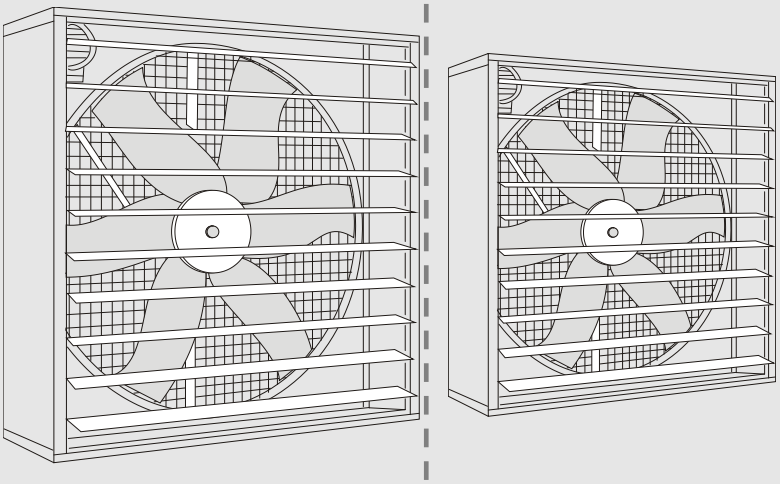
DB 1100 • DB 1400 • V 1400 • VC 1400 Fan

Technical Info



2025.07.28 • 605861

1 Product description

Wall fans are ideal as extra capacity in a traditional ventilation system, for example LPV. When the air requirement exceeds a certain level, one or more wall fans can be connected.

Wall fans controlled in groups are also used in large houses or where large amounts of air are needed, for example in tropical/subtropical areas where Combi-Tunnel and Tunnel ventilation is common.

As standard the fan housing and the bell mouth are galvanized. On request the fan housing and bell mouth are available Pluvimag precoated or in stainless steel.

2 Product survey

2.1 DB 1100/DB 1400 wall fans

435103 DB 1100 230V1 0,5hp 60Hz NonEU

Motor control method – ON/OFF.

Shutter control method – ON/OFF air-controlled.

Complete fan type – ON/OFF (MultiStep unit).

Not CE marked and should not be used in countries where this is required.

The fan is supplied prepared for electric installation with 0.5 m cable.

The fan is supplied with stainless fan blades.

The fan is supplied with a single speed motor.

0.5 hp ≈ 0.37 kW.

*Fan noise 63 dB(A).

It should not be used at negative pressure higher than 40 Pa.

The fan is often used as the first tunnel step, or as extra ventilation in houses with a relatively limited air requirement, e.g. smaller pig house.

The specific energy consumption of the 230V type is 5-10 % higher than the similar 400V type.

435136 DB 1100 400V3 0,5hp 50Hz NonEU

435175 DB 1100 400V3 0,5hp 60Hz NonEU

Motor control method – ON/OFF.

Shutter control method – ON/OFF air-controlled.

Complete fan type – ON/OFF (MultiStep unit).

Not CE marked and should not be used in countries where this is required.

The fan is supplied prepared for electric installation with 0.5 m cable.

The fan is supplied with stainless fan blades.

The fan is supplied with a single speed motor.

0.5 hp ≈ 0.37 kW.

*Fan noise 63 dB(A).

It should not be used at negative pressure higher than 40 Pa.

The fan is often used as the first tunnel step, or as extra ventilation in houses with a relatively limited air requirement, e.g. smaller pig house.

The specific energy consumption of the 400V type is 5-10 % lower than the similar 230V type.

435178 DB 1100HE 400V3 0,75hp 50Hz

Motor control method – ON/OFF.

Shutter control method – ON/OFF air-controlled.

Complete fan type – ON/OFF (MultiStep unit).

The fan is CE marked and can therefore be used in countries where this is required.

The fan is supplied with a single speed motor.

It should not be used at negative pressure higher than 40 Pa.

The fan is often used as the first tunnel step, or as extra ventilation in houses with a relatively limited air requirement, e.g. smaller pig house.

The fan has a direct drive system, with the 3-blade propeller statically and dynamically balanced attached onto the electric motors shaft. The shutter blades are installed on the outlet side, and shutter system is operated by the propeller rotation.

Please note that depth of the the fan is larger than the DB 1100 fans with belt drive.

ErP 2015 approved.

435260 DB 1100 230V3 0.5hp 60Hz NonEU

Motor control method – ON/OFF.

Shutter control method – ON/OFF air-controlled.

Complete fan type – ON/OFF (MultiStep unit).

Not CE marked and should not be used in countries where this is required.

The fan is supplied prepared for electric installation with 0.5 m cable.

The fan is supplied with stainless fan blades.

The fan is supplied with a single speed motor.

0.5 hp ≈ 0.37 kW.

It should not be used at negative pressure higher than 40 Pa.

The fan is often used as the first tunnel step, or as extra ventilation in houses with a relatively limited air requirement, e.g. smaller pig house.

435108 DB 1400 230V1 1,5hp 50Hz NonEU

435109 DB 1400 230V1 1,5hp 60Hz NonEU

Motor control method – ON/OFF.

Shutter control method – ON/OFF air-controlled.

Complete fan type – ON/OFF (MultiStep unit).

The fan is supplied prepared for electric installation with 0.5 m cable.

The fan is supplied with stainless fan blades.

The fan is supplied with a single speed motor.

1.5 hp ≈ 1.12 kW.

1. Fan noise 82 dB(A).

It should not be used at negative pressure higher than 65 Pa.

The 1.5 hp type has a higher output than the similar 1.0 hp type. The power consumption is however considerably higher.

The specific energy consumption of the 230V type is 5-10 % higher than the similar 400V type.

ErP 2015 approved.

435110 DB 1400 400V3 1.5hp 50Hz NonEU

435111 DB 1400 400V3 1,5hp 60Hz NonEU

Motor control method – ON/OFF.

Shutter control method – ON/OFF air-controlled.

Complete fan type – ON/OFF (MultiStep unit).

The fan is supplied prepared for electric installation with 0.5 m cable.

The fan is supplied with stainless fan blades.

The fan is supplied with a single speed motor.

1.5 hp ≈ 1.12 kW.

*Fan noise 72 dB(A).

It should not be used at negative pressure higher than 65 Pa.

The 1.5 hp type has a higher output than the similar 1.0 hp type. The power consumption is however considerably higher.

The specific energy consumption of the 400V type is 5-10 % lower than the similar 230V type.

ErP 2015 approved.

435179 DB 1400 400V3 1,5hp 50Hz

Motor control method – ON/OFF.

Shutter control method – ON/OFF air-controlled.

Complete fan type – ON/OFF (MultiStep unit).

The fan is CE marked and can therefore be used in countries where this is required.

The fan is supplied prepared for electric installation with 0.5 m cable.

The fan is supplied with stainless fan blades.

The fan is supplied with a single speed motor.

1.5 hp ≈ 1.12 kW.

It should not be used at negative pressure higher than 65 Pa.

The 1.5 hp type has a higher output than the similar 1.0 hp type. The power consumption is however considerably higher.

The specific energy consumption of the 400V type is 5-10 % lower than the similar 230V type.

ErP 2015 approved.

435261 DB 1400 230V3 1.5hp 60Hz NonEU

Motor control method – ON/OFF.

Shutter control method – ON/OFF air-controlled.

Complete fan type – ON/OFF (MultiStep unit).

The fan is supplied prepared for electric installation with 0.5 m cable.

The fan is supplied with stainless fan blades.

The fan is supplied with a single speed motor.

1.5 hp ≈ 1.12 kW.

It should not be used at negative pressure higher than 65 Pa.

The 1.5 hp type has a higher output than the similar 1.0 hp type. The power consumption is however considerably higher.

*The noise levels are calculated sound pressure, L_p [dB (A)] at a distance of 2 m from the outflow of the exhaust unit, provided that the sound spreads in an ideal half ball.

Based on measured sound effect, L_w [dB (A)] according to ISO 9614-2.

2.2 Accessories DB wall fans

435247 DB 1100 insulating plate

435248 DB 1400 insulating plate

Supplied complete with mounting parts.

The insulating plate can be mounted on DB 1100/1400 if extra insulation is required.

Is used to avoid problems with cold air downdraft, especially during the winter.

If the dimensioning outside temperature is lower than 0°C, insulating plates should always be used on all wall fans.

435217 DB 1100HE insulating plate w. frame

Supplied including frame, brackets and screws.

The insulating plate can be mounted on DB 1100HE if extra insulation is required.

Is used to avoid problems with cold air downdraft, especially during the winter.

If the dimensioning outside temperature is lower than 0°C, insulating plates should always be used on all wall fans.

435216 DB 1100HE kit f/insulat plate/light trap

This kit is used when light trap (435155) is used for DB 1100HE fans.

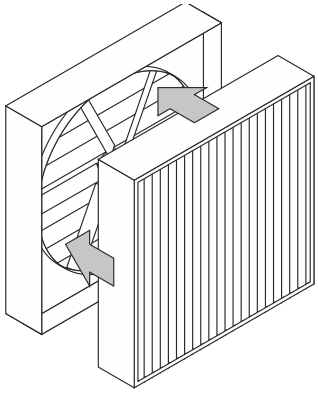
435155 36" light trap brownout

Is supplied as an unassembled unit with all parts fittings (435153) included.

Is applied if light dimming in the house is required.

Reduces penetration of sunlight to 2-5 Lux.

The light trap reduces the air performance of the fan by 10-25 %.



