

DC Fans

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Technical Information

Range of fans

Users of ebm-papst fans have the widest range of DC axial fans at their disposal: From 25 mm to 280 mm in size. Every single type of fan can be optimally integrated in the respective appliance concept. The highly economic brushless motor technology of these fans provides a unique variety of intelligent innovations that can be realised today at prices that would have been unthinkable just a few years ago.

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.

Supply voltage

The supply voltage of ebm-papst DC fans can be varied thus the airflow can be matched optimally to the cooling requirements and noise reduced to a minimum. ebm-papst DC fans can be driven with voltages that are reduced as much as 50 % or increased by 25 % of their nominal voltage (see voltage range in the tables containing technical data).

Speed control

VARIOFAN – the fans with IC technology and temperature-dependent speed control. VARIOFANS always cool at the speed required by the appliance resulting in speeds as much as 50% lower than those of standard fans and a drastic reduction of the noise level in almost all operating conditions. VARIOFANS are controlled without dissipation losses: At lower speeds their power consumption is reduced proportionally.

S-Force

The new S-Force fans with their extremely high blower capacity of up to 950 m³/h and pressure build-up of up to 1200 Pascal are capable of dealing with the extreme heat load. If needed, these fans can produce up to 100% more output under full load and they work with a much broader delivery bandwidth than current models. This makes them ideal for equipment and systems with a high density of components. Thanks to intelligent motor features, they can be individually adapted for any application. S-Force fans are available in 5 standard dimensions.



Axial Fans for DC Operation

Overview Air Flow

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	
	□ 25 x 8	250	2.1...4.5																						21
NEW	□ 40 x 10	400 F	6...9																						22
NEW	□ 40 x 20	400	10...13.5																						23
	□ 40 x 25	400 J	19...24																						24
NEW	□ 50 x 15	500 F	11...20																						25
NEW	□ 60 x 15	600 F	19...33																						26
NEW	□ 60 x 25	620	21...67																						27
	□ 60 x 25	600 N	21...56																						28
	□ 60 x 25	600 N VARIOFAN	16...41																						29
	□ 60 x 32	600 J	70																						30
	□ 70 x 15	700 F	28...44																						31
NEW	□ 80 x 25	8450	33...88																						32
	□ 80 x 25	8400 N	33...79																						33
	□ 80 x 25	8400 N VARIOFAN	20...58																						34
	□ 80 x 32	8300	32...80																						35
NEW	□ 80 x 38	8200 J	132...222																						36
	□ 92 x 25	3400 N	61...102																						37
	□ 92 x 25	3400 N VARIOFAN	44...84																						38
	□ 92 x 32	3300	56...107																						39
NEW	□ 92 x 38	3200 J	130...280																						40
	□ 119 x 25	4400 F	94...170																						41
	□ 119 x 25	4400 FN	200...225																						42
	□ 119 x 32	4300 N	93...198																						43
	□ 119 x 32	4300	95...204																						44
	□ 119 x 32	4300 VARIOFAN	61...170																						45
NEW	□ 119 x 38	4400	150...285																						46
	□ 119 x 38	4200	86...184																						47
	□ 119 x 38	4100 N	160...237																						48
	□ 119 x 38	4100 NHH-H6	260...440																						49
NEW	□ 119 x 38	4100 NH7-8	500...570																						50
	□ 119 x 38	DV 4100	275																						51
	□ 127 x 38	5200 N	187...338																						52
NEW	□ 127 x 38	DV 5200	270...324																						53
	□ 135 x 38	5100 N	122...250																						54
NEW	□ 140 x 51	5300	410...670																						55
	∅ 150 x 38	7100 N	360...420																						56
	∅ 150 x 55	7200 N	360																						57
NEW	∅ 172 x 51	6300	600...950																						58
	∅ 172 x 51	6200 N	205...480																						59
	∅ 172 x 51	6200 NTD	90...600																						60
	∅ 172 x 51	DV 6200	540																						61
NEW	∅ 172 x 51	DV 6200 TD	100...700																						62
	172x150x51	6400	205...480																						63
	172x150x51	6400 TD	90...900																						64
	172x160x51	DV 6400	530																						65
	172x160x51	DV 6400 TD	100...680																						66
	∅ 200 x 70	W1G 180	900...925																						67
	□ 225 x 80	W1G 200	1005...1090																						68
	∅ 232 x 80	W1G 208	1050																						69
	□ 280 x 80	W1G 250	1920																						70



Radial Fans for DC Operation

Overview Air Flow

Dimensions	Series	Air Flow	Air Flow																Page							
			mm	m ³ /h	10	20	30	40	50	60	70	80	90	100	200	300	400	500		600	700	800	900	1000	2000	3000
105 x 59 x 79	RV 40	18...24																								71
□ 51 x 15	RLF 35	9.6																								72
□ 76 x 27	RL 48	22...28																								73
97 x 93.5 x 33	RL 65	56...61																								74
□ 121 x 37	RL 90 N	40...55																								75
NEW □ 127 x 25	RLF 100	64...80																								76
□ 135 x 38	RG 90 N	55																								77
NEW □ 180 x 40	RG 125 N	60...137																								78
□ 220 x 56	RG 160 N	139...209																								79
□ 220 x 56	RG 160 NTD	59...370																								80
∅ 104 x 25	REF 100	86...104																								81
NEW ∅ 101 x 52	RER 101	190																								82
NEW ∅ 138 x 35	RER 125 N	74...166																								83
∅ 165 x 51	RER 160 N	255																								84
∅ 165 x 51	RER 160 NTD	66...354																								85
201...413 x 50 x 48	QG 030	75...155																								86

Information Pictograms

On the pages of the catalogue and on the following overview pages, the pictograms illustrated below provide information about technically possible special versions in the fan line presented.

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.



Speed Signal

The fan uses a separate wire to output information about its speed, and thus about the speed of the rotor. For technical details, please refer to page 90.



Go / No Go Alarm

The fan uses a separate wire to output a static signal when it is stationary, thus providing information about whether or not the rotor is turning. For technical details, please refer to page 97.



Alarm with limit speed

If the speed drops below a certain level defined in the fan's electronics, the fan will emit a static signal, thus providing information about whether or not the rotor is turning. For technical details, please refer to page 94.



External temperature sensor

An NTC is connected to the fan via a separate wire and the fan changes its speed depending on the temperature at the NTC. For technical details, please refer to page 100.



Internal temperature sensor

In this case, the NTC is integrated into the fan and the fan changes its speed depending on the temperature at the NTC. For technical details, please refer to page 100.



PWM control input

The speed of the fan can be changed via a pulse-width-modulated signal. This signal is applied to a specially provided wire. For details, please refer to page 101.



Analogue control input

The speed of the fan can be changed via a control voltage. This control voltage is applied to a specially provided wire. For details, please refer to page 101.



Protection against moisture

Protection for the fan's electronics against moisture and condensation. For details, please refer to page 102.



IP 54

Protection of motor and PCB board against splashed water and humidity. For details, please refer to page 102.



Protection against salt spray fog

Protection of fan against the damaging effects of salt spray fog. For details, please refer to page 102.

Fans for DC Operation

Overview of technically feasible designs

Axial Fans		Dimensions	VDE UL, CSA	SINTEC-Sleeve Bearings / Ball Bearings	Sensor	Go / No Go Alarm	Alarm with limit speed	External Temperature sensor	Internal Temperature sensor	PWM Control Input	Analogue Control Input	Humidity protection	IP >= IP54	Salt fog protection	Page
Series	mm														
250	25 x 25 x 8	yes	□	•	-	-	-	-	-	•	-	-	-	-	21
NEW 400 F	40 x 40 x 10	yes	□	•	•	-	-	-	-	•	-	-	-	-	22
NEW 400	40 x 40 x 20	yes	□	•	•	-	-	-	-	•	-	-	-	-	23
400 J	40 x 40 x 25	yes	■	•	•	-	-	-	-	•	•	-	-	-	24
NEW 500 F	50 x 50 x 15	yes	□	•	•	-	-	-	•	-	-	-	-	-	25
NEW 600 F	60 x 60 x 15	yes	□	•	•	-	-	-	•	-	-	-	-	-	26
NEW 620	60 x 60 x 25	yes	■	•	•	•	•	•	•	•	•	-	-	-	27
600 N	60 x 60 x 25	yes	□/■	•	•	-	•	•	-	-	•	•	-	-	28
600 N VARIOFAN	60 x 60 x 25	yes	□/■	•	•	-	•	•	-	-	•	•	-	-	29
600 J	60 x 60 x 32	*	■	•	•	-	-	-	-	•	-	-	-	-	30
700 F	70 x 70 x 15	yes	□	•	•	-	-	-	-	•	-	-	-	-	31
NEW 8450	80 x 80 x 25	*	□	•	•	-	-	-	•	-	-	-	-	-	32
8400 N	80 x 80 x 25	yes	□/■	•	•	•	•	•	•	•	•	-	-	-	33
8400 N VARIOFAN	80 x 80 x 25	yes	□	•	•	-	•	•	-	-	•	-	-	-	34
8300	80 x 80 x 32	yes	□/■	•	•	•	•	•	•	•	•	•	•	•	35
NEW 8200 J S-Force	80 x 80 x 38	*	■	•	•	•	•	•	•	•	•	-	-	-	36
3400 N	92 x 92 x 25	yes	□/■	•	•	•	•	•	•	•	•	-	-	-	37
3400 N VARIOFAN	92 x 92 x 25	yes	□	•	•	-	•	•	-	-	•	-	-	-	38
3300	92 x 92 x 32	yes	□/■	•	•	•	•	•	•	•	•	•	•	•	39
NEW 3200 J	92 x 92 x 38	yes	■	•	•	•	•	•	•	•	•	-	-	-	40
4400 F	119 x 119 x 25	yes	□/■	•	•	•	•	•	•	•	•	-	-	-	41
4400 FN	119 x 119 x 25	*	■	•	•	•	•	•	•	•	•	-	-	-	42
4300 N	119 x 119 x 32	yes	□/■	•	•	-	-	-	-	•	-	-	-	-	43
4300	119 x 119 x 32	yes	□/■	•	•	•	•	•	•	•	•	•	•	•	44
4300 VARIOFAN	119 x 119 x 32	yes	■	•	•	•	•	•	•	•	•	-	-	-	45
NEW 4400	119 x 119 x 38	*	■	•	•	•	•	•	•	•	•	-	-	-	46
4200	119 x 119 x 38	yes	□/■	•	•	•	•	•	•	•	•	•	•	•	47
4100 N	119 x 119 x 38	yes	□/■	•	•	•	•	•	•	•	•	•	•	•	48
4100 NHH-H6	119 x 119 x 38	*	■	•	•	•	•	•	•	•	•	•	-	-	49
NEW 4100 NH S-Force	119 x 119 x 38	*	■	•	•	•	•	•	•	•	•	-	-	-	50
DV 4100	119 x 119 x 38	yes	■	•	•	•	•	•	•	•	•	•	•	•	51
5200 N	127 x 127 x 38	yes	■	•	•	•	•	•	•	•	•	•	•	•	52
NEW DV 5200	127 x 127 x 38	yes	■	•	•	•	•	•	•	•	•	•	•	•	53
5100 N	135 x 135 x 38	yes	■	•	•	•	•	•	•	•	•	•	•	•	54
NEW 5300 S-Force	140 x 140 x 51	*	■	•	•	•	•	•	•	•	•	-	-	-	55
7100 N	150 Ø x 38	yes	■	•	•	•	•	•	•	•	•	•	•	•	56
7200 N	150 Ø x 55	yes	■	•	•	•	•	•	•	•	•	•	•	•	57
NEW 6300 S-Force	172 Ø x 51	*	■	•	•	•	•	•	•	•	•	-	-	-	58
6200 N	172 Ø x 51	yes	■	•	•	•	•	•	•	•	•	•	•	•	59
6200 NTD	172 Ø x 51	yes	■	•	•	•	•	•	•	•	•	•	•	•	60
DV 6200	172 Ø x 51	yes	■	•	•	•	•	•	•	•	•	•	•	•	61
NEW DV 6200 TD	172 Ø x 51	yes	■	•	•	•	•	•	•	•	•	•	•	•	62
6400	172 x 150 x 51	yes	■	•	•	•	•	•	•	•	•	•	•	•	63
6400 TD	172 x 150 x 51	yes	■	•	•	•	•	•	•	•	•	•	•	•	64
DV 6400	172 x 160 x 51	yes	■	•	•	•	•	•	•	•	•	•	•	•	65
DV 6400 TD	172 x 160 x 51	yes	■	•	•	•	•	•	•	•	•	•	•	•	66

* approvals applied for
 - unavailably
 • availably
 □ Sleeve Bearings
 ■ Ball Bearings

Axial Fans		Dimensions	VDE UL, CSA	SINTEC-Sleeve Bearings / Ball Bearings	Sensor	Go / No Go Alarm	Alarm with limit speed	External Temperature sensor	Internal Temperature sensor	PWM Control Input	Analogue C Control Input	Humidity protection	IP >= IP54	Salt fog protection	Page
Series	mm														
RV 40	105 x 59 x 79	yes	■	-	•	-	-	-	•	-	-	-	-	-	71
RLF 35	51 x 51 x 15	*	■	•	-	-	-	-	-	•	-	-	-	-	72
RL 48	76 x 76 x 27	yes	■	•	•	-	-	-	-	•	-	-	-	-	73
RL 65	97 x 93,5 x 33	*	■	•	•	•	•	•	•	•	•	-	-	-	74
RL 90 N	121 x 121 x 37	yes	□/■	•	•	•	•	•	•	•	•	•	•	•	75
NEW RLF 100	127 x 127 x 25	yes	■	•	•	•	•	•	•	•	•	•	•	-	76
RG 90 N	135 x 135 x 38	yes	□/■	•	•	•	•	•	•	•	•	•	•	•	77
NEW RG 125 N	180 x 180 x 40	yes	■	•	•	•	•	•	•	•	•	•	•	•	78
RG 160 N	220 x 220 x 56	yes	■	•	•	•	•	•	•	•	•	•	•	•	79
RG 160 NTD	220 x 220 x 56	yes	■	•	•	•	•	•	•	•	•	•	•	•	80
REF 100	104 Ø x 25	yes	■	•	•	•	•	•	•	•	•	•	•	-	81
NEW RER 101	101 Ø x 52	*	■	•	•	•	•	•	•	•	•	•	-	-	82
NEW RER 125 N	138 Ø x 35	yes	■	•	•	•	•	•	•	•	•	•	-	-	83
RER 160 N	165 Ø x 51	yes	■	•	•	•	•	•	•	•	•	•	•	•	84
RER 160 NTD	165 Ø x 51	yes	■	•	•	•	•	•	•	•	•	•	•	•	85
QG 030	201...413 x 50 x 48	yes	■	•	-	-	-	-	-	-	-	-	-	-	86

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.

max. 4.5 m³/h

DC Axial Fans

Series 250 25 x 25 x 8 mm



Highlights:

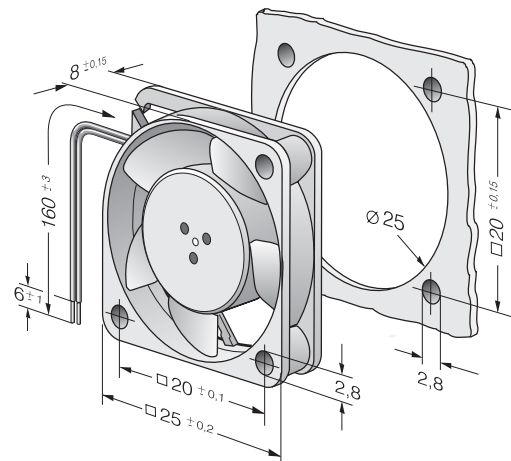
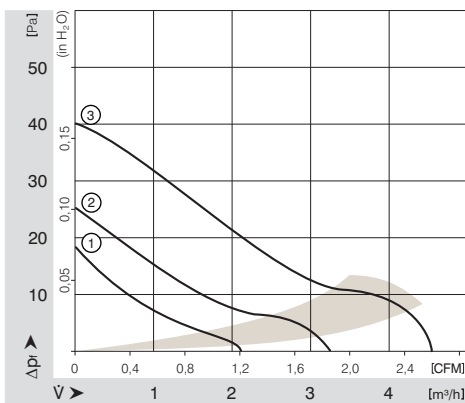
- Compact fan with low power consumption.

General characteristics:

- Material: fiberglass-reinforced plastic. Impeller PA, housing PBT.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Connection via single wire AWG 28, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CCW looking at rotor.
- Mass: 5 g.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	Sinter-Sleeve Bearings Ball Bearings	Power Input	Nominal Speed	Temperature Range	Service Life L ₁₀ (20 °C) ebm-papst Standard	Service Life L ₁₀ (60 °C) ebm-papst Standard	Life expectancy L ₁₀ Δ (40 °C) see Page 13	Curve	Specials
	m ³ /h	CFM													
255 M	2.1	1.2	5	4.5...5.5	5	< 3	■	0.2	6 000	-10...+70	45 000 / 14 000	45 000	1		
255 N	3.2	1.9	5	4.5...5.5	16	< 3	■	0.4	9 600	-10...+70	40 000 / 12 000	40 000	2	/2	
255 H	4.5	2.6	5	4.5...5.5	23	4.4	■	0.6	12 000	-10...+55	35 000 / 10 000*	30 000	3	/2	
252 N	3.2	1.9	12	10...14	15	< 3	■	0.5	9 000	-10...+70	40 000 / 12 000	40 000	2	/2	

* at 55 °C



max. 9 m³/h

DC Axial Fans

Series 400 F 40 x 40 x 10 mm



New Models

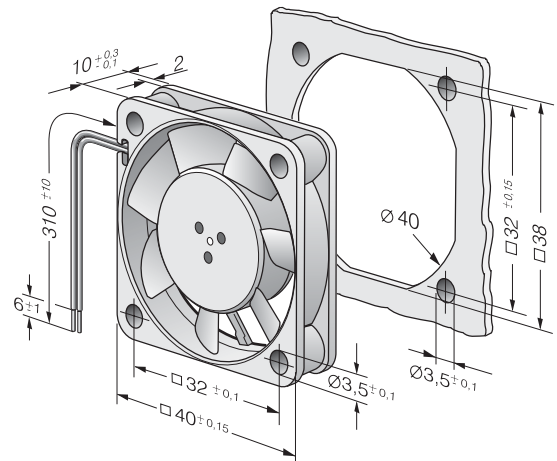
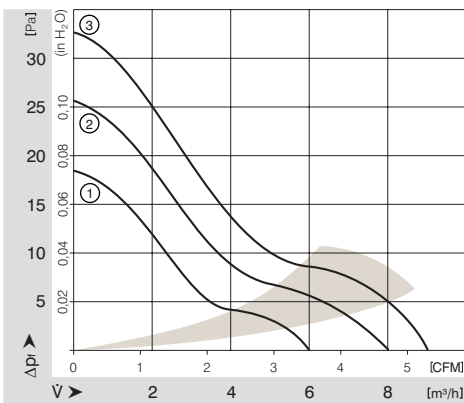
Highlights:

- Compact fan with low power consumption.
- Some models suitable for use at high ambient temperatures.

General characteristics:

- Material: fiberglass-reinforced plastic. impeller PA, housing PBT.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 28, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CCW looking at rotor.
- Mass: 17 g.

Nominal Data		Air Flow	Air Flow	Nominal Voltage	Voltage Range	Noise	Sound Power	Sintec-Sleeve Bearings Ball Bearings	Power Input	Nominal Speed	Temperature Range	Service Life L ₁₀ (20 °C) ebm-papst Standard	Service Life (60 °C) ebm-papst Standard	Life expectancy L ₁₀ Δ (40 °C) see page 13	Curve	Specials
Type	m ³ /h	CFM	V DC	V DC	dB(A)	Bel	□/■	Watt	min ⁻¹	°C	Hours	Hours	Hours	P. 90		
405 F	8	4.7	5	4.5...5.5	22.1	4.4	□	0.7	5 400	-20...+70	45 000 / 15 000	47 500	2	/2		
405 FH	9	5.3	5	4.5...5.5	26.0	4.6	■	0.9	6 000	-20...+70	45 000 / 15 000	47 500	3	/2		
412 FM	6	3.5	12	10...14	16..5	3.8	□	0.6	4 300	-20...+70	45 000 / 15 000	47 500	1			
412 F	8	4.7	12	10...14	22.1	4.4	□	0.7	5 400	-20...+70	45 000 / 15 000	47 500	2			
412 FH	9	5.3	12	10...14	26.0	4.6	■	0.8	6 000	-20...+70	45 000 / 15 000	47 500	3	/2		
414 F	8	4.7	24	20...28	22.1	4.4	□	0.8	5 400	-20...+70	45 000 / 15 000	47 500	2	/2		
414 FH	9	5.3	24	21.6...26.4	26.0	4.4	■	0.9	6 000	-20...+70	45 000 / 15 000	47 500	3			
Models with Temperature range up to +85 °C.																
NEW	412 FM-074	6	3.5	12	10...14	16.5	3.8	□	0.4	4 300	-20...+85	45 000 / 15 000	47 500	1	/2	
NEW	412 F-130	8	4.7	12	10...14	22.1	4.4	□	0.6	5 400	-20...+85	45 000 / 15 000	47 500	2		
NEW	412 FH-132	9	5.3	12	10...14	26.0	4.6	■	0.7	6 000	-20...+85	45 000 / 15 000	47 500	3		



max. 13.5 m³/h

DC Axial Fans

Series 400 40 x 40 x 20 mm



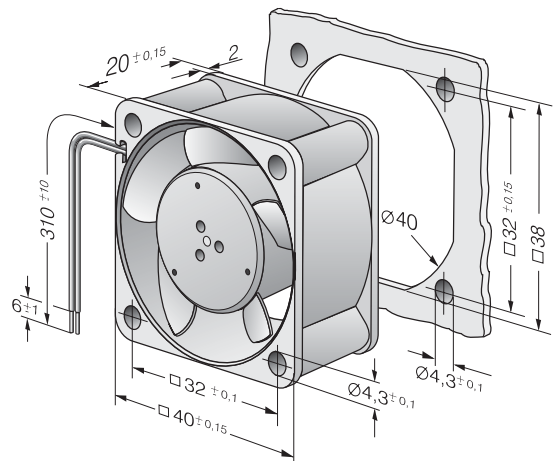
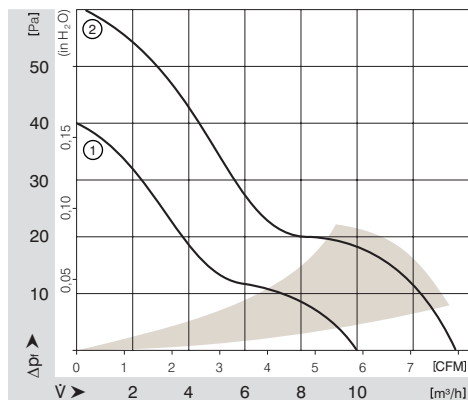
Highlights:

- Compact fan with low power consumption.
- Some models suitable for use at high ambient temperatures.

General characteristics:

- Material: fiberglass-reinforced plastic. Impeller PA, housing PBT.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 28, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CCW looking at rotor.
- Mass: 27 g.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	Sinter-Sleeve Bearings Ball Bearings	Power Input	Nominal Speed	Temperature Range	Service Life L ₁₀ (20 °C) ebm-papst Standard	Service Life (60 °C) ebm-papst Standard	Life expectancy L ₁₀ Δ (40 °C) see page 13	Curve	Specials
	m ³ /h	CFM													
405	10.0	5.9	5	4.5...5.5	18	3.8	■	0.9	6 000	-20...+70	50 000 / 20 000	62 500	1	/2	
412	10.0	5.9	12	10...14	18	3.8	■	0.9	6 000	-20...+70	50 000 / 20 000	62 500	1	/2;/39	
412 H	13.5	7.9	12	10...14	29	4.7	■	1.6	8 100	-20...+60	45 000 / 15 000	47 500	2	/39	
414	10.0	5.9	24	20...28	18	3.8	■	1.0	6 000	-20...+70	50 000 / 20 000	62 500	1	/2	
414 H	13.5	7.9	24	20...26.5	29	4.7	■	1.6	8 100	-20...+60	45 000 / 15 000	47 500	2	/2	
Model with Temperature range up to +85 °C.															
NEW 412-099	10.0	5.9	12	10...14	18	3.8	■	0.8	6 000	-20...+85	50 000 / 20 000	62 500	1		



max. 24 m³/h

DC Axial Fans

Series 400 J 40 x 40 x 25 mm



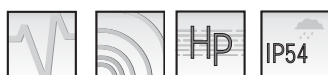
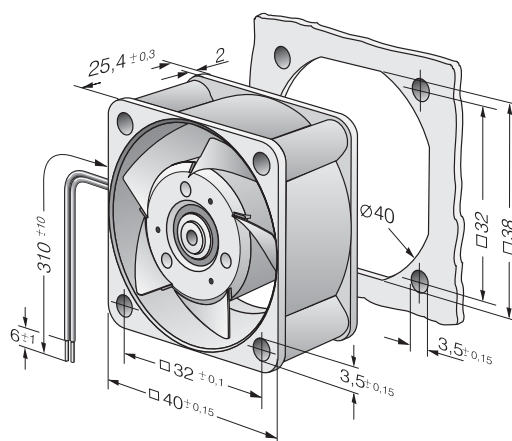
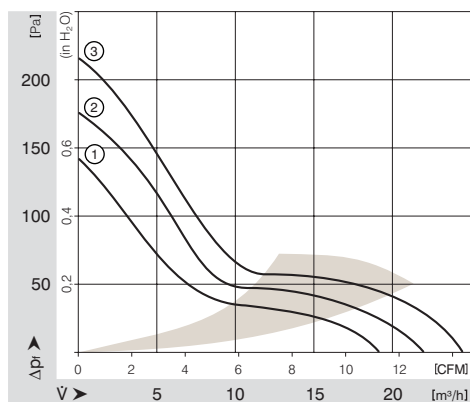
Highlights:

- Highly stable characteristic curve for high air flow with high back pressure.
- Low operating noise at high back pressure.

General characteristics:

- Material: fiberglass-reinforced plastic. Impeller PA, housing PBT.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 26, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CCW looking at rotor.
- Mass: 50 g.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	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 page 13	Curve	Specials
	m ³ /h	CFM													
412 J	19	11.2	12	8...14	39	5.5	■	2.4	10 300	-20...+70	60 000 / 30 000	120 000	120 000	1	
412 JH	22	12.9	12	8...13.5	43	5.8	■	3.0	11 700	-20...+70	60 000 / 30 000	120 000	120 000	2	/2
412 JHH	24	14.1	12	8...13.5	46	6.1	■	3.3	13 000	-20...+60	57 500 / 35 000	110 000	110 000	3	/2
414 J	19	11.2	24	18...27	39	5.5	■	2.4	10 300	-20...+70	60 000 / 30 000	120 000	120 000	1	
414 JH	22	12.9	24	18...27	43	5.8	■	3.0	11 700	-20...+70	60 000 / 30 000	120 000	120 000	2	/2
414 JHH	24	14.1	24	18...27	46	6.1	■	3.6	13 000	-20...+60	57 500 / 35 000	110 000	110 000	3	/2



max. 20 m³/h

DC Axial Fans

Series 500 F 50 x 50 x 15 mm



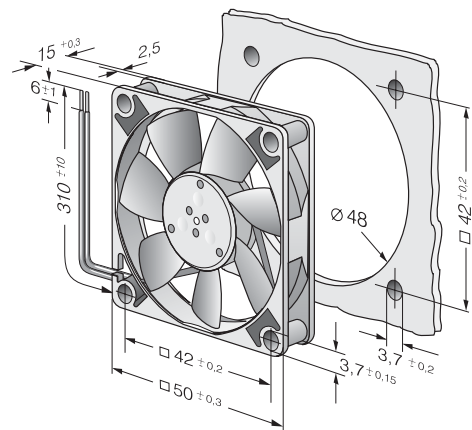
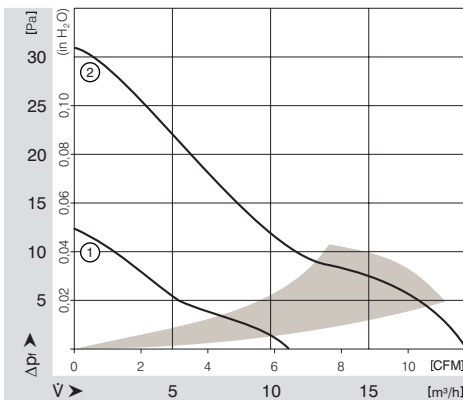
Highlights:

- Compact fan with low power consumption.
- Some models suitable for use at high ambient temperatures.

General characteristics:

- Material: fiberglass-reinforced plastic. Impeller PA, housing PBT.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 28, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CCW looking at rotor.
- Mass: 25 g.

