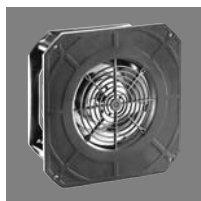


DC fans

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 nozzle with an edge length between 51 mm and 270 mm. Of course, all models feature high-efficiency, 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 conveniently located in the fan hub.

Product life expectancy

A distinctive feature of DC fan technology is the convincingly high product life expectancy. Thanks to the excellent efficiency of the brushless drives, the thermal load of the bearings is reduced, thus considerably increasing the life expectancy of the fans.

Protection class

DC fans with sleeve and ball bearings are powered by Class E insulated motors. All ebm-papst fans conform to the requirements of Protection Class IP 20. Fans conforming to IP 54 and special protection classes 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 enables the air performance to be adapted to the cooling requirements and allows 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 at over 1500 m³/h and a pressure build-up of up to 1000 pascals, the highest heat flows are manageable. In addition, 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 air performance

Dimensions	Series	Air flow	Air flow (m³/h)																		Page						
			10	20	30	40	50	60	70	80	90	100	200	300	400	500	600	700	800	900		1000	2000	3000			
mm		m³/h																									
105 x 59 x 79	RV 40	18...24																									79
□ 51 x 15	RLF 35	9,6																									80
□ 76 x 27	RL 48	22...28																									81
97 x 93,5 x 33	RL 65	56...61																									82
□ 121 x 37	RL 90 N	40...55																									83
□ 127 x 25	RLF 100	64...80																									84
□ 135 x 38	RG 90 N	55																									85
□ 180 x 40	RG 125 N	60...137																									86
□ 220 x 56	RG 160 N	139...209																									87
□ 220 x 56	RG 160 NTD	59...370	NEW																								88
□ 225 x 85	RG 190 TD	630...930	NEW																								89
□ 270 x 99	RG 220 TD	1090...1280	NEW																								90
□ 270 x 119	RG 225 TD	1040...1210	NEW																								91
∅ 97 x 41	RET 97 TD	220	NEW																								92
∅ 104 x 25	REF 100	86...104																									93
∅ 101 x 52	RER 101	190																									94
∅ 120 x 54	RER 120 TD	320...390	NEW																								95
∅ 138 x 35	RER 125 N	74...166																									96
∅ 133 x 91	RER 133 TD	460...565	NEW																								97
∅ 165 x 51	RER 160 N	255																									98
∅ 165 x 51	RER 160 NTD	66...354	NEW																								99
∅ 175 x 55	REF 175 TD	800	NEW																								100
∅ 175 x 69	RER 175 TD	600...980	NEW																								101
∅ 190 x 69	RER 190 TD	650...970	NEW																								102
∅ 220 x 71	RER 220 TD	1090...1280	NEW																								103
∅ 225 x 99	RER 225 TD	1080...1600	NEW																								104
201...413 x 50 x 48	QG 030	75...155																									105



Centrifugal fans for DC operation

Overview of technically feasible designs

Centrifugal fans		OPTIONAL										P.				
Series	mm	Dimensions	VDE, UL, CSA	Sinter sleeve bearings/ball bearings	Sensor	Go / No-go alarm	Alarm with limit speed	External temperature sensor	Internal temperature sensor	PMW control input	Analogue control input	Multi-option control input	Humidity protection	IP >= IP54	Salt spray fog protection	Page
RV 40	105 x 59 x 79	yes	■	–	•	–	–	–	–	–	–	–	•	–	–	79
RLF 35	51 x 51 x 15	*	■	•	–	–	–	–	–	–	–	–	•	–	–	80
RL 48	76 x 76 x 27	yes	■	•	•	–	–	–	–	–	–	–	•	–	–	81
RL 65	97 x 93,5 x 33	*	■	•	•	•	•	•	•	•	•	–	•	–	–	82
RL 90 N	121 x 121 x 37	yes	□/■	•	•	•	•	•	•	•	•	–	•	•	•	83
RLF 100	127 x 127 x 25	yes	■	•	•	•	•	•	•	•	•	–	•	•	–	84
RG 90 N	135 x 135 x 38	yes	□/■	•	•	•	•	•	•	•	•	–	•	•	•	85
RG 125 N	180 x 180 x 40	yes	■	•	•	•	•	•	•	•	•	–	•	•	•	86
RG 160 N	220 x 220 x 56	yes	■	•	•	•	•	•	•	•	•	–	•	•	•	87
NEW RG 160 NTD	220 x 220 x 56	yes	■	•	•	•	•	•	•	•	•	–	•	•	•	88
NEW RG 190 TD	225 x 225 x 85	yes	■	•	•	•	•	•	•	•	•	–	•	•	•	89
NEW RG 220 TD	270 x 270 x 99	yes	■	•	•	•	•	•	•	•	•	–	•	•	–	90
NEW RG 225 TD	270 x 270 x 132	yes	■	•	•	•	•	•	•	•	•	–	•	•	–	91
NEW RET 97 TD	97 Ø x 41	*	■	•	•	•	•	•	•	•	•	–	•	–	–	92
REF 100	100 Ø x 25	yes	■	•	•	•	•	•	•	•	•	–	•	•	–	93
RER 101	101 Ø x 52	*	■	•	•	•	•	•	•	•	•	–	•	–	–	94
NEW RER 120 TD	120 Ø x 54	*	■	•	•	•	•	•	•	•	•	–	•	–	–	95
RER 125 N	138 Ø x 35	yes	■	•	•	•	•	•	•	•	•	–	•	–	–	96
NEW RER 133 TD	133 Ø x 91	*	■	•	•	•	•	•	•	•	•	–	•	–	–	97
RER 160 N	165 Ø x 51	yes	■	•	•	•	•	•	•	•	•	–	•	•	•	98
NEW RER 160 NTD	165 Ø x 51	yes	■	•	•	•	•	•	•	•	•	–	•	•	•	99
NEW REF 175 TD	175 Ø x 55	*	■	•	•	•	•	•	•	•	•	–	•	–	–	100
NEW RER 175 TD	175 Ø x 69	*	■	•	•	•	•	•	•	•	•	–	•	•	•	101
NEW RER 190 TD	190 Ø x 69	*	■	•	•	•	•	•	•	•	•	–	•	•	•	102
NEW RER 220 TD	220 Ø x 71	*	■	•	•	•	•	•	•	•	•	–	•	–	–	103
NEW RER 225 TD	225 Ø x 99	*	■	•	•	•	•	•	•	•	•	–	•	–	–	104
QG 030	201...413 x 50 x 48	yes	■	•	–	–	–	–	–	–	–	–	•	–	–	105

* approvals applied for
 – not yet available
 • available
 □ Sleeve Bearings
 ■ 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 tied to minimum volumes. Please consult your customer support representative about the feasibility of your special variant.

Optional special versions / Information pictograms (see page 20)

On the catalogue pages and in the overview on page 20, the pictograms shown 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 not usually available off the shelf.

max. 24 m³/h

DC centrifugal fans

Series RV 40 105 x 59 x 79 mm



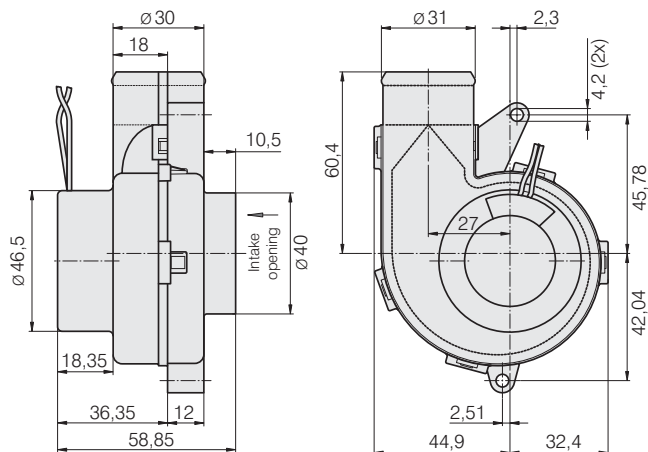
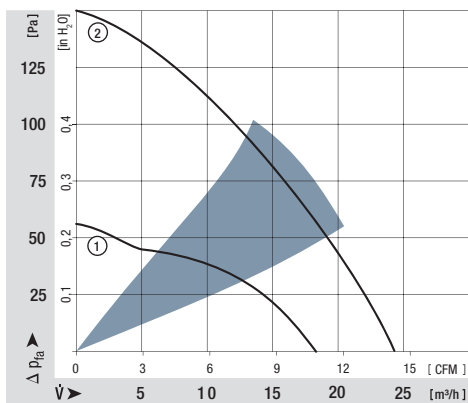
Highlights:

- Pressure-optimised blower.
- Motor with very low structure-borne noise properties.
- Forward curved impeller.

General characteristics:

- Fibreglass-reinforced plastic scroll housing and impeller.
- Fully integrated electronic commutation.
- Protected against reverse polarity and locking.
- Direction of air flow: axial air intake, centrifugal air exhaust out of the outlet.
- Connection via single strands AWG 26, TR 64. Bared and tin-plated.
- Mass: 100 g.

Nominal data	Air flow		Nominal voltage	Voltage range	Sound power level	Sinter sleeve bearings Ball bearings	Power input	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 ^Δ (40 °C) see P. 15	Curve	Specials
	m ³ /h	CFM												
RV 40-18/12 L	18	10,6	12	9...16	4,0	■	2,0	3 900	-20...+70	70 000 / 35 000	110 000	1		
RV 40-18/12 H	24	14,1	12	9...16	5,0	■	4,5	4 800	-20...+70	50 000 / 25 000	80 000	2		



max. 9,6 m³/h

DC centrifugal fans

Series RLF 35 51 x 51 x 15 mm



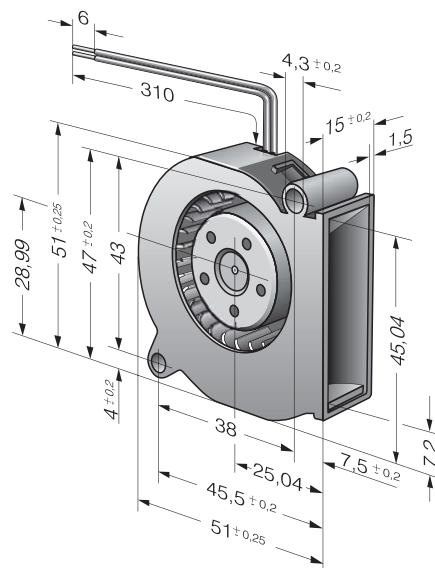
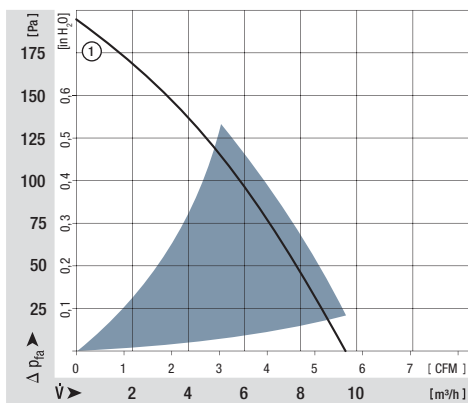
Highlights:

- Noise-optimised air outlet in scroll housing.
- Very flat and powerful centrifugal fan.
- Forward curved impeller.

General characteristics:

- Fibreglass-reinforced plastic scroll housing and impeller.
- Fully integrated electronic commutation.
- Protected against reverse polarity and locking.
- Direction of air flow: axial air intake, centrifugal air exhaust out of the outlet.
- Connection via single strands AWG 26, TR 64. Bared and tin-plated.
- Mass: 40 g.

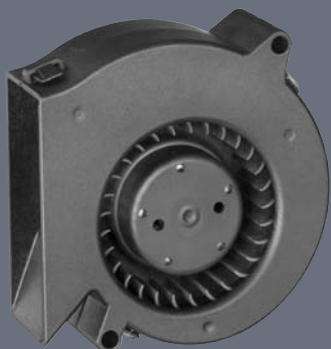
Nominal data	Air flow		Nominal voltage	Voltage range	Sound power level	Sinter sleeve bearings Ball bearings	Power input	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst Standard	Service life L ₁₀ (T _{max}) ebm-papst Standard	Life expectancy L ₁₀ Δ (40 °C) see P. 15	Curve	Specials
	m ³ /h	CFM												
RLF 35-8/12 N	9,6	5,7	12	8...13,2	5,5	■	3,5	6 700	-20...+70	60 000 / 30 000	120 000	1		
RLF 35-8/14 N	9,6	5,7	24	14...28	5,5	■	4,3	6 700	-20...+70	60 000 / 30 000	120 000	1		



max. 28 m³/h

DC centrifugal fans

Series RL 48 76 x 76 x 27 mm



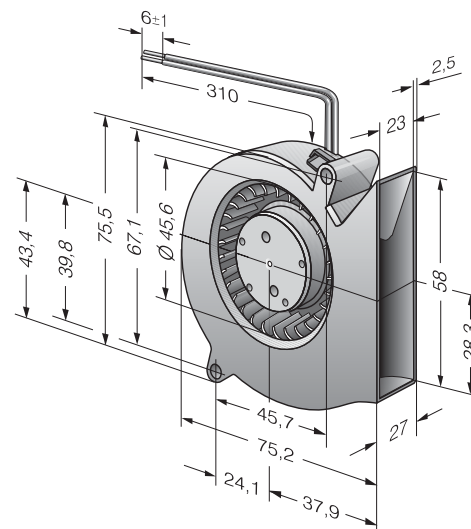
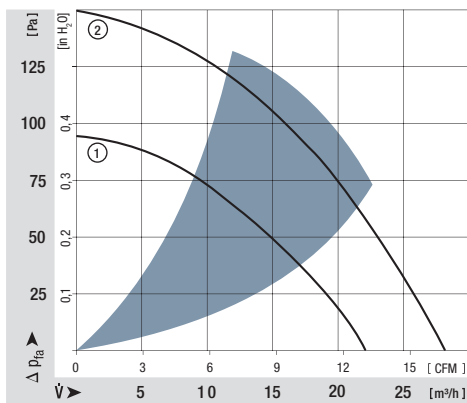
Highlights:

- Pressure-optimised blower.
- Noise-optimised air outlet in scroll housing.
- Forward curved impeller.

