

## ARC and ARC SMART

Intelligent low noise fan for exhaust ventilation



intelligent fans

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Intelligent low noise fan for exhaust ventilation





#### APPLICATION

Extremely quiet exhaust fan with stylish design for high comfort level in shower rooms, bathrooms, kitchens and other residential premises.

- Intelligent integrated control functions allow to adjust personal settings for the most balanced microclimate.
- Wall or ceiling mounting.

#### MOTOR

- Reliable motor on ball bearings with as low power consumption as 2.7 W at maximum speed.
- The bearings are maintenance-free and are filled with grease for the whole motor service life.
- The motor is equipped with overheating protection.

#### DESIGN

- Specially designed motor and aerodynamically optimized impeller shape provide super silent operation at only 9 dBA, which is combined with high performance.
- White and black colors available.
- Due to replaceable spigots (included in the delivery set) the fan is suitable for mounting with Ø100 or Ø125 mm air ducts.
- The motor unit is easy to remove without special tools, which grants easy servicing.
- The fan has IP44 ingress protection rating and can be installed in Zone 1 of bathrooms.

#### CONNECTION TO POWER MAINS

- The power cable can be inserted into the fan from the back or from the top.
- The fan is equipped with an integrated on/off power slide switch for quick disconnection from power mains. The fan is powered through an integrated pulse power supply unit with a wide power supply range from 100 to 240 V and 50 to 60 Hz. The fan is suitable for application in various countries and has stable operation in versatile power mains.
- + Also the fan can be connected to 12 V DC power supply.







#### **ARC** OPERATION MODES

The operation mode for Arc fans can be selected using a multiposition switch on the motor unit.

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**Mode 1** – the fan operates in permanent ventilation mode at a speed of 20 m<sup>3</sup>/h; if the motion and lighting sensors are triggered, its speed changes to 60 m<sup>3</sup>/h or to 90 m<sup>3</sup>/h if the humidity sensor is triggered.

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**Mode 2** – the fan operates in permanent ventilation mode at a speed of 40 m<sup>3</sup>/h; if the motion sensor or light sensor is triggered, its speed changes to 60 m<sup>3</sup>/h or to 90 m<sup>3</sup>/h if the humidity sensor is triggered.

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**Mode 3** – the fan operates in permanent ventilation mode at 40 m<sup>3</sup>/h; if the humidity sensor is triggered, it operates at 115 m<sup>3</sup>/h.

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**Mode 4** – the fan operates in permanent ventilation mode at a speed of 60 m<sup>3</sup>/h; if the humidity sensor is triggered, it operates at 115 m<sup>3</sup>/h.

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**Mode 5** – the fan operates in standby mode; if the motion or lighting sensor is triggered, it turns on at a speed of  $60 \text{ m}^3/\text{h}$ , if the humidity sensor is triggered — at  $90 \text{ m}^3/\text{h}$ .

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**Mode 6** – the fan operates in interval ventilation mode (for 30 minutes every 12 hours) at 20 m<sup>3</sup>/h; if the motion or lighting sensor is triggered, its speed changes to 60 m<sup>3</sup>/h, if the humidity sensor is triggered — at 90 m<sup>3</sup>/h.

**Mode 7** – the fan is in standby mode; if the temperature sensor is triggered, its speed changes to 90  $m^3/h$ ; the fan starts at the temperature of 28 °C and stops at 24 °C.

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Mode 8 – the fan is in standby mode; it starts at 115 m $^3$ /h if the humidity sensor is triggered.

#### HUMIDITY SENSOR

- The fan has an integrated intelligent humidity sensor.
- The fan autonomously selects the optimum humidity level for the room in which it is installed. The fan's operation algorithm is selected based on analysing the statistical data of the indoor humidity level.

#### TIMER

- Turn-on delay timer is preset for 30 seconds.
- Turn-on delay timer is always activated by motion and lightning sensors.
- Turn-off delay timer is preset for 15 minutes
- Turn-off delay timer is always activated by motion, lightning and humidity sensors.



#### ARC SMART OPERATION MODES

The Arc Smart fan operation mode can be selected using a smartphone.

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**Standby** – the fan motor does not rotate, the rotation is activated by a signal from a sensor.

