

## Fixed and Variable Speed Rotary Screw Compressors

R-Series 4-11 kW (5-15 hp)



## More Than 145 Years of Compressed Air Innovation

Ingersoll Rand introduced its first air compressor in 1872. Over the next 145 years, we have continued to develop rugged, reliable, industry-leading rotary screw compressor technologies. No matter what the application, Ingersoll Rand rotary screw technology provides clean, dry air in all operating conditions to meet your specific performance needs, reduce costly downtime and maximize your productivity.

#### **Compact Performance**

The durable Ingersoll Rand R-Series 4-11 kW compressor extends the R-Series family into the smallest rotary screw offering with benefits like innovative features and a **compact design that fits virtually any application environment.** 

#### **Enhanced Reliability**

- TEFC Tri-Voltage (208-230/460 V) motor allows the unit to adapt to each voltage for all customers
- Danfoss drive (VSD models) provides world-class reliability, eliminating overheating and related component failures
- V-Shield™ technology uses premium PTFE hoses on all oil-carrying lines as well as O-ring face seal connections, virtually eliminating leaks and increasing hose life
- Power Outage Restart Option (PORO) safely restores the machine to previous settings following power interruption
- Improved cooler design minimizes thermal expansion stresses

#### **Increased Efficiency**

- IE3 premium energy-efficient motors support continuous operation in harsh environments
- Next-generation leak-free airends feature significantly improved turndown performance for variable speed units

#### **Compact Productivity**

- Vertically stacked drive components reduce the overall basemount footprint by 20% compared to previous models, improving balance and simplifying belt tension
- The R-Series Total Air System (TAS) provides clean, dry air in a single package that minimizes installation costs, space and features improved ISO air quality
- Whisper-quiet operation as low as 69 dBA allows for installation closer to point of use, reducing costs and ensuring a better, safer work environment

#### Intelligence

- Xe-Series programmable controllers deliver increased control functionality through an intuitive user interface, allowing for easy access to all critical operating parameters
- Optional built-in event logging and trip history allow for greater machine usability and peace of mind



## Proven Reliability. Robust Design.

The R-Series 4-11 kW family of compressors delivers optimum performance and easier maintenance, all in a robust, innovative package.



### **Convenient Choices for a Complete Air Solution**

#### Clean, Dry Air

Drying the compressed air to remove moisture and contaminants prevents damage to finishing processes or product quality.



## TAS (Total Air System)

- A 3-in-1 heat exchanger
- B High-efficiency and general purpose filters
- Condenser
- Reliable refrigerant compressor
- **E** Cyclon water separator

#### **TAS—The Total Package**

To provide the most comprehensive air solution, our Ingersoll Rand R-Series compressors are available with a Total Air System (TAS) option. These complete compressor and dryer systems come with integrated controls, water separators, drain ports and filters. For any capacity you need, let Ingersoll Rand provide the complete answer in a compact solution that fits your air requirements and workspace.

- General purpose and high-efficiency filters with integrated dryer deliver class-leading ISO 1-5-1 quality air
- 3-in-1 heat exchanger provides increased reliability and efficiency
- All new dryer design with unprecedented reliability minimizes installation costs with a single-point power connection



#### **Total Air System—Dryer Operation**

The onboard dryer controller is integrated into the TAS package such that the dryer cycling is controlled by the compressor operation, and dryer alarms are fed back to the compressor controller. The dryer controller also allows for adjustment of critical operating parameters, saving you time and ensuring peace of mind.

## **Ensuring Optimal Uptime**

Xe-50M vs. Xe-70M Features



Xe-50M



Xe-70M

Feature/Option	Xe-50M	Xe-70M		
Display	2.1" monochrome	2.6" 240 x 160 monochrome		
Total I/0	11	23		
RS-485 communication port	0	2		
Ethernet port	No	Yes (optional ECO)		
Data collection (SD collection card)	No	7 days (optional ECO)		
Start/stop control	✓	✓		
Manual load/unload control	✓	✓		
Automatic load control (auto-restart)	✓	✓		
Lead/lag		✓		
Blower control		✓		
Power out restart option (PORO)		✓		
Integrated dryer control	✓	✓		
Language	Symbolic Text, over 30 lang			

Productivity is enhanced due to advanced diagnostics, automated data logging, report generation and compressor sequencing.