Nominal Data		Air Flow	Air Flow	Nominal Voltage	Voltage Range	Noise	Sound Power	Sinter-Sleeve Bearings Ball Bearings	Power Input	Nominal Speed	Temperature Range	Service Life L ₁₀ (20 °C) ebm-papst Standard	Service Life L ₁₀ (60 °C) ebm-papst Standard	Life expectancy L ₁₀ Δ (40 °C) see page 13	Curve	Specials
Type		m ³ /h	CFM	V DC	V DC	dB(A)	Bel	□/■	Watt	min ⁻¹	°C	Hours	Hours		P. 90	
512 F		20	11.8	12	10.8...13.2	30	4.5	■	1.0	5 000	-20...+70	50 000 / 20 000	62 500	2	/2	
514 F		20	11.8	24	21.6...26.4	30	4.5	■	1.0	5 000	-20...+70	50 000 / 20 000	62 500	2	/2	
Models with Temperature range up to +85 °C.																
NEW 512 FL-547		11	6.5	12	11.5...13.2	12	3.7	■	0.4	3 000	-20...+85	50 000 / 20 000	65 500	1		
NEW 512 F-532		20	11.8	12	10.8...13.2	30	4.5	■	0.9	5 000	-20...+85	50 000 / 20 000	65 500	2	/2	



max. 33 m³/h

DC Axial Fans

Series 600 F 60 x 60 x 15 mm



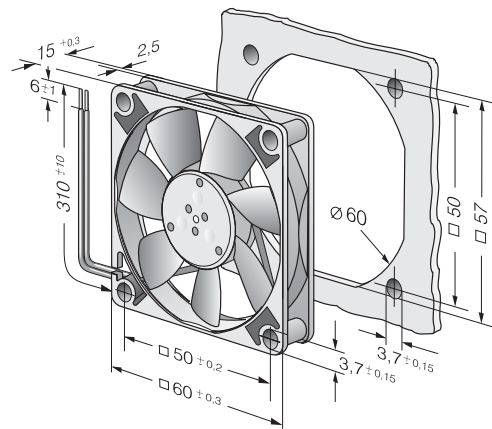
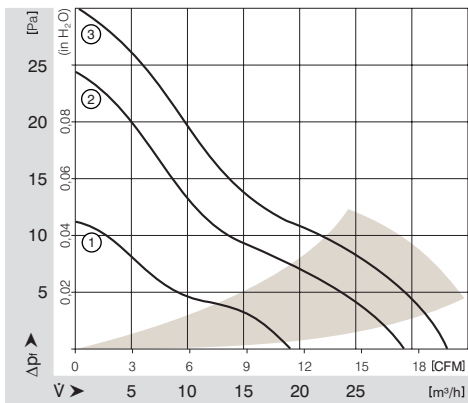
Highlights:

- Compact fan with low power consumption.
- Some models suitable for use at high ambient temperatures.

General characteristics:

- Material: fiberglass-reinforced plastic. Impeller PA, housing PBT.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 28, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CCW looking at rotor.
- Mass: 30 g.

Nominal Data		Air Flow	Air Flow	Nominal Voltage	Voltage Range	Noise	Sound Power	Sinter-Sleeve Bearings Ball Bearings	Power Input	Nominal Speed	Temperature Range	Service Life L ₁₀ (20 °C) ebm-papst Standard	Service Life L ₁₀ (60 °C) ebm-papst Standard	Life expectancy L _{10Δ} (40 °C) see page 13	Curve	Specials
Type		m ³ /h	CFM	V DC	V DC	dB(A)	Bel	□/■	Watt	min ⁻¹	°C	Hours	Hours		P. 90/98	
605 F		29	17.1	5	4.5...5.2	27	4.4	■	1.1	4 000	-20...+50	50 000 / 20 000	50 000		2	
612 FL		19	11.2	12	11.5...13.2	16	3.6	■	0.4	2 650	0...+70	50 000 / 20 000	62 500		1 /39	
612 F		29	17.1	12	10.8...13.2	27	4.4	■	1.0	3 900	-20...+70	50 000 / 20 000	62 500		2 /2	
612 FH		33	19.4	12	10.0...13.2	31	4.8	■	1.4	4 500	-20...+60	45 000 / 15 000	47 500		3 /2	
614 F		29	17.1	24	21.6...26.4	27	4.4	■	1.1	3 900	-20...+70	50 000 / 20 000	62 500		2 /2	
Models with Temperature range up to +80 / 85 °C.																
NEW	612 FL-680	19	11.2	12	11.5...14	16	3.6	■	0.5	2 650	-20...+85	50 000 / 20 000	62 500		1	
NEW	612 F-637	29	17.1	12	10.8...12.6	27	4.4	■	1.0	3 900	-20...+80	50 000 / 20 000	62 500		2	



max. 67 m³/h

DC Axial Fans

Series 620 60 x 60 x 25 mm



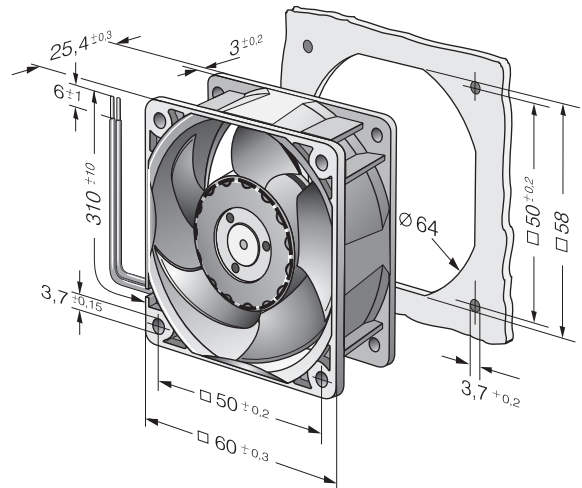
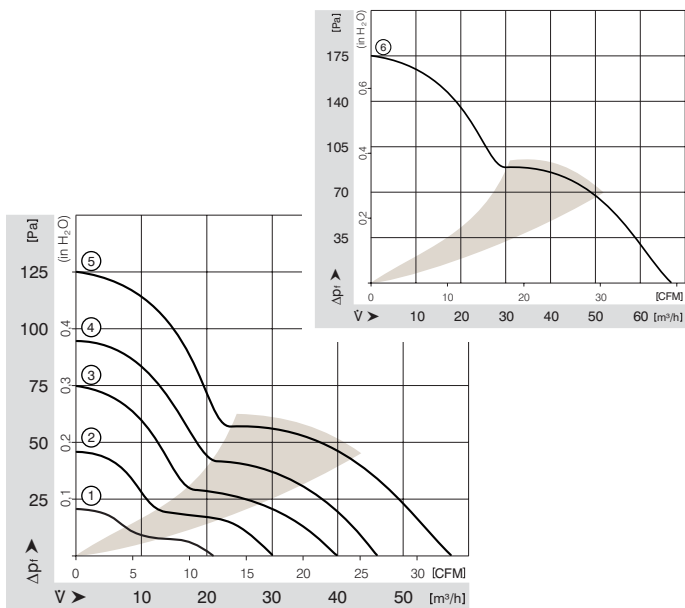
Highlights:

- Highly stable characteristic curve for high air flow with high back pressure.
- Motor with very low structure-borne noise.
- Innovative impeller with winglets for low noise.
- Control inputs, alarm and speed signals available on request.

General characteristics:

- Material: fiberglass-reinforced plastic. Impeller PA, housing PBT.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 22, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CW looking at rotor.
- Mass: 85 g.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	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 page 13	Curve	Specials
	m ³ /h	CFM													
622 L	21	12.4	12	8...15	20	3.7	■	0.5	3 200	-20...+85	80 000 / 20 000	160 000	1		
622 M	30	17.7	12	8...15	29	4.3	■	1.0	4 550	-20...+75	77 500 / 30 000	150 000	2		
622 N	40	23.5	12	8...15	35	4.7	■	1.9	6 100	-20...+70	72 500 / 35 000	140 000	3	/2	
622 H	46	27.1	12	8...15	39	5.1	■	2.3	6 850	-20...+70	70 000 / 35 000	140 000	4		
622 HH	56	33.0	12	8...15	43	5.6	■	3.5	8 200	-20...+70	65 000 / 32 500	130 000	5		
NEW 622 H3	67	39.4	12	8...13.2	48	5.9	■	6.3	9 700	-20...+60	52 500 / 32 500	105 000	6		
624 L	21	12.4	24	18...28	20	3.7	■	1.0	3 200	-20...+70	80 000 / 40 000	160 000	1		
624 M	30	17.7	24	18...28	29	4.3	■	1.5	4 550	-20...+70	77 500 / 37 500	150 000	2		
624 N	40	23.5	24	18...28	35	4.7	■	2.2	6 100	-20...+70	72 500 / 35 000	140 000	3		
624 H	46	27.1	24	18...28	39	5.1	■	2.4	6 850	-20...+70	70 000 / 35 000	140 000	4		
624 HH	56	33.0	24	18...28	43	5.6	■	3.6	8 200	-20...+70	65 000 / 32 500	130 000	5	/2	
NEW 624 H3	67	39.4	24	18...28	48	5.9	■	5.8	9 700	-20...+60	52 500 / 32 500	105 000	6		
NEW 628 HH	56	33.0	48	36...56	43	5.6	■	4.2	8 200	-20...+70	65 000 / 32 500	130 000	5		



max. 56 m³/h

DC Axial Fans

Series 600 N 60 x 60 x 25 mm



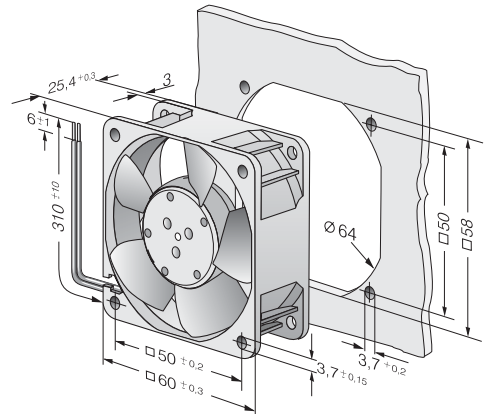
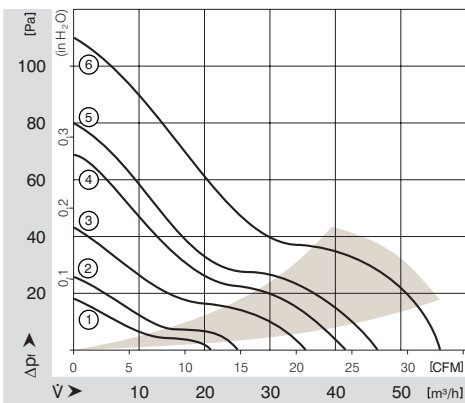
Highlights:

- Ball bearings and sleeve bearings available.
- Some models suitable for use at high ambient temperatures to 85 °C.

General characteristics:

- Material: fiberglass-reinforced plastic. Impeller PA, housing PBT.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 22, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CW looking at rotor.
- Mass: 66 g.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	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 page 13	Curve	Specials
	m ³ /h	CFM													
612 NGL	21	12.4	12	8...15	16	3.6	□	0.6	2 500	-20...+85	80 000 / 27 500	160 000	160 000	1	
612 NLE	21	12.4	12	8...15	16	3.6	■	0.4	2 500	-20...+85	80 000 / 27 500	160 000	160 000	1	
612 NGMLE	25	14.7	12	8...15	19	3.9	□	0.7	3 000	-20...+80	80 000 / 32 500	160 000	160 000	2	
612 NMLE	25	14.7	12	8...15	19	3.9	■	0.4	3 000	-20...+85	80 000 / 27 500	160 000	160 000	2	/2
612 NGME	35	20.6	12	8...15	28	4.6	□	1.2	4 100	-20...+75	80 000 / 35 000	160 000	160 000	3	
612 NME	35	20.6	12	8...15	28	4.6	■	0.8	4 100	-20...+75	80 000 / 35 000	160 000	160 000	3	/2
612 NN	42	24.7	12	8...15	35	5.0	■	1.6	5 100	-20...+70	70 000 / 35 000	140 000	140 000	4	/2
612 NH	46	27.1	12	8...15	37	5.3	■	2.0	5 600	-20...+70	70 000 / 35 000	140 000	140 000	5	/2
612 NHH-118	56	33.0	12	8...15	41	5.7	■	2.9	6 800	-20...+70	60 000 / 30 000	120 000	120 000	6	/2
614 NGL	21	12.4	24	18...28	16	3.6	□	1.0	2 500	-20...+70	80 000 / 40 000	160 000	160 000	1	
614 NL	21	12.4	24	18...28	16	3.6	■	0.9	2 500	-20...+70	80 000 / 40 000	160 000	160 000	1	/2
614 NGML	25	14.7	24	18...28	19	3.9	□	1.2	3 000	-20...+70	80 000 / 40 000	160 000	160 000	2	/2
614 NML	25	14.7	24	18...28	19	3.9	■	1.0	3 000	-20...+70	80 000 / 40 000	160 000	160 000	2	
614 NGM	35	20.6	24	18...28	28	4.6	□	1.7	4 100	-20...+70	80 000 / 40 000	160 000	160 000	3	/12
614 NM	35	20.6	24	18...28	28	4.6	■	1.4	4 100	-20...+70	80 000 / 40 000	160 000	160 000	3	/2;/39
614 NN	42	24.7	24	18...28	35	5.0	■	1.8	5 100	-20...+70	70 000 / 35 000	140 000	140 000	4	
614 NH	46	27.1	24	18...26	37	5.3	■	2.1	5 600	-20...+70	70 000 / 35 000	140 000	140 000	5	/2
614 NHH	56	33.0	24	18...26	41	5.7	■	3.0	6 850	-20...+70	60 000 / 30 000	120 000	120 000	6	
614 NHH-119	56	33.0	24	18...28	41	5.7	■	3.0	6 850	-20...+70	60 000 / 30 000	120 000	120 000	6	/2
618 NM	35	20.6	48	36...56	28	4.6	■	1.4	4 100	-20...+70	80 000 / 40 000	160 000	160 000	3	
618 NN	42	24.7	48	36...56	35	5.0	■	2.1	5 100	-20...+65	70 000 / 40 000	140 000	140 000	4	/2;/12;/39



max. 41 m³/h

DC Axial Fans

Series 600 N VARIOFAN 60 x 60 x 25 mm



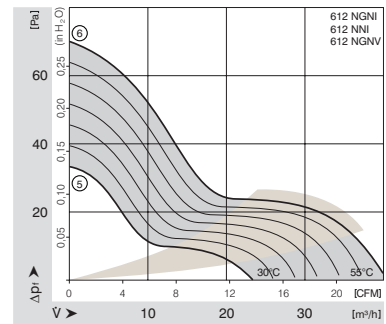
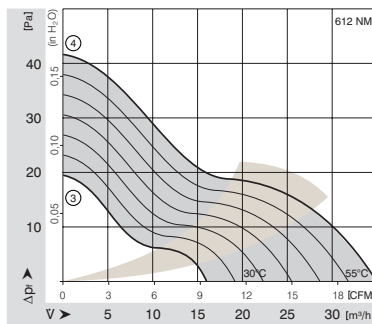
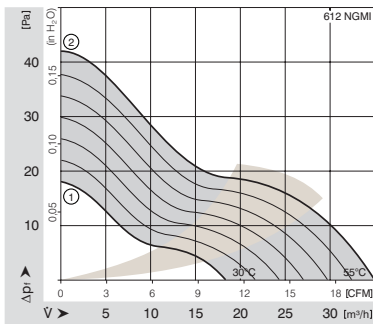
Highlights:

- Open loop speed control by means of external or internal temperature sensor.
- Automatic speed adjustment according to cooling requirements.

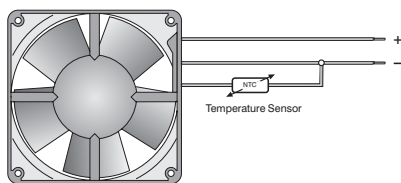
General characteristics:

- Material: fiberglass-reinforced plastic. Impeller PA, housing PBT.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 22, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CW looking at rotor.
- Mass: 66 g.

Nominal Data		Air Flow	Air Flow	Nominal Voltage	Voltage Range	Noise	Sound Power	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 page 13	Curve	Specials
Type		m ³ /h	CFM	V DC	V DC	dB(A)	Bel	□/■	Watt	min ⁻¹	°C	Hours	Hours		P. 97	
30°C 55°C	612 NGMI	18 35	10.6 20.6	12	8...12.6	14 28	3.5 4.6	□	1.3 1.7	2 150 4 100	-20...+65	80 000 / 45 000	160 000		1 2	
30°C 55°C	612 NMI	16 35	9.4 20.6	12	8...12.6	16 28	3.6 4.6	■	1.0 1.4	2 400 4 100	-20...+65	80 000 / 45 000	160 000		3 4	
30°C 55°C	612 NGNI	23 41	13.5 24.1	12	8...12.6	18 35	3.8 5.0	□	1.7 2.4	2 900 5 100	-20...+65	70 000 / 40 000	142 500		5 6	
30°C 55°C	612 NNI	23 41	13.5 24.1	12	8...12.6	18 35	3.8 5.0	■	1.2 1.5	2 900 5 100	-20...+65	70 000 / 40 000	142 500		5 6	
30°C 55°C	612 NGNV	23 41	13.5 24.1	12	8...12.6	18 35	3.8 5.0	□	1.7 2.4	2 900 5 100	-20...+65	70 000 / 40 000	142 500		5 6	/37

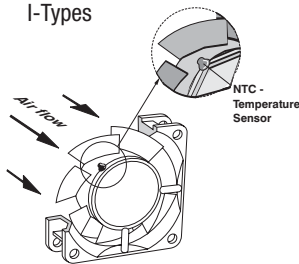


V-Types

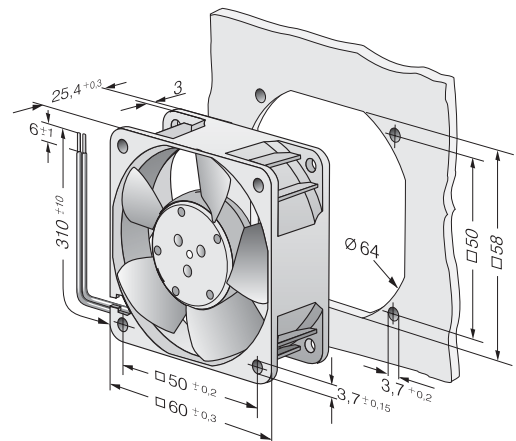


The temperature sensor for controlling the motor speed is not included in delivery. Temperature sensor LZ 370 see accessories.

I-Types



Temperature sensor (NTC-resistor) for controlling the motor speed is positioned directly in the air flow.



max. 70 m³/h

DC Axial Fans

Series 600 J 60 x 60 x 32 mm



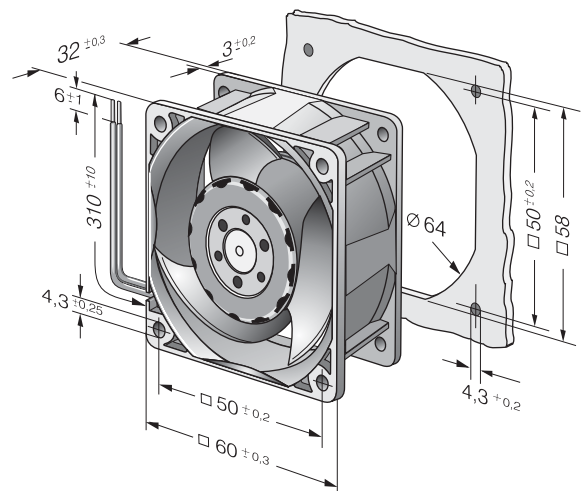
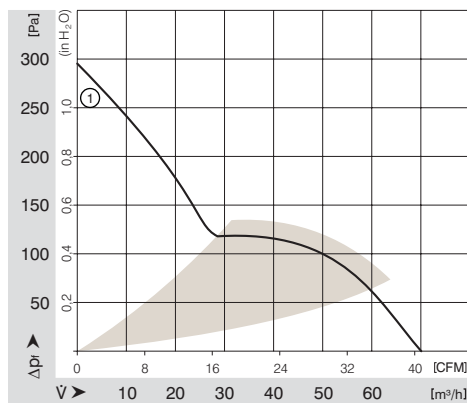
Highlights:

- Highly stable characteristic curve for high air flow with high back pressure.
- Innovative impeller with winglets for low noise.

General characteristics:

- Material: fiberglass-reinforced plastic. Impeller PA, housing PBT.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 24, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CW looking at rotor.
- Mass: 100 g.

Nominal Data		Air Flow	Air Flow	Nominal Voltage	Voltage Range	Noise	Sound Power	Sintec-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 page 13	Curve	Specials
Type		m ³ /h	CFM	V DC	V DC	dB(A)	Bel	□/■	Watt	min ⁻¹	°C	Hours	Hours	Hours	P.90	
612 JH		70	41.1	12	7...13.6	53	6.4	■	7.7	11 700	-20...+70	57 500 / 27 500	110 000	110 000	1	/2
614 JH		70	41.1	24	14...26.4	53	6.4	■	7.7	11 700	-20...+70	57 500 / 27 500	110 000	110 000	1	/2
618 JH		70	41.1	48	36...60	53	6.4	■	7.7	11 700	-20...+70	57 500 / 27 500	110 000	110 000	1	



max. 44 m³/h

DC Axial Fans

Series 700 F 70 x 70 x 15 mm



Highlights:

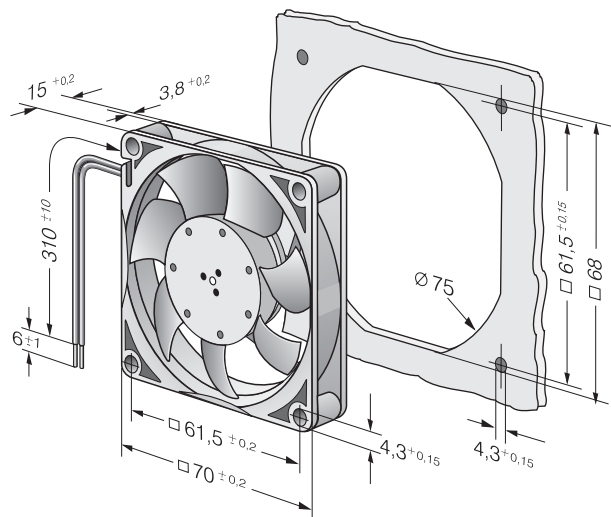
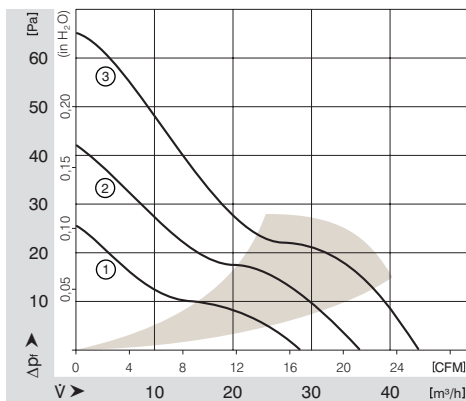
- Highly stable characteristic curve for high air flow with high back pressure.
- Low operating noise at high back pressure.

General characteristics:

- Material: fiberglass-reinforced plastic. Impeller PA, housing PBT.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 28, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CCW looking at rotor.
- Mass: 53 g.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	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 page 13	Curve	Specials
	m ³ /h	CFM													
712 F/2L-005*	28	16.5	12	8...13.8	25	4.7	□	0.6	3 300	-20...+70	60 000 / 30 000	120 000	120 000	1	/2
712 F/2M-006*	36	21.2	12	8...13.8	32	5.0	■	1.1	4 300	-20...+70	60 000 / 30 000	120 000	120 000	2	/2
712 F	44	25.9	12	8...13.8	38	5.3	■	1.7	5 300	-20...+70	60 000 / 30 000	120 000	120 000	3	/2
714 F	44	25.9	24	18...28	38	5.3	■	1.5	5 300	-20...+70	60 000 / 30 000	120 000	120 000	3	

*Version with 3-pole Molex plug housing 22-01-2035
Molex Contacts 08-50-0113



max. 88 m³/h

DC Axial Fans

Series 8450 80 x 80 x 25 mm



Highlights:

- Highly stable characteristic curve for high air flow at high back pressure.
- Motor with very low structure-borne noise properties.
- Innovative impeller with winglets for low noise.
- Extremely quiet Sintec-sleeve bearing.
- Models with 25 kHz PWM control and speed signal.

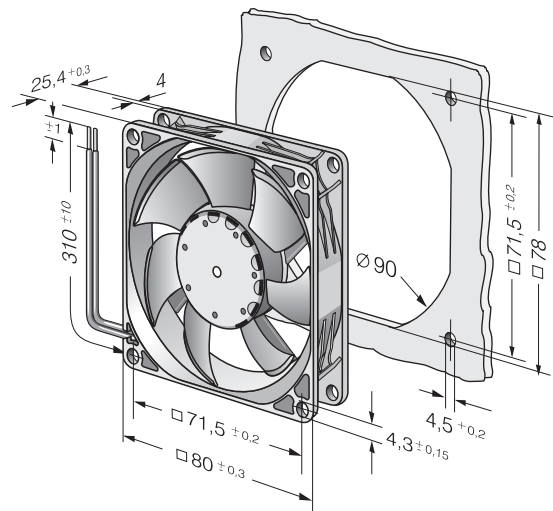
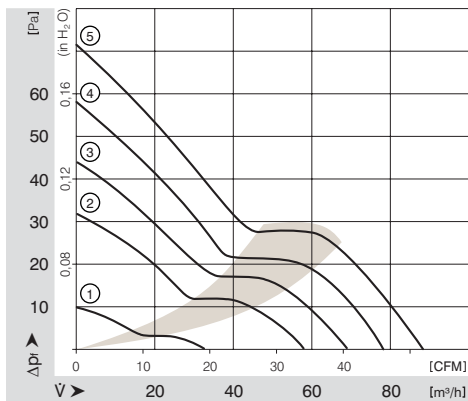
General characteristics:

- Material: fiberglass-reinforced plastic. Impeller PA, housing PBT.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 24, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CCW looking at rotor.
- Mass: 105 g.

Nominal Data		Air Flow	Air Flow	Nominal Voltage	Voltage Range	Noise	Sound Power	Sintec-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 _{10Δ} (40 °C) see page 13	Curve	Specials
Type		m ³ /h	CFM	V DC	V DC	dB(A)	Bel	□/■	Watt	min ⁻¹	°C	Hours	Hours		P.	
NEW 8452 GL		33	19.4	12	10.8...13.2	16	3.6	■	0.5	1 700	0**...70	80 000 / 40 000	160 000		1	
NEW 8452 GM		58	34.1	12	10.8...13.2	32	4.7	■	1.4	3 000	0**...70	80 000 / 40 000	160 000		2	
NEW 8452 GN		69	40.6	12	10.8...13.2	35	5.1	■	2.0	3 600	0**...70	70 000 / 35 000	140 000		3	
Models with 25 kHz PWM control and speed signal. Range of speed control from 1000 min ⁻¹ .																
NEW 8452 /2 GHP		79	46.5	12	10.8...13.2	38	5.3	■	2.8	4 000	0**...70	70 000 / 35 000	140 000		4	
NEW 8452 /2 GHHP		88	51.8	12	10.8...13.2	43	5.5	■	4.2	4 400	0**...60	65 000* / 40 000*	130 000*		5	

** - 20 °C on request.

* Preliminary



max. 79 m³/h

DC Axial Fans

Series 8400 N 80 x 80 x 25 mm



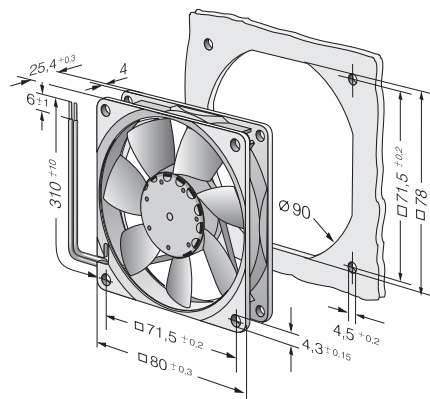
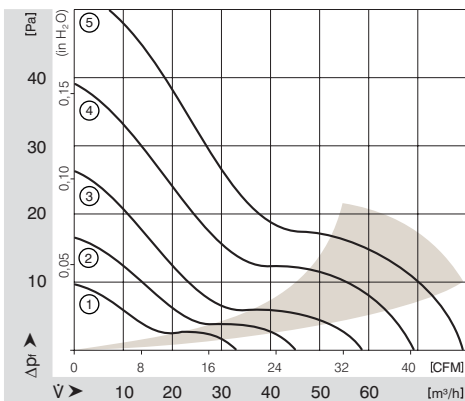
Highlights:

- Ball bearings and sleeve bearings available.
- Some models suitable for use at high ambient temperatures to 85 °C.

