



EDISON DV

VARIABLE SPEED
DIRECT DRIVEN
SCREW COMPRESSORS

NEWTON

DIRECT DRIVEN
SCREW COMPRESSORS



**POWER
SYSTEM**

AIR COMPRESSORS

from 45 up to 315 kW
from 7.5 up to 13 bar

EDISON DV

Variable speed direct driven lubricated rotary screw compressors

High performance energy saving solutions

ENERGY SAVING

With over 15 years of experience in the manufacture and design of Variable Speed rotary screw compressors, Power System is recognized 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. Power System offers a wide range of Direct Driven Variable Speed

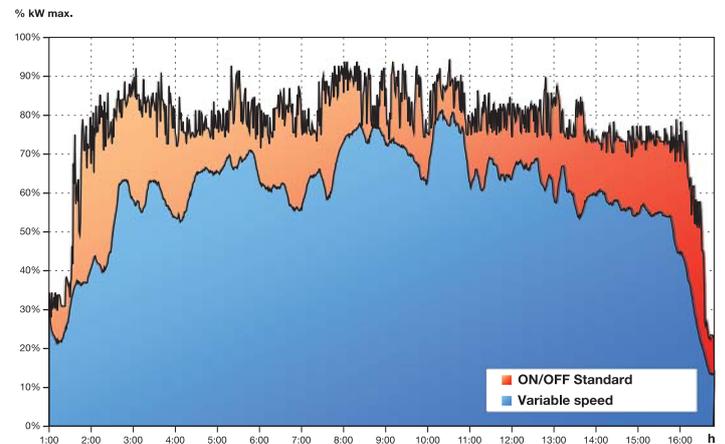
screw compressors from 45 to 315 kW, providing high performance, robust and reliable solutions to suit all heavy duty industrial requirements.

Power System is your ideal partner and uniquely qualified to offer the correct energy saving solutions, whatever your application.

VARIABLE SPEED DRIVE

A conventional fixed speed air compressor is typically controlled by the inlet, opening and closing continuously to meet the air demand. This type of operation results in a large amount of wasted energy due to the compressor's operation within an on and off load position, and to the large variance in the line pressure. 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 to precisely match the air demand.



- Constant and accurate air pressure control selectable at any value between 6 and 10 bar (13 bar on demand).
- Energy consumption is proportional to the compressed air delivered.



INVERTER

The 'Vector' type frequency inverters with exceptional power saving features, are characterized by the ability to provide a constant load torque curve over the motor's total operating speed range. Power System selects premium quality inverters, to guarantee the end user total reliability and first class service assistance world-wide.

- Power-saving mode with a constant visual display of the energy savings achieved
- Optimum control of acceleration and other characteristics
- Automatic re-start after a power failure





Building energy saving systems that work!



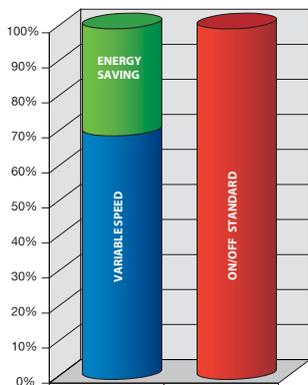
DIRECT DRIVE TRANSMISSION

The simple direct drive system with elastic coupling provides the most energy efficient drive transmission available, with guaranteed alignment of the air end to the main motor.

Lower noise levels, reduced vibration, fewer components and lower maintenance requirements.

ENERGY CONSERVATION

By avoiding waste-full off load operations and over pressure generation, we can achieve a significant reduction in energy consumption. The graph below shows the significant energy saving available using variable speed compressors in a typical installation.



COMPRESSOR AIR END

Our proven and extremely reliable lubricated single-stage compressor air end with asymmetrical profile to the rotors, 5 male lobe rotors and 6 female lobe rotors, ensures low maintenance and long lasting durability characteristics.

MAIN ELECTRIC MOTOR

Asynchronous IE3 High Efficiency electric motor fully protected with insulation class F and protection to IP 55. All the energy of the motor is transferred to the compression process thanks to the simple direct drive arrangement, ensuring the most energy efficient operation and maximum reliability.



ADVANCED COOLING SYSTEM

Our over sized premium quality air-oil heat exchangers guarantee low operating temperatures even in severe working conditions. The large coolers coupled with separate thermostatically controlled electro-fans and a thermostatic valve within the oil cooling system ensures lower compressed air outlet temperatures, eliminating the risk of condensate formation in the lubricant, providing the best protection against damage to internal components, ensuring a much longer service life to the entire compressor.



