

BELT-DRIVEN ROTARY SCREW AIR STATION, FIXED OR VARIABLE SPEED



from 7.5 to 22 kW from 8 to 13 bar



Belt-driven rotary screw compressors

A true integrated air station

The traditional compressed air installation becomes...



A DVANTAGES



- All-inclusive air compressors workstation.
- Complete range from 7.5 to 22 kW.
- Compact and modern design.
- Easy to use.
- Simple installation and maintenance.
- High quality compressed air.
- Long-life and maximum reliability.
- Flexibility of range.
- Extremely quiet operation.
- Designed for continuous use.
- Reduced energy consumption.

INTEGRATED DRYER AND FILTERS The KELVIN range features a fully

integrated and complete air treatment module (DF models) including a generously sized refrigerated air dryer and both inlet and outlet high efficiency filtration. This allows the integrated air station in the DF version to provide both dry and clean compressed air to quality standard classification 2-4-2, in accordance with ISO 8573-1.

The automatic draining of the condensate is collected from the refrigerated dryer and filters and arranged in convenient, single outlet.











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All you need for dry, clean compressed air...











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Belt-driven rotary screw air station

The energy saving compressor



Optional expansion module*

GSM/GPRS/Ethernet/WiFi module (for on-line compressor status, remote assistance, connection with PC, Smartphone and Tablet, connection between neighbour compressors). * *on request*

Master/slave function

It is possible to connect up to 4 compressors for managing the workload in such a way to equalize the hours of each compressor in a network to ease servicing.

The system pressure can be dynamically programmed to various set pressures according to usage.

The advanced controller fitted to the KELVIN range has been specifically developed to guarantee optimum monitoring and regulation of the compressor's operation, allowing flexibility and full programming of the complete compressed air station for maximum efficiency and safety.

D NAir2 Electronic Controller

The main controller provides a multi-function and multilanguage backlit LCD graphic display, the menu is drop down type for simple intuitive operation. The display utilises familiar and convenient icons for ease of use.

The main screen displays the following important information:

- Working pressure (offload and load pressure);
- Oil temperature;
- Compressor status (stand-by, offload, load);
- Cooling fan status (off or on);
- Date and time;
- Hours remaining to maintenance;
- Percentage load (inverter/variable speed models);
- Dryer dew point indicator.



H igh efficiency

The design of the KELVIN compressors, including the high efficiency IE3 motors, has been fully focused on combining the different components that make up a perfect compressed air installation for a completely integrated, modular and functional system that combines maximum convenience with optimum energy efficiency.



KELVIN DV

Belt-driven rotary screw air station

Variable speed for energy saving



With over 15 years of experience in the manufacture and design of Variable Speed rotary screw compressors, Power System is recognised as a technological leader in the field of Inverter employed variable speed technology. Reducing power consumption and protecting our valuable energy resources represents one of the greatest global environmental challenges of our times. The KELVIN Series offers energy saving Variable Speed screw compressors at 11 and 22 kW, robust and reliable, providing high performance, and energy efficient solutions. Power System is your ideal partner and uniquely qualified to offer the correct energy saving solutions, whatever your application.

A conventional fixed speed air compressor is typically controlled by the inlet valve, opening and closing continuously to meet the air demand. This type of operation may result in a large amount of wasted energy due to the compressor's operation within an on and off load position, typically resulting in expensive non productive "idle running". The constant pressure control obtained with the inverter in the variable speed versions, together with the absence of the idle running cycles and their subsequent discharge of valuable compressed air, reduces energy consumption drastically. The application of a frequency inverter, able to dynamically adjust the voltage/frequency/current values provided to the motor, allows the elimination of unnecessary power losses by constantly adjusting the generation of compressed air to match the real air demand, offering many proven advantages to the user:

- Continuous regulation of the motor speed and compressed air generation;
- Compressed air generation that will precisely match the air demand;
- The air output is constantly adjusted in a range typically between 40% and 100% of the compressors full capacity;
- Constant and accurate control to the operating air pressure control, selectable at any value between 6 and 10 bar (13 bar option also available);
- The energy consumption is proportional to the compressed air delivered.