General characteristics:

- Material: fiberglass-reinforced plastic. Impeller PA, housing PBT.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 24, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CCW looking at rotor.
- Mass: 95 g.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	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 _{10Δ} (40 °C) see page 13	Curve	Specials
	m³/h	CFM													
8412 NGLE	33	19.4	12	8...15	12	3.5	□	0.5	1 500	-20...+85	80 000 / 27 500	160 000	1	/2	
8412 NLE	33	19.4	12	8...15	17	3.7	■	0.3	1 500	-20...+85	80 000 / 27 500	160 000	1		
8412 NGMLE	45	26.5	12	8...15	19	3.9	□	0.9	2 050	-20...+80	80 000 / 32 500	160 000	2	/2	
8412 NMLE	45	26.5	12	8...15	21	4.0	■	0.6	2 050	-20...+85	80 000 / 27 500	160 000	2		
8412 NGME	58	34.1	12	8...15	26	4.3	□	1.4	2 600	-20...+75	80 000 / 35 000	160 000	3	/2	
8412 NME	58	34.1	12	8...15	27	4.4	■	1.0	2 600	-20...+75	80 000 / 35 000	160 000	3		
8412 NG	69	40.6	12	8...15	32	4.7	□	2.0	3 100	-20...+70	70 000 / 35 000	140 000	4	/2	
8412 N	69	40.6	12	8...15	32	4.7	■	2.0	3 100	-20...+70	70 000 / 35 000	140 000	4	/2	
8412 NH	79	46.5	12	8...13.2	37	5.0	■	2.2	3 600	-20...+70	70 000 / 35 000	140 000	5	/2;/12	
8412 NH-217	79	46.5	12	8...15	37	5.0	■	2.4	3 600	-20...+70	70 000 / 35 000	140 000	5		
8414 NGL	33	19.4	24	18...28	12	3.5	□	0.7	1 500	-20...+70	80 000 / 40 000	160 000	1	/2	
8414 NL	33	19.4	24	18...28	17	3.7	■	0.7	1 500	-20...+70	80 000 / 40 000	160 000	1		
8414 NGML	45	26.5	24	18...28	19	3.9	□	1.1	2 050	-20...+70	80 000 / 40 000	160 000	2		
8414 NML	45	26.5	24	18...28	21	4.0	■	1.1	2 050	-20...+70	80 000 / 40 000	160 000	2		
8414 NGM	58	34.1	24	18...28	26	4.3	□	1.4	2 600	-20...+70	80 000 / 40 000	160 000	3	/2	
8414 NM	58	34.1	24	18...28	27	4.4	■	1.4	2 600	-20...+70	80 000 / 40 000	160 000	3		
8414 NG	69	40.6	24	18...28	32	4.7	□	2.0	3 100	-20...+70	70 000 / 35 000	140 000	4	/2	
8414 N	69	40.6	24	18...28	32	4.7	■	2.0	3 100	-20...+70	70 000 / 35 000	140 000	4	/2	
8414 NH	79	46.5	24	18...26	37	5.0	■	2.4	3 600	-20...+70	70 000 / 35 000	140 000	5	/2	
8414 NH-221	79	46.5	24	18...28	37	5.0	■	2.4	3 600	-20...+70	70 000 / 35 000	140 000	5		
8418 N	69	40.6	48	36...56	32	4.7	■	2.0	3 100	-20...+70	70 000 / 35 000	140 000	4		



max. 58 m³/h

DC Axial Fans

Series 8400 N VARIOFAN 80 x 80 x 25 mm



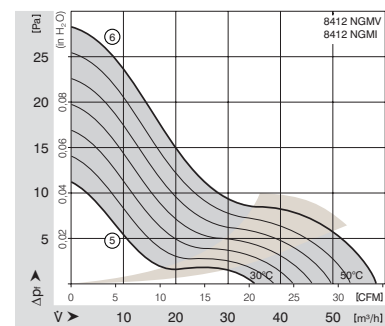
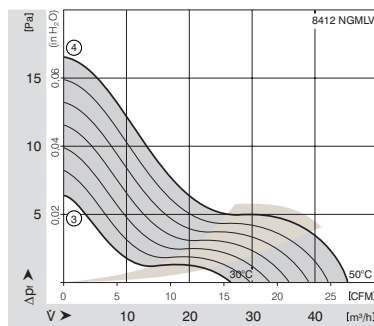
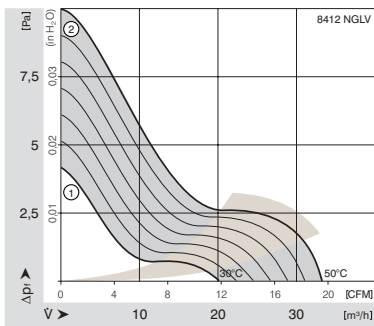
Highlights:

- Open loop speed control by means of external or internal temperature sensor.
- Automatic speed adjustment according to cooling requirements.

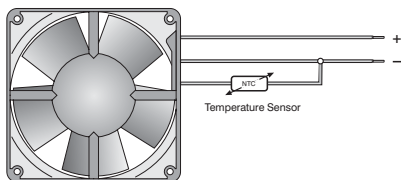
General characteristics:

- Material: fiberglass-reinforced plastic. Impeller PA, housing PBT.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 24, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CCW looking at rotor.
- Mass: 95 g.

Nominal Data		Air Flow	Air Flow	Nominal Voltage	Voltage Range	Noise	Sound Power	Sinter-Sleeve Bearings	Ball Bearings	Power Input	Nominal Speed	Temperature Range	Service Life L ₁₀ (40 °C)	Service Life L ₁₀ (T _{max})	Life expectancy L ₁₀ Δ (40 °C) see page 13	Curve	Specials
Type		m ³ /h	CFM	V DC	V DC	dB(A)	Bel	□ / ■	Watt	min ⁻¹	°C	Hours	Hours	Hours	P. 97		
30°C 50°C	8412 NGLV	20	11.8	12	10...14	< 10	< 3	□	0.9	900	-20...+70	80 000 / 40 000	160 000		1		
		33	19.4			12	3.5		1.1	1 500							2
30°C 50°C	8412 NGMLV	27	15.9	12	8...14	< 10	3.0	□	1.1	1 200	-20...+70	80 000 / 40 000	160 000		3	/37	
		45	26.6			19	3.9		1.5	2 050							4
30°C 50°C	8412 NGMV	35	20.6	12	8...14	< 13	3.5	□	1.4	1 600	-20...+70	80 000 / 35 000	125 000		5		
		58	34.1			26	4.3		2.0	2 600							6
30°C 50°C	8412 NGMI	35	20.6	12	8...14	< 13	3.5	□	1.4	1 600	-20...+70	80 000 / 35 000	125 000		5		
		58	34.1			26	4.3		2.0	2 600							6

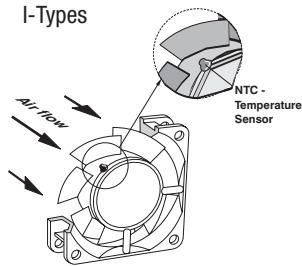


V-Types

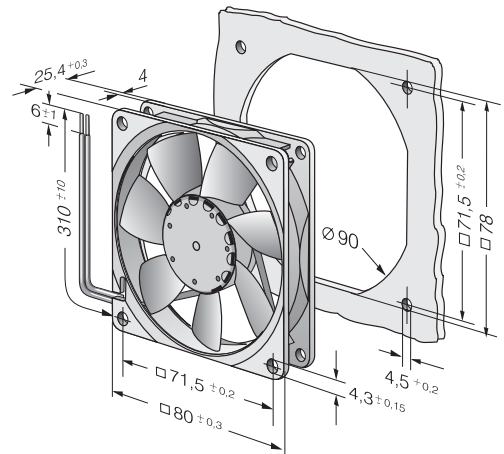


The temperature sensor for controlling the motor speed is not included in delivery.
Temperature sensor LZ 370 see accessories.

I-Types



Temperature sensor (NTC-resistor) for controlling the motor speed is positioned directly in the air flow.



max. 80 m³/h

DC Axial Fans

Series 8300 80 x 80 x 32 mm



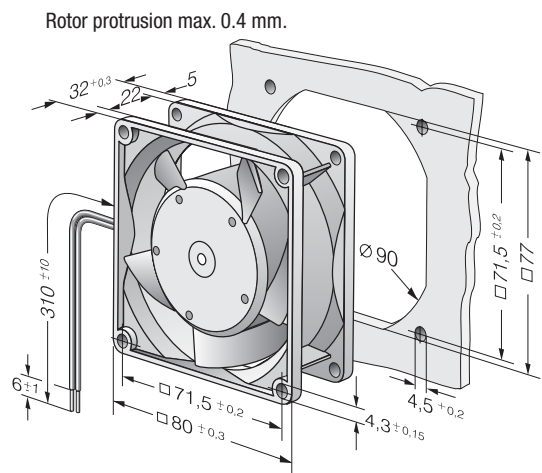
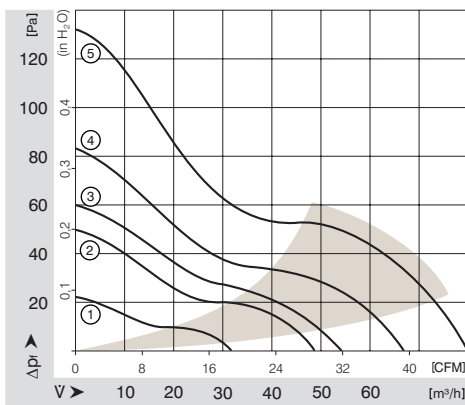
Highlights:

- Ball bearings and sleeve bearings available.
- Optional Vario-Pro: Highly adaptable software configuration of the fan enables a tailor-made solution to the specific requirements of your applications.

General characteristics:

- Material: fiberglass-reinforced plastic. Impeller PA, housing PBT.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 22, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CW looking at rotor.
- Mass: 170 g.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	Sinter-Sleeve Bearings Ball Bearings	Power Input	Nominal Speed	Temperature Range	Service Life L ₁₀ (40 °C) eIm-papst Standard	Service Life L ₁₀ (T _{max}) eIm-papst Standard	Life expectancy L ₁₀ Δ (40 °C) see page 13	Curve	Specials
	m ³ /h	CFM													
8305 G	48	28.3	5	4.5...5.5	34	5.0	■	2.2	3 050	-20...+75	70 000 / 25 000	135 000	2		
8312 GL	32	18.8	12	6...15	24	4.0	■	1.0	2 000	-20...+75	80 000 / 35 000	147 500	1		
8312 L	32	18.8	12	6...15	24	4.0	■	1.0	2 000	-20...+75	80 000 / 35 000	147 500	1		
8312 M	48	28.3	12	6...15	34	5.0	■	1.8	3 000	-20...+75	70 000 / 30 000	135 000	2		
8312 G	54	31.8	12	6...15	36	5.2	■	2.5	3 300	-20...+75	70 000 / 30 000	135 000	3		
8312	54	31.8	12	6...15	36	5.2	■	2.2	3 300	-20...+75	70 000 / 30 000	135 000	3	/12	
8312 HL	67	39.4	12	6...15	43	5.8	■	4.0	4 200	-20...+75	62 500 / 27 500	122 500	4	/2	
8312 H	80	47.1	12	7...12.6	48	6.2	■	5.5	5 000	-20...+60	50 000 / 25 000	100 000	5		
8314 L	32	18.8	24	12...28	24	4.0	■	1.0	2 000	-20...+75	80 000 / 35 000	147 500	1		
8314 M	48	28.3	24	12...28	34	5.0	■	2.1	3 000	-20...+75	70 000 / 30 000	135 000	2		
8314 G	54	31.8	24	12...28	36	5.2	■	2.5	3 300	-20...+75	70 000 / 30 000	135 000	3		
8314	54	31.8	24	12...28	36	5.2	■	2.5	3 300	-20...+75	70 000 / 30 000	135 000	3	/2;/12	
8314 HL	67	39.4	24	12...28	43	5.8	■	4.3	4 200	-20...+75	62 500 / 27 500	122 500	4	/2	
8314 H	80	47.1	24	12...26.5	48	6.2	■	6.0	5 000	-20...+75	55 000 / 25 000	100 000	5	/2;/12;/19	
8318	54	31.8	48	36...56	36	5.2	■	2.6	3 300	-20...+75	70 000 / 30 000	135 000	3	/2;/17	
8318 HL	67	39.4	48	36...56	43	5.8	■	4.3	4 200	-20...+75	62 500 / 27 500	122 500	4	/2;/12	
8318 H	80	47.1	48	36...56	48	6.2	■	5.8	5 000	-20...+65	55 000 / 30 000	100 000	5	/12;/17	



max. 222 m³/h

DC Axial Fans

Series 8200 J 80 x 80 x 38 mm



Highlights:

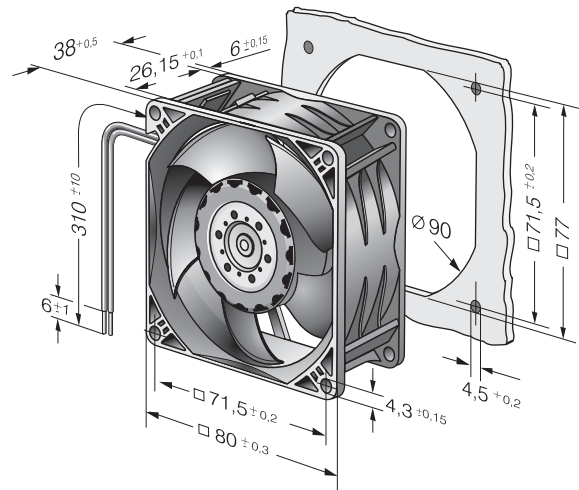
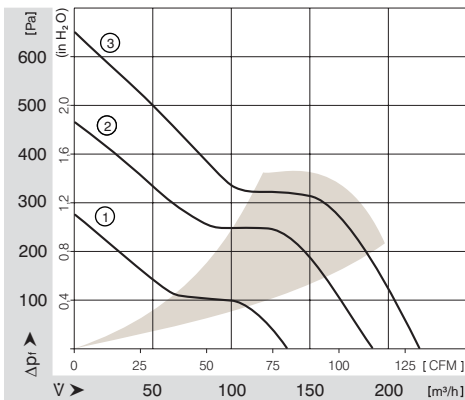
- Highly stable characteristic curve for high air flow with high back pressure.
- Innovative impeller with winglets for low noise.
- Optional Vario-Pro: Highly adaptable software configuration of the fan enables a tailor-made solution to the specific requirements of your applications.

General characteristics:

- Material: fiberglass-reinforced plastic. Impeller PA, housing PBT.
- Fully integrated electronic commutation. Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 24 (H3 and H4: AWG 22), TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CCW looking at rotor.
- Mass: 160 g (H3 and H4: 200 g).

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	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 page 13	Curve	Specials
	m ³ /h	CFM													
8212 JN	132	77.7	12	7...13.8	55	6.6	■	10	8400	-20...+70	62 500 / 32 500	130 000	1	/2	
NEW 8212 JH3	190	111.8	12	6...13.8	66	7.3	■	25	12 000	-20...+70	55 000 / 27 500	110 000	2	/2	
NEW 8212 JH4	222	130.7	12	6...13.8	71	7.8	■	39	14 000	-20...+70	50 000 / 25 000	100 000	3	/2	
8214 JN	132	77.7	24	18...26.4	55	6.6	■	10	8400	-20...+70	62 500 / 32 500	130 000	1	/2	
NEW 8214 JH3	190	111.8	24	12...27.6	66	7.3	■	25	12 000	-20...+70	55 000 / 27 500	110 000	2	/2	
NEW 8214 JH4	222	130.7	24	12...27.6	71	7.8	■	37	14 000	-20...+70	50 000 / 25 000	100 000	3	/2	
8218 JN	132	77.7	48	36...53	55	6.6	■	11	8400	-20...+70	62 500 / 32 500	130 000	1	/2	
NEW 8218 JH3	190	111.8	48	20...58	66	7.3	■	25	12 000	-20...+70	55 000 / 27 500	110 000	2	/2	
NEW 8218 JH4	222	130.7	48	20...58	71	7.8	■	37	14 000	-20...+70	50 000 / 25 000	100 000	3	/2	

8200 JH3 and JH4 also as standard with PWM control input and speed signal.
Speed control range from 2000 min⁻¹ up to maximum nominal speed. Stationary at 0 % PWM, maximum speed when no sensor is connected.



max. 102 m³/h

DC Axial Fans

Series 3400 N 92 x 92 x 25 mm



Highlights:

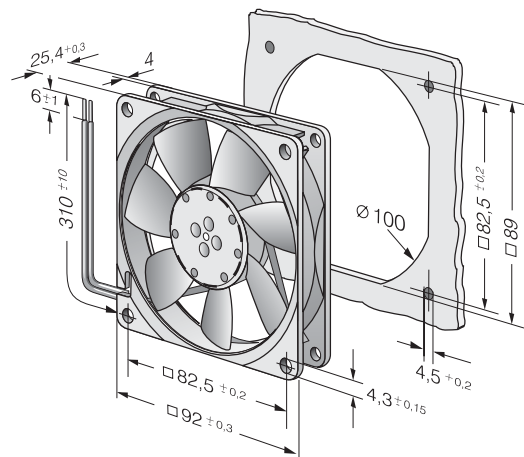
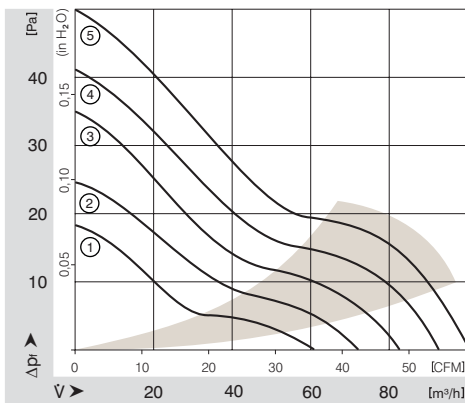
- Ball bearings and sleeve bearings available.
- Some models suitable for use at high ambient temperatures to 85 °C.

General characteristics:

- Material: fiberglass-reinforced plastic. Impeller PA, housing PBT.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 24, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CCW looking at rotor.
- Mass: 100 g.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	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 page 13	Curve	Specials
	m ³ /h	CFM														
3412 NGL	61	35.9	12	8...15	23	4.0	□	■	1.1	1 950	-20...+80	80 000 / 30 000	160 000	1		
3412 NLE	61	35.9	12	8...15	23	4.0	■	■	0.8	1 950	-20...+85	80 000 / 27 500	160 000	1		
3412 NGME	72	42.4	12	8...15	28	4.3	□	■	1.6	2 300	-20...+75	75 000 / 32 500	150 000	2		
3412 NME	72	42.4	12	8...15	28	4.3	■	■	1.1	2 300	-20...+75	75 000 / 32 500	150 000	2	/2	
3412 NG	84	49.4	12	8...15	32	4.7	□	■	2.2	2 700	-20...+70	70 000 / 35 000	140 000	3	/2	
3412 N	84	49.4	12	8...15	32	4.7	■	■	2.2	2 700	-20...+70	70 000 / 35 000	140 000	3	/2	
3412 NGH	94	55.3	12	8...15	36	5.0	□	■	2.5	3 000	-20...+70	70 000 / 35 000	140 000	4		
3412 NH	94	55.3	12	8...15	36	5.0	■	■	2.5	3 000	-20...+70	70 000 / 35 000	140 000	4	/2;/39	
3412 NGHh	102	60.0	12	8...13.2	39	5.1	□	■	3.2	3 250	-20...+60	70 000 / 45 000	140 000	5	/2	
3412 NHH	102	60.0	12	8...13.2	39	5.1	■	■	3.2	3 250	-20...+60	70 000 / 45 000	140 000	5	/2	
3412 NHH-379	102	60.0	12	8...15	39	5.1	■	■	2.7	3 250	-20...+70	70 000 / 35 000	140 000	5		
3414 NGL	61	35.9	24	18...28	23	4.0	□	■	1.4	1 950	-20...+70	80 000 / 40 000	160 000	1		
3414 NL	61	35.9	24	18...28	23	4.0	■	■	1.4	1 950	-20...+70	80 000 / 40 000	160 000	1		
3414 NGM	72	42.4	24	18...28	28	4.3	□	■	1.8	2 300	-20...+70	75 000 / 37 500	150 000	2		
3414 NM	72	42.4	24	18...28	28	4.3	■	■	1.8	2 300	-20...+70	75 000 / 37 500	150 000	2		
3414 NG	84	49.4	24	18...28	32	4.7	□	■	2.3	2 700	-20...+70	70 000 / 35 000	140 000	3		
3414 N	84	49.4	24	18...28	32	4.7	■	■	2.3	2 700	-20...+70	70 000 / 35 000	140 000	3	/2	
3414 NGH	94	55.3	24	18...26	36	5.0	□	■	3.0	3 000	-20...+70	70 000 / 35 000	140 000	4	/2	
3414 NH	94	55.3	24	18...26	36	5.0	■	■	3.0	3 000	-20...+70	70 000 / 35 000	140 000	4		
3414 NGHh	102	60.0	24	18...26	39	5.1	□	■	3.2	3 250	-20...+70	70 000 / 35 000	140 000	5		
3414 NGHh-389	102	60.0	24	18...28	39	5.1	□	■	3.2	3 250	-20...+70	70 000 / 35 000	140 000	5		
3414 NHH	102	60.0	24	18...26	39	5.1	■	■	3.2	3 250	-20...+70	70 000 / 35 000	140 000	5	/39	
3414 NHH-386	102	60.0	24	18...28	39	5.1	■	■	3.2	3 250	-20...+70	70 000 / 35 000	140 000	5		
3418 N	84	49.4	48	36...56	32	4.7	■	■	2.4	2 700	-20...+70	70 000 / 35 000	140 000	3		

Other 48 V DC Models on request.



max. 84 m³/h

DC Axial Fans

Series 3400 N VARIOFAN 92 x 92 x 25 mm



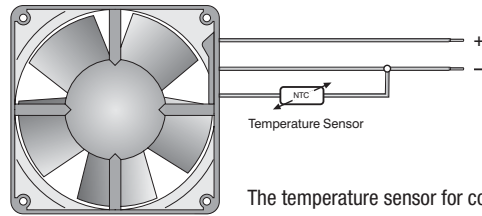
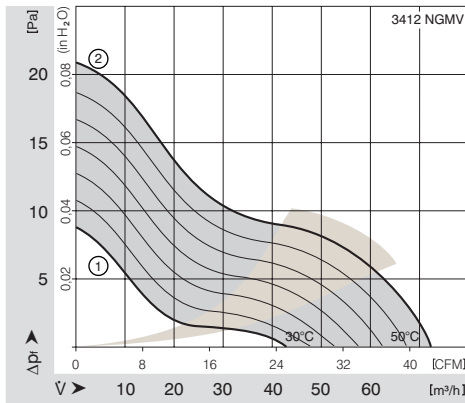
Highlights:

- Open loop speed control by means of external or internal temperature sensor.
- Automatic speed adjustment according to cooling requirements.

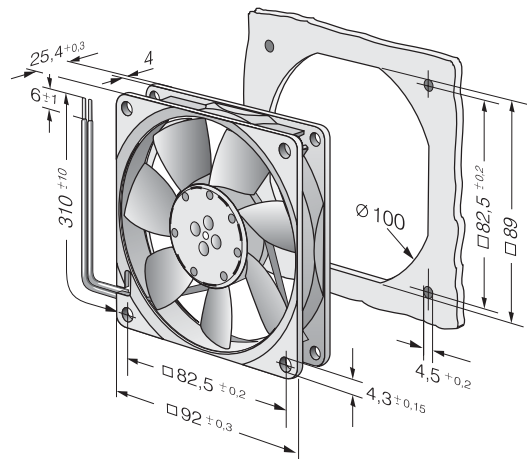
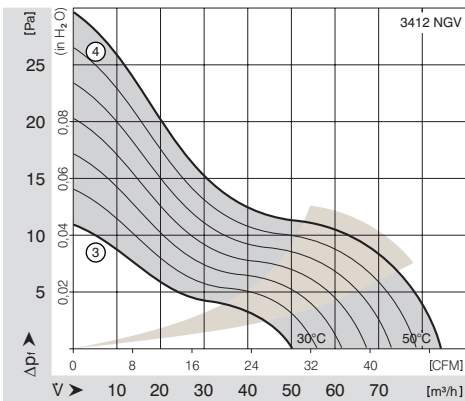
General characteristics:

- Material: fiberglass-reinforced plastic. Impeller PA, housing PBT.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 24, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CCW looking at rotor.
- Mass: 100 g.

Nominal Data		Air Flow	Air Flow	Nominal Voltage	Voltage Range	Noise	Sound Power	Sinter-Sleeve Bearings Ball Bearings	Power Input	Nominal Speed	Temperature Range	Service Life L ₁₀ (40 °C) eum-papst-Standard	Service Life L ₁₀ (T _{max}) eum-papst-Standard	Life expectancy L ₁₀ /Δ (40 °C) see page 13	Curve	Specials
Type		m ³ /h	CFM	V DC	V DC	dB(A)	Bel	□ / ■	Watt	min ⁻¹	°C	Hours	Hours		P.97	
30°C 50°C	3412 NGMV	44	25.9	12	8...14	14	3.5	■	1.5	1 400	-20...+70	75 000 / 37 500	142 500	1	/37	
		72	42.4			28	4.3		2.0	2 300						
30°C 50°C	3412 NGV	50	29.4	12	8...12.6	16	3.7	■	1.6	1 600	-20...+70	75 000 / 37 500	142 500	3	/37	
		84	49.4			32	4.7		2.5	2 700						



The temperature sensor for controlling the motor speed is not included in delivery. Temperature sensor LZ 370 see accessories.



max. 107 m³/h

DC Axial Fans

Series 3300 92 x 92 x 32 mm



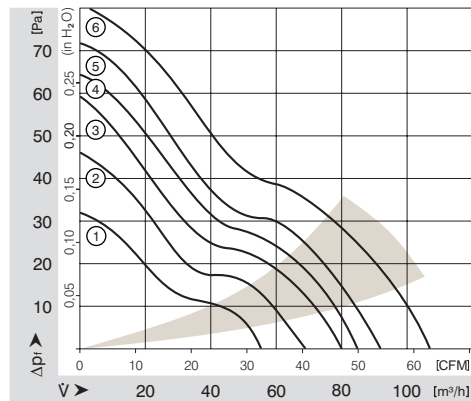
Highlights:

- Ball bearings and sleeve bearings available.
- Optional Vario-Pro: Highly adaptable software configuration of the fan enables a tailor-made solution to the specific requirements of your applications.

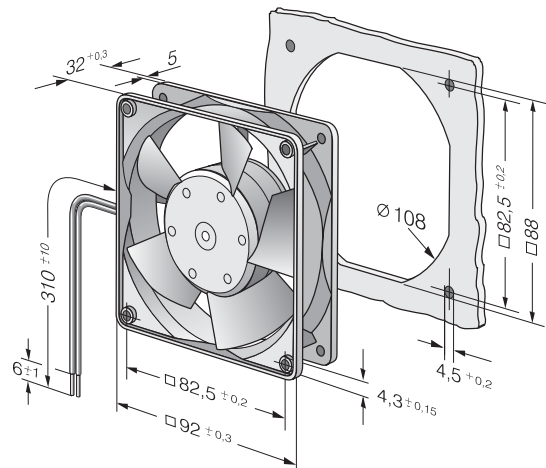
General characteristics:

- Material: fiberglass-reinforced plastic. Impeller PA, housing PBT.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 22, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CW looking at rotor.
- Mass: 190 g.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	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 page 13	Curve	Specials
	m ³ /h	CFM													
3312 GL	56	33.0	12	6...15	29	4.5	□	1.4	2 150	-20...+75	80 000 / 35 000	147 500	1		
3312 L	56	33.0	12	6...15	29	4.5	■	1.4	2 150	-20...+75	80 000 / 35 000	147 500	1		
3312 GM	68	40.0	12	6...15	34	4.8	□	1.7	2 600	-20...+75	70 000 / 30 000	135 000	2		
3312 M	68	40.0	12	6...15	34	4.8	■	1.7	2 600	-20...+75	70 000 / 30 000	135 000	2		
3312 G	80	47.1	12	6...15	37	5.2	□	2.4	3 000	-20...+75	70 000 / 30 000	135 000	3		
3312	80	47.1	12	6...15	37	5.2	■	2.4	3 000	-20...+75	70 000 / 30 000	135 000	3	/2; /17	
3312-177	93	54.7	12	6...15	43	5.7	■	3.5	3 500	-20...+75	65 000 / 27 500	122 500	5		
3314 G	80	47.1	24	12...28	37	5.2	□	2.6	3 000	-20...+75	70 000 / 30 000	135 000	3		
3314	80	47.1	24	12...28	37	5.2	■	2.6	3 000	-20...+75	70 000 / 30 000	135 000	3	/17	
3314-140	85	50.0	24	12...28	40	5.4	■	3.0	3 200	-20...+75	70 000 / 30 000	135 000	4		
3314 H	107	63.0	24	12...28	47	6.0	■	5.3	4 000	-20...+75	57 500 / 25 000	112 500	6	/2	
3318	80	47.1	48	36...56	37	5.2	■	2.7	3 000	-20...+75	70 000 / 30 000	135 000	3	/2	
3318 H	107	63.0	48	36...56	47	6.0	■	4.3	4 000	-20...+60	57 500 / 35 000	112 500	6	/2;/12;/17	



Rotor protrusion max. 0.4 mm.



max. 280 m³/h

DC Axial Fans

Series 3200 J 92 x 92 x 38 mm



Highlights:

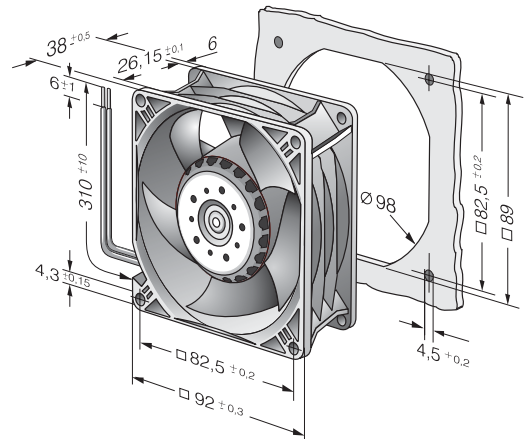
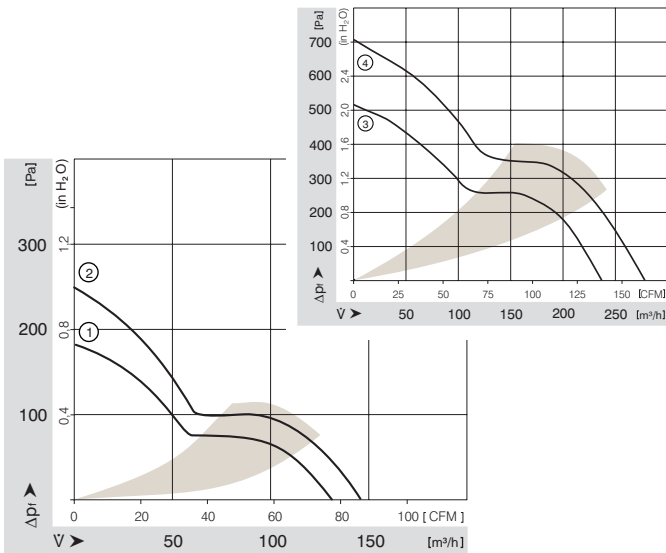
- Highly stable characteristic curve for high air flow with high back pressure.
- Innovative impeller with winglets for low noise.
- Optional Vario-Pro: Highly adaptable software configuration of the fan enables a tailor-made solution to the specific requirements of your applications.

