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**AIR HEATING** 

# **EOLO BC RT** Roof-top gas air heater condensing with modulation

# **EOLO BL RT** Roof-top gas air heater ROOF-TOP standard

EOLO BC RT is the gas for roof-top installations, produced by Systema S.p.A..

This product is suitable for indoor and outdoor applications and can be fit with ventilation duct for air distribution.

The efficiency of this equipment is really high and reaches 108%, the structure is solid and its components guarantee quality, great design and a long-lasting resistance.

eolo

## Power: from 16 to 315 kW Nox Class 5

- » 13 models, 2 versions, more ways of ventilation
- » Indoor or outdoor versions
- » Design with burner integrated into the unit
- » Stainless steel combustion chamber, 10 year guarantee \*
- » Heating of medium and large industrial environments, sports halls, repair shops, garages ect...

#### » YELD OF EOLO BC RT > up to 108%

- Automatic modulation of the thermal power from 100% to 30%
- Fuel: Natural Gas, LPG

- » YELD OF EOLO BL RT > up to 95%
- DOUBLE STAGE
- Modulation of the thermal power from 70% to 100% \*\*
- Fuel: Natural Gas, LPG

\* The guarantee depends on regular maintenance -- \*\* Modulation of the power only if combined with INET control panel To continually improve the products, SYSTEMA S.p.A. reserves the right to alter the characteristics without prior notice.

## TECHNICAL FEATURES



The gas air heater is CE certified for Type B and C installation, equipped with sealing fittings for the intake of the combustion air as well as the S.p.A. exhaust of the combustion flues.



Patented Premix burner head with flame inversion, specifically conceived and realized by Systema

#### **Boards compartment**



The premix burner and the electronic boards are positioned into two separated and sealed spaces (IP45 protection), easy to be checked.

**Centrifugal ventilation** 

#### **Electronic management**



The electronic board, that controls the heater, is already integrated into the system for the connection with Systema remote controllers, which can manage one or more units in accordance with the type of panel used and the configuration required.

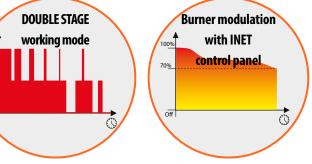
#### Many types of ventilation



Centrifugal standard fans with performances up to 200 Pa

Centrifugal optional fans with performances up to 400 Pa, 600 Pa, 800 Pa.

#### **Eolo BL RT Two working ways**



70% only if combined INET control panel.

PWM fan speed control.

### **Combustion chamber**



The new stainless steel combustion Flame electronic control device chamber allows to get high performances and ensure a long duration through the years.

# **Combustion management**



and gas valve



Centrifugal fans equipped with an air intake compartment prepared for the installation of the air filter and the flange for the connection with an air duct.

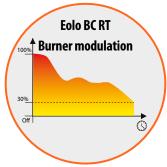
## **Exchangers**



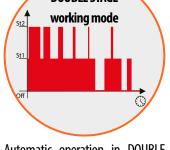
**Eolo BC RT:** Exchanger with bundle made of six tubes, conceived and realized by Systema S.p.A. and equipped with condensing draining pipe.

**Eolo BL RT:** Exchanger of high efficiency, conceived and realized by Systema S.p.A.

#### **Eolo BC RT** Automatic modulation



Automatic modulation of the thermal power from 100% to 30% PWM fan speed control.



Automatic operation in DOUBLE Automatic modulation of the STAGE mode depending on the thermal power from 100% to control panel

