



EF Series

Fans for heating

DESIGNED FOR HIGH PERFORMANCE AND LOW NOISE APPLIANCES

The SIT's product range of NG blowers specifically developed **for condensing appliances with premix burners** has been strengthened with the EF series, bringing enhanced features which result in a wide modulation range, silent operation, and compact components:

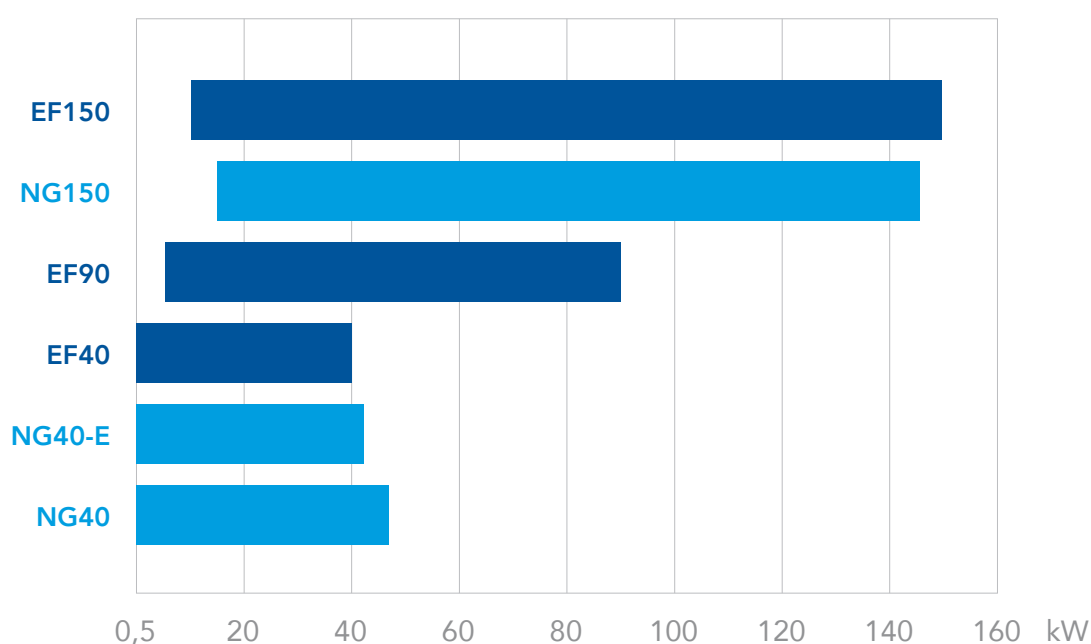
EF90 & EF150

For light commercial applications up to 150kW with optimized and state-of-the-art solutions.

EF40

For residential applications where compactness and modulation performance are essential.

PREMIX COMBUSTION BLOWERS CAPACITY



EF Series



HIGH MODULATION RANGE

Reaching modulation of 1:20 up to 40kW and 1:15 up to 150kW, EF Series is the top on the line of SIT's blowers for premix appliances regarding **efficiency**.



BRUSHLESS MOTOR

Best in its category to ensure **low noise** and **silent operation**. Brushless motors mean also higher **efficiency** and longer motor **life** than the brushed ones.



100% HYDROGEN-READY

Can work in an environment that uses gas of II & III Series and up to 100% hydrogen as combustible **without** any **mechanical conversion**, thanks to design and materials used.