General characteristics:

- Material: fiberglass-reinforced plastic. Impeller PA, housing PBT.
- Fully integrated electronic commutation. Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 24 (H3 and H4: AWG 22), TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CW looking at rotor.
- Mass: 240 g (H3 and H4: 280 g).

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	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 page 13	Curve	Specials
	m ³ /h	CFM													
3212 JN	130	76.5	12	7...13.8	51	6..1	■	7.5	6 000	-20 ...+70	70 000 / 35 000	140 000	140 000	1	/2
3212 JH	146	86.0	12	7...15.0	55	6.4	■	9.0	6 800	-20 ...+70	70 000 / 35 000	140 000	140 000	2	
NEW 3212 JH3	237	139.5	12	6...13.8	69	7.8	■	30.0	11 000	-20 ...+70	65 000 / 32 500	130 000	130 000	3	/2
NEW 3212 JH4	280	164.8	12	6...13.8	73	8.2	■	50.0	13 000	-20 ...+70	60 000 / 30 000	120 000	120 000	4	/2
3214 JN	130	76.5	24	11...28.0	51	6.1	■	8.0	6 000	-20 ...+70	70 000 / 35 000	140 000	140 000	1	
3214 JH	146	86.0	24	11...30.0	55	6.4	■	9.0	6 800	-20 ...+70	70 000 / 35 000	140 000	140 000	2	/2
NEW 3214 JH3	237	139.5	24	12...27.6	69	7.8	■	30.0	11 000	-20 ...+70	65 000 / 32 500	130 000	130 000	3	/2
NEW 3214 JH4	280	164.8	24	12...27.6	73	8.2	■	50.0	13 000	-20 ...+70	60 000 / 30 000	120 000	120 000	4	/2
3218 JN	130	76.5	48	36...56.0	51	6.1	■	7.0	6 000	-20 ...+70	70 000 / 35 000	140 000	140 000	1	
3218 JH	146	86.0	48	36...53.0	55	6.4	■	9.5	6 800	-20 ...+70	70 000 / 35 000	140 000	140 000	2	
NEW 3218 JH3	237	139.5	48	20...58.0	69	7.8	■	30.0	11 000	-20 ...+70	65 000 / 32 500	130 000	130 000	3	/2
NEW 3218 JH4	280	164.8	48	20...58.0	73	8.2	■	50.0	13 000	-20 ...+70	60 000 / 30 000	120 000	120 000	4	/2

3200 JH3 and JH4 also as standard with PWM control input and speed signal.
Speed control range from 2000 min⁻¹ up to maximum nominal speed. Stationary at 0 % PWM, maximum speed when no sensor is connected.



max. 170 m³/h

DC Axial Fans

Series 4400 F 119 x 119 x 25 mm



Highlights:

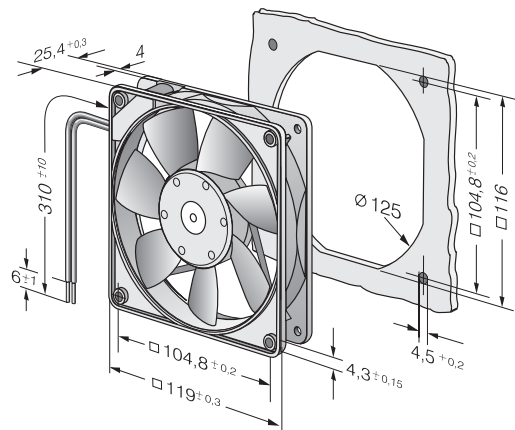
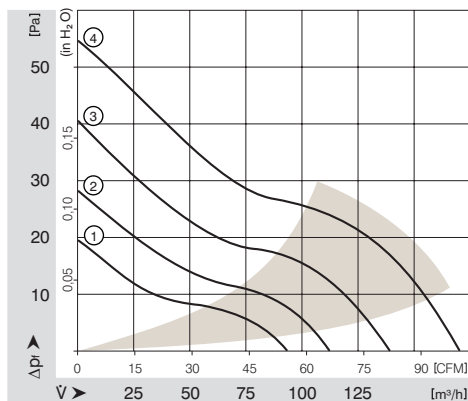
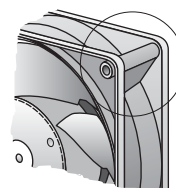
- Ball bearings and sleeve bearings available.
- Open loop speed control available on request.
- Alarm and speed signals available on request.

General characteristics:

- Material: fiberglass-reinforced plastic. Impeller PA, housing PBT.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 24, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CCW looking at rotor.
- Mass: 175 g.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	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 _{10Δ} (40 °C) see page 13	Curve	Specials
	m ³ /h	CFM													
4412 FGL	94	55.3	12	7...14	26	3.9	□	1.3	1 600	-20...+75	80 000 / 35 000	157 500	1	/2;/39	
4412 FGML	114	67.1	12	7...12.6	32	4.3	□	2.0	1 950	-20...+75	75 000 / 32 500	145 000	2	/2	
4412 FML	114	67.1	12	7...12.6	32	4.3	■	2.0	1 950	-20...+75	75 000 / 32 500	145 000	2		
4412 FGM	140	82.4	12	7...12.6	38	4.8	□	3.2	2 400	-20...+75	70 000 / 30 000	135 000	3	/12	
4412 FM	140	82.4	12	7...12.6	38	4.8	■	3.2	2 400	-20...+75	70 000 / 30 000	135 000	3	/2	
4412 FG	170	100.1	12	8...12.6	43	5.3	□	5.3	2 900	-20...+60	60 000 / 37 500	120 000	4		
4412 F	170	100.1	12	8...12.6	43	5.3	■	5.3	2 900	-20...+60	60 000 / 37 500	120 000	4	/2	
4414 FL	94	55.3	24	18...28	26	3.9	■	1.0	1 600	-20...+75	80 000 / 35 000	157 500	1	/2	
4414 FM	140	82.4	24	12...28	38	4.8	■	3.2	2 400	-20...+75	70 000 / 30 000	135 000	3	/2	
4414 FG	170	100.1	24	12...28	43	5.3	□	5.0	2 900	-20...+60	60 000 / 37 500	120 000	4	/2	
4414 F	170	100.1	24	12...28	43	5.3	■	5.0	2 900	-20...+60	60 000 / 37 500	120 000	4	/2;/12;/39	
4418 FG	170	100.1	48	28...53	43	5.3	□	5.5	2 900	-20...+60	60 000 / 37 500	120 000	4		
4418 F	170	100.1	48	28...53	43	5.3	■	5.5	2 900	-20...+60	60 000 / 37 500	120 000	4	/2;/12;/39	

Available on request:
Fan housing with moulded-in
spacers. For mounting over
both flanges.



max. 225 m³/h

DC Axial Fans

Series 4400 FN 119 x 119 x 25 mm



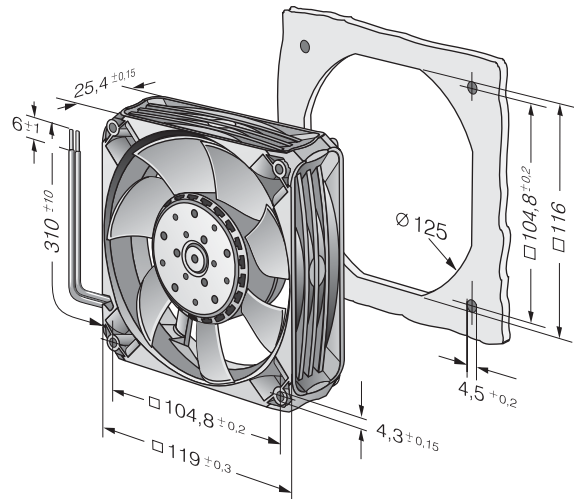
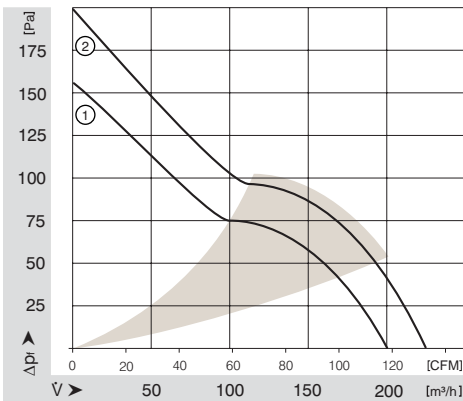
Highlights:

- Highly stable characteristic curve for high air flow with high back pressure.
- Innovative impeller with winglets for low noise.
- Optional Vario-Pro: Highly adaptable software configuration of the fan enables a tailor-made solution to the specific requirements of your applications.

General characteristics:

- Material: fiberglass-reinforced plastic. Impeller PA, housing PBT.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 22, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CCW looking at rotor.
- Mass: 240 g.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	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 page 13	Curve	Specials
	m ³ /h	CFM													
4412 FNH	225	132.4	12	7...13.2	55	6.7	■	12	5 400	-20...+70	60 000 / 30 000	120 000	2	/2	
4414 FNN	200	117.7	24	14...28	52	6.5	■	8.5	4 850	-20...+70	60 000 / 30 000	120 000	1	/2	
4414 FNH	225	132.4	24	18...26.4	55	6.7	■	12	5 400	-20...+70	60 000 / 30 000	120 000	2	/39	
4418 FNH	225	132.4	48	36...53	55	6.7	■	12	5 400	-20...+70	60 000 / 30 000	120 000	2		



max. 198 m³/h

DC Axial Fans

Series 4300 N 119 x 119 x 32 mm



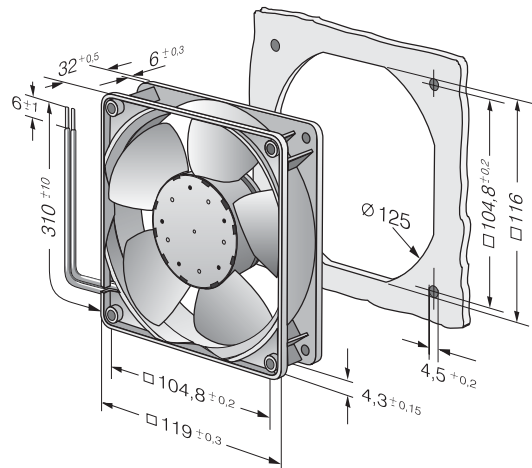
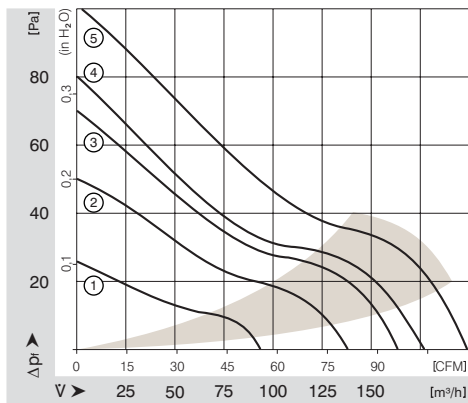
Highlights:

- Ball bearings and sleeve bearings available.

General characteristics:

- Material: fiberglass-reinforced plastic. Impeller PA, housing PBT.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 22, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CCW looking at rotor.
- Mass: 230 g.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	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 page 13	Curve	Specials
	m ³ /h	CFM													
4312 NGL	93	54.7	12	7...14.5	27	4.1	□	1.2	1 650	-20...+70	80 000 / 40 000	160 000	160 000	1	
4312 NL	93	54.7	12	7...14.5	27	4.1	■	1.2	1 650	-20...+70	80 000 / 40 000	160 000	160 000	1	
4312 NGM	137	80.6	12	7...14.5	37	5.1	□	2.6	2 450	-20...+70	70 000 / 35 000	140 000	140 000	2	
4312 NGN	166	97.7	12	7...14.5	43	5.6	□	4.0	3 000	-20...+70	60 000 / 30 000	120 000	120 000	3	
4312 NN	166	97.7	12	7...14.5	43	5.6	■	4.0	3 000	-20...+70	60 000 / 30 000	120 000	120 000	3	
4312 NH	176	103.6	12	7...14.5	45	5.8	■	4.5	3 150	-20...+70	60 000 / 30 000	120 000	120 000	4	/2
4312 NHH	198	116.5	12	7...14.5	49	6.2	■	6.5	3 600	-20...+60	57 500 / 35 000	100 000	100 000	5	
4314 NGL	93	54.7	24	12...28	27	4.1	□	1.2	1 650	-20...+70	80 000 / 40 000	160 000	160 000	1	
4314 NL	93	54.7	24	12...28	27	4.1	■	1.2	1 650	-20...+70	80 000 / 40 000	160 000	160 000	1	
4314 NGM	137	80.6	24	12...28	37	5.1	□	2.6	2 450	-20...+70	70 000 / 35 000	140 000	140 000	2	
4314 NGN	166	97.7	24	12...28	43	5.6	□	4.3	3 000	-20...+70	60 000 / 30 000	120 000	120 000	3	
4314 NN	166	97.7	24	12...28	43	5.6	■	4.3	3 000	-20...+70	60 000 / 30 000	120 000	120 000	3	
4314 NH	176	103.6	24	12...28	45	5.8	■	4.5	3 150	-20...+70	60 000 / 30 000	120 000	120 000	4	
4314 NHH	198	116.5	24	12...28	49	6.2	■	6.0	3 600	-20...+70	57 500 / 27 500	100 000	100 000	5	/2
4318 NGN	166	97.7	48	36...56	43	5.6	□	4.1	3 000	-20...+70	60 000 / 30 000	120 000	120 000	3	



max. 204 m³/h

DC Axial Fans

Series 4300 119 x 119 x 32 mm



Highlights:

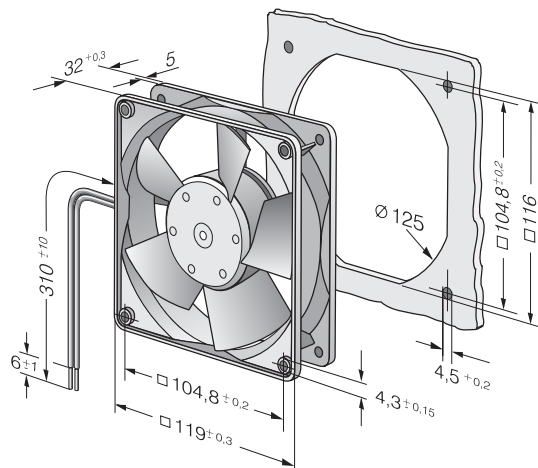
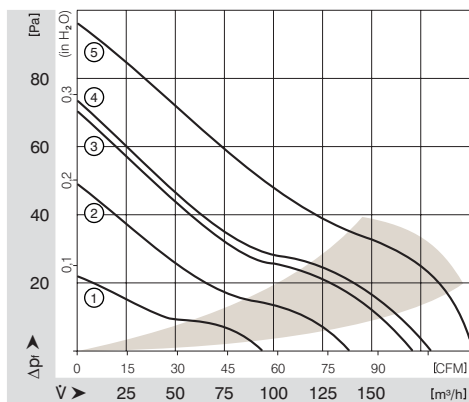
- Ball bearings and sleeve bearings available.
- Optional Vario-Pro: Highly adaptable software configuration of the fan enables a tailor-made solution to the specific requirements of your applications

General characteristics:

- Material: fiberglass-reinforced plastic. Impeller PA, housing PBT.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 22, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CW looking at rotor.
- Mass: 220 g.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	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 page 13	Curve	Specials
	m ³ /h	CFM													
4312 GL	95	55.9	12	6...15	30	4.3	□	1.2	1 550	-20...+75	80 000 / 35 000	157 500	1		
4312 L	95	55.9	12	6...15	30	4.3	■	1.2	1 550	-20...+75	80 000 / 35 000	157 500	1		
4312 GM	140	82.4	12	6...15	39	5.3	□	2.6	2 300	-20...+75	70 000 / 30 000	135 000	2		
4312 M	140	82.4	12	6...15	39	5.3	■	2.6	2 300	-20...+75	70 000 / 30 000	135 000	2	/12	
4312 G	170	100.1	12	6...15	45	5.8	□	5.0	2 800	-20...+75	62 500 / 27 500	122 500	3		
4312	170	100.1	12	6...15	45	5.8	■	5.0	2 800	-20...+75	62 500 / 27 500	122 500	3	/2;/19	
4312-143	180	105.9	12	6...15	47	6.1	■	5.8	3 000	-20...+75	57 500 / 25 000	112 500	4		
4312-179	204	120.1	12	6...13.2	51	6.4	■	8.5	3 400	-20...+75	47 500 / 20 000	90 000	5		
4314 L	95	55.9	24	12...28	30	4.3	■	1.2	1 550	-20...+75	80 000 / 35 000	157 500	1		
4314 M	140	82.4	24	12...28	39	5.3	■	2.6	2 300	-20...+75	70 000 / 30 000	135 000	2		
4314 G	170	100.1	24	12...28	45	5.8	□	5.0	2 800	-20...+75	62 500 / 27 500	122 500	3		
4314	170	100.1	24	12...28	45	5.8	■	5.0	2 800	-20...+75	62 500 / 27 500	112 500	3	/2;/12	
4314-147	180	105.9	24	12...28	47	6.1	■	5.8	3 000	-20...+75	57 500 / 25 000	112 500	4		
4314-180	204	120.1	24	12...26.5	51	6.4	■	9.5	3 400	-20...+75	45 000 / 20 000	90 000	5		
4318 M	140	82.4	48	36...56	39	5.3	■	3.5	2 300	-20...+75	70 000 / 30 000	135 000	2	/2;/17	
4318	170	100.1	48	36...53	45	5.8	■	5.0	2 800	-20...+75	62 500 / 27 500	112 500	3	/2;/17	

Rotor protrusion max. 0.4 mm.



max. 170 m³/h

DC Axial Fans

Series 4300 VARIOFAN 119 x 119 x 32 mm



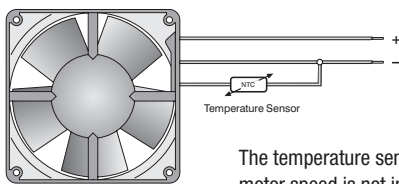
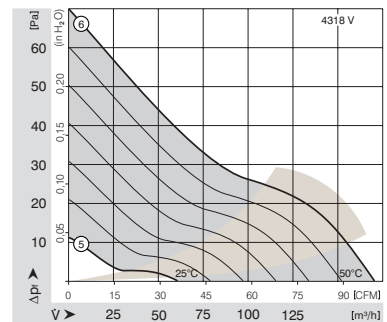
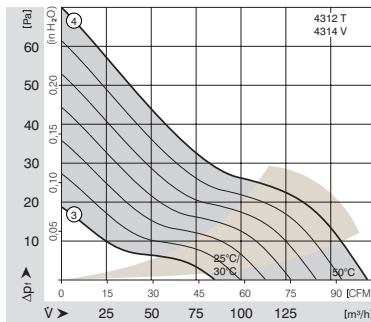
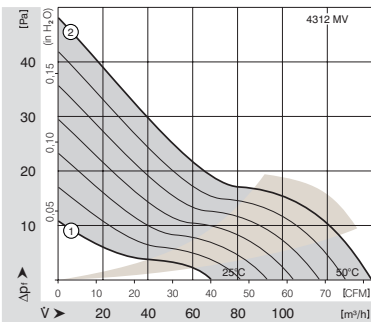
Highlights:

- Open loop speed control by means of external or internal temperature sensor.
- Automatic speed adjustment according to cooling requirements.

General characteristics:

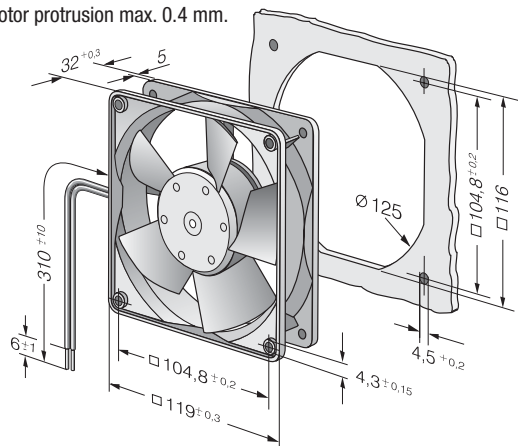
- Material: fiberglass-reinforced plastic. Impeller PA, housing PBT.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 22, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CW looking at rotor.
- Mass: 220 g.

Nominal Data		Air Flow	Air Flow	Nominal Voltage	Voltage Range	Noise	Sound Power	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 page 13	Curve	Specials
Type		m ³ /h	CFM	V DC	V DC	dB(A)	Bel	□ / ■	Watt	min ⁻¹	°C	Hours	Hours		P. 94	
25°C 50°C	4312 MV	68 140	40.4 82.4	12	8...15	22 39	3.7 5.3	■	1.5 3.0	1 150 2 300	-20...+65	70 000 / 40 000	142 500	1 2	/17	
25°C 50°C	4312 T	85 170	50.0 100.1	12	8...13.2	29 45	4.2 5.8	■	2.4 5.5	1 400 2 800	-20...+65	65 000 / 35 000	132 500	3 4	/17	
30°C 50°C	4314 V	85 170	50.0 100.1	24	21...27	29 45	4.2 5.8	■	3.0 5.4	1 400 2 800	-20...+65	65 000 / 35 000	132 500	3 4	/17	
25°C 50°C	4318 V	61 170	35.9 100.1	48	40...53	21 45	— 5.8	■	2.6 5.4	1 000 2 800	-20...+65	65 000 / 35 000	132 500	5 6	/17	



The temperature sensor for controlling the motor speed is not included in delivery.
Temperature sensor LZ 370 see accessories.

Rotor protrusion max. 0.4 mm.



max. 285 m³/h

DC Axial Fans

Series 4400 119 x 119 x 38 mm



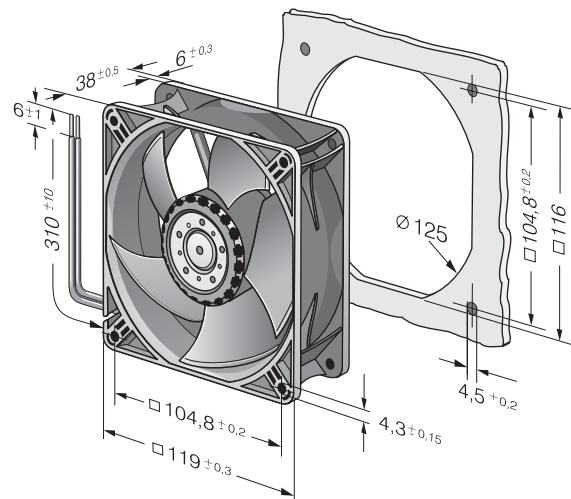
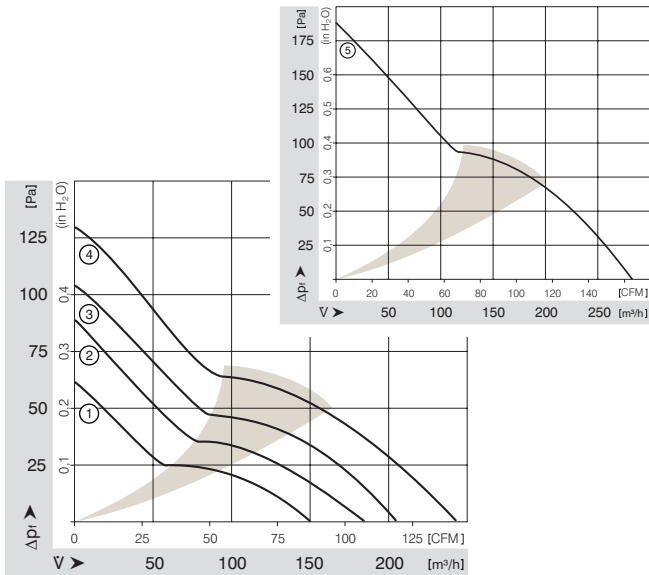
Highlights:

- Innovative impeller with winglets for low noise.
- Control inputs, alarm and speed signals available on request.

General characteristics:

- Material: fiberglass-reinforced plastic. Impeller PA, housing PBT.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 24, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CW looking at rotor.
- Mass: 250 g.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	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 page 13	Curve	Specials
	m ³ /h	CFM													
4412 L	150	88.3	12	7...14	37	5.0	■	2.5	2 700	-20...+70	67 500 / 35 000	140 000	140 000	1	
4412 M	184	108.3	12	7...14	42	5.3	■	4.2	3 300	-20...+70	65 000 / 32 500	130 000	130 000	2	
4412 N	205	120.7	12	7...14	46	5.6	■	5.5	3 650	-20...+70	62 500 / 30 000	120 000	120 000	3	/2
4412 H	240	141.3	12	7...14	49	6.0	■	8.9	4 300	-20...+70	57 500 / 27 500	110 000	110 000	4	/2
4414 L	150	88.3	24	18...28	37	5.0	■	2.5	2 700	-20...+70	67 500 / 35 000	140 000	140 000	1	
4414 M	184	108.3	24	18...28	42	5.3	■	4.0	3 300	-20...+70	65 000 / 32 500	130 000	130 000	2	
4414 N	205	120.7	24	18...28	46	5.6	■	5.2	3 650	-20...+70	62 500 / 30 000	120 000	120 000	3	
4414 H	240	141.3	24	18...28	49	6.0	■	8.6	4 300	-20...+70	57 500 / 27 500	110 000	110 000	4	/2
NEW 4414 HH	285	164.8	24	16...28	52	6.4	■	14.0	5 000	-20...+70	50 000 / 25 000	100 000	100 000	5	
4418 L	150	88.3	48	36...60	37	5.0	■	2.5	2 700	-20...+70	67 500 / 35 000	140 000	140 000	1	
4418 M	184	108.3	48	36...60	42	5.3	■	4.2	3 300	-20...+70	65 000 / 32 500	130 000	130 000	2	
4418 N	205	120.7	48	36...60	46	5.6	■	5.2	3 650	-20...+70	62 500 / 30 000	120 000	120 000	3	
4418 H	240	141.3	48	36...60	49	6.0	■	8.6	4 300	-20...+70	57 500 / 27 500	110 000	110 000	4	/2



max. 184 m³/h

DC Axial Fans

Series 4200 119 x 119 x 38 mm



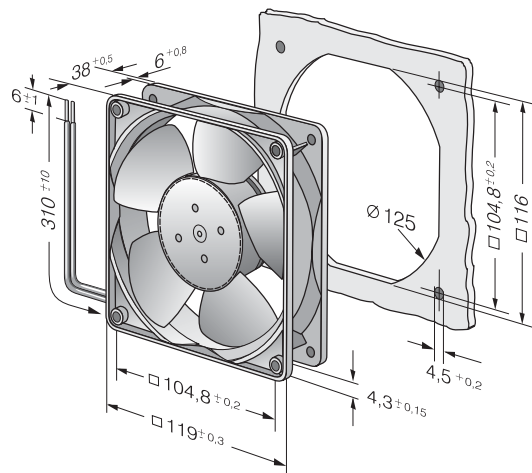
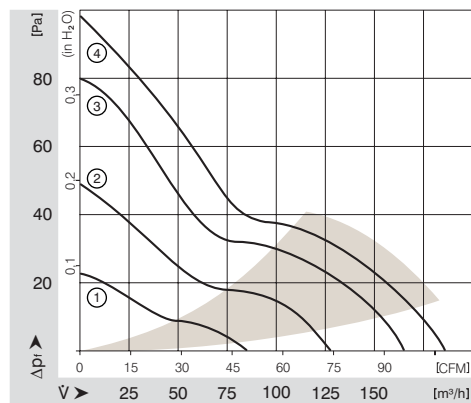
Highlights:

- Ball bearings and sleeve bearings available.
- Optional Vario-Pro: Highly adaptable software configuration of the fan enables a tailor-made solution to the specific requirements of your applications.