## **TECHNICAL DATA**

| Models  |     |         | 15 RT                  | 25 RT   | 35 RT   | 45 RT   | 55 RT   | 65 RT   | 85 RT   | 100 RT  | 120 RT  | 150 RT  | 200 RT  | 250 RT  | 300 RT  |
|---|-----|---------|------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Type of application                                     |     |         | B23                    |         |         |         |         |         |         |         |         |         |         |         |         |
| Thermal capacity ver. <b>BC</b>                         | Max | kW      | 16                     | 22      | 32      | 43      | 52      | 63      | 84      | 103     | 125     | 155     | 210     | 260     | 315     |
|   | Min | kW      | 5                      | 8       | 10      | 15      | 18      | 21      | 23      | 34      | 40      | 46      | 65      | 78      | 95      |
| Thermal capacity ver. <b>BL</b>                         | Max | kW      | 16                     | 22      | 32      | 43      | 52      | 63      | 84      | 103     | 125     | 155     | 210     | 260     | 315     |
|   | Min | kW      | 10                     | 15      | 22      | 30      | 36      | 44      | 59      | 71      | 88      | 108     | 147     | 182     | 220     |
| Combustion<br>Efficiency <b>BC</b> **                   | Max | %       | 94                     | 95      | 94      | 95      | 95      | 95      | 94      | 94      | 94      | 98      | 98      | 98      | 98      |
|   | Min | %       | 106                    | 105     | 105     | 105     | 105     | 105     | 105     | 105     | 105     | 108     | 108     | 108     | 108     |
| Combustion<br>Efficiency <b>BL</b> **                   | Max | %       | 93                     | 93      | 93      | 93      | 93      | 93      | 93      | 93      | 92      | 90      | 90      | 90      | 90      |
|   | Min | %       | 95                     | 95      | 95      | 95      | 95      | 95      | 95      | 94      | 94      | 92      | 92      | 92      | 92      |
| Nominal gas<br>consumption (Hi)<br>(15°C - 1013,25mbar) | G20 | m³/h    | 1,69                   | 2,33    | 3,39    | 4,55    | 5,5     | 6,67    | 8,89    | 10,9    | 13,23   | 16,4    | 22,22   | 27,51   | 33,33   |
|   | G30 | kg/h    | 1,26                   | 1,73    | 2,52    | 3,39    | 4,1     | 4,97    | 6,62    | 8,12    | 9,86    | 12,22   | 16,56   | 20,5    | 24,84   |
|   | G31 | kg/h    | 1,24                   | 1,71    | 2,49    | 3,34    | 4,04    | 4,89    | 6,53    | 8       | 9,71    | 12,04   | 16,31   | 20,2    | 24,47   |
| Gas inlet diameter in                                   |     | inc.    | 3/4″                   | 3/4″    | 3/4″    | 3/4″    | 3/4″    | 3/4″    | 1″      | 1″      | 1″      | 1″1/4   | 1″1/4   | 1″1/4   | 1″1/4   |
| Fumes exhaust Ø m                                       |     | mm      | 100                    | 100     | 100     | 100     | 100     | 100     | 130     | 130     | 130     | 200     | 200     | 200     | 300     |
| Max Length fumex exhaust (B23)                          |     | m       | 8                      | 8       | 8       | 8       | 8       | 8       | 8       | 8       | 8       | 8       | 8       | 8       | 8       |
| Electrical power supply V/H                             |     | V/Hz    | 3/N/PE ~ 50Hz 400V     |         |         |         |         |         |         |         |         |         |         |         |         |
| Fans Model ADH *  |     |         | E0-0180                | E0-0180 | E0-0225 | E0-0250 | E0-0250 | E0-0355 | E0-0355 | E0-0355 | E0-0400 | E0-0450 | E0-0500 | E0-0560 | E0-0630 |
| N. Fans x Motor power capacity*                         |     | N. x kW | 1x1,10                 | 1x1,10  | 1x1,10  | 1x2,20  | 1x2,20  | 1x2,20  | 1x3,00  | 1x3,00  | 1x4,00  | 1x5,50  | 1x7,50  | 1x7,50  | 1x11,00 |
| Total electrical power capacity kW                      |     | kW      | 1,19                   | 1,19    | 1,19    | 2,29    | 2,42    | 2,42    | 3,25    | 3,25    | 4,25    | 5,79    | 7,82    | 7,97    | 11,48   |
| Working temperature (min÷max) (#) °C                    |     | °C      | 0÷35 (-20÷40 optional) |         |         |         |         |         |         |         |         |         |         |         |         |
| Air treated capacity m <sup>3</sup> /h                  |     | m³/h    | 2.500                  | 2.500   | 3.500   | 5.000   | 6.000   | 7.000   | 9.000   | 10.000  | 12.000  | 14.000  | 20.000  | 24.000  | 28.000  |
| Available pressure (standard)                           |     | Pa      | 200                    |         |         |         |         |         |         |         |         |         |         |         |         |
| Noise Level (at 1 m) ver. Standard dB(A                 |     | dB(A)   | 56                     | 56      | 57      | 57      | 58      | 59      | 61      | 62      | 63      | 65      | 66      | 67      | 67      |
| Weight ver. BC standard kg                              |     | kg      | 220                    | 220     | 250     | 380     | 400     | 430     | 590     | 620     | 650     | 840     | 940     | 1040    | 1290    |
| Weight ver. <b>BL</b> standard kg                       |     | kg      | 220                    | 200     | 220     | 360     | 380     | 410     | 540     | 560     | 580     | 760     | 860     | 940     | 1120    |