## **Fixed and Variable Speed Drive Options**

Features Description	Fixed Speed	Variable Speed
Xe-Series 50 controller	•	
Xe-Series 70 controller	0	•
Total Air System (TAS) with integrated dryer	0	0
Power outage restart option (PORO)	0	0
High ambient option	0	
Outdoor modification enclosure	0	
Ultra FG or Ultra EL coolant	0	0
Hi-dust air filter	0	
Low voltage (208-230 V)	•	0
Receiver tank size (80/120 gallon)	0	0

<sup>•</sup> Standard Feature O Optional Feature "Blank" Not Available



## **Compressor Specifications**

Parison   Pa	<i>j</i> Ingersoll Rand	Fixed Speed – 60	Hz Performano	:e						
Parison   Pa		Max. Pressur	essure Nominal Power		Capacity (	FAD)* Dimens	sions	ons Weight (Air-cooled)		
R4    12    14    14    14    14    14    14    14    14    15    16	Model	psig	kW	hp	cfm	Length x Widt	Length x Width x Height		lb	
R4    14    4  0   5  0   14  3	R4i	110	4.0	5.0	19.4				617	
PS-5    110   5.5   7.5   30.5   1.0   2.0   617   2.0   2.0   617   2.0   617   2.0   617   2.0   617   2.0   617   2.0   2.0   617   2.0   2.0   617   2.0   2.0   617   2.0   2.0   617   2.0   2.0   617   2.0	R4i	125	4.0	5.0	16.9			280	617	
PS-5    125	R4i	145	4.0	5.0	14.3				617	
PS-5	R5.5i	110	5.5	7.5	30.5				617	
P. S.   10	R5.5i	125	5.5	7.5	27.5			280	617	
18-51	R5.5i	145	5.5	7.5	24.3				617	
R7.5i 110 7.5 10.0 39.8	R5.5i	200	5.5	7.5	16.8				617	
NY.51	R7.5i	110	7.5	10.0	39.8				617	
R7.5    145	R7.5i	125	7.5	10.0	36.7			280	617	
R111	R7.5i	145	7.5	10.0	33.4		X 47 -	280	617	
R111	R7.5i	200	7.5	10.0	25.3			280	617	
R111	R11i	110	11.0	15.0	57.5			295	650	
Part	R11i	125	11.0	15.0	56.1			295	650	
R4i TAS*   110	R11i	145	11.0	15.0	50.4			295	650	
R4iTAS¹     110     4.0     5.0     19.4     By Table 16.9     345     761       R4iTAS¹     118     4.0     5.0     16.9     345     761       R4iTAS¹     138     4.0     5.0     14.3     345     761       R5.5iTAS¹     110     5.5     7.5     30.5     36.7     345     761       R5.5iTAS¹     138     5.5     7.5     27.5     15.8     345     761       R5.5iTAS¹     138     5.5     7.5     16.8     158.8     345     761       R7.5iTAS¹     193     5.5     7.5     10.0     39.8     1,156 x 690 x 186.5     345     761       R7.5iTAS¹     118     7.5     10.0     36.7     1,156 x 690 x 186.5     345     761       R7.5iTAS¹     138     7.5     10.0     39.8     1,156 x 690 x 186.5     345     761       R7.5iTAS¹     138     11.0     15.0     57.5     345     365     805       R11iTAS¹     138	R11i	200	11.0	15.0	41.5			295	650	
R4iTAS¹     118     4.0     5.0     16.9     RAITAS¹     345     761       R4iTAS¹     138     4.0     5.0     14.3     4.6     345     761       R5.5iTAS¹     110     5.5     7.5     30.5     4.6     345     761       R5.5iTAS¹     138     5.5     7.5     24.3     4.6     345     761       R5.5iTAS¹     193     5.5     7.5     16.8     4.5     1.56 × 692 × 86.5     345     761       R7.5iTAS¹     110     7.5     10.0     38.8     4.5     761     345     761       R7.5iTAS¹     138     7.5     10.0     33.4     4.6     45 × 2 × 4 × 4     345     761       R7.5iTAS¹     193     7.5     10.0     33.4     4.6     345     761       R7.5iTAS¹     193     7.5     10.0     57.5     4.6     345     761       R7.5iTAS¹     193     11.0     15.0     50.4     5.6     365     805	<i>j</i> Ingersoll Rand	Fixed Speed TAS -	- 60 Hz Perfor	nance						
R4iTAS	R4i TAS+	110	4.0	5.0	19.4			345	761	
RefitAS¹     138     4.0     5.0     14.3     Pack of the pa										