General characteristics:

- Material: fiberglass-reinforced plastic. Impeller PA, housing PBT.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 22, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CCW looking at rotor.
- Mass: 290 g.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	Sinterc-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 page 13	Curve	Specials
	m ³ /h	CFM													
4212 L	86	50.6	12	7...14.5	29	4.2	■	1.2	1 600	-20...+75	80 000 / 35 000	112 500	1		
4212 M	127	74.7	12	7...14.5	38	4.9	■	2.2	2 350	-20...+75	70 000 / 30 000	112 500	2		
4212	165	97.1	12	7...14.5	45	5.6	■	4.3	3 050	-20...+75	62 500 / 27 500	122 500	3	/2;/12	
4212 H	184	108.3	12	7...14.5	49	5.9	■	5.3	3 400	-20...+65	60 000 / 32 500	115 000	4	/2;/12	
4214 L	86	50.6	24	12...28	29	4.2	■	1.2	1 600	-20...+75	80 000 / 35 000	112 500	1		
4214 G	165	97.1	24	12...28	45	5.6	□	4.3	3 050	-20...+75	62 500 / 27 500	90 000	3		
4214	165	97.1	24	12...28	45	5.6	■	4.3	3 050	-20...+75	62 500 / 27 500	122 500	3	/2;/12;/17	
4214 H	184	108.3	24	12...28	49	5.9	■	5.3	3 400	-20...+65	60 000 / 32 500	115 000	4	/2;/12;/39	
4218	165	97.1	48	36...56	45	5.6	■	4.3	3 050	-20...+75	62 500 / 27 500	112 500	3	/2;/12	
4218 H	184	108.3	48	36...56	49	5.9	■	5.6	3 400	-20...+65	60 000 / 32 500	115 000	4	/12;/39	



max. 237 m³/h

DC Axial Fans

Series 4100 N 119 x 119 x 38 mm



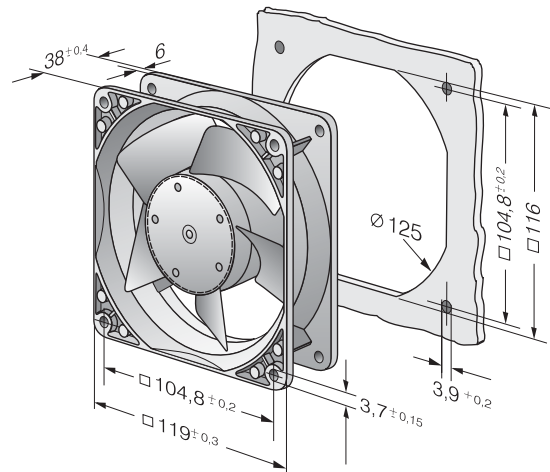
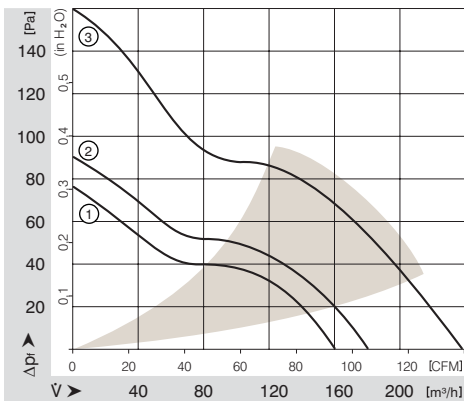
Highlights:

- Highly stable characteristic curve for high air flow with high back pressure.
- Low operating noise at high back pressure.
- Optional Vario-Pro: Highly adaptable software configuration of the fan enables a tailor-made solution to the specific requirements of your applications.

General characteristics:

- Material: aluminium housing, fiberglass-reinforced PA impeller; housing with grounding lug for screw M4 x 8 (Torx).
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection with flat pin terminals, 2.8 x 0.5 mm. Optional with leads.
- Air intake over struts. Rotational direction CCW looking at rotor.
- Mass: 390 g.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	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 _{10Δ} (40 °C) see page 13	Curve
	m ³ /h	CFM												
4182 NGX	160	94.2	12	7...15	44	5.3	□	3.5	2 800	-10...+75	85 000 / 37 500	167 500	1	/2
4182 NX	180	105.9	12	7...15	49	5.7	■	4.5	3 200	-30...+75	85 000 / 37 500	167 500	2	/2;/12
4182 NXH	237	139.5	12	7...14	57	6.5	■	11.0	4 400	-30...+55	70 000 / 50 000	142 500	3	
4184 NGX	160	94.2	24	12...30	44	5.3	□	3.5	2 800	-10...+75	85 000 / 37 500	167 500	1	/2
4184 NXM	160	94.2	24	12...30	44	5.3	■	3.5	2 800	-30...+75	85 000 / 37 500	167 500	1	
4184 NX	180	105.9	24	12...29	49	5.7	■	4.5	3 200	-30...+75	85 000 / 37 500	167 500	2	/2;/17
4184 NXH	237	139.5	24	12...25	57	6.5	■	11.0	4 400	-30...+55	70 000 / 50 000	142 500	3	/2
4188 NGX	160	94.2	48	36...56	44	5.3	□	3.8	2 800	-10...+75	85 000 / 37 500	167 500	1	
4188 NXM	160	94.2	48	36...56	44	5.3	■	3.5	2 800	-30...+75	85 000 / 37 500	167 500	1	/12



max. 440 m³/h

DC Axial Fans

Series 4100 N High Performance 119 x 119 x 38 mm



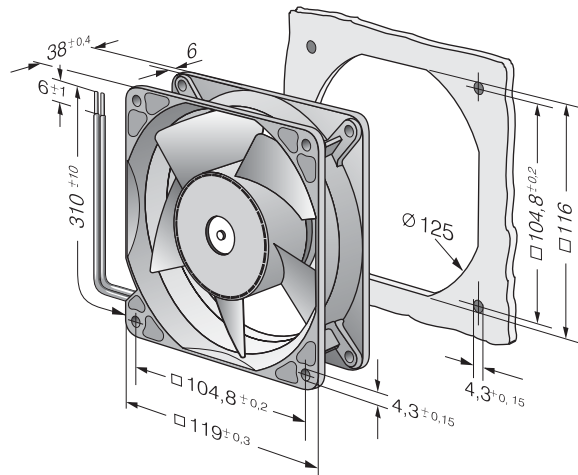
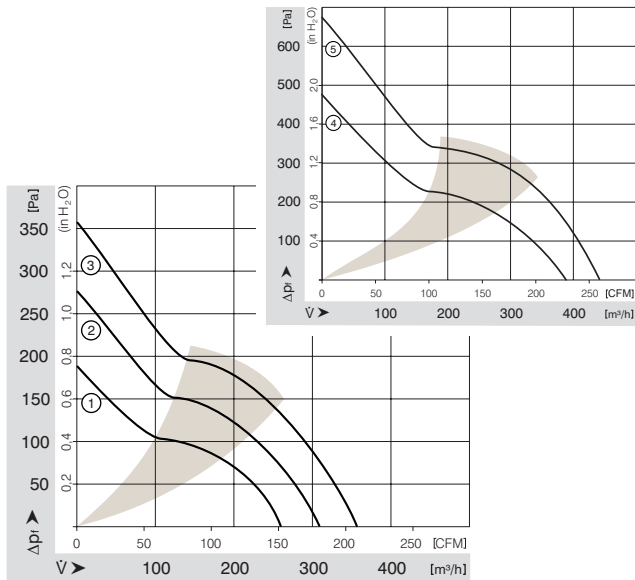
Highlights:

- Highly stable characteristic curve for high air flow with high back pressure.
- Low operating noise at high back pressure.
- Optional Vario-Pro: Highly adaptable software configuration of the fan enables a tailor-made solution to the specific requirements of your applications.

General characteristics:

- Material: aluminium housing, fiberglass-reinforced PA impeller; housing with grounding lug for screw M4 x 8 (Torx).
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 22, UL1007, TR 64, bared and tin-plated
- Air intake over struts. Rotational direction CCW looking at rotor.
- Mass: 390 g.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	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 page 13	Curve	Specials
	m ³ /h	CFM													
4112 NHH	260	152.9	12	9...15	60	6.8	■	15.5	5 000	-20...+65	70 000 / 55 000	147 500	1		
4112 NH3	310	182.4	12	9...15	65	7.2	■	19.5	6 000	-20...+65	65 000 / 37 500	132 500	2	/2	
4112 NH4	355	208.9	12	9...14	67	7.4	■	32.0	6 800	-20...+65	62 500 / 35 000	125 000	3	/2	
4114 NHH	260	152.9	24	16...30	60	6.8	■	12.5	5 000	-20...+65	70 000 / 52 500	147 500	1		
4114 NH3	310	182.4	24	16...30	65	7.2	■	19.5	6 000	-20...+65	65 000 / 37 500	132 500	2	/2	
4114 NH4	355	208.9	24	16...30	67	7.4	■	30.0	6 800	-20...+65	62 500 / 35 000	125 000	3	/2	
4114 NH5	390	229.5	24	16...30	70	7.6	■	45.0	7 500	-20...+65	62 500 / 35 000	125 000	4	/2	
4114 NH6	440	259.0	24	16...30	73	8.1	■	60.0	8 400	-20...+65	62 500 / 35 000	125 000	5	/2	
4118 NHH	260	152.9	48	36...60	60	6.8	■	15.5	5 000	-20...+65	70 000 / 52 500	147 500	1		
4118 NH3	310	182.4	48	36...60	65	7.2	■	19.5	6 000	-20...+65	65 000 / 37 500	132 500	2	/2	
4118 NH4	355	208.9	48	36...60	67	7.4	■	28.0	6 800	-20...+65	62 500 / 35 000	125 000	3	/2	
4118 NH5	390	229.5	48	36...60	70	7.6	■	42.0	7 500	-20...+65	62 500 / 35 000	125 000	4	/2	
4118 NH6	440	259.0	48	36...60	73	8.1	■	55.0	8 400	-20...+65	62 500 / 35 000	125 000	5	/2	



max. 570 m³/h

DC Axial Fans

Series 4100 N High Performance 119 x 119 x 38 mm



Highlights:

- Highly stable characteristic curve for high air flow with high back pressure.
- Low operating noise at high back pressure.
- Available as standard with PWM control input and speed signal, additional inputs and outputs on request. 3-phase fan drive with high degree of running smoothness.

General characteristics:

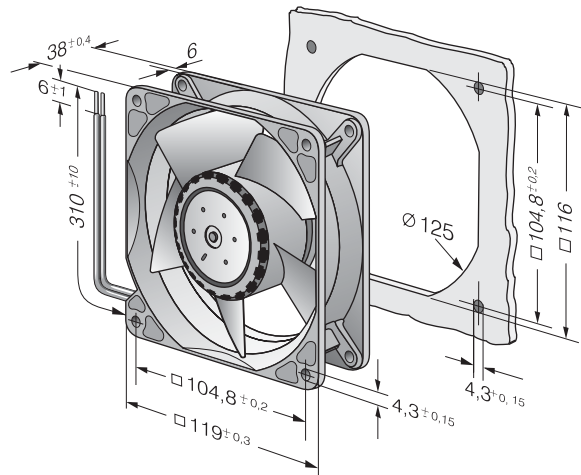
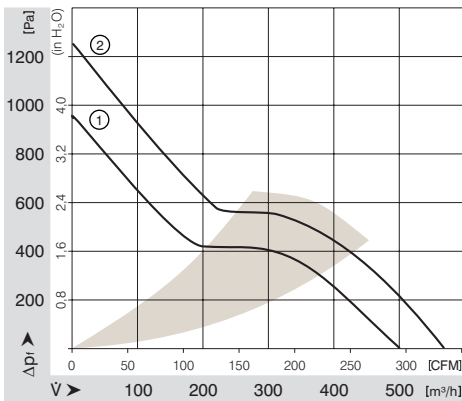
- Material: aluminium housing, fiberglass-reinforced PA impeller; housing with grounding lug for screw M4 x 8 (Torx).
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 20, sensor and control leads AWG 22, UL1007, TR 64. Stripped and tinned ends.
- Air intake over struts. Rotational direction CW looking at rotor.
- Mass: 425 g.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	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 page 13	Curve	Specials
	m ³ /h	CFM													
NEW 4114 N/2H7P	500	294.2	24	16...30	76	8.5	■	90	9 500	-20...+75	57 500 / 25 000	115 000	1	/2	
NEW 4114 N/2H8P	570	335.5	24	16...30	78	8.9	■	120	11 000	-20...+75	55 000 / 22 500	110 000	2	/2	
NEW 4118 N/2H7P	500	294.2	48	36...60*	76	8.5	■	90	9 500	-20...+75	57 500 / 25 000	115 000	1	/2	
NEW 4118 N/2H8P	570	335.5	48	36...60*	78	8.9	■	120	11 000	-20...+75	55 000 / 22 500	110 000	2	/2	

To achieve the specified life, it is advisable to wire up an external capacitor with 470 µF between the positive and negative strands.

*36...72 V DC on request.

Speed control range from 500 min⁻¹ up to maximum nominal speed. Stationary at 0 % PWM, maximum speed when no sensor is connected.



max. 275 m³/h

DC Diagonal Fans

Series DV 4100 119 x 119 x 38 mm



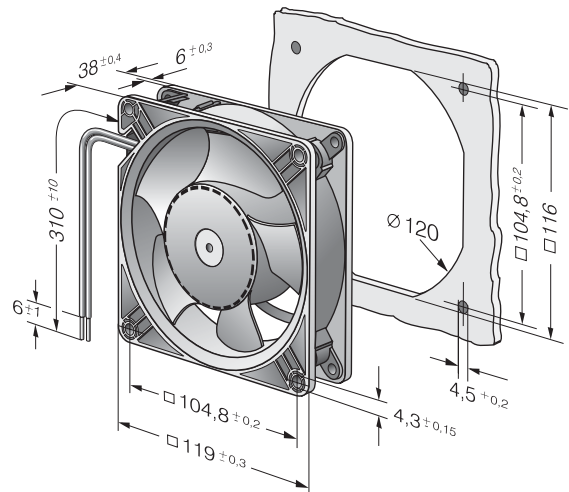
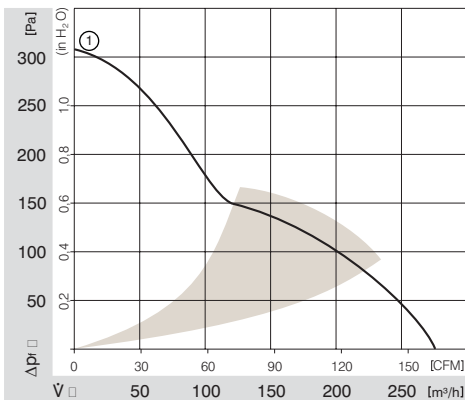
Highlights:

- Diagonal compact fan with low noise and high pressure saddle.
- Highly stable characteristic curve for high air flow with high back pressure.
- Optional Vario-Pro: Highly adaptable software configuration of the fan enables a tailor-made solution to the specific requirements of your applications.

General characteristics:

- Material: aluminium housing, fiberglass-reinforced PA impeller; housing with grounding lug for screw M4 x 8 (Torx).
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 22, TR 64, bared and tin-plated
- Blowing over struts. Rotational direction CCW looking at rotor.
- Mass: 375 g (with aluminium housing : 455 g).

Nominal Data		Air Flow	Air Flow	Nominal Voltage	Voltage Range	Noise	Sound Power	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 page 13	Curve	Specials
Type	m ³ /h	CFM	V DC	V DC	dB(A)	Bel	□/■	Watt	min ⁻¹	°C	Hours	Hours	Hours	P. 90		
DV 4112 N	275	161.9	12	9...15	60	6.7	■	21.0	6 000	-20...+65	70 000 / 40 000	142 500	142 500	1		
DV 4114 N	275	161.9	24	16...30	60	6.7	■	21.0	6 000	-20...+65	70 000 / 40 000	142 500	142 500	1	/2	
DV 4118 N	275	161.9	48	36...60	60	6.7	■	21.0	6 000	-20...+65	70 000 / 40 000	142 500	142 500	1		



max. 338 m³/h

DC Axial Fans

Series 5200 N 127 x 127 x 38 mm



Highlights:

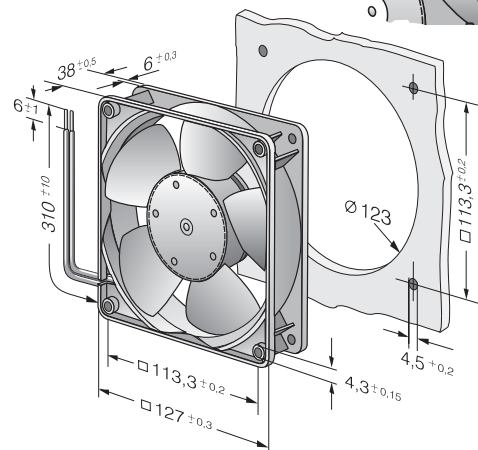
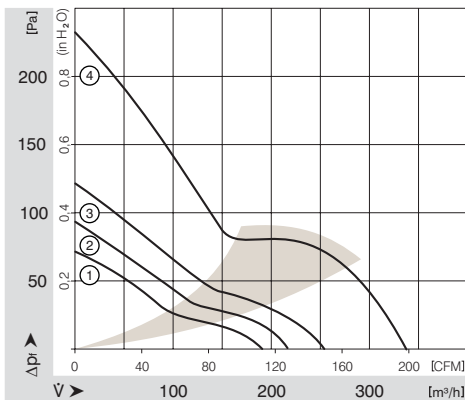
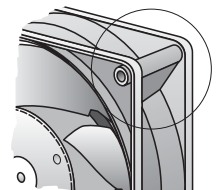
- Optional Vario-Pro: Highly adaptable software configuration of the fan enables a tailor-made solution to the specific requirements of your applications.

General characteristics:

- Material: fiberglass-reinforced plastic. Impeller PA, housing PBT.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 22, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CCW looking at rotor.
- Mass: 310 g.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	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 page 13	Curve	Specials
	m ³ /h	CFM													
5212 NM	187	110.1	12	7...14.5	43	5.3	■	4.6	2 750	-20...+75	62 500 / 27 500	122 500	1		
5212 NN	216	127.1	12	7...14	46	5.6	■	6.0	3 150	-20...+75	57 500 / 25 000	112 500	2	/2	
5212 NH	252	148.3	12	7...14	51	6.0	■	9.8	3 650	-20...+70	45 000 / 22 500	90 000	3		
5212 NHH*	338	198.9	12	9...15	58	6.6	■	19.0	4 900	-20...+65	45 000 / 25 000	90 000	4	/2	
5214 NM	187	110.1	24	12...28	43	5.3	■	4.6	2 750	-20...+75	62 500 / 27 500	122 500	1		
5214 NN	216	127.1	24	12...28	46	5.6	■	6.0	3 150	-20...+75	57 500 / 25 000	112 500	2	/2	
5214 NH	252	148.3	24	12...28	51	6.0	■	9.8	3 650	-20...+70	45 000 / 22 500	90 000	3	/2; /12	
5214 NHH*	338	198.9	24	16...30	58	6.6	■	17.5	4 900	-20...+65	45 000 / 25 000	90 000	4	/2	
5218 NM	187	110.1	48	40...56	43	5.3	■	5.0	2 750	-20...+75	62 500 / 27 500	122 500	1		
5218 NN	216	127.1	48	40...56	46	5.6	■	6.5	3 150	-20...+65	57 500 / 32 500	112 500	2		
5218 NH	252	148.3	48	40...56	51	6.0	■	10.0	3 650	-20...+55	45 000 / 32 500	90 000	3	/2	
5218 NHH*	338	198.9	48	36...60	58	6.6	■	18.0	4 900	-20...+65	45 000 / 25 000	90 000	4	/2	

*Modelle NHH: Fan housing with moulded-in spacers.



max. 324 m³/h

DC Diagonal Fans

Series DV 5200 127 x 127 x 38 mm



Highlights:

- Diagonal compact fan with low noise and high pressure saddle.
- Highly stable characteristic curve for high air flow with high back pressure.
- Optional Vario-Pro: Highly adaptable software configuration of the fan enables a tailor-made solution to the specific requirements of your applications.
- DV 5214 /2HP with PWM control input and speed signal, additional inputs and outputs on request.

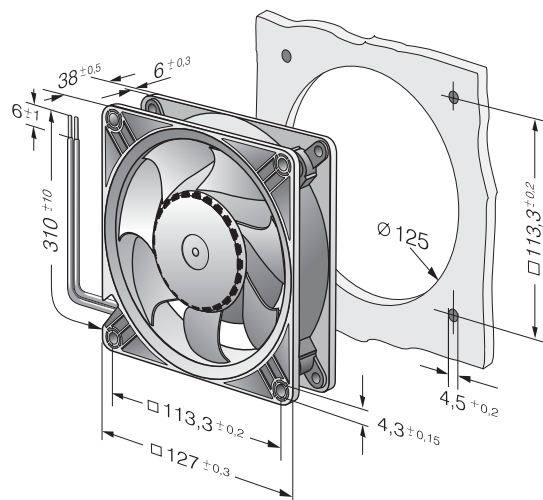
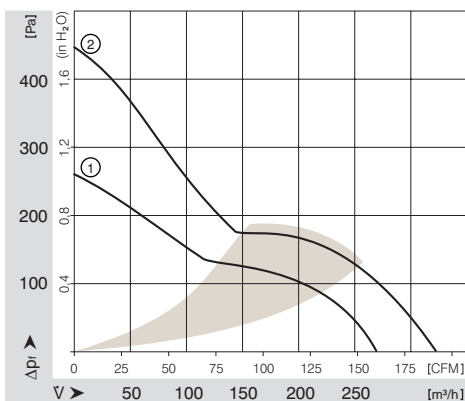
General characteristics:

- Material: housing of fiberglass-reinforced plastic, optional of aluminium. Metal flange. Impeller of fiberglass-reinforced plastic PA; housing with grounding lug for screw M4 x 8 (Torx).
- Fully integrated electronic commutation. Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 22, TR 64, bared and tin-plated.
- Blowing over struts. Rotational direction CCW looking at rotor.
- Mass: 415 g (with metal housing: 490 g).

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	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 page 13	Curve	Specials
	m ³ /h	CFM													
DV 5212 N	270	158.9	12	9...15	56	6.4	■	21.0	5 000	-20...+65	70 000 / 40 000	142 500	1	/2	
DV 5214 N	270	158.9	24	16...30	56	6.4	■	19.0	5 000	-20...+65	70 000 / 40 000	142 500	1	/2	
DV 5218 N	270	158.9	48	36...60	56	6.4	■	19.0	5 000	-20...+65	70 000 / 40 000	142 500	1	/2	
Model available as standard with PWM control input and speed signal. Other models on request.															
NEW DV 5214 /2HP	324	190.7	24	16...30	62	7.2	■	38.5	6 000	-20...+65	62 500*/35 000*	125 000*	2		

*preliminarily

Speed control range from 1000 min⁻¹ up to maximum nominal speed. Stationary at 0 % PWM, maximum speed when no sensor is connected.



max. 250 m³/h

DC Axial Fans

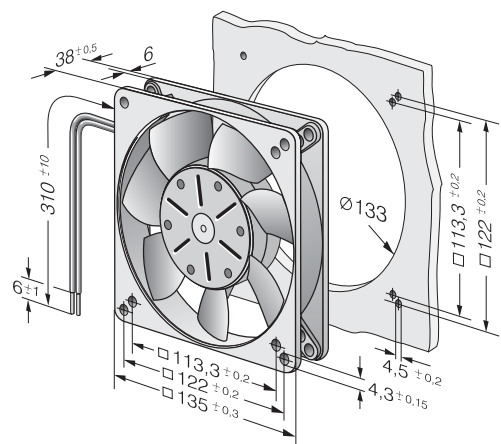
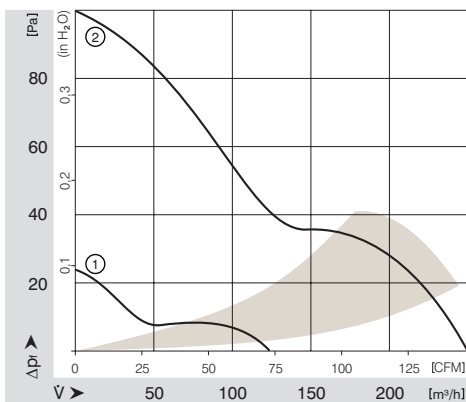
Series 5100 N 135 x 135 x 38 mm



General characteristics:

- Material for aluminium housing and impeller; housing with grounding lug for screw M4 x 8 (Torx). 48 V version incl. screws.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 22, TR 64, bared and tin-plated.
- Blowing over struts. Rotational direction CCW looking at rotor.
- Mass: 650 g.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	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 page 13	Curve	Specials
	m ³ /h	CFM													
5112 N	250	147.1	12	6...15	48	6.1	■	9.5	2 900	-25...+72	80 000 / 37 500	157 500	2	/2;/17	
5114 N	250	147.1	24	12...30	48	6.1	■	9.5	2 900	-25...+72	80 000 / 37 500	157 500	2	/2	
5118 NL	122	71.8	48	24...60	28	4.1	■	2.6	1 400	-25...+72	85 000 / 40 000	167 500	1		
5118 N	250	147.1	48	24...60	48	6.1	■	9.5	2 900	-25...+72	80 000 / 37 500	157 500	2	/2;/12	



max. 670 m³/h

DC Axial Fans

Series 5300 140 x 140 x 51 mm



Highlights:

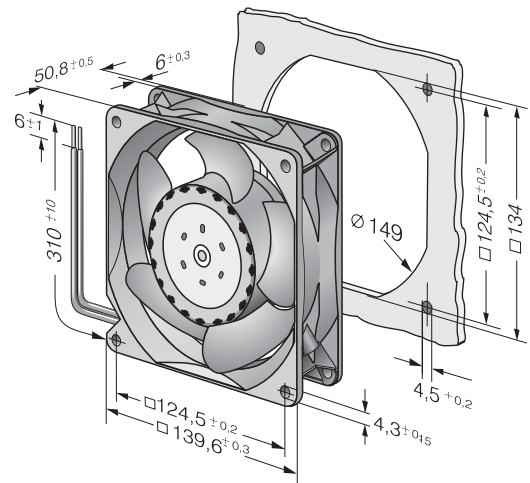
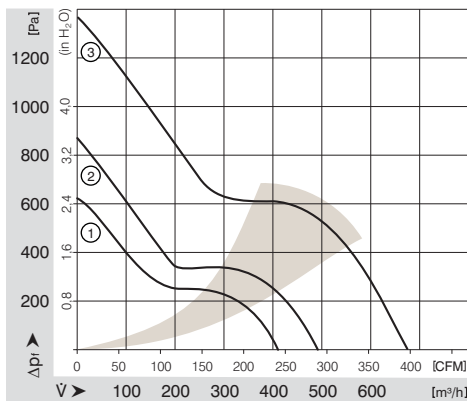
- 3-phase fan drive high degree of running smoothness.
- Highly stable characteristic curve for high air flow with high back pressure.
- Low operating noise at high back pressure.
- Standard with PWM control input and speed signal, additional inputs and outputs on request.

General characteristics:

- Material: aluminium housing, fiberglass-reinforced PA impeller; housing with grounding lug for screw M4 x 8 (Torx).
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 20, TR 64. Stripped and tinned ends.
- Air intake over struts. Rotational direction CCW looking at rotor.
- Mass: 900 g.