- Significant energy savings
- Silent operation
- Compact design
- Low maintenance
- Versions with dryer
- High efficiency inverter









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Belt-driven rotary screw compressors

7.5 - 11 - 15 kW versions



BELT-DRIVEN TRANSMISSION AND BELT PROTECTION SYSTEM

The POLY-V belt-drive ensures significantly lower power losses and three times the service life compared to standard range "V" type belts fitted to other compressors on the market. Belt tensioning is carried out through a slider system.



SPIN-ON FILTERS

The oil filter and separator filter, both spin-on type, ensure maximum efficiency and simple maintenance.

MINIMUM PRESSURE VALVE

Produced and designed in house using advanced materials and precision machining methods. The advanced design and high quality of engineering results in maximum reliability and increased air delivery in all operating conditions.



INTAKE REGULATOR

The highly reliable and robust electropneumatic system: adjusts the compressors operation to guarantee minimum pressure when idle running and provide maximum energy saving upon start-up. All this translates into an optimal energy cost/performance formula.



THERMOSTATIC VALVE

The thermostatic valve regulates the oil temperature, preventing the formation of condensation inside the oil-separator vessel.



COOLING AIR PREFILTRATION PANEL

The standard pre-filtering and washable panel filter assists in keeping the inside of the machine clean and ensures ease of maintenance and cooler operation.





HEAT EXCHANGER

The large combined heat exchanger ensures that the machine operates within the optimum temperature band. The resulting lower temperature of the delivered compressed air means that the condensation can be removed more easily and ensuring the efficient operation of the refrigerated dryer. The lower oil temperature reduces wear and improves energy efficiency.

COOLING SYSTEM

The thermostatically controlled centrifugal fan is activated automatically by means of the DNAir 2 electronic controller. This allows the machine to quickly reach and precisely maintain the ideal operating temperature. The fan is protected by a safety guard ensuring maximum operator security and at the same time meeting all international standards.

Additional pre-filtering panel motor side only on 15 kW models.



The complete compressed air station: Rotary Screw Compressor, Dryer, Air Receiver, Dust Pre-Filter, Coalescing Filter, Centralized automatic condensate drain...





PREMIUM EFFICIENCY **IE3 MOTORS** High efficiency IE3 motors are fitted as standard.

performance air-ends ensure low maintenance and a long life service. All of our air-ends are entirely designed, machined, assembled and tested at our modern manufacturing facility in Italy, together with the other key components, such as intake regulator and separator block and minimum pressure/check valve.



Belt-driven rotary screw compressors

18.5 - 22 kW versions





BELT-DRIVEN TRANSMISSION AND NEW BELT PROTECTION

The POLY-V belt-drive ensures significantly lower power losses and three times the service life compared to standard range "V" type belts fitted to other compressors on the market. Belt tensioning is carried out through a slider system.



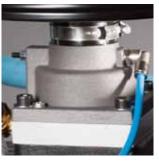
MINIMUM PRESSURE VALVE Produced and designed in house using advanced materials and precision machining methods. The advanced design and high quality of engineering results in maximum reliability and increased air delivery in all operating conditions.



SPIN-ON FILTERS The oil filter and separator filter, both spin-on type, ensure maximum efficiency and simple maintenance.



THERMOSTATIC VALVE The thermostatic valve regulates the oil temperature, preventing the formation of condensation inside the oil-separator vessel.





INTAKE REGULATOR

The highly reliable and robust electropneumatic system: adjusts the compressors operation to guarantee minimum pressure when idle running and provide maximum saving upon start-up. All this translates into an optimal energy cost/ performance formula.

HEAT EXCHANGER

The large combined heat exchanger ensures that the machine operates within the optimum temperature band. The resulting lower temperature of the delivered compressed air means that the condensation can be removed more easily and ensuring the efficient operation of the refrigerated dryer.



COOLING AIR PREFILTRATION PANEL

The standard pre-filtering and washable panel filter assists in keeping the inside of the machine clean and ensures ease of maintenance and cooler operation.



