Ingersoll Rand

Next Generation R-Series Oil-Flooded Rotary Screw Air Compressors

200-250 kW (250-350hp)

The intelligence you need to move your business forward

Ingersoll Rand works to keep you ahead of your competition with advanced compressed air systems that boost productivity, lower operating expenses and extend equipment life. These innovations are designed into every Next Generation R-Series oil-flooded rotary screw air compressor—industry-leading airend enhancements for superior efficiency, world-class delivered capacity and exceptional reliability. All supported by unique advantages, including expert design and engineering, a comprehensive suite of support programs and long-life Ingersoll Rand-branded consumables.

Next Generation R-Series compressors. The intelligence you need—to win.

Global presence, local service

Manufacturing sites

Buffalo, NY USA
Campbellsville, KY USA
Mocksville, NC USA
West Chester, PA USA
Curitiba, Brazil
Unicov, Czech Republic
Wasquehal, France
Oberhausen, Germany
Fogliano, Italy
Milan, Italy
Vignate, Italy
Ahmedabad, India
Shanghai, China
Wujiang, China

Global distribution centers

Charlotte, NC USA
Genk, Belgium
Singapore
Shanghai, China

Efficient operation and powerful information

We started at the core

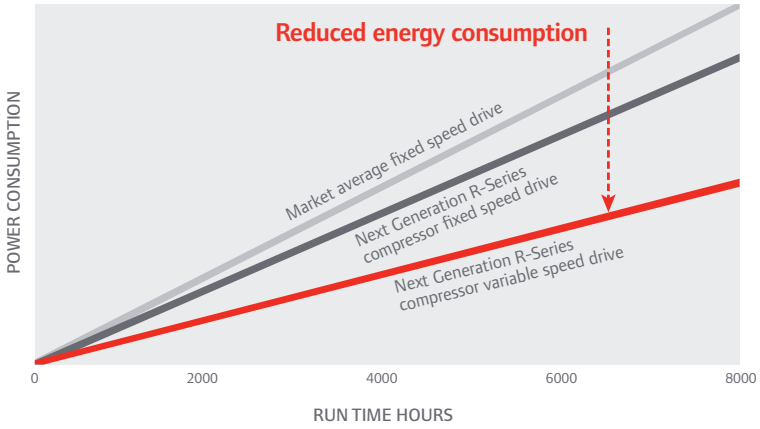
When we made the Next Generation R-Series we started with an all-new, state-of-the-art airend, making it your best choice for performance. The new airend improves efficiency as much as 18% through several advancements, including an optimised rotor profile to help minimise operating expenses. The new rotor profile also provides world-class airflow, delivering up to 21% more than previous models. With more airflow for the same power input, your compressor requirements are smaller, reducing both investment costs and energy usage, to lower your total cost of ownership.

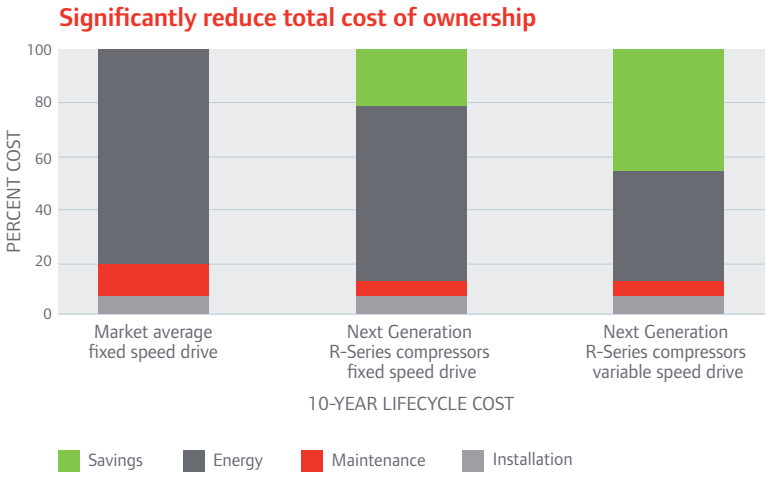
Knowledge is power

The best compressors deliver air and actionable information. That's why every Next Generation R-Series compressor includes an Xe-Series intelligent controller that monitors key operations and adjusts system parameters to maximise uptime and minimise energy consumption. It gives you real-time facts to make and execute informed decisions…from virtually anywhere in the world.