Nominal Data		Air Flow	Air Flow	Nominal Voltage	Voltage Range	Noise	Sound Power	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 _{10Δ} (40 °C) see page 13	Curve	Specials
Type		m ³ /h	CFM	V DC	V DC	dB(A)	Bel	□/■	Watt	min ⁻¹	°C	Hours	Hours		P. 90, 101	
NEW 5312 /2 TDHP		410	241.3	12	8...16	70	7.7	■	41	6 000	-20...+70	70 000 / 35 000	140 000	1	/2	
NEW 5314 /2 TDHP		410	241.3	24	16...36	70	7.7	■	41	6 000	-20...+70	70 000 / 35 000	140 000	1	/2	
NEW 5314 /2 TDHHP		490	288.4	24	16...36	75	8.1	■	67	7 000	-20...+70	62 500 / 30 000	120 000	2	/2	
NEW 5318 /2 TDHP		410	241.3	48	36...72	70	7.7	■	41	6 000	-20...+70	70 000 / 35 000	140 000	1	/2	
NEW 5318 /2 TDHHP		490	288.4	48	36...72	75	8.1	■	67	7 000	-20...+70	62 500 / 30 000	120 000	2	/2	
NEW 5318 /2 TDH4P		670	394.3	48	36...72	79	8.8	■	144	9 200	-20...+65	57 500 / 32 500	115 000	3	/2	

Speed control range from 1000 min⁻¹ up to maximum nominal speed. Stationary at 0 % PWM, maximum speed when no sensor is connected.



max. 420 m³/h

DC Axial Fans

Series 7100 N 150 Ø x 38 mm



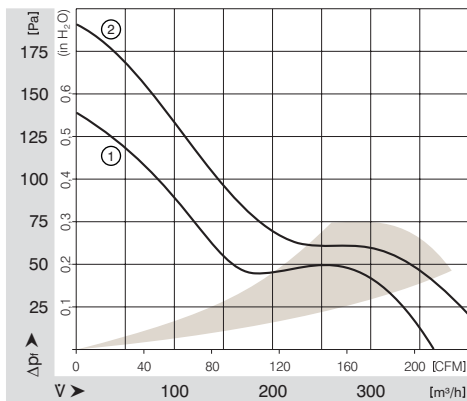
Highlights:

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

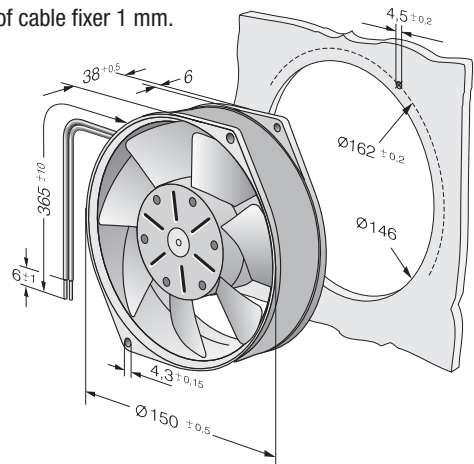
General characteristics:

- Material: Aluminium housing and impeller; housing with grounding lug for screw M4 x 8 (Torx).
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 22, TR 64, bared and tin-plated.
- Air intake over struts. Rotational direction CCW looking at rotor.
- Mass: 620 g.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	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 _{10Δ} (40 °C) see page 13	Curve	Specials
	m ³ /h	CFM													
7112 N	360	211.9	12	6...15	55	6.5	■	12.0	2 850	-25...+72	80 000 / 37 500	157 500	1	/2	
7114 N	360	211.9	24	12...30	55	6.5	■	12.0	2 850	-25...+72	80 000 / 37 500	157 500	1	/2	
7114 NH	420	247.2	24	12...26.5	59	7.0	■	19.0	3 350	-25...+72	75 000 / 35 000	147 500	2		
7118 N	360	211.9	48	24...60	55	6.5	■	12.0	2 850	-25...+72	80 000 / 37 500	157 500	1	/2;/12	



Leads fixed with cable fixer :
supernatant of cable fixer 1 mm.



max. 360 m³/h

DC Axial Fans

Series 7200 N 150 Ø x 55 mm



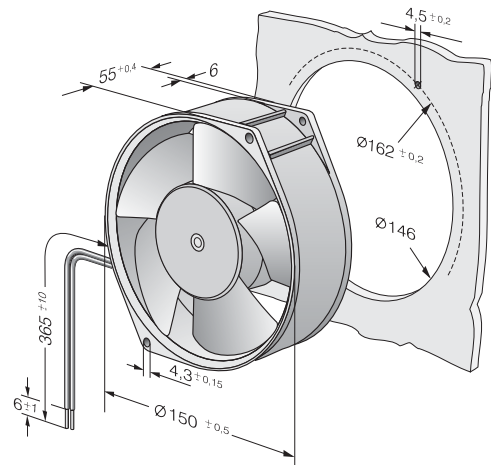
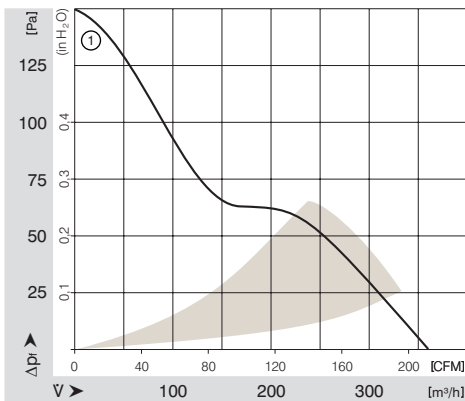
Highlights:

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

General characteristics:

- Material: aluminium housing, fiberglass-reinforced PA impeller; housing with grounding lug for screw M4 x 8 (Torx).
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 22, TR 64, bared and tin-plated.
- Blowing over struts. Rotational direction CCW looking at rotor.
- Mass: 725 g.

Nominal Data		Air Flow	Air Flow	Nominal Voltage	Voltage Range	Noise	Sound Power	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 _{10Δ} (40 °C) see page 13	Curve	Specials
Type		m ³ /h	CFM	V DC	V DC	dB(A)	Bel	□/■	Watt	min ⁻¹	°C	Hours	Hours		P.90-96	
7212 N		360	211.9	12	6...15	53	6.2	■	12.0	3 050	-25...+72	80 000 / 37 500	157 500	1	/2	
7214 N		360	211.9	24	12...30	53	6.2	■	12.0	3 050	-25...+72	80 000 / 37 500	157 500	1	/12;/17;/19	
7218 N		360	211.9	48	24...60	53	6.2	■	12.0	3 050	-25...+72	80 000 / 37 500	157 500	1		



max. 950 m³/h

DC Axial Fans

Series 6300 172 Ø x 51 mm



Highlights:

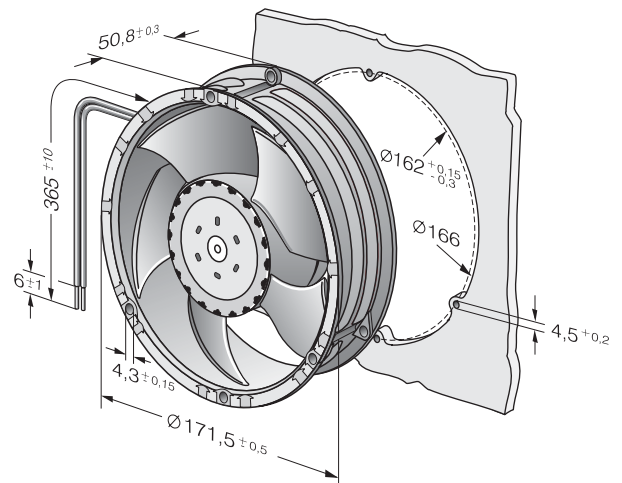
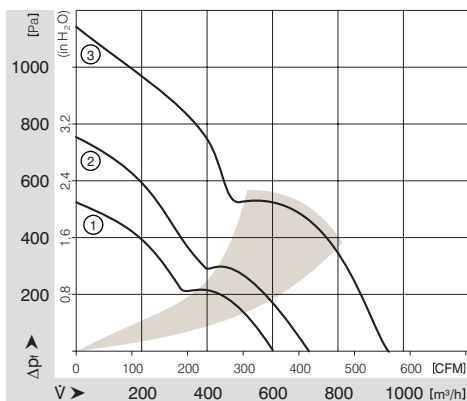
- 3-phase fan drive high degree of running smoothness.
- Highly stable characteristic curve for high air flow with high back pressure.
- Low operating noise at high back pressure.
- Standard with PWM control input and speed signal, additional inputs and outputs on request.

General characteristics:

- Material: aluminium housing, fiberglass-reinforced PA impeller; housing with grounding lug for screw M4 x 8 (Torx).
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 20, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CCW looking at rotor.
- Mass: 910 g.

Nominal Data		Air Flow	Air Flow	Nominal Voltage	Voltage Range	Noise	Sound Power	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 page 13	Curve	Specials
Type		m ³ /h	CFM	V DC	V DC	dB(A)	Bel	□/■	Watt	min ⁻¹	°C	Hours	Hours	Hours	P.90, 101	
NEW 6312 /2TDHP		600	353.1	12	8...16	64	7.6	■	41	6 000	-20...+70	70 000 / 35 000	140 000	140 000	1	/2
NEW 6314 /2TDHP		600	353.1	24	16...36	64	7.6	■	41	6 000	-20...+70	70 000 / 35 000	140 000	140 000	1	/2
NEW 6314 /2TDHHP		710	417.9	24	16...36	69	7.9	■	67	7 000	-20...+70	62 500 / 30 000	120 000	120 000	2	/2
NEW 6318 /2TDHP		600	353.1	48	36...72	64	7.6	■	41	6 000	-20...+70	70 000 / 35 000	140 000	140 000	1	/2
NEW 6318 /2TDHHP		710	417.9	48	36...72	69	7.9	■	67	7 000	-20...+70	62 500 / 30 000	120 000	120 000	2	/2
NEW 6318 /2TDH4P		950	559.1	48	36...72	75	8.4	■	150	9 200	-20...+65	52 500 / 30 000	107 500	107 500	3	/2

Speed control range from 1000 min⁻¹ up to maximum nominal speed. Stationary at 0 % PWM, maximum speed when no sensor is connected.



max. 480 m³/h

DC Axial Fans

Series 6200 N 172 Ø x 51 mm



Highlights:

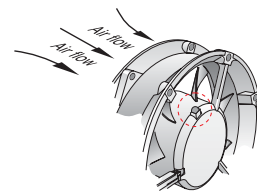
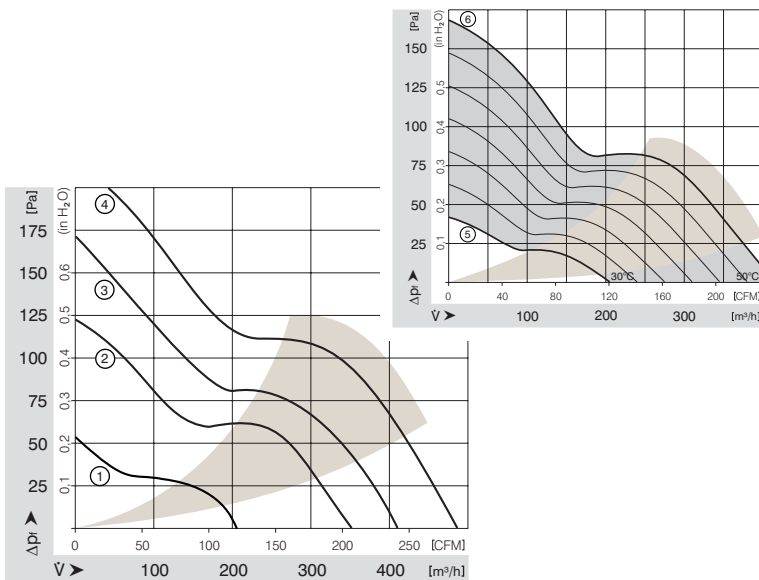
- VARIOFAN models available with external temperature sensor.
- Optional Vario-Pro: Highly adaptable software configuration of the fan enables a tailor-made solution to the specific requirements of your applications.

General characteristics:

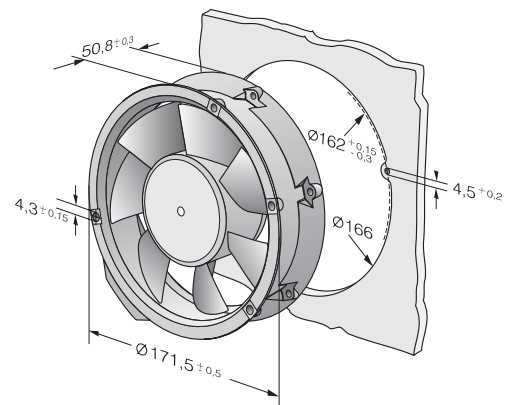
- Material: aluminium housing, fiberglass-reinforced PA impeller; housing with grounding lug for screw M4 x 8 (Torx). 48 V version incl. screws.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection with flat pin terminals 3 x 0.5 mm. Optional: Version with leads.
- Blowing over struts. Rotational direction CCW looking at rotor.
- Mass: 820 g.

Nominal Data		Air Flow	Air Flow	Nominal Voltage	Voltage Range	Noise	Sound Power	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 page 13	Curve	Specials
Type	m ³ /h	CFM	V DC	V DC	dB(A)	Bel	□ / ■	Watt	min ⁻¹	°C	Hours	Hours	Hours	P90-96		
6212 NM	350	206.0	12	8...15	50	5.7	■	12.0	2 850	-20...+72	80 000 / 37 500	157 500	2			
6224 NM	350	206.0	24	12...32	50	5.7	■	12.0	2 850	-20...+72	80 000 / 37 500	157 500	2	/12		
6224 N	410	241.3	24	12...28	55	6.1	■	18.0	3 400	-20...+72	75 000 / 35 000	125 000	3	2/12/19		
6224 NH	480	282.5	24	12...28	61	6.9	■	26.0	4 000	-20...+55*	70 000 / 50 000	110 000	4			
6248 NL	205	120.7	48	28...60	35	4.5	■	4.0	1 700	-20...+72	86 000 / 40 000	167 500	1			
6248 NM	350	206.0	48	28...60	50	5.7	■	11.5	2 850	-20...+72	80 000 / 37 500	157 500	2			
6248 N	410	241.3	48	28...60	55	6.1	■	17.0	3 400	-20...+72	75 000 / 35 000	125 000	3	2/12		
6248 NH	480	282.5	48	36...56	61	6.9	■	26.0	4 000	-20...+55*	70 000 / 50 000	110 000	4			
VARIOFAN – DC fans with temperature-dependent speed control.																
30 °C 50 °C	6224 NT	205	120.7	24	12...28	35	4.5	■	8.5	1 700	-10...+72	77 500 / 35 000	125 000	5	6	
		410	241.3		55	6.1	18.0		3 400							
30 °C 50 °C	6248 NT	205	120.7	48	28...60	35	4.5	■	8.5	1 700	-10...+72	77 500 / 35 000	125 000	5	6	
		410	241.3		55	6.1	17.0		3 400							

* 72 °C upon on request.



Temperature sensor (NTC-resistor) for controlling the motor speed is positioned directly in the air flow.



max. 600 m³/h

DC Axial Fans

Series 6200 NTD TURBOFAN 172 Ø x 51 mm



Highlights:

- 3-phase fan drive with high degree of running smoothness.
- Highly stable characteristic curve for high air flow with high back pressure.
- Control inputs, alarm and speed signals available on request.

General characteristics:

- Material: aluminium housing, fiberglass-reinforced PA impeller; housing with grounding lug for screw M4 x 8 (Torx). 48 V version incl. screws.
- Fully integrated electronic commutation.
- Electrical connection via single leads AWG 22, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CCW looking at rotor. Optional change direction of rotation.
- Mass: 820 g.

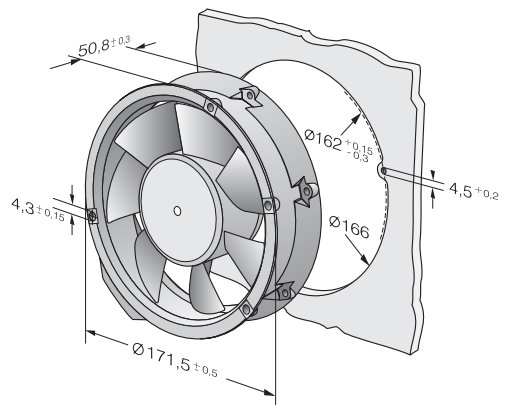
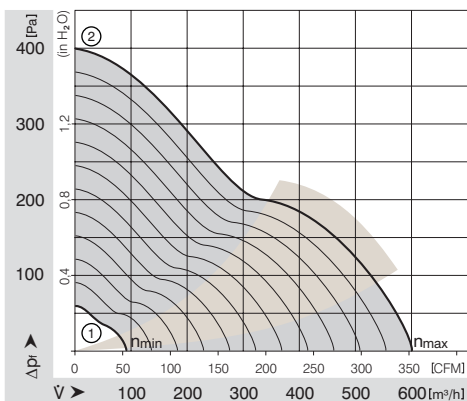
Nominal Data		Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	Sinter-Sleeve Bearings Ball Bearings	Power Input	Nominal Speed	Temperature Range	Service Life L ₁₀ (40 °C) ebm-papst Standard	Service Life L ₁₀ (T _{max}) ebm-papst Standard	Life expectancy L ₁₀ Δ (40 °C) see page 13	Curve	Specials
Type	m ³ /h	CFM	V DC	V DC	dB(A)	Bel	□/■	Watt	min ⁻¹	°C	Hours	Hours	Hours	P.		
min max	6224 NTD...	90 600	53.0 353.1	24	16...28	18 65	— 7.4	■	2.0 50.0	800 5 100	-20...+60	70 000 / 45 000	110 000	1 2	90-96;100-102	
min max	6248 NTD...	90 600	53.0 353.1	48	40...55*	18 65	— 7.4	■	2.0 50.0	800 5 100	-20...+60	70 000 / 45 000	110 000	1 2	90-96;100-102	

*Fan with extended voltage range available on request.

Models 6224 NTD... and 6248 NTD... are available in customer-specific, custom-developed variants only.

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

For details of the technical possibilities, refer to the chapters on the sensor signal, alarm signal and control inputs beginning on page 88.



max. 540 m³/h

DC Diagonal Fans

Series DV 6200 172 Ø x 51 mm



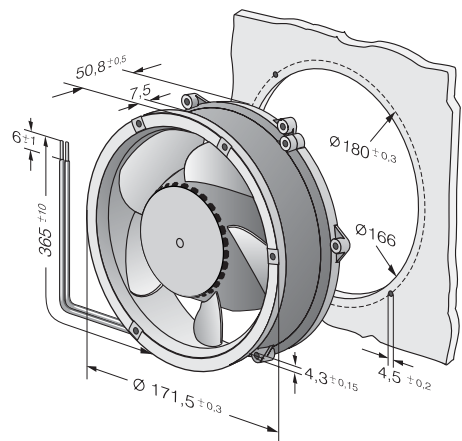
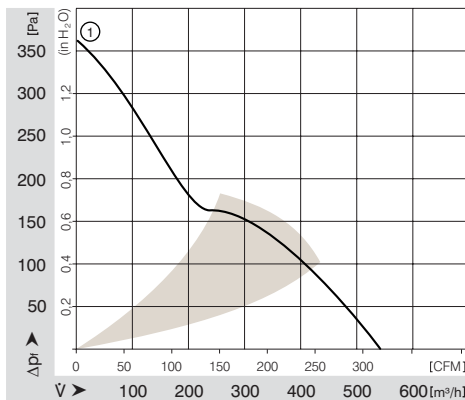
Highlights:

- Diagonal compact fan with low noise and high pressure saddle.
- Highly stable characteristic curve for high air flow with high back pressure.

General characteristics:

- Material: aluminium housing, fiberglass-reinforced PA impeller; housing with grounding lug for screw M4 x 8 (Torx). 48 V version incl. screws.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 22, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CCW looking at rotor.
- Mass: 820 g.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	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 page 13	Curve	Specials
	m ³ /h	CFM													
DV 6224	540	317.8	24	16...28	63	7.1	■	40.0	4 300	-20...+75	90 000 / 40 000	180 000	1	/2;/12;/17	
DV 6248	540	317.8	48	28...60	63	7.1	■	40.0	4 300	-20...+75	90 000 / 40 000	180 000	1	/2;/12	



max. 700 m³/h

DC Diagonal Fans

Series DV 6200 TD TURBOFAN 172 Ø x 51 mm



Highlights:

- Diagonal compact fan with low noise and high pressure saddle.
- 3-phase fan drive with high degree of running smoothness.
- Highly stable characteristic curve for high air flow with high back pressure.
- Control inputs, alarm and speed signals available on request.

General characteristics:

- Material: aluminium housing, fiberglass-reinforced PA impeller; housing with grounding lug for screw M4 x 8 (Torx). 48 V version incl. screws.
- Fully integrated electronic commutation.
- Electrical connection via single leads AWG 22, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CCW looking at rotor.
- Mass: 820 g.

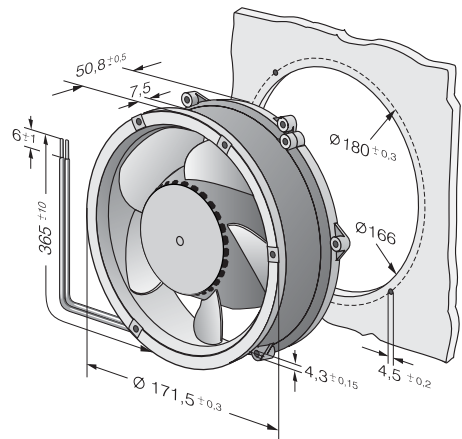
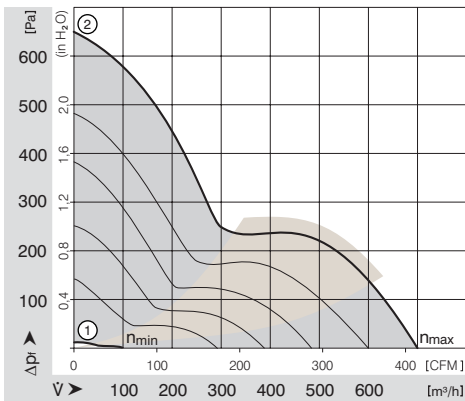
Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	Sinter-Sleeve Bearings Ball Bearings	Power Input	Nominal Speed	Temperature Range	Service Life L ₁₀ (40 °C) ebm-papst Standard	Service Life L ₁₀ (T _{max}) ebm-papst Standard	Life expectancy L ₁₀ Δ (40 °C) see page 13	Curve	Specials
	m ³ /h	CFM													
NEW DV 6212 TD	700	421.0	12	8...13.5	69	7.8	■	84.0	5 500	-20...+50	65 000 / 50 000	130 000	2		
DV 6224 TD	700	421.0	24	16...36	69	7.8	■	89.0	5 500	-20...+60	65 000 / 40 000	130 000	2		
DV 6248 TD	700	421.0	48	40...55	69	7.8	■	89.0	5 500	-20...+60	65 000 / 40 000	130 000	2		
min max	DV 6224 TD...	100	58.9	24	16...36	29	—	2.0	800	-20...+60	65 000	130 000	1	2	90-96;100-102
		700	421.0			69	7.8								
min max	DV 6248 TD...	100	58.9	48	40...55*	29	—	2.0	800	-20...+60	65 000 / 40 000	130 000	1	2	90-96;100-102
		700	421.0			69	7.8								

*Fan with extended voltage range available on request.

Models DV 6224 TD... and DV 6248 TD... 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.

For details of the technical possibilities, refer to the chapters on the sensor signal, alarm signal and control inputs beginning on page 88.



max. 480 m³/h

DC Axial Fans

Series 6400 172 x 150 x 51 mm



Highlights:

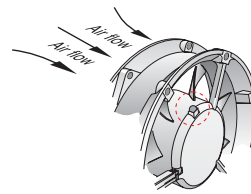
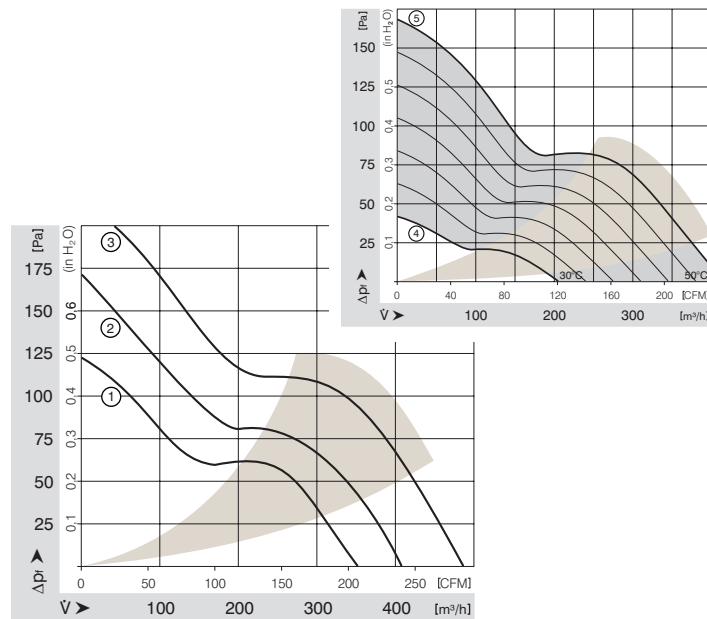
- VARIOFAN models available with external temperature sensor.
- Optional Vario-Pro: Highly adaptable software configuration of the fan enables a tailor-made solution to the specific requirements of your applications.

General characteristics:

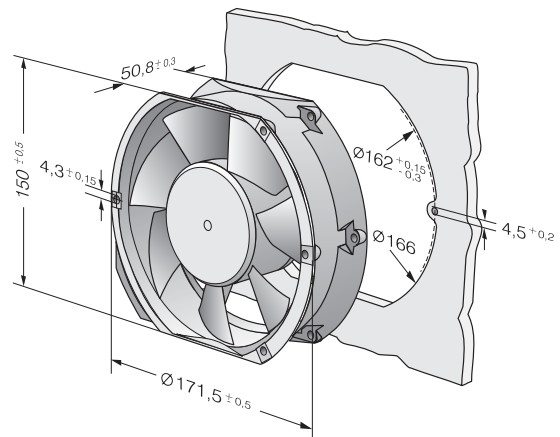
- Material: aluminium housing, fiberglass-reinforced PA impeller; housing with grounding lug for screw M4 x 8 (Torx). 48 V version incl. screws.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection with flat pin terminals 3 x 0.5 mm.
- Blowing over struts. Rotational direction CCW looking at rotor.
- Mass: 620 g.

Nominal Data		Air Flow	Air Flow	Nominal Voltage	Voltage Range	Noise	Sound Power	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 page 13	Curve	Specials
Type		m ³ /h	CFM	V DC	V DC	dB(A)	Bel	□/■	Watt	min ⁻¹	°C	Hours	Hours		P. 90-92	
6412 M		350	206.0	12	8...15	52	6.0	■	12.0	2 850	-20...+72	80 000 / 37 500	157 500	1		
6424 M		350	206.0	24	12...32	52	6.0	■	12.0	2 850	-20...+72	80 000 / 37 500	157 500	1		
6424		410	241.3	24	12...28	57	6.4	■	18.0	3 400	-20...+72	75 000 / 35 000	125 000	2	/2	
6424 H		480	282.5	24	12...28	63	7.1	■	26.0	4 000	-20...+55*	70 000 / 50 000	110 000	3	/12	
6448 M		350	206.0	48	28...60	52	6.0	■	11.5	2 850	-20...+72	80 000 / 37 500	157 500	1		
6448		410	241.3	48	28...60	57	6.4	■	17.0	3 400	-20...+72	75 000 / 35 000	125 000	2	/2	
6448 H*		480	282.5	48	28...60	63	7.1	■	26.0	4 000	-20...+55**	70 000 / 50 000	110 000	3	/2	
VARIOFAN – DC fans with temperature-dependent speed control.																
30°C	6424 T	205	120.7	24	12...28	37	4.9	■	8.5	1 700	-10...+72	77 500 / 35 000	125 000	4		
50°C		410	241.3													
30°C	6448 T	205	120.7	48	28...60	37	4.9	■	8.5	1 700	-10...+72	77 500 / 35 000	125 000	4		
50°C		410	241.3													

* Leads 310 mm.
** 72 °C upon request.



Temperature sensor (NTC-resistor) for controlling the motor speed is positioned directly in the air flow.



max. 900 m³/h

DC Axial Fans

Series 6400 TD TURBOFAN 172 x 150 x 51 mm



Highlights:

- 3-phase fan drive with high degree of running smoothness.
- Highly stable characteristic curve for high air flow with high back pressure.
- Control inputs, alarm and speed signals available on request.

General characteristics:

- Material: aluminium housing, fiberglass-reinforced PA impeller; housing with grounding lug for screw M4 x 8 (Torx). 48 V version incl. screws.
- Fully integrated electronic commutation.
- Electrical connection via single leads AWG 22, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CCW looking at rotor. Direction of rotation reversible.
- Mass: 760 g.

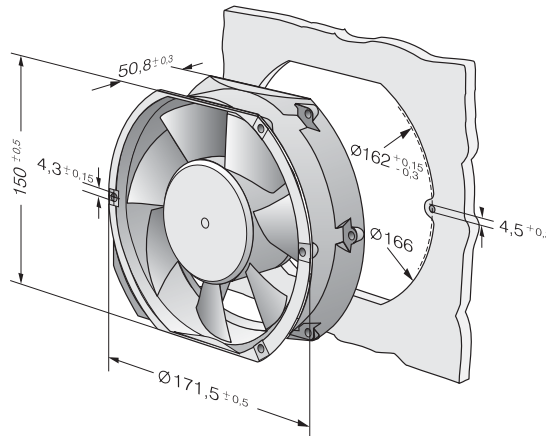
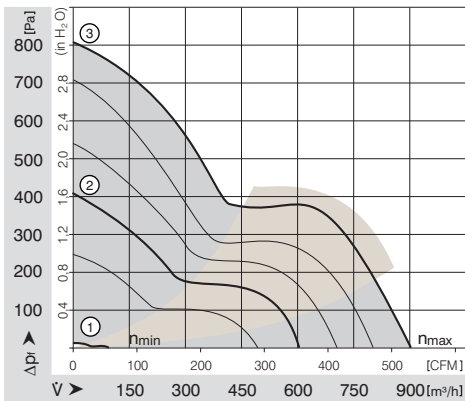
Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	Sinter-Sleeve Bearings Ball Bearings	Power Input	Nominal Speed	Temperature Range	Service Life L ₁₀ (40 °C) ebm-papst Standard	Service Life L ₁₀ (T _{max}) ebm-papst Standard	Life expectancy L ₁₀ Δ (40 °C) see page 13	Curve	Specials
	m ³ /h	CFM													
min max 6424 TD...	90	53.0	24	16...28	18	—	■	2.0	800	-20...+60	70 000 / 45 000	110 000	1	2	
	600	353.1			65	7.4		50.0	5 100						
min max 6448 TD...	90	53.0	48	40...55*	18	—	■	2.0	800	-20...+60	70 000 / 45 000	110 000	1	2	90-96;100-102
	600	353.1			65	7.4		50.0	5 100						
min max 6448 TDHH...	90	53.0	48	36...72	18	—	■	2.0	800	-20...+60	70 000 / 45 000	110 000	1	3	90-96;100-102
	900	529.7			78	8.6		163.0	7500						

*Fan with extended voltage range available on request.