EF40

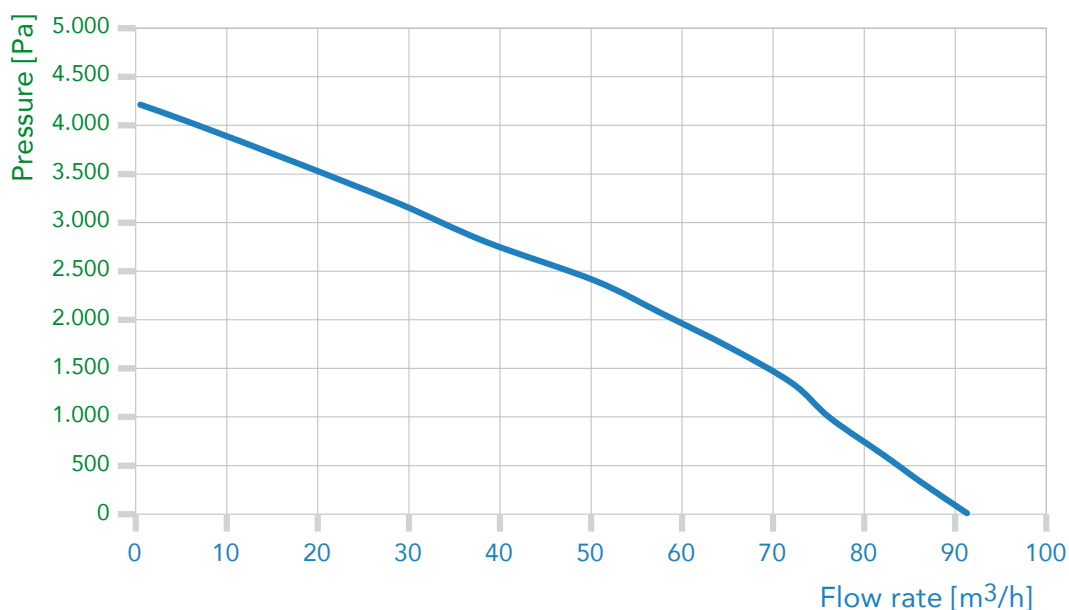
TECHNICAL DATA

Motor type	Brushless motor
Rated power supply	230V – 50 Hz
Voltage range	-15% ÷ 10%
Rated power input^(a)	65 W
Max power input^(b)	80 W
Standby power at 230V	1 W
Protection class	I
Insulation class	H
Duty cycle range	10% ÷ 100%
Ambient temperature range	-10 ÷ 70 °C
Max fluid temperature	60 °C
Duty type	S1 continuous running duty
Impeller speed range (±10%)	600 ÷ 14500 rpm
Hall signal output	2 pulses per revolution
PWM frequency range	1 ÷ 4 kHz
Standards	EN 60335-1, EN 60335-2-102

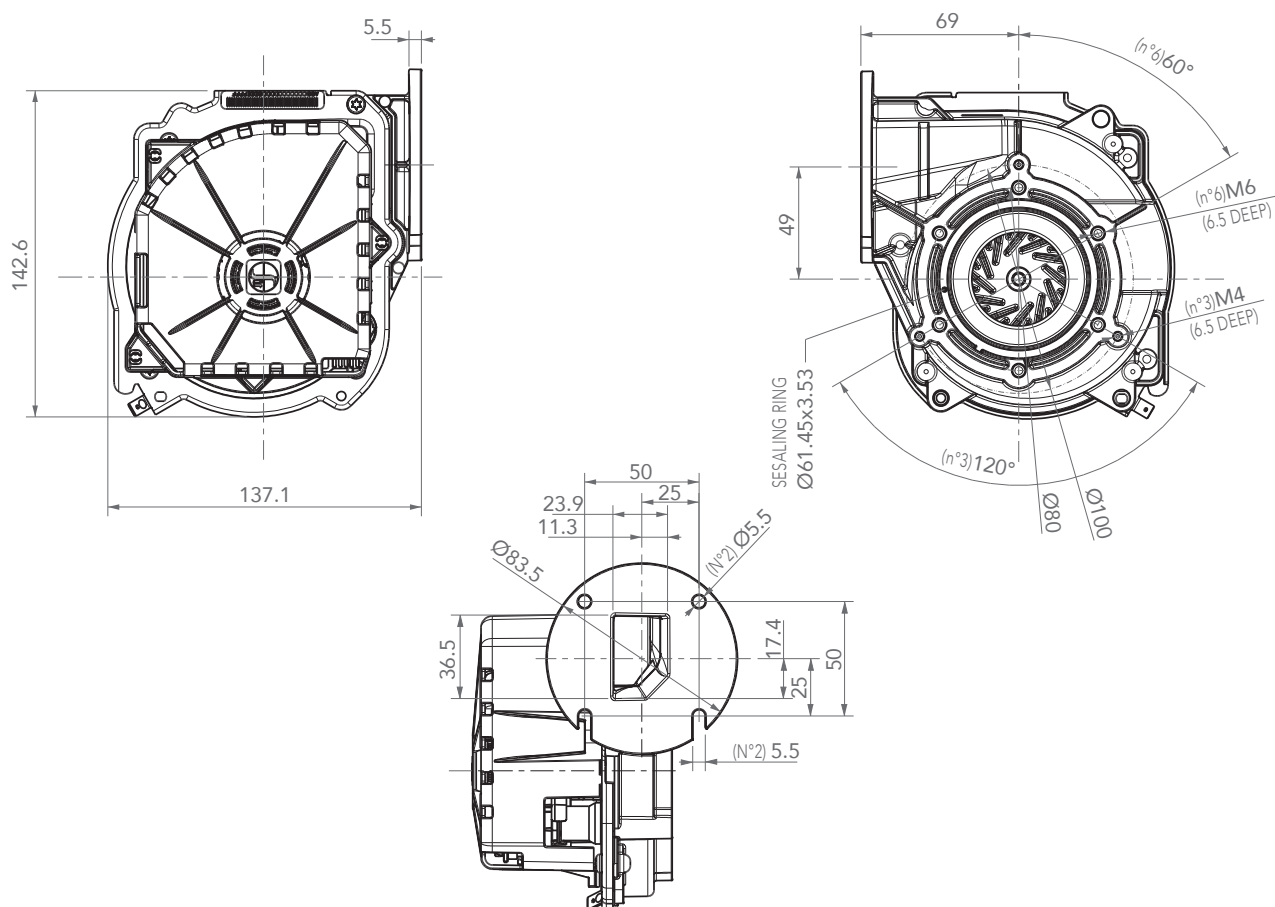
a) Rated power input (tolerance -10% +20%) at the operating point 51m³/h and 1920Pa, is measured in free air by means of Ø19mm flange on outlet, 95%PWM at 230V.

