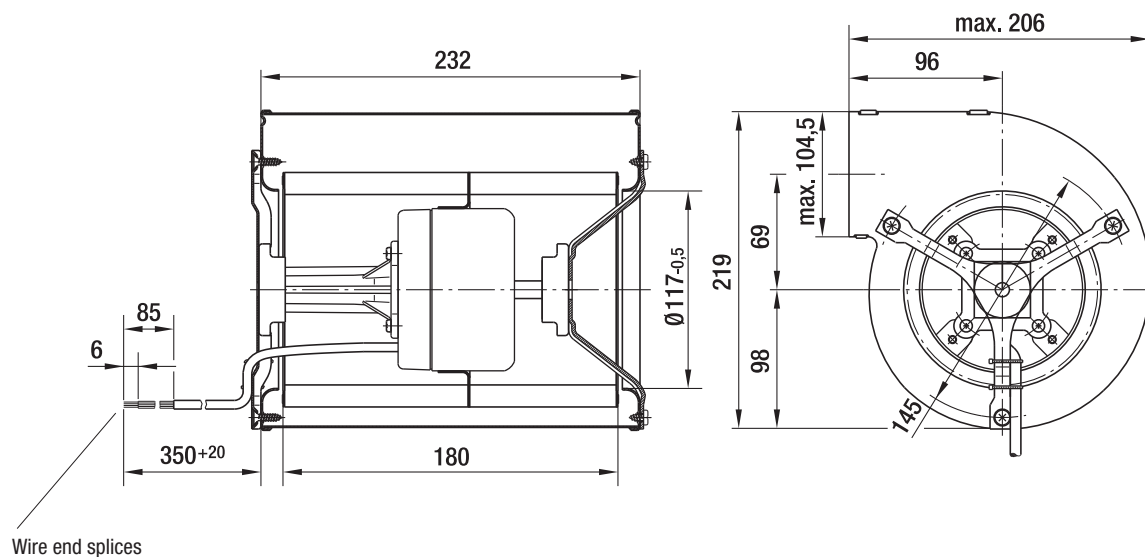
kg

D1G 146-AA19 -52

3.5

D1G 146-AA33 -52

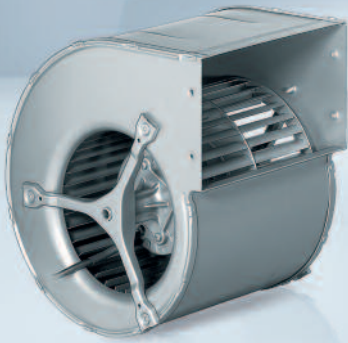
3.5



Max. 980 m³/h

DC centrifugal blowers

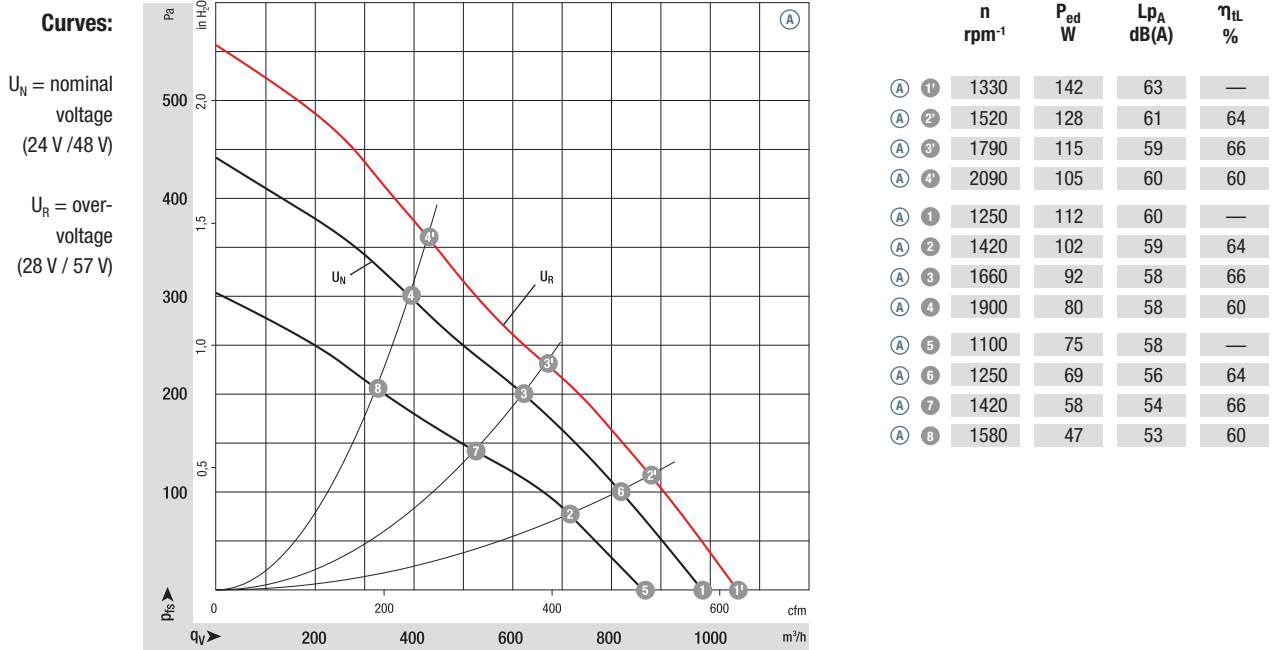
Ø 160 mm



- **Material:** Housing: Galvanized sheet steel
Impeller: Galvanized sheet steel
Rotor: Painted black
- **Direction of rotation:** Counterclockwise, looking towards rotor
- **Degree of protection:** IP 42
- **Insulation class:** "B"
- **Installation position:** Any
- **Condensation drainage holes:** None
- **Mode of operation:** Continuous operation (S1)
- **Design:** SAL motor mounted with vibration damping on both sides
- **Bearings:** Maintenance-free ball bearings

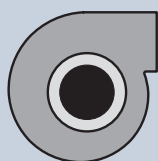
Nominal data		Curve	Nominal voltage	Nominal voltage range	Air flow	Nominal speed	Power consumption	Input current	Sound pressure level	Min. back-pressure	Admissible amb. temp.	Technical features and connection diagram
Type	Motor		VDC	VDC	m ³ /h	rpm ⁻¹	W	A	dB(A)	Pa	°C	
D1G 160	M1G074-CF	Ⓐ	24	16-28	980	1250	112	5.60	60	0	-25...+60	p. 259 / G)
D1G 160	M1G074-CF	Ⓐ	48	36-57	980	1250	112	2.90	60	0	-25...+60	p. 259 / G)

Subject to change



Air performance measured according to: ISO 5801, installation category A, with ebm-papst scroll housing without contact protection. Suction-side noise levels: L_{wA} according to ISO 13347, L_{pA} measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

- **Technical features:** See connection diagram p. 259
- **Cable exit:** Variable
- **Protection class:** I
- **Conformity with standard(s):** EN 60950-1
- **Approvals:** UL, CSA



Weight
centrifugal blowers

Centrifugal blowers
without flange

kg

D1G 160-DA19 -52

3.6

D1G 160-DA33 -52

3.6

