




**VENTILATION SOLUTIONS**

# **Extractor Fans**

main catalogue



Traditions in the  
manufacturing of electric  
motors and axial fans  
since **1961**

## About Company

MMOTORS is a Bulgarian company engaged with manufacturing activities in four divisions:

1. Division for the production of asynchronous electric motors.
2. Division for the production of fans.
3. Division for the production of infrared heating panels.
4. Division for the production of high-quality aluminum components.

The company was founded in 1961 under the name "Micromotors".

As a result of continuous technological renewal, introduction of new production methods, development activities and the use of financing granted under European programs, MMotors is currently one of the leading manufacturers of electric motors and fans on the Balkan Peninsula. MM products are sold successfully in the Balkan countries, the EU, Russia and the Middle East.

## Company philosophy

The company philosophy of MMOTORS AD is based on the extensive commercial experience of its main shareholders. Our mission is to create a quality and affordable product – an European manufacturing competing with the world's top producers. We are aimed at consolidating and expanding our current market positions through quality, product diversity and affordable prices.

The strategy we are following in order to reach our goal includes introduction of the best manufacturing and commercial practices, continuous investments in technological innovation and increased labor productivity. We believe that thus the company will strengthen its position by offering higher quality and competitive prices.

We maintain close contacts with our customers and distributors.

The employees in our sales department are trained to understand and assess the needs of our customers by developing and implementing overall solutions for each individual project.

## Vision for the future

We continue to create new products. In every new product we take care of the future by:

1. Saving the planet's energy resources through introduction and manufacturing of high-energy efficient products.
2. Contributing to a cleaner environment through the recycling of old products, the use of harmless materials and the observance of environmental regulations.
3. Improving the lifestyles of our customers. We develop and offer products for a healthy lifestyle.





## Foundry activity

Division for the production of high-quality aluminum components.



## Fans

Division for the production of fans. Here are being manufactured compact ventilation systems Eco-Fresh, bathroom fans, duct and centrifugal fans, wall mounted axial fans, fans for equipment and electronics cooling, window fans, high-temperature resistant fans assembled in heating installations, ventilation grids.



## Plastic components

Division for the production and recycling of high-quality plastic components.



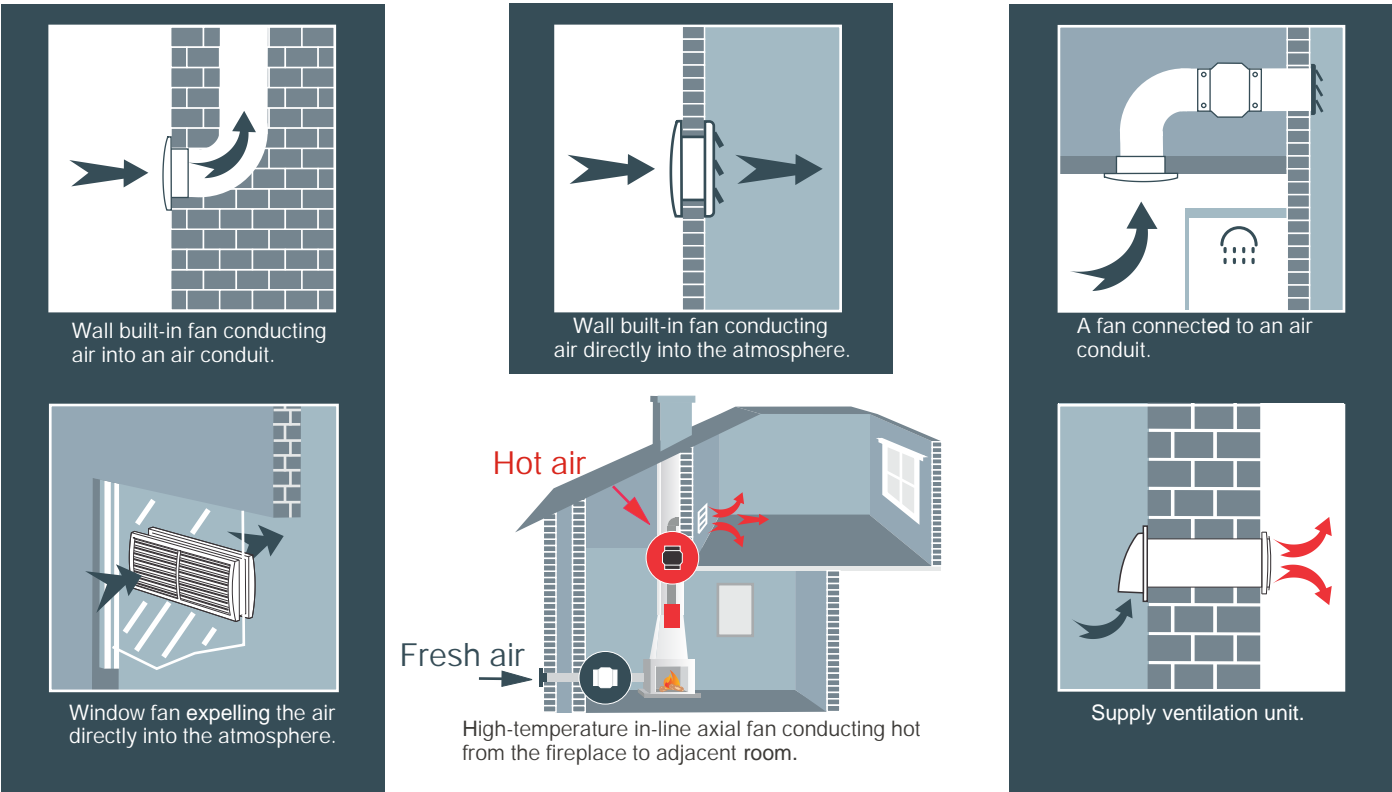
## Electric motors

Division for the production of asynchronous electric motors with capacities from 0.04KW up to 11KW, including high efficient IE2 and IE3 electric motors and special series of electric motors for hoists. Height of axis rotation - 63, 71, 80, 90, 100, 112 and 132mm.

# About Ventilation

Good indoor air quality is a key factor for a healthy lifestyle, since so much of our time is spent inside buildings. Eliminating unpleasant smells, smoke, and steam is crucial for our comfort and reduces the risk of respiratory diseases and allergies.

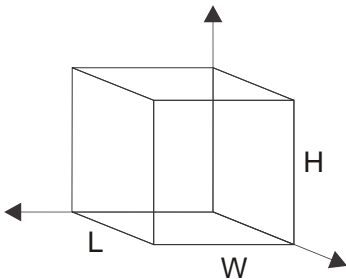
Controlling the condensation (which increases with humidity over 75%) helps to reduce the aging process of premises, as well as preventing the formation of fungi and mould. To reduce condensation a timer or a system with a hydrostat which starts the fan when humidity reaches over 70% can be installed.



Choosing the right fan:

Efficient ventilation depends on the type of fan or several fans with the appropriate capacity. The following factors should be taken into consideration:

- a) volume of the premises  $V=L \times W \times H(m^3)$
- b) air exchange per hour (P), table #1 and #2



## Air exchange per hour

Table 1

Living premises	Air exchange per hour P
Kitchen	6
Bathroom	5
Sanitary premises	7
Laundry	10
Basement	4
Garage	4

Table 2

Working premises	Air exchange per hour P
Office	5
Bank	2
Bars, cafes	9
Canteens	5
Restaurants	6
Public bathrooms	10
Hotel rooms	2

c) volume coefficient of the room furniture "K" (K=0.7-0.95 depending on the volume and quantity of furniture in the room).

How to calculate the fan capacity:

For a bathroom measuring 2,2 m length, 1,8 m width, and 2,44 m high, the volume V of the room is

$$V=L \times W \times H= 9,66 \text{ m}^3.$$

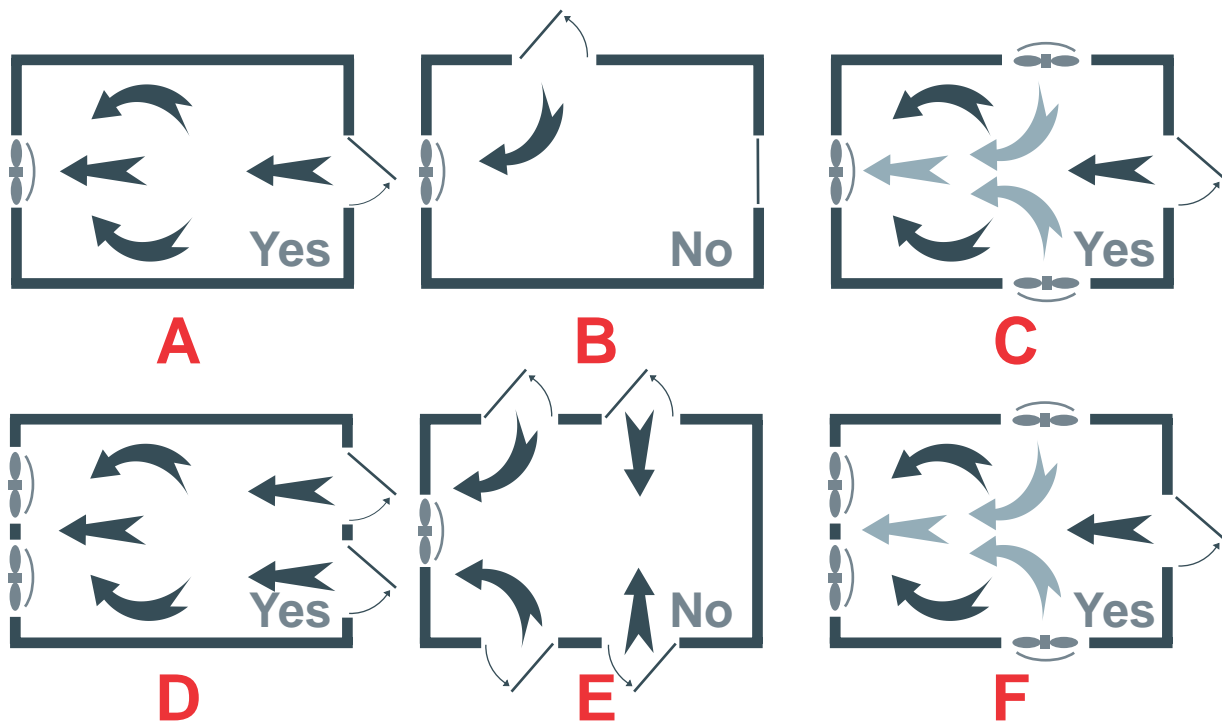
The fan capacity D is calculated by the formula:

$$D=V \times P \times K =9,66 \times 5 \times 0.9 = 43,47 \text{ m}^3/\text{h}$$

where:

- "P" is the recommended air changes per hour on Table 1 and 2;
- "K" is the volume coefficient of a bathroom.

Efficient ventilation depends on choosing the right place for the extractor fan and the location of the air inlets.



When the doors and windows are closed, fresh air flows in through apertures, vent openings or inlet fans. The air inlets and outlet must be installed in specific places so that fresh air evenly spreads all around the premises (Diagrams A, D, C and F as above). It is advisable that instead of one big ventilation device, several smaller ones are installed, equivalent to the capacity of the bigger ventilation device as shown on diagrams.

This will create an active (as opposed to passive) intake system. Typically, when your extractor fan sucks air out of your room, air is passively going to be drawn back into the room (Diagrams A, B, D and E). By installing a second fan on the intake side (Diagram C and F), you will reduce the amount of negative suction created, thereby allowing much more air to pass through.

# What we need to know about ours safety when selecting and installing a fan?

## Bathroom Zone Regulations



### SAFETY

For your safety, we recommend using a low voltage (12V) LV series fans in ZONE 1.  
The 230V fans are safe to install in ZONE 2 and 3.



#### Basic model

The base model is available with or without an auto-closing back



#### Timer

The fan will operate when the light switch is switched on or from a separate pull-cord switch.

The built-in timer will ensure operation for 5 or 15 minutes after the light is switched off.



#### Humidistat & Timer

The fan will operate when its switched on or when the humidity in the premises reaches over 70%. The timer ensures operation for 5 or 15 minutes after the humidity is reduced below 70%.



#### Light Relay & Timer

The fan will operate when the room is lit while the built-in timer ensures operation for 5 or 15 minutes after the light is off.



#### LED lights

Model with LED luminous band. Available in 5 colors, respectively:



#### Ultra economical

Energy-efficient low-noise fans.



#### Two speed fan

Energy-efficient low-noise fans.



#### Back Shutter

Automatic closing shutter preventing the entry of unpleasant odors and insects available as an optional accessory.





# Ahead with Innovation


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# NOISELESS

## HIGH ENERGY EFFICIENT

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Energy-efficient low-noise fan series with IP X5 protection degree and a flow rate of up to 74m<sup>3</sup>/h and 100m<sup>3</sup>/h which consume only 2,2 or 5,5W/h.





# CONTENTS

## HEAT RECOVERY VENTILATION UNIT

9

### ECO-FRESH

Creating Clean And Healthy Environment



## DOMESTIC FANS

15

### MM series

High airflow rate and uncompromising quality.  
Connection diameters - 100 mm, 120 mm and 150 mm



Ø100



Ø120



Ø150



## SHORT SPIGOT FANS

29

### MM N & MM-OK series

With short spigot for caravans or other applications where walls are thinner than usual

Ø100

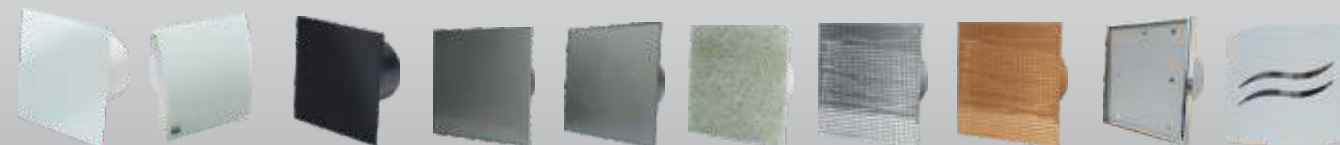


32

## MMP SERIES

Designer series of bathroom and WC fans with  
spectacular front panel made of glass, PVC or metal

Ø100



42

## ECONOMIC LINE

### OK, WE & MT series

Affordable to every customer, yet with excellent quality and beautiful design.

Ø100 / Ø120



## SAUNA & STEAM ROOM FANS

46

### MM-S series

High Temperature Resistant



Ø100



Ø120



## AXIAL FANS

50

VA series  
Basic & High Temperature  
Resistant Models



## DUCT FANS

55

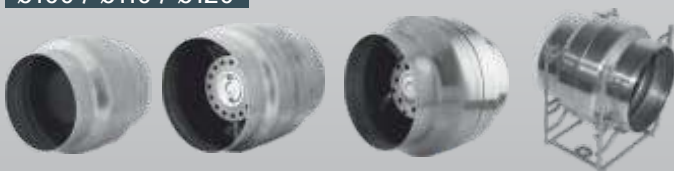
VO, VOK & MT-VO series  
Basic & High Temperature Resistant Models



Ø90 / Ø100 / Ø120 / Ø135 / Ø150



Ø100 / Ø110 / Ø120



MT-VO series  
Basic Models

76

Ø90 / Ø100 / Ø120



## INDUSTRIAL FANS

77

PVO series  
Operating in conditions of normal fire risk, according to  
fire-safety building and construction regulations.



Ø154 / Ø200 / Ø250 / Ø300 / Ø350 / Ø400

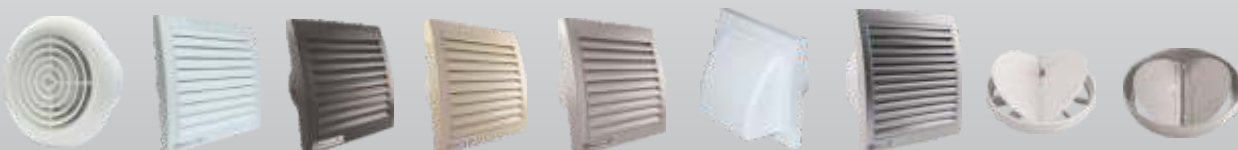


## ACCESSORY

84

Vent Grilles & Shutters

Ø100 / Ø120 / Ø150



HEAT RECOVERY  
VENTILATION SYSTEMS  
**ECO-FRESH**







# CREATING CLEAN AND HEALTHY ENVIRONMENT

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# In an era of globalization, permanent deterioration of ecology and rapid expansion of cities, humanity is under a constant attack.

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According to the World Health Organization, the most harmful to the human organism, among all other environmental influences, is the polluted air. The report released in 2013 announces that polluted air is the most significant threat to human health and, contrary to popular belief, the air in the premises is more dangerous than the one outside.

The rooms contain many bacteria, viruses, mold spores and other microorganisms harmful to humans. Some of these microorganisms develop due to poor air conditioning, high temperature, sometimes due to excessively dry air. In most cases, our homes have no barriers against dangerous organic particles contained in contaminated outdoor air and which are penetrating unfiltered into our homes. Modern man does not even know how many of his health problems are caused by air in his own home or workplace and that is where we spend 90% of our live. Ventilation is a first-rate addition for air conditioners that regulate the temperature but do not change the stale air in the room.

"Eco-Fresh" is a big step in the ventilation systems development. The use of Eco-Fresh in living rooms sets a new level in fresh air supply.

As a base the system "Eco-Fresh" has a silent fan with double-encapsulated ball bearings, multi-stage filtration system, thermostat, heat exchanger, ionizer and humidity sensor.

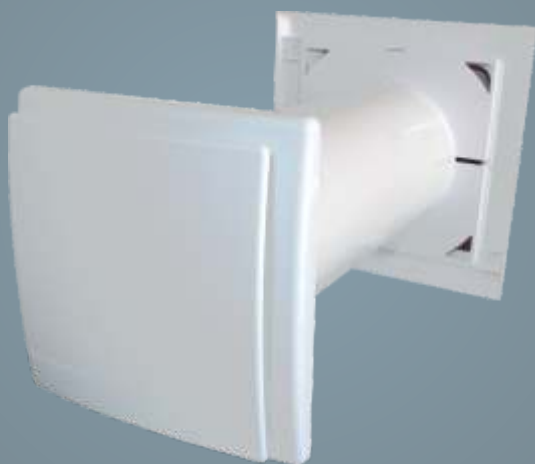
The heat exchanger keeps the same air temperature and the built-in ionizer fills the air with negative ions, which has antiseptic effect, kills disease-causing microorganisms - viruses and bacteria, preventing infections and acute respiratory diseases.

Ionized air improves working capacity, eliminates the fatigue, and positively affects the human overall tone. "Eco-Fresh" has a wide range of settings which allows this device to be used for different purposes and under different conditions. The five speed mode provides silent operation of the system during sleep and an active ventilation during the day. The device can be installed at the construction stage as well as in already completed buildings. Following the trends of the modern interior, a wide selection of decorative panels is available. The system can be controlled by a remote control or a wall panel.

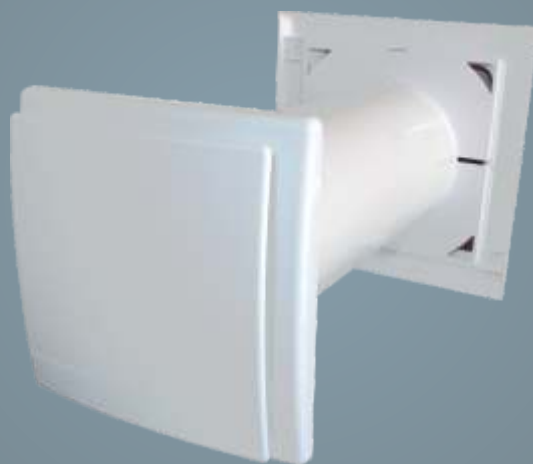
This system has undergone  
many years of testing  
in medical centers,  
schools and kindergartens  
and has proven its effect.

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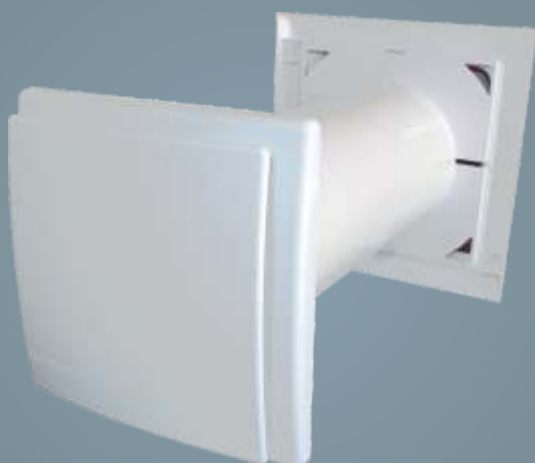
ECO-FRESH 01 SEV



ECO-FRESH 01 Standard



ECO-FRESH 01 Comfort / 03



ECO-FRESH 01 LUX



ECO-FRESH 05



ECO-FRESH 07





ECO-FRESH TYPES

Type	Product Code	Supply Voltage	Maximum Flow rate	Consumed power FAN	Consumed power HEATER	Protection Degree	Noise Level	CO monitoring system	Humidistat	Ionizer	Reversible air flow	Ceramic heat exchanger	Ceramic heater 50-400W	Heater	2 speeds Blast Fan	5 speeds Blast Fan	Remote Control	Control Panel	Active charcoal filter	HEPA filter	Safety net
	No	Hz / V	m³/h	W	W	IP	dB														
01 SEV	4666	50 / 230	-	-	-	X4	28												●	●	●
01 Standard	8497	50 / 230	45-70	5,5-9,2	-	X4	28		●		●	●			●			●	●		●
01 Comfort	8985	50 / 230	45-70	5,5-9,2	-	X4	28	●	●	●	●	●			●			●	●		●
01 LUX	9784	50 / 230	35-85	6,9-19	50-400	X4	28		●	●	●	●	●			●	●		●		●
03	2372	50 / 230	45-70	5,5-9,2	50-400	X4	28	●	●	●			●		●			●	●	●	●
05	7025	50 / 230	120	46	420	X4	36		●	●				●		●	●		●		●
05 SIBIR	-	50 / 230	120	46	840	X4	36		●	●				●		●	●		●		●
07	7773	50 / 230	120	16	420	X4	36		●	●	●	●		●		●	●		●		●



SENSOR CO

The sensor is constantly monitoring for carbon monoxide presence in the premise.



HYDROSTAT

Controls humidity within 75%.



IONIZER

Ionizes the air by which removes unpleasant odors, kills pathogenic microorganisms and prevents the growth of fungus and mold.



REVERSIBLE VENTILATION

With thermal energy recovery.



HEATEXCHANGER

Contributes to a significant reduction of heat loss during ventilation.



CERAMIC HEATER

Heater with positive temperature coefficient, self-regulating (50~400W) and economical.



HEATER

Economical, designed for pulse operation. Maintain the temperature of the incoming air 23°C.



2 SPEED

2 speed blast fan, allows regulation of fan duty from 45m³/h in night silent mode, up to 70m³/h in day mode.



5 SPEED

5 speed blast fan, allows regulation of fan duty from 30m³/h in night silent mode, up to 120m³/h in day mode. Serves for blasting clean air from outside.



REMOTE CONTROL

You can control all the functions of the system remotely



CONTROL PANEL

Regulates smoothly the amount of incoming air from 30m³/h to 100m³/h.



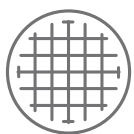
ACTIVE CHARCOAL FILTER

Guarantees the clean airflow even in strong polluted urban areas and industrial regions. Cleans the air from smells, dust, bacteria, soot, car exhaust gases and other.



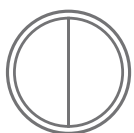
HEPA FILTER

High efficiency particulate air.



SAFETY NET

Preventing the entry of insects.

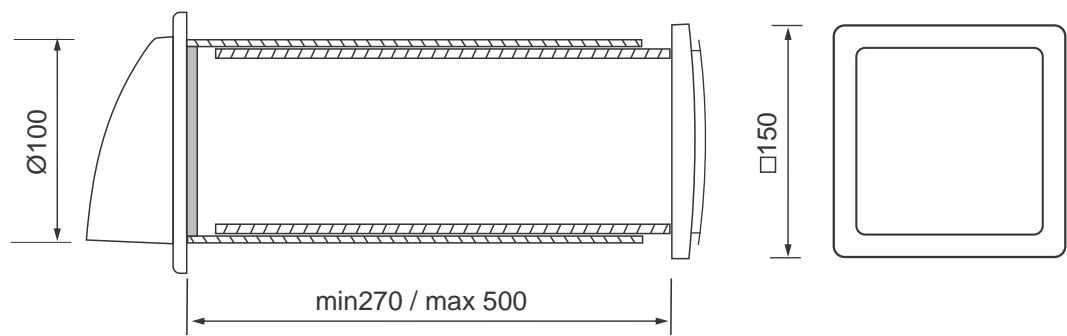


SHUTTER

Prevents the inflow of cold air when the unit is switched off.

HEAT RECOVERY
DOMESTIC FANS
SAUNA FANS
AXIAL FANS
DUCT FANS
INDUSTRIAL FANS
ACCESSORIES

ECO-FRESH TYPES	01 SEV	01 Standard	01 Comfort	01 LUX	03
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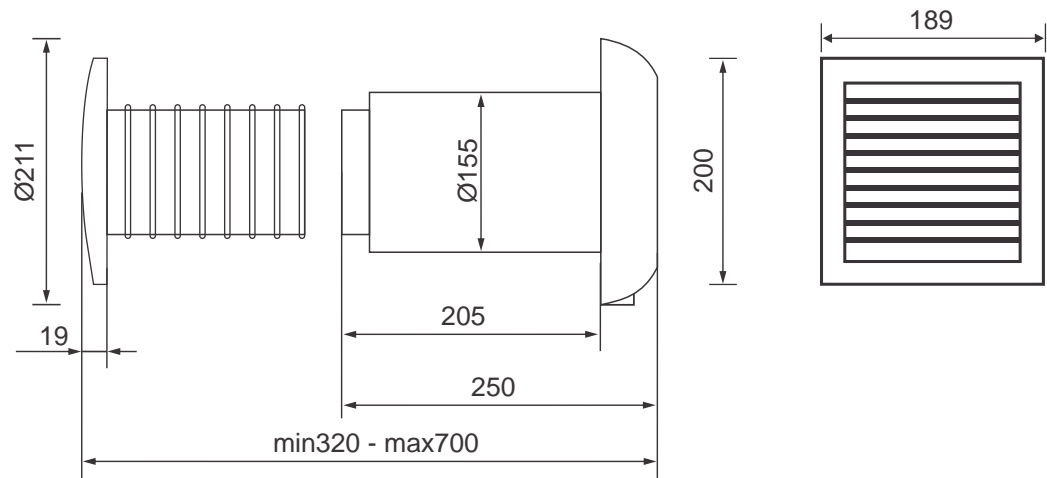
Minimal wall thickness 27 cm.  
Maximal wall thickness 50 cm.

\* The elaboration of a ventilation system, adjusted to other than the above wall thickness is possible by a clients request.

ECO-FRESH TYPE	05
----------------	----

The supply fan

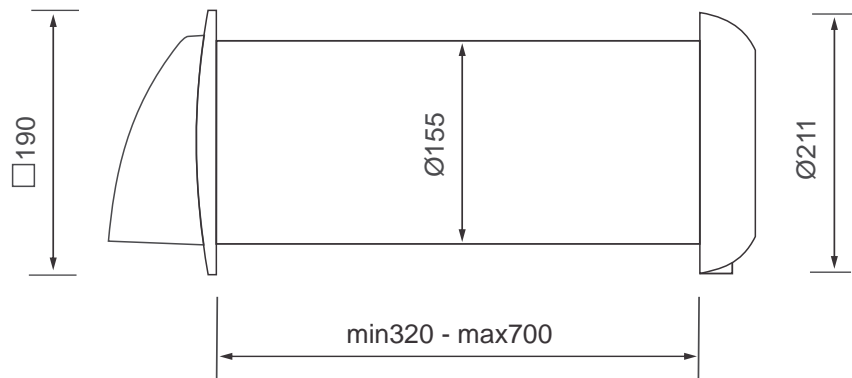
Flexible duct pipe and outer grille



Minimal wall thickness 32 cm.  
Maximal wall thickness 70 cm.

\* The elaboration of a ventilation system, adjusted to other than the above wall thickness is possible by a clients request.

ECO-FRESH TYPE	07
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Minimal wall thickness 32 cm.  
Maximal wall thickness 70 cm.

\* The elaboration of a ventilation system, adjusted to other than the above wall thickness is possible by a clients request.

HEAT RECOVERY
DOMESTIC FANS
SAUNA FANS
AXIAL FANS
DUCT FANS
INDUSTRIAL FANS
CESSORIES



# Extractor Fans MM Series

High airflow rate and uncompromising quality.  
Connection diameters - 100 mm, 120 mm  
and 150 mm.














# MM SERIES

## Trickle Impregnation Technology

- Sealed motor against dust and moisture
- High temperature resistant electric motor
- Maximum isolation characteristics
- Longlivity of the electric motor



	B		LV
	T		2S
	HT		UE
	LT		C
	LED		

## Extractor Fans

Bathroom fans are the most popular and affordable modern solution for the removal of moisture from wet rooms and the prevention of mold and fungus formation.

MM Series – Bathroom and WC fans featuring modern design, high airflow rate and uncompromising quality. These fans provide continuous or interrupted ventilation in the sanitary facilities at extremely low power consumption.

They can be used to purge air from small and medium-sized residential, office and commercial premises or as heat exchangers between adjacent premises.

The fans are mounted on walls, ceilings and suspended ceilings and are attached to air ducts or pipes of the building's ventilation system with connection diameters 100 mm, 120 mm and 150 mm.

## Safety

The MM Series fans are made of high-quality and harmless materials, and they comply with noise and fire safety standards.

The protection degree of the built-in electric motor is IP 24, IP X4, IP X5 and IP 56 which enables the fan to normally operate in high humidity environment. All models from this series are fitted with an insect protection net. It is possible to equip the fans with back shutter, timer, humidity and light sensors, and built-in LED lighting.

The fans are connected to single-phase grid by a switch or dimmer to control the speed. Fans can be custom manufactured for other power supply voltages.

Low voltage LV 12V models, guaranteeing high safety level, could be mounted near the shower area (zone 1 of the scheme) or connected to shower cabins.