R5.5iTAS¹   110   5.5   7.5   30.5										
R5.5i TAS'   118   5.5   7.5   27.5   27.5   28.4   28.4   28.5   34.										
R5.5i TAS¹   138   5.5   7.5   24.3   761   R5.5i TAS¹   193   5.5   7.5   16.8   7.5   16.8   7.5   1.156 × 690 × 186.5   345   761   761   765   765										
R.S.   F.S.										
R7.5i TAS¹     110     7.5     10.0     39.8     1,156 x 690 x 186.5     345     761       R7.5i TAS¹     118     7.5     10.0     36.7     inches     46 x 27 x 47     345     761       R7.5i TAS¹     138     7.5     10.0     25.3     46 x 27 x 47     345     761       R7.5i TAS¹     193     7.5     10.0     25.3     46 x 27 x 47     345     761       R11i TAS¹     118     11.0     15.0     56.1     365     805       R11i TAS¹     138     11.0     15.0     50.4     41.5     365     805       R11i TAS¹     138     11.0     15.0     50.4     41.5     365     805       R11i TAS¹     138     11.0     15.0     41.5     5     365     805       R11i TAS¹     138     11.0     15.0     41.5     5     365     805       R11i TAS¹     193     11     15.0     41.5     5     46 x 27 x 47     285     605		193				millime	eters		761	
R7.5i TAS¹   118   7.5   10.0   36.7   Inches 46 x 27 x 47   345   761     R7.5i TAS¹   138   7.5   10.0   25.3   46 x 27 x 47   345   761     R7.5i TAS¹   193   7.5   10.0   25.3   41   345   761     R11i TAS¹   118   11.0   15.0   56.1   41   365   805     R11i TAS¹   138   11.0   15.0   50.4   41.5   365   805     R11i TAS¹   193   11   15.0   41.5   56.1   365   805     R11i TAS¹   193   11   15.0   41.5   56.1   365   805     R11i TAS¹   193   11   15.0   41.5   56.1   365   805     R11i TAS¹   193   11   15.0   41.5   56.1   365   805     R11i TAS¹   193   11   15.0   41.5   56.1   46 x 27x 47   285   605     Model   psig   kW   hp   cfm   mm   in   in   kg										
R7.5i TAS¹   138   7.5   10.0   33.4   46 x 27 x 47   345   761     R7.5i TAS¹   193   7.5   10.0   25.3   46 x 27 x 47   345   761     R11i TAS¹   110   11.0   15.0   57.5   365   805     R11i TAS¹   138   11.0   15.0   50.4   365   805     R11i TAS¹   193   11   15.0   41.5   5   365   805     R11i TAS¹   193   11   15.0						inch	- PS			
R7.5i TAS\$   193   7.5   10.0   25.3										
R11iTAS							-			
R11iTAS							-			
R11i TAS							-			
R11i TAS+							-			
Model     psig     kW     hp     cfm     mm     in     kg     lb       R5.5n     65-145     5.5     7.5     13.6-32.1     960 x 690 x 1,186.5     38 x 27 x 47     285     628       R7.5n     65-145     11.0     15.0     13.9-59.8     960 x 690 x 1,186.5     38 x 27 x 47     285     628       R11n     65-145     11.0     15.0     13.9-59.8     960 x 690 x 1,186.5     38 x 27 x 47     305     672       R5.5n TAS⁺     65-135     5.5     7.5     13.6-32.1     1,156 x 690 x 1,186.5     38 x 27 x 47     305     672       R7.5n TAS⁺     65-135     5.5     7.5     13.6-32.1     1,156 x 690 x 1,186.5     46 x 27x47     350     772       R7.5n TAS⁺     65-135     7.5     10.0     14.7-41.7     1,156 x 690 x 1,186.5     46 x 27x47     350     772       R11n TAS⁺     65-135     11.0     15.0     13.9-59.8     1,156 x 690 x 1,186.5     46 x 27x47     375     827       Length mm     Width     Height							-			