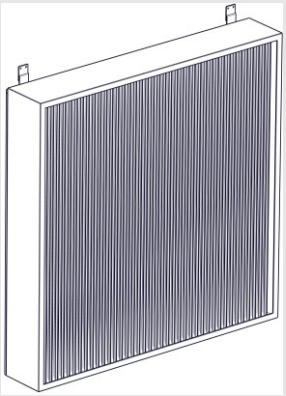
435157 36" light trap blackout

Is supplied as an unassembled unit with all parts fittings (435153) included.

Is applied if light dimming in the house is required.

Reduces penetration of sunlight to 0.12 Lux.

The light trap reduces the air performance of the fan by 20-30 %.



435156 50" light trap brownout

Used if dimming is required in the livestock house.

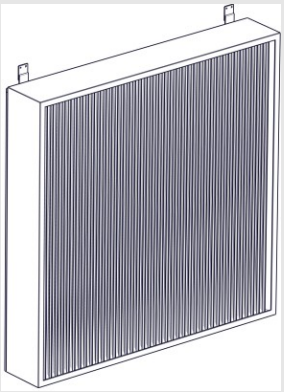
Light reduction factor 175.000:1.

The light trap reduces the air output of the fan without cone by approx. 15 % at 0-70 Pa negative pressure.

The light trap reduces the air output of the fan with cone by approx. 18 % at 0-70 Pa negative pressure.

Supplied as an unassembled unit incl. brackets.

1 per wall fan.



435158 50" light trap blackout

Used if a large amount of dimming is required in the livestock house.

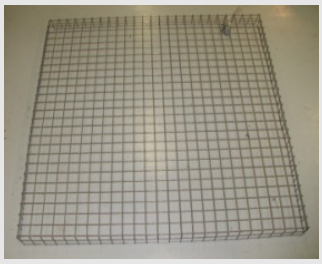
Light reduction factor 1.300.000:1.

The light trap reduces the air output of the fan without cone by approx. 31 % at 0-70 Pa negative pressure.

The light trap reduces the air output of the fan with cone by approx. 35 % at 0-70 Pa negative pressure.

Supplied as an unassembled unit incl. brackets.

1 per wall fan



435127 DB 1100 safety guard

435128 DB 1400 safety guard

Must be mounted in countries where CE approved fans are required. Also in situations when the distance from floor to lower edge of the mounted fan is less than 2.7 m.

Applied if shielding of shutter on the fans is required.

435189 DB 1400 shutter with motor

Applied for emergency opening.

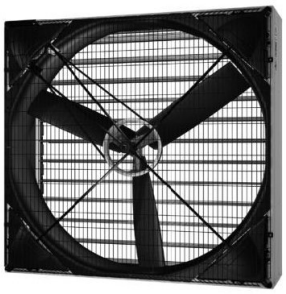
Shutter with mounted motor for opening and closing of the slats.

Is separately mounted in the wall.

435134 DB 1400 cover - plastic

The cover is placed on the outside of the wall fan. The cover provides a good sealing and it reduces the heat loss in the livestock house when the fan is not working.

2.3 V 1400/VC 1400 wall fan



435180 V 1400 400V3 1,5hp 50Hz 3 vinger KD NonEU

Motor control method – ON/OFF.

Shutter control method – ON/OFF air-controlled.

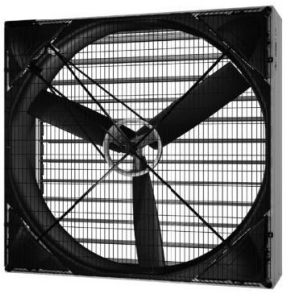
Complete fan type – ON/OFF (MultiStep unit).

The fan is supplied as Knock-Down (KD), ie. that the fan must be assembled before installation.

Is supplied with 0.5 m cable.

The fan is with 3 platic fan blades.

It should not be used at negative pressure higher than 60 Pa.



435181 V 1400 400V3 1,5hp 60Hz 3 vinger KD NonEU

Motor control method – ON/OFF.

Shutter control method – ON/OFF air-controlled.

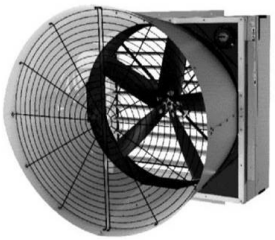
Complete fan type – ON/OFF (MultiStep unit).

The fan is supplied as Knock-Down (KD), ie. that the fan must be assembled before installation.

Is supplied with 0.5 m cable.

The fan is with 3 platic fan blades.

It should not be used at negative pressure higher than 60 Pa.



435186 VC 1400 400V3 1,5hp 50Hz 5 vinger KD NonEU

Motor control method – ON/OFF.

Shutter control method – ON/OFF air-controlled.

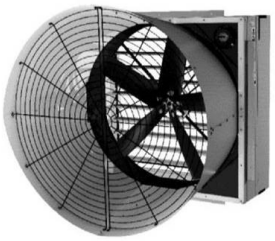
Complete fan type – ON/OFF (MultiStep unit).

The fan is supplied as Knock-Down (KD), ie. that the fan must be assembled before installation.

Is supplied with 0.5 m cable.

The fan is with 5 platic fan blades.

It should not be used at negative pressure higher than 80 Pa.



435299 VC 1400 400V3 1,5hp 60Hz 5 vinger KD NonEU

Motor control method – ON/OFF.

Shutter control method – ON/OFF air-controlled.

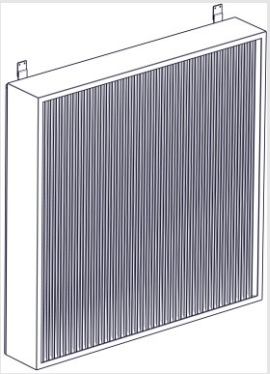
Complete fan type – ON/OFF (MultiStep unit).

The fan is supplied as Knock-Down (KD), ie. that the fan must be assembled before installation.

Is supplied with 0.5 m cable.

The fan is with 5 platic fan blades.

It should not be used at negative pressure higher than 80 Pa.



435156 50" light trap brownout

Used if dimming is required in the livestock house.

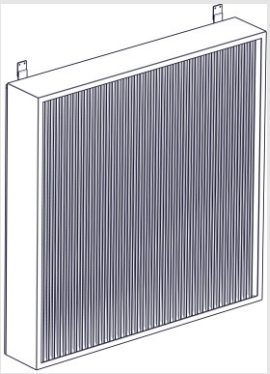
Light reduction factor 175.000:1.

The light trap reduces the air output of the fan without cone by approx. 15 % at 0-70 Pa negative pressure.

The light trap reduces the air output of the fan with cone by approx. 18 % at 0-70 Pa negative pressure.

Supplied as an unassembled unit incl. brackets.

1 per wall fan.



435158 50" light trap blackout

Used if a large amount of dimming is required in the livestock house.

Light reduction factor 1.300.000:1.

The light trap reduces the air output of the fan without cone by approx. 31 % at 0-70 Pa negative pressure.

The light trap reduces the air output of the fan with cone by approx. 35 % at 0-70 Pa negative pressure.

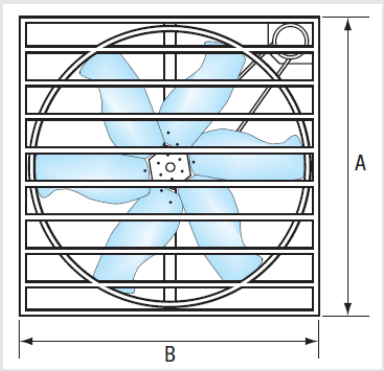
Supplied as an unassembled unit incl. brackets.

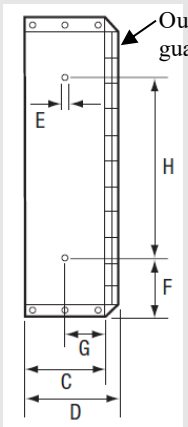
1 per wall fan

3 Technical data

3.1 DB 1100/DB 1400 wall fans

DB 1100/DB 1400



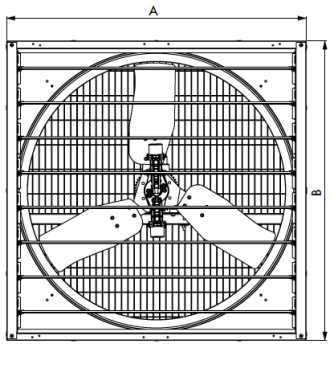


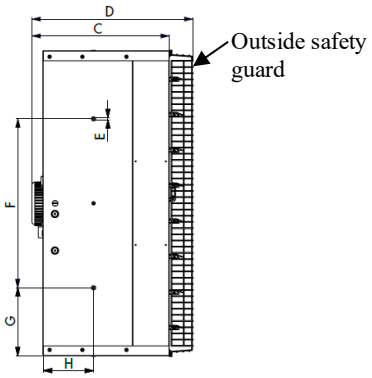
	Dimensions (mm)		
Type	**A**	**B**	**C**
DB 1100	1.090	1.090	450
DB 1400	1.380	1.380	450
	D	**E**	**F**
DB 1100	530	M8	245
DB 1400	530	M8	270
	G	**H**	**Weight**
DB 1100	305	600	67 kg
DB 1400	308	830	86 kg

Safety guard must be ordered separately.

DB 1100HE

	Dimensions (mm)



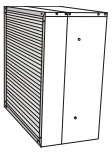


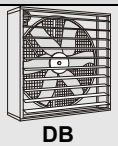
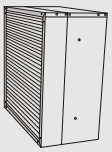
Type	A	B	C
DB 1100HE	1.085	1.085	485
	D	E	F
DB 1100HE	570	M8	600
	G	H	Weight
DB 1100HE	242,5	180	70 kg

Safety guard must be ordered separately.