Driving toward maximum efficiency

Every Next Generation R-Series compressor's drive motor features an advanced induction design that meets IE3 energy-efficiency standards.
For even more efficiency, an optional variable speed drive (VSD) can help you save up to 35% on energy costs.





Rotary comparison at 79% average volume capacity; 4000 hours per year; 0.1€/kWh

The elements of smart design

INTELLIGENT

1 **Xe-Series intelligent controllers** monitor and adjust system parameters and can email you when operational events occur—so you can take action, accessing the compressor system from any current, common web browser in the world

2 **Progressive Adaptive Control (PAC™)** automatically reacts to key parameters to minimise unexpected downtime

RELIABLE

3 **Three-stage separation system with conical baffle** removes all but 3 ppm of lubricating oil from delivered air—protecting downstream equipment and extending filter life—to maximise productivity and minimise expenses

4 **Long-life Ingersoll Rand consumables** reduce hard costs, extend maintenance intervals and minimise downtime

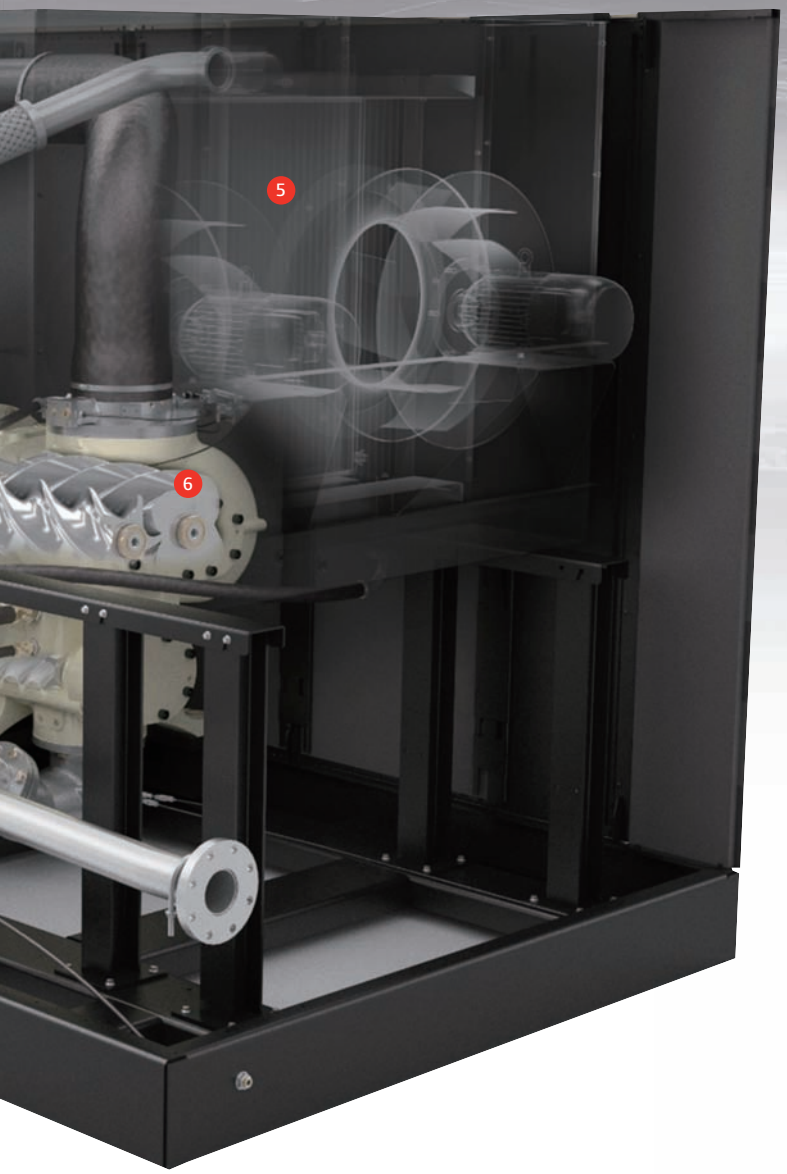
5 **Free-floating cooling system** allows heat exchangers to expand and contract, reducing thermal stress for improved durability