General characteristics:

- Fibreglass-reinforced plastic scroll housing and impeller.
- Fully integrated electronic commutation.
- Protected against reverse polarity and locking.
- Direction of air flow: axial air intake, centrifugal air exhaust out of the outlet.
- Connection via single strands AWG 26, TR 64. Bared and tin-plated.
- Mass: 75 g.

Nominal data	Air flow		Nominal voltage	Voltage range	Sound power level	Sinter sleeve bearings Ball bearings	Power input	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 Δ (40 °C) see P. 15	Curve	Specials
	m ³ /h	CFM												
RL 48-19/12 ML	22	12,9	12	8...15	5,3	■	2,9	3 500	-20...+70	70 000 / 35 000	140 000	1		
RL 48-19/12	28	16,5	12	8...13,5	5,7	■	5,0	4 400	-20...+70	60 000 / 30 000	120 000	2	/2	
RL 48-19/14 ML	22	12,9	24	18...28	5,3	■	2,9	3 500	-20...+70	70 000 / 35 000	140 000	1		
RL 48-19/14	28	16,5	24	18...26,4	5,7	■	5,0	4 400	-20...+70	60 000 / 30 000	120 000	2	/2	

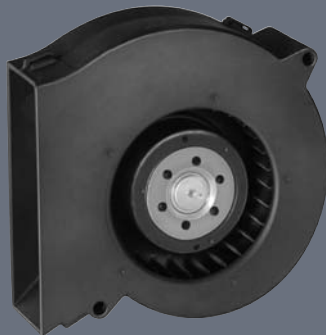


Information
DC axial fans
DC centrifugal fans
DC fans - specials
ACmaxx / GreenTech EC-compact fans
AC axial fans
AC centrifugal fans
Accessories
Representatives

max. 61 m³/h

DC centrifugal fans

Series RL 65 97 x 93,5 x 33 mm



Highlights:

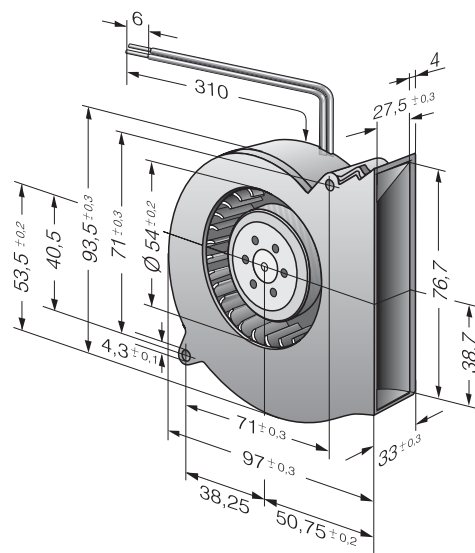
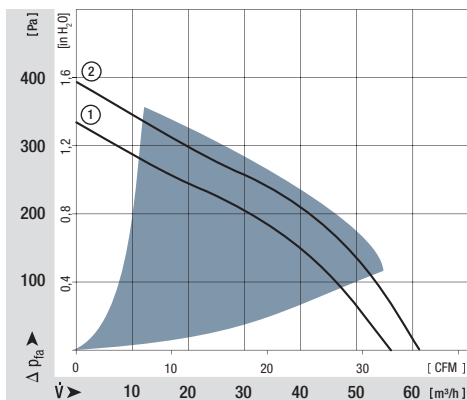
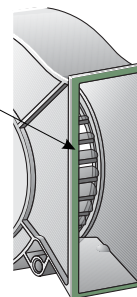
- Optional Vario-Pro: Highly adaptable software configuration of the fan enables a tailor-made solution to the specific requirements of your applications.
- Pressure-optimised blower. Noise-optimised air outlet in scroll housing.
- Forward curved impeller.
- Integrated snap-in fins for easy assembly.

General characteristics:

- Fibreglass-reinforced plastic scroll housing and impeller.
- Fully integrated electronic commutation.
- Protected against reverse polarity and locking.
- Direction of air flow: axial air intake, centrifugal air exhaust out of the outlet.
- Connection via single strands AWG 26, TR 64. Bared and tin-plated.
- Mass: 170 g.

Nominal data	Air flow		Nominal voltage	Voltage range		Sound power level	Sinter sleeve bearings Ball bearings	Power input	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 Δ (40 °C) see P. 15	Curve	Specials
	m ³ /h	CFM		VDC	VDC										
RL 65-21/12	56	33,0	12	6,8...13,8	6,6	■	15,0	4 500	-20...+70	60 000 / 30 000	120 000	1	/2		
RL 65-21/12H	61	35,9	12	6,8...13,2	6,8	■	19,2	4 900	-20...+55	55 000 / 37 500	105 000	2			
RL 65-21/14	56	33,0	24	12...26,4	6,6	■	14,0	4 500	-20...+70	60 000 / 30 000	120 000	1			
RL 65-21/14H	61	35,9	24	12...26,4	6,8	■	18,0	4 900	-20...+60	55 000 / 35 000	105 000	2			

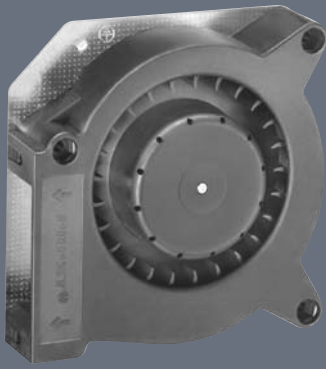
Snap-in fins for easy assembly



max. 55 m³/h

DC centrifugal fans

Series RL 90 N 121 x 121 x 37 mm



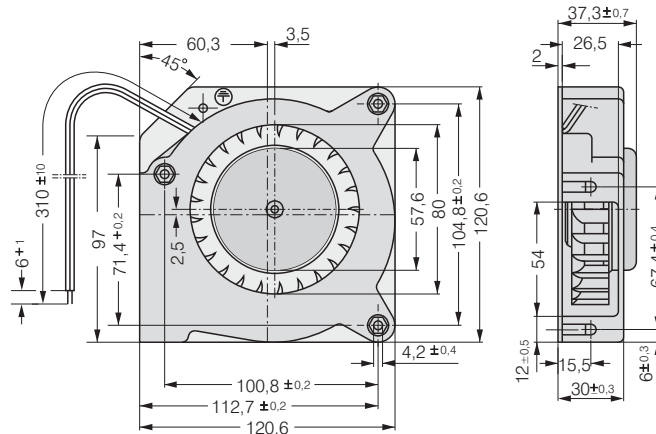
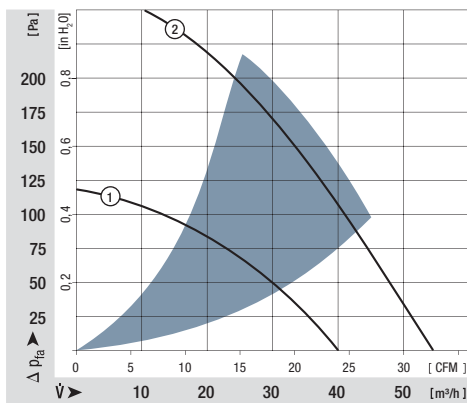
Highlights:

- Optional Vario-Pro: Highly adaptable software configuration of the fan enables a tailor-made solution to the specific requirements of your applications.
- Forward curved impeller.

General characteristics:

- Fibreglass-reinforced plastic scroll housing and impeller; Housing base of steel plate.
- Fully integrated electronic commutation.
- Protected against reverse polarity and locking.
- Direction of air flow: axial air intake, centrifugal air exhaust out of the outlet.
- Connection via single strands AWG 22, TR 64. Bared and tin-plated.
- Mass: 420 g.

Nominal data	Air flow		Nominal voltage	Voltage range	Sound power level	Sinter sleeve bearings Ball bearings	Power input	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 ^Δ (40 °C) see P. 15	Curve	Specials
	m ³ /h	CFM												
RL 90-18/12 N	40	23,5	12	7...15	5,8	■	5,5	2 500	-30...+75	62 500 / 27 500	112 500	1	/2	
RL 90-18/14 NG	40	23,5	24	12...28	5,8	□	5,0	2 500	-10...+75	62 500 / 27 500	112 500	1		
RL 90-18/14 N	40	23,5	24	12...28	5,8	■	5,0	2 500	-30...+75	62 500 / 27 500	112 500	1	/2	
RL 90-18/18 NH	55	32,4	48	40...53	6,9	■	15,0	3 500	-30...+55	32 500 / 22 500	62 500	2		

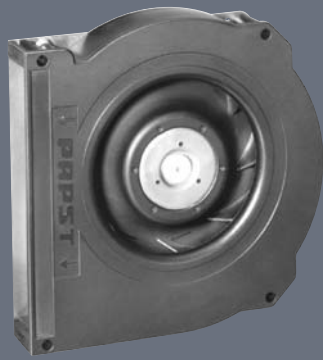


Screw clip M4 or 8-32UNC. Screw-in depth max. 12.5 min. 9.0

max. 80 m³/h

DC centrifugal fans

Series RLF 100 127 x 127 x 25 mm



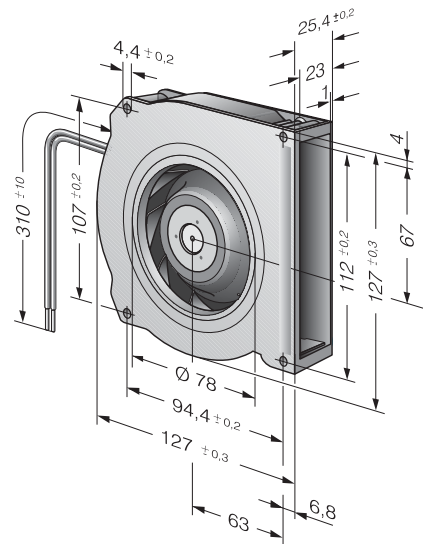
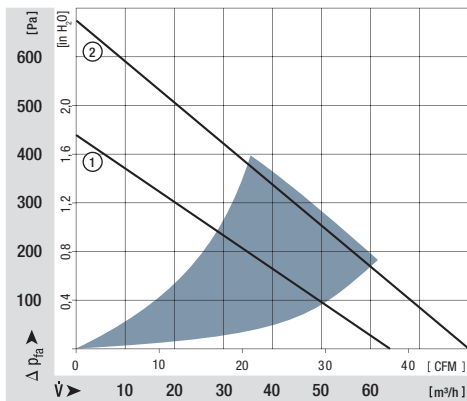
Highlights:

- Very flat and powerful centrifugal fan. Pressure-optimised blower.
- Optional Vario-Pro: Highly adaptable software configuration of the fan enables a tailor-made solution to the specific requirements of your applications.
- Some models available as standard with PWM control input and speed signal.
- Backward curved impeller.

General characteristics:

- Fibreglass-reinforced plastic scroll housing and impeller. Housing base of galvanised steel plate.
- Fully integrated electronic commutation. Protected against reverse polarity and locking.
- Direction of air flow: axial air intake, centrifugal air exhaust out of the outlet.
- Connection via single strands AWG 22, TR 64. Bared and tin-plated.
- Mass: 320 g.

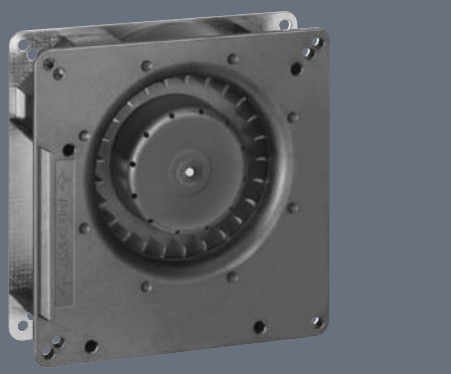
Nominal data	Air flow		Nominal voltage	Voltage range	Sound power level	Sinter sleeve bearings Ball bearings	Power input	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst Standard	Service life L ₁₀ (T _{max}) ebm-papst Standard	Life expectancy L ₁₀ Δ (40 °C) see P. 15	Curve	Specials
	m ³ /h	CFM												
RLF 100-11/12	64	37,7	12	8...15	6,4	■	8,0	5 100	-20...+75	80 000 / 30 000	150 000	1	/2	
RLF 100-11/14	64	37,7	24	16...30	6,4	■	8,0	5 100	-20...+75	80 000 / 30 000	150 000	1	/19	
RLF 100-11/18	64	37,7	48	36...60	6,4	■	8,6	5 100	-20...+75	80 000 / 30 000	150 000	1		
High speed models with Open Collector Tacho and PWM speed control.														
RLF 100-11/12/2HP-200	80	47,1	12	10...13,2	7,5	■	18,6	6 400	-20...+60	72 500 / 45 000	112 500	2	/2	
RLF 100-11/18/2HP-182	80	47,1	48	43...53	7,5	■	17,0	6 400	-20...+70	72 500 / 35 000	112 500	2	/2	



max. 55 m³/h

DC centrifugal fans

Series RG 90 N 135 x 135 x 38 mm



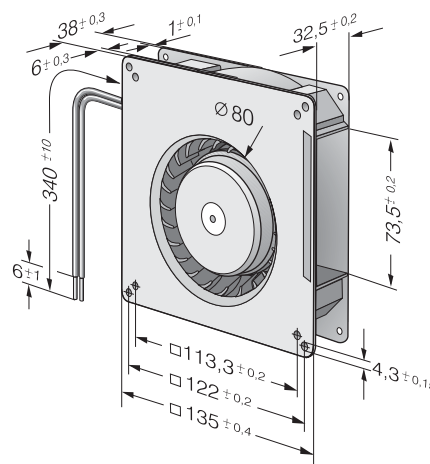
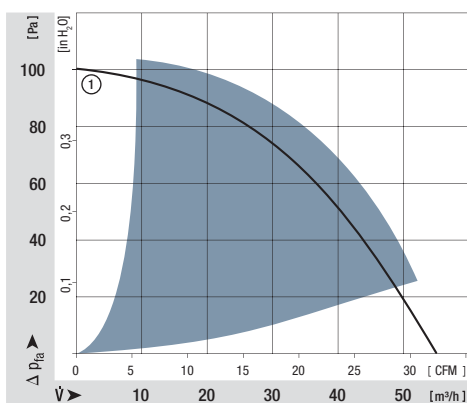
Highlights:

- Optional Vario-Pro: Highly adaptable software configuration of the fan enables a tailor-made solution to the specific requirements of your applications.
- Backward curved impeller.