Wall opening: A and B dimensions + 30 mm

3.1.1 Air output

			Wall exhaustion via wall fan		Wall exhaustion via wall fan with light trap	
			 DB			
Item no,	Designations	Negative pressure [Pa]	Output m³/h	Specific energy W / 1000m³/h	Output m³/h	
					Light trap Brown out	Light trap Black out
435103	DB 1100 230V1 0,5hp 60Hz NonEU	0	17,400	35	16,200	14,600
		-10	16,400	37	15,200	13,600
		-20	15,300	40	14,000	12,500
		-30	13,900	45	12,700	11,100
		-40	12,100	51	10,700	9,400
435136	DB 1100 400V3 0,5hp 50Hz NonEU	0	18,000	38	16,700	15,000
		-10	17,000	40	15,700	14,000
		-20	15,900	44	14,500	12,900
		-30	14,500	48	13,100	11,600
		-40	12,800	54	11,500	10,000
435175	DB 1100 400V3 0,5hp 60Hz NonEU	0	17,500	35	16,200	14,600
		-10	16,500	38	15,200	13,600
		-20	15,300	42	14,100	12,600
		-30	13,900	46	12,700	11,200
		-40	12,200	52	10,900	9,500
435178	DB 1100HE 400V3 0,75hp 50Hz	0	17,900	32	16,700	15,600
		-10	16.900	35	16,000	14,900
		-20	16,200	38	15,400	14,100
		-30	15,500	40	14,500	13,400
		-40	14,500	44	13,700	12,700
435260	DB 1100 230V3 0.5hp 60Hz NonEu	0	17,400	36	16,200	14,600
		-10	16,500	39	15,200	13,600
		-20	15,300	42	14,000	12,300
		-30	13,800	47	12,400	10,900

Item no,	Designations	Negative pressure [Pa]	Wall exhaustion via wall fan  DB Output m³/h		Wall exhaustion via wall fan with light trap  Output m³/h	
			Output m³/h	Specific energy W / 1000m³/h	Light trap Brown out	Light trap Black out
		-40	11,900	54	10,700	9,300
435108	DB 1400 230V1 1,5hp 50Hz NonEU	0	33,600	35	30,900	28,300
		-10	32,300	37	29,600	27,100
		-20	31,000	40	28,100	25,700
		-30	29,400	43	26,700	24,000
		-40	27,700	46	24,900	22,200
		-50	25,700	51	22,700	20,500
		-60	22,900	58	20,500	18,600
		-70	20,300	65	18,000	16,700
435109	DB 1400 230V1 1,5hp 60Hz NonEU	0	39,400	40	35,100	31,400
		-10	38,000	41	33,700	30,100
		-20	36,300	44	31,900	28,800
		-30	34,600	47	30,200	27,200
		-40	32,500	50	28,600	25,500
		-50	30,200	55	26,700	23,500
		-60	28,100	59	24,300	21,600
		-70	25,300	66	21,800	19,600
435110	DB 1400 400V3 1,5hp 50Hz NonEU	0	41,000	39	36,500	32,700
		-10	39,600	41	35,100	31,400
		-20	38,100	43	33,500	30,000
		-30	36,400	46	31,800	28,400
		-40	34,400	50	30,100	26,800
		-50	32,300	53	28,200	25,100
		-60	30,100	57	26,100	23,200
		-70	27,400	63	23,800	21,200
435111	DB 1400 400V3 1,5hp 60Hz NonEU	0	39,700	37	35,300	31,600
		-10	38,200	40	33,900	30,100
		-20	36,500	42	32,200	28,700
		-30	34,800	44	30,300	27,200
		-40	32,800	48	28,500	25,500
		-50	30,300	52	26,600	23,800
		-60	28,000	56	24,500	21,900
		-70	25,400	62	22,100	19,700
435179	DB 1400 400V3 1,5hp 50Hz	0	39,300	36	34,800	31,000
		-10	37,700	38	33,100	29,600
		-20	36,100	41	31,400	28,200
		-30	33,900	44	29,600	26,900
		-40	31,800	47	28,100	25,400
		-50	29,500	52	26,300	23,500
		-60	27,400	56	24,200	21,500
		-70	25,000	62	21,900	19,500
435261	DB 1400 230V3 1.5hp 60Hz NonEU	0	39,900	37	35,500	31,900
		-10	38,500	39	34,000	30,400
		-20	36,800	41	32,400	28,800
		-30	35,100	44	30,700	27,100
		-40	33,000	47	28,600	25,400

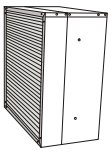
Item no, Designations	Negative pressure [Pa]	Wall exhaustion via wall fan		Wall exhaustion via wall fan with light trap	
		 DB			
		Output m³/h	Specific energy W / 1000m³/h	Output m³/h	
				Light trap Brown out	Light trap Black out
	-50	30,900	51	26,500	23,700
	-60	28,000	56	24,300	21,900
	-70	25,200	62	22,000	19,800

Table 1: Output for DB 1100/DB 1400 wall fans.

3.1.2 Performance diagrams

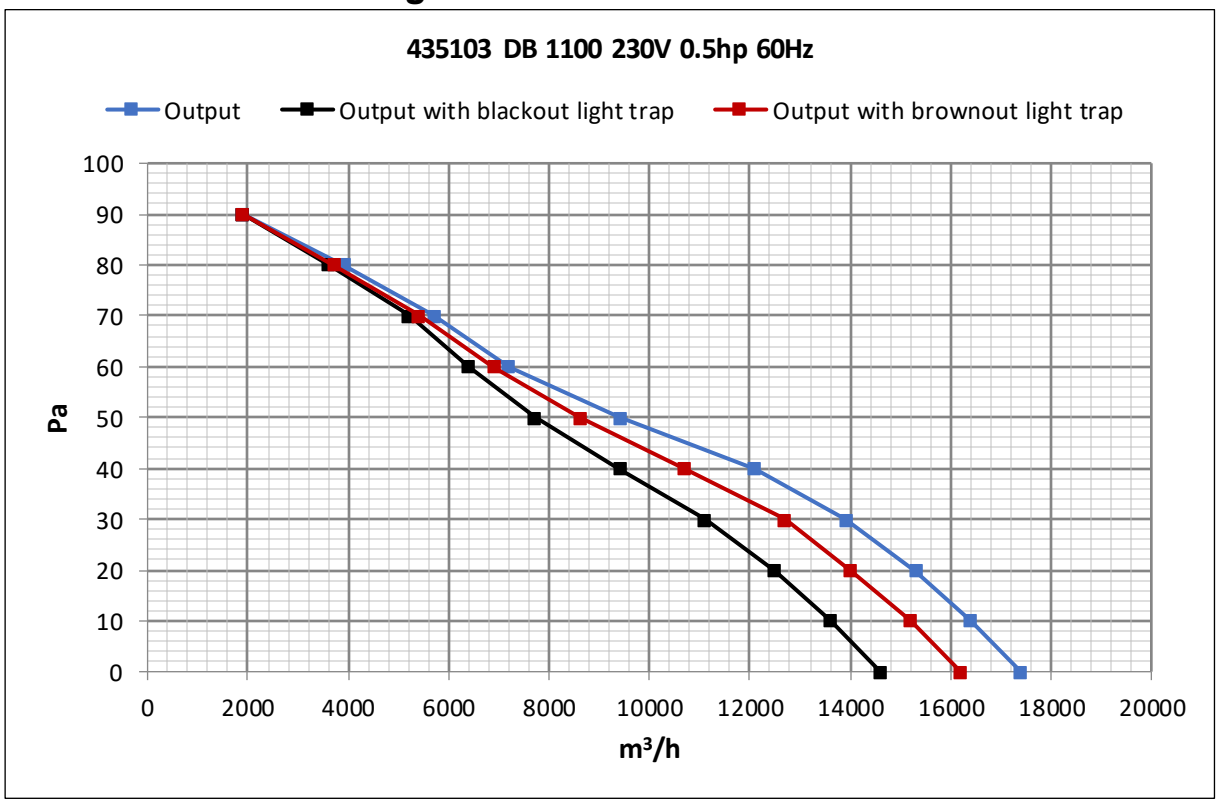


Figure 1: Performance diagram for DB 1100 230 V 0.5hp 60 Hz.