COOLING SYSTEM

The thermosatically controlled centrifugal fans are activated automatically by means of the DNAir 2 electronic controller. This allows the machine to quickly reach and recisely maintain the ideal operating temperature. The fan is protected by a safety guard ensuring maximum operator security and at the same time meeting all international standards. Floor mounted KELVIN version, available with or without the Dryer, the Dust Pre-Filter, Coalescing Filter, Centralized automatic condensate drain ...





PREMIUM EFFICIENCY IE3 MOTORS High efficiency IE3 motors are fitted as standard.



PS 50TF AIR-END

Our high performance and extremely reliable air-ends are entirely produced in our Italian facilities.







The KELVIN range is available in different versions, to satisfy every installation requirement:

- Power range from 7.5 kW to 22 kW;
- Operational pressure at 8-10-13 bar;
- 270 or 500-lt air receiver with the availability of a fully integrated refrigerated dryer;
- Operating noise level between 62 and 71 dB(A).

- KELVIN 7.5 11 15 kW:Floor mounted, on 270-lt tank, on 500 lt tank;
- Floor mounted, on 270-lt tanAlso with dryer (DF models);
- Variable speed (only 11 kW version, DV models).

KELVIN 18.5 - 22 kW:

- Floor mounted or on 500 lt tank;
- Also with dryer (DF models);
- Variable speed (only 22 kW version, DV models).

Model	Code	Tank	Power		Air delivered			Max. Pressure		Sound level	Connection	Net Weights		Net Dimensions L x W x H	
		lt	kW	HP	m³/min.	m³/h	CFM	bar	p.s.i.	dB(A)	G	Kg Lbs		(cm)	
FLOOR MOUNTED															
KELVIN 7.5-08	V60SG92PWS245	-	7.5	10	1.25	75	44.1	8	116	62	3/4"	240	529	120 x 70 x 100	
KELVIN 7.5-10	V60SH92PWS245	-	7.5	10	1.00	60	35.3	10	145	62	3/4"	240	529	120 x 70 x 100	
KELVIN 7.5-13	V60SM92PWS245	-	7.5	10	0.75	45	26.5	13	188	62	3/4"	240	529	120 x 70 x 100	
KELVIN 11-08	V60SN92PWS245	-	11	15	1.65	99	58.2	8	116	63	3/4"	254	560	120 x 70 x 100	
KELVIN 11-10	V60SP92PWS245	-	11	15	1.50	90	53	10	145	63	3/4"	254	560	120 x 70 x 100	
KELVIN 11-13	V60SQ92PWS245	-	11	15	1.15	69	40.6	13	188	63	3/4"	254	560	120 x 70 x 100	
KELVIN 15-08	V60SR92PWS245	-	15	20	2.15	129	75.9	8	116	64	3/4"	280	280 617 120 x 70 x		