Models 6424 TD, 6448 TD... and 6448 TDHH... 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.

For details of the technical possibilities, refer to the chapters on the sensor signal, alarm signal and control inputs beginning on page 88.



max. 530 m³/h

DC Diagonal Fans

Series DV 6400 172 x 160 x 51 mm



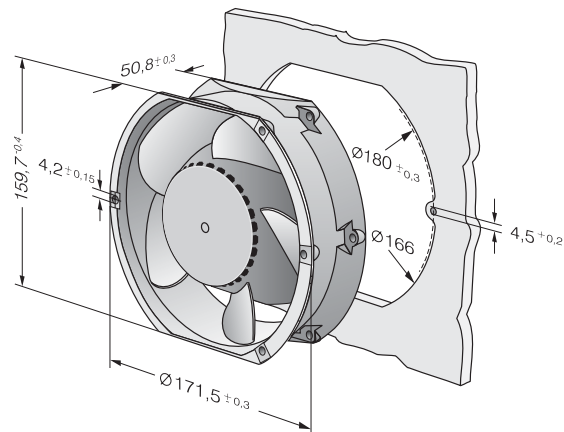
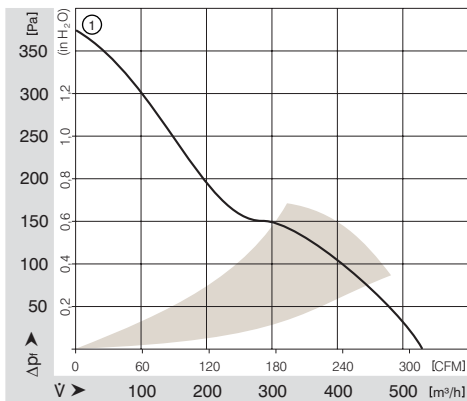
Highlights:

- Diagonal compact fan with low noise and high pressure saddle.
- Highly stable characteristic curve for high air flow with high back pressure.
- Optional Vario-Pro: Highly adaptable software configuration of the fan enables a tailor-made solution to the specific requirements of your applications.

General characteristics:

- Material: aluminium housing, fiberglass-reinforced PA impeller; housing with grounding lug for screw M4 x 8 (Torx). 48 V version incl. screws.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Electrical connection via single leads AWG 22, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CCW looking at rotor.
- Mass: 820 g.

Nominal Data		Air Flow	Air Flow	Nominal Voltage	Voltage Range	Noise	Sound Power	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 page 13	Curve	Specials
Type		m ³ /h	CFM	V DC	V DC	dB(A)	Bel	□/■	Watt	min ⁻¹	°C	Hours	Hours	Hours	P. 92	
DV 6424		530	311.9	24	16...28	65	7.3	■	40.0	4 300	-20...+75	90 000 / 45 000	180 000	180 000	1	/12
DV 6448		530	311.9	48	28...60	65	7.3	■	40.0	4 300	-20...+75	90 000 / 45 000	180 000	180 000	1	/12



max. 680 m³/h

DC Diagonal Fans

Series DV 6400 TD TURBOFAN 172 x 160 x 51 mm



Highlights:

- Diagonal compact fan with low noise and high pressure saddle.
- 3-phase fan drive with high degree of running smoothness.
- Highly stable characteristic curve for high air flow with high back pressure.
- Control inputs, plus alarm and speed signals available on request.

General characteristics:

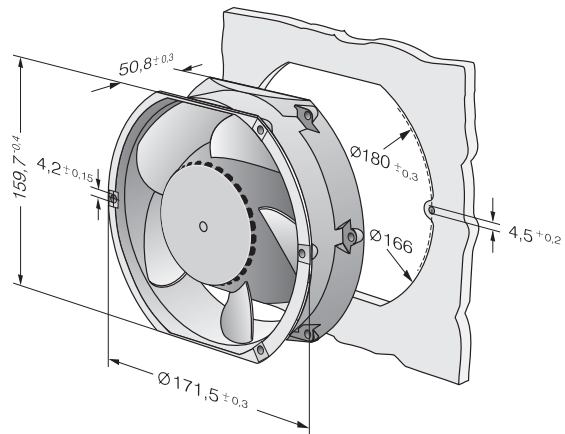
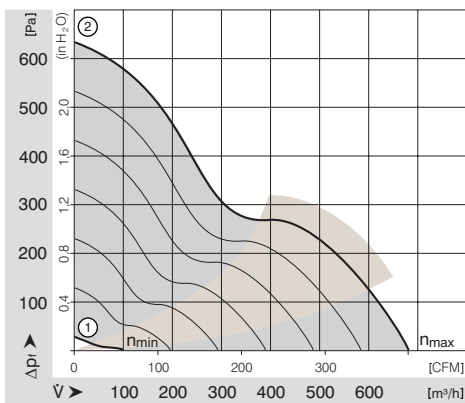
- Material: aluminium housing, fiberglass-reinforced PA impeller; housing with grounding lug for screw M4 x 8 (Torx). 48 V version incl. screws.
- Fully integrated electronic commutation.
- Electrical connection via single leads AWG 22, TR 64. Stripped and tinned ends.
- Blowing over struts. Rotational direction CCW looking at rotor. Direction of rotation reversible.
- Mass: 820 g.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	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 page 13	Curve	Specials
	m ³ /h	CFM													
DV 6424 TD	680	400.2	24	16...28	71	7.9	■	91.0	5 500	-20...+60	65 000 / 40 000	130 000	2		
min max	100 680	58.9 400.2	24	16...28	29 71	— 7.9	— ■	2.0 91.0	800 5 500	-20...+60	65 000 / 40 000	130 000	1 2	90-96;100-102	
min max	100 680	58.9 400.2	48	40...55	29 71	— 7.9	— ■	2.0 86.0	800 5 500	-20...+60	65 000 / 40 000	130 000	1 2	90-96;100-102	

Models DV 6424 TD... and DV 6448 TD... 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.

For details of the technical possibilities, refer to the chapters on the sensor signal, alarm signal and control inputs beginning on page 88.



max. 925 m³/h

DC Diagonal Fans

W1G 180 Ø 200 x 70 mm



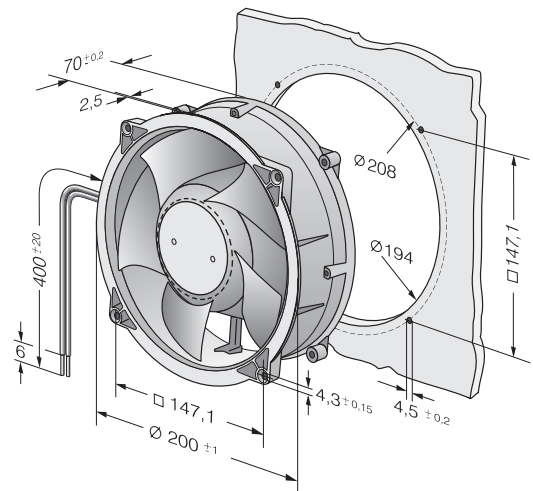
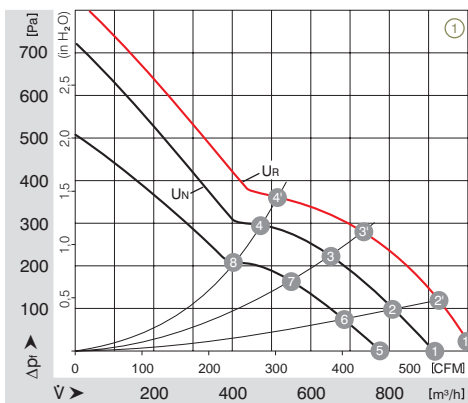
- Material: Die-cast aluminium wall ring, 5 plastic PA blades. Rotor galvanized.
- Polarity and locked rotor protection, soft start.
- Direction of air flow: "V", exhaust over struts. Rotational direction CCW looking at rotor.
- Type of protection: IP 20. Insulation class: "B".
- Maintenance-free ball bearings.
- Control input 0-10 V DC / PWM and tach output.
- Lateral cable exit.
- Continuous operation (S1).
- Mass: 1.8 kg.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	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	Curve	Specials
	m ³ /h	CFM												
W1G 180-AB31-01	900	529.7	24	16...28	68	—	■	93.0	4 550	-25...+60	42 000 / 40 000		1	
W1G 180-AB47-01	925	544.4	48	36...57	69	—	■	100.0	4 600	-25...+60	42 000 / 40 000		1	

	n [min ⁻¹]	P ₁ [W]	η ₁₁ [%]	L _{DA} [dBA]
① ①'	5180	133	—	71
① ②'	4970	141	70	70
① ③'	4760	146	67	68
① ④'	5010	140	55	69
① ①	4600	100	—	69
① ②	4500	106	70	68
① ③	4340	112	67	66
① ④	4550	105	55	67
① ⑤	3920	60	—	66
① ⑥	3790	64	70	65
① ⑦	3660	68	67	63
① ⑧	3790	63	55	63

Connection leads:

- red = +
- blue = -
- yellow = control input PWM/Lin
- white = speed output



max. 1090 m³/h

DC Axial Fans

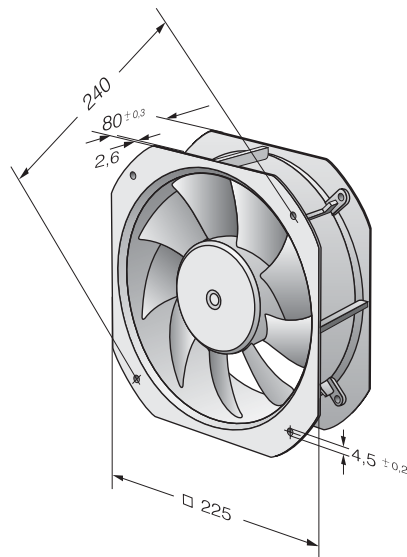
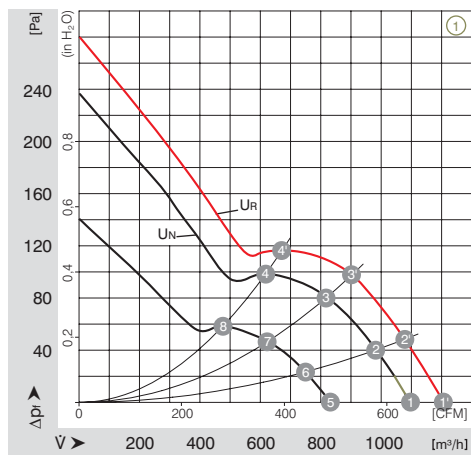
W1G 200 225 x 225 x 80 mm



- Material: Die-cast aluminium wall ring, 9 sheet steel blades. Blades and rotor coated in black.
- Polarity and locked rotor protection.
- Direction of air flow: "V", exhaust over struts. Rotational direction CCW looking at rotor.
- Type of protection: IP 42. Insulation class: "B".
- Maintenance-free ball bearings.
- Control input 0-10 V DC / PWM and tach output.
- Connection leads with terminal strip.
- Continuous operation (S1).
- Mass: 2.1 kg.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	Sinter-Sleeve Bearings	Power Input	Nominal Speed	Temperature Range	Service Life L ₁₀ (40 °C) ebmpapst Standard	Service Life L ₁₀ (T _{max}) ebmpapst Standard	Curve	Specials
	m ³ /h	CFM												
W1G 200-HH77-52	1090	641.6	48	16...28	60	—	■	55.0	2 950	-25...+60	57 000 / 55 000		1	
W1G 200-HH01-52	1005	591.5	48	36...57	60	—	■	45.0	2 750	-25...+60	57 000 / 57 000		1	

	n [min ⁻¹]	P ₁ [W]	η [%]	Lp _A [dBA]
① ①	2300	73	—	63
① ②	2970	77	67	62
① ③	3100	80	64	63
① ④	2970	80	54	66
① ⑤	2950	55	—	60
① ⑥	2890	58	67	60
① ⑦	2800	61	64	61
① ⑧	2780	63	54	64
① ⑨	2270	27	—	55
① ⑩	2230	28	67	54
① ⑪	2170	29	64	54
① ⑫	2130	30	54	57



max. 1050 m³/h

DC Diagonal Fans

W1G 208 Ø 232 x 80 mm



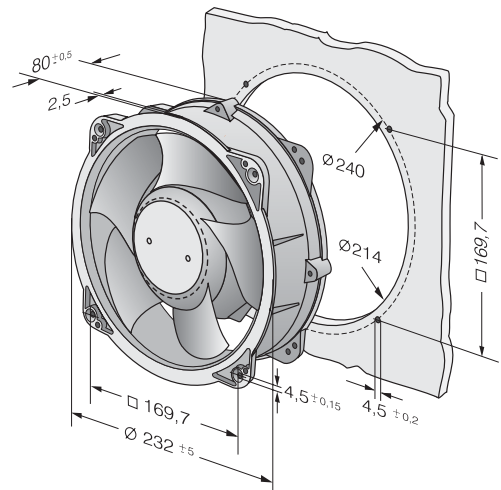
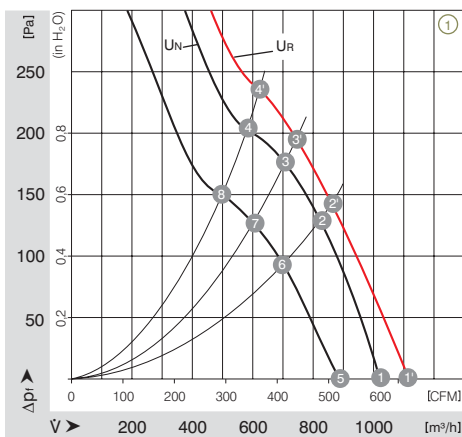
- Material: Die-cast aluminium wall ring, 5 plastic PA blades. Rotor galvanized.
- Polarity and locked rotor protection.
- Direction of air flow: "V", exhaust over struts. Rotational direction CCW looking at rotor.
- Type of protection: IP 20. Insulation class: "B".
- Maintenance-free ball bearings.
- Control input 0-10 V DC / PWM and tach output.
- Connection leads with terminal strip.
- Continuous operation (S1).
- Mass 2.3 kg.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	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	Curve	Specials
	m³/h	CFM												
W1G 208-BA35-52	1050	618.0	24	16...28	74	—	■	96.0	3 500	-25...+72	51 000 / 40 000		1	
W1G 208-BA73-52	1050	618.0	48	36...57	74	—	■	96.0	3 500	-25...+72	51 000 / 40 000		1	

	n [min ⁻¹]	P ₁ [W]	η _{II} [%]	L _{DA} [dBA]
① 1'	3740	116	—	75
① 2'	3500	118	52	74
① 3'	3450	119	53	73
① 4'	3530	118	48	75
① 1	3500	96	—	74
① 2	3300	99	52	72
① 3	3250	100	53	72
① 4	3330	99	48	73
① 5	2960	58	—	70
① 6	2830	63	52	69
① 7	2780	64	53	68
① 8	2840	62	48	70

Connection leads:

- red = +
- blue = -
- yellow = control input PWM/Lin
- white = speed output



max. 1920 m³/h

DC Axial Fans

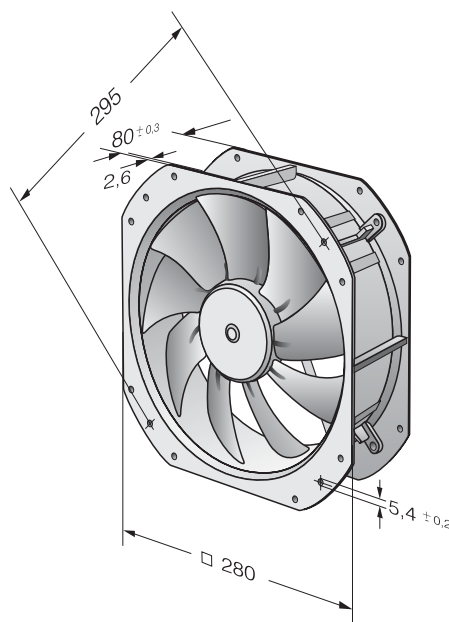
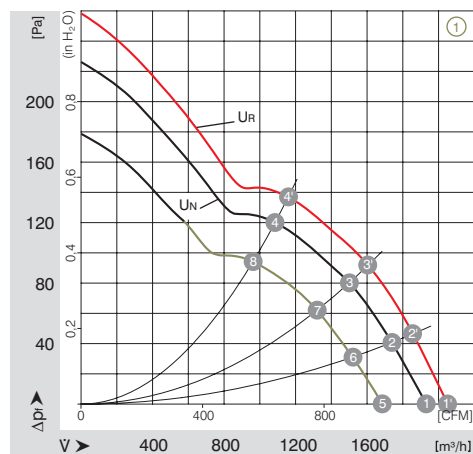
W1G 250 280 x 280 x 80 mm



- Material: Die-cast aluminium wall ring, 7 sheet steel blades. Blades and rotor coated in black.
- Polarity and locked rotor protection.
- Direction of air flow: "V", exhaust over struts. Rotational direction CCW looking at rotor.
- Type of protection: IP 42. Insulation class: "B".
- Maintenance-free ball bearings.
- Control input 0-10 V DC / PWM and tach output.
- Connection leads with terminal strip.
- Continuous operation (S1).
- Mass: 2.5 kg.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	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	Curve	Specials
	m ³ /h	CFM												
W1G 250-HH37-52	1920	1130.1	24	16...28	70	—	■	105.0	2 750	-25...+60	57 000 / 46 000		1	
W1G 250-HH67-52	1920	1130.1	48	36...57	70	—	■	105.0	2 750	-25...+60	57 000 / 46 000		1	

	n [min ⁻¹]	P ₁ [W]	η _{II} [%]	LpA [dBA]
① ①	2920	129	—	71
① ②	2800	132	63	72
① ③	2680	135	60	71
① ④	2600	139	45	72
① ⑤	2750	105	—	70
① ⑥	2630	110	63	69
① ⑦	2520	111	60	69
① ⑧	2440	114	45	70
① ⑨	2610	73	—	66
① ⑩	2320	75	63	67
① ⑪	2230	78	60	67
① ⑫	2170	80	45	68



max. 24 m³/h

DC Radial Fans

Series RV 40 105 x 59 x 79 mm

Highlights:

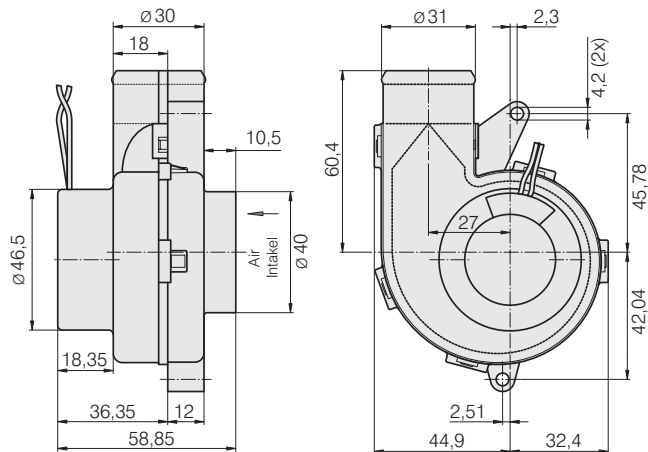
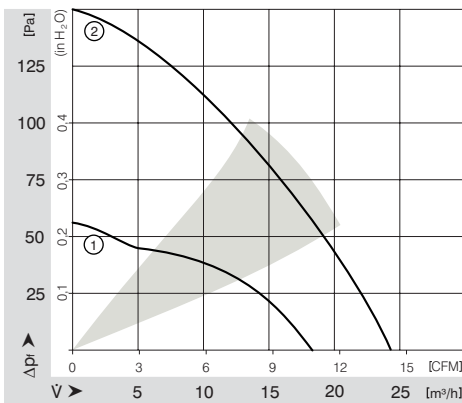
- Pressure-optimized blower.
- Motor with very low structure-borne noise properties.
- Forward curved impeller.

General characteristics:

- Fiberglass-reinforced plastic scroll housing and impeller.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Direction of air flow: axial suction, radial air outlet.
- Electrical connection via single leads AWG 26, TR 64. Stripped and tinned ends.
- Mass: 100 g.



Nominal Data	Air Flow	Air Flow	Nominal Voltage	Voltage Range	Sound Power	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 page 13	Curve	Specials
Type	m ³ /h	CFM	V DC	V DC	Bel	□/■	Watt	min ⁻¹	°C	Hours	Hours	Hours	P.	
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 Radial Fans

Series RLF 35 51 x 51 x 15 mm



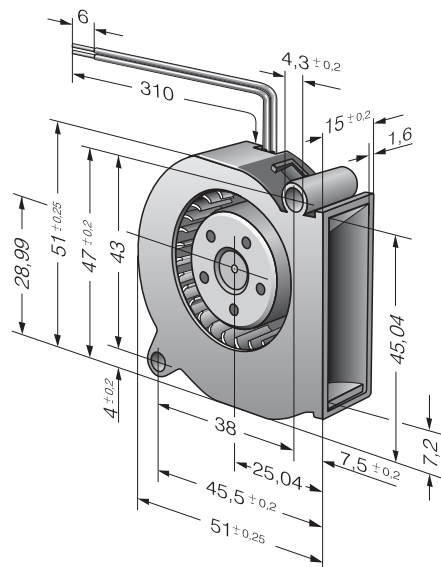
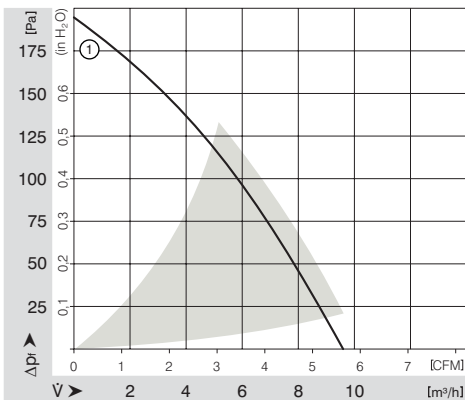
Highlights:

- Noise-optimized air outlet in scroll housing.
- Very flat and powerful radial compact fan..
- Forward curved impeller.

General characteristics:

- Fiberglass-reinforced plastic scroll housing and impeller.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Direction of air flow: axial suction, radial air outlet.
- Electrical connection via single leads AWG 26, TR 64. Stripped and tinned ends.
- Mass: 40 g.

Nominal Data	Air Flow	Air Flow	Nominal Voltage	Voltage Range	Sound Power	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 _{10Δ} (40 °C) see page 13	Curve	Specials
Type	m ³ /h	CFM	V DC	V DC	Bel	□/■	Watt	min ⁻¹	°C	Hours	Hours	Hours	P.	P.
RLF 35-8/12 N	9,6	5.7	12	9...14	5.5	■	3.5	7 200	-20...+70	60 000 / 30 000	120 000	120 000	1	
RLF 35-8/14 N	9,6	5.7	24	14...28	5.5	■	4.3	7 200	-20...+70	60 000 / 30 000	120 000	120 000	1	



max. 28 m³/h

DC Radial Fans

Series RL 48 76 x 76 x 27 mm



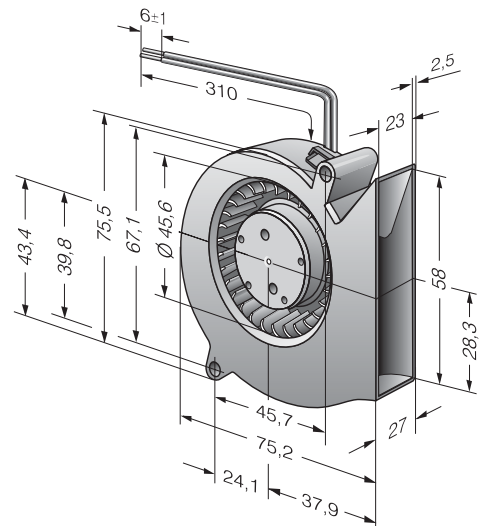
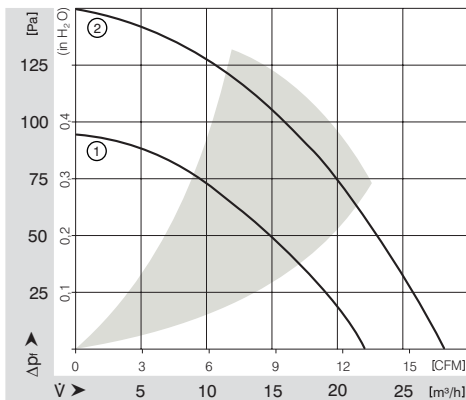
Highlights:

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

General characteristics:

- Fiberglass-reinforced plastic scroll housing and impeller.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Direction of air flow: axial suction, radial air outlet.
- Electrical connection via single leads AWG 26, TR 64. Stripped and tinned ends.
- Mass: 75 g.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Sound Power	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 page 13	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	



max. 61 m³/h

DC Radial Fans

Series RL 65 97 x 93,5 x 33 mm



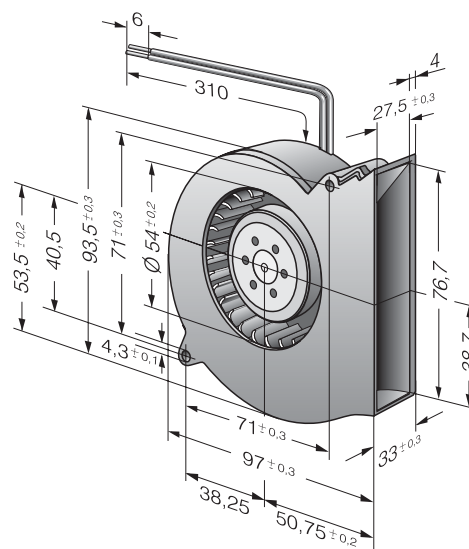
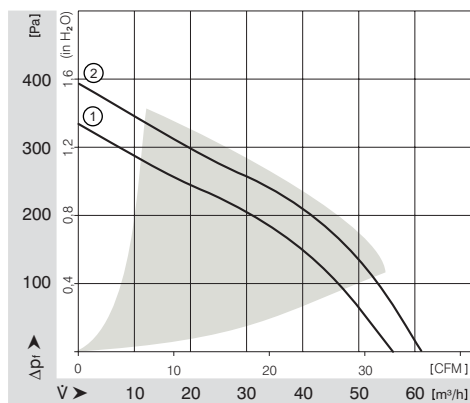
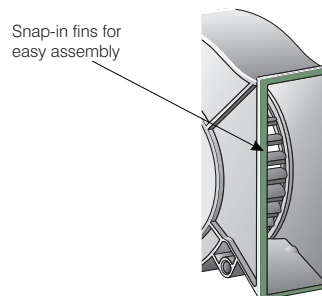
Highlights:

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

General characteristics:

- Fiberglass-reinforced plastic scroll housing and impeller.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Direction of air flow: axial suction, radial air outlet.
- Electrical connection via single leads AWG 24, TR 64. Stripped and tinned ends.
- Mass: 170 g.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Sound Power	Sinter-Sleeve Bearings Ball Bearings	Power Input	Nominal Speed	Temperature Range	Service Life L ₁₀ (40 °C) eIm-papst Standard	Service Life L ₁₀ (T _{max}) eIm-papst Standard	Life expectancy L _{10Δ} (40 °C) see page 13	Curve	Specials
	m ³ /h	CFM												
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	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	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	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	105 000	2	



max. 55 m³/h

DC Radial Fans

Series RL 90 N 121 x 121 x 37 mm



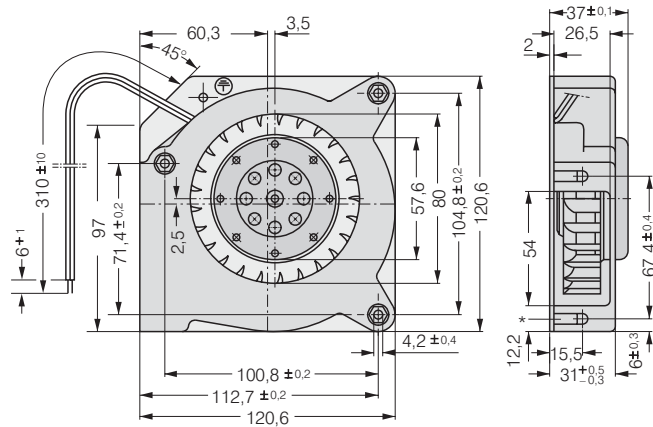
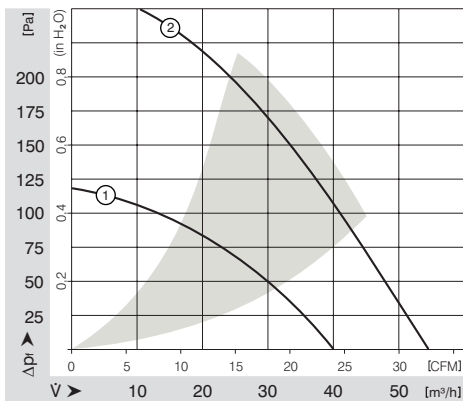
Highlights:

- 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:

- Fiberglass-reinforced plastic scroll housing and impeller; Housing base of steel plate.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Direction of air flow: axial suction, radial air outlet.
- Electrical connection via single leads AWG 22, TR 64. Stripped and tinned ends.
- Mass: 420 g.