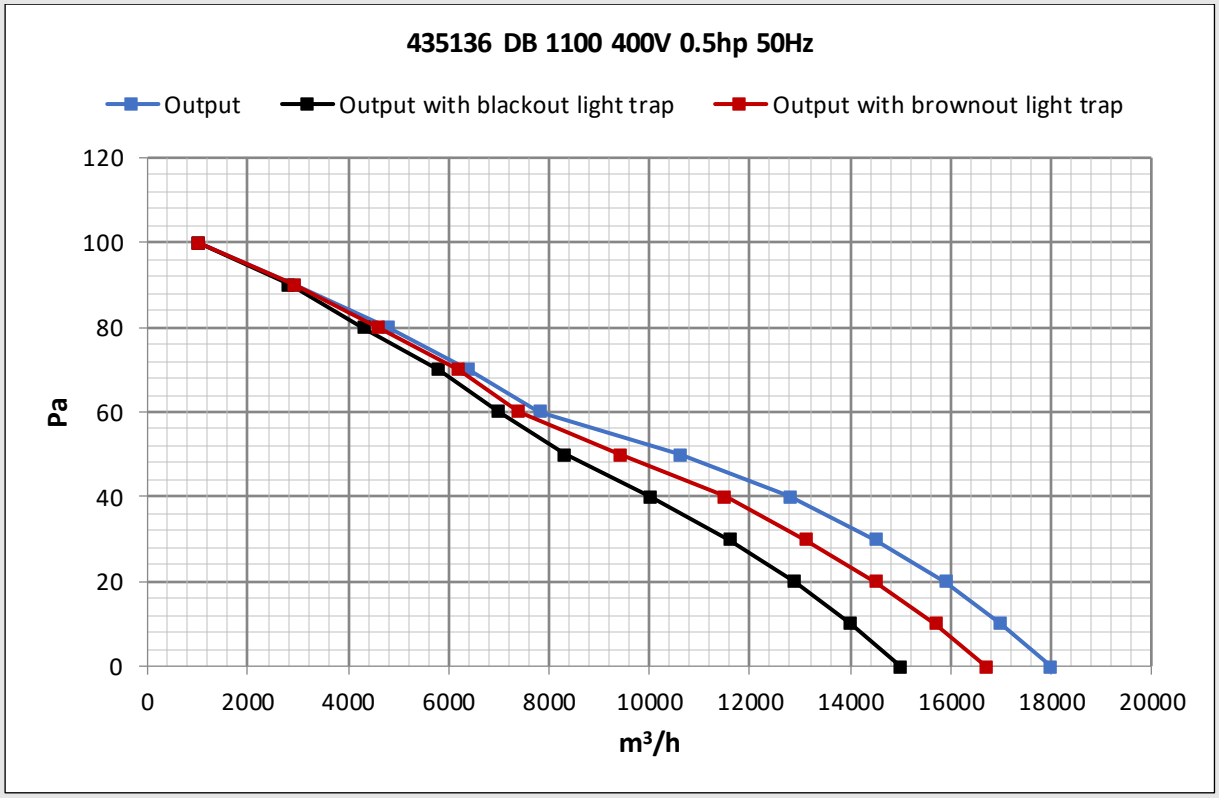


Figure 2: Performance diagram for DB 1100 400 V 0.5hp 50 Hz.

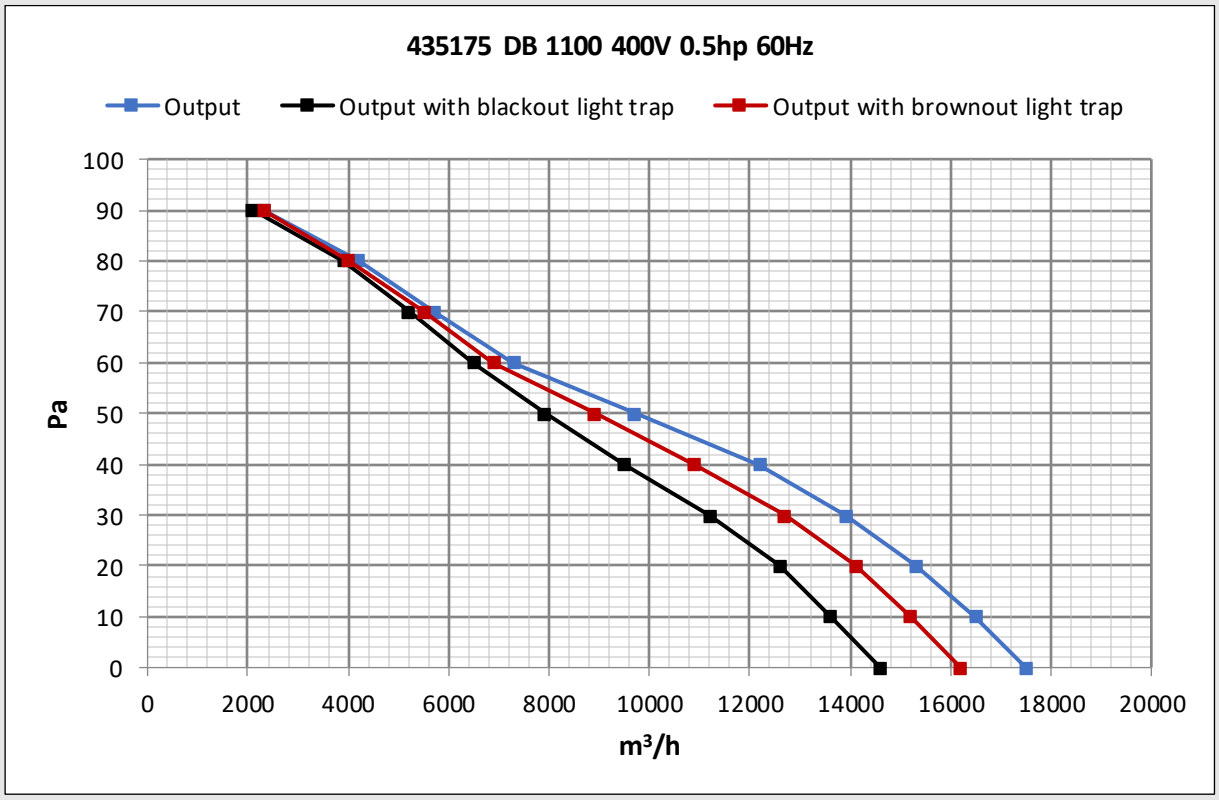


Figure 3: Performance diagram for DB 1100 400 V 0.5hp 60 Hz.

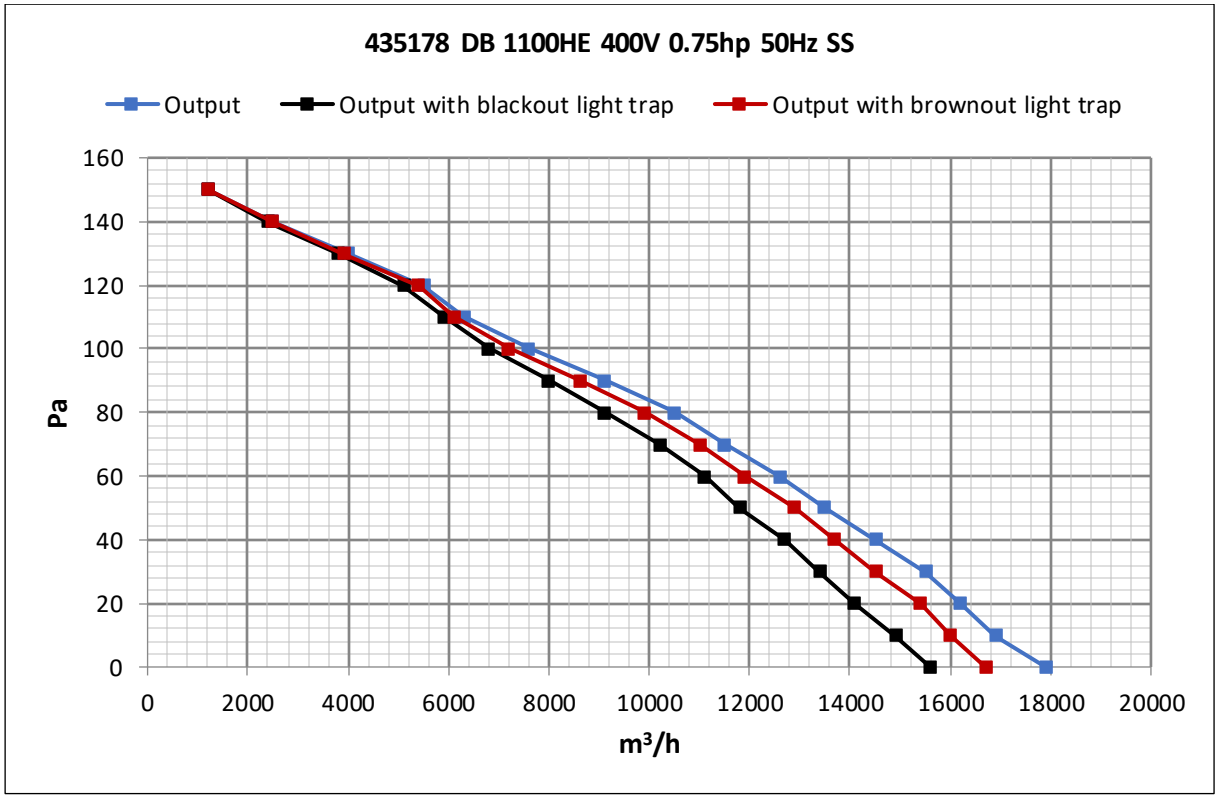


Figure 4: Performance diagram for DB 1100HE 400 V 0.5hp 50 Hz.