General characteristics:

- Fibreglass-reinforced plastic scroll housing and impeller; Housing base of steel plate.
- Fully integrated electronic commutation.
- Protected against reverse polarity and locking.
- Direction of air flow: axial air intake, centrifugal air exhaust out of the outlet.
- Connection via single strands AWG 22, TR 64. Bared and tin-plated.
- 48 V Model: Flat plug 6.3 x 0.8 mm for protective earth.
- Mass: 440 g.

Nominal data	Air flow		Nominal voltage	Voltage range	Sound power level	Sinter sleeve bearings Ball bearings	Power input	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 Δ (40 °C) see P. 15	Curve	Specials
	m ³ /h	CFM												
RG 90-18/12 N	55	32,4	12	7...15	5,5	■	6,0	2 200	-30...+75	62 500 / 27 500	112 500	1		
RG 90-18/14 NG	55	32,4	24	12...28	5,5	□	5,5	2 200	-10...+75	62 500 / 27 500	112 500	1		
RG 90-18/14 N	55	32,4	24	12...28	5,5	■	5,5	2 200	-30...+75	62 500 / 27 500	112 500	1		
RG 90-18/18 N	55	32,4	48	36...56	5,5	■	5,5	2 200	-30...+75	62 500 / 27 500	112 500	1		



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AC centrifugal fans
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max. 137 m³/h

DC centrifugal fans

Series RG 125 N 180 x 180 x 40 mm



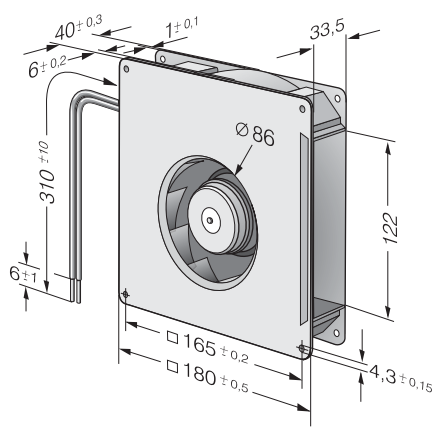
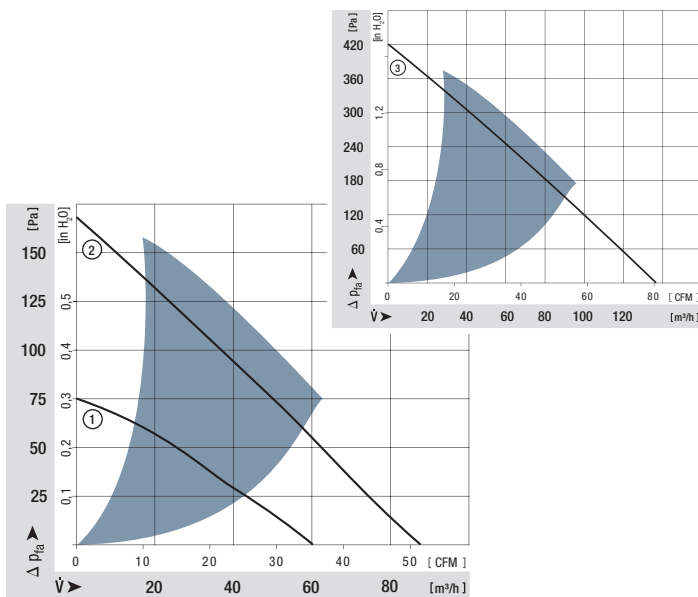
Highlights:

- Optional Vario-Pro: Highly adaptable software configuration of the fan enables a tailor-made solution to the specific requirements of your applications.
- Backward curved impeller.

General characteristics:

- Fibreglass-reinforced plastic scroll housing and impeller; Housing base of steel plate.
- Fully integrated electronic commutation.
- Protected against reverse polarity and locking.
- Direction of air flow: axial air intake, centrifugal air exhaust out of the outlet.
- Connection via single strands AWG 22, TR 64. Bared and tin-plated.
- 48 V Model: Flat plug 6.3 x 0.8 mm for protective earth.
- Mass: 730 g.

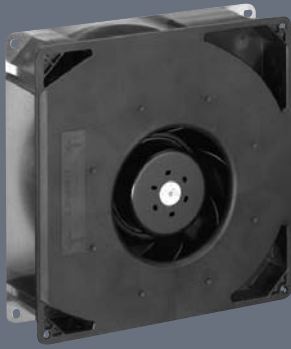
Nominal data	Air flow		Nominal voltage	Voltage range	Sound power level	Sinter sleeve bearings Ball bearings	Power input	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst Standard	Service life L ₁₀ (T _{max}) ebm-papst Standard	Life expectancy L ₁₀ Δ (40 °C) see P. 15	Curve	Specials
	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	135 000	1		
RG 125-19/12 N	87,5	51,5	12	7...15	5,8	■	5,0	2 550	-30...+75	62 500 / 27 500	125 000	2	/2/12	
RG 125-19/14 NM	60,0	35,3	24	12...28	4,8	■	2,0	1 750	-30...+75	70 000 / 30 000	135 000	1		
RG 125-19/14 N	87,5	51,5	24	12...28	5,8	■	5,0	2 550	-30...+75	62 500 / 27 500	125 000	2	/2	
RG 125-19/18 N	87,5	51,5	48	36...56	5,8	■	5,0	2 550	-30...+75	62 500 / 27 500	125 000	2		
RG 125-19/18 NH	137	80,6	48	36...56	7,0	■	19,0	4 000	-20...+70	55 000 / 27 500	110 000	3		



max. 209 m³/h

DC centrifugal fans

Series RG 160 N 220 x 220 x 56 mm



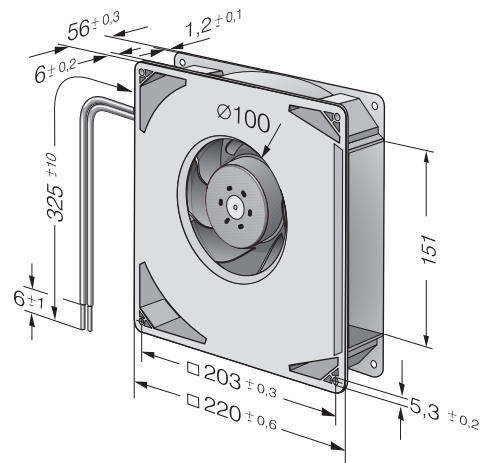
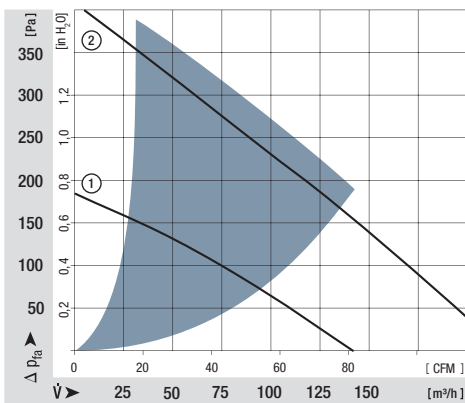
Highlights:

- Optional Vario-Pro: Highly adaptable software configuration of the fan enables a tailor-made solution to the specific requirements of your applications.
- Backward curved impeller.

General characteristics:

- Fibreglass-reinforced plastic scroll housing and impeller; Housing base of steel plate.
- Fully integrated electronic commutation.
- Protected against reverse polarity and locking.
- Direction of air flow: axial air intake, centrifugal air exhaust out of the outlet.
- Connection via single strands AWG 22, TR 64. Bared and tin-plated.
- 48 V Model: Flat plug 6.3 x 0.8 mm for protective earth.
- Mass: 1.4 kg.

Nominal data	Air flow		Nominal voltage	Voltage range	Sound power level	Sinter sleeve bearings Ball bearings	Power input	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 Δ (40 °C) see P. 15	Curve	Specials
	m ³ /h	CFM												
RG 160-28/12 NM	139	81,1	12	7...14	5,6	■	7,5	1 900	-20...+70	80 000 / 40 000	160 000	1		
RG 160-28/12 N	209	123,0	12	7,5...14	6,6	■	21,0	2 850	-20...+70	70 000 / 35 000	140 000	2	/12	
RG 160-28/14 NM	139	81,1	24	12...28	5,6	■	7,0	1 900	-20...+70	80 000 / 40 000	120 000	1		
RG 160-28/14 N	209	123,0	24	12...28	6,6	■	20,0	2 850	-20...+70	70 000 / 35 000	120 000	2		
RG 160-28/18 N	209	123,0	48	28...60	6,6	■	20,0	2 850	-20...+70	70 000 / 35 000	120 000	2	/12	



max. 444 m³/h

DC centrifugal fans

Series RG 160 NTD 220 x 220 x 56 mm



Highlights:

- Control inputs, alarm and speed signals available on request.
- 3-phase fan drive with high degree of running smoothness.
- Very high pressure build-up.
- Backward curved impeller.

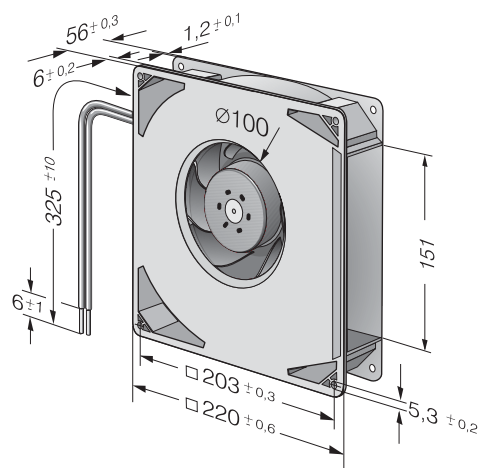
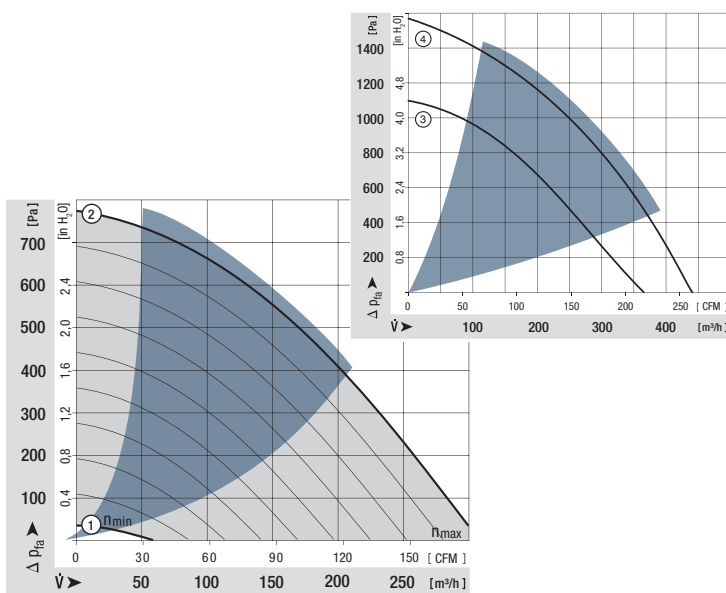
General characteristics:

- Fibreglass-reinforced plastic scroll housing and impeller; Housing base of sheet steel.
- Fully integrated electronic commutation.
- Direction of air flow: axial air intake, centrifugal air exhaust out of the outlet.
- Connection via single strands AWG 22, TR 64. Bared and tin-plated.
- 48 V Model: Flat plug 6.3 x 0.8 mm for protective earth.
- Mass: 1.4 kg.

Nominal data	Air flow		Nominal voltage	Voltage range	Sound power level	Sinter sleeve bearings Ball bearings	Power input	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 ^Δ (40 °C) see P. 15	Curve	Specials
	m ³ /h	CFM												
min. max.	RG 160-28/14 NTD...	59 308	16,4 85,6	24	16...28	— 7,5	2,0 64,0	800 4 200	-20...+60	55 000 / 27 500	110 000	1 2	1 2	
	RG 160-28/14 NTD	308	85,6											
	RG 160-28/14 NTDH	370	217,8	24	16...28	7,8	101,0	5 000	-20...+60	50 000 / 32 500	102 500	3		
min. max.	RG 160-28/18 NTD...	59 308	16,4 85,6	48	38...57	— 7,5	2,0 59,0	800 4 200	-20...+70	55 000 / 27 500	110 000	1 2	1 2	
	NEW RG 160-28/18/ 2NTDHP*	444	261,2											

Models RG 160-28/14 NTD... and RG 160-28/18 NTD... are available in customer-specific, custom-developed variants only. The data specified here are technically feasible benchmark values. The fans can be specially adapted to your application with signal outputs and control inputs.