Electronic, no-loss drain valves allow condensate draining without the loss of air pressure, saving you money[1]

[1]Standard on two-stage and variable speed models, optional on single stage models

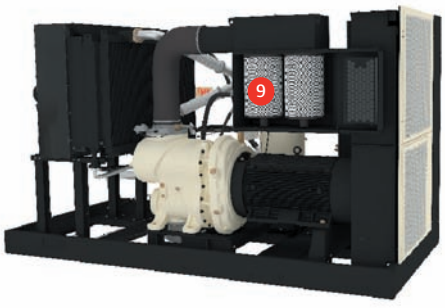
EFFICIENT

6 **All-new, state-of-the-art airends** available in single stage and two-stage (90 kW and above) improve efficiency as much as 18%, and are designed for long life and reliable operation



7 **V-Shield™ technology** uses a combination of advanced techniques that help deliver repeatable, leak-free connections

8 **IE3-Rated Premium Efficiency** motors deliver even more energy savings than high-efficiency motors, and an available variable speed drive (VSD) helps further decrease energy demands



9 **Two-stage, high-efficiency air filters** deliver exceptional filtration, maintain maximum airflow and provide a visual indicator when changing is required

10 **Hinged-door service access with integrated handles** provides quick, easy access to all user-maintainable components—including the heat exchangers, which don't require removal during routine cleaning

The airend—the heart of every compressor

Air compressor use accounts for a significant part of your business's energy costs. Our engineers and design experts used advanced computer modeling techniques to create a superior airend that improves efficiency up to 18%—plus world-class airflow capacity, quieter operation and a longer, more reliable life: multiple advantages to improve your business's bottom line.

Designed for long life and reliable operation

1. **Strategically positioned lubrication points** efficiently deliver oil exactly where it's needed, improving reliability and lowering power consumption

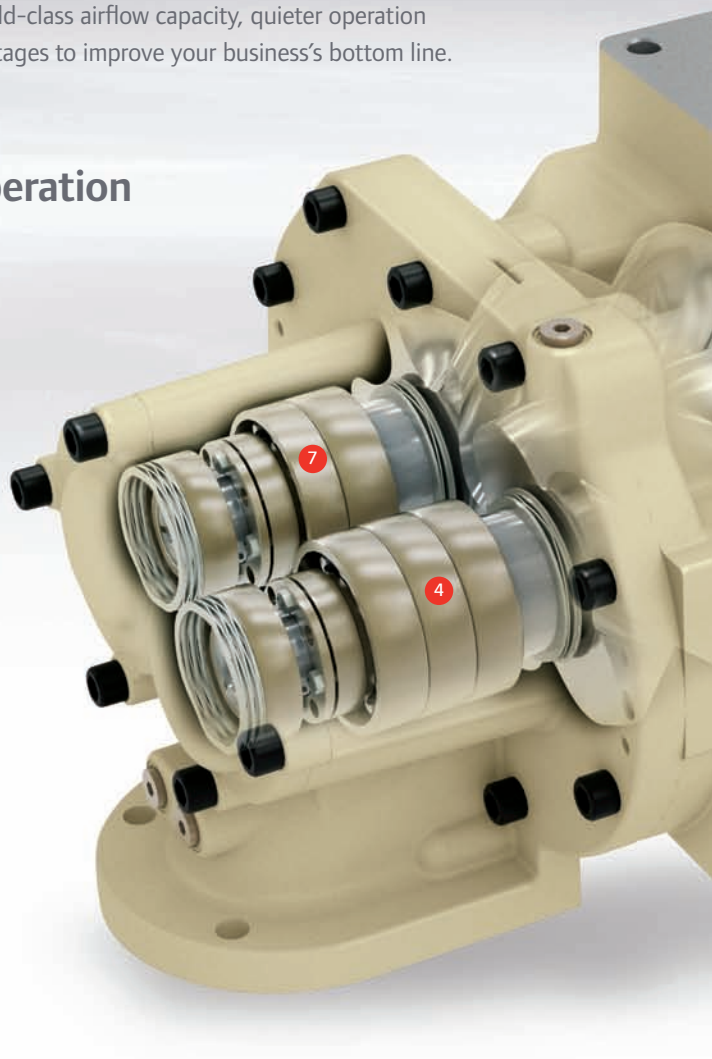
2. **Advanced gear design** transmits drive power more efficiently and reliably