b) Max power input (tolerance ±10%) is measured by means of Ø19mm flange on outlet, 100%PWM at 230V.

FLOW RATE-PRESSURE CHARACTERISTICS



DIMENSIONS



MIXER COMBINATIONS



**Power
of boiler
[kW]**

60
35
25
11

**Connection
type**

G3/4 Male
G3/4 Male
G3/4 Male
G3/4 Male

Other connection types are also available.
Please refer to your sales contact for more information.



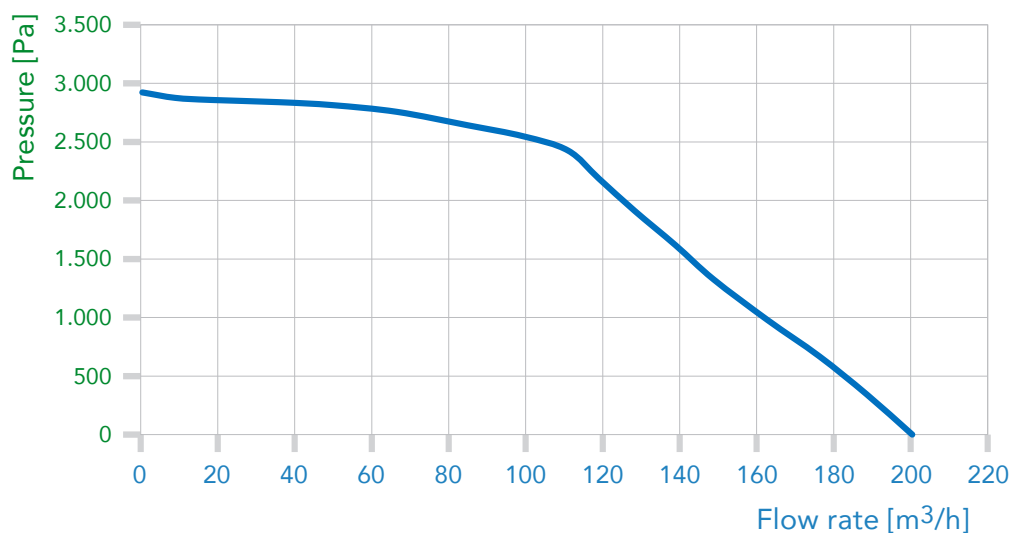
EF90

TECHNICAL DATA

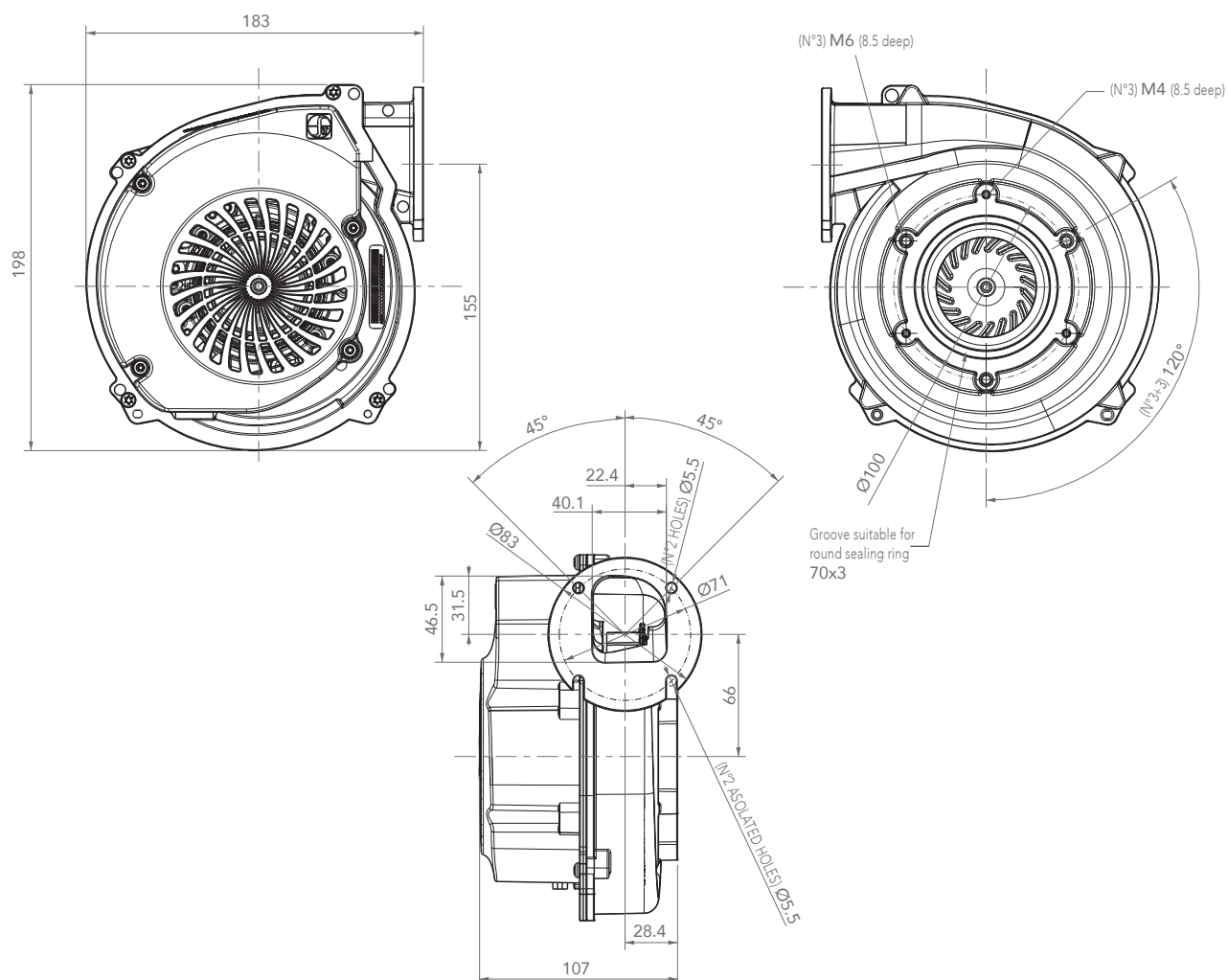
Motor type	Three-Phase PMSM
Rated power supply	230V 50-60Hz / 120V 60Hz
Voltage range	-15% ÷ 10%
Rated power input^(a) (230V / 120V)	120 W
Maximum power input^(b)	125 W / 120 W
Standby power at 230V / 120V	1,2 W
Protection class^(c)	I
Insulation class	F
Ambient temperature range	0°C ÷ 60°C
Max fluid temperature	60°C
Duty type	S1 continuous running duty
Impeller speed range (±10%)^(d) 230V / 120V	600 ÷ 9000 rpm / 600 ÷ 8500 rpm
rpm signal output	2 pulses per revolution
Duty cycle range	8 ÷ 100%
PWM frequency range	1 ÷ 4 kHz
Standards	EN 60335-1, EN60335-2-102 UL 507, CAN CSA C22.2 No.113-18

- a) Rated power input (tolerance -10% +20%) is measured at the operating point 110m³/h and 1700Pa, 230V / 120V. The operating condition of the fan at free air is reproduced by applying a flange Ø26mm on outlet, 73% PWM at 230V and 72% PWM at 120V.
- b) Max power input (tolerance ±10%) is measured at 230V / 120V, 100% PWM.
- c) Protective earth must be connected in application by customer.
- d) Speed control to limit the maximum pressure of the fan.