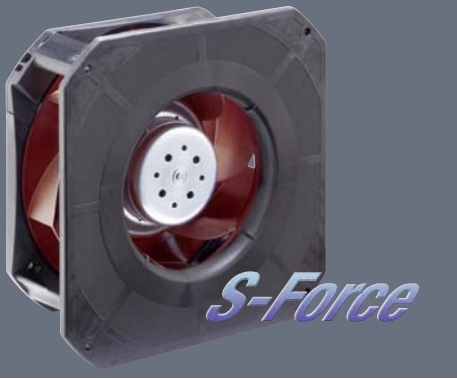
*The specific service life is valid when an external capacitor is wired between the plus and minus strands. Please note the wiring suggestion.



max. 930 m³/h

DC centrifugal fans

Series RG 190 TD 225 x 225 x 85 mm



Highlights:

- 3-phase fan drive with high degree of running smoothness. Very high pressure build-up.
- Backward-curved RadiCal impeller with high efficiency.
- Standard models available with multifunctional control input for analogue, PWM and speed sign.
- Compact design with integrated mounting plate and optimised inlet nozzle.

General characteristics:

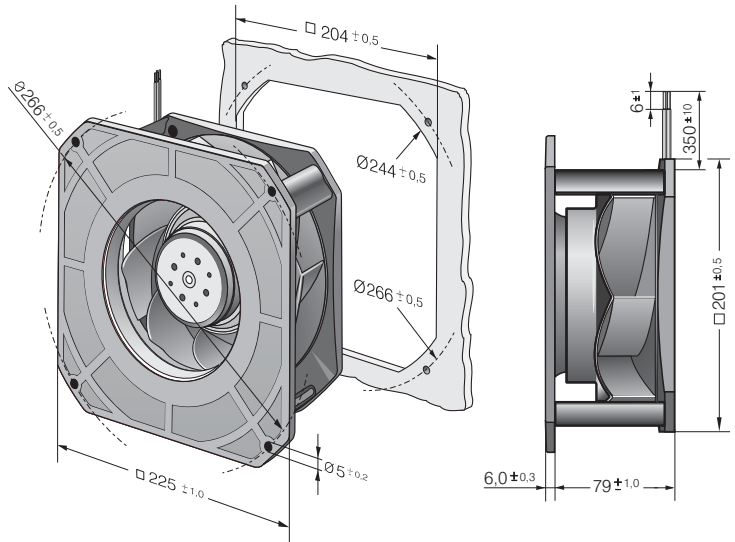
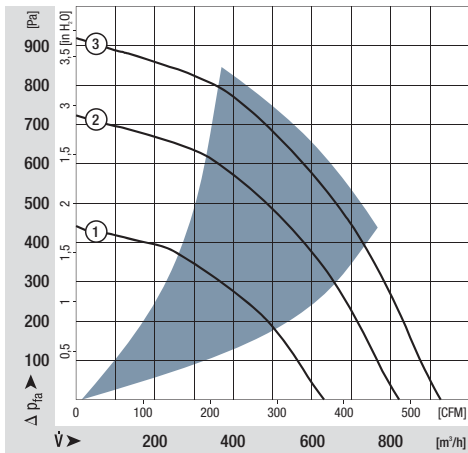
- Housing and impeller of fibreglass-reinforced plastic.
- Fully integrated electronic commutation.
- Direction of rotation: CW seen on rotor.
- Direction of air flow: axial air intake, centrifugal air exhaust out of the outlet.
- Connection via single strands AWG 18, 20 or AWG 22, TR 64, speed signal and control input AWG 22, bared and tin-plated.
- Mass: 1210 g.

Nominal data		Air flow	Air flow	Nominal voltage	Voltage range	Sound power level	Sinter sleeve bearings Ball bearings	Power input	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 Δ (40 °C) see P. 15	Curve	Specials
Type		m ³ /h	CFM	VDC	VDC	Bel(A)	□ / ■	Watts	RPM	°C	Hours	Hours	Hours		
NEW	RG 190-39/14/2 TDML0	630	370,6	24	16...30	7,6	■	54	3 000	-20...+60	55 000 / 35 000	110 000	110 000	1	
NEW	RG 190-39/14/2 TDMO	820	482,4	24	16...36	7,9	■	100	3 900	-20...+65	52 500 / 30 000	105 000	105 000	2	
NEW	RG 190-39/18/2 TDML0	630	370,6	48	36...57	7,6	■	52	3 000	-20...+65	55 000 / 35 000	110 000	110 000	1	
NEW	RG 190-39/18/2 TDMO	820	482,4	48	36...72	7,9	■	100	3 900	-20...+65	52 500 / 30 000	105 000	105 000	2	
NEW	RG 190-39/18/2 TDO	930	547,1	48	36...72	8,3	■	135	4 400	-20...+65	40 000 / 25 000	80 000	80 000	3	

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



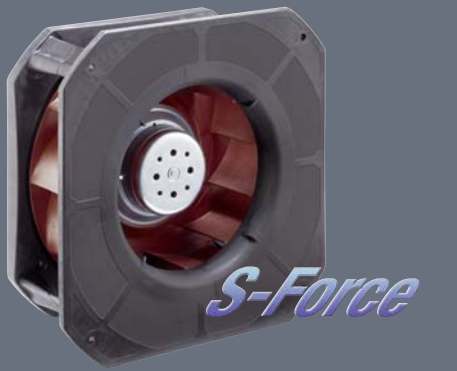
For suitable guard grilles, see page 176.



max. 1280 m³/h

DC centrifugal fans

Series RG 220 TD 270 x 270 x 99 mm



Highlights:

- 3-phase fan drive with high degree of running smoothness. Very high pressure build-up.
- Backward-curved impeller.
- Standard models available with multifunctional control input for analogue, PWM and speed signal.
- Compact design with integrated mounting plate and optimised inlet nozzle.

General characteristics:

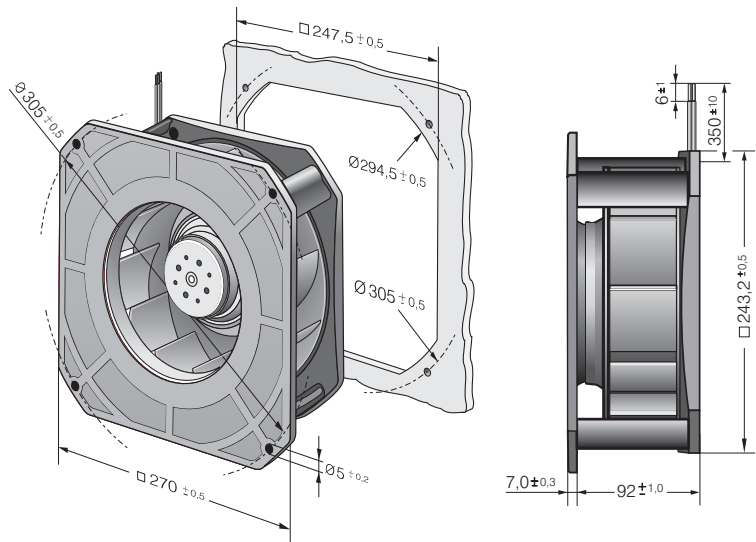
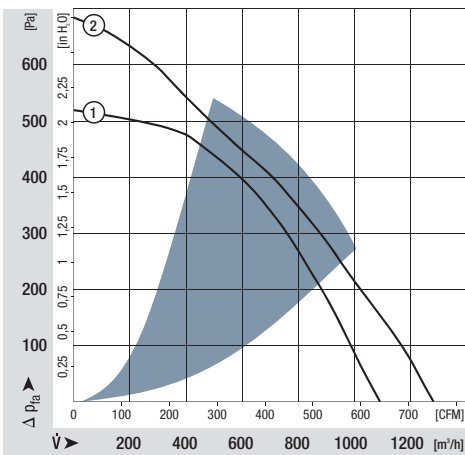
- Housing and impeller of fibreglass-reinforced plastic.
- Fully integrated electronic commutation.
- Direction of rotation: CW seen on rotor.
- Direction of air flow: axial air intake, centrifugal air exhaust out of the outlet.
- Connection via single strands AWG 18, 20 or AWG 22, TR 64, speed signal and control input AWG 22, bared and tin-plated.
- Mass:1870 g.

Nominal data		Air flow	Air flow	Nominal voltage	Voltage range	Sound power level	Sinter sleeve bearings Ball bearings	Power input	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 Δ (40 °C) see P. 15	Curve	Specials
Type		m ³ /h	CFM	VDC	VDC	Bel(A)	□ / ■	Watts	RPM	°C	Hours	Hours	Hours		
NEW	RG 220-44/14/2TDMO	1090	641,2	24	16...36	7,7	■	82	3 000	-20...+55	75 000 / 52 500	150 000	150 000	1	
NEW	RG 220-44/18/2TDMO	1090	641,2	48	36...72	7,7	■	80	3 000	-20...+55	75 000 / 52 500	150 000	150 000	1	
NEW	RG 220-44/18/2TDO	1280	752,9	48	36...72	8,0	■	140	3 500	-20...+55	55 000 / 40 000	110 000	110 000	2	

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



For suitable guard grilles, see page 176.



max. 1210 m³/h

DC centrifugal fans

Series RG 225 TD 270 x 270 x 119 mm



Highlights:

- 3-phase fan drive with high degree of running smoothness. Very high pressure build-up.
- Backward-curved RadiCal impeller with high efficiency.
- Standard models available with multifunctional control input for analogue, PWM and speed sign.
- Compact design with integrated mounting plate and optimised inlet nozzle.

General characteristics:

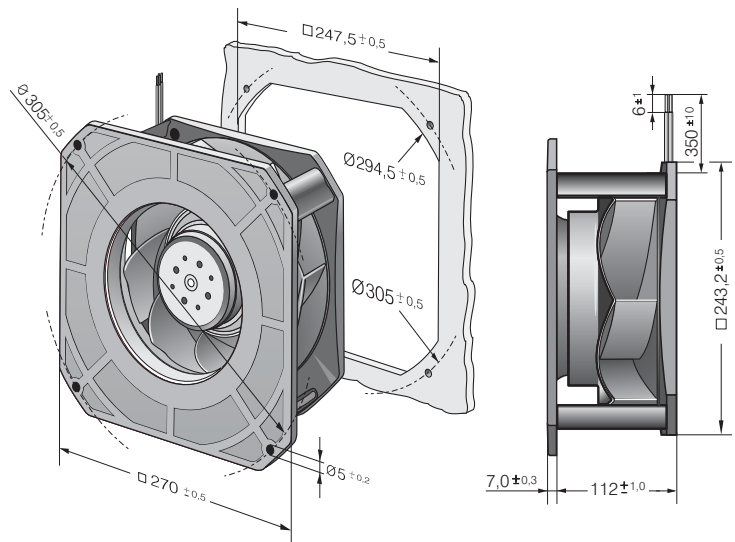
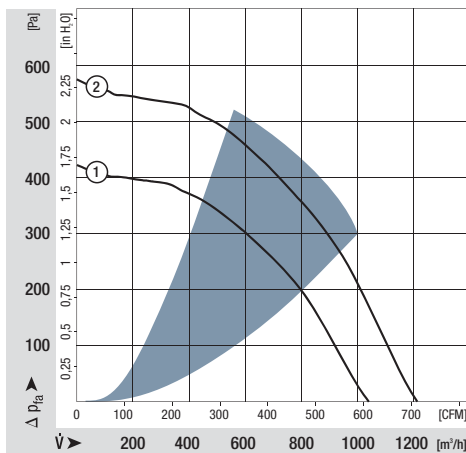
- Housing and impeller of fibreglass-reinforced plastic.
- Fully integrated electronic commutation.
- Direction of rotation: CW seen on rotor.
- Direction of air flow: axial air intake, centrifugal air exhaust out of the outlet.
- Connection via single strands AWG 18, 20 or AWG 22, TR 64, speed signal and control input AWG 22, bared and tin-plated.
- Mass:1750 g.

Nominal data		Air flow	Air flow	Nominal voltage	Voltage range	Sound power level	Sinter sleeve bearings Ball bearings	Power input	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 Δ (40 °C) see P. 15	Curve	Specials
Type		m ³ /h	CFM	VDC	VDC	Bel(A)	□ / ■	Watts	RPM	°C	Hours	Hours	Hours		
NEW	RG 225-55/14/2TDMLO	1040	611,8	24	16...36	7,3	■	65	2 400	-20...+55	72 500 / 52 500	145 000	1		
NEW	RG 225-55/18/2TDMLO	1040	611,8	48	36...72	7,3	■	65	2 400	-20...+55	72 500 / 52 500	145 000	1		
NEW	RG 225-55/18/2TDMO	1210	711,8	48	36...72	7,9	■	116	2 800	-20...+55	55 000 / 40 000	110 000	2		

Speed control range from 800 rpm 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 plus and minus strands.
Please note the wiring suggestion.



