
SME series

EC Motors



04

Electronically Commutated Motors

RoHS **CE**  

EC MOTORS

SME series is the new motors generation, with a higher efficiency than the traditional motors assuring an energy saving up to 80% of power consumption.

Request ATEX certification for hazardous environments such as in commercial cooling system, supermarket refrigerated counters, cold rooms, ice cream machines and small condensing applications, where explosive gases might be generated.

SME

MAIN FEATURES



Voltage	100 ~120 V - 50/60Hz 220 ~240 V - 50/60Hz DC 24V
Motor Cover	Thermoplastic
Speed	500 - 2300 rpm
Insulation class	B ("F" on request)
Coupling Motor-Fan Blade	Diameter from 154 to 300 mm
Rotation direction	Single rotation CCW Reverse on start Reverse on demand
Speed	Single speed, 2 Speeds, Reversible, 0-10 Vdc
Operating temperature	-30°C ~ 50°C
Protection class	Class II
Mounting position	Any
Duty cycle	Continuous operating (S1)
Protection	IP 65
Bearing Type	Ball Bearing
Life expectancy	50.000 hours
Certifications	CE, VDE(220~240 Vac), ATEX (on request) UL (pending)
Motor Protection	Via Electronics

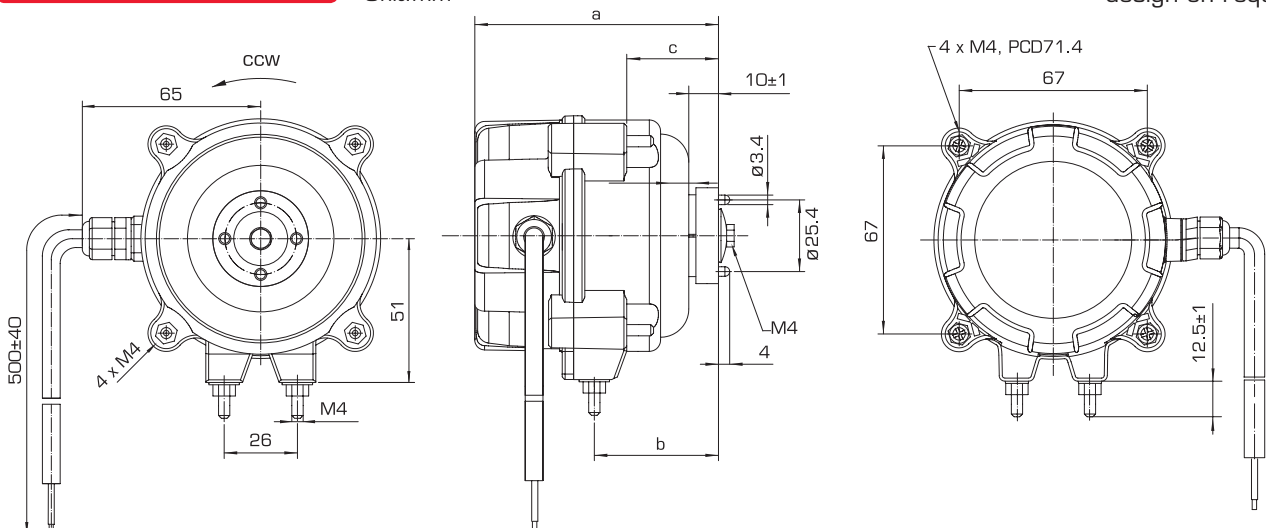
Specifications

Nominal data		Voltage	Frequency	Speed	Output capacity	Dimensions		
Type	Features	V	Hz	rpm	W	a	b	c
FL-SME108	Standard CW&CCW 2 Speeds	100 ~120 V 220 ~240 V	50/60 Hz	500 ~ 2300	5	83	43.5	32.5
FL-SME112	Standard CW&CCW 2 Speeds	100 ~120 V 220 ~240 V	50/60 Hz	500 ~ 2300	15	87	43.5	32.5
	Vari-speed	DC 24 V	—	500 ~ 2300	15			
FL-SME120	Standard CW&CCW 2 Speeds	100 ~120 V 220 ~240 V	50/60 Hz	500 ~ 2300	22	95	43.5	32.5
	Vari-speed	DC 24 V	—	500 ~ 2300	20			

Technical Drawing

Unit:mm

Other Mechanical design on request



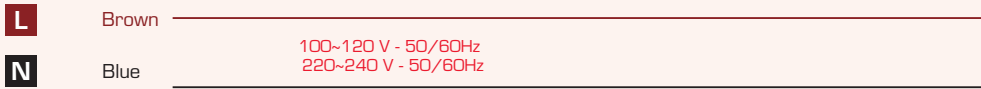
1. Specifications might change without notice;

2. Special design on request

Connection Diagram

Standard

The standard version maintains a constant speed control pre-set. This features helps the cooling system working properly and avoiding the noise generated by the fluctuation of motor speed.



