

# R Series VSD

55-75kW (75-100hp)

Variable Speed Contact-Cooled Rotary Screw

Air Compressor

## A New Level of Reliability, Efficiency and Productivity

Ingersoll Rand R-Series rotary screw air compressors offer the very best of time-proven designs and technologies with new, advanced features to ensure the highest level of reliability, efficiency and productivity available.



### Time-Proven Airend

Ingersoll Rand single-stage airends are world widely known for greater reliability and efficiency.

- Precision machined rotors
- Highest quality duplex-tapered roller bearings.
- All coolant flow paths are integral to the cast housing, eliminating potential leak paths.

### V-Shield™ Technology

- Superior elastomeric seals for repeatable leak-free connections.
- Reduced downstream contamination with stainless steel air piping.
- Vibration isolation system and metal-flex hoses extend compressor life and reduce noise.

### Sequential Cooling System

- Independently-mounted, free-floating air and coolant heat exchangers extend life by reducing thermal stress.
- Significantly reduces the energy required to remove harmful condensate in downstream air treatment by lowering discharge temperatures
- Low energy consumption and quiet operation with an energy-efficient centrifugal blower.

### High-efficient Variable Speed Motor

IE2 high-efficiency Variable Speed Motor with IP55 class protection, F class insulation, B class temperature rise; advanced motor design, which ensures long term operation of compressor even in the extreme conditions: minimum speed, minimum pressure and exceeding rated load up to 10%.

### Variable Speed Drive (VSD) Inverter

Time-proven high reliability VSD inverter, which has been used in thousands of Ingersoll Rand compressors, guarantees the stable air delivery to point of use and maximizes customer benefits.

### Controller

- Clear and intuitive display with high intensity LED indicators
- Achieves system optimization through built-in performance analysis and trending
- Built-in RS-485 communication port supports MODBUS RTU protocol. Allows customers to connect to the machines for remote monitoring and controlling.
- Increases efficiency and stabilizes pressure by sequencing up to 4 units of compressors without additional hardware
- VSD inverter parameter can be set up from the controller directly



## Ingersoll Rand Product Performance (50HZ)

Model	Pressure	Rated Power		Capacity	Dimension		Weight (Air cooled)		Weight (Water cooled)	
	barg	kW	hp	m <sup>3</sup> /min	mm	in	kg	lb	kg	lb
R55 VSD	7.0	55	75	3.10-10.19	2432 x 1265 x 2032	96 x 50 x 80	1876	4135	1769	3900
	7.5	55	75	3.06-9.95	2432 x 1265 x 2032	96 x 50 x 80	1876	4135	1769	3900
	8.0	55	75	3.04-9.43	2432 x 1265 x 2032	96 x 50 x 80	1876	4135	1769	3900
	8.5	55	75	2.95-9.10	2432 x 1265 x 2032	96 x 50 x 80	1876	4135	1769	3900
	9.5	55	75	2.83-8.58	2432 x 1265 x 2032	96 x 50 x 80	1876	4135	1769	3900
R75 VSD	10.0	55	75	2.80-8.18	2432 x 1265 x 2032	96 x 50 x 80	1876	4135	1769	3900
	7.0	75	100	4.30-13.56	2432 x 1265 x 2032	96 x 50 x 80	2018	4449	1911	4213
	7.5	75	100	4.28-13.15	2432 x 1265 x 2032	96 x 50 x 80	2018	4449	1911	4213
	8.0	75	100	4.25-12.77	2432 x 1265 x 2032	96 x 50 x 80	2018	4449	1911	4213
	8.5	75	100	4.20-12.25	2432 x 1265 x 2032	96 x 50 x 80	2018	4449	1911	4213
	9.5	75	100	4.17-11.61	2432 x 1265 x 2032	96 x 50 x 80	2018	4449	1911	4213
	10.0	75	100	4.05-11.15	2432 x 1265 x 2032	96 x 50 x 80	2018	4449	1911	4213

## Standard Features

Category	Description	VSD
Airend	Time-proven single-stage airend	●
	Independent high efficient and easy maintenance heat exchanges	●
Cooling System	Energy-efficient and low noise centrifugal blower	●
	Generous package cooling system rated for 46°C ambient	●
	Moisture separator	●
V-Shield™	Stainless steel air piping(aftercooler to moisture separator)	●
Technology	Vibration isolation pads and premium metal-flex hoses	●
	Repeatable leak-free connections with superior elastomeric seals	●
Services	Ergonomic swing-out lid on separator tank	●
	Simple ducting(single air inlet and single air outlet)	●
Auxiliary System	12-months full package warranty	●
	Package pre-filtration	●
	Long life filtration and separation elements	●
	Long life Ingersoll Rand premium grade coolant	●
Motors & Electrical Systems	High-efficient VSD technology	●
	Variable speed start	●
	High-efficiency TEFC IP55 VSD motors - Class F insulation with B rise	●
	Variable speed drive on main motor & centrifugal blower motor	●
	Motor Rotation Check and Protection	●
	Power Outage Restart(PORO)***	●
	Control cabinet protection,IP44	●
	Control panel protection, NEMA4/IP65	●

## Optional Features

Weather Protection	Outdoor modification/rain protection	○
	High ambient protection up to 50°C(122°F)**	○
	Motor space heater	○
Environmental	Sea water and harsh water cooling	○
	Energy Recovery System (ERS)	○
General Options	Fluid containment system	○
	Food grade coolant and X-tend filtration system	○
	High-dust filter	○
	No-Loss Drain Valves	○
	Comprehensive service and coverage plan	○

## Controller

Built-in sequencer for up to 4 units*	●
Modbus RTU Protocol Interface	●
Remote control(dry contact signals:Remote Start/Stop,Running status feedback, General Alarm;,Remote/Local status feedback )	●
Pre-start warm up function*	●
Record Start /Stop command source (Local or Remote) to enhance safety	●

\* default setting as "OFF" \*\*only for 55kw model \*\*\*Buzzer not included need separate purchase

● Standard Feature ○ Optional Feature



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Ingersoll Rand (NYSE:IR) advances the quality of life by creating and sustaining safe, comfortable 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; secure homes and commercial properties; and increase industrial productivity and efficiency. We are a \$12 billion global business committed to a world of sustainable progress and enduring results.