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**24 hours** – the fan operates at low speed for 24 hours. If the sensor signal is received, the fan switches to the speed, adjusted to match the sensor triggering. The «24 hours» mode speed can be adjusted within the range of  $20/40/60 \text{ m}^3/h$ .

**Do not disturb** – the function is only available when the 24 hours mode is activated. This function allows for setting the time interval so that the fan will not respond to sensors or switch actuation, and will operate at «24 hours» mode selected speed.

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**Automatic interval ventilation** – this mode allows to ventilate the room every 12 hours for 30 minutes at the set speed of 20, 40 or 60 m<sup>3</sup>/h (the function is only available when the 24 hours mode is deactivated).

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**Max (Boost Mode)** – the fan runs at a maximum speed of 115 m<sup>3</sup>/h for Ø 100 mm and 140 m<sup>3</sup>/h for Ø 125 mm respectively.

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**Humidity sensor** – the fan has an integrated intelligent humidity sensor with the following operation modes: **Manual mode** allows setting the humidity level in the range from 40 % to 80 %. If this threshold is exceeded, the fan turns on or switches to the preset speed from the range of 60, 90 or 115 m<sup>3</sup>/h.

**Auto – intelligent humidity control.** This mode provides for humidity level change in automatic mode. The fan autonomously selects the optimum humidity level for the room, in which it is installed. The choice of the fan operation algorithm is determined based on analyzing the indoor air quality level statistics. Motion sensor – When the motion sensor is triggered, the turn-on delay timer of 30 s is switched on. Then the fan will switch to the preset speed from the range of 40, 60, 90 or 115 m<sup>3</sup>/h. Once there is no motion detected, and after the turn-off delay timer countdown, the fan will return to previous mode.

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**Lighting sensor** – when the lighting sensor is triggered, the turn-on delay timer of 30 s is switched on, and the fan increases its speed after the timer countdown runs out. When the sensor detects an insufficient light level, the fan returns to the previous mode after the turnoff delay timer expires. The speed can be selected from the range of 40, 60, 90 or 115 m<sup>3</sup>/h.

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#### Air quality sensor

**Manual mode** – allows you to set the air quality sensor sensibility level. If the air pollution level exceeds the preset level, the fan switches to the speed adjusted from the range of 60, 90 or 115 m<sup>3</sup>/h.

**Auto** – enables intelligent air quality control. This mode provides for changing the air quality level and fan speed in automatic mode, autonomously selecting the optimal operating level for the room where the fan is located. The choice of the fan operation algorithm is determined by analyzing the indoor air quality level statistics.

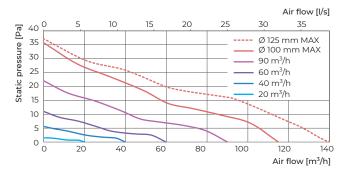
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**Timer** – turn-off delay timer is designed to prolong the fan operation for 0, 15 or 30 minutes in the mode caused by a triggered sensor or activating Boost mode.

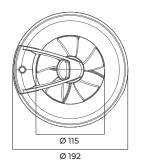
#### TECHNICAL DATA

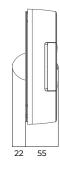
Model	Arc / Arc Smart					
Spigot daimeter [mm]	100/125				100	125
Speed [m³/h]	20	40	60	90	Max	Max
Frequency [Hz]	50-60					
Voltage [V]	100-240					
Power consumption [W]	0.4	0.6	0.8	1.6	2.7	2.9
Current [A]	0.018	0.019	0.021	0.029	0.038	0.04
Air flow [m³/h]	20	40	60	90	115	140
Air flow [l/s]	6	11	17	25	32	39
SFP [W/l/s]	0.07	0.05	0.05	0.06	0.08	0.07
Sound pressure level at 3 m [dB(A)]	9	13	18	22	27	28
IP	IP44 (Zone 1)					

#### AERODYNAMIC DATA



#### DIMENSIONS [MM]





#### ACCESSORIES



1805/1810 2805/2810



MVM 102 V N MVM 122 V N



MV 102 V MV 122 V



MV 100 MV 120



## ALL FUNCTIONS IN YOUR SMARTPHONE

Flexible control of your ventilation makes it as autonomous and efficient as possible. The possibility of remote control ensures high operating comfort.



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