Model     psig     kW     hp     cfm     mm     in     kg     lb       R5.5n     65-145     5.5     7.5     13.6-32.1     960 x 690 x 1,186.5     38 x 27 x 47     285     628       R7.5n     65-145     7.5     10.0     14.7-41.7     960 x 690 x 1,186.5     38 x 27 x 47     285     628       R11n     65-145     11.0     15.0     13.9-59.8     960 x 690 x 1,186.5     38 x 27 x 47     305     672       R5.5n TAS⁺     65-135     5.5     7.5     13.6-32.1     1,156 x 690 x 1,186.5     46 x 27x47     350     772       R7.5n TAS⁺     65-135     7.5     10.0     14.7-41.7     1,156 x 690 x 1,186.5     46 x 27x47     350     772       R11n TAS⁺     65-135     7.5     10.0     14.7-41.7     1,156 x 690 x 1,186.5     46 x 27x47     350     772       R11n TAS⁺     65-135     11.0     15.0     13.9-59.8     1,156 x 690 x 1,186.5     46 x 27x47     375     827       Length mm     Width     Height <td< td=""><td></td><td>Variable Speed TA</td><td>S – 60 Hz Peri</td><td></td><td></td><td></td><td></td><td></td><td></td></td<>		Variable Speed TA	S – 60 Hz Peri							
Model     psig     kW     hp     cfm     mm     in     kg     lb       R5.5n     65-145     5.5     7.5     13.6-32.1     960 x 690 x 1,186.5     38 x 27 x 47     285     628       R7.5n     65-145     7.5     10.0     14.7-41.7     960 x 690 x 1,186.5     38 x 27 x 47     285     628       R11n     65-145     11.0     15.0     13.9-59.8     960 x 690 x 1,186.5     38 x 27 x 47     305     672       R5.5n TAS⁺     65-135     5.5     7.5     13.6-32.1     1,156 x 690 x 1,186.5     46 x 27x47     350     772       R7.5n TAS⁺     65-135     7.5     10.0     14.7-41.7     1,156 x 690 x 1,186.5     46 x 27x47     350     772       R11n TAS⁺     65-135     11.0     15.0     13.9-59.8     1,156 x 690 x 1,186.5     46 x 27x47     350     772       R1n TAS⁺     65-135     11.0     15.0     13.9-59.8     1,156 x 690 x 1,186.5     46 x 27x47     375     827       Length m     Width	77 mgerson rama				Canacity (EAD) @ 100	nci Dimonsions (Longth y	Width v Hoic	uht) Woight	(Air-cooled)	
R5.5n     65-145     5.5     7.5     13.6-32.1     960 x 690 x 1,186.5     38 x 27 x 47     285     628       R7.5n     65-145     7.5     10.0     14.7-41.7     960 x 690 x 1,186.5     38 x 27 x 47     285     628       R11n     65-145     11.0     15.0     13.9-59.8     960 x 690 x 1,186.5     38 x 27 x 47     305     672       R5.5n TAS⁺     65-135     5.5     7.5     13.6-32.1     1,156 x 690 x 1,186.5     46 x 27x47     350     772       R7.5n TAS⁺     65-135     7.5     10.0     14.7-41.7     1,156 x 690 x 1,186.5     46 x 27x47     350     772       R11n TAS⁺     65-135     11.0     15.0     13.9-59.8     1,156 x 690 x 1,186.5     46 x 27x47     375     827       Receiver Tank     Width     Height     Additional Mass       Receiver Tank     in mm     in		Ivida. F1635u16	Nonin	iai FUWEI	capacity (IAD) @ Toc	psi Dilliensions (Length A	vvidui x i ieig	iit) vveigiit	(All-Cooled)	
R5.5n     65-145     5.5     7.5     13.6-32.1     960 x 690 x 1,186.5     38 x 27 x 47     285     628       R7.5n     65-145     7.5     10.0     14.7-41.7     960 x 690 x 1,186.5     38 x 27 x 47     285     628       R11n     65-145     11.0     15.0     13.9-59.8     960 x 690 x 1,186.5     38 x 27 x 47     305     672       R5.5n TAS⁺     65-135     5.5     7.5     13.6-32.1     1,156 x 690 x 1,186.5     46 x 27x47     350     772       R7.5n TAS⁺     65-135     7.5     10.0     14.7-41.7     1,156 x 690 x 1,186.5     46 x 27x47     350     772       R11n TAS⁺     65-135     11.0     15.0     13.9-59.8     1,156 x 690 x 1,186.5     46 x 27x47     375     827       Receiver Tank     Width     Height     Additional Mass       Receiver Tank     in mm     in	Model	psig	kW	hp	cfm	mm	in	kg	lb	