FLOW RATE-PRESSURE CHARACTERISTICS



DIMENSIONS



MIXER COMBINATIONS



**Power
of boiler
[kW]**

100
80
60
40

**Diameter
convergent
[mm]**

35
31,5
28,5
24,5

EF150

TECHNICAL DATA



Motor type	Three-phase PMSM
Rated power supply	230V 50-60Hz / 120V 60Hz
Voltage range	-15% ÷ 10%
Rated power input^(a) 230V / 120V	270 W / 300 W
Maximum power input^(b)	340 W / 260 W
Standby power at 230V / 120V	1,2 W
Protection class^(c)	I
Insulation class	F
Ambient temperature range	0°C ÷ 60°C
Max fluid temperature	60°C
Duty type	S1 continuous running duty
Impeller speed range (±10%)^(d) 230V / 120V	600 ÷ 9000 rpm / 600 ÷ 9300 rpm
rpm signal output	2 pulses per revolution
Duty cycle range	8 - 100%
PWM frequency range	1 ÷ 4 kHz
Standards	EN 60335-1, EN60335-2-102 UL 507, CAN CSA C22.2 No.113-18

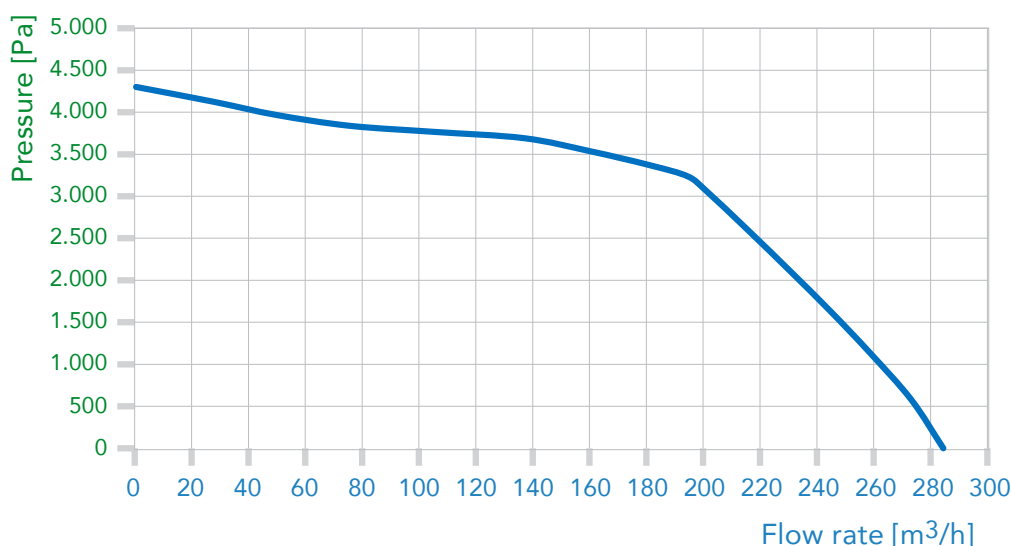
a) Rated power input (tolerance -10% +20%) is measured at the operating point 190m³/h and 2600 Pa, 230V / 120V. The operating condition of the fan at free air is reproduced by applying a flange Ø33,55mm on outlet, 87%PWM at 230V / 120V.

b) Max power input (tolerance ±10%) is measured at 230V / 120V, 100%PWM.