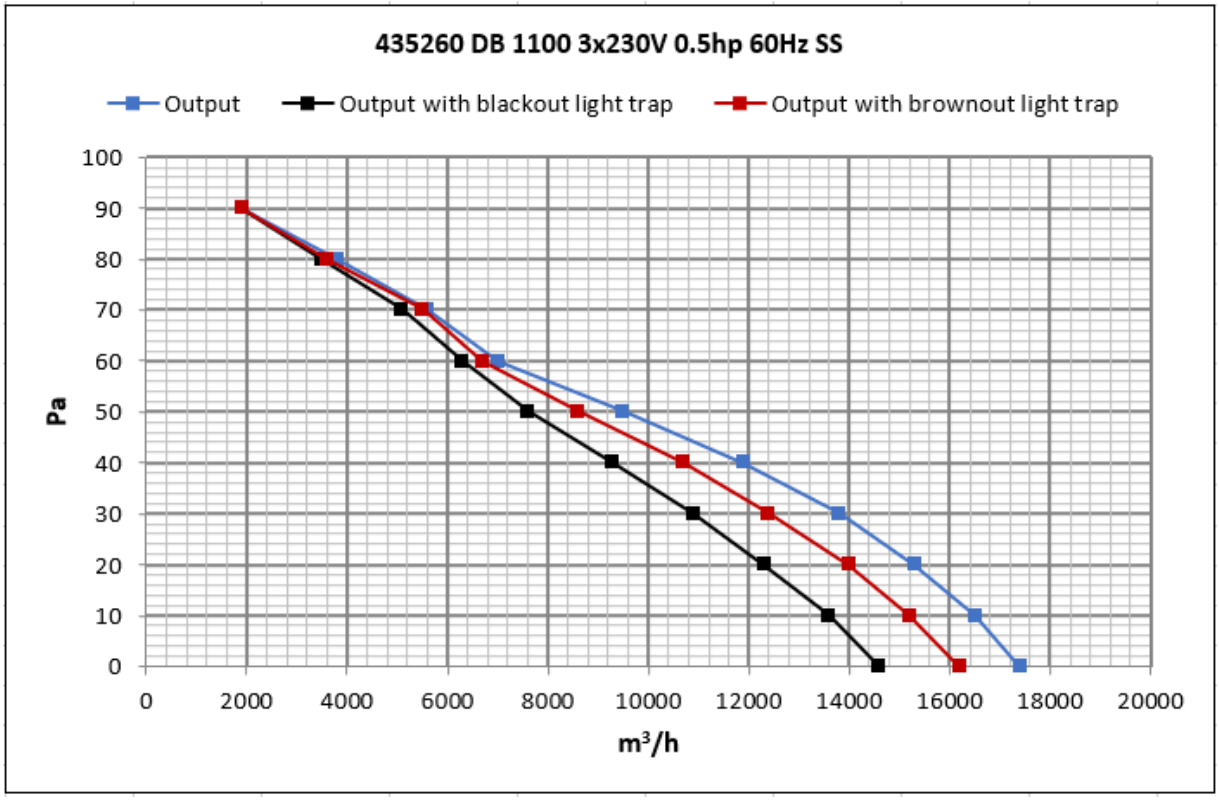


Figure 5: Performance diagram for DB 1100 230V 0.5 hp 60 Hz.

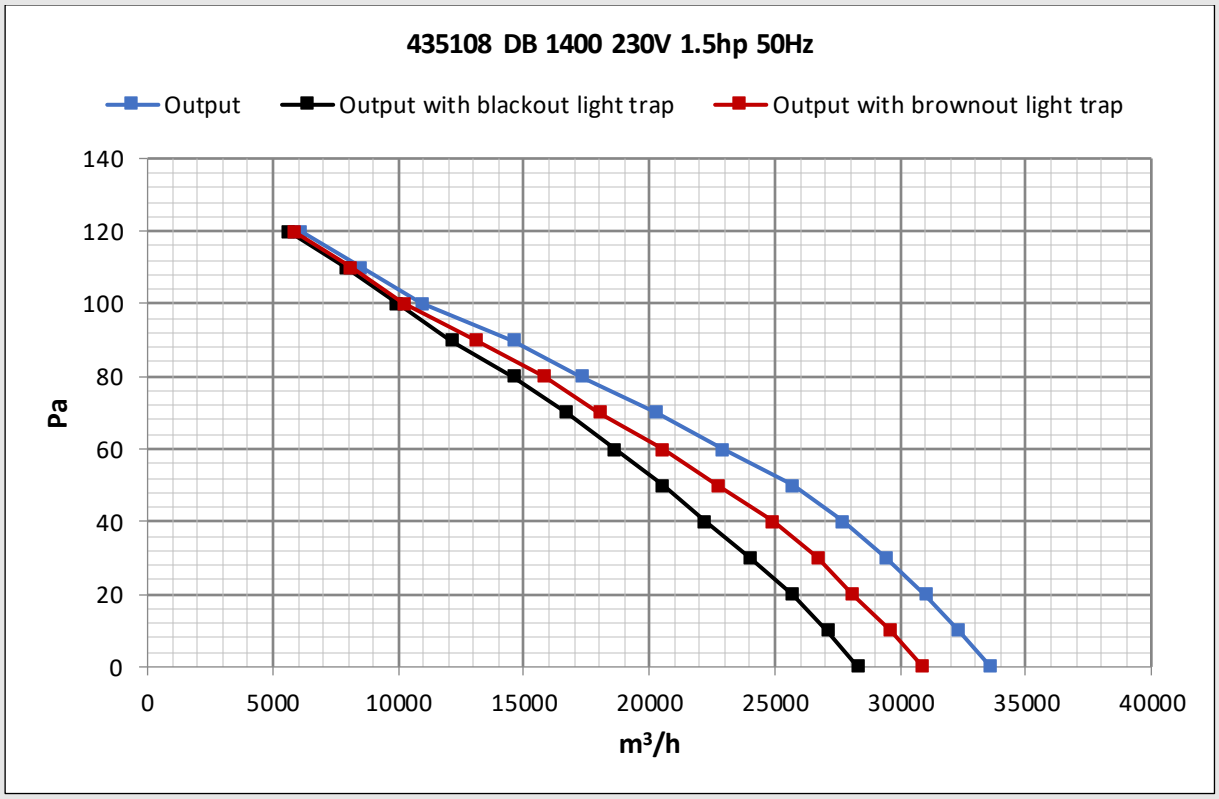


Figure 6: Performance diagram for DB 1400 230V 1.5hp 50 Hz.

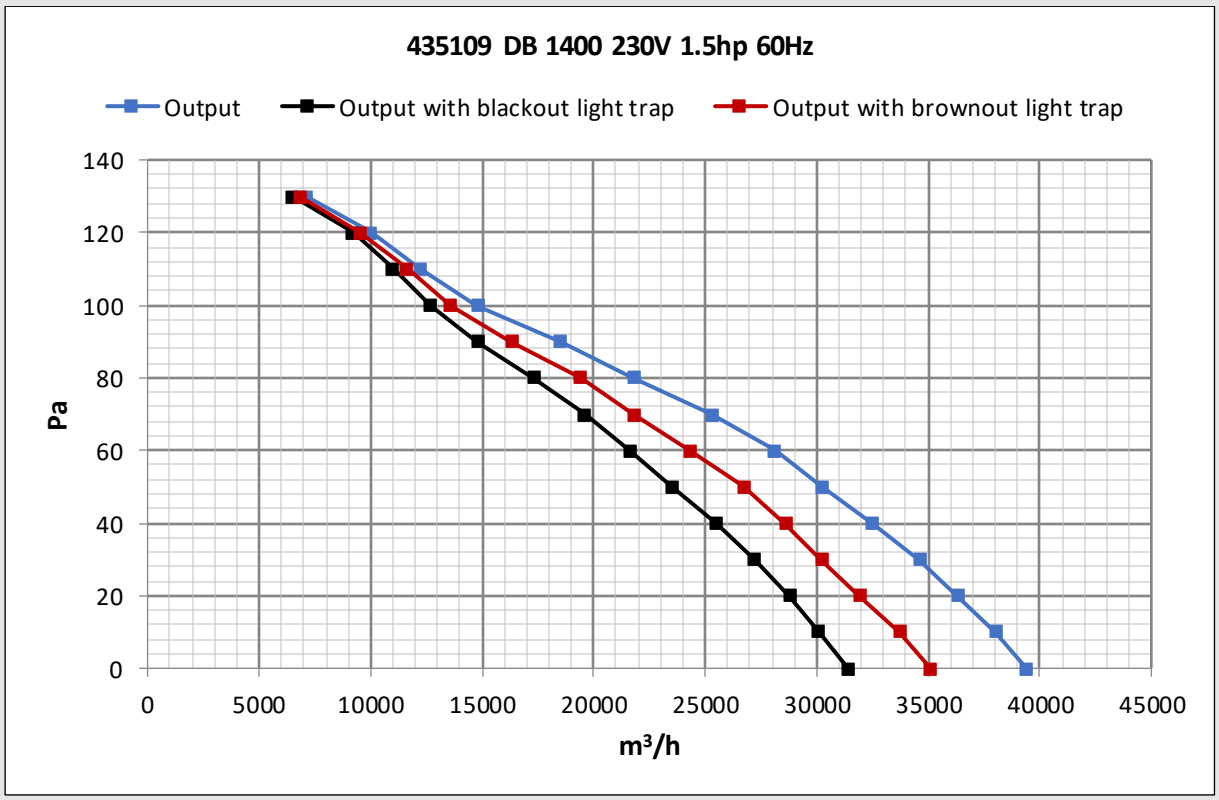


Figure 7: Performance diagram for DB 1400 230V 1.5hp 60 Hz.

