

# **BIG-R** EC Axial Fan

Product overview



# Reduce energy consumption

Hidria is an established provider of innovative energy-efficient AC and EC electrical motors and fans for heating, ventilation, air-conditioning, refrigeration and other applications.

## **Most efficient condenser fan**

Using 50 years of engineering knowledge, we are offering to the market new, innovative and custom-designed high tech solutions with optimal flexibility and quality.

Low noise, longer life time, fully integrated connectivity and control, adoptability and flexibility are main features of BIG-R Fans.

But what counts the most is High-efficiency and energy savings.







# **Hortia BIG-R**

## **Features and advantages**

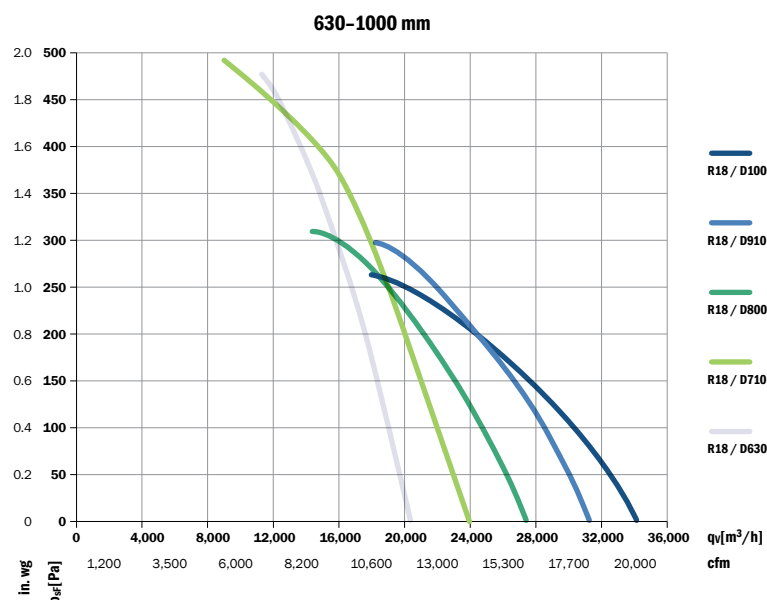
- High-efficient, and energy saving (up to 10%)
- Low noise operation
- Appropriate for higher outside ambient temperature
- Longer life time
- Integrated Connectivity and Control functions
- Custom adoptable and flexible
- Sustainable and green oriented

# Fan Diameter

## 630–1000 mm

EC motor family	R18	R18	R18	R18	R18
Diameter range	630 mm	710 mm	800 mm	910 mm	1000 mm
Motor type (stack height)	90 mm	90 mm	120 mm	120 mm	120 mm
Nominal voltage	400 V	400 V	400 V	400 V	400 V
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Nominal speed	1660 Rpm	1600 Rpm	1140 Rpm	1130 Rpm	955 Rpm
Power input range	3100 W	3400 W	2900 W	3000 W	2800 W
Max. air volume (free air flow)	20.000 m³/h	24.000 m³/h	28.000 m³/h	32.000 m³/h	35.000 m³/h
Protection class	IP55	IP55	IP55	IP55	IP55
Overall Efficiency	44,9 %	53,50 %	46,3 %	51,4 %	52,3 %
Efficiency grade N	50,7	56,5	52,9	57,7	59,1
Insulation class	155	155	155	155	155
Min. amb. temperature	-35 °C / -31 °F	-35 °C / -31 °F	-35 °C / -31 °F	-35 °C / -31 °F	-35 °C / -31 °F
Max. amb. temperature	65 °C / 149 °F	65 °C / 149 °F	65 °C / 149 °F	65 °C / 149 °F	65 °C / 149 °F
Speed control options	0-10V, 4-20 mA, PWM, MODBUS RTU, NFC	0-10V, 4-20 mA, PWM, MODBUS RTU, NFC	0-10V, 4-20 mA, PWM, MODBUS RTU, NFC	0-10V, 4-20 mA, PWM, MODBUS RTU, NFC	0-10V, 4-20 mA, PWM, MODBUS RTU, NFC

### AD specifications



### Custom adoptable and flexible

BIG-R is fully custom adoptable and flexible in order to reach best result in any working condition.

The winning advantage is better overall efficiency in comparison with standard Fan solution.

A simple comparison of electricity cost savings for 10 operating BIG-R units in the period of 15 years will convince you to consider and equip your applications with our Fans in the future.

Available range it starts at 630 mm up to 1000 mm Axial Fan diameter.

From the initial research and development through the construction and the materials definition and purchase, we care very much about sustainable usage of all materials built in our units.



## ■ NFC (Near Field Communication) ready

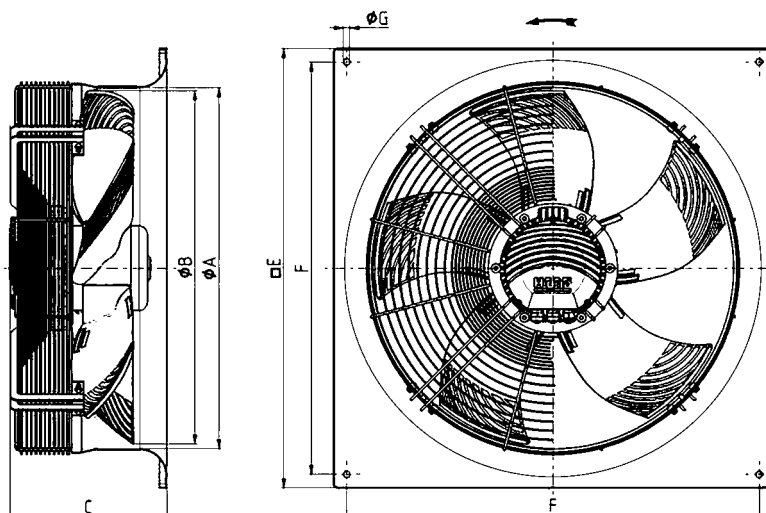
Let's reduce energy consumption of your HVAC systems with high-efficient energy saving solution using our newest Axial Fan model BIG-R.