R11n     65-145     11.0     15.0     13.9-59.8     960 x 690 x 1,186.5     38 x 27 x 47     305     672       R5.5n TAS+     65-135     5.5     7.5     13.6-32.1     1,156 x 690 x 1,186.5     46 x 27x47     350     772       R7.5n TAS+     65-135     7.5     10.0     14.7-41.7     1,156 x 690 x 1,186.5     46 x 27x47     350     772       R11n TAS+     65-135     11.0     15.0     13.9-59.8     1,156 x 690 x 1,186.5     46 x 27x47     375     827       Receiver Tank     mm     in     mm     Width     Height     Additional Mass       Receiver Tank     mm     in     mm     in     mm     in     mm     io     b     lb       80 gal tank-mounted version     1,783     70     690     27     1,704     67     120     264.5	R5.5n		5.5			960 x 690 x 1,186.5	38 x 27 x 4	_	628	
R5.5n TAS+     65-135     5.5     7.5     13.6-32.1     1,156 x 690 x 1,186.5     46 x 27x47     350     772       R7.5n TAS+     65-135     7.5     10.0     14.7-41.7     1,156 x 690 x 1,186.5     46 x 27x47     350     772       R11n TAS+     65-135     11.0     15.0     13.9-59.8     1,156 x 690 x 1,186.5     46 x 27x47     375     827       Length mm     Width     Height     Additional Mass       Receiver Tank     mm     in     mm <td c<="" td=""><td>R7.5n</td><td>65-145</td><td>7.5</td><td>10.0</td><td>14.7-41.7</td><td>960 x 690 x 1,186.5</td><td>38 x 27 x 4</td><td>17 285</td><td>628</td></td>	<td>R7.5n</td> <td>65-145</td> <td>7.5</td> <td>10.0</td> <td>14.7-41.7</td> <td>960 x 690 x 1,186.5</td> <td>38 x 27 x 4</td> <td>17 285</td> <td>628</td>	R7.5n	65-145	7.5	10.0	14.7-41.7	960 x 690 x 1,186.5	38 x 27 x 4	17 285	628
R7.5n TAS+ 65-135 7.5 10.0 14.7-41.7 1,156 x 690 x 1,186.5 46 x 27x47 350 772   R11n TAS+ 65-135 11.0 15.0 13.9-59.8 1,156 x 690 x 1,186.5 46 x 27x47 375 827   Length mm Width Height Additional Mass   Receiver Tank mm in mm in mm in b   80 gal tank-mounted version 1,783 70 690 27 1,704 67 120 264.5	R11n	65-145	11.0	15.0	13.9-59.8	960 x 690 x 1,186.5	38 x 27 x 4	17 305	672	
R11n TAS*     65-135     11.0     15.0     13.9-59.8     1,156 x 690 x 1,186.5     46 x 27x47     375     827       Length mm     Width     Height     Additional Mass       Receiver Tank     mm     in     mm     in     mm     in     kg     lb       80 gal tank-mounted version     1,783     70     690     27     1,704     67     120     264.5	R5.5n TAS+	65-135	5.5	7.5	13.6-32.1	1,156 x 690 x 1,186.5	46 x 27x4	7 350	772	
R11n TAS*     65-135     11.0     15.0     13.9-59.8     1,156 x 690 x 1,186.5     46 x 27x47     375     827       Length mm     Width     Height     Additional Mass       Receiver Tank     mm     in     mm     in     mm     in     kg     lb       80 gal tank-mounted version     1,783     70     690     27     1,704     67     120     264.5	R7.5n TAS+	65-135		10.0	14.7-41.7	1,156 x 690 x 1,186.5	46 x 27x4	7 350	772	
Receiver Tank     mm     in     mm     in     mm     in     mm     in     kg     lb       80 gal tank-mounted version     1,783     70     690     27     1,704     67     120     264.5	R11n TAS+		11.0	15.0	13.9-59.8				827	
Receiver Tank     mm     in     mm     in     mm     in     mm     in     kg     lb       80 gal tank-mounted version     1,783     70     690     27     1,704     67     120     264.5			Length :	mm	Width	Height		Additional	Mass	
80 gal tank-mounted version 1,783 70 690 27 1,704 67 120 264.5	Receiver Tank		mm	in	mm in		in			
•	80 gal tank-mount	ted version	1,783	70					264.5	
				75				142	313.0	