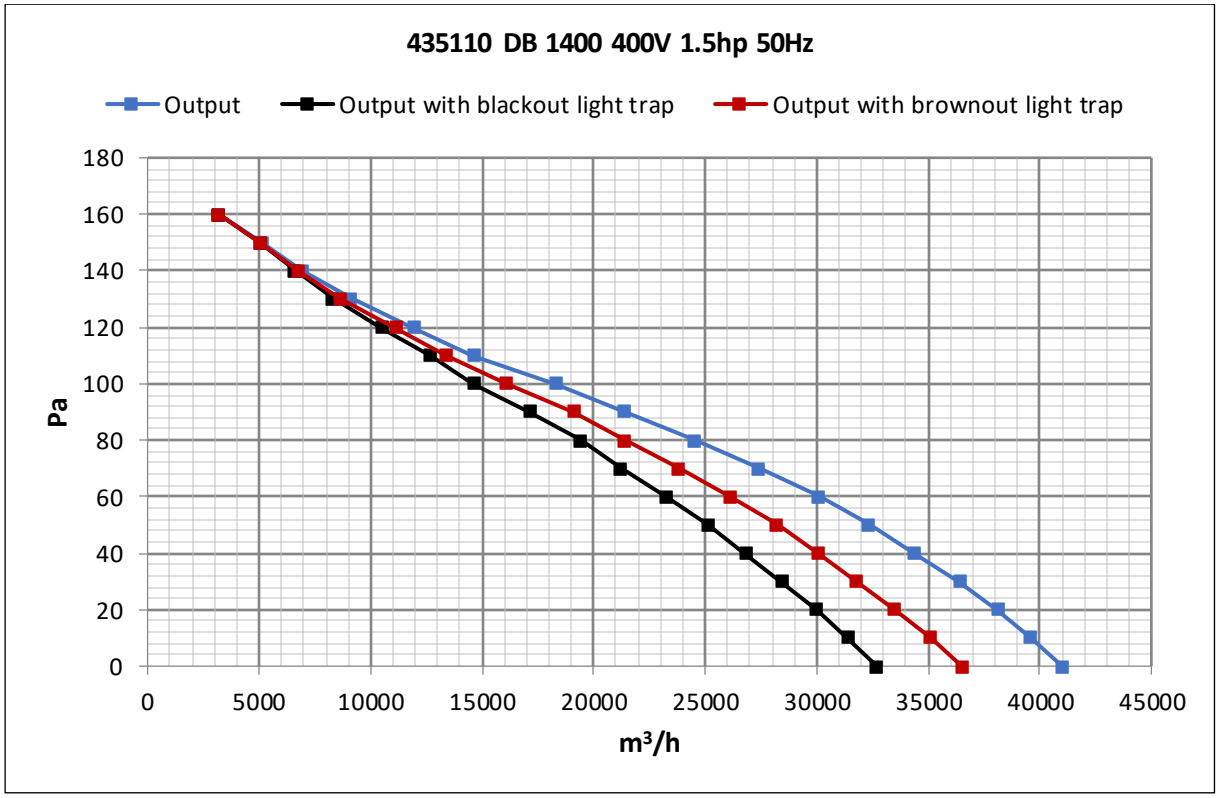


Figure 8: Performance diagram for DB 1400 400V 1.5hp 50 Hz.

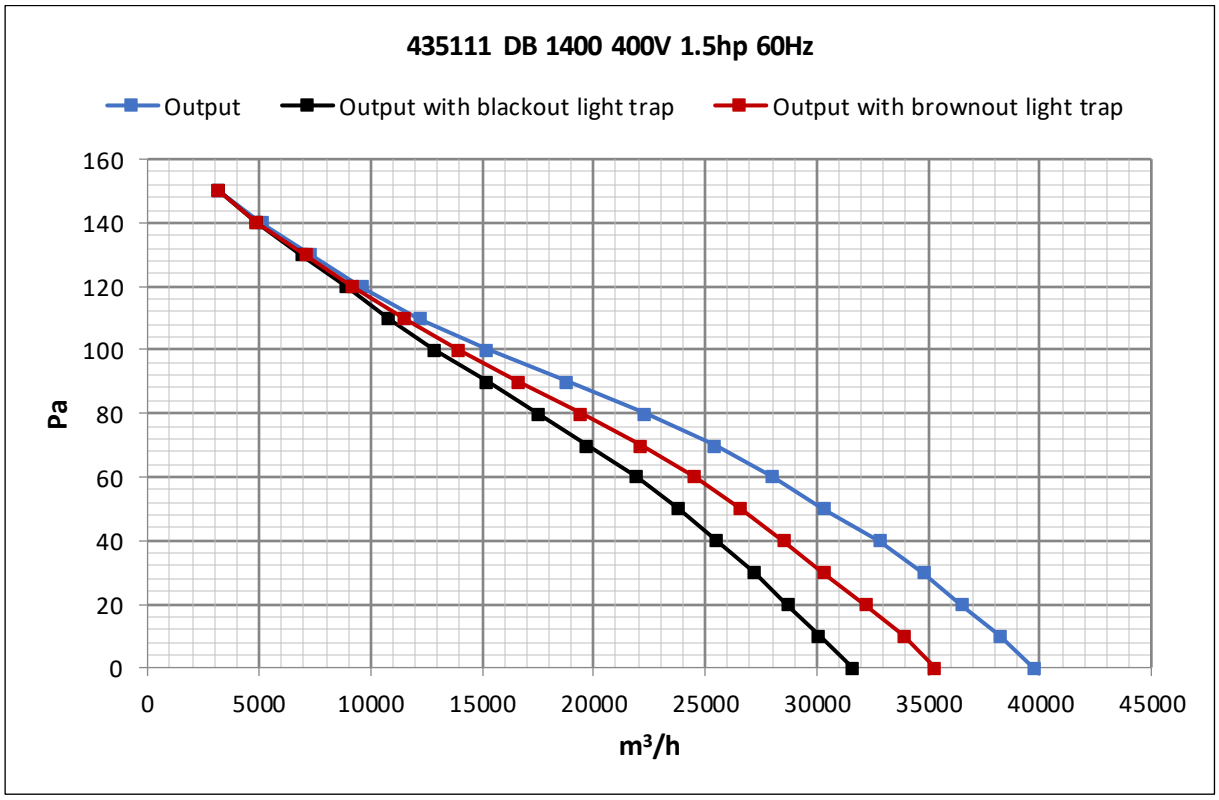


Figure 9: Performance diagram for DB 1400 400V 1.5hp 60 Hz.

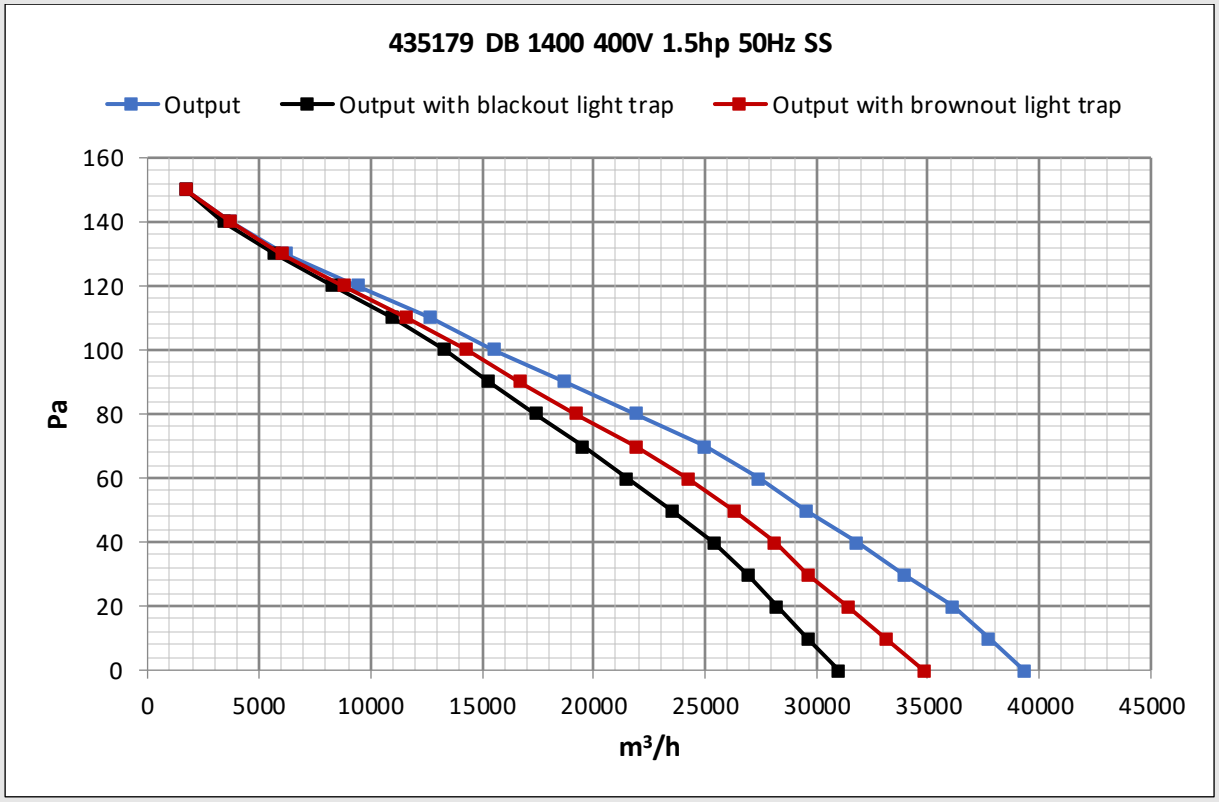


Figure 10: Performance diagram for DB 1400 400V 1.5hp 50 Hz.