## Energy-efficient

UE - Energy-efficient low-noise fans with IP X5 protection degree and a flow rate of up to 85m<sup>3</sup>/h and 100m<sup>3</sup>/h which consume only 5,5W/h.



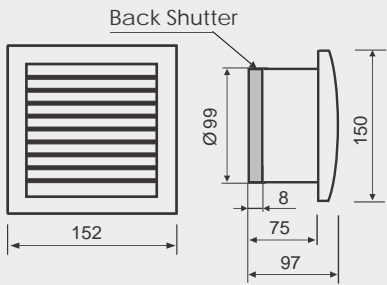
Series with double capsulated ball bearings NSK Japan which guarantee 30 000 hours of continuous operation.

MM SERIES

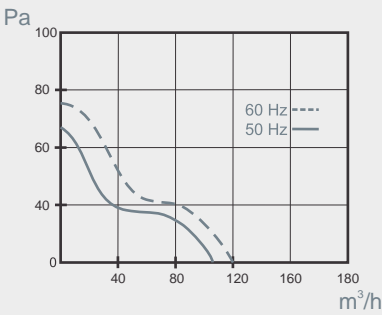
MM CLQ 100



Dimensions /mm/



Performance curves



HEAT RECOVERY

DOMESTIC FANS

SAUNA FANS

AXIAL FANS

DUCT FANS

INDUSTRIAL FANS

ACCESSORIES

Technical characteristic

Type	Product Code	Product Code with Back Shutter / Accessory /	Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Noise Level	Safety Zone	Max Air temperature	Basic fan	Timer	Humidistat	Light Relay	LED Light
	No	No	Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	IP	dB	Zone	°C					
MM CLQ 100	1023	1047	50 / 230	2430	13	105	24	29	2,3	+40	•				
MM CLQ 100 T	-	1122										•			
MM CLQ100 HT	-	1146										•	•		
MM CLQ 100 LT	-	1139										•		•	
MM CLQ 100 LED	-	8961													•

MM CLQB 100



BLACK

MM CLQE 100



ECRU

MM CLQI 100



INOX

Type	Product Code	Product Code with Back Shutter / Accessory /	Type	Product Code	Product Code with Back Shutter / Accessory /	Type	Product Code	Product Code with Back Shutter / Accessory /
MM CLQB 100	1825	1733	MM CLQE 100	1610	1627	MM CLQI 100	1498	1481
MM CLQB 100T	-	0613	MM CLQE 100T	-	0583	MM CLQI 100T	-	0552
MM CLQB 100HT	-	0637	MM CLQE 100HT	-	0606	MM CLQI 100HT	-	0576
MM CLQB 100LT	-	0620	MM CLQE 100LT	-	0590	MM CLQI 100LT	-	0569
MM CLQB 100LED	-	-	MM CLQE 100LED	-	-	MM CLQI 100LED	8558	-

Legend

MM CLO	Series name	LT	Light Relay & Timer	2S	2 Speed Fan
100	Size	LED	LED Light	C	Back Shutter /Accessory/
T	Timer	LV	Low Voltage Fan 12V	Products without a code are custom made	
HT	Humidistat & Timer	UE	Noiseless - Energy Efficient		

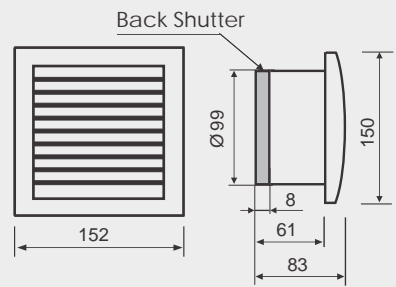
MM Q 100



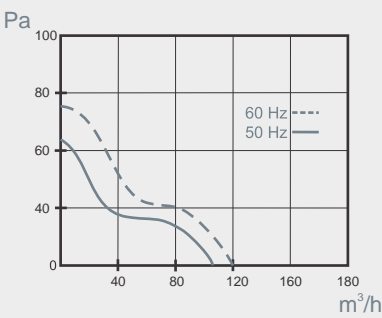
LONG life  
30.000h



Dimensions /mm/



Performance curves



HEAT RECOVERY

DOMESTIC FANS

SAUNA FANS

AXIAL FANS

DUCT FANS

INDUSTRIAL FANS

ACCESSORIES

Technical characteristic

Type	Product Code	Product Code with Back Shutter / Accessory /	Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Noise Level	Safety Zone	Max Air temperature	Basic fan	Timer	Humidistat	Light Relay	LED Light	Low Voltage 12V
	No	No	Hz / V	min <sup>-1</sup>	W	m³/h	IP	dB	Zone	°C						
MM Q 100	-	1368	50 / 230	2750	17	105	X4	32	2,3	+60	•					
MM Q 100 T	-	0842										•				
MM Q 100 HT	-	0866										•	•			
MM Q 100 LT	-	0859										•		•		
MM Q 100 LED	-	7124													•	
MM Q 100 LV	-	7643	50 / 12	2750	17	105	X4	32	1,2,3	+60						•

MM QB 100



BLACK

MM QE 100



ECRU

MM QI 100



INOX

Type	Product Code	Product Code with Back Shutter / Accessory /	Type	Product Code	Product Code with Back Shutter / Accessory /	Type	Product Code	Product Code with Back Shutter / Accessory /
MM QB 100	-	0408	MM QE 100	-	4574	MM QI 100	-	1573
MM QB 100T	-	-	MM QE 100T	-	-	MM QI 100T	-	-
MM QB 100HT	-	-	MM QE 100HT	-	-	MM QI 100HT	-	3942
MM QB 100LT	-	-	MM QE 100LT	-	-	MM QI 100LT	-	-
MM QB 100LED	-	-	MM QE 100LED	-	-	MM QI 100LED	-	-

Legend

MM Q	Series name	LT	Light Relay & Timer	2S	2 Speed Fan
100	Size	LED	LED Light	C	Back Shutter /Accessory/
T	Timer	LV	Low Voltage Fan 12V	Products without a code are custom made	
HT	Humidistat & Timer	UE	Noiseless - Energy Efficient		



MM SERIES

LONG life 30.000h

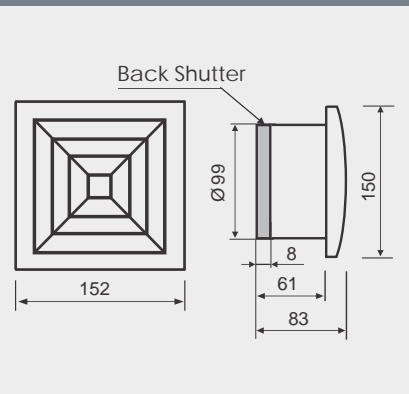
MM X 100



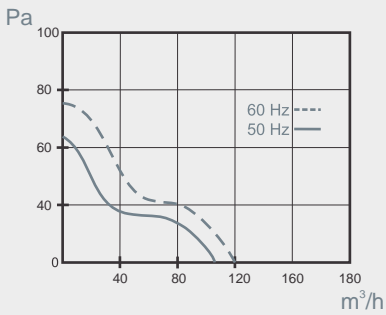
LONG life  
30.000h



Dimensions /mm/



Performance curves



Technical characteristic

Type	Product Code	Product Code with Back Shutter / Accessory /	Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Noise Level	Safety Zone	Max Air temperature	Basic fan	Timer	Humidistat	Light Relay	LED Light	Noiseless Energy Efficient
	No	No	Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	IP	dB	Zone	°C						
MM X 100	9005	8992	50 / 230	2750	17	105	X4	32	2,3	+60	•					
MM X 100 T	-	-										•				
MM X 100 HT	-	-										•	•			
MM X 100 LT	-	-										•		•		
MM X 100 LED	-	-													•	
MM X 100 UE	-	9098	50 / 230	2020	5,5	100	X5	25	2,3	+60						•



HEAT RECOVERY

DOMESTIC FANS

SAUNA FANS

AXIAL FANS

DUCT FANS

INDUSTRIAL FANS

ACCESSORIES

Legend

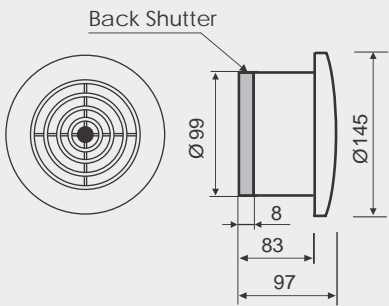
MM X	Series name	LT	Light Relay & Timer	2S	2 Speed Fan
100	Size	LED	LED Light	C	Back Shutter /Accessory/
T	Timer	LV	Low Voltage Fan 12V	Products without a code are custom made	
HT	Humidistat & Timer	UE	Noiseless - Energy Efficient		

MM SERIES

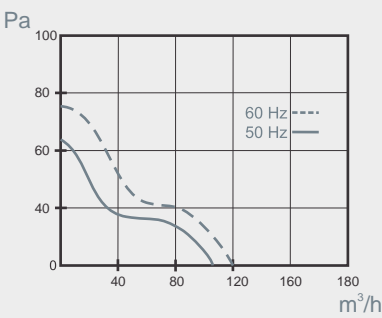
MM CLR 100



Dimensions /mm/



Performance curves



Technical characteristic

Type	Product Code	Product Code with Back Shutter / Accessory /	Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Noise Level	Safety Zone	Max Air temperature	Basic fan	Timer	Humidistat	Light Relay	LED Light
	No	No	Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	IP	dB	Zone	°C					
MM CLR 100	1016	1030	50 / 230	2430	13	105	24	29	2,3	+40					
MM CLR 100 T	-	-													
MM CLR 100 HT	-	-													
MM CLR 100 LT	-	-													
MM CLR 100 LED	-	3973													

MM CLRI 100



INOX

MM CLRB 100



BLACK



LED SERIES

Colours



Type	Product Code	Product Code with Back Shutter / Accessory /	Type	Product Code	Product Code with Back Shutter / Accessory /
MM CLRI 100	1474	1467	MM CLRB 100	1818	4437
MM CLRI 100T	-	-	MM CLRB 100T	-	4468
MM CLRI 100HT	-	-	MM CLRB 100HT	-	4529
MM CLRI 100LT	-	0736	MM CLRB 100LT	-	4499
MM CLRI 100LED	-	-	MM CLRB 100LED	-	-

Legend

MM CLR	Series name	LT	Light Relay & Timer	2S	2 Speed Fan
100	Size	LED	LED Light	C	Back Shutter /Accessory/
T	Timer	LV	Low Voltage Fan 12V	Products without a code are custom made	
HT	Humidistat & Timer	UE	Noiseless - Energy Efficient		

HEAT RECOVERY

DOMESTIC FANS

SAUNA FANS

AXIAL FANS

DUCT FANS

INDUSTRIAL FANS

ACCESSORIES

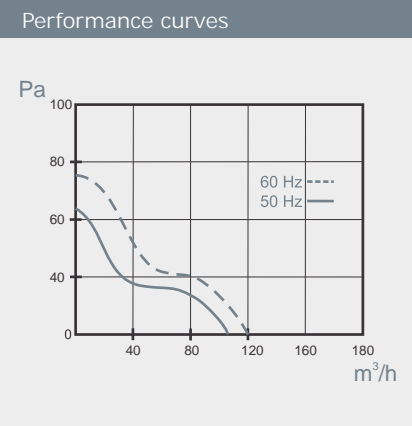
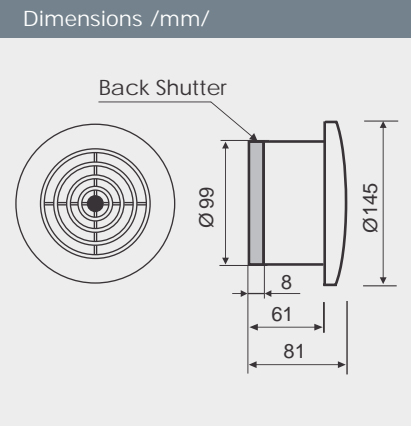
MM SERIES

LONG life 30.000h

MM R 100



LONG life  
30.000h



Technical characteristic

Type	Product Code	Product Code with Back Shutter / Accessory /	Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Noise Level	Safety Zone	Max Air temperature	Basic fan	Timer	Humidistat	Light Relay	LED Light	Low Voltage 12V
	No	No	Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	IP	dB	Zone	°C						
MM R 100	-	1900	50 / 230	2750	17	105	X4	32	2,3	+60	•					
MM R 100 T	-	0415										•				
MM R 100 HT	-	0439										•	•			
MM R 100 LT	-	0422										•		•		
MM R 100 LED	-	3973													•	
MM R 100 LV	-	9807	50 / 12	2750	17	105	X4	32	1,2,3	+60						•

MM RI 100



INOX

MM RC 100



BLACK

LED SERIES



Colours

Type	Product Code	Product Code with Back Shutter / Accessory /
MM RI 100	-	0392
MM RI 100T	-	-
MM RI 100HT	-	-
MM RI 100LT	-	0736
MM RCLI 100LED	-	4307

Type	Product Code	Product Code with Back Shutter / Accessory /
MM CE 100	-	4437
MM CLQE 100T	-	4468
MM CLQE 100HT	-	4529
MM CLQE 100LT	-	4499
MM CLQE 100LED	-	4246

Legend	MM R	Series name	LT	Light Relay & Timer	2S	2 Speed Fan
	100	Size	LED	LED Light	C	Back Shutter /Accessory/
	T	Timer	LV	Low Voltage Fan 12V	Products without a code are custom made	
	HT	Humidistat & Timer	UE	Noiseless - Energy Efficient		

HEAT RECOVERY

DOMESTIC FANS

SAUNA FANS

AXIAL FANS

DUCT FANS

INDUSTRIAL FANS

ACCESSORIES

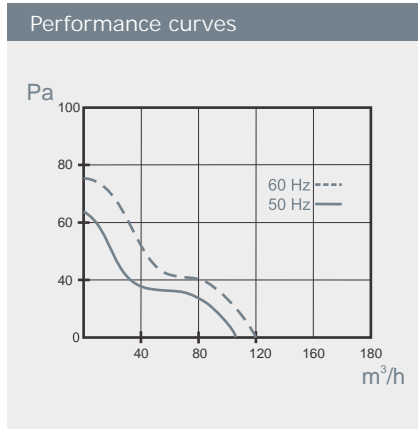
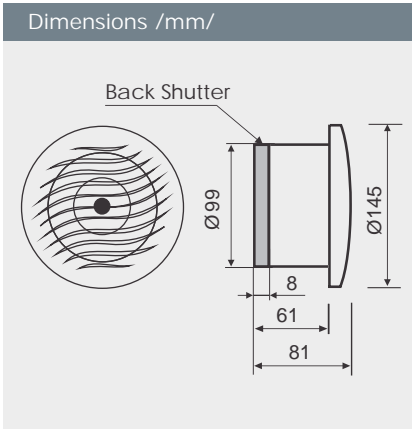


# MM SERIES

MM V 100



LONG life  
30.000h



## Technical characteristic

Type	Product Code	Product Code with Back Shutter / Accessory /	Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Noise Level	Safety Zone	Max Air temperature	Basic fan	Timer	Humidistat	Light Relay	LED Light	Low Voltage 12V
	No	No	Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	IP	dB	Zone	°C						
MM V 100	-	1931	50 / 230	2750	17	105	X4	32	2,3	+60	•					
MM V 100 T	-	0446										•				
MM V 100 HT	-	0453										•	•			
MM V 100 LT	-	0460										•		•		
MM V 100 LED	-	3980													•	
MM V 100 LV	-	-	50 / 12	2750	17	105	X4	32	1,2,3	+60						•



Type	Product Code	Product Code with Back Shutter / Accessory /	Type	Product Code	Product Code with Back Shutter / Accessory /
MM VI 100	-	3935	MM VB 100	-	4444
MM VI 100T	-	3959	MM VB 100T	-	4475
MM VI 100HT	-	-	MM VB 100HT	-	4536
MM VI 100LT	-	0873	MM VB 100LT	-	4505
MM VI 100LED	-	-	MM VB 100LED	-	-

Legend	MM V	Series name	LT	Light Relay & Timer	2S	2 Speed Fan
	100	Size	LED	LED Light	C	Back Shutter /Accessory/
	T	Timer	LV	Low Voltage Fan 12V	Products without a code are custom made	
	HT	Humidistat & Timer	UE	Noiseless - Energy Efficient		

HEAT RECOVERY

DOMESTIC FANS

SAUNA FANS

AXIAL FANS

DUCT FANS

INDUSTRIAL FANS

ACCESSORIES

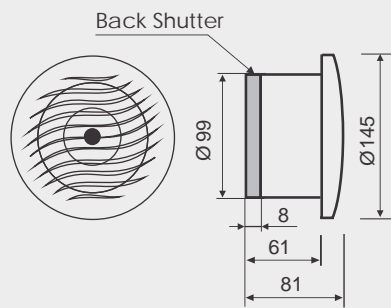
# MM SERIES

## MM VC 100

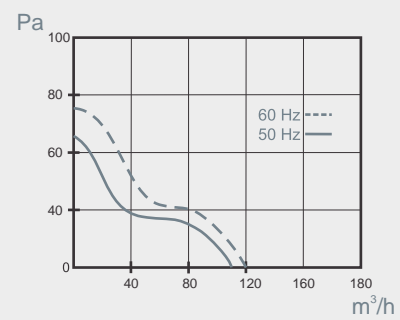


LONG life  
30.000h

### Dimensions /mm/



### Performance curves



### Technical characteristic

Type	Product Code	Product Code with Back Shutter / Accessory /	Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Noise Level	Safety Zone	Max Air temperature	Basic fan	Timer	Humidistat	Light Relay	LED Light	Low Voltage 12V
	No	No	Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	IP	dB	Zone	°C						
MM VC 100B	-	0316	50 / 230	2790	18	110	X4	39	2,3	+60	•					
MM VC 100T	-	2556										•				
MM VC 100HT	-	2570										•	•			
MM VC 100LT	-	2563										•		•		
MM VC 100LED	-	7162													•	
MM VC 100 LV	-	-	50 / 12	2790	18	110	X4	39	1,2,3	+60						•

## MM RC 100



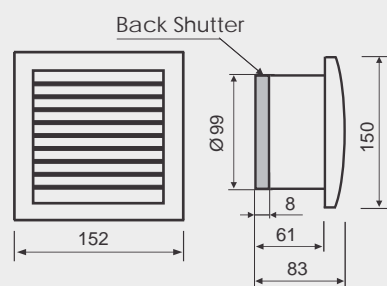
CHROME

## MM Q BC 100

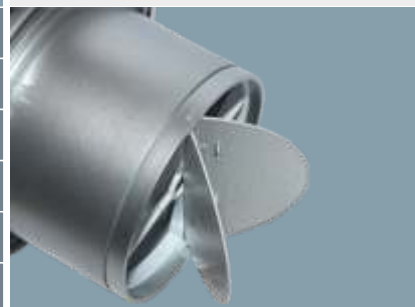


BLACK-CHROME

### Dimensions /mm/



Type	Product Code	Product Code with Back Shutter / Accessory /	Type	Product Code	Product Code with Back Shutter / Accessory /
MM RCI 100	-	0323	MM Q BC 100	-	0743
MM RC 100T	-	2587	MM Q BC 100T	-	2617
MM RC 100HT	-	2600	MM Q BC 100HT	-	2631
MM RC 100LT	-	2594	MM Q BC 100LT	-	2624
MM RC 100LED	-	8107	MM Q BC 100LED	-	7131



### Legend

MM RC	Series name	LT	Light Relay & Timer	2S	2 Speed Fan
100	Size	LED	LED Light	C	Back Shutter /Accessory/
T	Timer	LV	Low Voltage Fan 12V	Products without a code are custom made	
HT	Humidistat & Timer	UE	Noiseless - Energy Efficient		

HEAT RECOVERY

DOMESTIC FANS

SAUNA FANS

AXIAL FANS

DUCT FANS

INDUSTRIAL FANS

ACCESSORIES



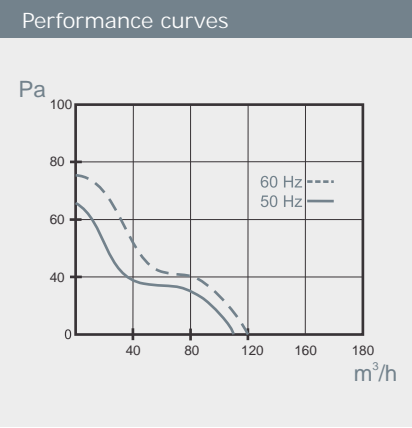
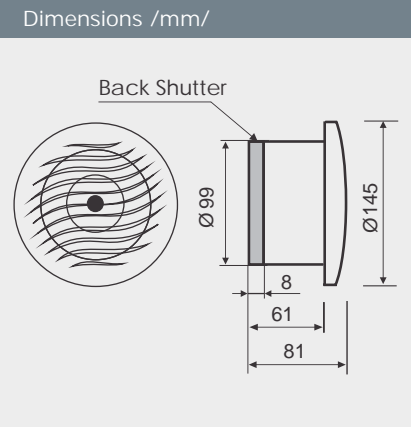
Limited edition  
REAL GOLD





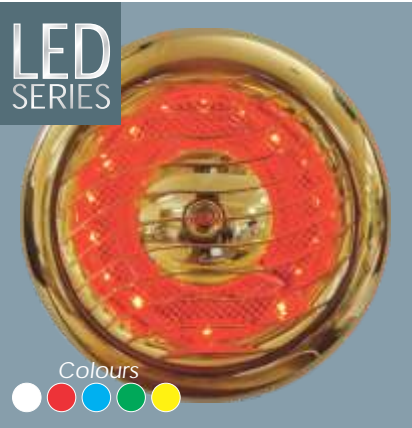
MM SERIES

LONG life 30.000h



Technical characteristic

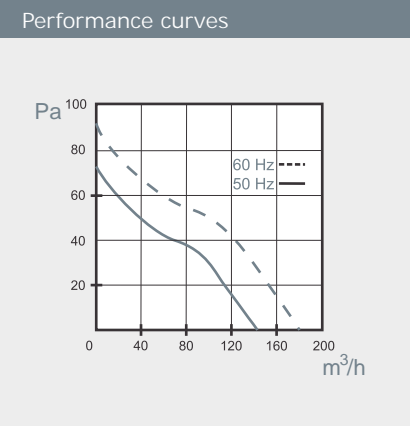
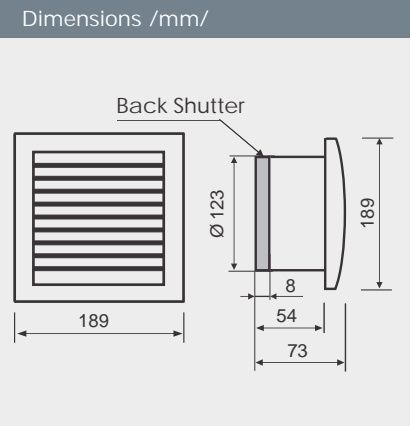
Type	Product Code	Product Code with Back Shutter / Accessory /	Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Noise Level	Safety Zone	Max Air temperature	Basic fan	Timer	Humidistat	Light Relay	LED Light	Low Voltage 12V
	No	No	Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	IP	dB	Zone	°C						
MM VG 100B	-	5946	50 / 230	2790	18	110	X4	32	2,3	+60						
MM VG 100T	-	4543														
MM VG 100HT	-	4567														
MM VG 100LT	-	4550														
MM VG 100LED	-	4017														
MM VG 100 LV	-	-	50 / 12	2790	18	110	X4	39	1,2,3	+60						



Legend	MM VG	Series name	LT	Light Relay & Timer	2S	2 Speed Fan
	100	Size	LED	LED Light	C	Back Shutter /Accessory/
	T	Timer	LV	Low Voltage Fan 12V	Products without a code are custom made	
	HT	Humidistat & Timer	UE	Noiseless - Energy Efficient		

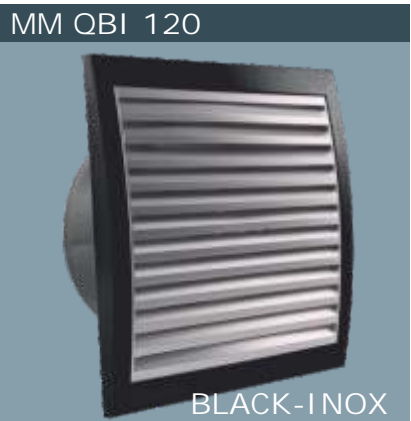
- HEAT RECOVERY
- DOMESTIC FANS
- SAUNA FANS
- AXIAL FANS
- DUCT FANS
- INDUSTRIAL FANS
- ACCESSORIES





Technical characteristic

Type	Product Code	Product Code with Back Shutter / Accessory /	Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Noise Level	Safety Zone	Max Air temperature	Basic fan	Timer	Humidistat	Light Relay	LED Light	2 Speed Fan
	No	No	Hz / V	min <sup>-1</sup>	W	m³/h	IP	dB	Zone	°C						
MM Q 120	1078	1085	50 / 230	2650	18	150	X4	42	2,3	+60						
MM Q 120T	-	1184														
MM Q 120HT	-	1221														
MM Q 120LT	-	1207														
MM Q 120LED	-	-														
MM Q 120-2S	0217	-	50 / 230	1250	4	75	X4	32	2,3	+60						



Type	Product Code	Product Code with Back Shutter / Accessory /
MM QB 120	1856	1863
MM QB 120T	-	0750
MM QB 120HT	-	0774
MM QB 120LT	-	0767
MM QB 120LED	-	-

Type	Product Code	Product Code with Back Shutter / Accessory /
MM QBI 120	1948	1955
MM QBI 120T	-	4314
MM QBI 120HT	-	7155
MM QBI 120LT	-	4321
MM QBI 120LED	-	-

Type	Product Code	Product Code with Back Shutter / Accessory /
MM QI 120	1535	1528
MM QI 120T	-	0675
MM QI 120HT	-	0699
MM QI 120LT	-	0682
MM QI 120LED	-	-

Legend	MM Q	Series name	LT	Light Relay & Timer	2S	2 Speed Fan
	120	Size	LED	LED Light	C	Back Shutter /Accessory/
	T	Timer	LV	Low Voltage Fan 12V	Products without a code are custom made	
	HT	Humidistat & Timer	UE	Noiseless - Energy Efficient		

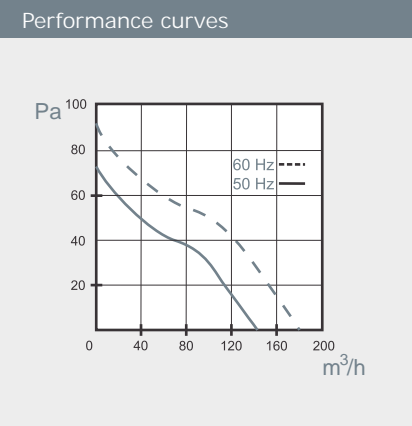
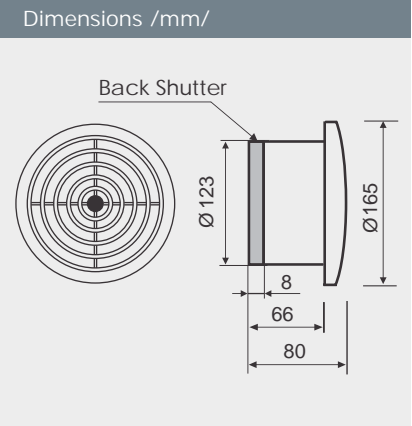
MM SERIES

LONG life 30.000h

MM R 120



LONG life  
30.000h



Technical characteristic

Type	Product Code	Product Code with Back Shutter / Accessory /	Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Noise Level	Safety Zone	Max Air temperature	Basic fan	Timer	Humidistat	Light Relay	LED Light
	No	No	Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	IP	dB	Zone	°C					
MM R 120	1054	1061	50 / 230	2650	18	150	X4	42	2,3	+60					
MM R 120T	-	-													
MM R 120HT	-	-													
MM R 120LT	-	-													
MM R 120LED	-	-													

MM RI 120



INOX

Type	Product Code	Product Code with Back Shutter / Accessory /
MM RI 120	1511	1504
MM RI 120T	-	-
MM RI 120HT	-	-
MM RI 120LT	-	-
MM RI 120LED	-	-

LED SERIES



Colours



Legend	MM RI	Series name	LT	Light Relay & Timer	2S	2 Speed Fan
	120	Size	LED	LED Light	C	Back Shutter /Accessory/
	T	Timer	LV	Low Voltage Fan 12V	Products without a code are custom made	
	HT	Humidistat & Timer	UE	Noiseless - Energy Efficient		

- HEAT RECOVERY
- DOMESTIC FANS
- SAUNA FANS
- AXIAL FANS
- DUCT FANS
- INDUSTRIAL FANS
- ACCESSORIES

MM SERIES

LONG life 30.000h

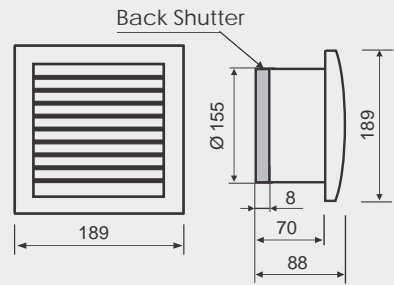
MM Q 150



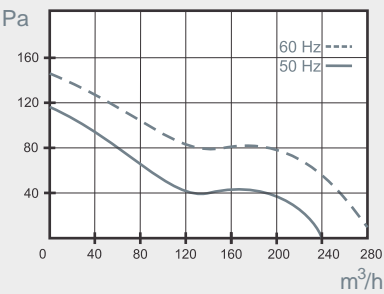
LONG life  
30.000h



Dimensions /mm/



Performance curves



HEAT RECOVERY

DOMESTIC FANS

SAUNA FANS

AXIAL FANS

DUCT FANS

INDUSTRIAL FANS

ACCESSORIES

Technical characteristic

Type	Product Code	Product Code with Back Shutter / Accessory /	Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Noise Level	Safety Zone	Max Air temperature	Basic fan	Timer	Humidistat	Light Relay	LED Light
	No	No	Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	IP	dB	Zone	°C					
MM Q 150B	1269	1320	50 / 230	2650	46	240	X4	51	2,3	+60	•				
MM Q 150T	-	1337										•			
MM Q 150HT	-	1351										•	•		
MM Q 150LT	-	1344										•		•	
MM Q 150LED	-	-									•				•