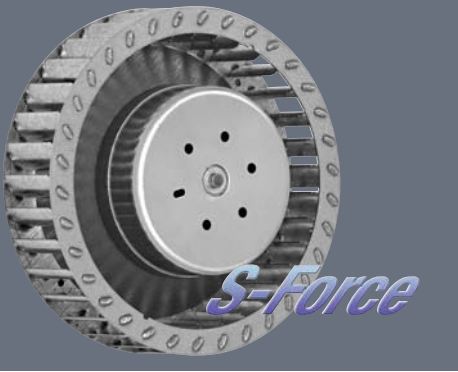
For suitable guard grilles, see page 176.



max. 220 m³/h

DC centrifugal fans

Series RET 97 TD 97 Ø x 41 mm



Highlights:

- 3-phase fan drive with high degree of running smoothness.
- Very high pressure build-up.
- Forward curved impeller.
- Available as standard with PWM control input and speed signal. Additional inputs and outputs on request.

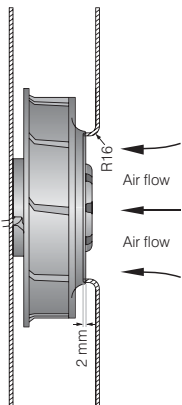
General characteristics:

- Impeller of galvanised steel plate.
- Fully integrated electronic commutation.
- Direction of rotation: CW seen on rotor.
- Direction of air flow: axial air intake, centrifugal air exhaust out of the outlet.
- Connection via single strands AWG 22, TR 64. Bared and tin-plated.
- Mass: 430 g.

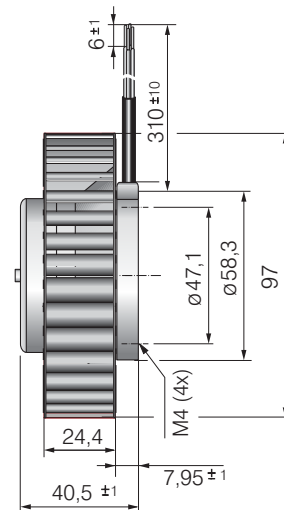
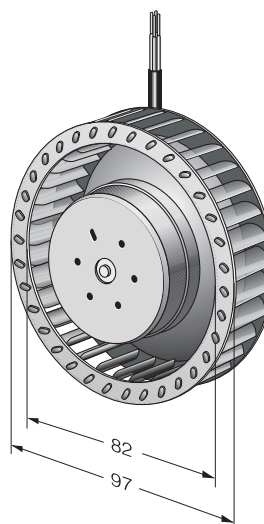
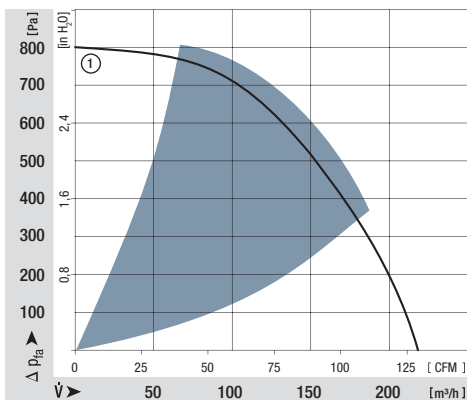
Nominal data		Air flow	Air flow	Nominal voltage	Voltage range	Sound power level	Sinter sleeve bearings Ball bearings	Power input	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst Standard	Service life L ₁₀ (T _{max}) ebm-papst Standard	Life expectancy L ₁₀ Δ (40 °C) see P. 15	Curve	Specials
Type		m ³ /h	CFM	VDC	VDC	Bel(A)	□ / ■	Watts	RPM	°C	Hours	Hours	Hours		
NEW	RET 97-25/14/2TDP*	220	129	24	16...36	8,1	■	72	6 000	-20...+60	80 000 / 50 000	160 000	160 000	1	
NEW	RET 97-25/18/2TDP	220	129	48	36...60	8,1	■	72	6 000	-20...+60	80 000 / 50 000	160 000	160 000	1	

* Preliminary

Speed control range from 800 rpm at 7 % PWM up to nominal speed at > 90 % PWM. Standstill at 0 % PWM, maximum speed at sensor break.
To attain the specified service life, an external capacitor must be wired between the plus and minus strands.
Please note the wiring suggestion on page.



The air flow and noise level of fans without external housing depends on the installation conditions. The stated air flow and noise levels have been measured under the following conditions:
Centrifugal fan mounted on a base plate 116 x 116 mm.
Cover plate 116 x 116 mm with an air inlet of Ø 80 mm, concentric to the impeller.



max. 104 m³/h

DC centrifugal fans

Series REF 100 104 Ø x 25 mm



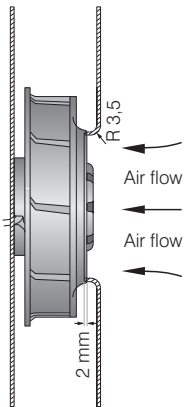
Highlights:

- Pressure-optimised blower.
- Very flat and powerful centrifugal fan.
- Optional Vario-Pro: Highly adaptable software configuration of the fan enables a tailor-made solution to the specific requirements of your applications.
- Backward curved impeller.

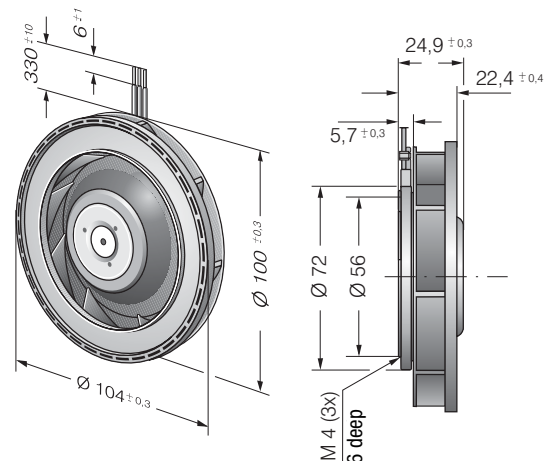
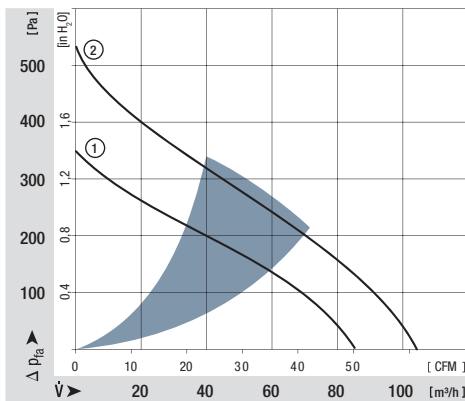
General characteristics:

- Fibreglass-reinforced plastic scroll housing and impeller.
- Fully integrated electronic commutation.
- Protected against reverse polarity and locking.
- Direction of air flow radial, direction of rotation clockwise, seen on rotor.
- Connection via single strands AWG 22, TR 64. Bared and tin-plated.
- Mass: 160 g

Nominal data	Air flow		Nominal voltage	Voltage range	Sound power level	Sinter sleeve bearings Ball bearings	Power input	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 Δ (40 °C) see P. 15	Curve	Specials
	m ³ /h	CFM												
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	/2	
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	/2	
REF 100-11/18	86	50,6	48	36...60	6,3	■	7,5	5 400	-20...+75	80 000 / 30 000	135 000	1	/2	
REF 100-11/18 H	104	61,2	48	36...56	6,9	■	14,8	6 700	-20...+70	67 500 / 30 000	120 000	2		



The air flow and noise level of fans without external housing depends on the installation conditions. The stated air flow and noise levels have been measured under the following conditions:
Centrifugal fan mounted on a base plate 127 x 127 mm.
Cover plate 127 x 127 mm with an air inlet of Ø 70 mm, concentric to the impeller.



max. 190 m³/h

DC centrifugal fans

Series RER 101 101 Ø x 52 mm



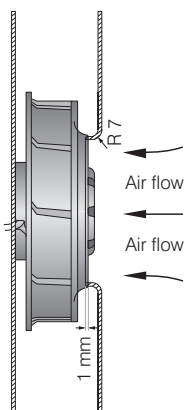
Highlights:

- Optional Vario-Pro: Highly adaptable software configuration of the fan enables a tailor-made solution to the specific requirements of your applications.
- Backward curved impeller.

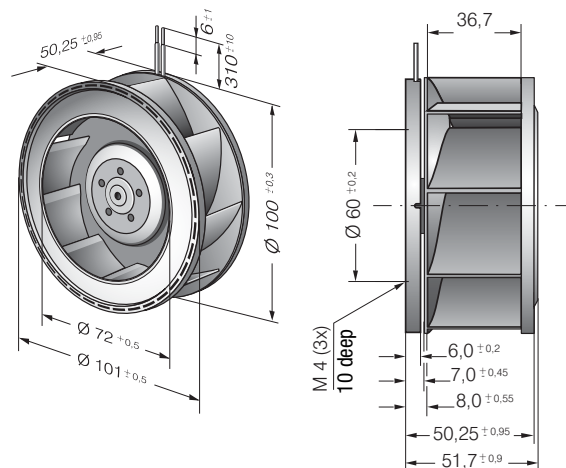
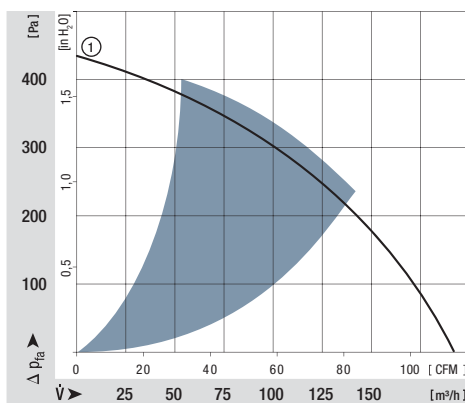
General characteristics:

- Fibreglass-reinforced plastic scroll housing and impeller.
- Fully integrated electronic commutation.
- Protected against reverse polarity and locking.
- Direction of air flow radial, direction of rotation clockwise, seen on rotor.
- Connection via single strands AWG 22, TR 64. Bared and tin-plated.
- Mass: 305 g.

Nominal data	Air flow		Nominal voltage	Voltage range	Sound power level	Sinter sleeve bearings Ball bearings	Power input	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 Δ (40 °C) see P. 15	Curve	Specials
	m ³ /h	CFM												
RER 101-36/12NHH	190	111,8	12	9..13,6	7,2	■	20,5	5 900	-20...+70	60 000 / 30 000	120 000	1		
RER 101-36/14NHH	190	111,8	24	18..27,2	7,2	■	20,0	5 900	-20...+70	60 000 / 30 000	120 000	1		
RER 101-36/18NHH	190	111,8	48	43...52	7,2	■	19,0	5 900	-20...+70	60 000 / 30 000	120 000	1	/19	



The air flow and noise level of fans without external housing depends on the installation conditions. The stated air flow and noise levels have been measured under the following conditions:
Centrifugal fan mounted on a base plate 148 x 148 mm.
Cover plate 148 x 148 mm with an air inlet of Ø 66 mm, concentric to the impeller.



max. 390 m³/h

DC centrifugal fans

Series RER 120 TD 120 Ø x 54 mm



Highlights:

- 3-phase fan drive with high degree of running smoothness.
- Very high pressure build-up.
- Backward curved impeller.
- Available as standard with PWM control input and speed signal. Additional inputs and outputs on request.

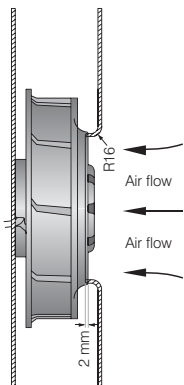
General characteristics:

- Impeller of fibreglass-reinforced plastic.
- Fully integrated electronic commutation.
- Direction of rotation: CW seen on rotor.
- Direction of air flow: axial air intake, centrifugal air exhaust out of the outlet.
- Connection via single strands AWG 22, TR 64. Bared and tin-plated.
- Mass: 430 g.

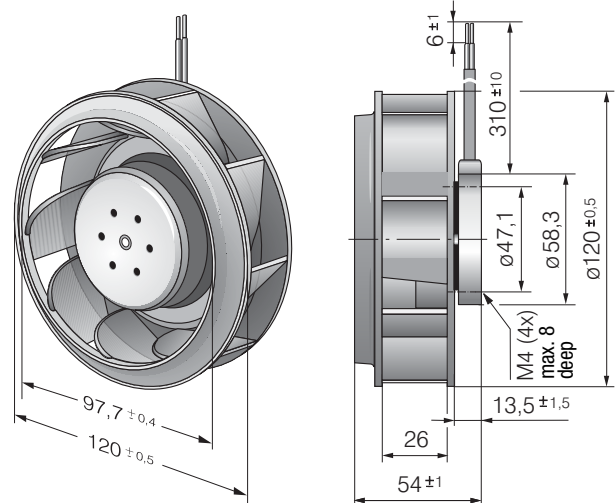
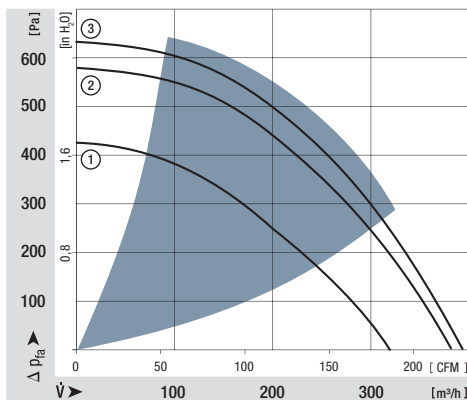
Nominal data		Air flow	Air flow	Nominal voltage	Voltage range	Sound power level	Sinter sleeve bearings Ball bearings	Power input	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst-Standard	Service life L ₁₀ (T _{max}) ebm-papst-Standard	Life expectancy L ₁₀ Δ (40 °C) see P. 15	Curve	Specials
Type		m ³ /h	CFM	VDC	VDC	Bel(A)	□ / ■	Watts	RPM	°C	Hours	Hours	Hours		
NEW	RER 120-26/14/2 TDMP*	320	188,2	24	16...32	tbd	■	51	5 200	-20...+60	60 000 / 37 500	120 000	120 000	1	
NEW	RER 120-26/14/2 TDP	377	221,9	24	16...32	8,2	■	78	6 100	-20...+60	55 000 / 35 000	110 000	110 000	2	
NEW	RER 120-26/18/2 TDMP*	320	188,2	48	36...60	tbd	■	51	5 200	-20...+60	57 500 / 35 000	115 000	115 000	1	
NEW	RER 120-26/18/2 TDP	390	229,5	48	36...60	8,3	■	92	6 300	-20...+60	50 000 / 30 000	100 000	100 000	3	

*Preliminary

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



The air flow and noise level of fans without external housing depends on the installation conditions. The stated air flow and noise levels have been measured under the following conditions:
Centrifugal fan mounted on a base plate 140 x 140 mm.
Cover plate 140 x 140 mm with an air inlet of Ø 96 mm, concentric to the impeller.



max. 166 m³/h

DC centrifugal fans

Series RER 125 N 138 Ø x 35 mm



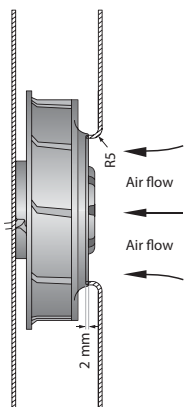
Highlights:

- Optional Vario-Pro: Highly adaptable software configuration of the fan enables a tailor-made solution to the specific requirements of your applications.
- Backward curved impeller.