INTEGRAL GEARBOX

3. **Integral gearbox** reduces windage losses and drivetrain length for more efficient performance and easier serviceability

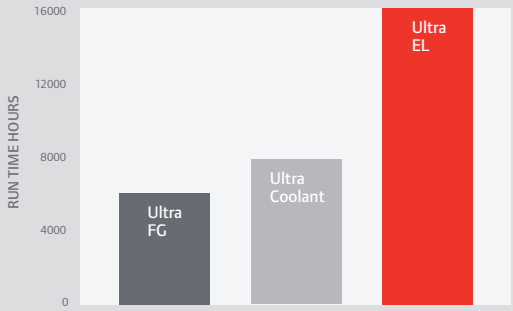
4. **Enhanced bearing arrangement** reduces resistance and improves power management for maximum reliability and performance

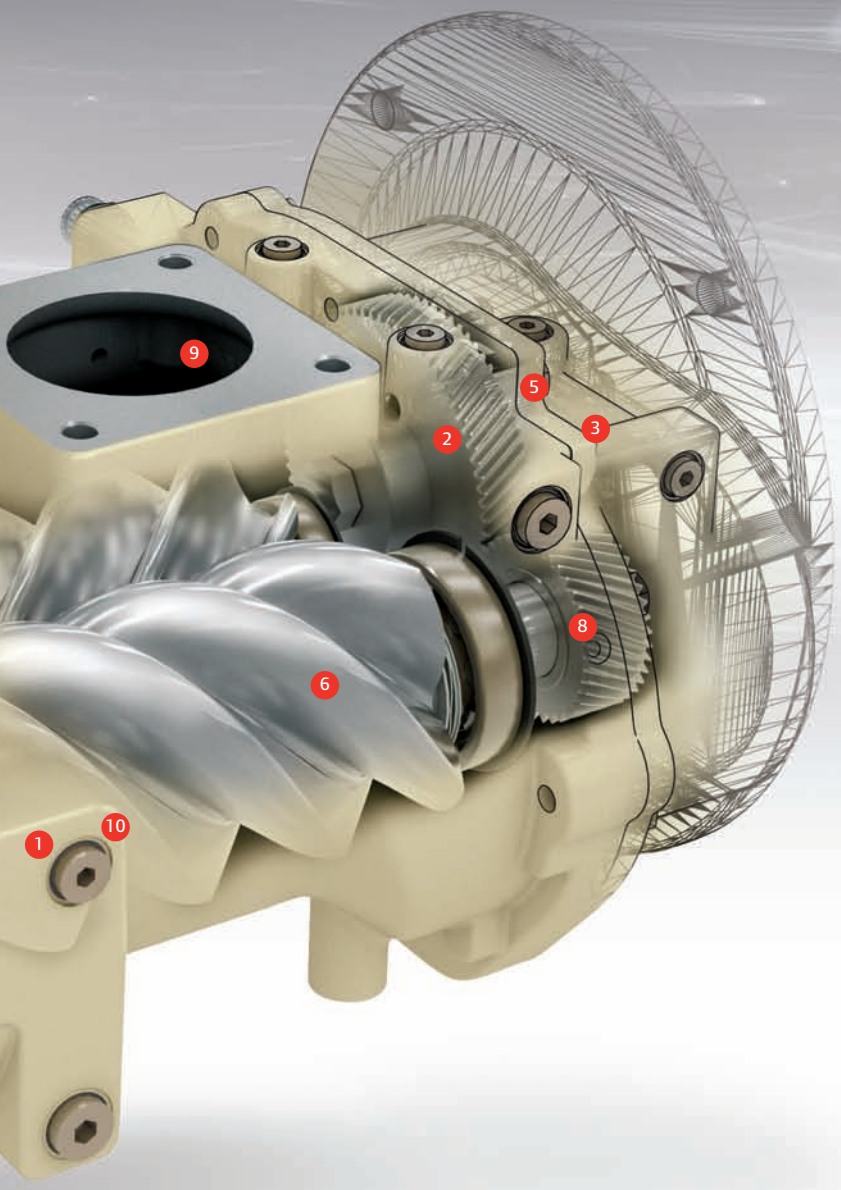
5. **Maintenance-free, sealed drive system** requires no regular service and protects against damaging dirt and moisture



Maximum change intervals, maximum protection

Get the best of both worlds. Ingersoll Rand filters and lubricating oils provide unsurpassed longevity and protection to keep your Next Generation R-Series compressor running longer.