MM QB 150



BLACK

MM QBI 150



BLACK-INOX

MM QI 150



INOX

Type	Product Code	Product Code with Back Shutter / Accessory /	Type	Product Code	Product Code with Back Shutter / Accessory /	Type	Product Code	Product Code with Back Shutter / Accessory /
MM QB 150	1870	1887	MM QBI 150	1962	1979	MM QI 150	1542	1559
MM QB 150T	-	0811	MM QBI 150T	-	4406	MM QI 150T	-	0781
MM QB 150HT	-	0835	MM QBI 150HT	-	4420	MM QI 150HT	-	0804
MM QB 150LT	-	0828	MM QBI 150LT	-	4413	MM QI 150LT	-	0798
MM QB 150LED	-	-	MM QBI 150LED	-	-	MM QI 150LED	-	-

Legend

MM Q	Series name	LT	Light Relay & Timer	2S	2 Speed Fan
150	Size	LED	LED Light	C	Back Shutter /Accessory/
T	Timer	LV	Low Voltage Fan 12V	Products without a code are custom made	
HT	Humidistat & Timer	UE	Noiseless - Energy Efficient		



VENTILATION SOLUTIONS

# Short Spigot Series

With short spigot for caravans or other applications where walls are thinner than usual



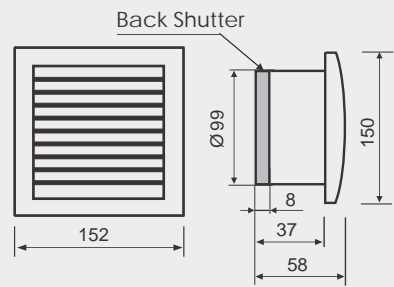
MM QN 100/60



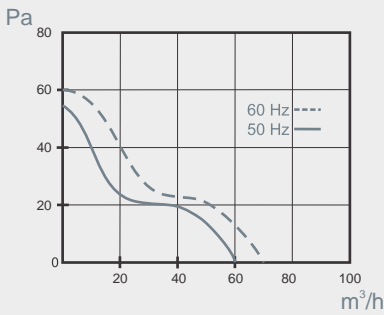
LONG life  
30.000h



Dimensions /mm/



Performance curves



Technical characteristic

Type	Product Code	Product Code with Back Shutter /Accessory/	Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Noise Level	Safety Zone	Max Air Temperature	Basic fan	Timer	Humidistat	Light Relay	LED Light	2 Speed Fan
	No	No	Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	IP	dB	Zone	°C						
MM QN 100	-	1993	50 / 230	2500	16	60	X4	30	2,3	+60	●					
MM QN 100T	-	2174										●				
MM QN 100HT	-	2532										●	●			
MM QN 100LT	-	2525										●		●		
MM QN 100LED	-	-									●				●	
MM QN 100LV	-	-	50 / 12	2500	16	60	X4	30	1,2,3	+60	●					

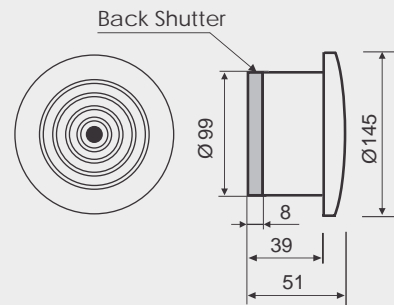
MM RN 100/60



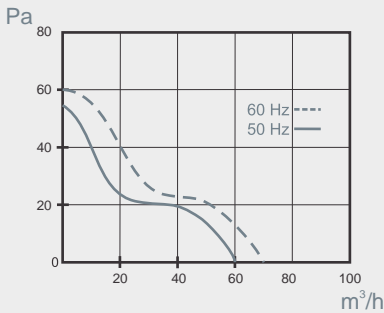
LONG life  
30.000h



Dimensions /mm/



Performance curves



Technical characteristic

Type	Product Code	Product Code with Back Shutter /Accessory/	Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Noise Level	Safety Zone	Max Air Temperature	Basic fan	Timer	Humidistat	Light Relay	LED Light
	No	No	Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	IP	dB	Zone	°C					
MM RN 100	-	2549	50 / 230	2500	16	60	X4	30	2,3	+60	●				

Legend

MM QN	Series name	LT	Light Relay & Timer	2S	2 Speed Fan
100	Size	LED	LED Light	C	Back Shutter /Accessory/
T	Timer	LV	Low Voltage Fan 12V	Products without a code are custom made	
HT	Humidistat & Timer	UE	Noiseless - Energy Efficient		

HEAT RECOVERY

DOMESTIC FANS

SAUNA FANS

AXIAL FANS

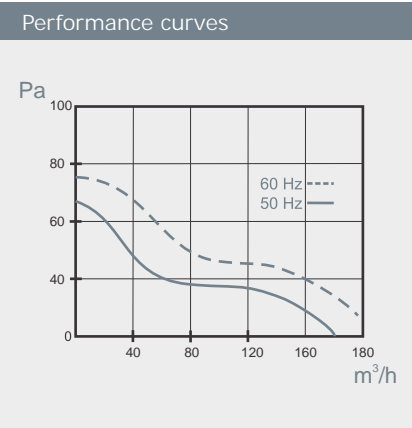
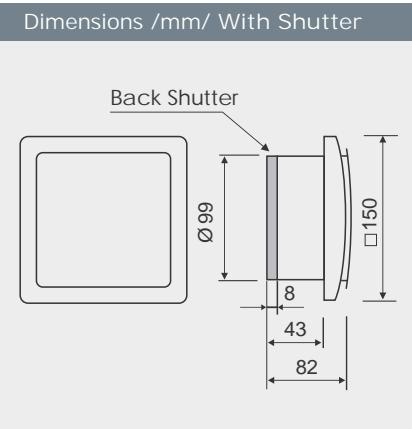
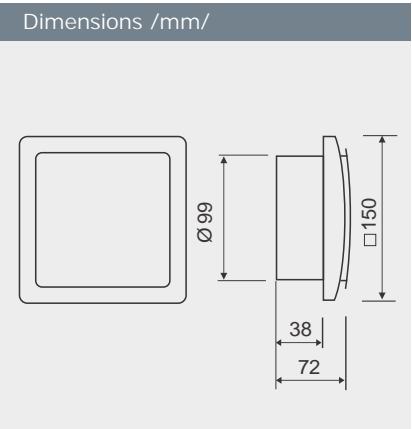
DUCT FANS

INDUSTRIAL FANS

ACCESSORIES

MM OK SERIES

LONG life 30.000h



Technical characteristic

Type	Product Code	Product Code with Back Shutter /Accessory /	Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Noise Level	Safety Zone	Max Air Temperature	Basic fan	Timer	Humidistat	Light Relay	LED Light	Noiseless Energy Efficient
	No	No	Hz / V	min <sup>-1</sup>	W	m³/h	IP	dB	Zone	°C						
MM OK 100	4680	2365	50 / 230	2750	18	169	56	32	2,3	+60	●					
MM OK 100T	-	-										●				
MM OK 100HT	-	-										●	●			
MM OK 100LT	-	-										●		●		
MM OK 100LED	-	-									●				●	
MM OK 100 UE	4673	4116	50 / 230	2020	5,5	100	X5	23	2,3	+60						●



Legend	MM OK	Series name	LT	Light Relay & Timer	2S	2 Speed Fan
	100	Size	LED	LED Light	C	Back Shutter /Accessory/
	T	Timer	LV	Low Voltage Fan 12V	Products without a code are custom made	
	HT	Humidistat & Timer	UE	Noiseless - Energy Efficient		

- HEAT RECOVERY
- DOMESTIC FANS
- SAUNA FANS
- AXIAL FANS
- DUCT FANS
- INDUSTRIAL FANS
- ACCESSORIES



# MMP Designer series

## Elegant & Stylish

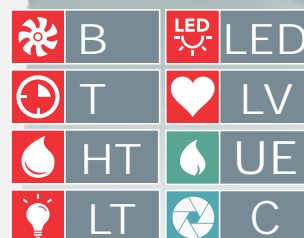
Designer series of bathroom and WC fans with spectacular front panel made of glass, PVC or metal



# MMP SERIES

## Trickle Impregnation Technology

- Sealed motor against dust and moisture
- High temperature resistant electric motor
- Maximum isolation characteristics
- Longlivity of the electric motor



## Extractor Fans

MMP Series – Designer series of bathroom and WC fans with spectacular front panel made of glass, PVC or metal. Elegant and beautiful fans with high airflow and impeccable quality that will make your bathroom stylish and bring freshness to your home.

These fans secure continuous or interrupted ventilation in the sanitary facilities. They can be used to purge air from small and medium-sized residential, office and commercial premises or as heat exchangers between adjacent premises.

The fans are mounted on walls, ceilings and suspended ceilings and are attached to air ducts or pipes of the building's ventilation system with a connection diameter of 100 mm, as well as to 120 mm air ducts or pipes through a special adapter.

## Safety

The MMP Series fans are made of high-quality and harmless materials, and they comply with noise and fire safety standards.

The protection degree of the built-in electric motor is IP 24, and the degree of the high airflow motor is IP 56 which enables the fan to normally operate in high humidity environment. It is possible to equip the fans with back shutter, timer, humidity and light sensors, and built-in LED lighting.

The fans are connected to single-phase grid by a switch or dimmer to control the speed (excluding UE models). Fans can be custom manufactured for other power supply voltages.

Low voltage LV 12V models, guaranteeing high safety level, could be mounted near the shower area (zone 1 of the scheme) or connected to shower cabins.

## Energy-efficient

P UE - Energy-efficient low-noise fans with IP X5 protection degree and a flow rate of up to 85m<sup>3</sup>/h and 100m<sup>3</sup>/h which consume only 5,5W/h.

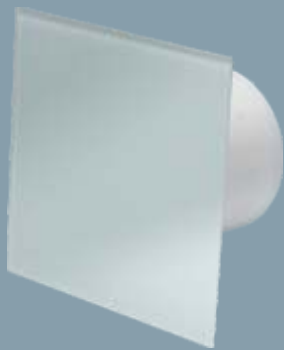


Series with double capsulated ball bearings NSK Japan which guarantee 30 000 hours of continuous operation.

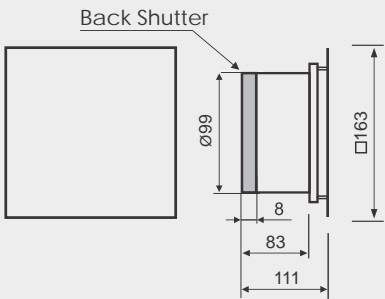


MM P SERIES

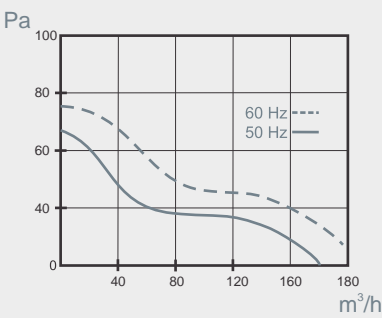
MM PSC 100 / MATT



Dimensions /mm/



Performance curves



Technical characteristic

Type	Product Code	Product Code with Back Shutter / Accessory /	Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Noise Level	Safety Zone	Max Air temperature	Basic fan	Timer	Humidistat	Light Relay	LED Light
	No	No	Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	IP	dB	Zone	°C					
MMP SC 100	-	8466	50 / 230	2430	13	105	24	29	2,3	+40	•				
MMP SC 100T	-	9906										•			
MMP SC 100HT	-	9890										•	•		
MMP SC 100LT	-	-										•		•	
MMP SC 100LED	-	-									•				•

MMP SC 100LV	-	-	50 / 12	2430	13	105	24	29	1,2,3	+40	•				
MMP SC 100LV T	-	-										•			
MMP SC 100LV HT	-	-										•	•		
MMP SC 100LV LT	-	-										•		•	
MMP SC 100LV LED	-	-									•				•



The body and front panels of all MMP fan models are available as an accessory.

Legend

MMP SC	Series name	LT	Light Relay & Timer	2S	2 Speed Fan
100	Size	LED	LED Light	C	Back Shutter /Accessory/
T	Timer	LV	Low Voltage Fan 12V	Products without a code are custom made	
HT	Humidistat & Timer	UE	Noiseless - Energy Efficient		

HEAT RECOVERY

DOMESTIC FANS

SAUNA FANS

AXIAL FANS

DUCT FANS

INDUSTRIAL FANS

ACCESSORIES

MM P SERIES

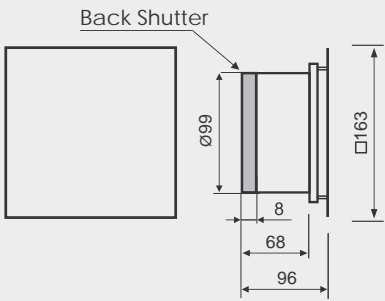
MM PS 100 / MATT



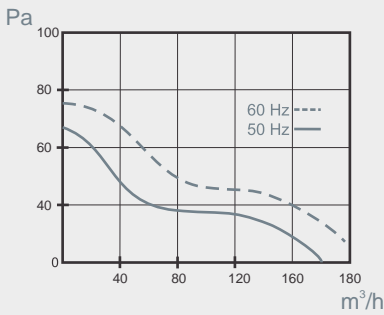
LONG life  
30.000h



Dimensions /mm/



Performance curves



Technical characteristic

Type	Product Code	Product Code with Back Shutter /Accessory/	Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Noise Level	Safety Zone	Max Air temperature	Basic fan	Timer	Humidistat	Light Relay	LED Light	Noiseless Energy Efficient
	No	No	Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	IP	dB	Zone	°C						
MMP S 100	-	4895	50 / 230	2750	18	169	56	32	2,3	+60	●					
MMP S 100T	-	9838										●				
MMP S 100HT	-	9692										●	●			
MMP S 100LT	-	-										●		●		
MMP S 100LED	-	-									●				●	
MMP S 100UE	-	9302	50 / 230	2020	5,5	100	X5	25	2,3	+60						●
MMP S 100LV B	-	-	50 / 12	2750	18	169	56	32	1,2,3	+60	●					
MMP S 100LV T	-	-										●				
MMP S 100LV HT	-	-										●	●			
MMP S 100LV LT	-	-										●		●		
MMP S 100LV LED	-	-									●				●	



The body and front panels of all MMP fan models are available as an accessory.

Legend

MMP S	Series name	LT	Light Relay & Timer	2S	2 Speed Fan
100	Size	LED	LED Light	C	Back Shutter /Accessory/
T	Timer	LV	Low Voltage Fan 12V	Products without a code are custom made	
HT	Humidistat & Timer	UE	Noiseless - Energy Efficient		

HEAT RECOVERY

DOMESTIC FANS

SAUNA FANS

AXIAL FANS

DUCT FANS

INDUSTRIAL FANS

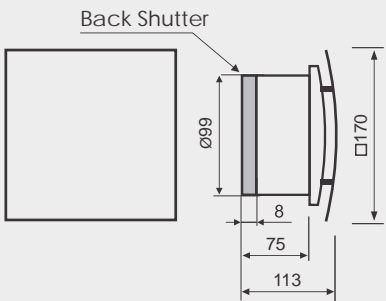
ACCESSORIES

MM P SERIES

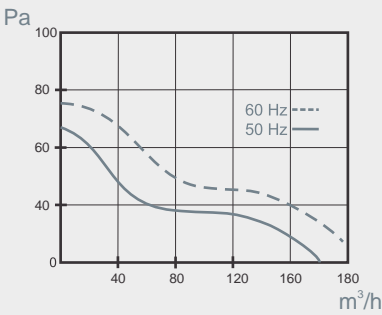
MM PEC 100 / MATT



Dimensions /mm/



Performance curves



Technical characteristic

Type	Product Code	Product Code with Back Shutter / Accessory /	Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Noise Level	Safety Zone	Max Air temperature	Basic fan	Timer	Humidistat	Light Relay	LED Light
	No	No	Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	IP	dB	Zone	°C					
MMP EC 100	-	8459	50 / 230	2430	13	105	24	29	2,3	+40	•				
MMP EC 100T	-	-										•			
MMP EC 100HT	-	-										•	•		
MMP EC 100LT	-	-										•		•	
MMP EC 100LED	-	-									•				•

MMP EC 100LV	-	-	50 / 12	2430	13	105	24	29	1,2,3	+40	•				
MMP EC 100LV T	-	-										•			
MMP EC 100LV HT	-	-										•	•		
MMP EC 100LV LT	-	-										•		•	
MMP EC 100LV LED	-	-									•				•



The body and front panels of all MMP fan models are available as an accessory.

Legend	MMP EC	Series name	LT	Light Relay & Timer	2S	2 Speed Fan
	100	Size	LED	LED Light	C	Back Shutter /Accessory/
	T	Timer	LV	Low Voltage Fan 12V		Products without a code are custom made
	HT	Humidistat & Timer	UE	Noiseless - Energy Efficient		

HEAT RECOVERY

DOMESTIC FANS

SAUNA FANS

AXIAL FANS

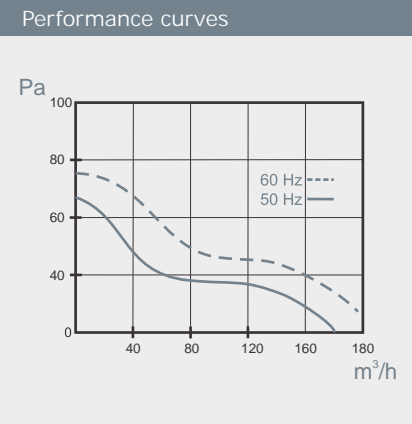
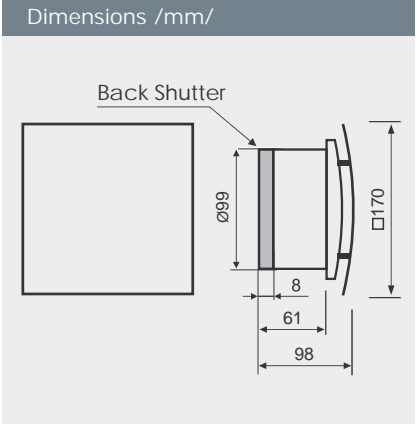
DUCT FANS

INDUSTRIAL FANS

ACCESSORIES

MM P SERIES

MM PE 100 / MATT



Technical characteristic

Type	Product Code	Product Code with Back Shutter / Accessory /	Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Noise Level	Safety Zone	Max Air temperature	Basic fan	Timer	Humidistat	Light Relay	LED Light	Noiseless Energy Efficient
	No	No	Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	IP	dB	Zone	°C						
MMP E 100	-	4710	50 / 230	2750	18	169	56	32	2,3	+60	●					
MMP E 100T	-	-										●				
MMP E 100HT	-	4711										●	●			
MMP E 100LT	-	-										●		●		
MMP E 100LED	-	-									●				●	
MMP E 100UE	-	9128	50 / 230	2020	5,5	100	X5	25	2,3	+60						●
MMP E 100LV B	-	-	50 / 12	2750	18	169	56	32	1,2,3	+60	●					
MMP E 100LV T	-	-										●				
MMP E 100LV HT	-	-										●	●			
MMP E 100LV LT	-	-										●		●		
MMP E 100LV LED	-	-									●				●	



The body and front panels of all MMP fan models are available as an accessory.

Legend	MMP E	Series name	LT	Light Relay & Timer	2S	2 Speed Fan
	100	Size	LED	LED Light	C	Back Shutter /Accessory/
	T	Timer	LV	Low Voltage Fan 12V		Products without a code are custom made
	HT	Humidistat & Timer	UE	Noiseless - Energy Efficient		

HEAT RECOVERY

DOMESTIC FANS

SAUNA FANS

AXIAL FANS

DUCT FANS

INDUSTRIAL FANS

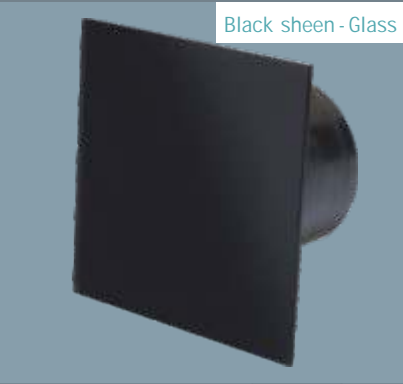
ACCESSORIES





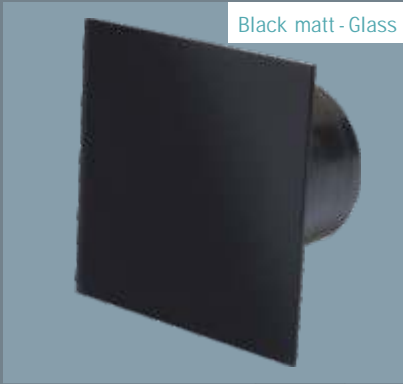
White sheen Glass

MMP SC	105m <sup>2</sup> /h	9319
MMP SC T	105m <sup>2</sup> /h	-
MMP SC HT	105m <sup>2</sup> /h	-
MMP S	169m <sup>2</sup> /h	9494
MMP S T	169m <sup>2</sup> /h	5469
MMP S HT	169m <sup>2</sup> /h	9708
MMP S UE	100m <sup>2</sup> /h	9623



Black sheen - Glass

MMP SC	105m <sup>2</sup> /h	9036
MMP SC T	105m <sup>2</sup> /h	9920
MMP SC HT	105m <sup>2</sup> /h	9913
MMP S	169m <sup>2</sup> /h	4826
MMP S T	169m <sup>2</sup> /h	4635
MMP S HT	169m <sup>2</sup> /h	9722
MMP S UE	100m <sup>2</sup> /h	9234



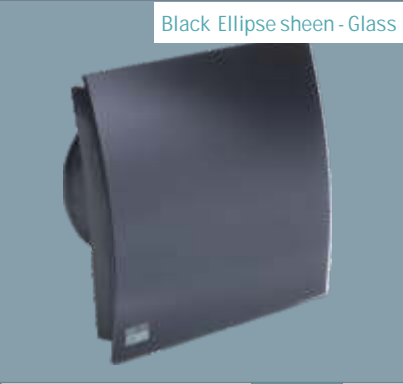
Black matt - Glass

MMP SC	105m <sup>2</sup> /h	9029
MMP SC T	105m <sup>2</sup> /h	-
MMP SC HT	105m <sup>2</sup> /h	-
MMP S	169m <sup>2</sup> /h	4857
MMP S T	169m <sup>2</sup> /h	-
MMP S HT	169m <sup>2</sup> /h	9715
MMP S UE	100m <sup>2</sup> /h	9265



White Ellipse sheen - Glass

MMP EC	105m <sup>2</sup> /h	9395
MMP EC T	105m <sup>2</sup> /h	-
MMP EC HT	105m <sup>2</sup> /h	-
MMP E	169m <sup>2</sup> /h	4864
MMP E T	169m <sup>2</sup> /h	-
MMP E HT	169m <sup>2</sup> /h	9739
MMP E UE	100m <sup>2</sup> /h	9272



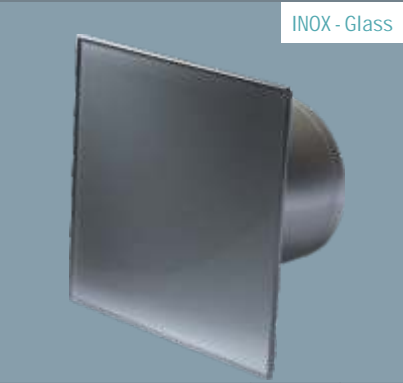
Black Ellipse sheen - Glass

MMP EC	105m <sup>2</sup> /h	9401
MMP EC T	105m <sup>2</sup> /h	-
MMP EC HT	105m <sup>2</sup> /h	-
MMP E	169m <sup>2</sup> /h	4871
MMP E T	169m <sup>2</sup> /h	-
MMP E HT	169m <sup>2</sup> /h	9746
MMP E UE	100m <sup>2</sup> /h	9289



Black Ellipse matt - Glass

MMP EC	105m <sup>2</sup> /h	1009
MMP EC T	105m <sup>2</sup> /h	-
MMP EC HT	105m <sup>2</sup> /h	-
MMP E	169m <sup>2</sup> /h	4888
MMP E T	169m <sup>2</sup> /h	-
MMP E HT	169m <sup>2</sup> /h	-
MMP E UE	100m <sup>2</sup> /h	9296



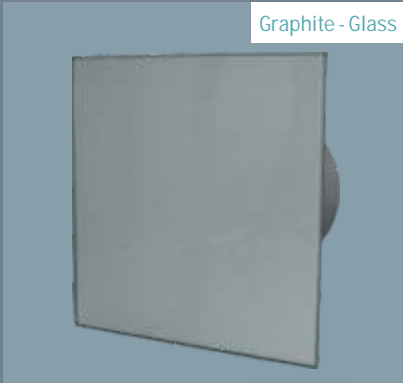
INOX - Glass

MMP SC	105m <sup>2</sup> /h	9043
MMP SC T	105m <sup>2</sup> /h	-
MMP SC HT	105m <sup>2</sup> /h	-
MMP S	169m <sup>2</sup> /h	4772
MMP S T	169m <sup>2</sup> /h	9821
MMP S HT	169m <sup>2</sup> /h	9852
MMP S UE	100m <sup>2</sup> /h	9180



Asphalt - Glass

MMP SC	105m <sup>2</sup> /h	9067
MMP SC T	105m <sup>2</sup> /h	-
MMP SC HT	105m <sup>2</sup> /h	-
MMP S	169m <sup>2</sup> /h	4727
MMP S T	169m <sup>2</sup> /h	9814
MMP S HT	169m <sup>2</sup> /h	9753
MMP S UE	100m <sup>2</sup> /h	9135

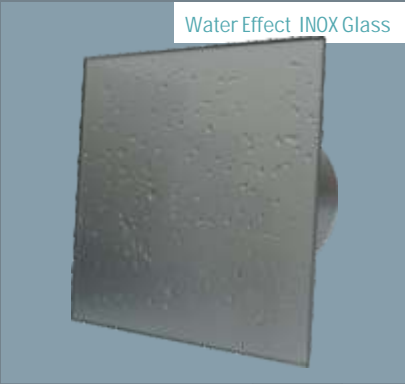


Graphite - Glass

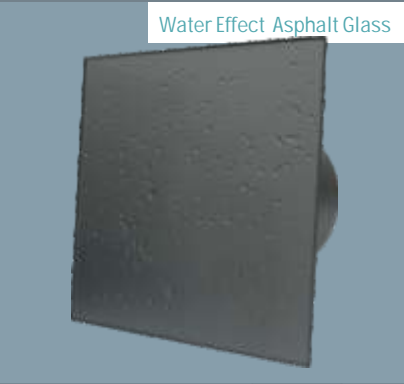
MMP SC	105m <sup>2</sup> /h	9050
MMP SC T	105m <sup>2</sup> /h	9944
MMP SC HT	105m <sup>2</sup> /h	9937
MMP S	169m <sup>2</sup> /h	4758
MMP S T	169m <sup>2</sup> /h	-
MMP S HT	169m <sup>2</sup> /h	-
MMP S UE	100m <sup>2</sup> /h	9166



The codes are for fans with back shutter



MMP SC	105m <sup>2</sup> /h	9876
MMP SC T	105m <sup>2</sup> /h	-
MMP SC HT	105m <sup>2</sup> /h	-
MMP S	169m <sup>2</sup> /h	9524
MMP S T	169m <sup>2</sup> /h	-
MMP S HT	169m <sup>2</sup> /h	-
MMP S UE	100m <sup>2</sup> /h	0910?