KELVIN 15-10	V60SS92PWS245	-	15	20	1.85	111	65.3	10	145	64	3/4"	280 617		120 x 70 x 100	
KELVIN 15-13	V60ST92PWS245	-	15	20	1.55	93	54.7	13	188	64	3/4"	280 617		120 x 70 x 100	
KELVIN 18.5-08	V60SU92PWS245	-	18.5	25	2.70	162	95.3	8	116	70	3/4"	398	877	151 x 73 x 108	
KELVIN 18.5-10	V60SV92PWS245	-	18.5	25	2.50	150	88.3	10	145	70	3/4"	398	877	151 x 73 x 108	
KELVIN 18.5-13	V60SZ92PWS245	-	18.5	25	2.05	123	72.4	13	188	70	3/4"	398	877	151 x 73 x 108	
KELVIN 22-08	V60SJ92PWS245	-	22	30	3.35	201	118.3	8	116	71	3/4"	418	922	151 x 73 x 108	
KELVIN 22-10	V60SY92PWS245	-	22	30	3.00	180	105.9	10	145	71	3/4"	418	922	151 x 73 x 108	
KELVIN 22-13	V60SW92PWS245	-	22	30	2.40	144	84.7	13	188	71	3/4"	418	922	151 x 73 x 108	
FLOOR MOUNTED WITH DRYER (DF)															
KELVIN 7.5-08 DF	V60SG92PWS345	-	7.5	10	1.25	75	44.1	8	116	62	3/4"	261	576	120 x 70 x 100	
KELVIN 7.5-10 DF	V60SH92PWS345	-	7.5	10	1.00	60	35.3	10	145	62	3/4"	261	576	120 x 70 x 100	
KELVIN 7.5-13 DF	V60SM92PWS345	-	7.5	10	0.75	45	26.5	13	188	62	3/4"	261 576 120 x		120 x 70 x 100	
KELVIN 11-08 DF	V60SN92PWS345	-	11	15	1.65	99	58.2	8	116	63	3/4"	285 628		120 x 70 x 100	
KELVIN 11-10 DF	V60SP92PWS345	-	11	15	1.50	90	53	10	145	63	3/4"	285	285 628 120 x 70 x		
KELVIN 11-13 DF	V60SQ92PWS345	-	11	15	1.15	69	40.6	13	188	63	3/4"	285	628	8 120 x 70 x 100	
KELVIN 15-08 DF	V60SR92PWS345	-	15	20	2.15	129	75.9	8	116	64	3/4"	311	686	120 x 70 x 100	
KELVIN 15-10 DF	V60SS92PWS345	-	15	20	1.85	111	65.3	10	145	64	3/4"	311	686	120 x 70 x 100	
KELVIN 15-13 DF	V60ST92PWS345	-	15	20	1.55	93	54.7	13	188	64	3/4"	311	686	120 x 70 x 100	
KELVIN 18.5-08 DF	V60SU92PWS345	-	18.5	25	2.70	162	95.3	8	116	70	3/4"	443	977	151 x 73 x 108	
KELVIN 18.5-10 DF	V60SV92PWS345	-	18.5	25	2.50	150	88.3	10	145	70	3/4"	443	977	151 x 73 x 108	
KELVIN 18.5-13 DF	V60SZ92PWS345	-	18.5	25	2.05	123	72.4	13	188	70	3/4"	443	43 977 151 x 73 x 1		
KELVIN 22-08 DF	V60SJ92PWS345	-	22	30	3.35	201	118.3	8	116	71	3/4"	463 1021 151 x 73 x		151 x 73 x 108	
KELVIN 22-10 DF	V60SY92PWS345	-	22	30	3.00	180	105.9	10	145	71	3/4"	463	1021	151 x 73 x 108	
KELVIN 22-13 DF	V60SW92PWS345	-	22	30	2.40	144	84.7	13	188	71	3/4"	463	1021	151 x 73 x 108	