World-class energy efficiency

ADVANCED ROTOR PROFILE

6 **Optimised rotor profile** helps deliver up to 18% increased efficiency and 21% more airflow, reducing energy cost.

7 **Lower friction bearing arrangements** improve energy efficiency

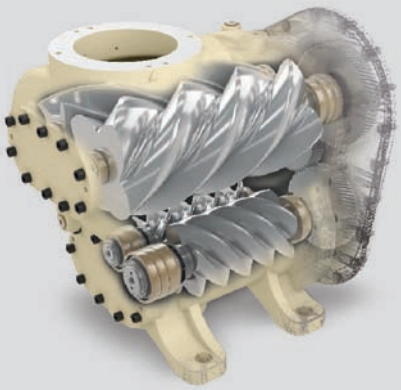
8 **Optimised gear lubrication** increases reliability and reduces power consumption through strategically injecting oil into gear mesh

9 **Streamlined inlet and outlet flow passage** reduces pressure drops

10 **Optimised oil-injection process** lowers temperature and increases efficiency during compression

The two-stage advantage

For peak efficiency and reliability at 90 kW and above, choose our two-stage airend. Operating at slow speed along with splitting the pressure ratio into two stages significantly reduces bearing load, extending life. Redesigned from the ground up, the airend includes new state-of-the-art rotor profiles that significantly minimise leakage, as well as angular contact ball bearings and optimised lubricant distribution to achieve significant energy efficiency improvement both at full load operation and over a wider operating range.



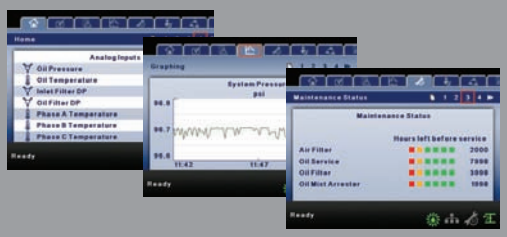
Reliable air to keep you running

Every component in a Next Generation R-Series compressor system supports maximum reliability—for more productivity, longer equipment life, lower operating costs and higher profitability.

Progressive Adaptive Control (PAC™)

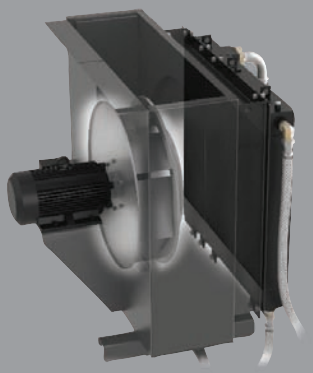
PAC helps you properly maintain your air compressor system by automatically reacting to key parameters to reduce the risk of unexpected downtime.

- Monitors critical performance parameters
- Adjusts system output to address extreme conditions and ensure continued operation without damaging the system—even when certain maintenance operations are overdue



Free-floating cooling system

Allows heat exchangers to expand and contract, reducing thermal stress for improved system durability.



V-Shield™ technology

V-Shield™ technology combines superior techniques that deliver repeatable, leak-free connections to maximise efficiency and reduce leak-related problems.

- **Face-seal connections** provide flat, tight, virtually distortion-free joints
- **Fluoroelastomer O-rings** resist chemicals and extreme temperatures for long-term durability

- **Premium metal-flex air hoses** last up to three times longer than conventional hoses, using a braided stainless steel exterior and a PTFE-lined interior to resist chemicals, heat, oxidation, abrasion, pressure and fatigue
- **Vibration isolation system** reduces vibration to increase compressor life and lower noise levels

The power of intelligence

Xe-Series intelligent controllers optimise operational parameters to ensure maximum productivity. You can stay informed of the system's status and make changes from anywhere in the world.