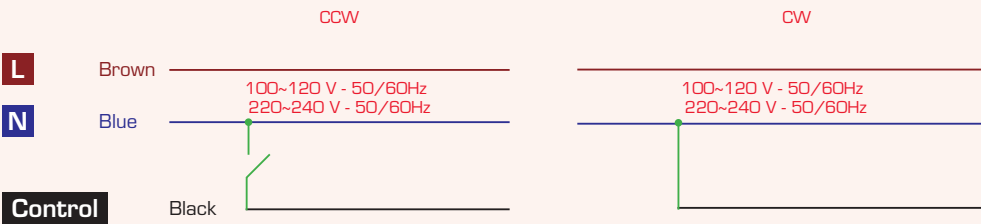
Standard

Reverse on start

At power up, the motor runs clockwise, there is no extra signal control needed to achieve this function. This function is used to blow dust away from the heat exchanger to make the refrigeration system more efficient.

Reverse on demand

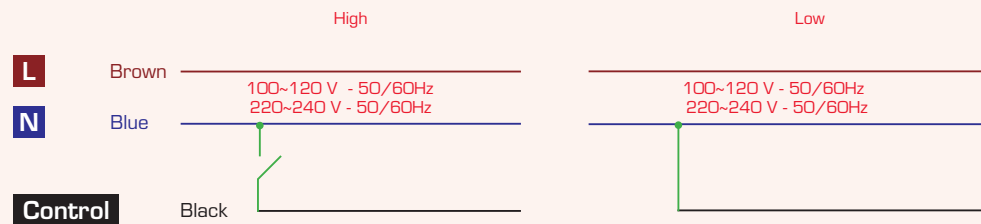
This function allows to determine the time and duration of reverse running. E.g. during defrost, the motor runs clockwise to blow dust or ice away.



Reversible

Two Speeds

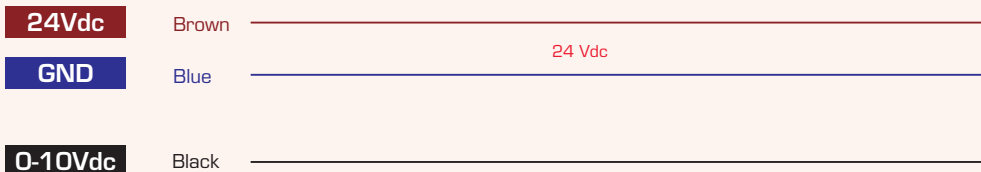
SME motors can run both in high-speed and low-speed through pre-set programmed by supplier, this function is very useful where daytime and nighttime are required, thus to save more energy and reduce the noise.



2 Speeds

0-10 Vdc Vari-speed

SME motors step-less full control of the speed between min and max pre-set range (0-10Vdc)