Free air delivery as per ISO 1217 Annex C, at 7.5 - 9.5 - 12.5 bar at the compressor outlet. ± 3 dB (A) as PNEUROP/CAGI PN-NTC 2.3.



Model	Code	Tank Power		Air delivered **				Max. Pressure		Connection	Net Weights		Net Dimensions L x W x H	
		lt	kW	HP	m³/min.	m³/h	CFM	bar	p.s.i.	dB(A)	G	Kg	Lbs	(cm)
WITH TANK AND DRYE														
KELVIN 7.5-08-270 DF	V91SG92PWS380	270	7.5	10	1.25	75	44	8	116	62	3/4"	326	719	156 x 70 x 158
KELVIN 7.5-10-270 DF	V91SH92PWS380	270	7.5	10	1.00	60	35	10	145	62	3/4"	326	719	156 x 70 x 158
KELVIN 7.5-13-270 DF	V91SM92PWS380	270	7.5	10	0.75	45	26	13	188	62	3/4"	336	741	156 x 70 x 158
KELVIN 7.5-08-500 DF	V83SG92PWS380	500	7.5	10	1.25	75	44	8	116	62	3/4"	386	851	198 x 70 x 167
KELVIN 7.5-10-500 DF	V83SH92PWS380	500	7.5	10	1.00	60	35	10	145	62	3/4"	386	851	198 x 70 x 167
KELVIN 7.5-13-500 DF	V83SM92PWS380	500	7.5	10	0.75	45	26	13	188	62	3/4"	401	884	198 x 70 x 167
KELVIN 11-08-270 DF	V91SN92PWS380	270	11	15	1.65	99	58	8	116	65	3/4"	350	772	156 x 70 x 158
KELVIN 11-10-270 DF	V91SP92PWS380	270	11	15	1.50	90	53	10	145	65	3/4"	350	772	156 x 70 x 158
KELVIN 11-13-270 DF	V91SQ92PWS380	270	11	15	1.15	69	41	13	188	65	3/4"	360	794	156 x 70 x 158
KELVIN 11-08-500 DF	V83SN92PWS380	500	11	15	1.65	99	58	8	116	65	3/4"	410	904	198 x 70 x 167
KELVIN 11-10-500 DF	V83SP92PWS380	500	11	15	1.50	90	53	10	145	65	3/4"	410	904	198 x 70 x 167
KELVIN 11-13-500 DF	V83SQ92PWS380	500	11	15	1.15	69	41	13	188	63	3/4"	425	937	198 x 70 x 167
KELVIN 15-08-270 DF	V91SR92PWS380	270	15	20	2.15	129	76	8	116	65	3/4"	376	829	156 x 70 x 158
KELVIN 15-10-270 DF	V91SS92PWS380	270	15	20	1.85	111	65	10	145	65	3/4"	376	829	156 x 70 x 158
KELVIN 15-13-270 DF	V91ST92PWS380	270	15	20	1.55	93	55	13	188	65	3/4"	386	851	156 x 70 x 158
KELVIN 15-08-500 DF	V83SR92PWS380	500	15	20	2.15	129	76	8	116	65	3/4"	436	961	198 x 70 x 167
KELVIN 15-10-500 DF	V83SS92PWS380	500	15	20	1.85	111	65	10	145	65	3/4"	436	961	198 x 70 x 167
KELVIN 15-13-500 DF	V83ST92PWS380	500	15	20	1.55	93	55	13	188	64	3/4"	451	994	198 x 70 x 167
KELVIN 18.5-08-500 DF	V83SU92PWS380	500	18.5	25	2.70	162	95	8	116	70	3/4"	595	1312	198 x 73 x 175
KELVIN 18.5-10-500 DF	V83SV92PWS380	500	18.5	25	2.50	150	88	10	145	70	3/4"	595	1312	198 x 73 x 175
KELVIN 18.5-13-500 DF	V83SZ92PWS380	500	18.5	25	2.05	123	72	13	188	70	3/4"	627	1382	198 x 73 x 175
KELVIN 22-08-500 DF	V83SJ92PWS380	500	22	30	3.35	201	118	8	116	71	3/4"	615	1356	198 x 73 x 175
KELVIN 22-10-500 DF	V83SY92PWS380	500	22	30	3.00	180	106	10	145	71	3/4"	615	1356	198 x 73 x 175
KELVIN 22-13-500 DF	V83SW92PWS380	500	22	30	2.40	144	85	13	188	71	3/4"	647	1426	198 x 73 x 175
VARIABLE SPEED (DV)							1						
KELVIN 11-08 DV	V60SN97PWS245	-	11	15	1.65 / 0.68	99 / 41	58 / 24	8	116	63	3/4"	271	598	120 x 70 x 100
KELVIN 11-10 DV	V60SP97PWS245	-	11	15	1.50 / 0.62	90 / 37	53 / 22	10	145	63	3/4"	271	598	120 x 70 x 100
KELVIN 11-13 DV	V60SQ97PWS245	-	11	15	1.15 / 0.47	69 / 29	41 / 17	13	188	63	3/4"	268	591	120 x 70 x 100
KELVIN 11-08 DF DV	V60SN97PWS345	-	11	15	1.65 / 0.66	99 / 40	58 / 23	8	116	63	3/4"	306	675	120 x 70 x 100
KELVIN 11-10 DF DV	V60SP97PWS345	-	11	15	1.50 / 0.60	90 / 36	53 / 21	10	145	63	3/4"	306	675	120 x 70 x 100