(\*) The fan model, as well as the electric power of the motor, may change depending on the output and the prevalence of the equipment.

PLUG FAN versions, with variable flowrates for BC versions and useful pressures from 200 to 400 Pa, from 400 to 600 Pa, from 600 to 800 Pa, depending on the model, are available upon request.

PLUG FAN versions, with fixed flowrate, are also available for BL versions, 200, 400, 600 Pa depending on the model.

(\*\*) Standard condition

(#) The minimum operating temperature is 0°C. Anyway, it's possible to use the equipment with temperatures up to -20°C by installing the LOWS TEMPERATURES kit (available as optional).

For any further information we kindly ask you to get in touch with the Technical Department of Systema S.p.A.

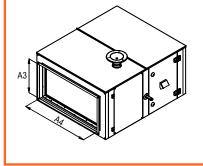




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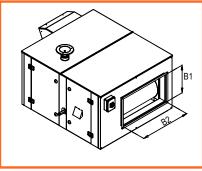
Standard version (view of air intake side)



## DIMENSIONS

Double air intake (view of air intake side)

### Double air intake (view of delivery side)



| W        | AF | ٢N | NC | G! |
|----------|----|----|----|----|
| <i>c</i> |    |    | •• |    |

The dimensions of the ducts indicated in the sheet are referred to standard version. For special application they can be modified to satisfy the installation needs.

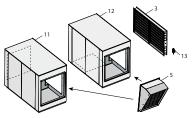
For the sizing of insulated ducting, please get in touch with the Technical Department.

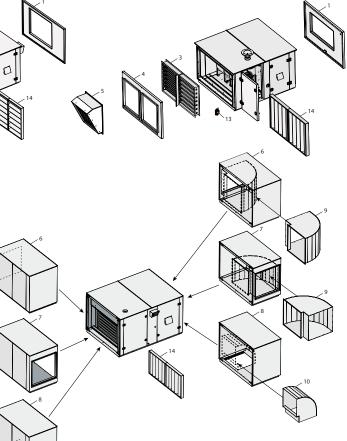
\* Versions with an high pressure range can have greater dimensions. These versions are usually selected in accordance with specific needs of the application. In order to avoid any possible discrepancy, please get in touch with the Technical Department of Systema S.p.A.

Х Y Н A1 A2 A3 A4 B1 B2 **EOLO BC/BL** [mm] [mm] [mm] [mm] [mm] [mm] [mm] [mm] [mm] 15/25/35 RT 400 700 400 700 1205 1580 788 500 450 45/55/65 RT 1508 1822 1035 700 600 500 900 500 900 1197 85/100/120 RT 1909 900 1400 900 2270 900 700 1200 150 RT 2008 2577 1560 1000 800 1000 1200 1000 1000 200 RT 2260 2577 1560 1000 900 1000 1400 1000 1200 250 RT 2510 1000 1000 1000 1400 2577 1560 1000 1600 300 RT 2260 3675 2210 1500 900 1500 2000 1500 1500



- 1 Air intake/delivery panel
- 2 Air intake vent
- 3 Two-ways air dumper
- 4 Two-ways flanged air intake panel
- 5 Air intake vent for two-ways panel
- 6 Insulation cover for right delivery
- 7 Insulation cover for left delivery
- 8 Insulation cover for roof delivery
- 9 Left/right delivery bend
- 10 Roof delivery bend
- 11 Side mixing section
- 12 Roof mixing section
- 13 Belimo proportional device for air dumper with 0-10V control
- 14 G3/G4 air filter





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