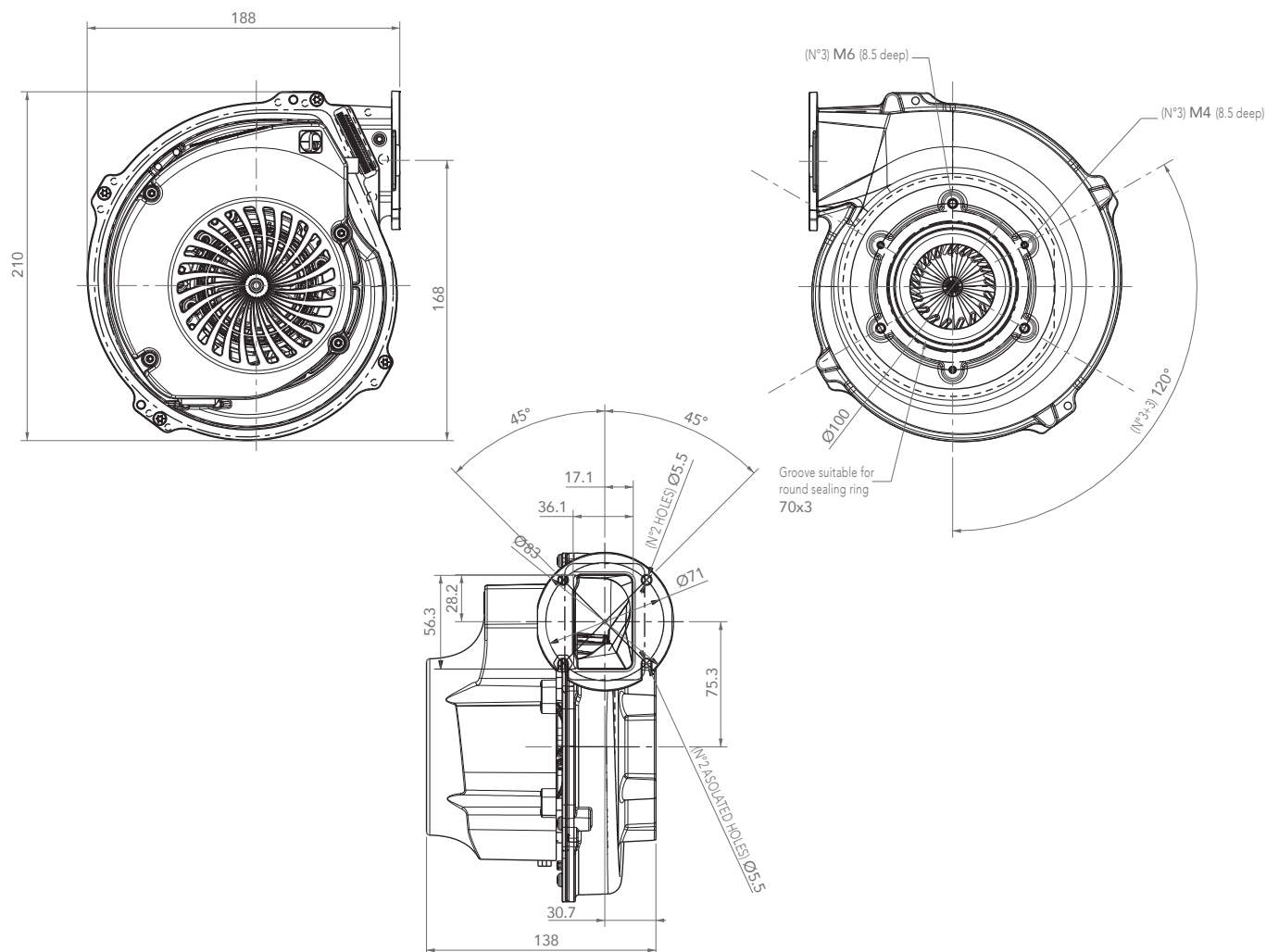
c) Protective earth must be connected in application by customer.

d) Speed control to limit the maximum pressure of the fan.

FLOW RATE-PRESSURE CHARACTERISTICS



DIMENSIONS



MIXER COMBINATIONS



**Power
of boiler
[kW]**

**Diameter
convergent
[mm]**

150
120
100
80
60
40

39,5
37
35
31,5
28,5
24,5

The EF Series is suitable for gas-adaptive and pneumatic applications.

GAS ADAPTIVE SOLUTIONS

FLEXA Combustion Control Systems

FLEXA PRO is the SIT's solution that combines the flexibility of an electronic combustion control with the reliability of a system based on the measures of both air and gas flows.

FLEXA IONO system is for premix applications with electronic combustion control based on Plasma Pulse technology.

The appliances with FLEXA IONO can be transformed into FLEXA H₂ through a specific conversion kit, allowing it to burn pure hydrogen.

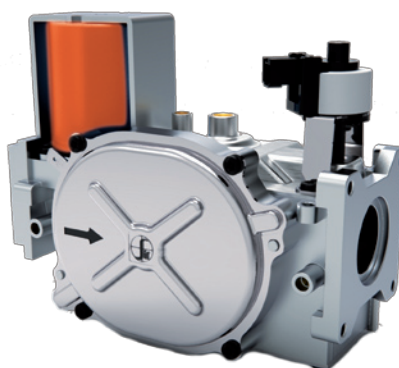


Flexa Pro
system



877 Elektra

gas valve
suitable for appliances
up to 45kW



877 XL Elektra

gas valve
suitable for appliances
up to 150kW

PNEUMATIC SOLUTIONS

848 Sigma

gas valve
suitable for appliances
up to 80kW (according
with the version applied)



822 Novamix

gas valve
suitable for appliances
up to 145kW (according
with the version applied)





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