INTELLIGENT CONTROLLERS

The advanced controllers fitted to the EDISON DV and NEWTON Series have been specifically developed to guarantee optimum monitoring and regulation of the compressors operation, allowing flexibility and full programming of the complete compressed air station for maximum efficiency and safety.

■ DNAir Maxi (from 90 up to 315 kW)

The intelligent controller with clear alphanumeric LCD display features full menu in 12 languages and optional RS 485 interfacing.

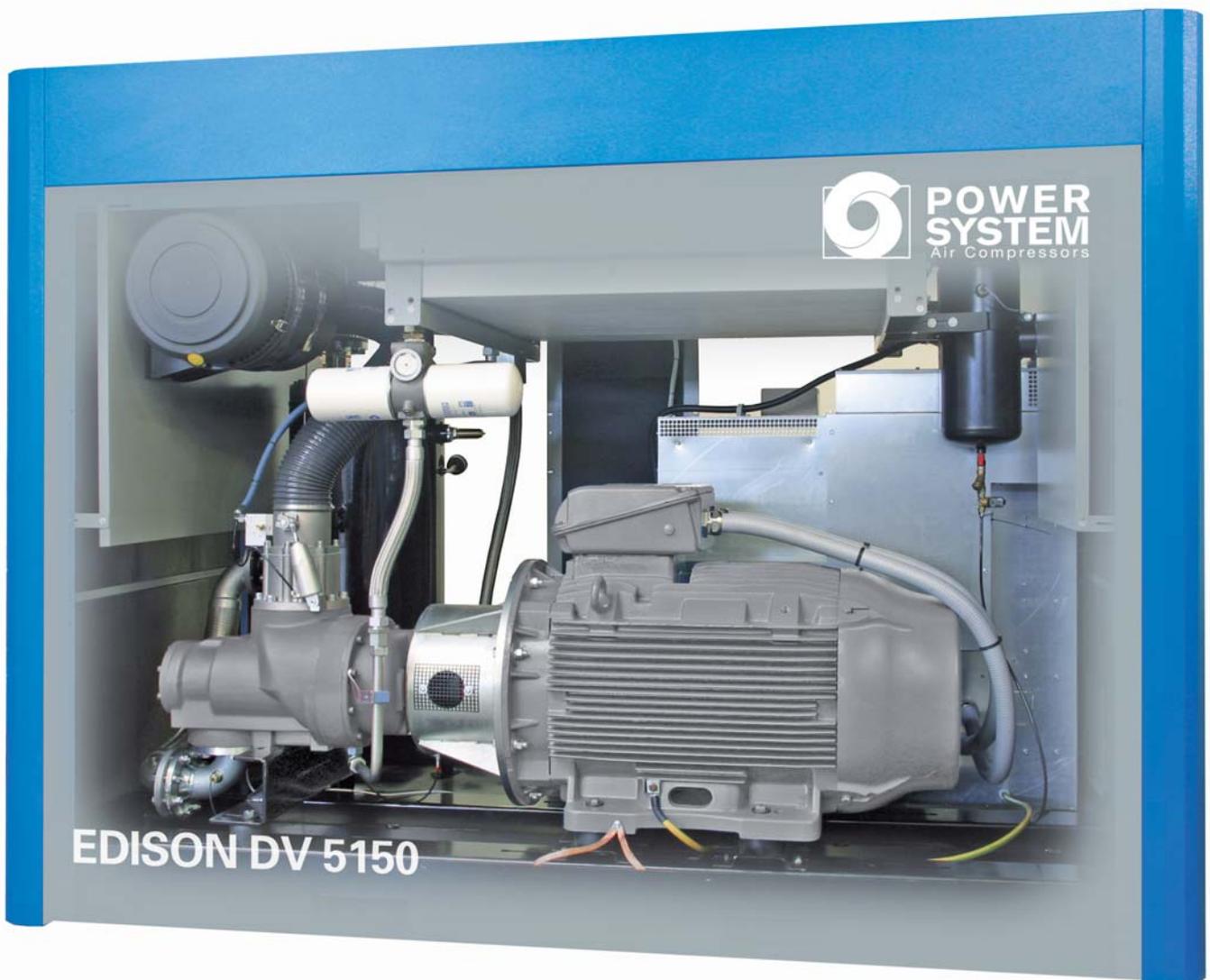
The controller also allows remote control, auto-restart, daily and weekly start up programming and convenient CAN-BUS interface. The controller includes a 'Fault Log' and routine maintenance information.