Patented thermal barrier is bringing lower ambient temperature to the electronic zone. Operating temperature of electrical motor can be up to 155 deg. C, while temperature at BIG-R electronic zone is limited to 85 deg. C at the same time. Because of that BIG-R is ready to operate at higher outside ambient temperatures keeping the same electrical insulation class and operational performance.

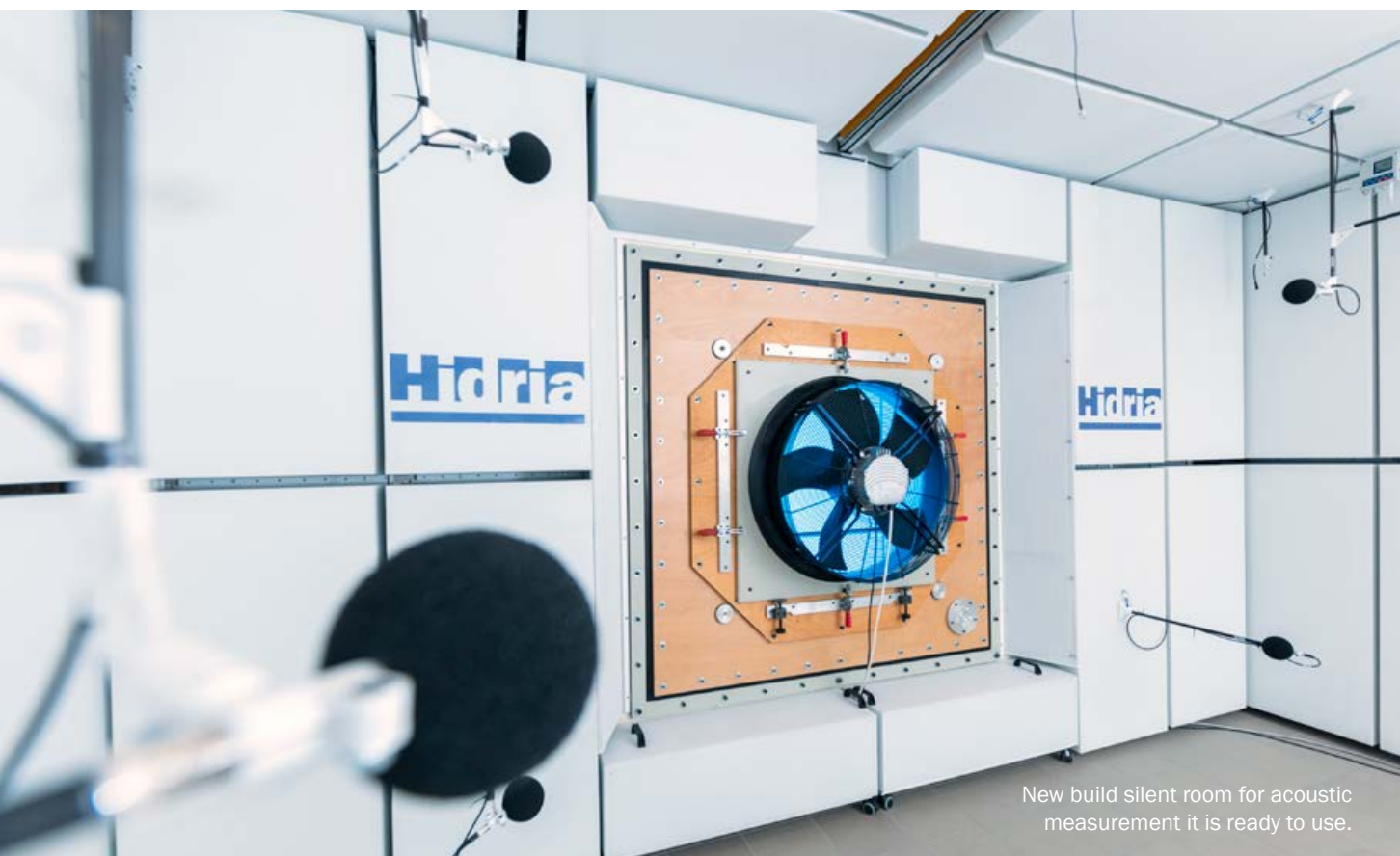
An important mechanical design up-date is introduced into BIG-R solution in order to assure longer life time. New design even exceed forthcoming ERP efficiency requirements.

By robust enlarged solution of ball bearing with larger outside diameter and increased thickness BIG-R has lower radial forces, increased de-balance resistance and it is ready for hard ambient-working conditions.

BIG-R has User Friendly Inverter unit with easy single tool mounting or dismounting. The fan unit it is also NFC (Near Field Communication) ready.



EC motor family	R18 (mm)	R18 (mm)	R18 (mm)	R18 (mm)	R18 (mm)
Diameter range	630	710	800	910	1.000
ØA	634	711	797	914	1.000
ØB	626	702	786	904	988
C	282	304	347	352	326
E	805	850	970	1.170	1.170
F	750	810	910	1.110	1.110
ØG	11	14,5	14,5	14,5	14,5



New build silent room for acoustic measurement it is ready to use.

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