- **Intuitive, high-resolution colour display** provides easy-to-understand icons and more than 30 available languages to show vital functions at a glance
- **User-intuitive folders** with critical and non-critical parameters and operating characteristics provide deeper insights into your compressor's performance
- **Advanced control algorithms** ensure maximum energy efficiency and reliability—even during periods of moderate workloads
- **Performance analysis/graphical trending** using the Xe-145 intelligent controller to display compressor performance over time in easy-to-understand graphical charts—supporting informed decisions and well-planned maintenance
- **Integral sequencer** coordinates the operation of up to four compressors to precisely meet demand, save energy and minimise wear
- **Real-time clock schedule (option)** lets you program Xe-145 controllers to start/stop the system at specific times to maximise productivity, conserve energy and reduce downtime
- **On-board web pages** feature the same convenient status bar found on the controller interface

Stay connected virtually anywhere

Whether you're 1 meter or 10,000 kilometers away, Xe-Series controllers keep you connected—so you'll always know the compressor's operating status and can make any necessary changes. Onsite, connect locally through your Distributed Control System (DCS) using Modbus or Ethernet. Remotely, access critical data and controls with any common, current web browser.

The performance you expect

Advanced solutions that ensure reliable flow—even in extreme operating environments. That's what you expect from Ingersoll Rand. That's what you get from the Next Generation R-Series.

Built to work in virtually any environment

The Next Generation R-Series features an advanced motor design built to operate at extreme ambient temperatures between 35°F (2°C) and 115°F (46°C). Ambient temperatures that approach or drop below freezing can cause problems for any air compressor. The Xe-Series controller triggers an alert if freezing conditions are detected during startup.

Space-saving convenience

The compact Total Air System (TAS) package option delivers ISO Class 1-4-1 quality air*, on models up to 75 kW.

*Measured at steady state conditions in accordance with ISO 8573-1:2010, with inlet air to package conditions of 77°F (25°C) and RH of 60%.

200-250kW (250-350hp) Configuration

Category Standard Features	Description	i / ie	n / ne
Airend	Premium performance airend	●	●
Controller	Energy-saving controller easy to operate in over 30 languages	●	●
	Programmable start/stop operation and remote connectivity	●	●
	Built-in optimization sequencer for up to four units	●	●
PAC™ Protection	Scans and adjusts operating parameters in response to filtration changes	●	●
	Real-time electronic maintenance indicators and shutdown protection	●	●
Cooling System	Air-cooled free-floating cooling system optimized for efficiency & serviceability	●	●
	Energy-efficient and low-noise centrifugal blower	●	●
	Free-floating cooling system rated for 115°F (46°C) ambient	●	●
	Moisture separator	●	●
	Electronic no-loss condensate drains	○/●	●
V-Shield™ Technology	Premium stainless steel and PTFE metal-flex hoses	●	●
	Vibration isolation pads	●	●
	Repeatable leak-free connections with superior elastomeric seals	●	●
Auxiliary Systems	Noise attenuation enclosure	●	●
	Package pre-filtration	●	●
	Long-life filtration and separation elements	●	●
	16,000 hour life Ultra EL™ Coolant	●	●
	Flow control by full load/no load regulation system	●	
Motors & Electrical Systems	Control panel protection, NEMA 4	●	
	Control panel protection, NEMA 12		●
	Star-delta reduced voltage starter	●	
	NEMA Premium TEFC IP55 motors – Class F insulation with B rise	●	●
	Space heaters and RTDs	●	●
General Features	Simple ducting (single air inlet and single air outlet)	●	●
	12-month full package warranty	●	●
Optional Features			
Harsh Condition Operation	Outdoor modification/rain protection	○	
	Low ambient temperature protection to 14°F (-10°C)50Hz	○	
	Low ambient temperature protection to -10°F (-23°C)60Hz	○	
	High ambient rating up to 131°F (55°C)	○	
	Premium high dust filtration	○	○
Environmental	Fluid containment system	○	○
	Ultra FG lubricant	○	○
Power Protection	Power outage automatic restart option (PORO)	○	○
	Phase monitor (protection)	○	○
	Electronic solid state reduced voltage starter	○	
General Options	Flow control inlet modulation control	○	
	Comprehensive service and coverage plans	○	○