KELVIN 11-13 DF DV	V60SQ97PWS345	-	11	15	1.15 / 0.46	69 / 28	41 / 16	13	188	63	3/4"	303	668	120 x 70 x 100
KELVIN 11-08-270 DF DV	V91SN97PWS380	270	11	15	1.65 / 0.66	99 / 40	58 / 23	8	116	65	3/4"	366	807	156 x 70 x 158
KELVIN 11-10-270 DF DV	V91SP97PWS380	270	11	15	1.50 / 0.60	90 / 36	53 / 21	10	145	65	3/4"	366	807	156 x 70 x 158
KELVIN 11-13-270 DF DV	V91SQ97PWS380	270	11	15	1.15 / 0.46	69 / 28	41 / 16	13	188	65	3/4"	398	878	156 x 70 x 158
KELVIN 11-08-500 DF DV	V83SN97PWS380	500	11	15	1.65 / 0.66	99 / 40	58 / 23	8	116	65	3/4"	428	944	198 x 70 x 167
KELVIN 11-10-500 DF DV	V83SP97PWS380	500	11	15	1.50 / 0.60	90 / 36	53 / 21	10	145	65	3/4"	428	944	198 x 70 x 167
KELVIN 11-13-500 DF DV	V83SQ97PWS380	500	11	15	1.15 / 0.46	69 / 28	41 / 16	13	188	65	3/4"	457	1008	198 x 70 x 167
KELVIN 22-08 DV	V60SJ97PWS245	-	22	30	3.35 / 0.95	201 / 57	118 / 34	8	116	71	3/4"	493	902	151 x 73 x 108
KELVIN 22-10 DV	V60SY97PWS245	-	22	30	3.00 / 0.84	180 / 50	106 / 30	10	145	71	3/4"	493	902	151 x 73 x 108
KELVIN 22-13 DV	V60SW97PWS245	-	22	30	2.40 / 0.67	144 / 40	85 / 24	13	188	71	3/4"	493	902	151 x 73 x 108
KELVIN 22-08 DF DV	V60SJ97PWS345	-	22	30	3.35 / 1.34	201 / 80	118 / 47	8	116	71	3/4"	528	1164	151 x 73 x 108
KELVIN 22-10 DF DV	V60SY97PWS345	-	22	30	3.00 / 1.20	180 / 72	106 / 42	10	145	71	3/4"	528	1164	151 x 73 x 108
KELVIN 22-13 DF DV	V60SW97PWS345	-	22	30	2.40 / 0.96	144 / 58	85 / 34	13	188	71	3/4"	528	1164	151 x 73 x 108
KELVIN 22-08-500 DF DV	V83SJ97PWS380	500	22	30	3.35 / 1.34	201 / 80	118 / 47	8	116	71	3/4"	650	1433	198 x 73 x 175
KELVIN 22-08-500 DF DV	V83SY97PWS380	500	22	30	3.00 / 1.20	180 / 72	106 / 42	10	145	71	3/4"	650	1433	198 x 73 x 175
KELVIN 22-10-500 DF DV	V83SY97PWS380	500	22	30	2.40 / 0.96	144 / 58	85 / 34	13	188	71	3/4"	682	1503	198 x 73 x 175
ALLVIN 22-13-300 DF DV	v0000vv9/Pvv0080	000		00	2.1070.00	1117.00	00,04				U/ T	002		

Free air delivery as per ISO 1217 Annex C, at 7.5 - 9.5 - 12.5 bar at the compressor outlet. ± 3 dB (A) as PNEUROP/CAGI PN-NTC 2.3. ** For DV models the data refer to max. and min. values



THE COMPANY

Since 1992 Power System has been an indisputable leader in the design, development, production and worldwide distribution of industrial premium quality Rotary Screw Compressors in a power range from 2.2 to 315 kW satisfying air demands up to 50 m³/min. suitable for any technology sector, from the largest industry to the smallest enterprise. Power System has, since its very beginning, been engaged in a Research mission aimed to create advanced solution to compress air with the lowest possible energy impact.



Power System is dedicated to providing maximum value and security to all clients whilst delivering advanced technology that works.

Quality Certifications: ■ UNI EN ISO 9001:2008 Vision 2000 (TÜV) ■ Russian GOST-R Certification

Products Certifications:

EC European Directives
 RINA-LLOYDS-REGISTER on request
 MOM for Singapore

We fear no comparisons. Choose quality!



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Power System uses only green energy
POWERED BY
REPOWER