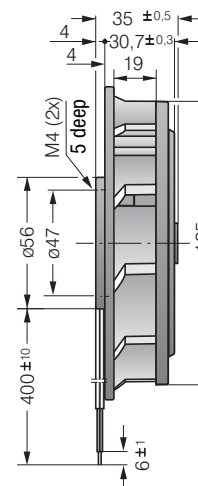
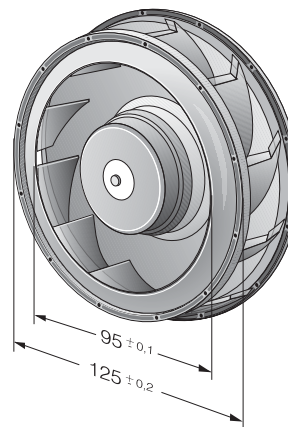
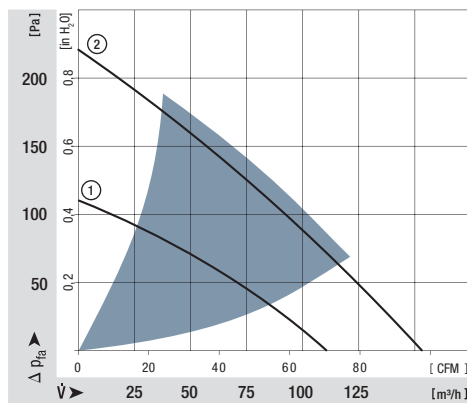
General characteristics:

- Fibreglass-reinforced plastic scroll housing and impeller.
- Fully integrated electronic commutation.
- Protected against reverse polarity and locking.
- Direction of air flow radial, direction of rotation clockwise, seen on rotor.
- Connection via single strands AWG 22, TR 64. Bared and tin-plated.
- Mass: 320 g.

Nominal data	Air flow		Nominal voltage	Voltage range	Sound power level	Sinter sleeve bearings Ball bearings	Power input	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ehm-papst-Standard	Service life L ₁₀ (T _{max}) ehm-papst-Standard	Life expectancy L ₁₀ Δ (40 °C) see P. 15	Curve	Specials
	m ³ /h	CFM												
RER 125-19/12 N	110	64,7	12	7...15	5,7	■	4,5	2 650	-30...+75	62 500 / 27 500	125 000	1	/12	
RER 125-19/14 N	110	64,7	24	12...28	5,7	■	4,5	2 650	-30...+75	62 500 / 27 500	125 000	1		
RER 125-19/14 NH	166	97,7	24	12...28	7,0	■	13,0	4 000	-20...+70	55 000 / 27 500	110 000	2		
RER 125-19/18 N	110	64,7	48	36...56	5,7	■	5,0	2 650	-30...+75	62 500 / 27 500	125 000	1		



The air flow and noise level of fans without external housing depends on the installation conditions. The stated air flow and noise levels have been measured under the following conditions:
Centrifugal fan mounted on a base plate 220 x 220 mm.
Cover plate 220 x 220 mm with an air inlet of Ø 86 mm, concentric to the impeller.



max. 565 m³/h

DC centrifugal fans

Series RER 133 TD 133 Ø x 91 mm



Highlights:

- 3-phase fan drive with high degree of running smoothness.
- Very high pressure build-up.
- Backward curved impeller.
- Available as standard with PWM control input and speed signal. Additional inputs and outputs on request.

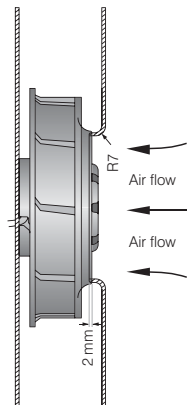
General characteristics:

- Impeller of fibreglass-reinforced plastic.
- Fully integrated electronic commutation.
- Direction of rotation: CW seen on rotor.
- Direction of air flow: axial air intake, centrifugal air exhaust out of the outlet.
- Connection via single strands AWG 22, TR 64. Bared and tin-plated.
- Mass: 890 g.

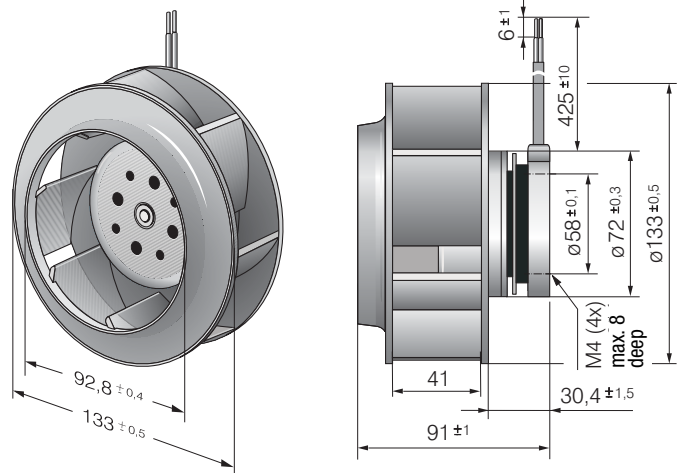
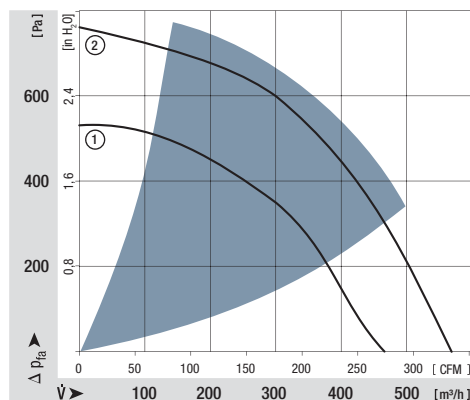
Nominal data		Air flow	Air flow	Nominal voltage	Voltage range	Sound power level	Sinter sleeve bearings Ball bearings	Power input	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst-Standard	Service life L ₁₀ (T _{max}) ebm-papst-Standard	Life expectancy L ₁₀ Δ (40 °C) see P. 15	Curve	Specials
Type		m ³ /h	CFM	VDC	VDC	Bel(A)	□ / ■	Watts	RPM	°C	Hours	Hours			
NEW	RER 133-41/14/2 TDMP	460	270,6	24	16...30	tbd	■	53	5 000	-20...+65	72 500 / 40 000	145 000	1		
NEW	RER 133-41/14/2 TDP*	565	332,4	24	16...36	tbd	■	90	6 000	-20...+65	70 000 / 37 500	140 000	2		
NEW	RER 133-41/18/2 TDMP*	460	270,6	48	36...57	tbd	■	50	5 000	-20...+65	72 500 / 40 000	145 000	1		
NEW	RER 133-41/18/2 TDP	565	332,4	48	36...72	8,2	■	87	6 000	-20...+65	70 000 / 37 500	140 000	2		

*Preliminary

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



The air flow and noise level of fans without external housing depends on the installation conditions. The stated air flow and noise levels have been measured under the following conditions:
Centrifugal fan mounted on a base plate 140 x 140 mm.
Cover plate 140 x 140 mm with an air inlet of Ø 87 mm, concentric to the impeller.



max. 255 m³/h

DC centrifugal fans

Series RER 160 N 165 Ø x 51 mm



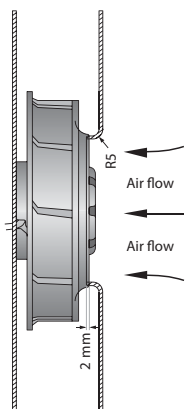
Highlights:

- Optional Vario-Pro: Highly adaptable software configuration of the fan enables a tailor-made solution to the specific requirements of your applications.
- Backward curved impeller.

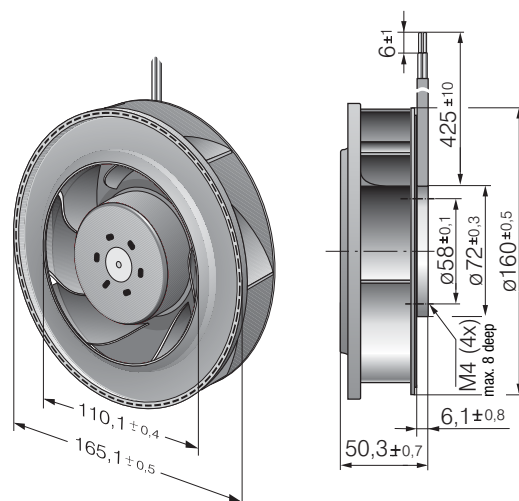
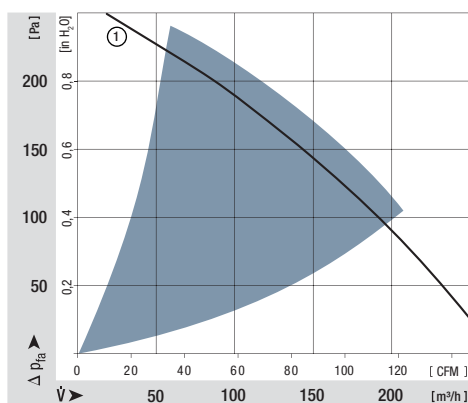
General characteristics:

- Fibreglass-reinforced plastic scroll housing and impeller.
- Fully integrated electronic commutation.
- Protected against reverse polarity and locking.
- Direction of air flow radial, direction of rotation clockwise, seen on rotor.
- Connection via single strands AWG 22, TR 64. Bared and tin-plated.
- Mass: 590 g.

Nominal data	Air flow		Nominal voltage	Voltage range	Sound power level	Sinter sleeve bearings Ball bearings	Power input	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 Δ (40 °C) see P. 15	Curve	Specials
	m ³ /h	CFM												
RER 160-28/12 N	255	150,1	12	7...14	6,4	■	19,0	3 000	-20...+70	75 000 / 35 000	140 000	1	/12	
RER 160-28/14 N	255	150,1	24	12...28	6,4	■	19,0	3 000	-20...+70	75 000 / 35 000	140 000	1		
RER 160-28/18 N	255	150,1	48	28...60	6,4	■	19,0	3 000	-20...+70	75 000 / 35 000	140 000	1	/12	



The air flow and noise level of fans without external housing depends on the installation conditions. The stated air flow and noise levels have been measured under the following conditions:
Centrifugal fan mounted on a base plate 260 x 260 mm.
Cover plate 260 x 260 mm with an air inlet of Ø 100 mm, concentric to the impeller.



max. 505 m³/h

DC centrifugal fans

Series RER 160 NTD 165 Ø x 51 mm



Highlights:

- Control inputs, alarm and speed signals available on request.
- 3-phase fan drive with high degree of running smoothness.
- High pressure build-up.
- Backward curved impeller.

General characteristics:

- Fibreglass-reinforced plastic scroll housing and impeller; Housing base of steel plate.
- Fully integrated electronic commutation.
- Direction of air flow: axial air intake, centrifugal air exhaust out of the outlet.
- Connection via single strands AWG 22, TR 64. Bared and tin-plated.
- Mass: 590 g.

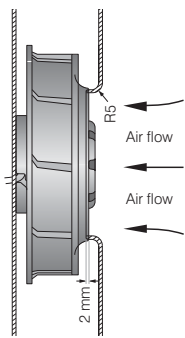
Nominal data		Air flow	Air flow	Nominal voltage	Voltage range	Sound power level	Sinter sleeve bearings Ball bearings	Power input	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst-Standard	Service life L ₁₀ (T _{max}) ebm-papst-Standard	Life expectancy L ₁₀ Δ (40 °C) see P. 15	Curve	Specials
Type		m ³ /h	CFM	VDC	VDC	Bel(A)	□ / ■	Watts	RPM	°C	Hours	Hours		P	
NEW	RER 160-28/14N/2TDA	370	217	24	16...28	7,4	■	51	4 200	-20...+60	55 000 / 27 500	110 000	2		
NEW	RER 160-28/18N/2TDHHP*	505	297,5	48	36...60	8,5	■	142	6 000	-20...+65	40 000 / 22 500	80 000	3		
min.	RER 160-28/18 NTD...	66	18,3	48	38...57	—	□	2,0	800	-20...+70	55 000 / 27 500	110 000	1		
max.															