Nominal Data	Air Flow	Air Flow	Nominal Voltage	Voltage Range	Sound Power	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 page 13	Curve	Specials
Type	m³/h	CFM	V DC	V DC	Bel	□/■	Watt	min ⁻¹	°C	Hours	Hours	Hours	P. 90	
RL 90-18/12 NG	40	23.5	12	7...15	5.8	□	5.5	2 500	-10...+75	62 500 / 27 500	112 500	112 500	1	
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	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	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	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	62 500	2	

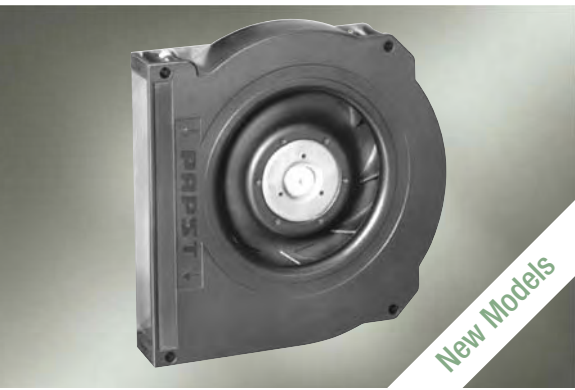


*Speed nut M4 or 8-32UNC. Screw-in depth max.12,5 min 9,0

max. 80 m³/h

DC Radial Fans

Series RLF 100 127 x 127 x 25 mm



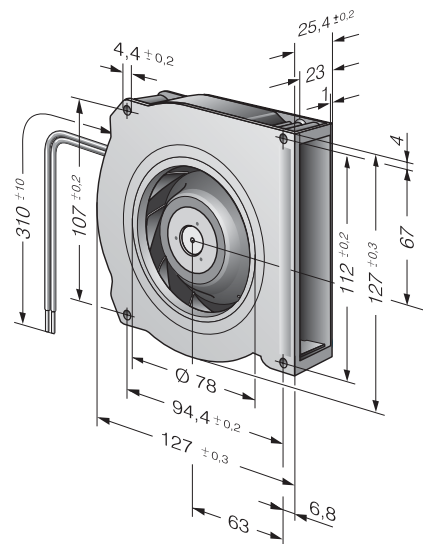
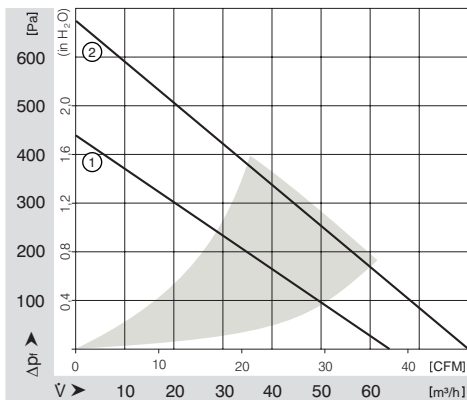
Highlights:

- Very flat and powerful radial compact fans. Pressure-optimized 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:

- Fiberglass-reinforced plastic scroll housing and impeller. Housing base of galvanised steel plate.
- Fully integrated electronic commutation. Protected against reverse polarity and blocking.
- Direction of air flow: axial suction, radial air outlet.
- Electrical connection via single leads AWG 22, TR 64. Stripped and tinned ends.
- Mass: 320 g.

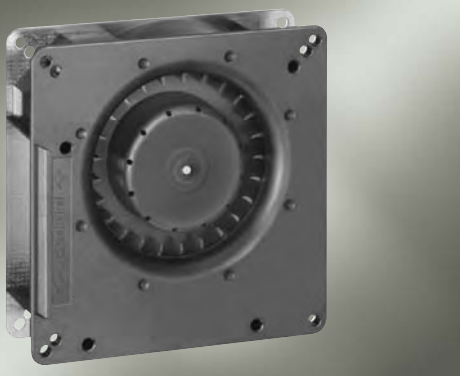
Nominal Data	Air Flow	Air Flow	Nominal Voltage	Voltage Range	Sound Power	Sinter-Sleeve Bearings Ball Bearings	Power Input	Nominal Speed	Temperature Range	Service Life L ₁₀ (40 °C) ebm-papst Standard	Service Life L ₁₀ (T _{max}) ebm-papst Standard	Life expectancy L ₁₀ Δ (40 °C) see page 13	Curve	Specials
Type	m³/h	CFM	V DC	V DC	Bel	□/■	Watt	min ⁻¹	°C	Hours	Hours		P. 90/96	
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.														
NEW 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	
NEW 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 Radial Fans

Series RG 90 N 135 x 135 x 38 mm



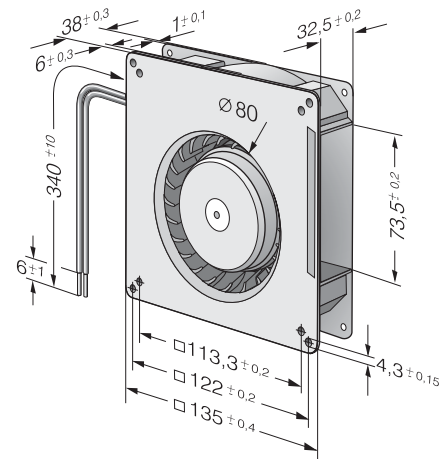
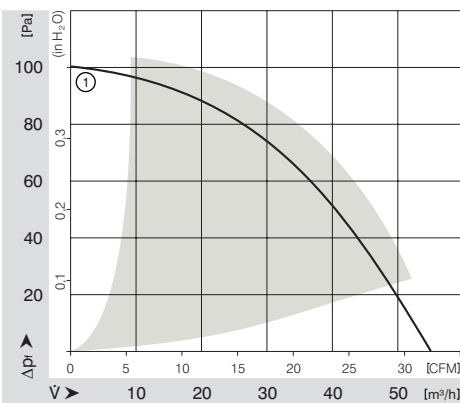
Highlights:

- 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:

- Fiberglass-reinforced plastic scroll housing and impeller; Housing base of steel plate.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Direction of air flow: axial suction, radial air outlet.
- Electrical connection via single leads AWG 22, TR 64. Stripped and tinned ends.
- 48 V Model: Flat pin 6.3 x 0.8 mm for grounding wire.
- Mass: 440 g.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Sound Power	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 _{10Δ} (40 °C) see page 13	Curve	Specials
	m ³ /h	CFM												
RG 90-18/12 NG	55	32.4	12	7...15	5.5	□	6.0	2 200	-10...+75	62 500 / 27 500	112 500	1		
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	/2	
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	/2	
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		



max. 137 m³/h

DC Radial Fans

Series RG 125 N 180 x 180 x 40 mm



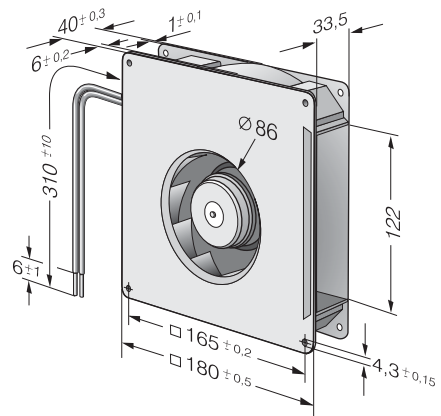
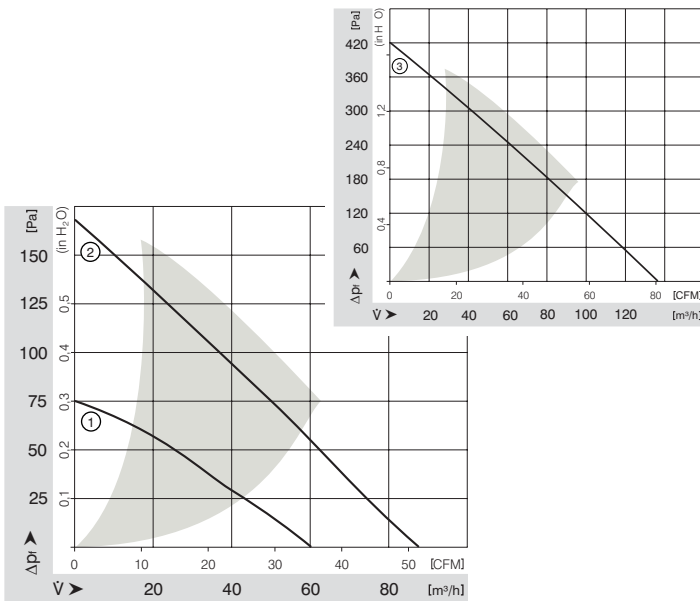
Highlights:

- 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:

- Fiberglass-reinforced plastic scroll housing and impeller; Housing base of steel plate.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Direction of air flow: axial suction, radial air outlet.
- Electrical connection via single leads AWG 22, TR 64. Stripped and tinned ends.
- 48 V Model: Flat pin 6.3 x 0.8 mm for grounding wire.
- Mass: 730 g.

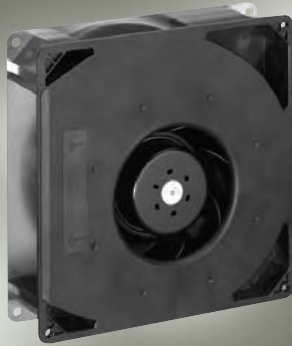
Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Sound Power	Sinter-Sleeve Bearings Ball Bearings	Power Input	Nominal Speed	Temperature Range	Service Life L ₁₀ (40 °C) ebm-papst Standard	Service Life L ₁₀ (T _{max}) ebm-papst Standard	Life expectancy L ₁₀ Δ (40 °C) see page 13	Curve	Specials
	m ³ /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	/2	
NEW 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 Radial Fans

Series RG 160 N 220 x 220 x 56 mm



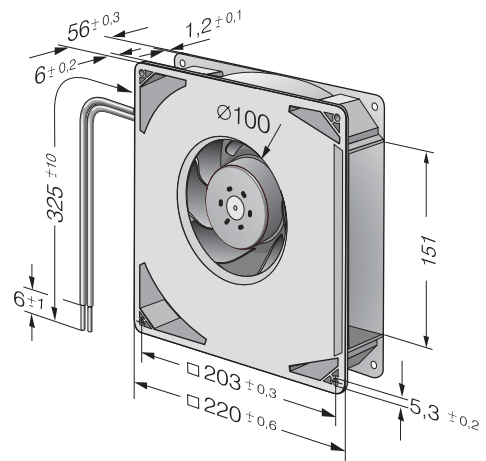
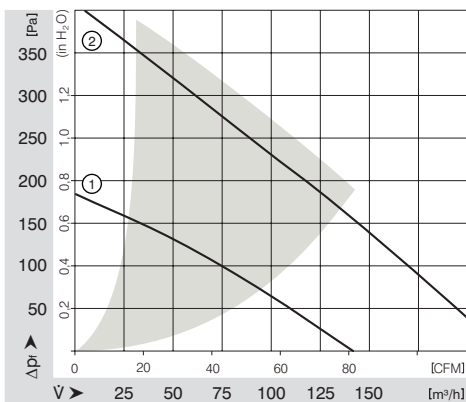
Highlights:

- 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:

- Fiberglass-reinforced plastic scroll housing and impeller; Housing base of steel plate.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Direction of air flow: axial suction, radial air outlet.
- Electrical connection via single leads AWG 22, TR 64. Stripped and tinned ends.
- 48 V Model: Flat pin 6.3 x 0.8 mm for grounding wire.
- Mass: 1.4 kg.

Nominal Data	Air Flow	Air Flow	Nominal Voltage	Voltage Range	Sound Power	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 page 13	Curve	Specials
Type	m ³ /h	CFM	V DC	V DC	Bel	□/■	Watt	min ⁻¹	°C	Hours	Hours	Hours	P90/92	
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	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	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	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	120 000	2	/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	120 000	2	/12



max. 370 m³/h

DC Radial Fans

Series RG 160 NTD TURBOFAN 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.
- High pressure built-up.
- Backward curved impeller.

General characteristics:

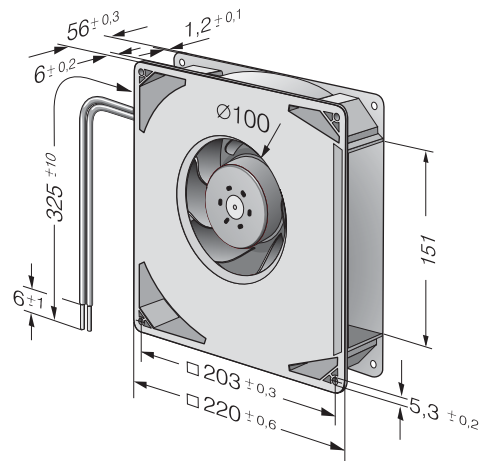
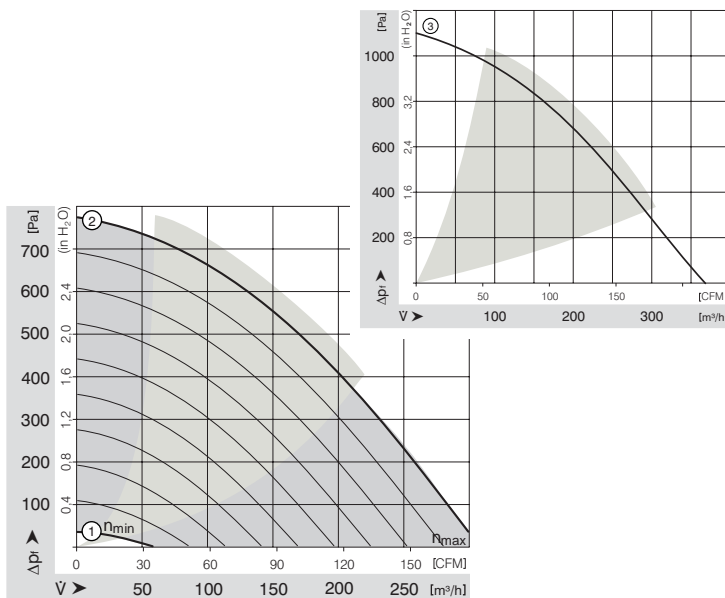
- Fiberglass-reinforced plastic scroll housing and impeller; Housing base of galvanised steel plate.
- Fully integrated electronic commutation.
- Direction of air flow: axial suction, radial air outlet.
- Electrical connection via single leads AWG 22, TR 64. Stripped and tinned ends. 48 V Model: Flat pin 6.3 x 0.8 mm for grounding wire.
- Mass: 1.4 kg.

Nominal Data		Air Flow	Air Flow	Nominal Voltage	Voltage Range	Sound Power	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 page 13	Curve	Specials
Type	m ³ /h	CFM	V DC	V DC	Bel	□ / ■	Watt	min ⁻¹	°C	Hours	Hours	Hours	P.		
RG 160-28/14 NTD	308	181.3	24	16...28	7.5	■	64.0	4 200	-20...+60	55 000 / 35 000	110 000	2			
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 160-28/14 NTD...	59	34.7	24	16...28	—	2.0	800	-20...+60	55 000 / 27 500	110 000	1	90-96;100-102		
		308	217.8			7.5								4 200	
min. max.	RG 160-28/18 NTD...	59	181.3	48	38...57	—	2.0	800	-20...+70	55 000 / 27 500	110 000	1	90-96;100-102		
		308	217.8			7.5								59.0	4 200

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.

For details of the technical possibilities, refer to the chapters on the sensor signal, alarm signal and control inputs beginning on page 88.



max. 104 m³/h

DC Radial Fans

Series REF 100 104 Ø x 25 mm



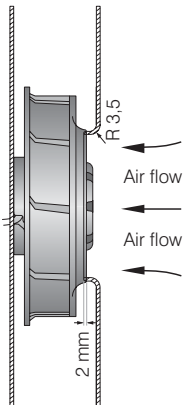
Highlights:

- Pressure-optimized blower.
- Very flat and powerful radial compact fans.
- 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.

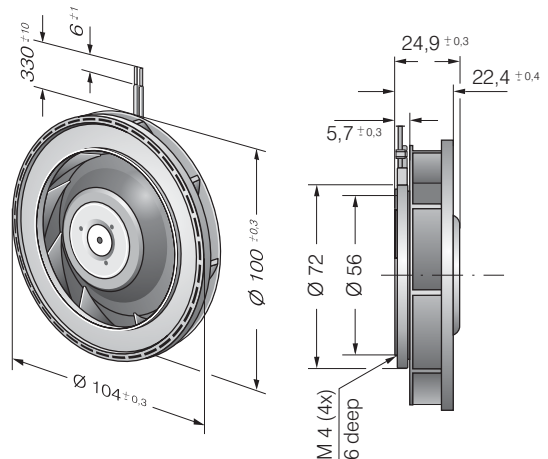
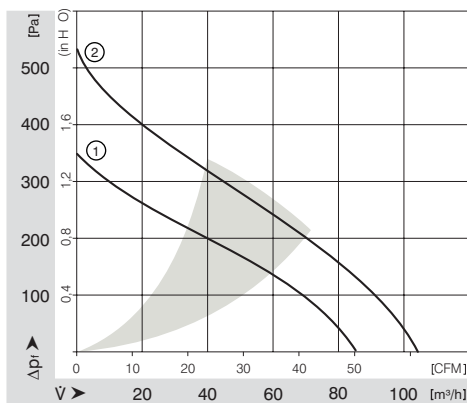
General characteristics:

- Fiberglass-reinforced plastic scroll housing and impeller.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Direction of air flow: axial suction, radial air outlet.
- Electrical connection via single leads AWG 22, TR 64. Stripped and tinned ends.
- Mass: 160 g.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Sound Power	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 page 13	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 blower wheel.



max. 190 m³/h

DC Radial Fans

Series RER 101 101 Ø x 52 mm



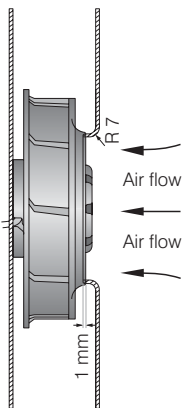
Highlights:

- 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:

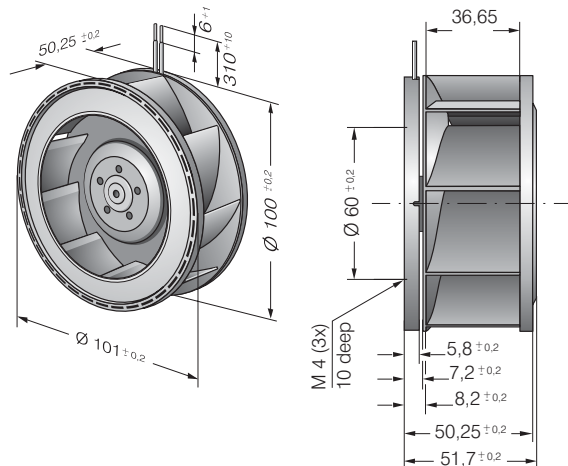
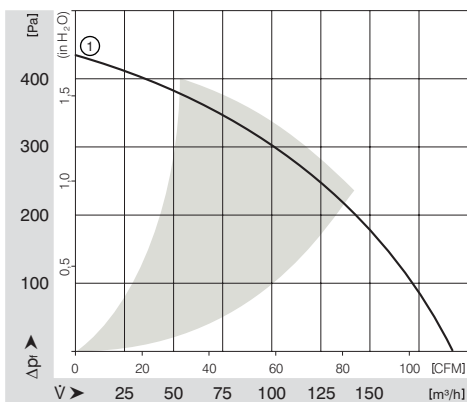
- Fiberglass-reinforced plastic scroll housing and impeller.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Direction of air flow: axial suction, radial air outlet.
- Electrical connection via single leads AWG 22, TR 64. Stripped and tinned ends.
- Mass: 305 g.

Nominal Data	Air Flow	Air Flow	Nominal Voltage	Voltage Range	Sound Power	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 page 13	Curve	Specials
Type	m ³ /h	CFM	V DC	V DC	Bel	□/■	Watt	min ⁻¹	°C	Hours	Hours	Hours	P.96	
NEW 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	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	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	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 blower wheel.



max. 116 m³/h

DC Radial Fans

Series RER 125 N 138 Ø x 35 mm



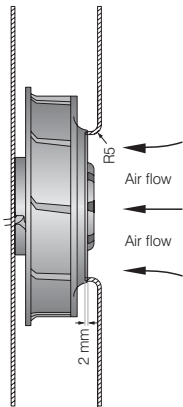
Highlights:

- 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.

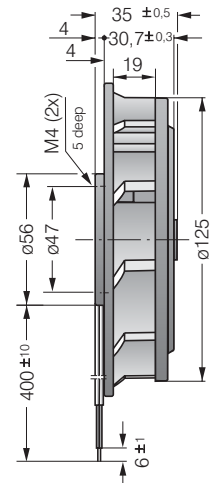
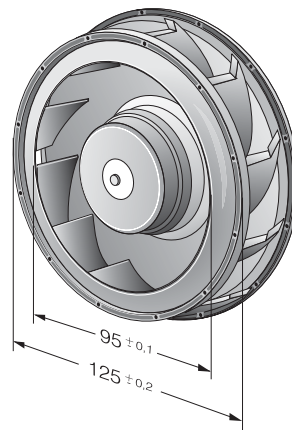
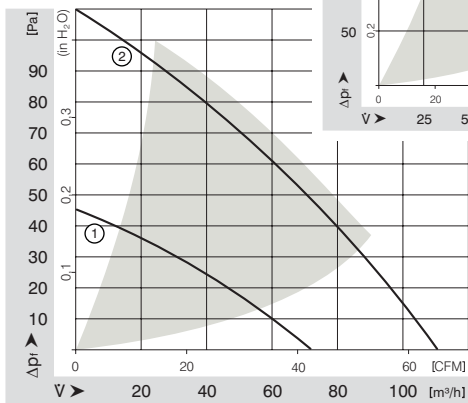
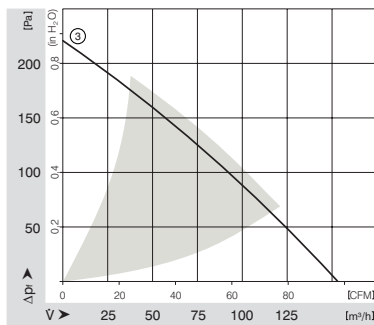
General characteristics:

- Fiberglass-reinforced plastic scroll housing and impeller.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Direction of air flow: axial suction, radial air outlet.
- Electrical connection via single leads AWG 22, TR 64. Stripped and tinned ends.
- Mass: 320 g.

Nominal Data	Air Flow	Air Flow	Nominal Voltage	Voltage Range	Sound Power	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 page 13	Curve	Specials
Type	m ³ /h	CFM	V DC	V DC	Bel	□ / ■	Watt	min ⁻¹	°C	Hours	Hours	Hours	P. 90/92	
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	125 000	2 /12	
RER 125-19/14 NM	74	43.6	24	12...28	4.8	■	2.0	1 750	-30...+75	62 500 / 27 500	125 000	125 000	1	
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	125 000	2 /2	
NEW 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	110 000	3	
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	125 000	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 220 x 220 mm.
Cover plate 220 x 220 mm with an air-inlet of Ø 86 mm, concentric to the blower wheel.



max. 255 m³/h

DC Radial Fans

Series RER 160 N 165 Ø x 51 mm



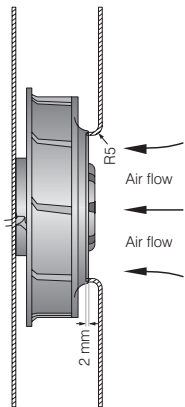
Highlights:

- 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.

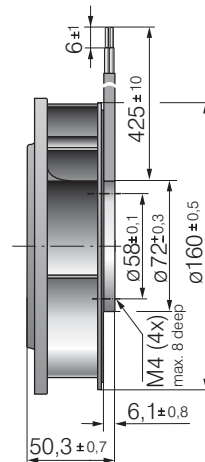
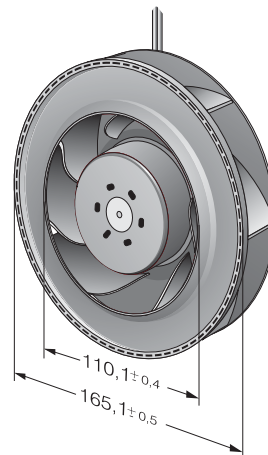
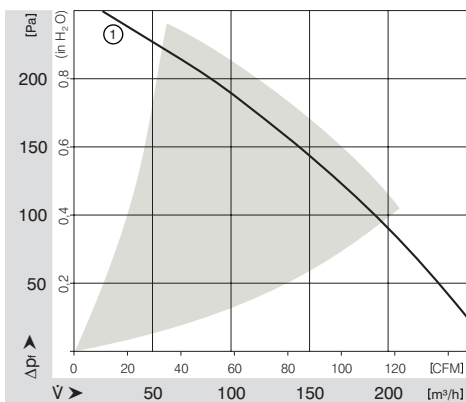
General characteristics:

- Fiberglass-reinforced plastic scroll housing and impeller.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Direction of air flow: axial suction, radial air outlet.
- Electrical connection via single leads AWG 22, TR 64. Stripped and tinned ends.
- Mass: 590 g.

Nominal Data	Air Flow	Air Flow	Nominal Voltage	Voltage Range	Sound Power	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 page 13	Curve	Specials
Type	m ³ /h	CFM	V DC	V DC	Bel	□/■	Watt	min ⁻¹	°C	Hours	Hours	Hours	P. 92	
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	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	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	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 blower wheel.



max. 354 m³/h

DC Radial Fans

Series RER 160 NTD TURBOFAN 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 built-up.
- Backward curved impeller.

General characteristics:

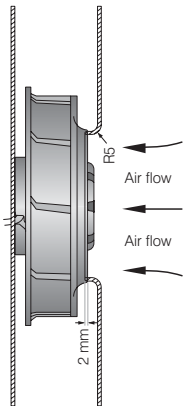
- Fiberglass-reinforced plastic scroll housing and impeller; Housing base of steel plate.
- Fully integrated electronic commutation.
- Direction of air flow: axial suction, radial air outlet.
- Electrical connection via single leads AWG 22, TR 64. Stripped and tinned ends.
- Mass: 590 g.

Nominal Data		Air Flow	Air Flow	Nominal Voltage	Voltage Range	Sound Power	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 page 13	Curve	Specials
Type		m ³ /h	CFM	V DC	V DC	Bel	□/■	Watt	min ⁻¹	°C	Hours	Hours		P.	
min. max.	RER 160-28/18 NTD...	66	38.8	48	38...57	—	■	2.0	800	-20...+70	55 000 / 27 500	110 000	1	90-96;100-102	
		354	208.4												7.4

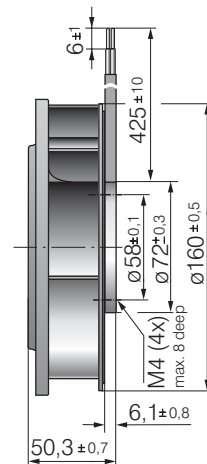
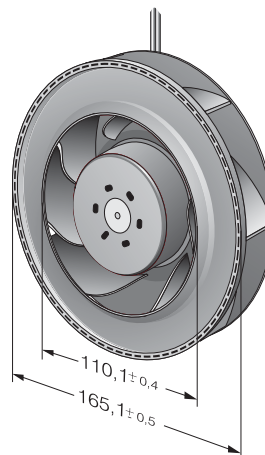
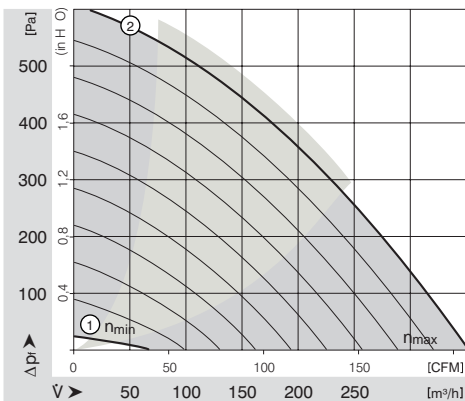
Model RER 160-28/18 NTD... is available in customer-specific, custom-developed variant only.

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

For details of the technical possibilities, refer to the chapters on the sensor signal, alarm signal and control inputs beginning on page 88.



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 blower wheel.



max. 155 m³/h

DC-Cross-flow Blowers

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



Highlights:

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

General characteristics:

- Motor with ball bearing system. Blower wheel mounting plate with sleeve bearings.
- Fan blower and air duct housing of aluminium. Plastic flanges.
- Fully integrated electronic commutation.
- Protected against reverse polarity and blocking.
- Air exhaust through housing port.
- Electrical connection via single leads. Stripped and tinned ends.
- Mass: 235 / 290 / 380 / 415 g.

Nominal Data	Air Flow		Nominal Voltage	Voltage Range	Noise	Sound Power	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 page 13	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	

Cross-flow fans are only suitable for operation with high rate and low counterpressure.

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 blower.