● Standard feature ○ Optional feature "Blank" Not Available

i Ingersoll Rand – 50 Hz Performance

Model	Max. Pressure bar	Nominal Power kW	Capacity (FAD)* m^3/min	Dimensions (Length × Width × Height) mm	Weight kg
200i	7.5	200	41.5	3752 × 2150 × 2504	6275
	8.5	200	40.0	3752 × 2150 × 2504	6275
	10.0	200	35.7	3752 × 2150 × 2504	6275
250i	7.5	250	50.2	3752 × 2150 × 2504	6275
	8.5	250	48.1	3752 × 2150 × 2504	6275
	10.0	250	43.0	3752 × 2150 × 2504	6275

ie Ingersoll Rand – 50 Hz Performance

200ie	7.5	200	43.6	4320 × 2150 × 2504	8336
	8.5	200	41.0	4320 × 2150 × 2504	8336
	10.0	200	38.5	4320 × 2150 × 2504	8336
	14.0	200	31.0	4320 × 2150 × 2504	8336
250ie	7.5	250	54.1	4320 × 2150 × 2504	8336
	8.5	250	50.8	4320 × 2150 × 2504	8336
	10.0	250	46.6	4320 × 2150 × 2504	8336
	14.0	250	38.8	4320 × 2150 × 2504	8336

n Ingersoll Rand – 50 Hz Performance

200n	7.0-10.0	200	16.8-41.2	3752 × 2150 × 2504	6275
250n	7.0-10.0	250	16.8-49.2	3752 × 2150 × 2504	6275

ne Ingersoll Rand – 50 Hz Performance

200ne	7.0-10.0	200	18.7-43.7	4320 × 2150 × 2504	8336
250ne	7.0-10.0	250	18.7-53.1	4320 × 2150 × 2504	8336

i Ingersoll Rand – 60 Hz Performance

Model	Max. Pressure psig	Nominal Power hp	Capacity (FAD)* cfm	Dimensions (Length × Width × Height) in	Weight lb
185i	110	250	1,367	148 × 85 × 99	13,834
	125	250	1,310	148 × 85 × 99	13,834
	145	250	1,211	148 × 85 × 99	13,834
220i	110	300	1,642	148 × 85 × 99	13,834
	125	300	1,579	148 × 85 × 99	13,834
	145	300	1,409	148 × 85 × 99	13,834
260i	110	350	1,702	148 × 85 × 99	13,834
	125	350	1,639	148 × 85 × 99	13,834
	145	350	1,519	148 × 85 × 99	13,834

ie Ingersoll Rand – 60 Hz Performance

185ie	110	250	1,444	170 × 85 × 99	18,378
	125	250	1,388	170 × 85 × 99	18,378
	145	250	1,271	170 × 85 × 99	18,378
	200	250	1,063	170 × 85 × 99	18,378
220ie	110	300	1,695	170 × 85 × 99	18,378
	125	300	1,582	170 × 85 × 99	18,378
	145	300	1,483	170 × 85 × 99	18,378
	200	300	1,275	170 × 85 × 99	18,378
260ie	110	350	1,840	170 × 85 × 99	18,378
	125	350	1,780	170 × 85 × 99	18,378
	145	350	1,621	170 × 85 × 99	18,378
	200	350	1,398	170 × 85 × 99	18,378

n Ingersoll Rand – 60 Hz Performance

Model	Max. Pressure psig	Nominal Power kW	Capacity (FAD)* cfm	Dimensions (Length × Width × Height) in	Weight lb
200n	100-145	200	593-1,460	148 × 85 × 99	13,834
250n	100-145	250	593-1,751	148 × 85 × 99	13,834

ne Ingersoll Rand – 60 Hz Performance

200ne	100-145	200	660-1,546	170 × 85 × 99	18,378
250ne	100-145	250	660-1,890	170 × 85 × 99	18,378

* FAD (Free Air Delivery) is full package performance including all losses, tested per ISO 1217:2009 Annex C

Ingersoll Rand (NYSE:IR) advances the quality of life by creating comfortable, sustainable and efficient environments. Our people and our family of brands—including Club Car®, Ingersoll Rand®, Thermo King® and Trane®—work together to enhance the quality and comfort of air in homes and buildings; transport and protect food and perishables; and increase industrial productivity and efficiency. We are a $13 billion global business committed to a world of sustainable progress and enduring results.

IngersollRandProducts.com

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