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

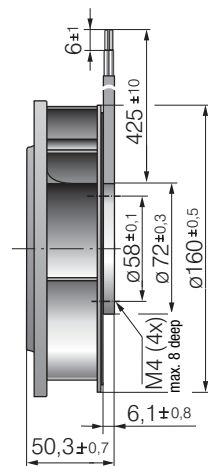
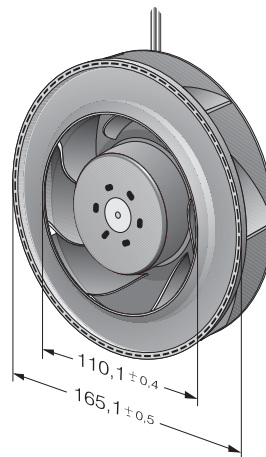
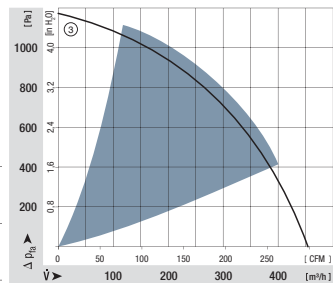
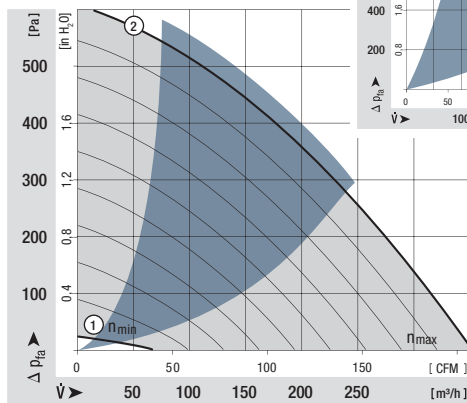
The data specified here are technically feasible benchmark values. The fans can be specially adapted to your application with signal outputs and control inputs.

*The specific service life is valid when an external capacitor is wired between the plus and minus strands.

Please note the wiring suggestion.



The air flow and noise level of fans without external housing depends on the installation conditions. The stated air flow and noise levels have been measured under the following conditions:
Centrifugal fan mounted on a base plate 260 x 260 mm.
Cover plate 260 x 260 mm with an air inlet of Ø 100 mm, concentric to the impeller.



max. 800 m³/h

DC centrifugal fans

Series REF 175 TD 175 Ø x 55 mm



Highlights:

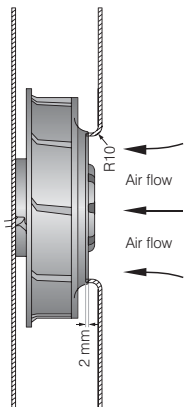
- 3-phase fan drive with high degree of running smoothness.
- Very high pressure build-up. Backward curved impeller.
- Available as standard with PWM control input and speed signal. Additional inputs and outputs on request.

General characteristics:

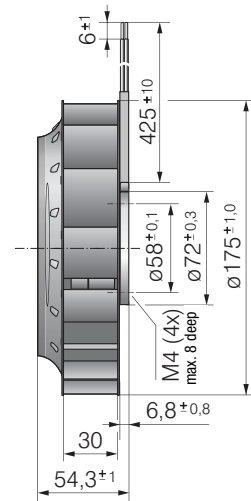
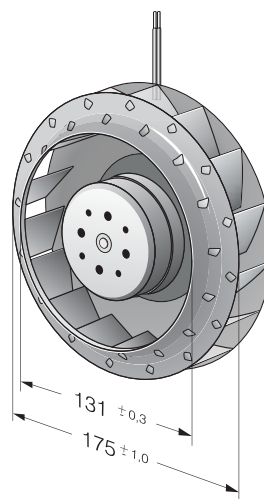
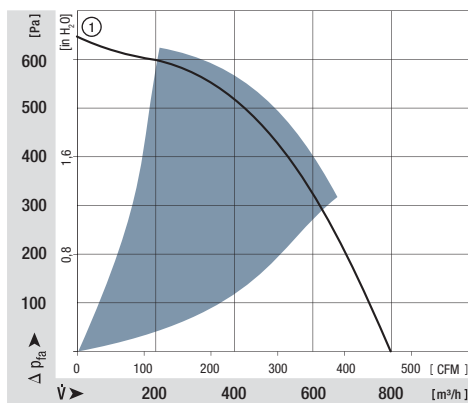
- Impeller of galvanised steel plate.
- Fully integrated electronic commutation.
- Direction of rotation: CW seen on rotor.
- Direction of air flow: axial air intake, centrifugal air exhaust out of the outlet.
- Connection via single strands AWG 20, TR 64, speed signal and control input AWG 22, bared and tin-plated.
- Mass: 930 g.

Nominal data		Air flow	Air flow	Nominal voltage	Voltage range	Sound power level	Sinter sleeve bearings Ball bearings	Power input	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 Δ (40 °C) see P. 15	Curve	Specials
Type		m ³ /h	CFM	VDC	VDC	Bel(A)	□ / ■	Watts	RPM	°C	Hours	Hours	Hours		
NEW	REF 175-30/18/2TDP	800	470	48	36 ... 72	8,3	■	121	4 400	-20...+60	65 000 / 37 500	130 000	1		

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



The air flow and noise level of fans without external housing depends on the installation conditions. The stated air flow and noise levels have been measured under the following conditions:
Centrifugal fan mounted on a base plate 180 x 180 mm.
Cover plate 180 x 180 mm with an air inlet of Ø 125,5 mm, concentric to the impeller.



max. 980 m³/h

DC centrifugal fans

Series RER 175 TD 175 Ø x 69 mm



Highlights:

- 3-phase fan drive with high degree of running smoothness.
- Very high pressure build-up. Backward curved impeller.
- Available as standard with PWM control input and speed signal. Additional inputs and outputs on request.

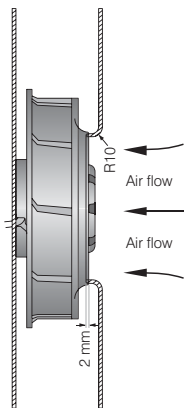
General characteristics:

- Impeller of fibreglass-reinforced plastic.
- Fully integrated electronic commutation.
- Direction of rotation: CW seen on rotor.
- Direction of air flow: axial air intake, centrifugal air exhaust out of the outlet.
- Connection via single strands AWG 18, 20 or AWG 22, TR 64, speed signal and control input AWG 22, bared and tin-plated.
- Mass: 775 g.

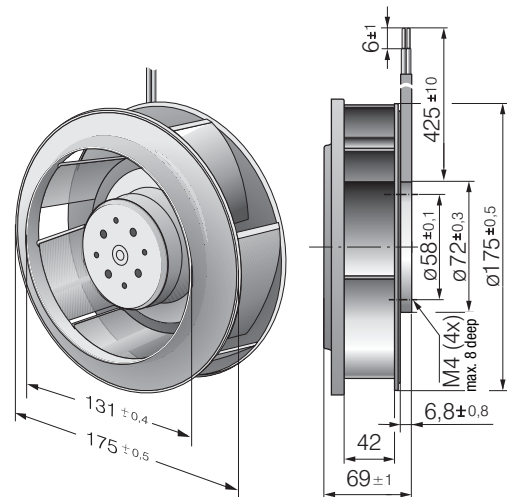
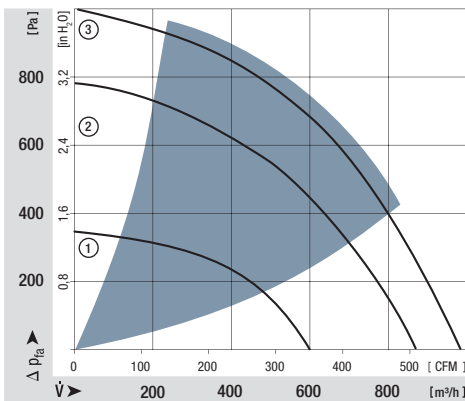
Nominal data		Air flow	Air flow	Nominal voltage	Voltage range	Sound power level	Sinter sleeve bearings Ball bearings	Power input	Nominal speed	Temperature range	Service life L ₁₀ (40 °C) ebm-papst-Standard	Service life L ₁₀ (T _{max}) ebm-papst-Standard	Life expectancy L ₁₀ Δ (40 °C) see P. 15	Curve	Specials
Type		m ³ /h	CFM	VDC	VDC	Bel(A)	□ / ■	Watts	RPM	°C	Hours	Hours	Hours		
NEW	RER 175-42/14/2 TDMLP	600	353,0	24	16...30	7,3	■	45	3 400	-20...+65	72 500 / 45 000	145 000	145 000	1	
NEW	RER 175-42/14/2 TDMP	865	508,8	24	16...36	8,2	■	110	4 800	-20...+65	70 000 / 40 000	140 000	140 000	2	
NEW	RER 175-42/18/2 TDMLP	600	353,0	48	36...57	7,3	■	46	3 400	-20...+65	72 500 / 45 000	145 000	145 000	1	
NEW	RER 175-42/18/2 TDMP*	865	508,8	48	36...72	8,2	■	110	4 800	-20...+65	70 000 / 40 000	140 000	140 000	2	
NEW	RER 175-42/18/2 TDP	980	576,8	48	36...72	8,5	■	166	5 400	-20...+65	60 000 / 32 500	115 000	115 000	3	

* preliminary data

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



The air flow and noise level of fans without external housing depends on the installation conditions. The stated air flow and noise levels have been measured under the following conditions:
Centrifugal fan mounted on a base plate 180 x 180 mm.
Cover plate 180 x 180 mm with an air inlet of Ø 125,5 mm, concentric to the impeller.



max. 970 m³/h

DC centrifugal fans

Series RER 190 TD 190 Ø x 69 mm



Highlights:

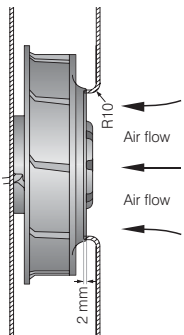
- 3-phase fan drive with high degree of running smoothness.
- Very high pressure build-up.
- Backward curved RadiCal impeller with maximum efficiency.
- Standard models available with multifunctional control input for analogue, PWM and speed signal.

General characteristics:

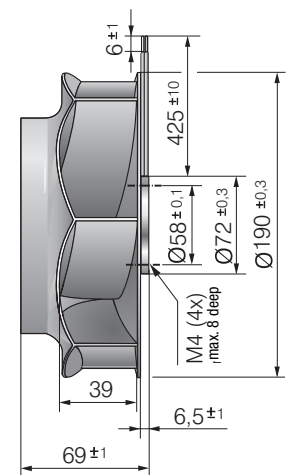
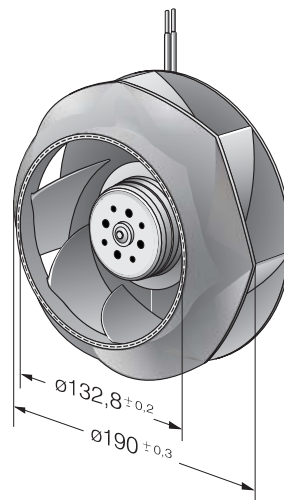
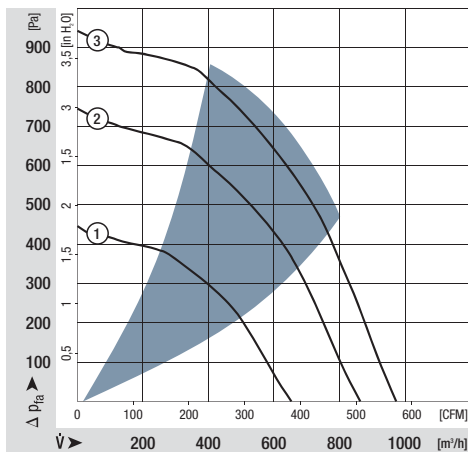
- Impeller of fibreglass-reinforced plastic.
- Fully integrated electronic commutation.
- Direction of rotation: CW seen on rotor.
- Direction of air flow: axial air intake, centrifugal air exhaust out of the outlet.
- Connection via single strands AWG 18, 20 or AWG 22, TR 64, speed signal and control input AWG 22, bared and tin-plated.
- Mass: 870 g.

Nominal data		Air flow	Air flow	Nominal voltage	Voltage range	Sound power level	Sinter sleeve bearings Ball bearings	Power input	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 Δ (40 °C) see P. 15	Curve	Specials
Type		m ³ /h	CFM	VDC	VDC	Bel(A)	□ / ■	Watts	RPM	°C	Hours	Hours	Hours		
NEW	RER 190-39/14/2TDML0	650	382,4	24	16...30	7,6	■	58	3 000	-20...+60	55 000 / 35 000	110 000	110 000	1	
NEW	RER 190-39/14/2TDM0	860	505,9	24	16...36	7,9	■	110	3 900	-20...+65	52 500 / 30 000	105 000	105 000	2	
NEW	RER 190-39/18/2TDML0	650	382,4	48	36...57	7,6	■	56	3 000	-20...+65	55 000 / 35 000	110 000	110 000	1	
NEW	RER 190-39/18/2TDM0	860	505,9	48	36...72	7,9	■	105	3 900	-20...+65	52 500 / 30 000	105 000	105 000	2	
NEW	RER 190-39/18/2TDO	970	570,6	48	36...72	8,3	■	148	4 400	-20...+65	40 000 / 22 500	80 000	80 000	3	

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



The air flow and noise level of fans without external housing depends on the installation conditions. The stated air flow and noise levels have been measured under the following conditions:
Centrifugal fan mounted on a base plate 195 x 195 mm.
Cover plate 195 x 195 mm with an air inlet of Ø 125,5 mm, concentric to the impeller.



max. 1280 m³/h

DC centrifugal fans

Series RER 220 TD 221 Ø x 71 mm



Highlights:

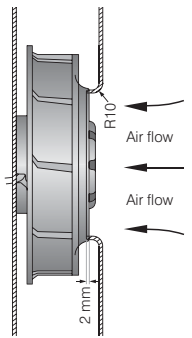
- 3-phase fan drive with high degree of running smoothness.
- Very high pressure build-up.
- Backward curved impeller.
- Standard models available with multifunctional control input for analogue, PWM and speed sign.