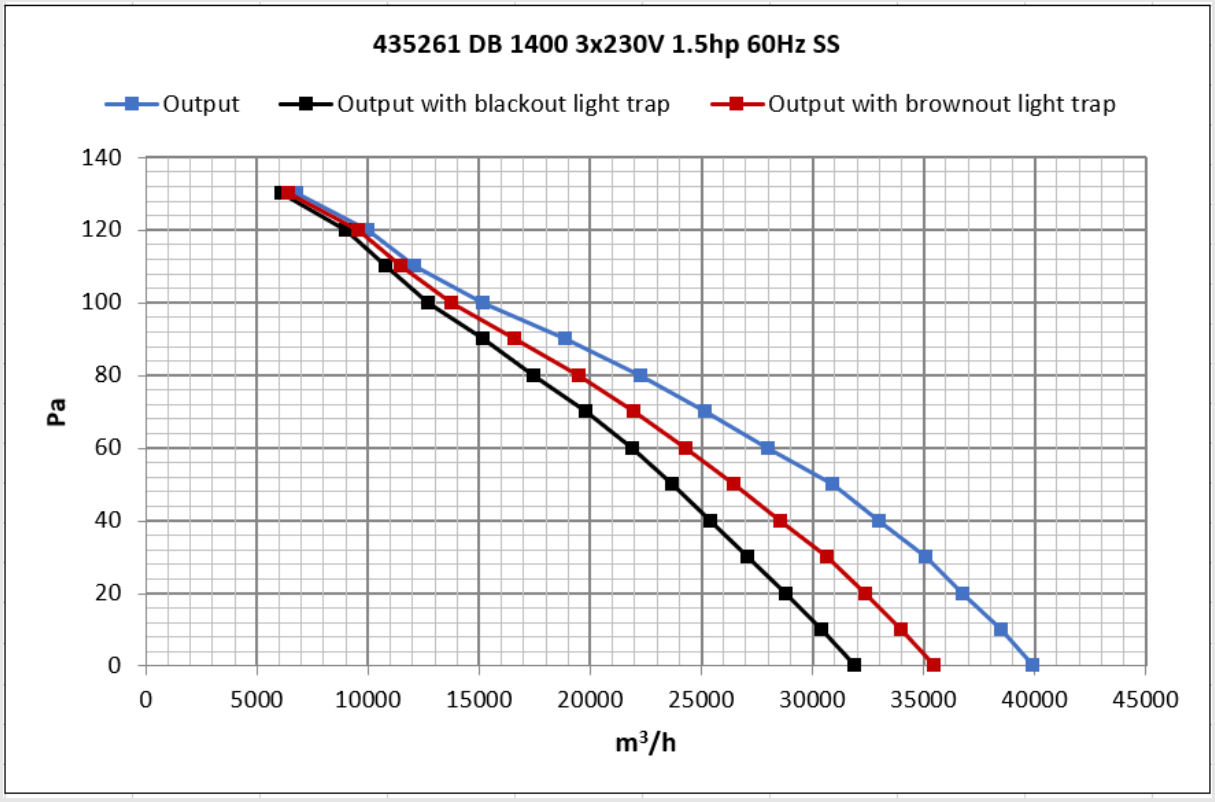


Figure 11: Performance diagram for DB 1400 230V 1.5 hk 60 Hz.

3.2 V 1400/VC 1400 wall fans

3.2.1 Air output

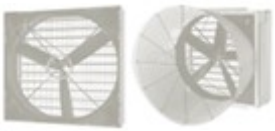
Item no,	Designations	Negative pressure [Pa]	Wall exhaustion via wall fan		Wall exhaustion via wall fan w. light trap	
						
			Output m³/h	Specific energy W / 1000m³/h	Output m³/h	
					Light trap Brown out	Light trap Brown out
435180	V 1400 400V3 1.5hp 50Hz 3 fan blades KD	0	44,300	36	37,500	30,000
		-10	42,400	39	35,900	28,500
		-20	40,100	42	33,900	26,800
		-30	37,800	45	31,700	25,200
		-40	35,600	48	29,500	23,600
		-50	32,400	53	26,900	21,500
		-60	29,300	59	24,500	18,500
435181	V 1400 400V3 1.5hp 60Hz 3 fan blades KD	0	45,100	36	38,300	30,400
		-10	43,000	39	36,200	28,900
		-20	41,000	41	34,300	27,400
		-30	39,000	44	32,300	25,900
		-40	36,000	48	30,100	24,200
		-50	33,200	53	27,700	22,000
		-60	30,200	58	25,500	19,000
435186	VC 1400 400V3 1.5hp 50Hz 5 fan blades KD	0	41,800	34	37,200	31,700
		-10	40,400	37	36,000	30,600
		-20	38,800	40	34,700	29,300
		-30	37,300	42	33,300	27,700
		-40	35,800	46	32,000	26,200
		-50	34,100	49	30,500	24,500
		-60	32,400	53	28,300	22,800
		-70	30,700	58	25,800	20,900
		-80	27,500	65	23,200	18,700
435299	VC 1400 400V3 1.5hp 60Hz 5 fan blades KD	0	42,600	34	38,000	32,400
		-10	41,100	36	37,000	31,200
		-20	40,100	39	35,700	29,800
		-30	38,300	41	34,300	28,400
		-40	37,100	44	33,000	27,000
		-50	35,400	47	31,300	25,500
		-60	33,700	51	29,100	23,900
		-70	31,800	55	27,100	21,800
		-80	28,800	62	24,900	19,300

Table 2: Output for V 1400/VC 1400 wall fans.

3.2.2 Performance diagrams

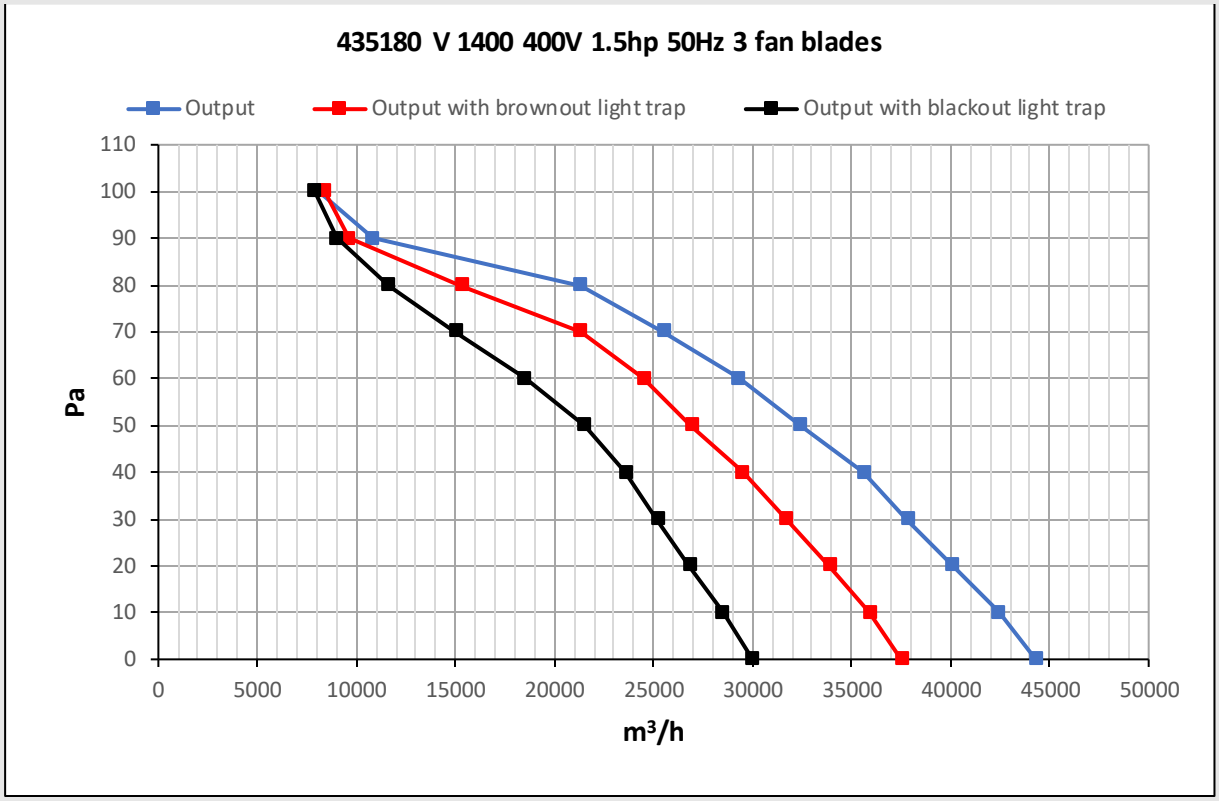


Figure 12: Performance diagram for V 1400 400V 1.5hp 50Hz 3 fan blades.