MMP SC	105m <sup>2</sup> /h	9883
MMP SC T	105m <sup>2</sup> /h	-
MMP SC HT	105m <sup>2</sup> /h	-
MMP S	169m <sup>2</sup> /h	9517
MMP S T	169m <sup>2</sup> /h	-
MMP S HT	169m <sup>2</sup> /h	-
MMP S UE	100m <sup>2</sup> /h	1924



MMP SC	105m <sup>2</sup> /h	9357
MMP SC T	105m <sup>2</sup> /h	-
MMP SC HT	105m <sup>2</sup> /h	-
MMP S	169m <sup>2</sup> /h	4789
MMP S T	169m <sup>2</sup> /h	5470
MMP S HT	169m <sup>2</sup> /h	9760
MMP S UE	100m <sup>2</sup> /h	9197



MMP SC	105m <sup>2</sup> /h	9340
MMP SC T	105m <sup>2</sup> /h	-
MMP SC HT	105m <sup>2</sup> /h	-
MMP S	169m <sup>2</sup> /h	4765
MMP S T	169m <sup>2</sup> /h	-
MMP S HT	169m <sup>2</sup> /h	-
MMP S UE	100m <sup>2</sup> /h	9173



MMP SC	105m <sup>2</sup> /h	9333
MMP SC T	105m <sup>2</sup> /h	-
MMP SC HT	105m <sup>2</sup> /h	-
MMP S	169m <sup>2</sup> /h	4741
MMP S T	169m <sup>2</sup> /h	-
MMP S HT	169m <sup>2</sup> /h	-
MMP S UE	100m <sup>2</sup> /h	9159



MMP SC	105m <sup>2</sup> /h	9326
MMP SC T	105m <sup>2</sup> /h	-
MMP SC HT	105m <sup>2</sup> /h	-
MMP S	169m <sup>2</sup> /h	4734
MMP S T	169m <sup>2</sup> /h	-
MMP S HT	169m <sup>2</sup> /h	-
MMP S UE	100m <sup>2</sup> /h	9142



MMP SC	105m <sup>2</sup> /h	9364
MMP SC T	105m <sup>2</sup> /h	-
MMP SC HT	105m <sup>2</sup> /h	-
MMP S	169m <sup>2</sup> /h	4796
MMP S T	169m <sup>2</sup> /h	9845
MMP S HT	169m <sup>2</sup> /h	9869
MMP S UE	100m <sup>2</sup> /h	9203



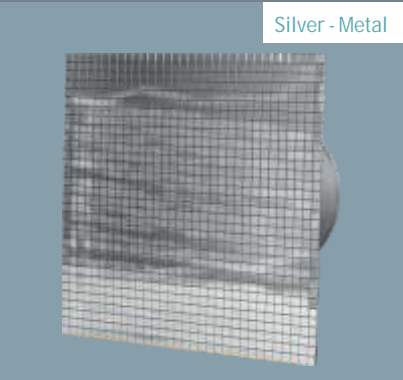
MMP SC	105m <sup>2</sup> /h	9371
MMP SC T	105m <sup>2</sup> /h	-
MMP SC HT	105m <sup>2</sup> /h	-
MMP S	169m <sup>2</sup> /h	4833
MMP S T	169m <sup>2</sup> /h	-
MMP S HT	169m <sup>2</sup> /h	-
MMP S UE	100m <sup>2</sup> /h	9241



MMP SC	105m <sup>2</sup> /h	9388
MMP SC T	105m <sup>2</sup> /h	-
MMP SC HT	105m <sup>2</sup> /h	-
MMP S	169m <sup>2</sup> /h	4840
MMP S T	169m <sup>2</sup> /h	-
MMP S HT	169m <sup>2</sup> /h	-
MMP S UE	100m <sup>2</sup> /h	9258

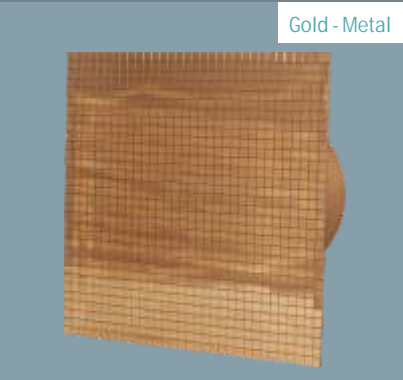


The codes are for fans with back shutter



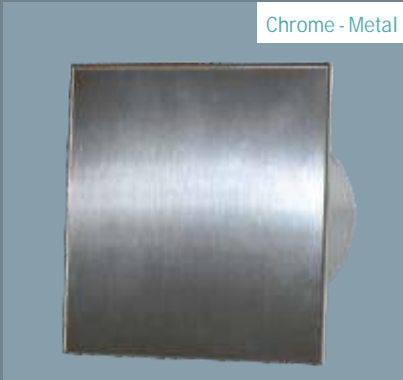
Silver - Metal

MMP SC	105m³/h	9074
MMP SC T	105m³/h	-
MMP SC HT	105m³/h	-
MMP S	169m³/h	4819
MMP S T	169m³/h	-
MMP S HT	169m³/h	-
MMP S UE	100m³/h	9227



Gold - Metal

MMP SC	105m³/h	9081
MMP SC T	105m³/h	-
MMP SC HT	105m³/h	-
MMP S	169m³/h	4802
MMP S T	169m³/h	-
MMP S HT	169m³/h	-
MMP S UE	100m³/h	9210



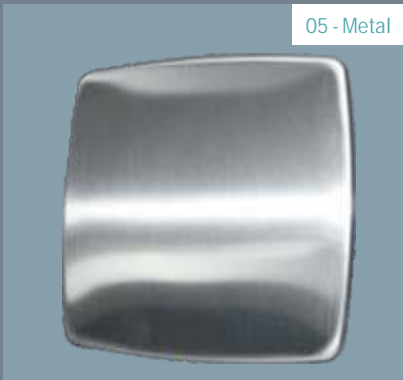
Chrome - Metal

MMP SC	105m³/h	8480
MMP SC T	105m³/h	-
MMP SC HT	105m³/h	-
MMP S	169m³/h	1306
MMP S T	169m³/h	-
MMP S HT	169m³/h	-
MMP S UE	100m³/h	1603



Chrome - Metal

MMP C	105m³/h	8473
MMP C T	105m³/h	-
MMP C HT	105m³/h	-
MMP	169m³/h	9609
MMP T	169m³/h	-
MMP HT	169m³/h	-
MMP E UE	100m³/h	9586



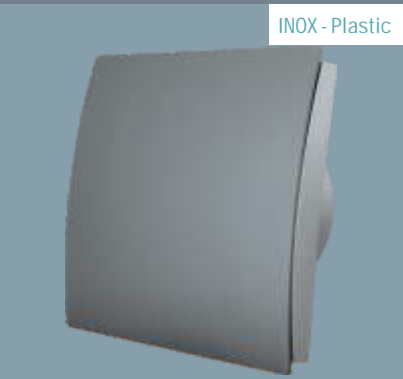
05 - Metal

MMP SC	105m³/h	8633
MMP SC T	105m³/h	-
MMP SC HT	105m³/h	-
MMP S	169m³/h	9593
MMP S T	169m³/h	-
MMP S HT	169m³/h	-
MMP S UE	100m³/h	6035



05 White - Plastic

MMP EC	105m³/h	8428
MMP EC T	105m³/h	-
MMP EC HT	105m³/h	-
MMP E	169m³/h	-
MMP E T	169m³/h	-
MMP E HT	169m³/h	-
MMP E UE	100m³/h	6028



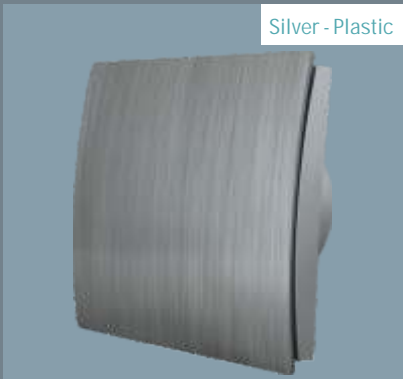
INOX - Plastic

MMP EC	105m³/h	8305
MMP EC T	105m³/h	-
MMP EC HT	105m³/h	-
MMP E	169m³/h	-
MMP E T	169m³/h	-
MMP E HT	169m³/h	-
MMP E UE	100m³/h	-



Gold - Plastic

MMP EC	105m³/h	8329
MMP EC T	105m³/h	-
MMP EC HT	105m³/h	-
MMP E	169m³/h	1702
MMP E T	169m³/h	-
MMP E HT	169m³/h	-
MMP E UE	100m³/h	1757

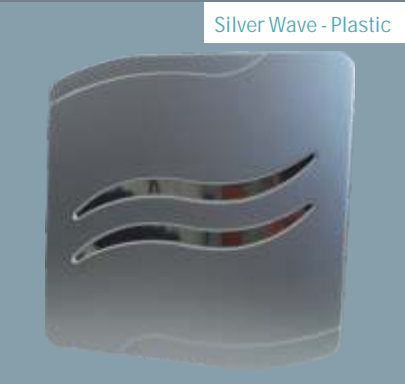


Silver - Plastic

MMP EC	105m³/h	8312
MMP EC T	105m³/h	-
MMP EC HT	105m³/h	-
MMP E	169m³/h	9418
MMP E T	169m³/h	-
MMP E HT	169m³/h	-
MMP E UE	100m³/h	1405



The codes are for fans with back shutter



MMP SC	105m <sup>2</sup> /h	8381
MMP SC T	105m <sup>2</sup> /h	-
MMP SC HT	105m <sup>2</sup> /h	-
MMP S	169m <sup>2</sup> /h	-
MMP S T	169m <sup>2</sup> /h	-
MMP S HT	169m <sup>2</sup> /h	-
MMP S UE	100m <sup>2</sup> /h	-



MMP SC	105m <sup>2</sup> /h	8367
MMP SC T	105m <sup>2</sup> /h	-
MMP SC HT	105m <sup>2</sup> /h	-
MMP S	169m <sup>2</sup> /h	-
MMP S T	169m <sup>2</sup> /h	-
MMP S HT	169m <sup>2</sup> /h	-
MMP S UE	100m <sup>2</sup> /h	-



MMP SC	105m <sup>2</sup> /h	8374
MMP SC T	105m <sup>2</sup> /h	-
MMP SC HT	105m <sup>2</sup> /h	-
MMP S	169m <sup>2</sup> /h	-
MMP S T	169m <sup>2</sup> /h	-
MMP S HT	169m <sup>2</sup> /h	-
MMP S UE	100m <sup>2</sup> /h	-



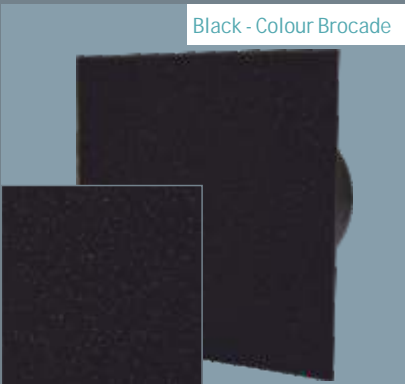
MMP SC	105m <sup>2</sup> /h	9111
MMP SC T	105m <sup>2</sup> /h	-
MMP SC HT	105m <sup>2</sup> /h	-
MMP S	169m <sup>2</sup> /h	9487
MMP S T	169m <sup>2</sup> /h	-
MMP S HT	169m <sup>2</sup> /h	-
MMP S UE	100m <sup>2</sup> /h	5120



MMP EC	105m <sup>2</sup> /h	8275
MMP EC T	105m <sup>2</sup> /h	8695
MMP EC HT	105m <sup>2</sup> /h	9425
MMP E	169m <sup>2</sup> /h	9791
MMP E T	169m <sup>2</sup> /h	-
MMP E HT	169m <sup>2</sup> /h	5007
MMP S UE	100m <sup>2</sup> /h	1740



MMP SC	105m <sup>2</sup> /h	-
MMP SC T	105m <sup>2</sup> /h	-
MMP SC HT	105m <sup>2</sup> /h	-
MMP S	169m <sup>2</sup> /h	0429
MMP S T	169m <sup>2</sup> /h	-
MMP S HT	169m <sup>2</sup> /h	-
MMP S UE	100m <sup>2</sup> /h	-



MMP C	105m <sup>2</sup> /h	-
MMP SC T	105m <sup>2</sup> /h	-
MMP SC HT	105m <sup>2</sup> /h	-
MMP S	169m <sup>2</sup> /h	0436
MMP S T	169m <sup>2</sup> /h	-
MMP S HT	169m <sup>2</sup> /h	-
MMP S UE	100m <sup>2</sup> /h	-



MMP SC	105m <sup>2</sup> /h	-
MMP SC T	105m <sup>2</sup> /h	-
MMP SC HT	105m <sup>2</sup> /h	-
MMP S	169m <sup>2</sup> /h	0412
MMP S T	169m <sup>2</sup> /h	-
MMP S HT	169m <sup>2</sup> /h	-
MMP S UE	100m <sup>2</sup> /h	-



MMP SC	105m <sup>2</sup> /h	-
MMP SC T	105m <sup>2</sup> /h	-
MMP SC HT	105m <sup>2</sup> /h	-
MMP S	169m <sup>2</sup> /h	0443
MMP S T	169m <sup>2</sup> /h	-
MMP S HT	169m <sup>2</sup> /h	-
MMP S UE	100m <sup>2</sup> /h	-



The codes are for fans with back shutter





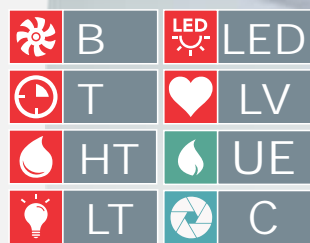
VENTILATION SOLUTIONS

# Economic Line

Affordable to every customer, yet with excellent quality and beautiful design.



# OK, WE & MT SERIES



## Extractor Fans

Bathroom and WC fans at competitive prices – affordable to every customer, yet with excellent quality and beautiful design. These fans provide continuous or interrupted ventilation in the sanitary facilities at extremely low power consumption.

They can be used to purge air from small and medium-sized residential, office and commercial premises or as heat exchangers between adjacent premises.

The fans are mounted on walls, ceilings and suspended ceilings and are attached to air ducts or pipes of the building's ventilation system with a connection diameter of 100 mm, as well as to 120 mm air ducts or pipes through a special adapter.

## Safety

The fans from the OK and WE Series are made of high-quality and harmless materials, and they comply with noise and fire safety standards. The protection degree of the built-in electric motor is IP 24 which enables the fan to normally operate in high humidity environment. It is possible to equip the fans with back shutter, timer, humidity and light sensors, and built-in LED lighting.

The fans are connected to single-phase grid by a switch or dimmer to control the speed. Fans can be custom manufactured for other power supply voltages.

Low voltage LV 12V models, guaranteeing high safety level, could be assembled near the shower area (zone 1 of the scheme) or connected to shower cabins.

Low voltage LV 12V models, guaranteeing high safety level, could be assembled near the shower area (zone 1 of the scheme) or connected to shower cabins.

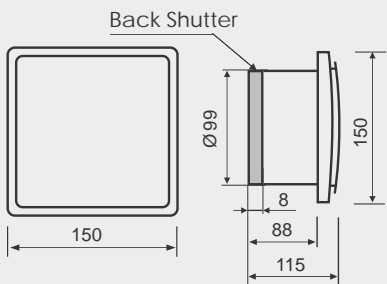
## Energy-efficient

OK UE - Energy-efficient low-noise fans with IP 24 protection degree and a flow rate of up to 74m<sup>3</sup>/h and 100m<sup>3</sup>/h which consume only 2,3W/h.

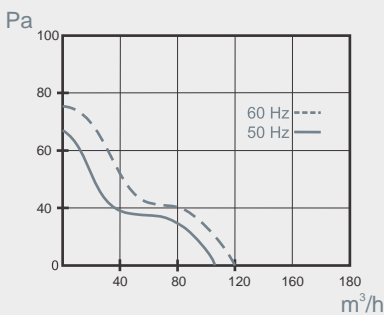
OK 100/120



Dimensions /mm/



Performance curves



Technical characteristic

Type	Product Code	Product Code with Back Shutter / Accessory /	Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Noise Level	Safety Zone	Max Air temperature	Basic fan	Timer	Humidistat	Light Relay	LED Light	Noiseless Energy Efficient
	No	No	Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	IP	dB	Zone	°C						
OK 100	0330	0347	50 / 230	2430	13	100	24	29	2,3	+40	•					
OK 100T	0000	6585										•				
OK 100HT	0000	8251										•	•			
OK 100LT	0000	6738										•		•		
OK 100LED	0000	6882									•				•	
OK UE 100	0382	-	50 / 230	1980	2,3	100	24	25	2,3	+55						•
OK UE 100 C	-	0399	50 / 230	1980	2,2	74	24	23	2,3	+55						•

OK B 100



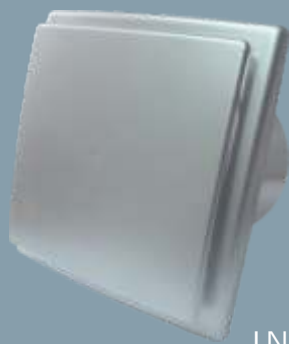
BLACK

OK BI 100



BLACK-INOX

OK I 100



INOX

Type	Product Code	Product Code with Back Shutter / Accessory /	Type	Product Code	Product Code with Back Shutter / Accessory /	Type	Product Code	Product Code with Back Shutter / Accessory /
OK B 100	2938	2945	OK I 100	2990	3003	OK I 100	0521	2907
OK B 100T	-	-	OK I 100T	5755	-	OK I 100T	5748	-
OK B 100HT	-	8435	OK I 100HT	-	-	OK I 100HT	6967	8442
OK B 100LT	-	8091	OK I 100LT	-	-	OK I 100LT	6905	8596

Legend

OK	Series name	LT	Light Relay & Timer	2S	2 Speed Fan
100	Size	LED	LED Light	C	Back Shutter /Accessory/
T	Timer	LV	Low Voltage Fan 12V	Products without a code are custom made	
HT	Humidistat & Timer	UE	Noiseless - Energy Efficient		

HEAT RECOVERY

DOMESTIC FANS

SAUNA FANS

AXIAL FANS

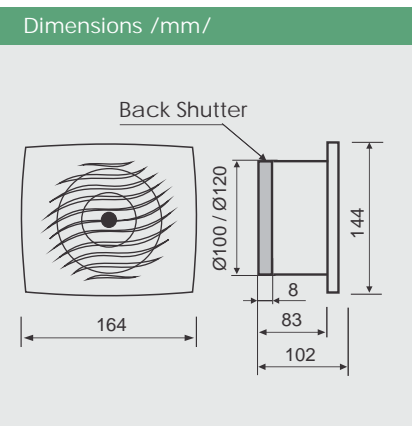
DUCT FANS

INDUSTRIAL FANS

ACCESSORIES

# WE SERIES

# Economic line



Technical data		Product Code with Back Shutter / Accessory /	Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Noise Level	Safety Zone	Max Air Temperature	Basic fan	Timer	Humidistat	Light Relay	LED Light
Type	Product Code														
	<b>No</b>	<b>No</b>	Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	IP	dB	Zone	°C					
WE 100	6912	6936	50 / 230	2430	13	105	24	29	2,3	+40	●				
WE 100T	-	4208										●			
WE 100HT	-	4215										●	●		
WE 100LT	-	7995										●		●	








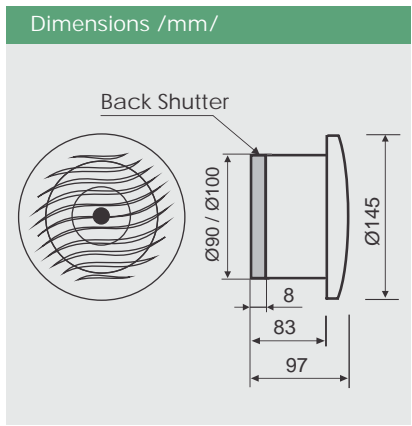
Type	Product Code	Product Code with Back Shutter / Accessory /
WE 120	6974	7063
WE 120T	-	-
WE 120HT	-	-
WE 120LT	-	-

Type	Product Code	Product Code with Back Shutter / Accessory /
WE S 100	6929	6943
WE S 100T	-	8008
WE S 100HT	-	8022
WE S 100LT	-	8015

Type	Product Code	Product Code with Back Shutter / Accessory /
WE S 120	6981	7711
WE S 120T	-	-
WE S 120HT	-	-
WE S 120LT	-	-



Supply Voltage	Consumed power	Maximum Flow rate	Protection Degree	Noise Level
				
Hz / V	W	m³/h	IP	dB
50 / 230	13	65 / 105	24	23/29
Type	Product Code		Product Code with Back Shutter / Accessory /	
90	3256		-	
100	1597		1580	



HEAT RECOVERY

DOMESTIC FANS

SAUNA FANS

AXIAL FANS

DUCT FANS

INDUSTRIAL FANS


ACCESSORIES





VENTILATION SOLUTIONS

# Sauna & Steam Room Extractor Fans



# | We love your sauna

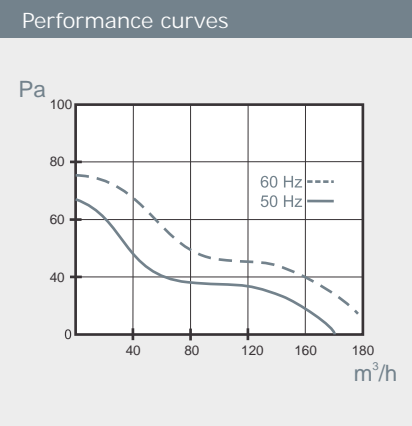
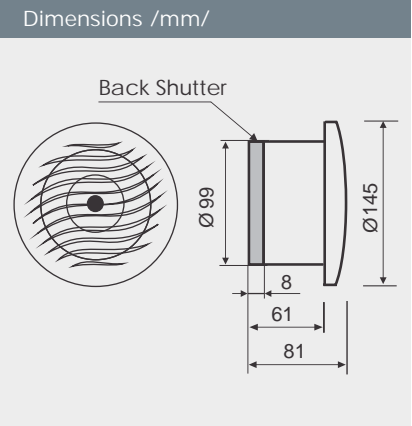
As a result of the abundant sweating and the thermal radiation process when using a sauna or steam room, toxins, fluids and bacteria, adversely affecting the human respiratory system, are released inside the premises. In this aspect, sauna ventilation is an important factor in improving comfort, rejuvenating the air, reducing the risk of damage to the lungs and the cardiovascular system.

Ventilation of the sauna and steam room further enhances the health effect by contributing to accelerate the body's own healing activity and ability to recover.

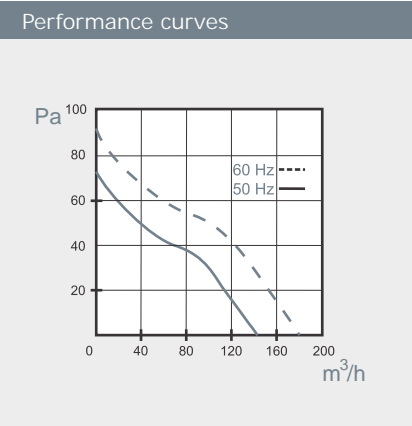
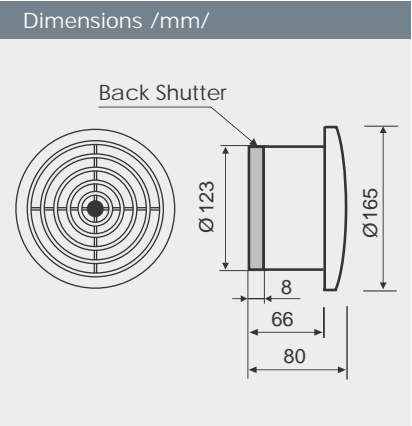
That's the reason why we have developed a specially designed high-temperature resistant fan for sauna and steam room that operates at temperatures up to 140° and 100 % humidity. When the fan is turned off, a back shutter is provided to prevent the cold air from entering the premise.

The fan's electric motor, housing, blade and valve are made of materials which enable the device to operate at high temperature and humidity, and it could be mounted directly into the premise without the risk of getting overheated.

MM SV 100



MM SR 120



Technical characteristic

Type	Product Code	Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Noise Level	Safety Zone	Max Air Temperature	Back Shutter /Accessory/	Product Code with Back Shutter
	No	Hz / V	min <sup>-1</sup>	W	m³/h	IP	dB	Zone	°C	C	No
MM SV 100	1986	50 / 230	2790	17	105	X4	39	2,3	+140	●	0248
MM SV 100 LV	8039	50 / 12	2790	17	105	X4	39	1,2,3	+140	●	7704
MM SV 100	9432	50 / 230	2750	18	169	56	32	2,3	+140	●	9531
MM SV 100 LV	9463	50 / 12	2750	18	169	56	32	1,2,3	+140	●	9951
MM SR 120	0255	50 / 230	2650	18	150	56	42	2,3	+140	●	0262
MM SR 120 LV	-	50 / 12	2650	18	150	56	42	1,2,3	+140	●	-



HEAT RECOVERY

DOMESTIC FANS

SAUNA FANS

AXIAL FANS

DUCT FANS

INDUSTRIAL FANS

ACCESSORIES



# MM S SERIES

# Wood Collection

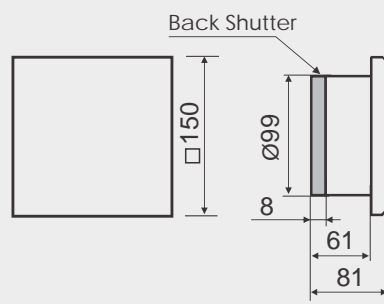
## MM ST 100



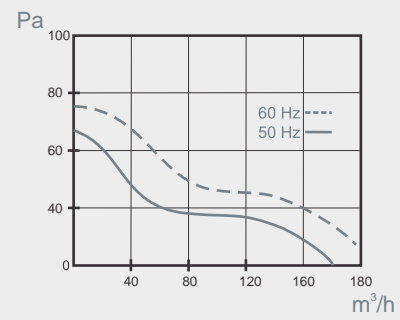
LONG life  
30.000h



### Dimensions /mm/



### Performance curves



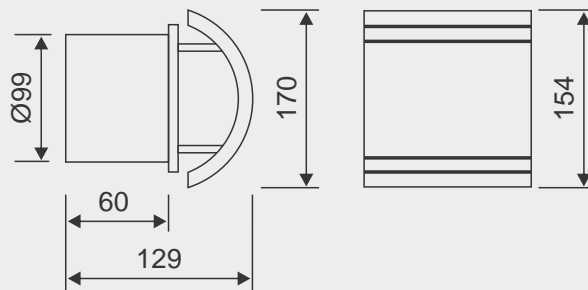
## MM SE 100



LONG life  
30.000h



### Dimensions /mm/



### Technical characteristic

Type	Product Code	Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Noise Level	Safety Zone	Max Air Temperature	Back Shutter /Accessory/	Product Code with Back Shutter
	<b>No</b>	Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	IP	dB	Zone	°C	<b>C</b>	<b>No</b>
MM ST 100	8060	50 / 230	2790	17	105	X4	39	2,3	+140	●	0514
MM ST 100 LV	-	50 / 12	2790	17	105	X4	39	1,2,3	+140	●	-
MM ST 100/169	9449	50 / 230	2750	18	169	56	32	1,2	+140	●	-
MM SE 100	8077	50 / 230	2790	17	105	X4	39	2,3	+140	●	9012
MM SE 100 LV	-	50 / 12	2750	17	105	X4	39	1,2,3	+140	●	-
MM SE 100/169	9456	50 / 230	2750	18	169	56	32	1,2	+140	●	-



The codes are for fans with back shutter

HEAT RECOVERY

DOMESTIC FANS

SAUNA FANS

AXIAL FANS

DUCT FANS

INDUSTRIAL FANS

ACCESSORIES





VENTILATION SOLUTIONS

# Axial Fans VA Series

**FOR SPECIALIST APPLICATION**

Basic & High Temperature Resistant Models



#### Trickle Impregnation Technology

- Sealed motor against dust and moisture
- High temperature resistant electric motor
- Maximum isolation characteristics
- Longlivity of the electric motor

**LONG life**  
**30 000h**



Series with double capsulated ball bearings  
NSK Japan which guarantee 30 000 hours of  
continuous operation.

Axial fans fall into the following categories:  
VA 9/2, VA 12/2, VA 12/2K, VA 14/2, VA 16/2.

#### Designed for:

- cooling of electronic control panels;
- ventilation of electrical panels;
- installation in devices in electronics, appliance construction and automation;
- cooling of welding machines and plasm cutting machines;
- installation in cooling and ventilation systems and air-conditioning devices;
- installation in household air heaters and heat exchangers.



All fans of this type have a built-in single-phase electric motors with shielded poles and a short-circuited rotor with double capsulated ball bearings. The fan is square in shape with internally located fins to which the stator is attached.

The VA series axial fans are suitable to be fitted to apertures and air conduits with Ø90, Ø100, Ø120, Ø135 and Ø150.

They can be produced with supply voltages 230V, 115V, 36V or 24V, at frequency of 50Hz or 60Hz.

Isolation class: "H" - 180 degrees Celsius or "L" - 200 degrees Celsius.

Protection degree: IP 44.

#### Operating conditions:

The fans are designed to operate under normal climatic conditions where the ambient temperature can vary from -5 degrees Celsius up to +60 degrees Celsius and a relative humidity from 40% to 98% at 30 degrees Celsius.

Upon clients' request the fans can be manufactured to operate at higher temperatures, in tropical or coastal climatic zones.



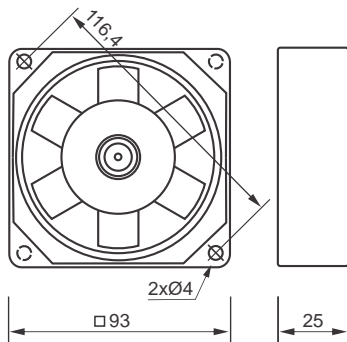
VA 9/2



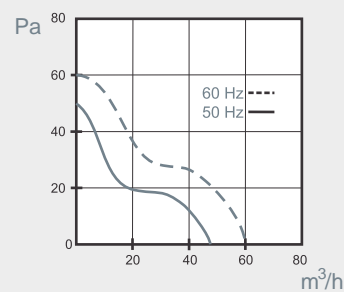
LONG life  
30.000h



Dimensions /mm/



Performance curves



Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Max static pressure	Consumed current	Protection Degree	Noise Level	Weight	Max Air t°	Product Code	Max Air t°	Product Code
Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	Pa		IP	dB	Kg	°C	No	°C	No
50 / 230	2500	16	60	50	0,096	44	36	0,420	+60	0071	+150	0132
50 / 115	2500	15	60	50	0,178	44	36	0,420	+60	8947	+150	7414
50 / 24	2500	16	60	50	0,870	44	36	0,420	+60	9104	+150	3232
60 / 220	3200	17	70	60	0,090	44	37	0,420	+60	-	+150	-
60 / 120	3200	17	70	60	0,160	44	37	0,420	+60	-	+150	-

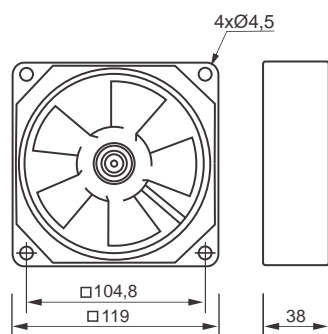
VA 12/2



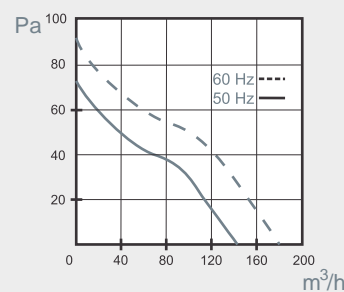
LONG life  
30.000h



Dimensions /mm/



Performance curves



Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Max static pressure	Consumed current	Protection Degree	Noise Level	Weight	Max Air t°	Product Code	Max Air t°	Product Code
Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	Pa		IP	dB	Kg	°C	No	°C	No
50 / 230	2650	18	150	75	0,125	44	39	0,560	+60	0026	+150	0149
50 / 115	2650	17	150	75	0,234	44	39	0,560	+60	0064	+150	7407
50 / 24	2650	18	150	75	0,114	44	39	0,560	+60	3393	+150	6745
60 / 220	3200	19	175	90	0,110	44	42	0,560	+60	-	+150	-
60 / 120	3200	19	175	90	0,210	44	42	0,560	+60	-	+150	-



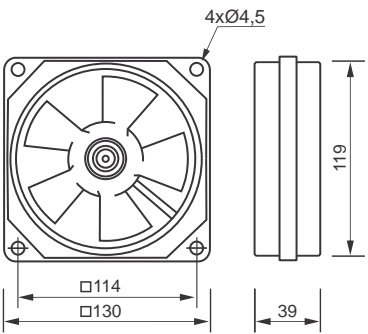
Products without a code are custom made.