General characteristics:

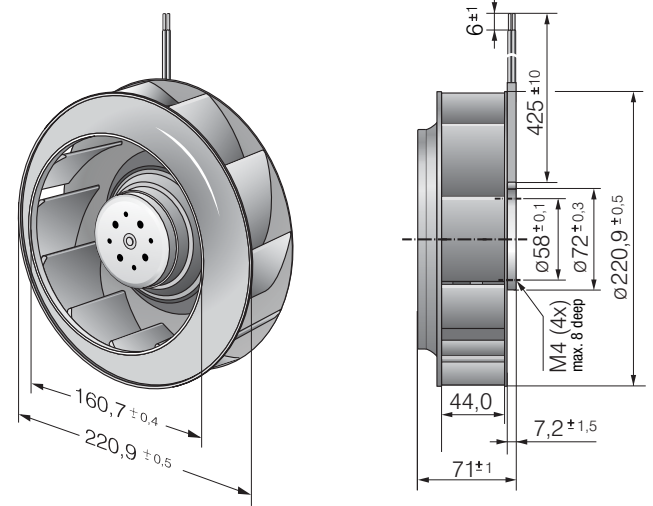
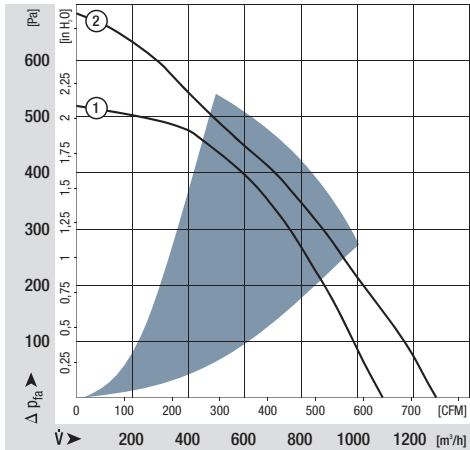
- Impeller of fibreglass-reinforced plastic.
- Fully integrated electronic commutation.
- Direction of rotation: CW seen on rotor.
- Direction of air flow: axial air intake, centrifugal air exhaust out of the outlet.
- Connection via single strands AWG 18, 20 or AWG 22, TR 64, speed signal and control input AWG 22, bared and tin-plated.
- Mass: 940 g.

Nominal data		Air flow	Air flow	Nominal voltage	Voltage range	Sound power level	Sinter sleeve bearings Ball bearings	Power input	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 Δ (40 °C) see P. 15	Curve	Specials
Type		m ³ /h	CFM	VDC	VDC	Bel(A)	□ / ■	Watts	RPM	°C	Hours	Hours	Hours		
NEW	RER 220-44/14/2TDMO	1090	641,2	24	16...36	7,7	■	82	3 000	-20...+55	75 000 / 52 500	150 000	150 000	1	
NEW	RER 220-44/18/2TDMO	1090	641,2	48	36...72	7,7	■	80	3 000	-20...+55	75 000 / 52 500	150 000	150 000	1	
NEW	RER 220-44/18/2TDO	1280	752,9	48	36...72	8,0	■	140	3 500	-20...+55	55 000 / 40 000	110 000	110 000	2	

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



The air flow and noise level of fans without external housing depends on the installation conditions. The stated air flow and noise levels have been measured under the following conditions:
Centrifugal fan mounted on a base plate 230 x 230 mm.
Cover plate 230 x 230 mm with an air inlet of Ø 146 mm, concentric to the impeller.



max. 1600 m³/h

DC centrifugal fans

Series RER 225 TD 225 Ø x 99 mm



Highlights:

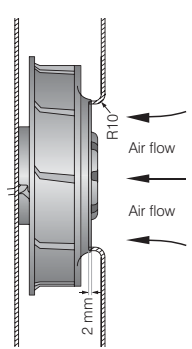
- 3-phase fan drive with high degree of running smoothness.
- Very high pressure build-up.
- TDM and TDML model with backward-curved RadiCal impeller with maximum efficiency.
- Standard models available with multifunctional control input for analogue, PWM and speed signal.

General characteristics:

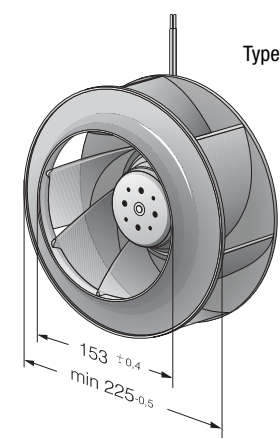
- Impeller of fibreglass-reinforced plastic.
- Fully integrated electronic commutation.
- Direction of rotation: CW seen on rotor.
- Direction of air flow: axial air intake, centrifugal air exhaust out of the outlet.
- Connection via single strands AWG 18, 20 or AWG 22, TR 64, speed signal and control input AWG 22, bared and tin-plated.
- Mass: 1030 g.

Nominal data		Air flow	Air flow	Nominal voltage	Voltage range	Sound power level	Sinter sleeve bearings Ball bearings	Power input	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 Δ (40 °C) see P. 15	Curve	Specials
Type		m ³ /h	CFM	VDC	VDC	Bel(A)	□ / ■	Watts	RPM	°C	Hours	Hours	Hours		
NEW	RER 225-55/18/2TDML0	1080	635,4	48	36...72	7,5	■	82	2 500	-20...+55	70 000 / 50 000	140 000	140 000	1	
NEW	RER 225-55/18/2TDM0	1210	711,9	48	36...72	7,9	■	120	2 800	-20...+55	55 000 / 40 000	110 000	110 000	2	
NEW	RER 225-63/18/2TDP-402	1600	941,3	48	36...72	8,1	■	165	3 300	-20...+55	52 500 / 37 500	105 000	105 000	3	

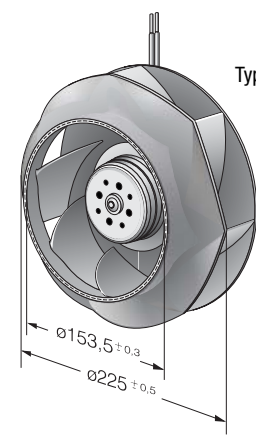
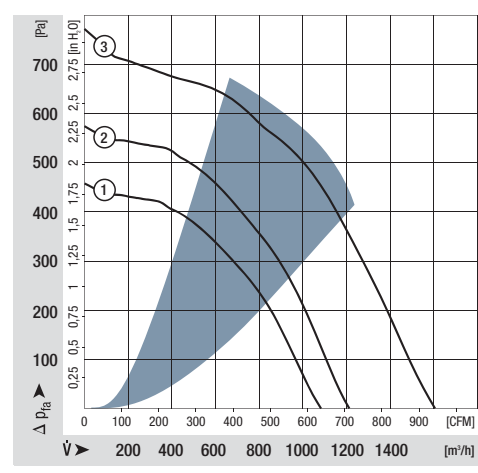
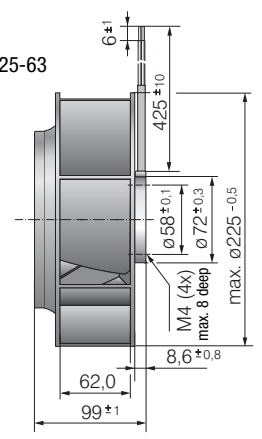
Speed control range from 800 rpm at 7 % PWM up to nominal speed at > 90 % PWM. Standstill at 0% PWM, Type O: standstill at sensor break. Type P: maximum speed at sensor break.



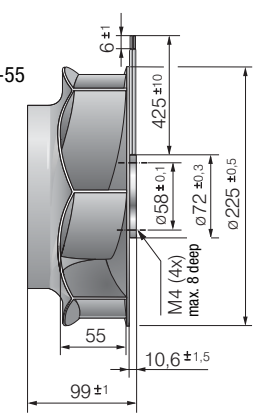
The air flow and noise level of fans without external housing depends on the installation conditions. The stated air flow and noise levels have been measured under the following conditions:
Centrifugal fan mounted on a base plate 230 x 230 mm.
Cover plate 230 x 230 mm with an air inlet of Ø 146 mm, concentric to the impeller.



Type RER 225-63



Type RER 225-55



max. 155 m³/h

DC tangential fan

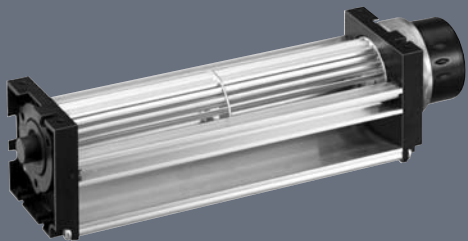
Series QG 030 201...413 x 50 x 48 mm

Highlights:

- Tangential fans with high air flow.
- Large air outlet.

General characteristics:

- Motor with ball bearing system. Impeller mounting plate with sleeve bearings.
- Fan housing and impeller of aluminium. Plastic housing side parts.
- Fully integrated electronic commutation.
- Protected against reverse polarity and locking.
- Air exhaust out of the outlet.
- Connection via single strands. Bared and tin-plated.
- Mass: 235 / 290 / 380 / 415 g.



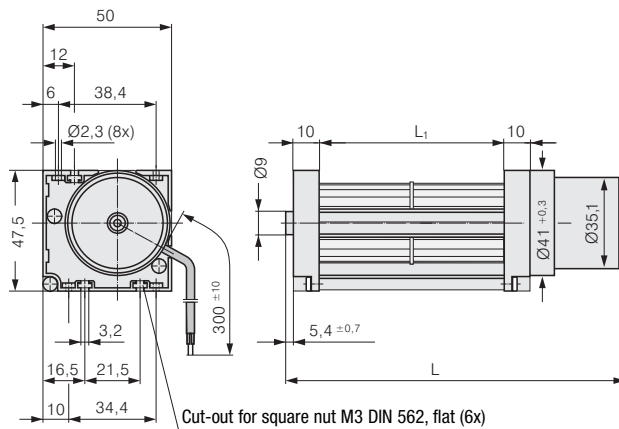
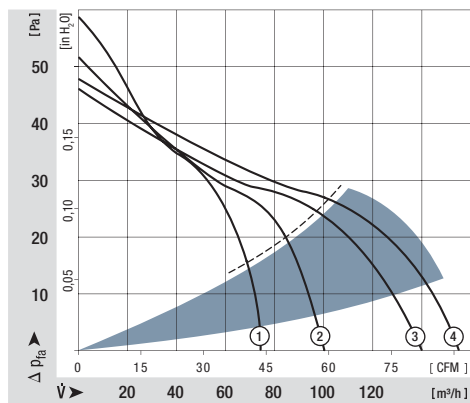
Nominal data

Type	Air flow		Nominal voltage	Voltage range	Sound pressure level	Sound power level	Sleeve bearings Ball bearings	Power input	Temperature range	Service life L ₁₀ (40 °C) ebm-papst-Standard	Service life L ₁₀ (T _{max}) ebm-papst-Standard	Life expectancy L ₁₀ ^Δ (40 °C) see P. 15	Curve	Specials
	m ³ /h	CFM												
QG 030-148/12	75	44,1	12	8...14	49	5,7	□/■	6,2	-20...+60	30 000 / 10 000		32 500	1	
QG 030-198/12	100	58,9	12	8...14	51	5,8	□/■	8,0	-20...+60	30 000 / 10 000		32 500	2	
QG 030-303/12	140	82,4	12	8...14	51	5,8	□/■	8,7	-20...+60	30 000 / 10 000		32 500	3	
QG 030-353/12	155	91,3	12	8...14	51	5,9	□/■	9,6	-20...+60	30 000 / 10 000		32 500	4	
QG 030-148/14	75	44,1	24	16...28	49	5,7	□/■	6,2	-20...+60	30 000 / 10 000		32 500	1	
QG 030-198/14	100	58,9	24	16...28	51	5,8	□/■	8,0	-20...+60	30 000 / 10 000		32 500	2	
QG 030-303/14	140	82,4	24	16...28	51	5,8	□/■	8,7	-20...+60	30 000 / 10 000		32 500	3	
QG 030-353/14	155	91,3	24	16...28	51	5,9	□/■	9,6	-20...+60	30 000 / 10 000		32 500	4	

Tangential fans are only suitable for operation with high rate and low back pressure.

Type	Dimension:	L	L ₁
QG 030-148/ ..		201 ^{+1,5}	148
QG 030-198/ ..		258 ^{+1,5}	198
QG 030-303/ ..		363 ^{+1,5}	303
QG 030-353/ ..		413 ^{+1,5}	353

The service life values refer to horizontal installation of the fan.



Information
DC axial fans
DC centrifugal fans
DC fans - specials
ACmaxx / GreenTech EC-compact fans
AC axial fans
AC centrifugal fans
Accessories
Representatives