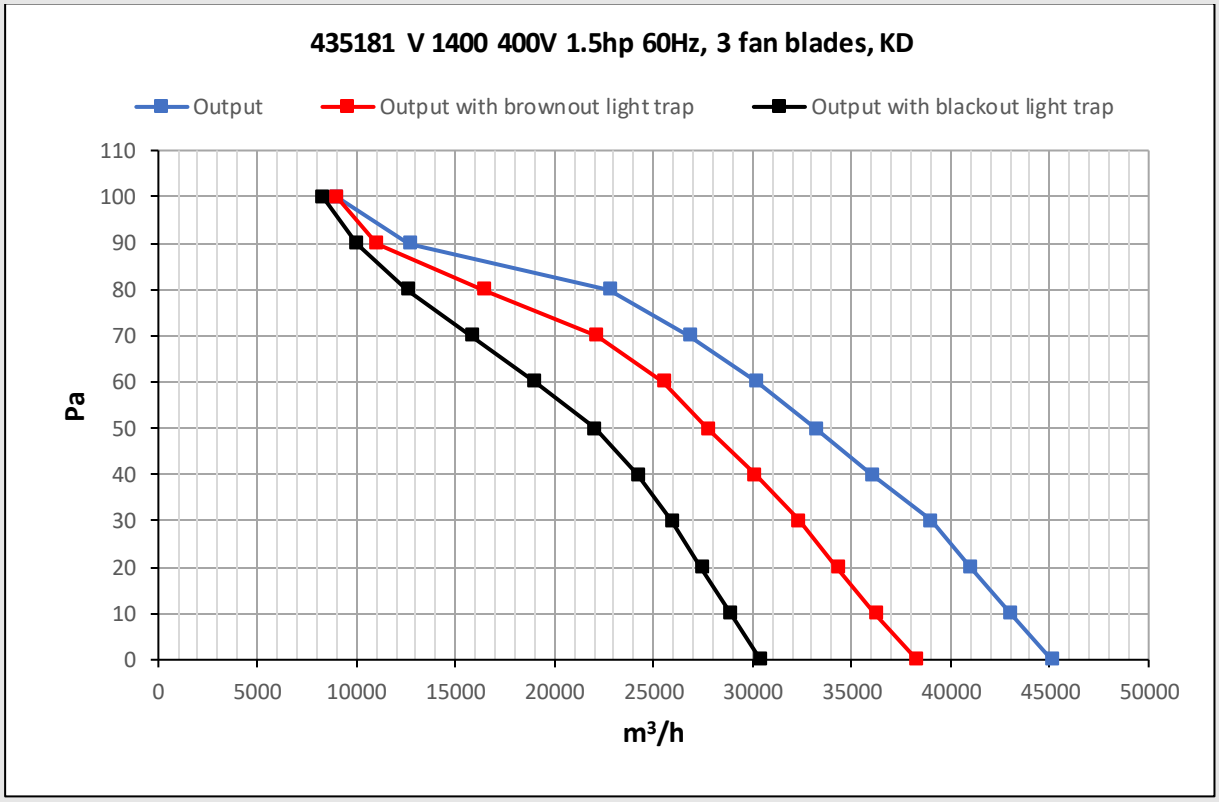


Figure 13: Performance diagram for V 1400 400V 1.5hp 60Hz 3 fan blades.

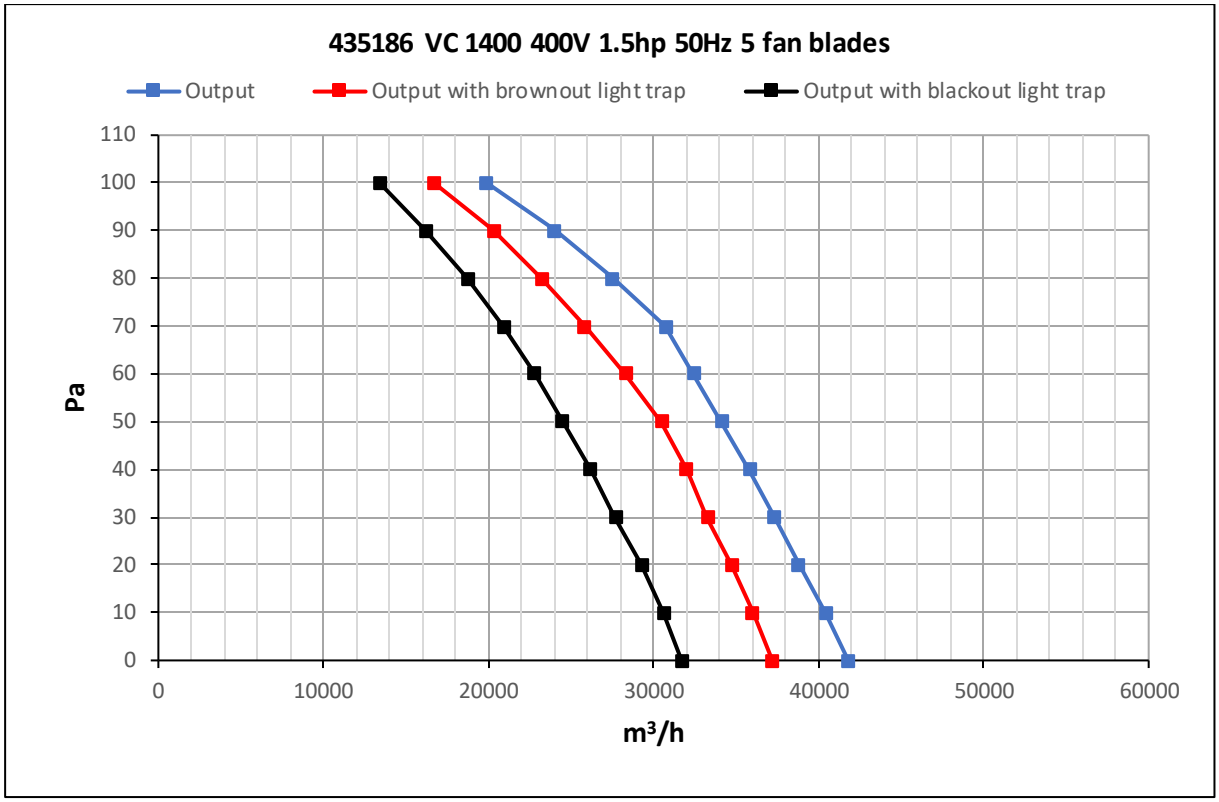


Figure 14: Performance diagram for VC 1400 400V 1.5hp 50Hz 5 fan blades.

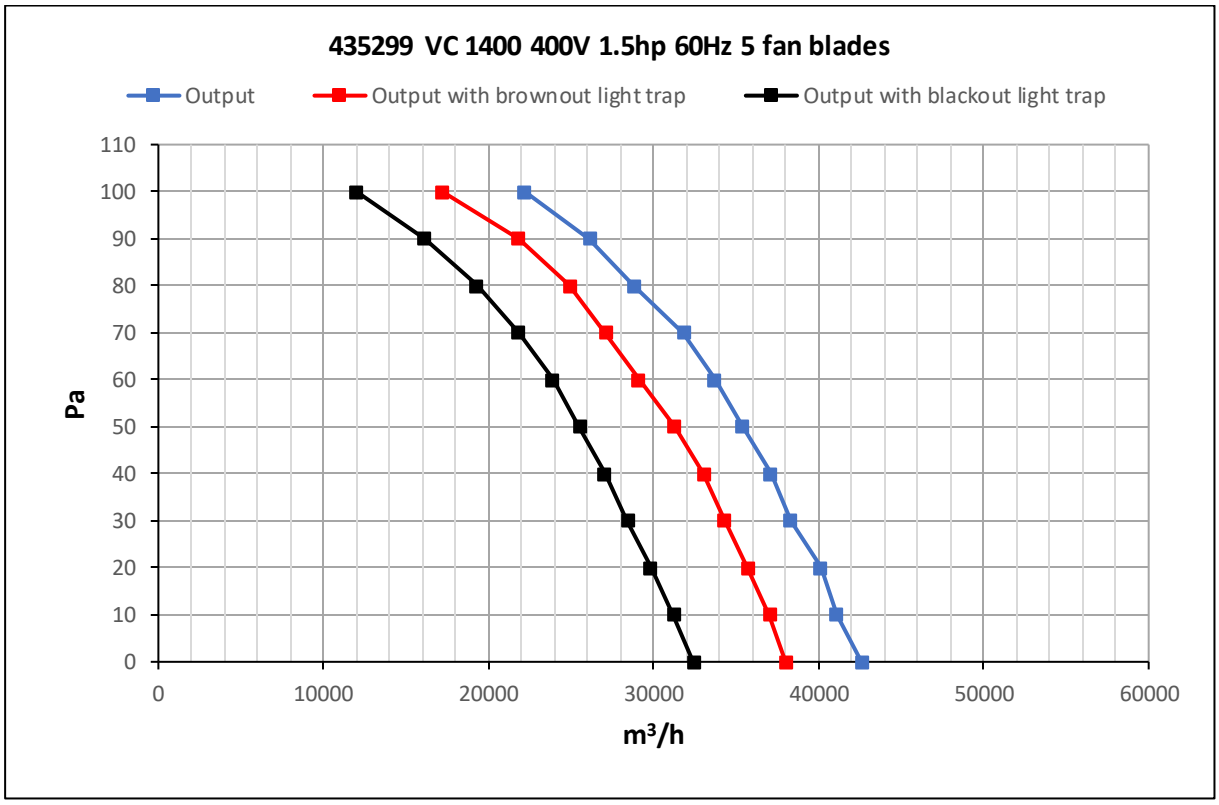


Figure 15: Performance diagram for VC 1400 400V 1.5hp 60Hz 5 fan blades.

3.3 Power consumption

Power consumption			
Item no.	**Description**	**Amp. [A]**	**Power [W]**
435103	DB 1100 230V1 0,5hp 60Hz NonEU	3.0	680
435136	DB 1100 400V3 0,5hp 50Hz NonEU	1.4	780
435175	DB 1100 400V3 0,5hp 60Hz NonEU	1.3	670
435178	DB 1100HE 400V3 0,75hp 50Hz	1.9	840
435260	DB 1100 230V3 0.5hp 60Hz NonEU	2.3	680
435108	DB 1400 230V1 1,5hp 50Hz NonEU	7.4	1560
435109	DB 1400 230V1 1,5hp 60Hz NonEU	7.3	1640
435110	DB 1400 400V3 1,5hp 50Hz NonEU	3.3	1860
435111	DB 1400 400V3 1,5hp 60Hz NonEU	3.0	1750
435179	DB 1400 400V3 1,5hp 50Hz	3.3	1820
435261	DB 1400 230V3 1.5hp 60Hz NonEU	5.2	1740
435180	V 1400 400V 1.5hp 50Hz 3 fan blades KD	3.1	1718
435181	V 1400 400V 1.5hp 60Hz 3 fan blades KD	3.0	1765
435186	VC 1400 400V 1.5hp 50Hz 5 fan blades KD	3.2	1800
435299	VC 1400 400V 1.5hp 60Hz 5 fan blades KD	2.9	1802

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