VA series

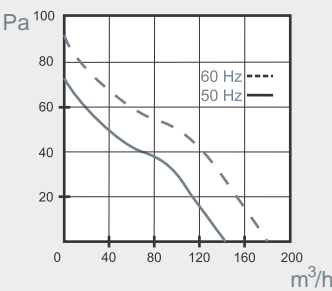
VA 12/2 K



Dimensions /mm/



Performance curves



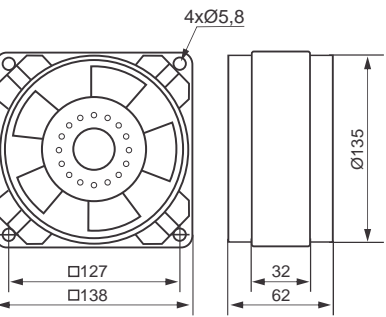
Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Max static pressure	Consumed current	Protection Degree	Noise Level	Weight	Max Air t°	Product Code	Max Air t°	Product Code
Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	Pa		IP	dB	Kg	°C	No	°C	No
50 / 230	2650	18	150	75	0,125	44	39	0,600	+60	0033	+150	0224
50 / 115	2650	17	150	75	0,234	44	39	0,600	+60	3843	+150	-
50 / 24	2650	18	150	75	0,114	44	39	0,600	+60	-	+150	-
60 / 220	3200	19	175	90	0,110	44	42	0,600	+60	-	+150	-
60 / 120	3200	19	175	90	0,210	44	42	0,600	+60	-	+150	-

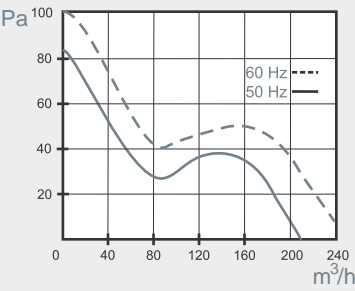
VA 14/2



Dimensions /mm/



Performance curves



Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Max static pressure	Consumed current	Protection Degree	Noise Level	Weight	Max Air t°	Product Code	Max Air t°	Product Code
Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	Pa		IP	dB	Kg	°C	No	°C	No
50 / 230	2650	42	205	85	0,340	44	41	1,520	+60	0040	+150	0156
50 / 115	2650	42	205	85	0,680	44	41	1,520	+60	3836	+150	4628
50 / 24	2650	42	205	85	0,312	44	41	1,520	+60	-	+150	-
60 / 220	3360	51	250	100	0,360	44	47	1,520	+60	-	+150	-
60 / 120	3360	51	250	100	0,701	44	47	1,520	+60	-	+150	-



Products without a code are custom made.

HEAT RECOVERY

DOMESTIC FANS

SAUNA FANS

AXIAL FANS

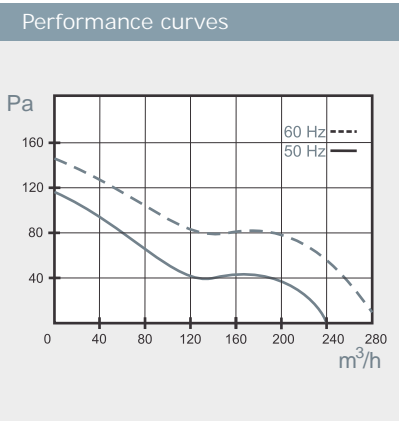
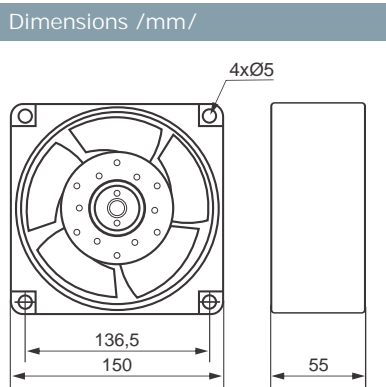
DUCT FANS

INDUSTRIAL FANS

ACCESSORIES



VA 16/2



Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Max static pressure	Consumed current	Protection Degree	Noise Level	Weight	Max Air t°	Product Code	Max Air t°	Product Code
Hz / V	min <sup>-1</sup>	W	m³/h	Pa		IP	dB	Kg	°C	No	°C	No
50 / 230	2650	46	240	110	0,385	44	51	1,220	+60	0057	+150	0163
50 / 115	2650	45	240	110	0,721	44	51	1,220	+60	0088	+150	4642
50 / 24	2650	45	240	110	0,353	44	51	1,220	+60	-	+150	-
60 / 220	3320	54	275	130	0,385	44	53	1,220	+60	-	+150	-
60 / 120	3320	54	275	130	0,714	44	53	1,220	+60	-	+150	-



Products without a code are custom made.



Trickle Impregnation Technology

- Sealed motor against dust and moisture
- Maximum isolation characteristics
- Longlivity of the electric motor

HEAT RECOVERY

DOMESTIC FANS

SAUNA FANS

AXIAL FANS

DUCT FANS

INDUSTRIAL FANS

CESSORIES



# Duct Fans VO & VOK series

Basic & High Temperature  
Resistant Models







Trickle Impregnation Technology

- Sealed motor against dust and moisture
- High temperature resistant electric motor
- Maximum isolation characteristics
- Longlivity of the electric motor

LONG life  
30 000h



Series with double capsulated ball bearings  
NSK Japan which guarantee 30 000 hours of  
continuous operation.

The fans from VOK and VO series are designed to be attached to O90, O100, O120, O135 and O150 air ducts in ventilation, air conditioning and heating installations.

The fans are available in two versions:

- Standard version (VOK, VO);
- High-temperature resistant version (VOK-T / VO-T) applicable to heating and ventilation systems with airflow's maximum temperature up to 150°C.

The fans are equipped with a built-in silent electric motor with double-encapsulated ball bearings which guarantee 30,000 hours of faultless operation when installed horizontally or vertically.

The body, the turbine, and the back shutter are manufactured from aluminum alloy or Glass-filled Polyamide which guarantees efficient cooling and better fire safety.

ACCESSORIES



- Mounting Bracket
- VOK models with assembly openings measuring 100mm, 120mm and 150mm can be equipped with a mounting bracket.



- Back Shutter
- VOK models with assembly openings measuring 100mm, 120mm and 150mm can be equipped with automatic closing shutter (accessory) preventing the entry of cold air and insects when the fan is switched off.




- Temperature Sensor
- VOK series fans can be fitted with a thermostat to provide a controlled start / stop of the fan in heating installations. Where the airflow needs to be controlled, the fan could be operated by a speed regulator.

VO / VO-T series

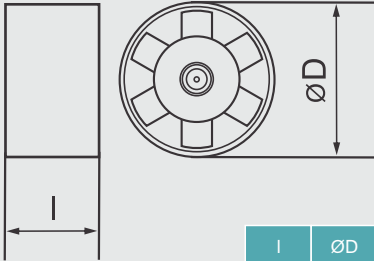
Basic & High Temp. Resistant Model

VO / VO-T 90



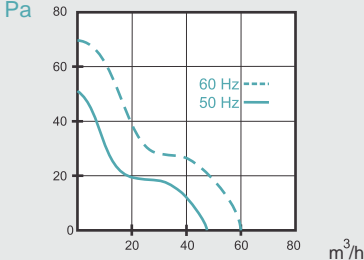
LONG life  
30.000h

Dimensions /mm/



l	ØD
25	90

Performance curves




Pa

60 Hz  
50 Hz

m<sup>3</sup>/h

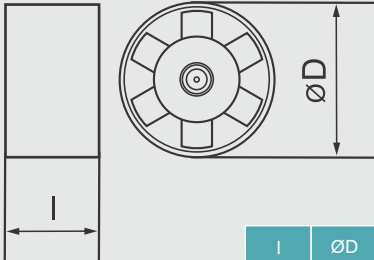
Technical characteristic									VO Basic		VO-T High Temp.	
Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Max static pressure	Consumed current	Protection Degree	Noise Level	Weight	Max Air t°	Product Code	Max Air t°	Product Code
Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	Pa		IP	dB	Kg	°C	No	°C	No
50 / 230	2500	16	60	50	0,095	44	36	0,200	+60	2006	+150	6820
50 / 115	2500	15	60	50	0,178	44	36	0,200	+60	-	+150	-
50 / 12	2500	16	60	50	2,000	44	36	0,200	+60	-	+150	-
60 / 120	3200	17	70	60	0,160	44	37	0,200	+60	-	+150	-

VO / VO-T 100



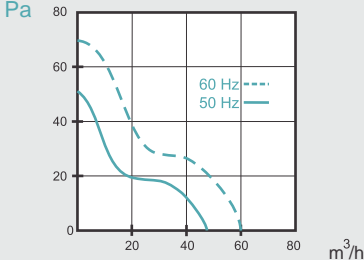
LONG life  
30.000h

Dimensions /mm/



l	ØD
70	100

Performance curves




Pa

60 Hz  
50 Hz

m<sup>3</sup>/h

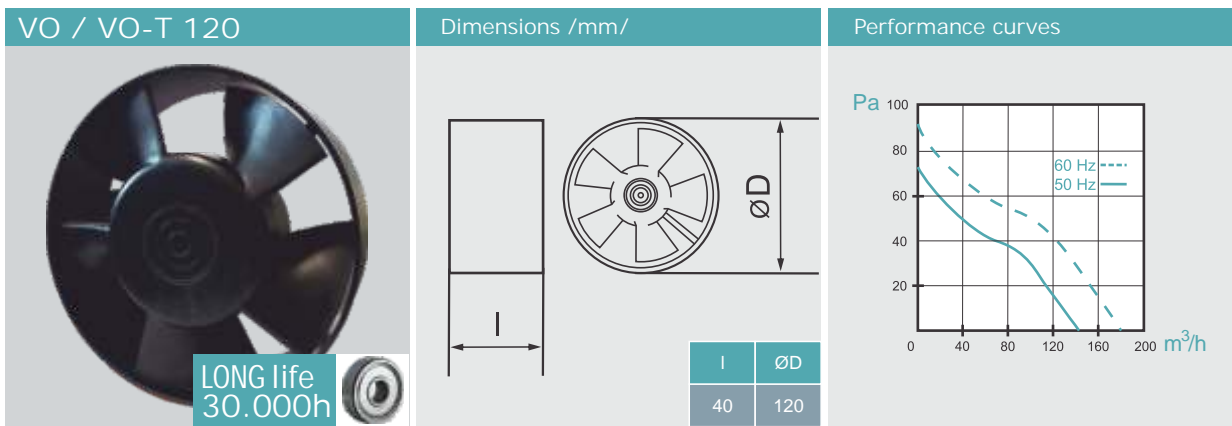
Technical characteristic									VO Basic		VO-T High Temp.	
Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Max static pressure	Consumed current	Protection Degree	Noise Level	Weight	Max Air t°	Product Code	Max Air t°	Product Code
Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	Pa		IP	dB	Kg	°C	No	°C	No
50 / 230	2500	16	60	50	0,095	44	36	0,230	+60	2013	+150	8794
50 / 115	2500	15	60	50	0,178	44	36	0,230	+60	-	+150	-
50 / 12	2500	16	60	50	2,000	44	36	0,230	+60	-	+150	-
60 / 120	3200	17	70	60	0,160	44	37	0,230	+60	-	+150	-



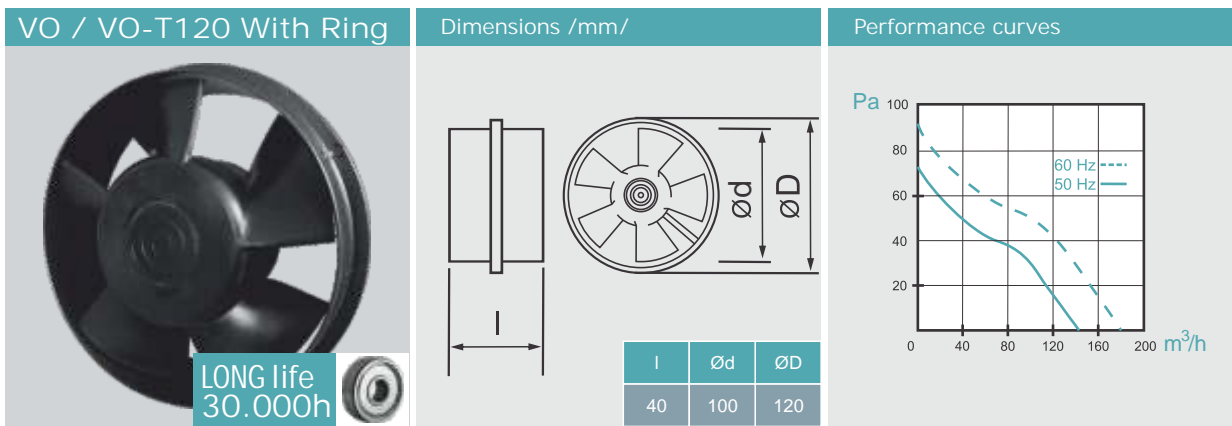
Trickle Impregnation Technology

- Sealed motor against dust and moisture
- Maximum isolation characteristics
- Longlivity of the electric motor






Technical characteristic									VO Basic		VO-T High Temp.	
Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Max static pressure	Consumed current	Protection Degree	Noise Level	Weight	Max Air t°	Product Code	Max Air t°	Product Code
Hz / V	min <sup>-1</sup>	W	m³/h	Pa		IP	dB	Kg	°C	No	°C	No
50 / 230	2650	18	150	75	0,125	44	39	0,480	+60	2051	+150	2396
50 / 115	2650	17	150	75	0,234	44	39	0,480	+60	-	+150	-
50 / 12	2650	18	150	75	2,000	44	39	0,480	+60	-	+150	-
60 / 120	3200	19	175	90	0,210	44	42	0,480	+60	-	+150	-



Technical characteristic									VO Basic		VO-T High Temp.	
Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Max static pressure	Consumed current	Protection Degree	Noise Level	Weight	Max Air t°	Product Code	Max Air t°	Product Code
Hz / V	min <sup>-1</sup>	W	m³/h	Pa		IP	dB	Kg	°C	No	°C	No
50 / 230	2650	18	150	75	0,125	44	39	0,500	+60	2075	+150	2648
50 / 115	2650	17	150	75	0,234	44	39	0,500	+60	-	+150	-
50 / 12	2650	18	150	75	2,000	44	39	0,500	+60	-	+150	-
60 / 120	3200	19	175	90	0,210	44	42	0,500	+60	-	+150	-



Trickle Impregnation Technology

- Sealed motor against dust and moisture
- Maximum isolation characteristics
- Longlivity of the electric motor



Products without a code are custom made.

HEAT RECOVERY

DOMESTIC FANS

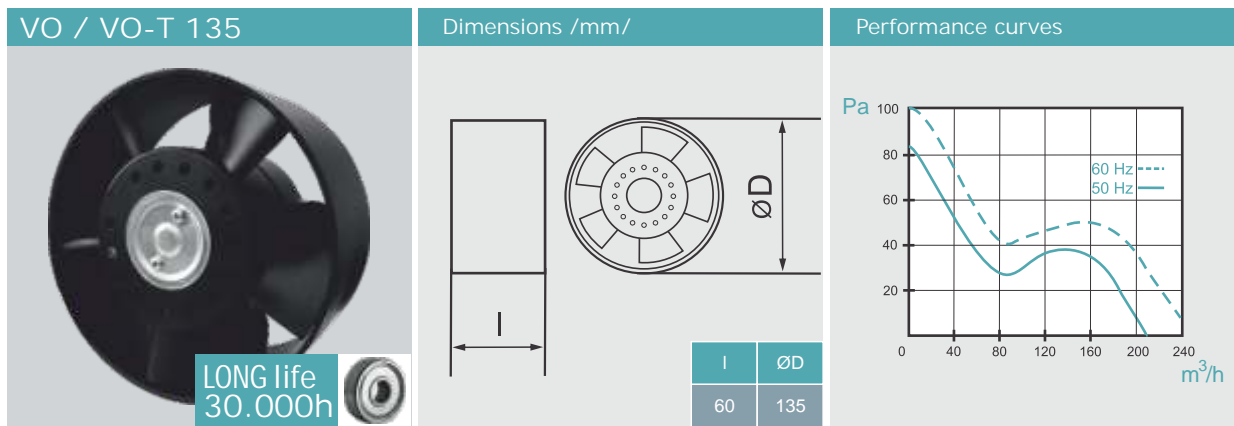
SAUNA FANS

AXIAL FANS

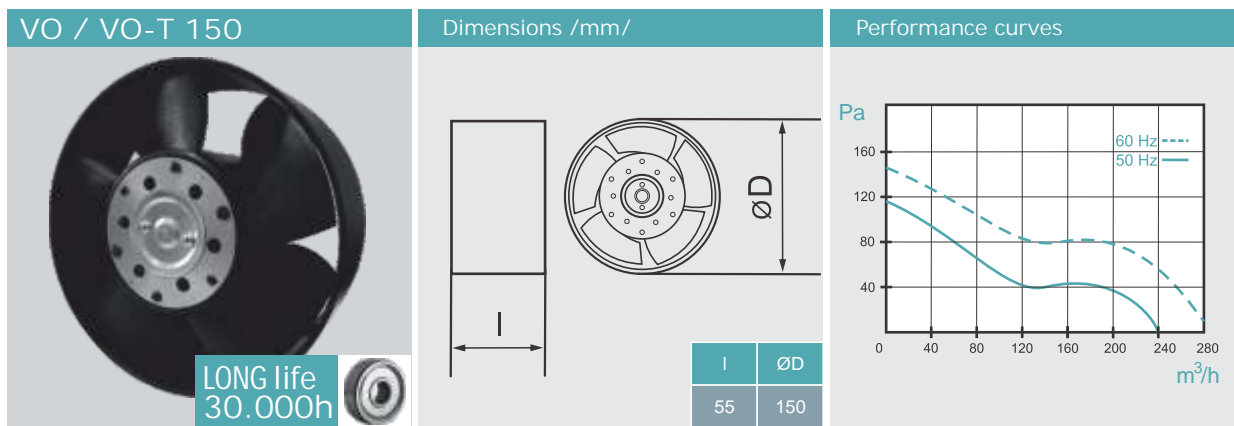
DUCT FANS

INDUSTRIAL FANS

CESSORIES



Technical characteristic									VO Basic		VO-T High Temp.	
Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Max static pressure	Consumed current	Protection Degree	Noise Level	Weight	Max Air t°	Product Code	Max Air t°	Product Code
Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	Pa		IP	dB	Kg	°C	No	°C	No
50 / 230	2650	42	205	85	0,340	44	41	1,180	+60	2099	+150	2402
50 / 115	2650	42	205	85	0,680	44	41	1,180	+60	-	+150	-
50 / 12	2650	42	205	85	3,000	44	41	1,180	+60	-	+150	-
60 / 120	3360	51	250	100	0,701	44	47	1,180	+60	-	+150	-



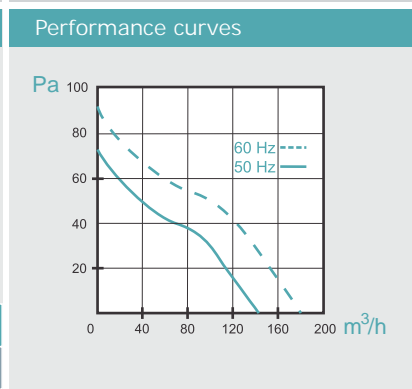
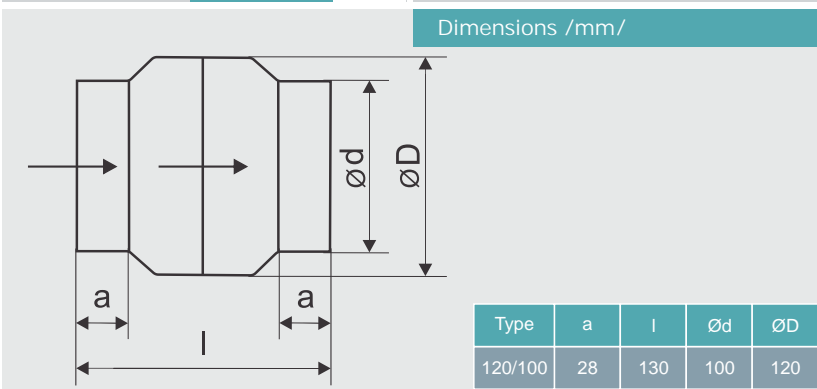
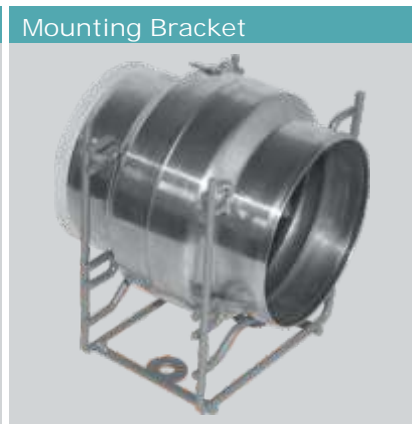
Technical characteristic									VO Basic		VO-T High Temp.	
Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Max static pressure	Consumed current	Protection Degree	Noise Level	Weight	Max Air t°	Product Code	Max Air t°	Product Code
Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	Pa		IP	dB	Kg	°C	No	°C	No
50 / 230	2650	46	240	110	0,385	44	51	1,060	+60	2105	+150	2419
50 / 115	2650	45	240	110	0,721	44	51	1,060	+60	-	+150	-
50 / 12	2650	46	240	110	3,500	44	51	1,060	+60	-	+150	-
60 / 120	3320	54	275	130	0,714	44	53	1,060	+60	-	+150	-



Trickle Impregnation Technology

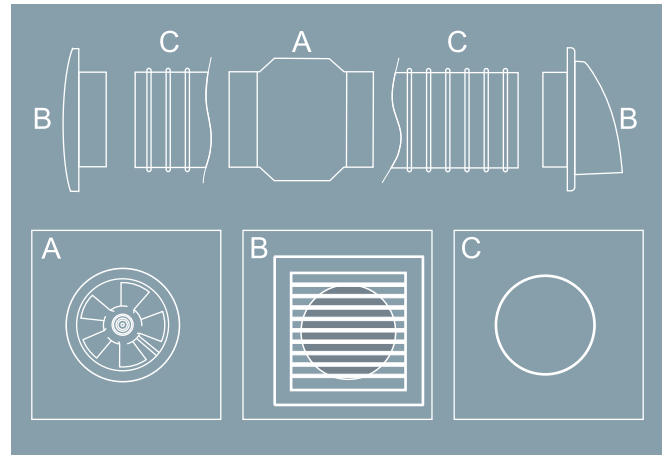
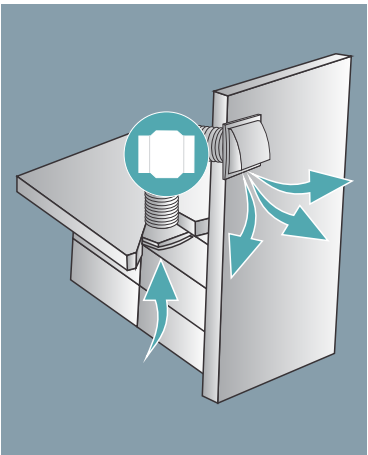
- Sealed motor against dust and moisture
- Maximum isolation characteristics
- Longlivity of the electric motor





Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Max static pressure	Consumed current	Protection Degree	Noise Level	Weight	Max Air t°	Product Code	With Back Shutter Accessory
Hz / V	min <sup>-1</sup>	W	m³/h	Pa		IP	dB	Kg	°C	No	No
50 / 230	2650	18	150	75	0,125	44	39	0,620	+60	2112	2129
50 / 115	2650	17	150	75	0,234	44	39	0,620	+60	-	7438
50 / 12	2650	18	150	75	2,000	44	39	0,620	+60	-	-
60 / 120	3200	19	175	90	0,210	44	42	0,620	+60	-	-



MOUNTING BRACKET

Product Code
-
-
-
-



Trickle Impregnation Technology

- Sealed motor against dust and moisture
- Maximum isolation characteristics
- Longlivity of the electric motor



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HEAT RECOVERY

DOMESTIC FANS

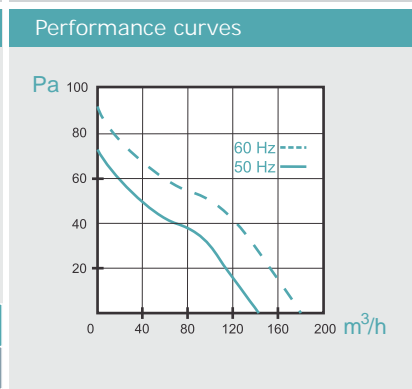
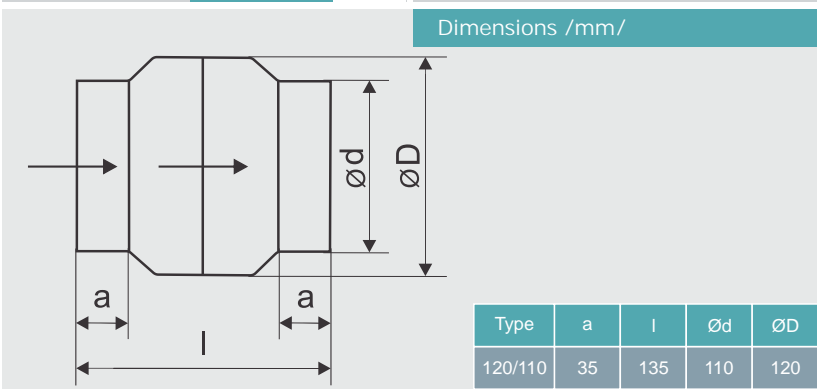
SAUNA FANS

AXIAL FANS

DUCT FANS

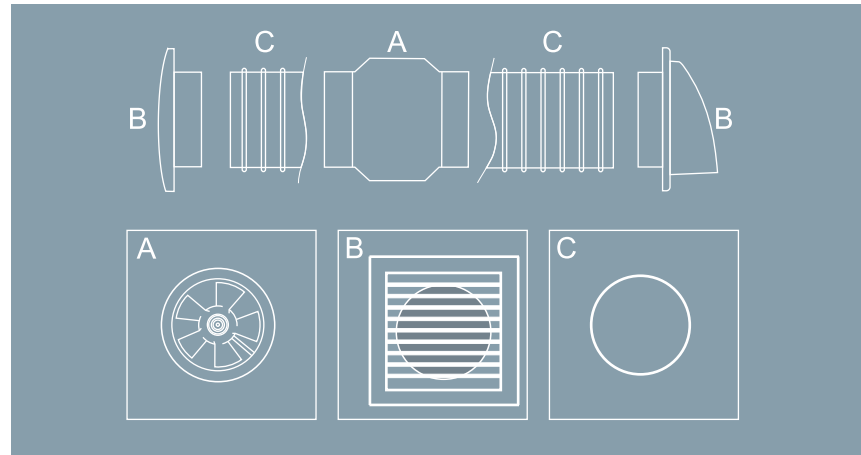
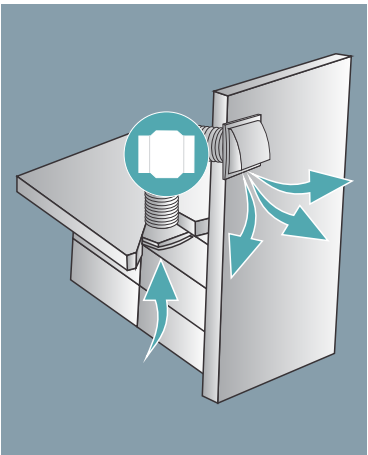
INDUSTRIAL FANS

ACCESSORIES



Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Max static pressure	Consumed current	Protection Degree	Noise Level	Weight	Max Air t°	Product Code	Mounting Bracket
Hz / V	min <sup>-1</sup>	W	m³/h	Pa		IP	dB	Kg	°C	No	No
50 / 230	2650	18	150	75	0,125	44	39	0,620	+60	2136	-
50 / 115	2650	17	150	75	0,234	44	39	0,620	+60	-	-
50 / 12	2650	18	150	75	2,000	44	39	0,620	+60	-	-
60 / 120	3200	19	175	90	0,210	44	42	0,620	+60	-	-

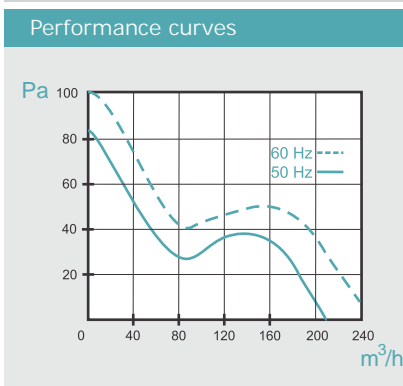
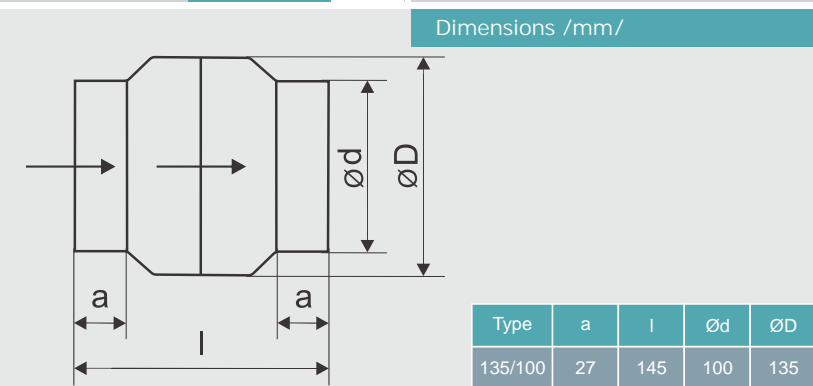


Trickle Impregnation Technology

- Sealed motor against dust and moisture
- Maximum isolation characteristics
- Longlivity of the electric motor

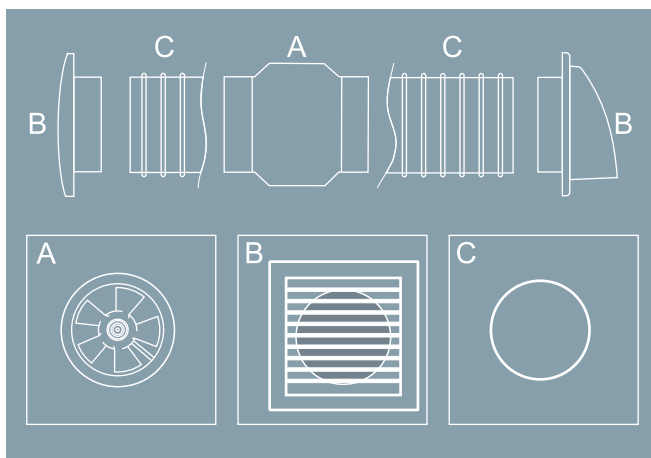
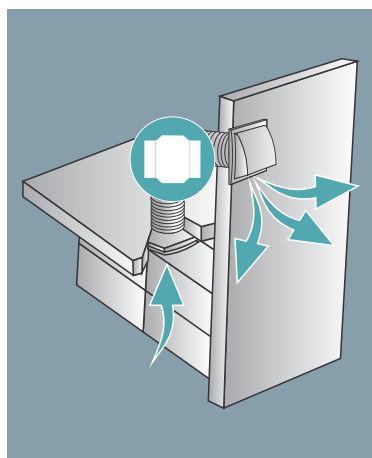
- All VOK series fans can be produced with length "l" to suit most specific requirements of our customers.
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- Products without a code are custom made.





Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Max static pressure	Consumed current	Protection Degree	Noise Level	Weight	Max Air t°	Product Code	With Back Shutter Accessory
Hz / V	min <sup>-1</sup>	W	m³/h	Pa		IP	dB	Kg	°C	No	No
50 / 230	2650	42	205	85	0,340	44	41	1,340	+60	2709	2730
50 / 115	2650	42	205	85	0,680	44	41	1,340	+60	-	-
50 / 12	2650	42	205	85	3,000	44	41	1,340	+60	-	-
60 / 120	3360	51	250	100	0,701	44	47	1,340	+60	-	-



MOUNTING BRACKET

Product Code
-
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-

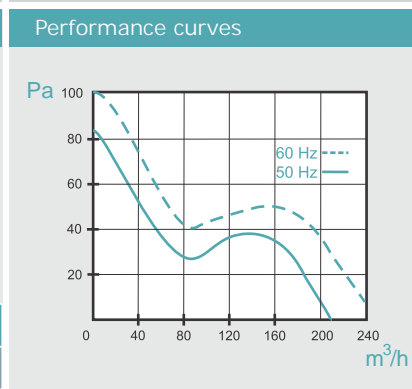
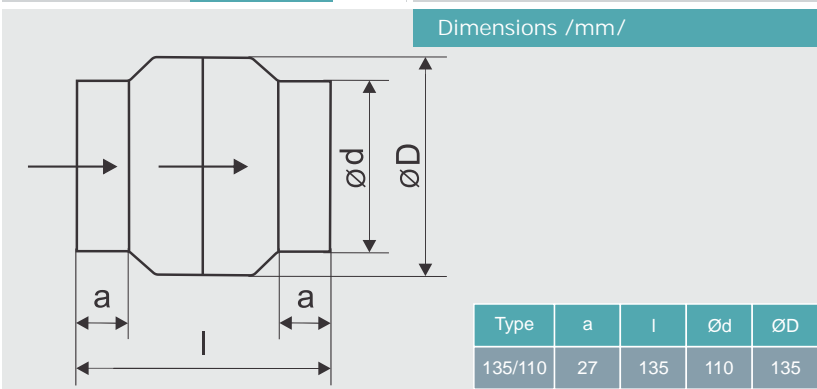


Trickle Impregnation Technology

- Sealed motor against dust and moisture
- Maximum isolation characteristics
- Longlivity of the electric motor

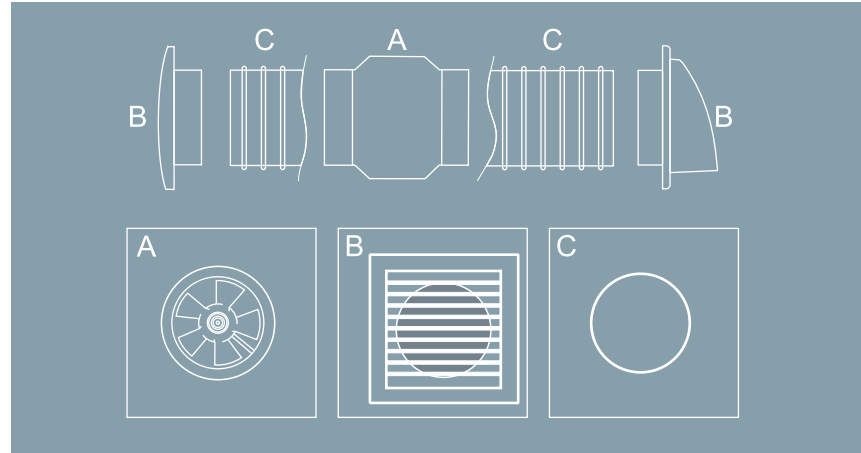
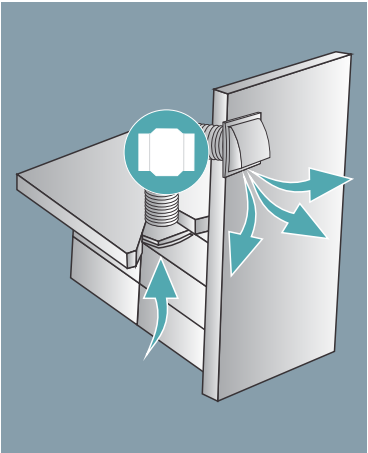


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Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Max static pressure	Consumed current	Protection Degree	Noise Level	Weight	Max Air t°	Product Code	Mounting Bracket
Hz / V	min <sup>-1</sup>	W	m³/h	Pa		IP	dB	Kg	°C	No	No
50 / 230	2650	42	205	85	0,340	44	41	1,340	+60	2761	-
50 / 115	2650	42	205	85	0,680	44	41	1,340	+60	-	-
50 / 12	2650	42	205	85	3,000	44	41	1,340	+60	-	-
60 / 120	3360	51	250	100	0,701	44	47	1,340	+60	-	-



Trickle Impregnation Technology

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- Longlivity of the electric motor

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VOK 135/120



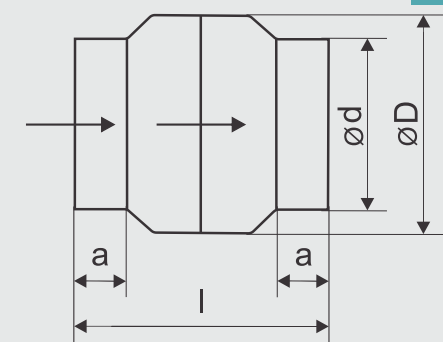
Back Shutter



Mounting Bracket

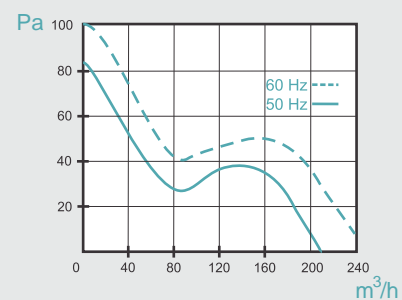


Dimensions /mm/



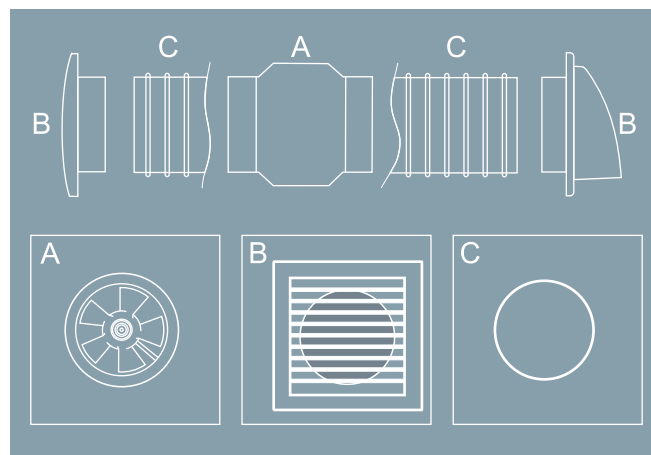
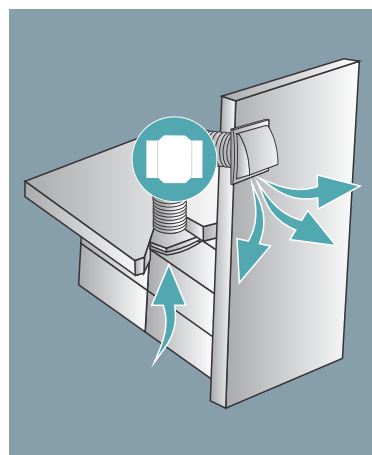
Type	a	l	Ød	ØD
135/120	27	135	120	135

Performance curves



Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Max static pressure	Consumed current	Protection Degree	Noise Level	Weight	Max Air t°	Product Code	With Back Shutter Accessory
Hz / V	min <sup>-1</sup>	W	m³/h	Pa		IP	dB	Kg	°C	No	No
50 / 230	2650	42	205	85	0,340	44	41	1,340	+60	2143	2150
50 / 115	2650	42	205	85	0,680	44	41	1,340	+60	-	7469
50 / 12	2650	42	205	85	3,000	44	41	1,340	+60	-	-
60 / 120	3360	51	250	100	0,701	44	47	1,340	+60	-	-



MOUNTING BRACKET

Product Code

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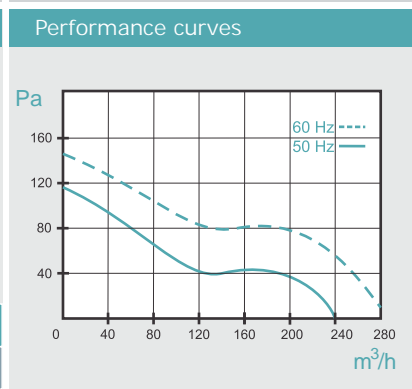
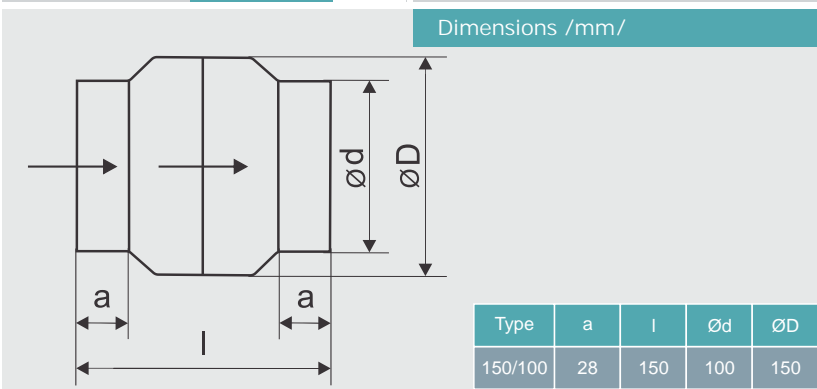
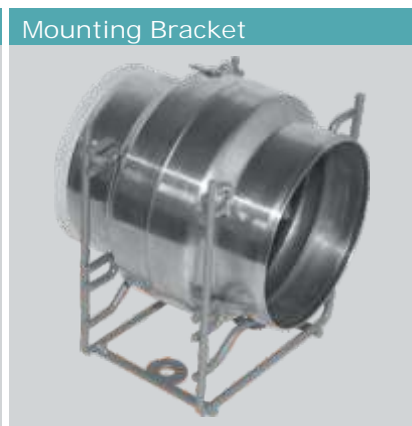


Trickle Impregnation Technology

- Sealed motor against dust and moisture
- Maximum isolation characteristics
- Longlivity of the electric motor

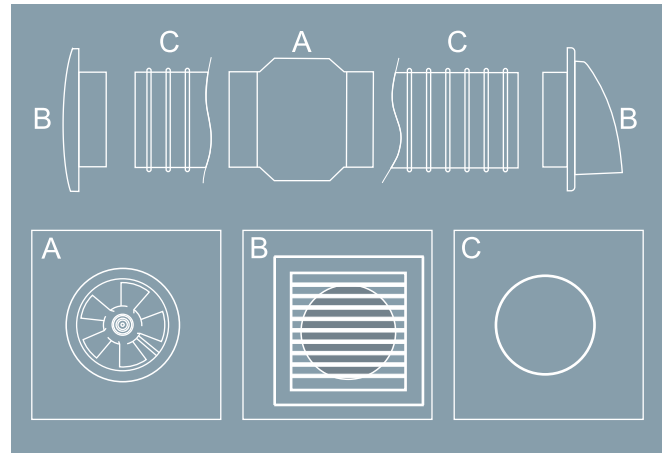
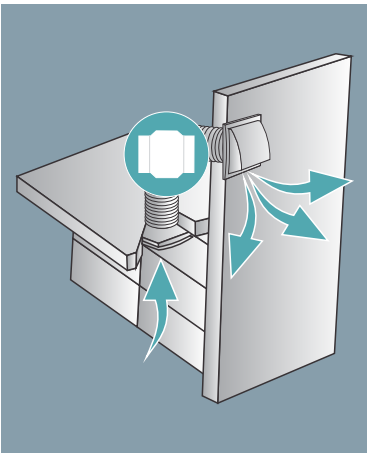


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Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Max static pressure	Consumed current	Protection Degree	Noise Level	Weight	Max Air t°	Product Code	With Back Shutter Accessory
Hz / V	min <sup>-1</sup>	W	m³/h	Pa		IP	dB	Kg	°C	No	No
50 / 230	2650	46	240	110	0,385	44	51	1,300	+60	2808	2839
50 / 115	2650	45	240	110	0,721	44	51	1,300	+60	-	-
50 / 12	2650	46	240	110	3,500	44	51	1,300	+60	-	-
60 / 120	3320	54	275	130	0,714	44	53	1,300	+60	-	-



MOUNTING BRACKET

Product Code
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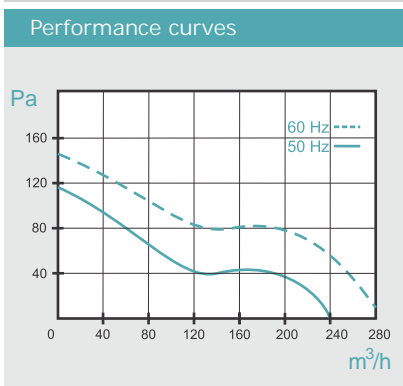
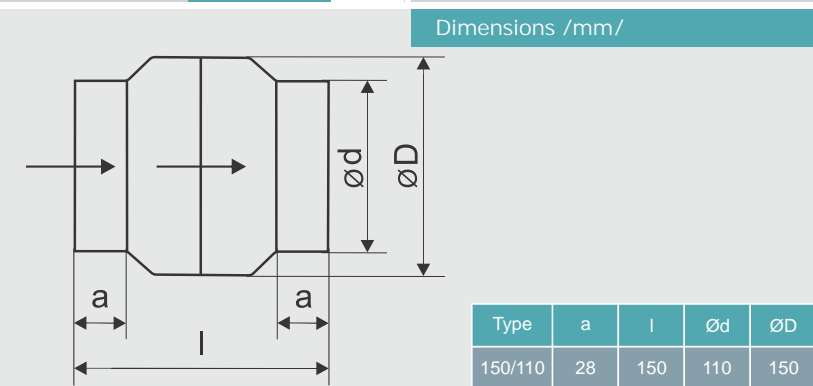


Trickle Impregnation Technology

- Sealed motor against dust and moisture
- Maximum isolation characteristics
- Longlivity of the electric motor

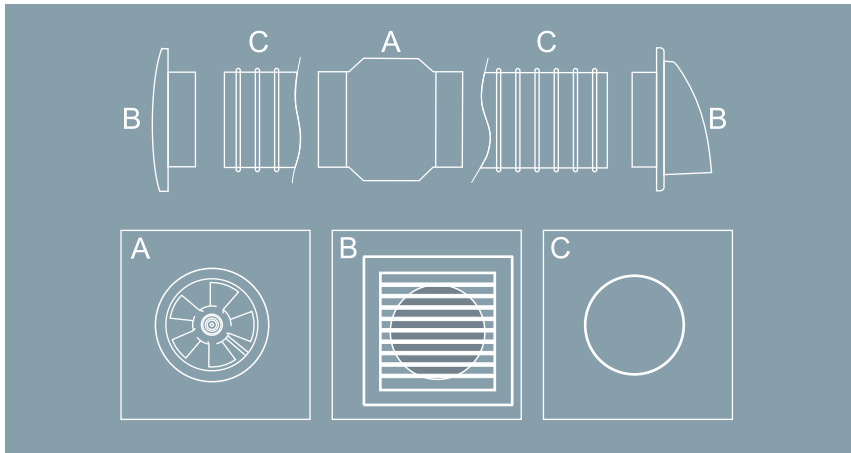
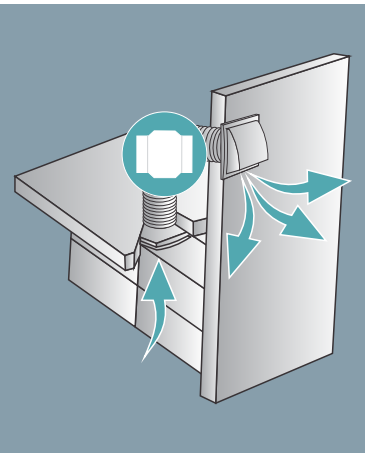
- i**
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Technical characteristic

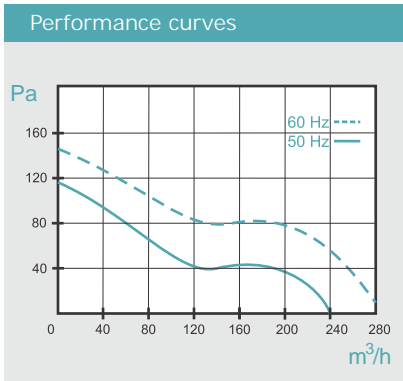
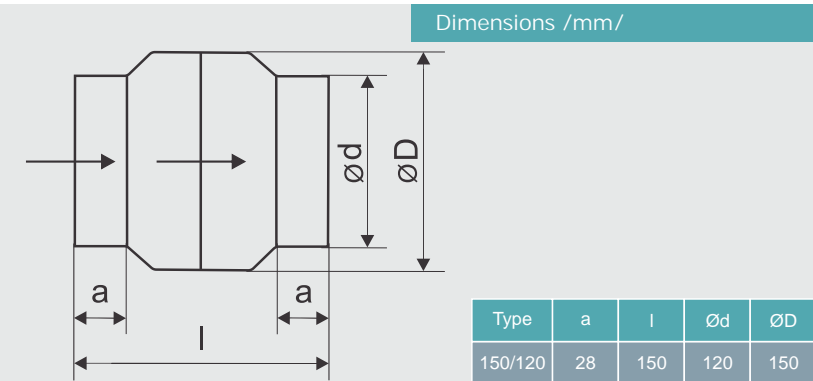
Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Max static pressure	Consumed current	Protection Degree	Noise Level	Weight	Max Air t°	Product Code	Mounting Bracket
Hz / V	min <sup>-1</sup>	W	m³/h	Pa		IP	dB	Kg	°C	No	No
50 / 230	2650	46	240	110	0,385	44	51	1,300	+60	2860	-
50 / 115	2650	45	240	110	0,721	44	51	1,300	+60	-	-
50 / 12	2650	46	240	110	3,500	44	51	1,300	+60	-	-
60 / 120	3320	54	275	130	0,714	44	53	1,300	+60	-	-



Trickle Impregnation Technology

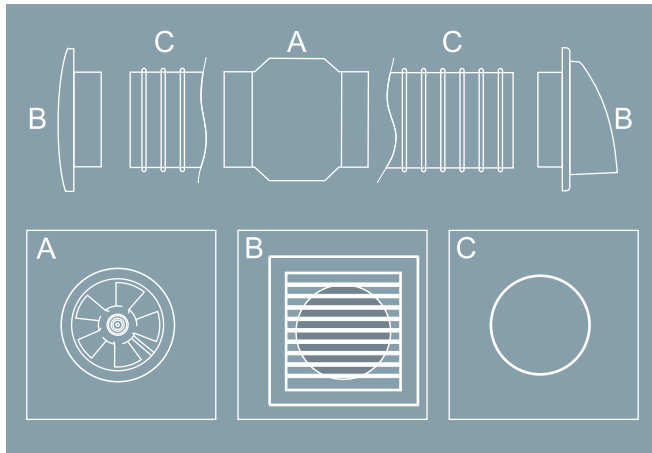
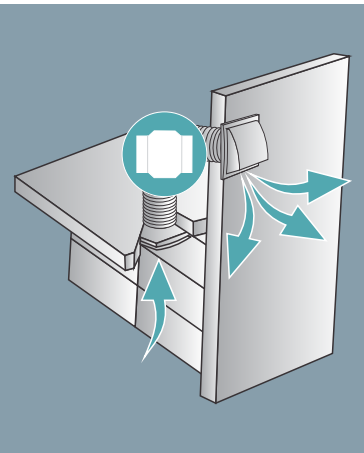
- Sealed motor against dust and moisture
- Maximum isolation characteristics
- Longlivity of the electric motor

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Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Max static pressure	Consumed current	Protection Degree	Noise Level	Weight	Max Air t°	Product Code	With Back Shutter Accessory
Hz / V	min <sup>-1</sup>	W	m³/h	Pa		IP	dB	Kg	°C	No	No
50 / 230	2650	46	240	110	0,385	44	51	1,300	+60	2167	2181
50 / 115	2650	45	240	110	0,721	44	51	1,300	+60	-	7483
50 / 12	2650	46	240	110	3,500	44	51	1,300	+60	-	-
60 / 120	3320	54	275	130	0,714	44	53	1,300	+60	-	-



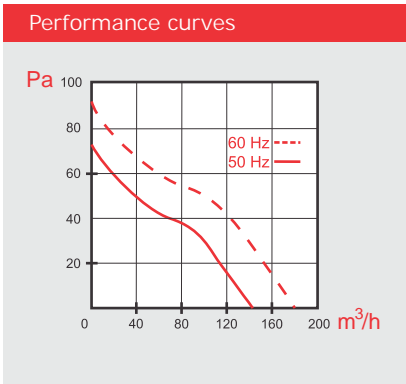
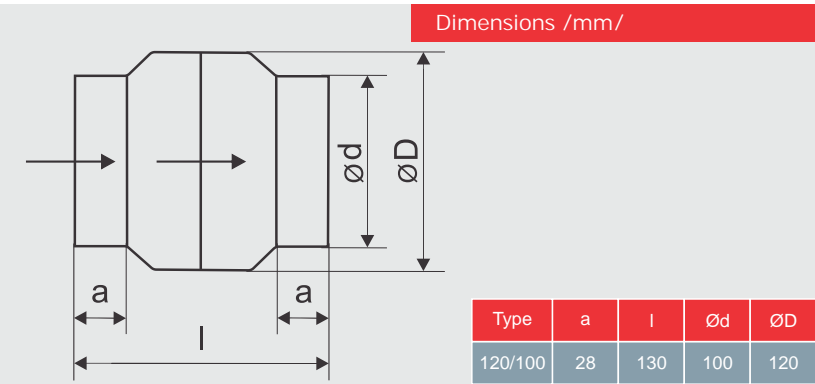
THERMOSTAT	MOUNTING BRACKET
Product Code	Product Code
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-	-
-	-



Trickle Impregnation Technology

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- Maximum isolation characteristics
- Longlivity of the electric motor

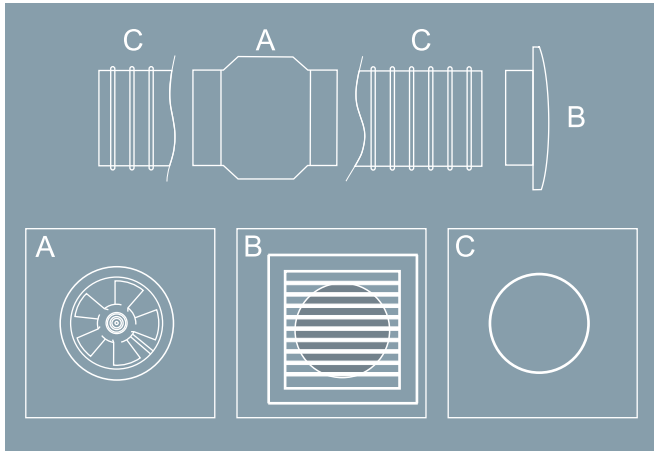
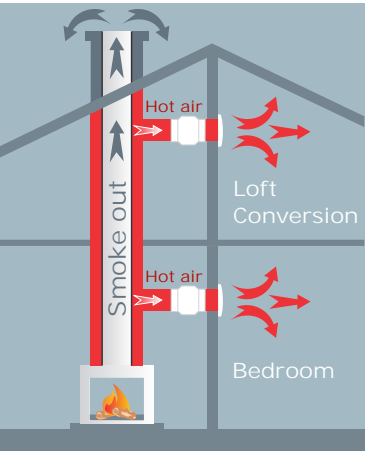
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- Products without a code are custom made.



**i** High Temperature resistant fan blade made of Glass Filled Polyamide

Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Max static pressure	Consumed current	Protection Degree	Noise Level	Weight	Max Air t°	Product Code	With Back Shutter Accessory
Hz / V	min <sup>-1</sup>	W	m³/h	Pa		IP	dB	Kg	°C	No	No
50 / 230	2650	18	150	75	0,125	44	39	0,620	+150	2426	2662
50 / 115	2650	17	150	75	0,234	44	39	0,620	+150	-	7445
50 / 12	2650	18	150	75	2,000	44	39	0,620	+150	-	7452
60 / 120	3200	19	175	90	0,210	44	42	0,620	+150	-	-



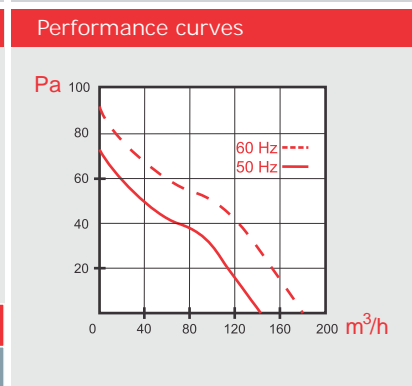
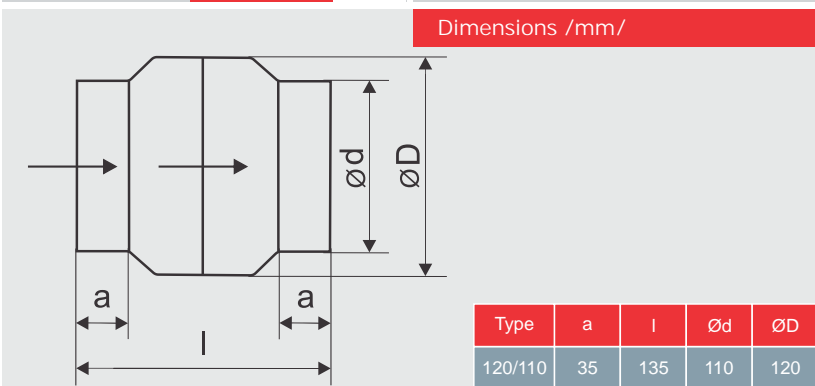
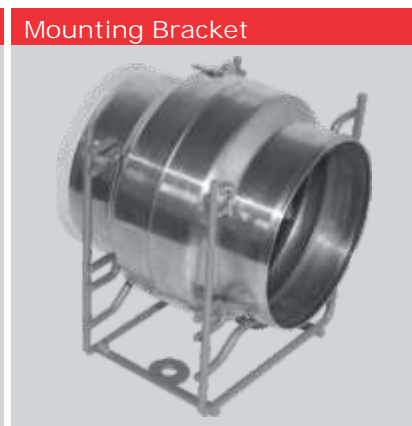
THERMOSTAT	MOUNTING BRACKET
Product Code	Product Code
2655	-
With Back Shutter Accessory	-
50Hz/230V	-
2679	-



Trickle Impregnation Technology

- Sealed motor against dust and moisture
- High temperature resistant electric motor
- Maximum isolation characteristics
- Longlivity of the electric motor

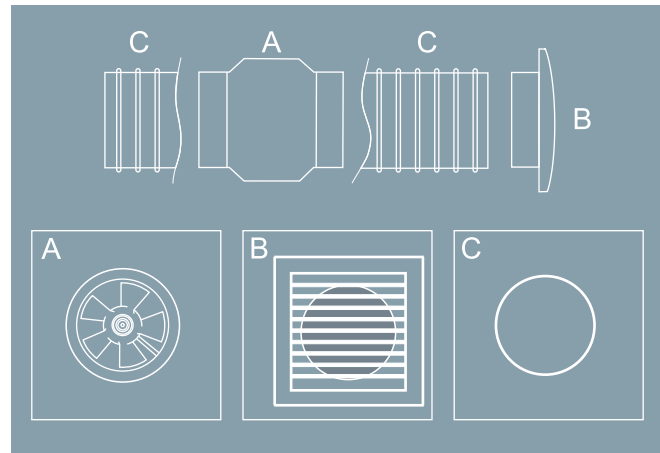
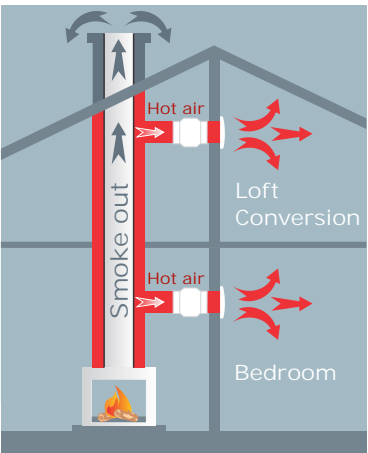
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Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Max static pressure	Consumed current	Protection Degree	Noise Level	Weight	Max Air t°	Product Code	Mounting Bracket
Hz / V	min <sup>-1</sup>	W	m³/h	Pa		IP	dB	Kg	°C	No	No
50 / 230	2650	18	150	75	0,125	44	39	0,620	+150	-	-
50 / 115	2650	17	150	75	0,234	44	39	0,620	+150	-	-
50 / 12	2650	18	150	75	2,000	44	39	0,620	+150	-	-
60 / 120	3200	19	175	90	0,210	44	42	0,620	+150	-	-