24Vdc

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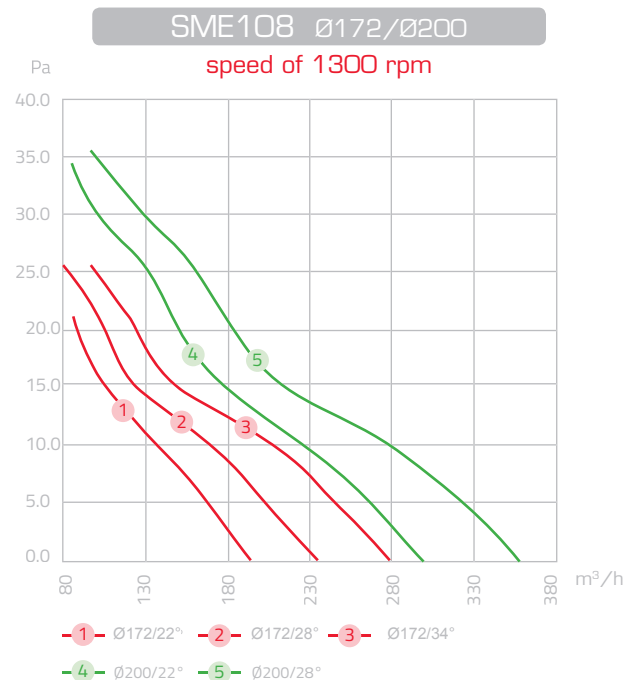
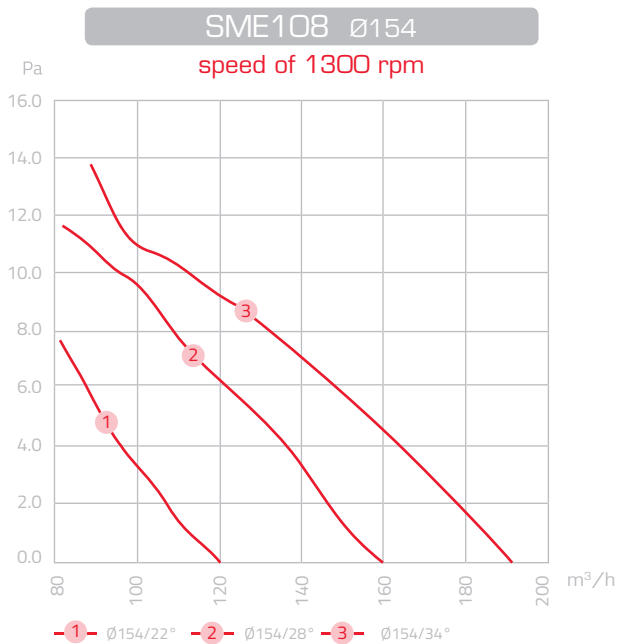
2. Special design on request

Coupling motor-fan blade

Motor Speed	ALLUMINIUM FAN BLADE					
	Ø 154	Ø 172	Ø 200	Ø 230	Ø 254	Ø 300
1300 rpm	22°	22°	22°	22°	22°	22°
	25°	25°	25°	25°	25°	25°
	28°	28°	28°	28°	28°	
	31°	31°	31°	31°	31°	
	34°	34°	34°	34°	34°	
1450 rpm	22°	22°	22°	22°	22°	22°
	25°	25°	25°	25°	25°	
	28°	28°	28°	28°	28°	
	31°	31°	31°	31°	31°	
	34°	34°	34°	34°	34°	
1550 rpm	22°	22°	22°	22°	22°	
	25°	25°	25°	25°	25°	
	28°	28°	28°	28°	28°	
	31°	31°	31°	31°	31°	
	34°	34°	34°	34°	34°	
1800 rpm	22°	22°	22°	22°	22°	
	25°	25°	25°	25°		
	28°	28°	28°	28°		
	31°	31°	31°	31°		
	34°	34°	34°			