The extremely user-friendly serial interfacing allows maximum connectivity to peripheral controls and to up to 4 compressors in the same network.



■ EPS4.3 (from 45 up to 75 kW)

The convenient electronic controller with clear alphanumeric LCD display allows (optionally) the linking of up to 4 compressors and also features remote control, auto re-start, fault log and routine maintenance program.



RELIABLE OPERATION, DURABLE SOLUTIONS

The Power System Direct Driven screw compressors of the NEWTON range provide a very high performance solution for the most demanding applications. The NEWTON range offer a wide selection of models from 45 kW to 250 kW with operating pressure from 7.5 to 13 bar.

The direct drive arrangement eliminates power losses in the transmission and is virtually maintenance free. The low operating speed and low operating temperature ensure very reliable operation and a long service life. The direct drive system also contributes to a higher output and a consequent reduction in power consumption.

NEWTON compressors are built using the highest quality components throughout. The attention to detail in the build, finishing and testing of the product results in a high performance, extremely durable, quiet and energy efficient air compressor that is built to last.



HIGH QUALITY COMPRESSED AIR TREATMENT

The EDISON DV and NEWTON series models from 45 up to 75 kW are optionally available with integrated refrigerated dryer (Dew point +3°C) ensuring high quality compressed air, improving operating efficiency and providing improved final product quality, and approved efficiency.

The manual by-pass valve featured in the dryer allows low cost maintenance operations.



EDISON DV and NEWTON

SAVING ENERGY IN YOUR COMPANY? IT IS POSSIBLE!

The energy efficiency of a production plant or any application using compressed air is most important as it may represent a very significant part of the whole energy consumption for the facility. The proper control of compressed air generation provides countless opportunities for the application to Improve the whole production process, in terms of energy consumption, efficiency, costs and emissions.

Based upon decades of experience in the industrial sector, Power System provides a professional auditing service to our clients. Our skilled technicians, using advanced measurement and analysis equipment (EATool and EASoftware) can carry out a full audit of any system. This allows us to fully understand your system demands, existing energy consumption and wastage.

Our advanced simulation software then allows us to propose various technical options that are aimed at providing considerable economic and energy consumption based savings.

EAS SOFTWARE

- Using accurate data on the actual consumption or generation of compressed air in the system along with existing energy usage.
- Providing a complete and precise Energy Audit of the system (air generated, system load, pattern of use, pressure etc.).
- Provides options for an alternative system that might include one or more compressors and controls as a possible alternative to the existing installation, to provide maximum energy savings and a reduction in wasted energy.



EAT TOOL

- Designed to measure compressed air systems in which up to 4 compressors will operate.
- Measurements are downloaded to a USB drive or USB/PC.
- Supplied: up to 4 x 400 A ampere clamps (optional up to 1000A) and a pressure sensor.
- Capable of analysing over a long time period (usually eight days or more is ideal).



NEWTON - FIXED SPEED RANGE

Model	Max Pressure		F.A.D.		Power	Noise level	Weight	Dimensions
	bar max	psig max	m³/min.	CFM	kW-HP nom.	dB(A)	Kg	L x W x H (mm)
NEWTON 3145	8	115	7.8	275.5	45 - 60	74 ± 3	1.180	1804 x 1100 x 1780
	10	145	6.3	222.5				
	13	188	5.4	190.7				
NEWTON 3155	8	115	9.8	346.1	55 - 75	74 ± 3	1.260	1804 x 1100 x 1780
	10	145	8.2	289.6				
	13	188	7.0	247.2				
NEWTON 3175	8	115	12.6	445.0	75 - 100	75 ± 3	1.620	1804 x 1100 x 1780
	10	145	10.5	370.8				
	13	188	8.8	310.8				
NEWTON 4075	8	115	13.4	473.2	75 - 100	75 ± 3	2.270	2380 x 1300 x 1780
	10	145	11.6	409.7				
	13	188	9.9	349.6				
NEWTON 4090	8	115	15.9	561.5	90 - 125	75 ± 3	2.420	2380 x 1300 x 1780
	10	145	13.4	473.2				
	13	188	11.6	409.7				
NEWTON 5110	8	115	18.7	660.4	110 - 150	75 ± 3	3.240	2900 x 1550 x 2155
	10	145	16.3	575.6				
	13	188	13.9	490.9				
NEWTON 5132	8	115	23.4	826.4	132 - 180	76 ± 3	3.300	2900 x 1550 x 2155
	10	145	19.9	702.8				
	13	188	16.3	575.6				
NEWTON 5160	8	115	26.8	946.4	160 - 220	76 ± 3	3.850	2900 x 1550 x 2155
	10	145	23.4	826.4				
	13	188	19.9	702.8				
NEWTON 6200	8	115	34.8	1229.0	200 - 270	76 ± 3	4.550	3300 x 2100 x 2155
	10	145	28.8	1017.1				
	13	188	24.4	861.7				
NEWTON 6250	8	115	40.5	1430.2	250 - 340	76 ± 3	4.700	3300 x 2100 x 2155
	10	145	36.8	1299.6				
	13	188	28.8	1017.1				