THERMOSTAT

Product Code
2693
-
-
-

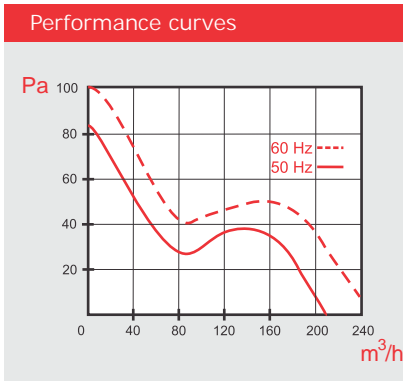
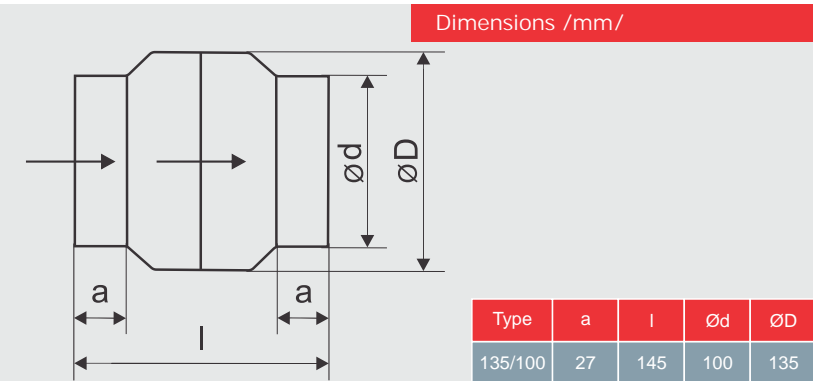


Trickle Impregnation Technology

- Sealed motor against dust and moisture
- High temperature resistant electric motor
- Maximum isolation characteristics
- Longlivity of the electric motor

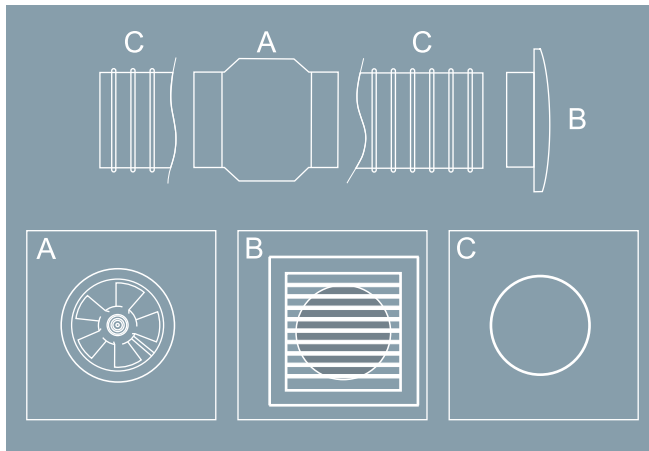
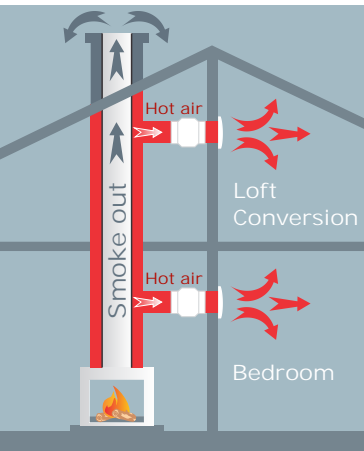
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**i** High Temperature resistant fan blade made of Aluminium

Technical characteristic											
Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Max static pressure	Consumed current	Protection Degree	Noise Level	Weight	Max Air t°	Product Code	With Back Shutter Accessory
Hz / V	min <sup>-1</sup>	W	m³/h	Pa		IP	dB	Kg	°C	No	No
50 / 230	2650	42	205	85	0,340	44	41	1,340	+150	2716	2747
50 / 115	2650	42	205	85	0,680	44	41	1,340	+150	-	-
50 / 12	2650	42	205	85	3,000	44	41	1,340	+150	-	-
60 / 120	3360	51	250	100	0,701	44	47	1,340	+150	-	-



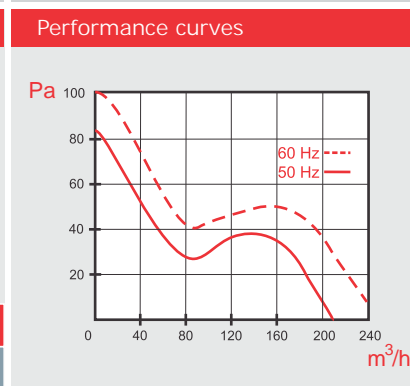
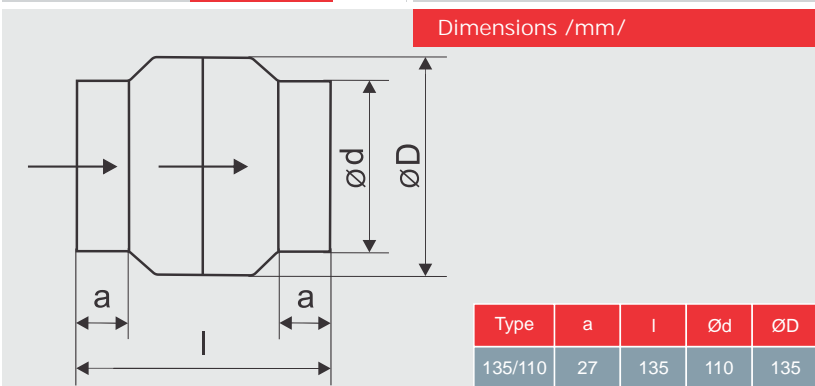
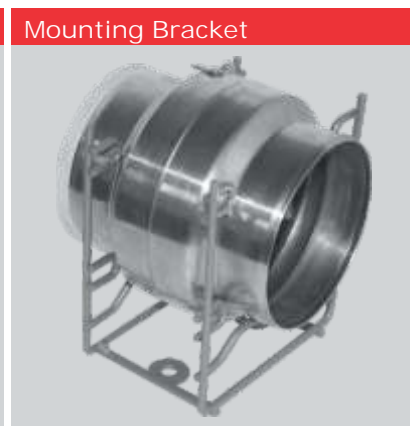
THERMOSTAT	MOUNTING BRACKET
Product Code	Product Code
2723	-
With Back Shutter Accessory	-
50Hz/230V	-
2754	-



## Trickle Impregnation Technology

- Sealed motor against dust and moisture
- High temperature resistant electric motor
- Maximum isolation characteristics
- Longlivity of the electric motor

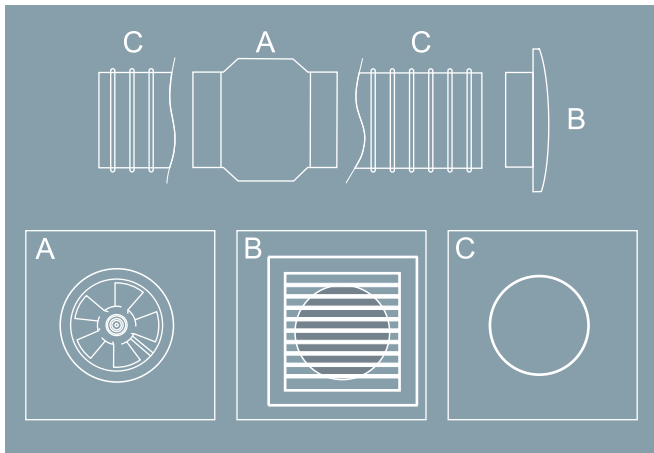
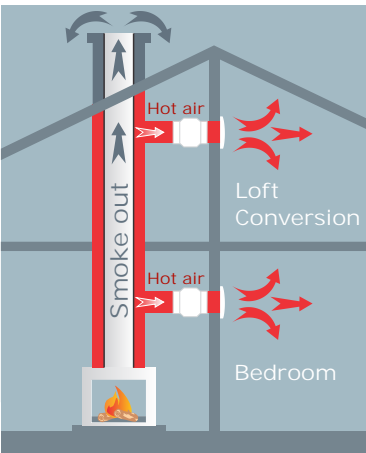
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**i** High Temperature resistant fan blade made of Aluminium

Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Max static pressure	Consumed current	Protection Degree	Noise Level	Weight	Max Air t°	Product Code
Hz / V	min <sup>-1</sup>	W	m³/h	Pa		IP	dB	Kg	°C	No
50 / 230	2650	42	205	85	0,340	44	41	1,340	+150	2778
50 / 115	2650	42	205	85	0,680	44	41	1,340	+150	-
50 / 12	2650	42	205	85	3,000	44	41	1,340	+150	-
60 / 120	3360	51	250	100	0,701	44	47	1,340	+150	-



THERMOSTAT	MOUNTING BRACKET
Product Code	Product Code
-	-
-	-
-	-
-	-



Trickle Impregnation Technology

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- High temperature resistant electric motor
- Maximum isolation characteristics
- Longlivity of the electric motor

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VOK-T 135/120



LONG life  
30.000h

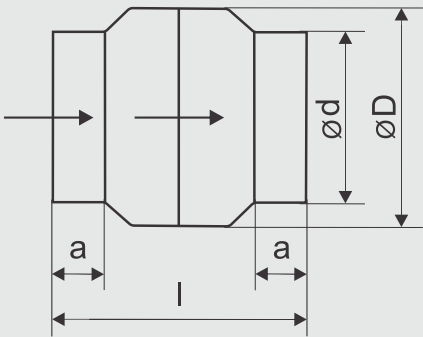
Back Shutter



Mounting Bracket

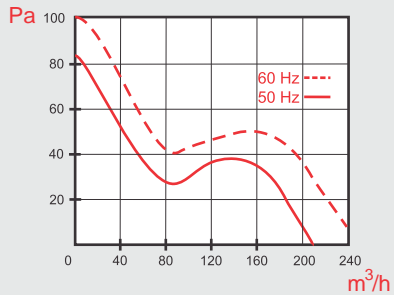


Dimensions /mm/



Type	a	l	Ød	ØD
135/120	27	135	120	135

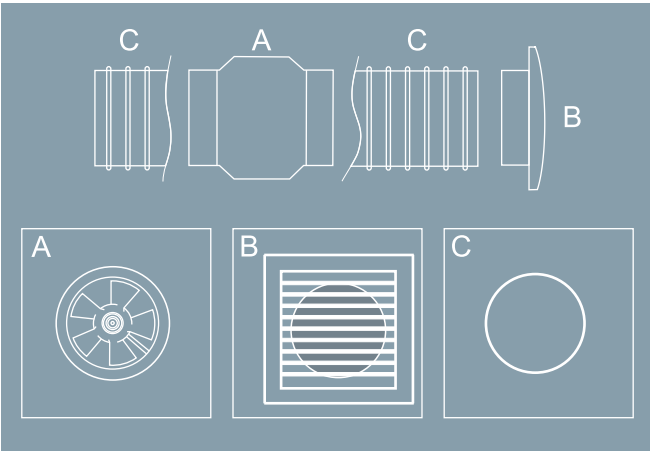
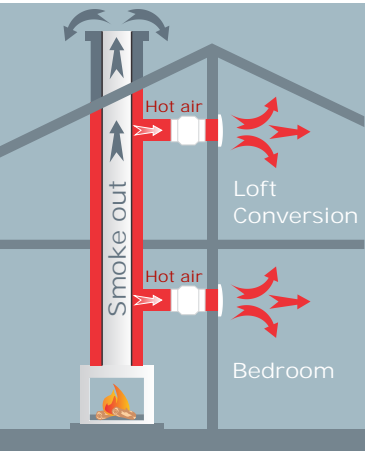
Performance curves



**i** High Temperature resistant fan blade made of Aluminium

Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Max static pressure	Consumed current	Protection Degree	Noise Level	Weight	Max Air t°	Product Code	With Back Shutter Accessory
Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	Pa		IP	dB	Kg	°C	No	No
50 / 230	2650	42	205	85	0,340	44	41	1,340	+150	2433	2501
50 / 115	2650	42	205	85	0,680	44	41	1,340	+150	-	-
50 / 12	2650	42	205	85	3,000	44	41	1,340	+150	-	-
60 / 120	3360	51	250	100	0,701	44	47	1,340	+150	-	-



THERMOSTAT	MOUNTING BRACKET
Product Code	Product Code
2440	-
With Back Shutter Accessory	-
50Hz/230V	-
2792	-

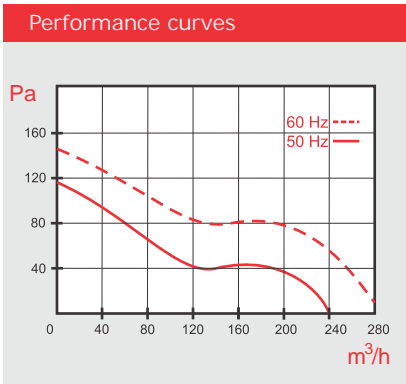
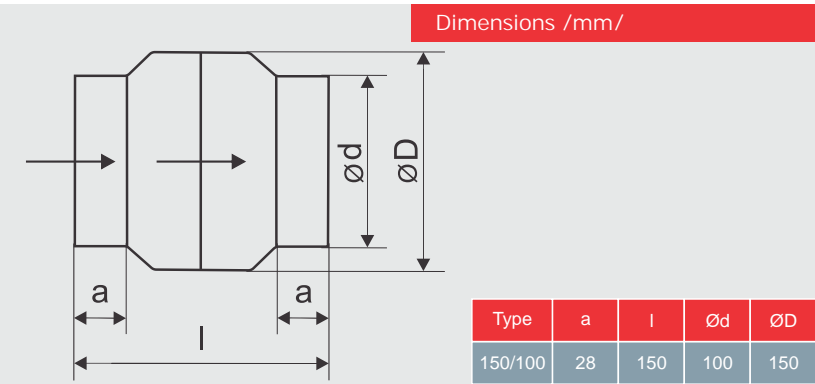


Trickle Impregnation Technology

- Sealed motor against dust and moisture
- High temperature resistant electric motor
- Maximum isolation characteristics
- Longlivity of the electric motor



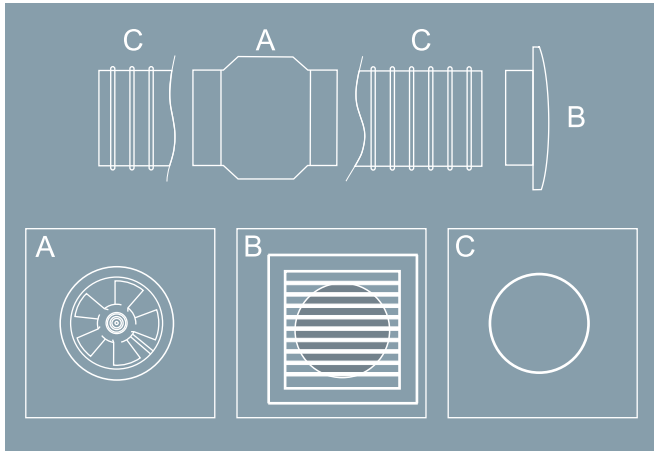
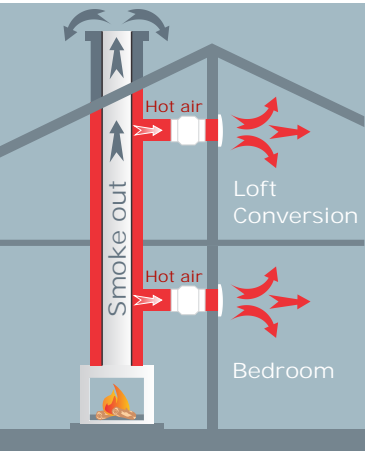
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**i** High Temperature resistant fan blade made of Glass Filled Polyamide

### Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Max static pressure	Consumed current	Protection Degree	Noise Level	Weight	Max Air t°	Product Code	With Back Shutter Accessory
Hz / V	min <sup>-1</sup>	W	m³/h	Pa		IP	dB	Kg	°C	No	No
50 / 230	2650	46	240	110	0,385	44	51	1,300	+150	2815	2846
50 / 115	2650	45	240	110	0,721	44	51	1,300	+150	-	-
50 / 12	2650	46	240	110	3,500	44	51	1,300	+150	-	-
60 / 120	3320	54	275	130	0,714	44	53	1,300	+150	-	-



THERMOSTAT	MOUNTING BRACKET
Product Code	Product Code
2822	-
With Back Shutter Accessory	-
50Hz/230V	-
2853	-

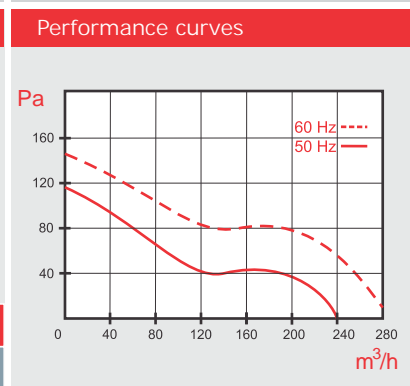
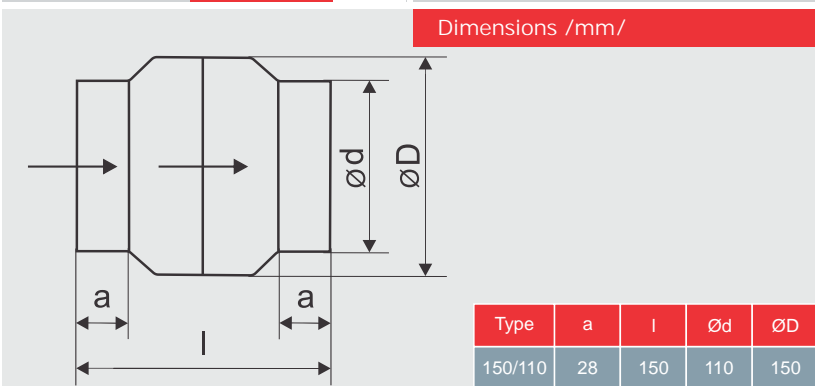
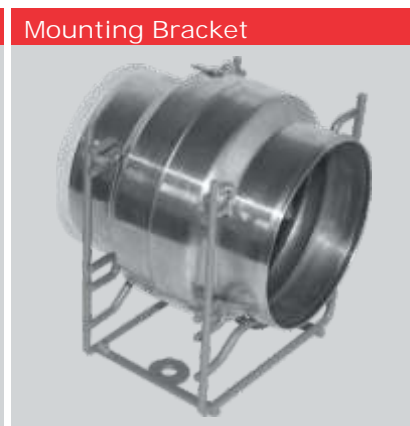


### Trickle Impregnation Technology

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- High temperature resistant electric motor
- Maximum isolation characteristics
- Longlivity of the electric motor

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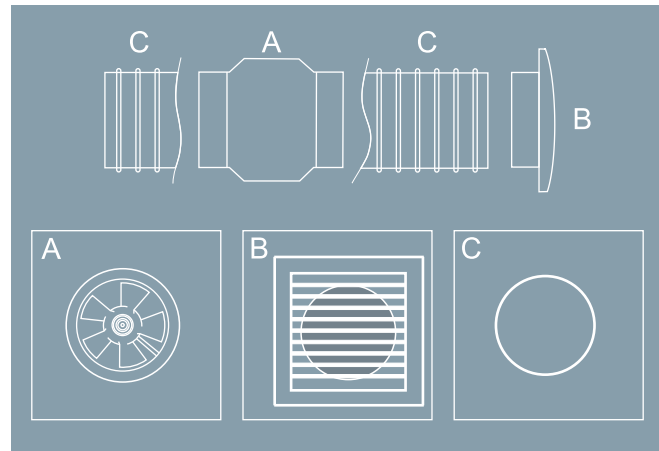
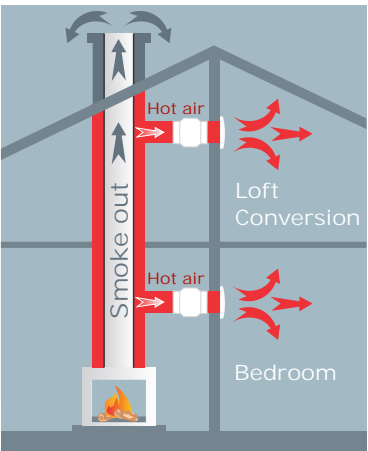




**i** High Temperature resistant fan blade made of Glass Filled Polyamide

Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Max static pressure	Consumed current	Protection Degree	Noise Level	Weight	Max Air t°	Product Code
Hz / V	min <sup>-1</sup>	W	m³/h	Pa		IP	dB	Kg	°C	No
50 / 230	2650	46	240	110	0,385	44	51	1,300	+150	2877
50 / 115	2650	45	240	110	0,721	44	51	1,300	+150	-
50 / 12	2650	46	240	110	3,500	44	51	1,300	+150	-
60 / 120	3320	54	275	130	0,714	44	53	1,300	+150	-



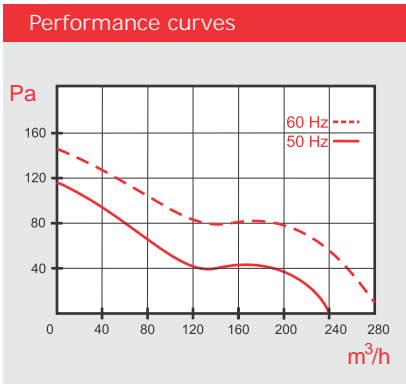
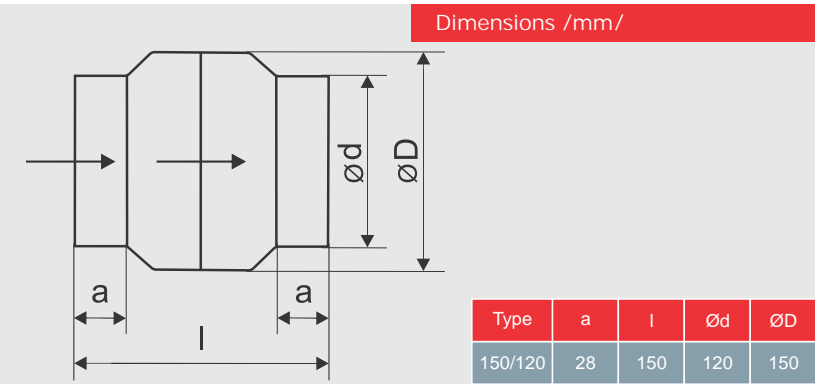
THERMOSTAT	MOUNTING BRACKET
Product Code	Product Code
2884	-
-	-
-	-
-	-



Trickle Impregnation Technology

- Sealed motor against dust and moisture
- High temperature resistant electric motor
- Maximum isolation characteristics
- Longlivity of the electric motor

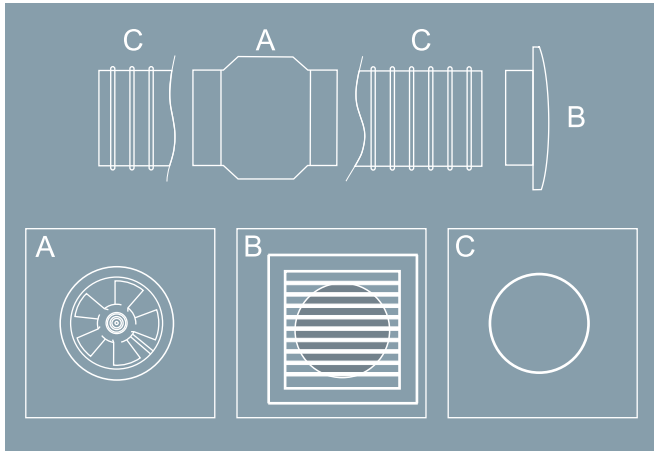
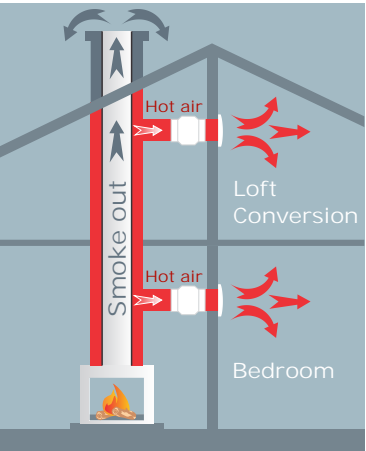
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**i** High Temperature resistant fan blade made of Glass Filled Polyamide

### Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Max static pressure	Consumed current	Protection Degree	Noise Level	Weight	Max Air t°	Product Code	With Back Shutter Accessory
Hz / V	min <sup>-1</sup>	W	m³/h	Pa		IP	dB	Kg	°C	No	No
50 / 230	2650	46	240	110	0,385	44	51	1,300	+150	2457	2495
50 / 115	2650	45	240	110	0,721	44	51	1,300	+150	-	7490
50 / 12	2650	46	240	110	3,500	44	51	1,300	+150	-	-
60 / 120	3320	54	275	130	0,714	44	53	1,300	+150	-	-



THERMOSTAT	MOUNTING BRACKET
Product Code	Product Code
2464	-
With Back Shutter Accessory	-
50Hz/230V	-
2891	-



- Trickle Impregnation Technology
- Sealed motor against dust and moisture
  - High temperature resistant electric motor
  - Maximum isolation characteristics
  - Longlivity of the electric motor

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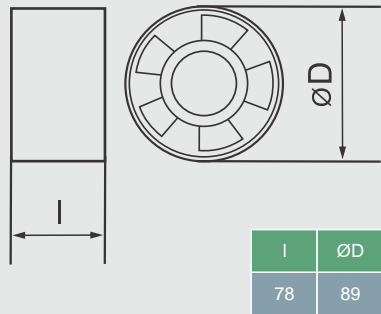
# MT-VO series

They can be mounted on walls, ceilings, ceiling panels with Ø90, Ø100 and Ø120 vent openings. The degree of protection is IP X4. Including zones 1 & 2.

## MT-VO 90



Dimensions /mm/



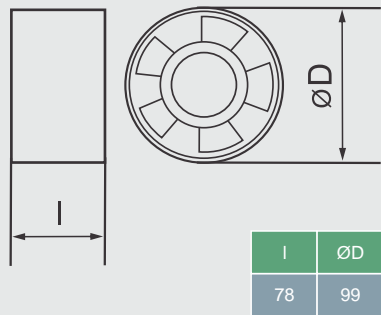
### Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Max static pressure	Consumed current	Protection Degree	Noise Level	Weight	Max Air t°	Product Code	With Back Shutter Accessory
Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	Pa		IP	dB	Kg	°C	No	No
50 / 230	2430	13	65	55	0,075	24	26	-	+40	3249	-

## MT-VO 100



Dimensions /mm/



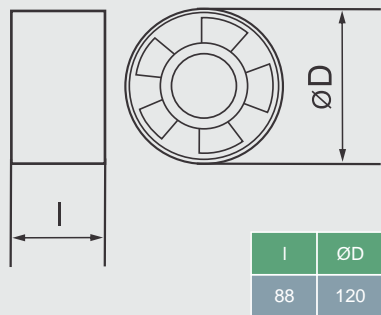
### Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Max static pressure	Consumed current	Protection Degree	Noise Level	Weight	Max Air t°	Product Code	With Back Shutter Accessory
Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	Pa		IP	dB	Kg	°C	No	No
50 / 230	2430	13	105	55	0,075	24	32	-	+40	3058	3065

## MT-VO 120



Dimensions /mm/



### Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Max static pressure	Consumed current	Protection Degree	Noise Level	Weight	Max Air t°	Product Code	With Back Shutter Accessory
Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	Pa		IP	dB	Kg	°C	No	No
50 / 230	2620	32	120	55	0,075	24	36	-	+40	3898	-

HEAT RECOVERY

DOMESTIC FANS

SAUNA FANS

AXIAL FANS

DUCT FANS

INDUSTRIAL FANS

ACCESSORIES





VENTILATION SOLUTIONS

# Industrial Fans PV0 series

Designed for continuous or intermittent ventilation of medium to large sized living, administrative, commercial, industrial and agriculture premises.





### Trickle Impregnation Technology

- Sealed motor against dust and moisture
- High temperature resistant electric motor
- Maximum isolation characteristics
- Longlivity of the electric motor

## FAN CATEGORIES

### THE PVO SERIES FANS FALL IN THE FOLLOWING CATEGORIES:

- High Flow Rate - PVO154/2; PVO 200/2; PVO 250/2; PVO 300/2.  
Low Noise - PVO154/4; PVO 200/4; PVO 250/4; PVO 300/4;  
PVO 350/4; PVO 400/4.  
Noiseless - PVO 200/6; PVO 250/6; PVO 300/6; PVO 350/6.

## TECHNICAL DESCRIPTION

Designed for continuous or intermittent ventilation of medium to large sized living, administrative, commercial, industrial and agriculture premises.

Operating in conditions of normal fire risk, according to fire-safety building and construction regulations.

They can be mounted on walls, ceilings, ceiling panels etc. The PVO series fans are constructed with noiseless asynchronous motors with double capsulated ball bearings, which guarantee 30 000 hours of flawless operation, whether mounted in horizontal or vertical position.  
The measured level of noise is 70dB.

## SAFETY

The protection degree is IP 54, and upon a customer's request can be manufactured to IP 55, which allows the fan to operate not only in closed premises, but in outdoor high humidity environments.

## Energy-efficient

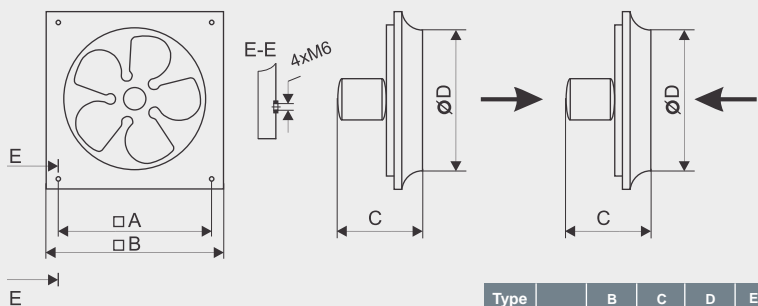
PVO UE - Energy-efficient low-noise fans.



Series with double capsulated ball bearings NSK Japan which guarantee 30 000 hours of continuous operation.