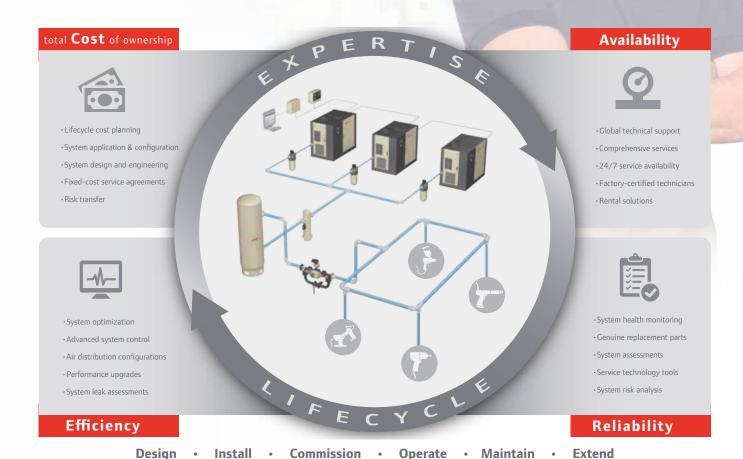
<sup>\*</sup>FAD (Free Air Delivery) is full package performance including all losses. Tested per ISO 1217: 2009 Annex C and is measured at 10 psi lower than maximum pressure on non-TAS units and at maximum pressure on TAS equipped units.



<sup>\*</sup>TAS units deliver ISO Class 1-5-1 quality air measured at steady state conditions in accordance with ISO 8573-1:2001 that dictates inlet air to package of 25°C (77°F) and relative humidity of 60%.

# Your Trusted Partner in Compressed Air

Optimize your total **Cost** of ownership, while maximizing **Availability**, **Reliability** and **Efficiency** throughout the life of your compressed air system with our Lifecycle CARE services.



#### **PackageCARE**™...eliminate the inconvenience

No matter where your facility is located, Ingersoll Rand is committed to serving you 24 hours a day, seven days a week, available to support you with innovative and cost-effective service solutions that will keep you running at peak performance. Let Ingersoll Rand handle the pressures and responsibilities of owning a compressed air system with our signature service contract.





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.









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