SME108
 SME112
 SME120

Airflow Curve

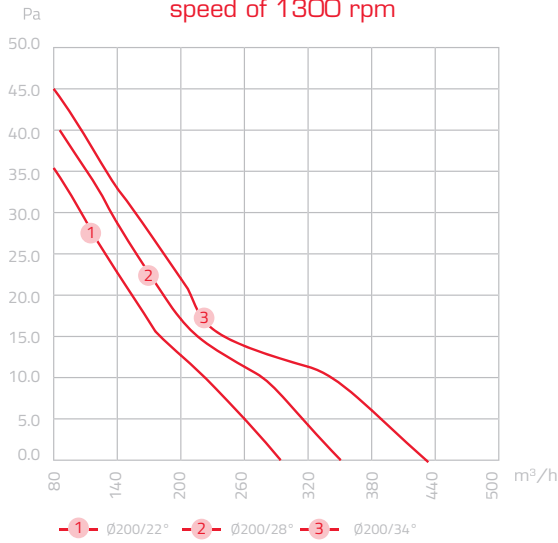


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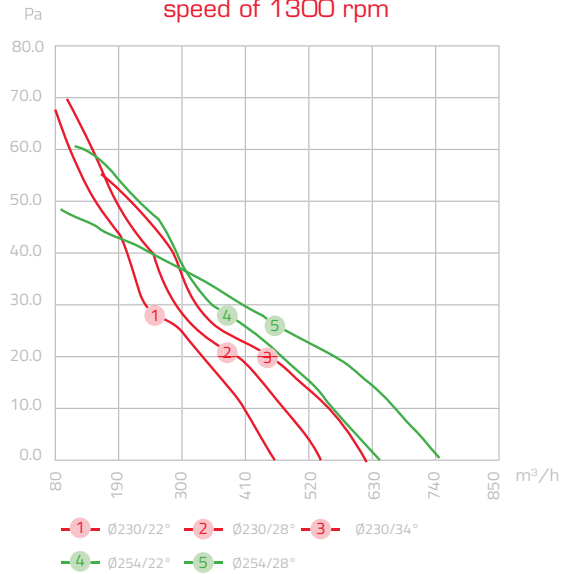
SME112 Ø200

speed of 1300 rpm



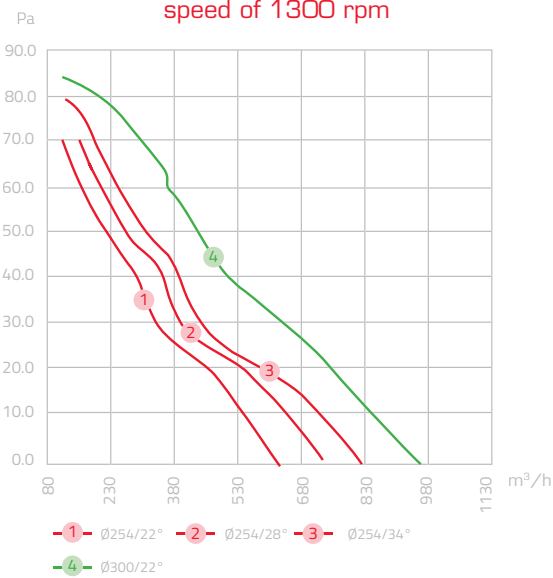
SME112 Ø230/Ø254

speed of 1300 rpm



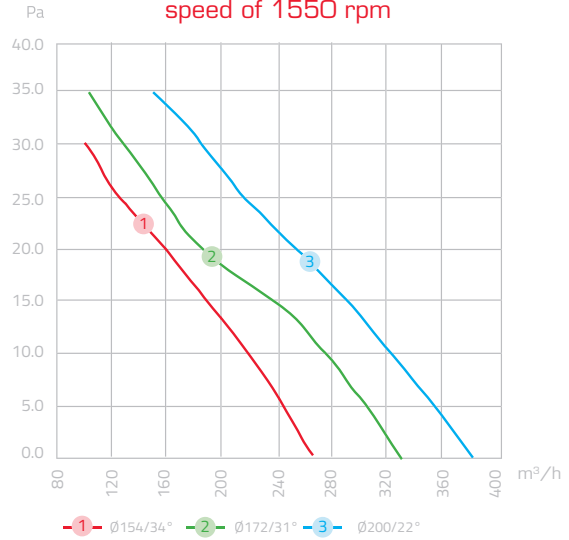
SME120 Ø254/Ø300

speed of 1300 rpm



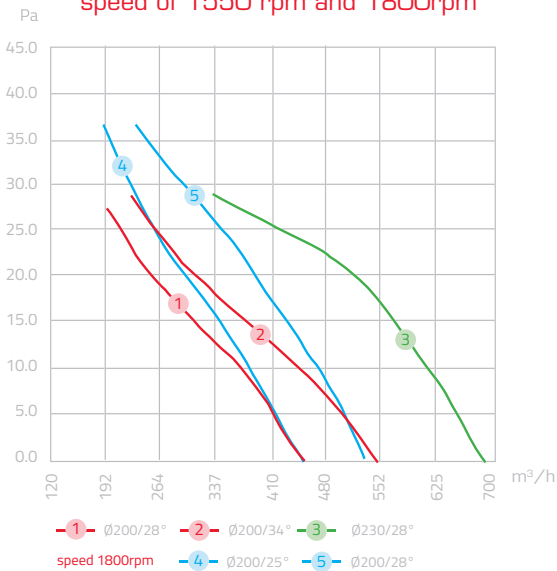
SME108 Ø154/Ø172/ Ø200

speed of 1550 rpm



SME112 Ø200/Ø230

speed of 1550 rpm and 1800rpm



SME120 Ø200/Ø230/ Ø254

speed 1800rpm



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