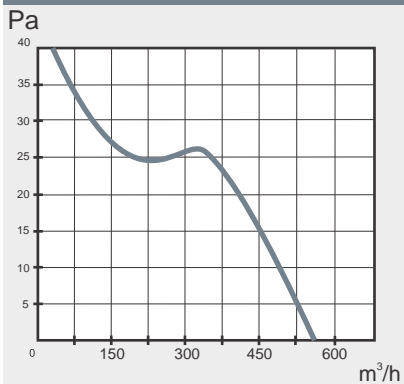
PVO 154/2

Dimensions /mm/



Type	B	C	D	E-E
154/2	200	256	104	166
				M6

Performance curves

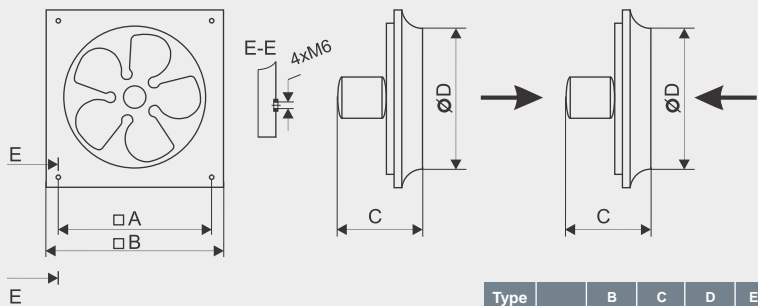


Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Consumed current	Protection Degree	Noise Level	Max Air Temperature	Product Code
Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	Pa		IP	dB	°C	No
50 / 230	2450	46	500÷550	43	0,350	00	-	+80	2198

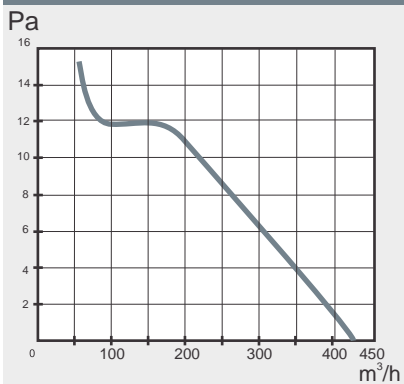
PVO 154/4

Dimensions /mm/



Type	B	C	D	E-E
154/4	200	256	128	166
				M6

Performance curves

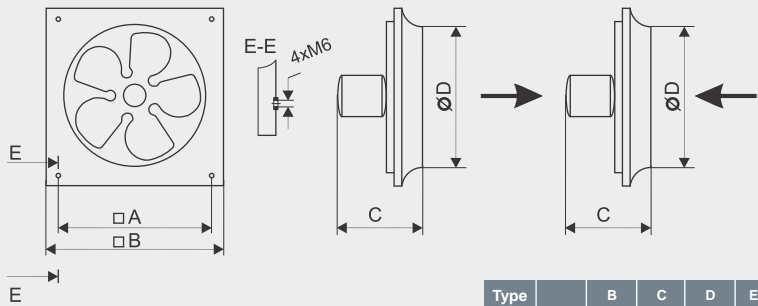


Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Consumed current	Protection Degree	Noise Level	Max Air Temperature	Product Code
Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	Pa		IP	dB	°C	No
50 / 230	1320	32	375÷425	20	0,250	54	-	+80	2235

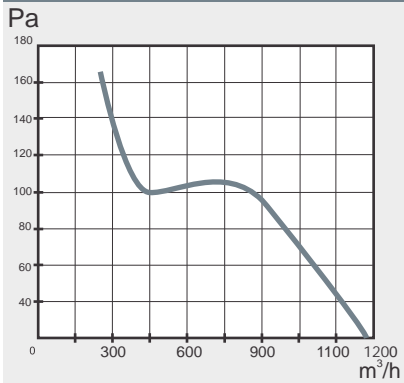
PVO 200/2

Dimensions /mm/



Type	B	C	D	E-E
200/2	222	270	130	204
				M6

Performance curves



Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Consumed current	Protection Degree	Noise Level	Max Air Temperature	Product Code	Code with Shutter
Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	Pa		IP	dB	°C	No	No
50 / 230	2840	60	1050÷1170	220	0,380	54	-	+80	2211	2266

HEAT RECOVERY

DOMESTIC FANS

SAUNA FANS

AXIAL FANS

DUCT FANS

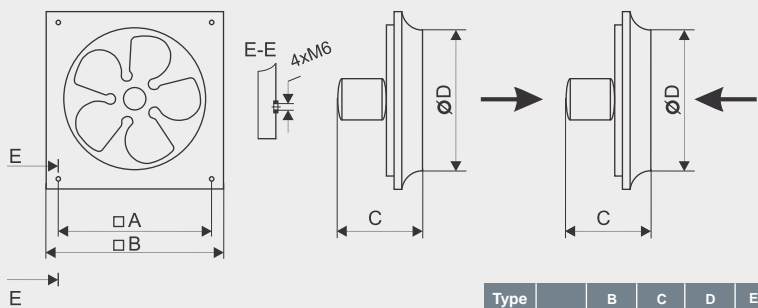
INDUSTRIAL FANS

ACCESSORIES

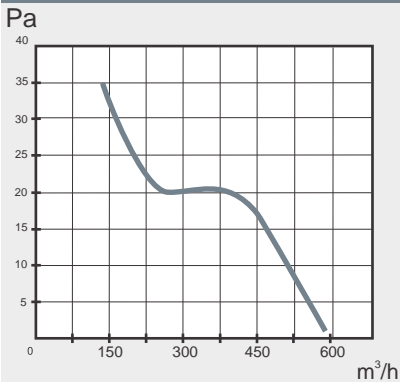
PVO 200/4

Dimensions /mm/

Performance curves



Type	B	C	D	E-E
200/4	222	270	130	204
				M6



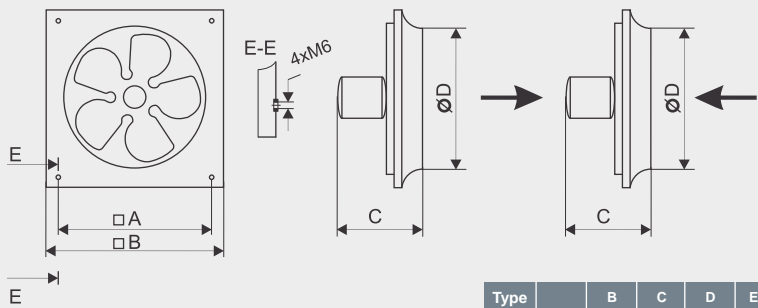
Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Consumed current	Protection Degree	Noise Level	Max Air Temperature	Product Code	Code with Shutter
Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	Pa		IP	dB	°C	No	No
50 / 230	1300	58	550÷600	43	0,450	54	-	+80	2242	2280

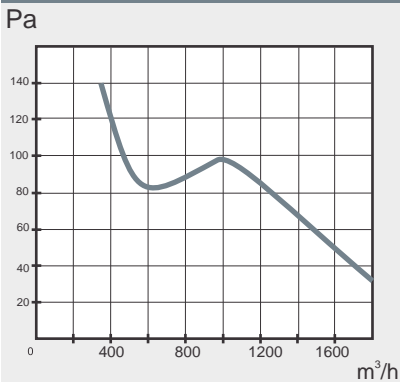
PVO 250/2

Dimensions /mm/

Performance curves



Type	B	C	D	E-E
250/2	284	340	132	258
				M6



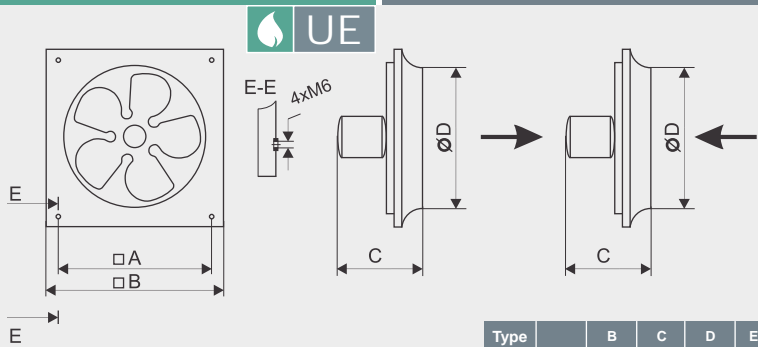
Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Consumed current	Protection Degree	Noise Level	Max Air Temperature	Product Code
Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	Pa		IP	dB	°C	No
50 / 230	2700	100	1600÷1700	190	0,450	54	-	+80	2228

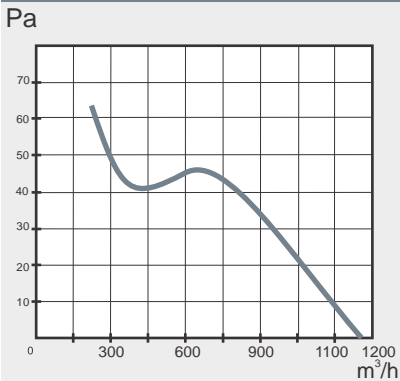
PVO 250/4

Dimensions /mm/

Performance curves



Type	B	C	D	E-E
250/4	284	340	132	258
				M6



Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Consumed current	Protection Degree	Noise Level	Max Air Temperature	Product Code
Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	Pa		IP	dB	°C	No
50 / 230	1400	14	1000÷1100	90	0,110	54	-	+80	2259

HEAT RECOVERY

DOMESTIC FANS

SAUNA FANS

AXIAL FANS

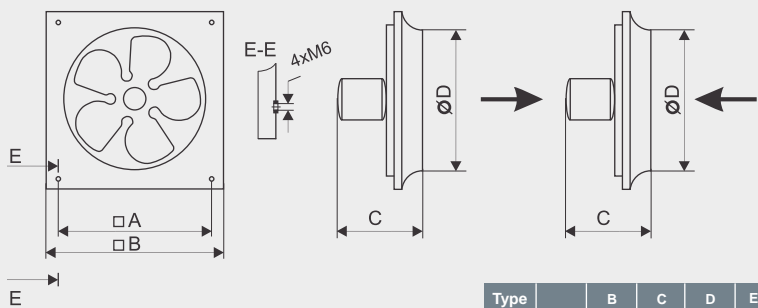
DUCT FANS

INDUSTRIAL FANS

ACCESSORIES

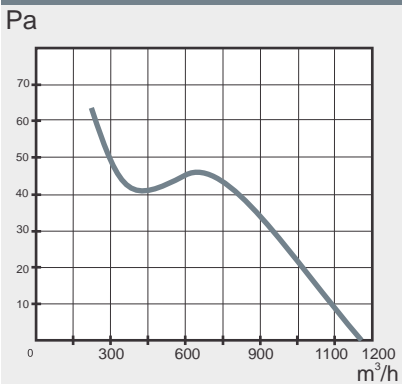
PVO 250/4

Dimensions /mm/



Type	B	C	D	E-E
250/4	284	340	132	258
				M6

Performance curves

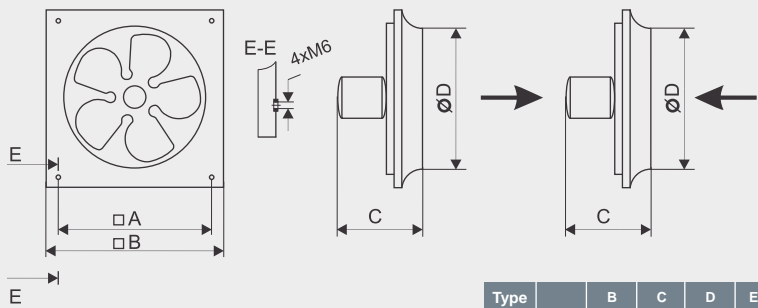


Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Consumed current	Protection Degree	Noise Level	Max Air Temperature	Product Code
Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	Pa		IP	dB	°C	No
50 / 230	1400	50	1000÷1100	90	0,300	54	-	+80	2259

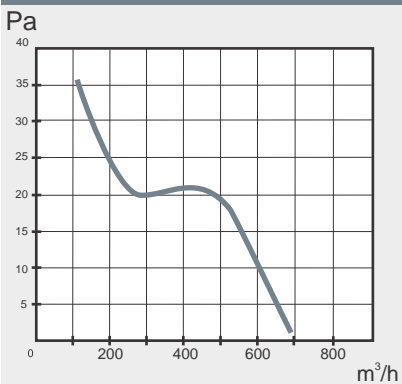
PVO 250/6

Dimensions /mm/



Type	B	C	D	E-E
250/6	284	340	142	258
				M6

Performance curves

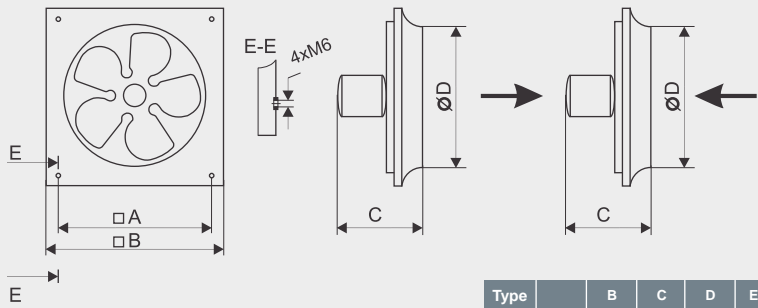


Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Consumed current	Protection Degree	Noise Level	Max Air Temperature	Product Code
Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	Pa		IP	dB	°C	No
50 / 230	930	50	600÷700	42	0,300	54	-	+80	-

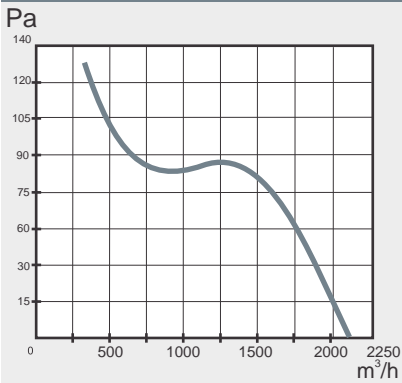
PVO 300/2

Dimensions /mm/



Type	B	C	D	E-E
200/2	350	400	150	307
				M6

Performance curves



Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Consumed current	Protection Degree	Noise Level	Max Air Temperature	Product Code
Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	Pa		IP	dB	°C	No
50 / 230	2700	140	2000÷2100	175	0,500	54	-	+80	2303

HEAT RECOVERY

DOMESTIC FANS

SAUNA FANS

AXIAL FANS

DUCT FANS

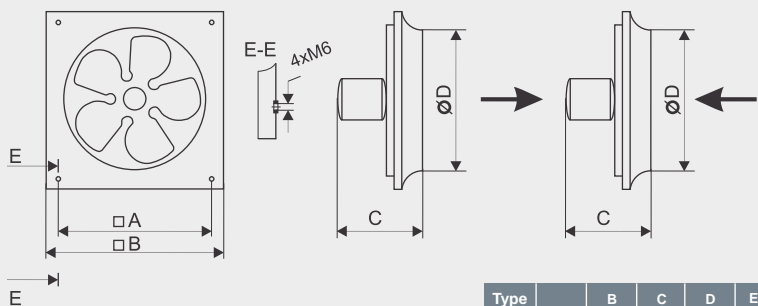
INDUSTRIAL FANS

ACCESSORIES



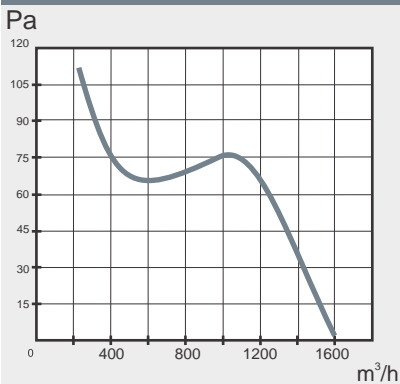
PVO 300/4

Dimensions /mm/



Type	B	C	D	E-E
300/4	350	400	150	307
				M6

Performance curves

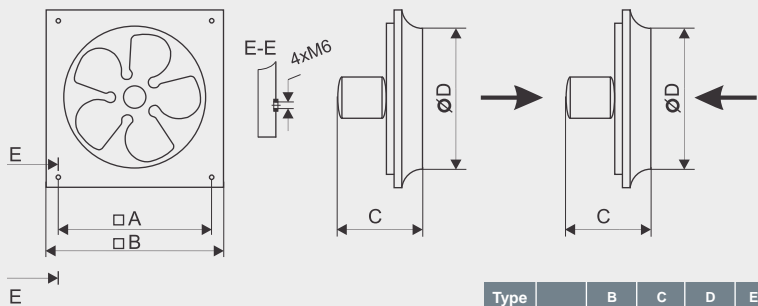


Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Consumed current	Protection Degree	Noise Level	Max Air Temperature	Product Code
Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	Pa		IP	dB	°C	No
50 / 230	1400	80	1500÷1600	135	0,600	54	-	+80	2310

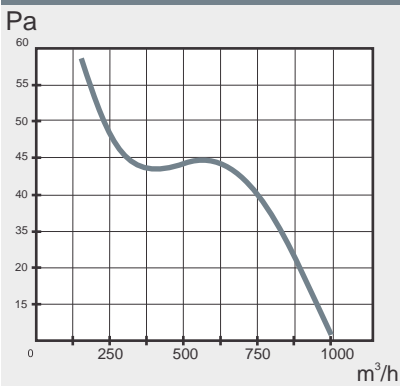
PVO 300/6

Dimensions /mm/



Type	B	C	D	E-E
300/6	284	340	142	258
				M6

Performance curves

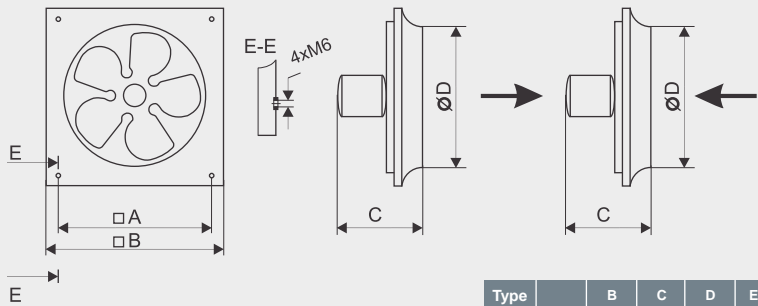


Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Consumed current	Protection Degree	Noise Level	Max Air Temperature	Product Code
Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	Pa		IP	dB	°C	No
50 / 230	910	65	900÷1000	80	0,350	54	-	+80	-

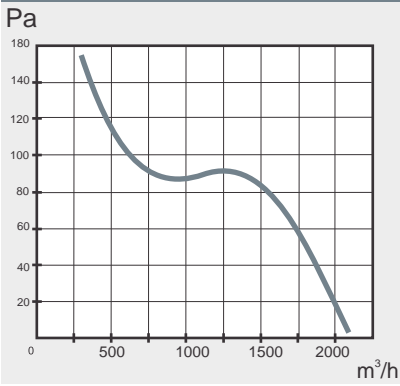
PVO 350/4

Dimensions /mm/



Type	B	C	D	E-E
350/4	400	470	150	360
				M6

Performance curves



Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Consumed current	Protection Degree	Noise Level	Max Air Temperature	Product Code
Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	Pa		IP	dB	°C	No
50 / 230	1400	85	2000÷2100	195	0,450	54	-	+80	2334

HEAT RECOVERY

DOMESTIC FANS

SAUNA FANS

AXIAL FANS

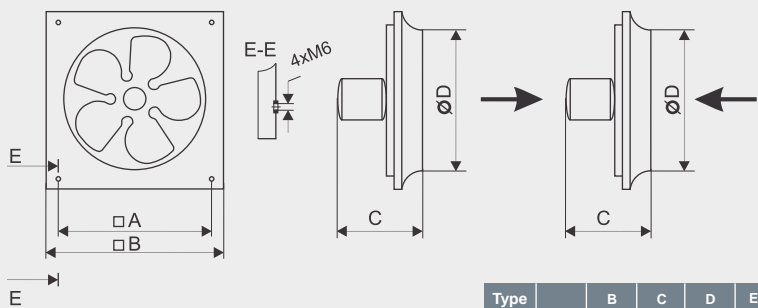
DUCT FANS

INDUSTRIAL FANS

ACCESSORIES

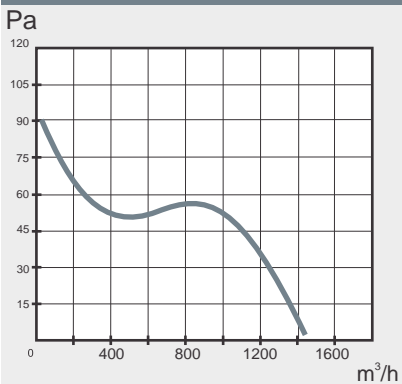
PVO 350/6

Dimensions /mm/



Type		B	C	D	E-E
350/6	400	470	150	360	M6

Performance curves

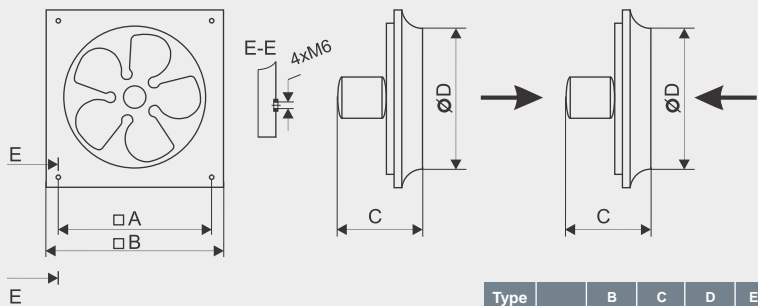


Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Consumed current	Protection Degree	Noise Level	Max Air Temperature	Product Code
Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	Pa		IP	dB	°C	No
50 / 230	900	90	1400÷1500	90	0,500	54	-	+80	-

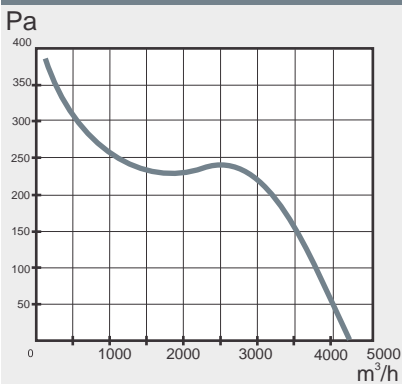
PVO 400/4

Dimensions /mm/



Type		B	C	D	E-E
400/4	436	505	216	410	M6

Performance curves



Technical characteristic

Supply Voltage	Maximum Flow Rate	Consumed power	Maximum Flow rate	Protection Degree	Consumed current	Protection Degree	Noise Level	Max Air Temperature	Product Code
Hz / V	min <sup>-1</sup>	W	m <sup>3</sup> /h	Pa		IP	dB	°C	No
50 / 230	1310	300	4000÷4500	300	1,400	54	-	+80	3911



The maximum flow rate value depends on the voltage and the angle attack of the impeller.  
The fans can be designed to operate on other voltages and frequencies if required.

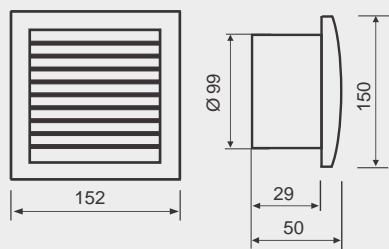
The PVO series industrial fans can be supplied with an electronic fan regulator.  
The two pole type fan can be modified from 900 min<sup>-1</sup> up to 2600 min<sup>-1</sup> RPM and 500 min<sup>-1</sup> up to 1400 min<sup>-1</sup> for four pole types.  
This allows the user to gradually change the rotational speed of the fan and adjust the flow rate and noise level to the required level.

MM QN 100



Product Code 5021

Dimensions /mm/



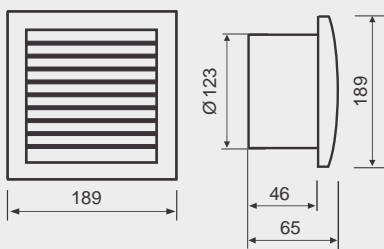
Product Code 1078

MM Q 120



Product Code 5090

Dimensions /mm/

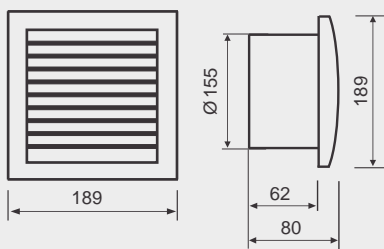


MM Q 150



Product Code 5083

Dimensions /mm/

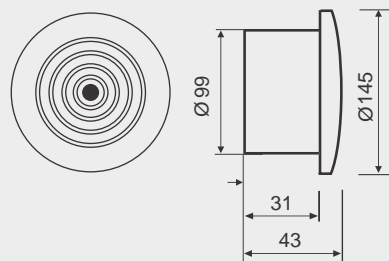


MM RN 100



Product Code 5038

Dimensions /mm/

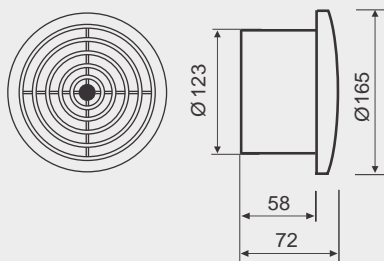


MM R 120



Product Code 5106

Dimensions /mm/

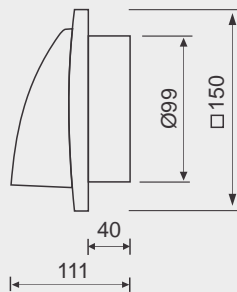


N 100



Product Code 8664

Dimensions /mm/



HEAT RECOVERY

DOMESTIC FANS

SAUNA FANS

AXIAL FANS

DUCT FANS

INDUSTRIAL FANS

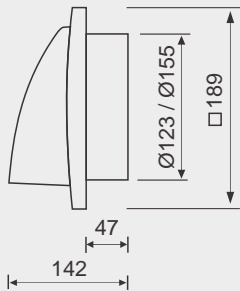
ACCESSORIES

N 120 / 150



Code Ø120	8671
Code Ø150	8688

Dimensions /mm/



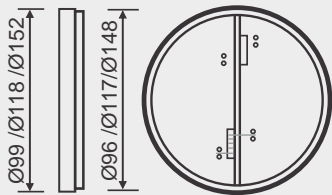
Shutter 100 / 120 / 150

Plastic



Code Ø100	5052
Code Ø120	5069
Code Ø150	5076

Dimensions /mm/



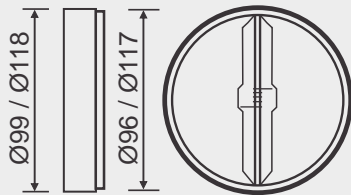
Back Shutter 100 / 120

Metal



Code Ø100	8657
Code Ø120	5311

Dimensions /mm/



MM QB 100



BLACK

MM QE 100



ECRU

MM QI 100



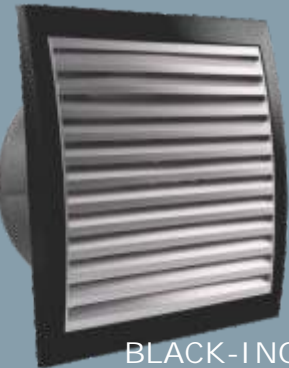
INOX

MM QB 120 / 150



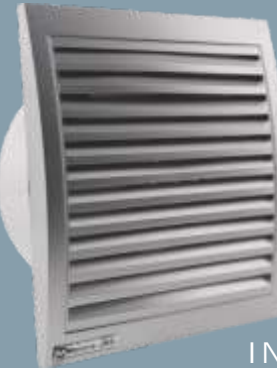
BLACK

MM QBI 120 / 150



BLACK-INOX

MM QI 120 / 150



INOX

HEAT RECOVERY

DOMESTIC FANS

SAUNA FANS

AXIAL FANS

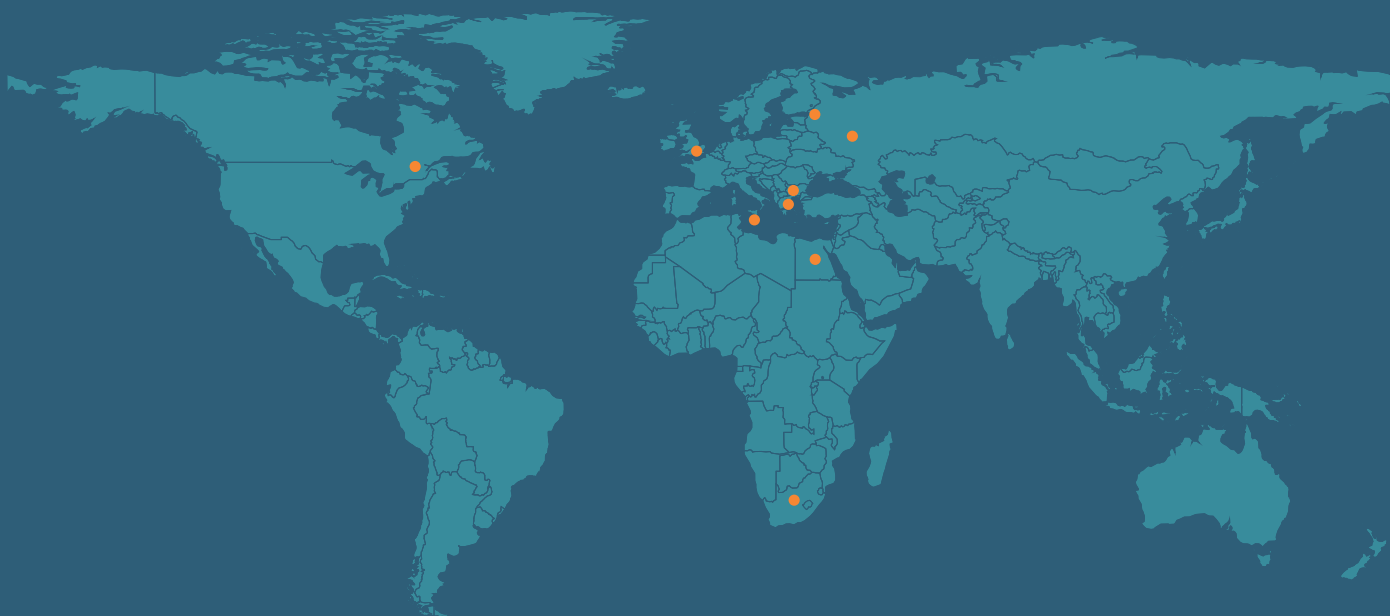
DUCT FANS

INDUSTRIAL FANS

CESSORIES







## CONTACTS

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2180 Etropole - Bulgaria  
**E-mail:** mmotors@mmotors.bg

**[www.mmotors.bg](http://www.mmotors.bg)**