EDISON DV - VARIABLE SPEED RANGE

Model	Max Pressure		F.A.D.		Power	Noise level	Weight	Dimensions
	bar max	psig max	m³/min. MIN÷MAX	CFM MIN÷MAX	kW-HP nom.	dB(A)	Kg	L x W x H (mm)
EDISON DV 3145	8	115	1.90 - 7.40	67.1 - 261.3	45 - 60	74 ± 3	1.200	1804 x 1100 x 1780
	10	145	2.00 - 6.20	70.6 - 219.0				
	13	188	1.52 - 5.50	53.7 - 194.2				
EDISON DV 3155	8	115	2.20 - 9.10	77.7 - 321.4	55 - 75	74 ± 3	1.300	1804 x 1100 x 1780
	10	145	2.42 - 8.20	85.5 - 289.6				
	13	188	2.00 - 6.20	70.6 - 219.0				
EDISON DV 3175	8	115	3.20 - 12.10	113 - 427.3	75 - 100	74 ± 3	1.650	1804 x 1100 x 1780
	10	145	2.00 - 10.60	70.6 - 374.3				
	13	188	3.30 - 8.90	116.5 - 314.3				
EDISON DV 4090	8	115	3.24 - 15.20	114.4 - 536.8	90 - 125	74 ± 3	2.150	2380 x 1300 x 1780
	10	145	4.11 - 13.40	145.1 - 473.2				
	13	188	4.20 - 10.60	148.3 - 374.3				
EDISON DV 5110	8	115	3.90 - 18.50	137.7 - 653.3	110 - 150	75 ± 3	2.860	2900 x 1550 x 2155
	10	145	4.50 - 15.90	158.9 - 561.5				
	13	188	4.40 - 13.50	155.4 - 476.7				
EDISON DV 5132	8	115	3.55 - 22.20	125.4 - 784.0	132 - 180	75 ± 3	2.860	2900 x 1550 x 2155
	10	145	5.40 - 19.00	190.7 - 671.0				
	13	188	6.22 - 16.10	219.7 - 568.6				
EDISON DV 5150	8	115	5.00 - 25.60	176.6 - 904.1	160 - 220	74 ± 3	3.350	2900 x 1550 x 2155
	10	145	5.12 - 22.90	180.8 - 808.7				
	13	188	6.00 - 19.40	211.9 - 685.1				
EDISON DV 6200	8	115	9.45 - 33.50	333.7 - 1183.0	200 - 270	76 ± 3	4.670	3300 x 2100 x 2155
	10	145	9.90 - 28.50	349.6 - 1006.5				
	13	188	9.20 - 24.60	324.9 - 868.7				
EDISON DV 6250	8	115	9.90 - 42.10	349.6 - 1486.7	250 - 340	76 ± 3	4.830	3300 x 2100 x 2155
	10	145	9.60 - 35.70	339.0 - 1260.7				
	13	188	9.70 - 30.60	342.6 - 1080.6				
EDISON DV 6315	8	115	15.8 - 50.0	558 - 1765.7	315 - 430	78 ± 3	5.400	3300 x 2100 x 2155
	10	145	15.4 - 43.0	543.8 - 1518.5				

Reference conditions: Intake air temperature 20°C (68°F) - atmospheric pressure 1 bar (14.5 psig).
 The air flow rates are measured at the following working pressures: 7.5 bar for models at 8 bar - 9.5 bar for models at 10 bar - 12.5 bar for models at 13 bar.
 The data and performances in accordance with ISO 1217 directives. Sound level measured in accordance with PNEUROP/CAGI standards.

THE BRAND

Since 1992 Power System has been an indisputable leader in the design, development, production and worldwide distribution of Rotary Screw Compressors and Professional Reciprocating Compressors in a power range from 1.5 kW 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 the very beginning, been engaged in a Research mission aimed to create advanced solutions to compress air with the lowest possible energy consumption.

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