

PERMANENT MAGNET ENERGY

***kW 9 - 15 - 18,5 - 22 - 30
37 - 45 - 55 - 75 - 90
bar 7,5 - 10***



Broadbent

 **Air compressors**

ROTARY SCREW
COMPRESSORS



PERMANENT MAGNET ENERGY Series

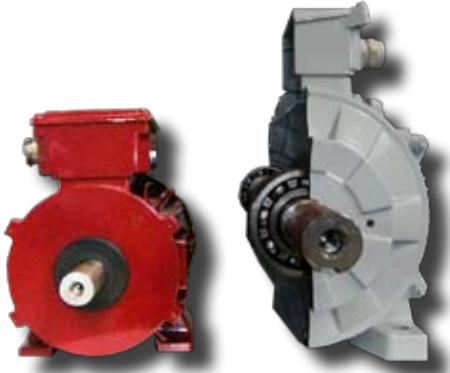
direct driven variable speed rotary screw compressors with permanent magnets motor

THE PERMANENT MAGNET ENERGY Series offers high energy savings of up to 40% over standard controlled machines. Due to the installation of the permanent magnets motor, service life is extended and reliability is improved. The use of advanced technology in the design and research, together with thermodynamics and pneumomechanics has produced the permanent magnet energy range. Giving the most energy efficient rotary screw compressor on the market by minimum of 10% over standard variable drive rotary screw compressors.

PERMANENT MAGNETS MOTOR

MAGNETIC ENERGY screw compressors feature a Permanent Magnets motor:

- electrical losses reduction thanks to the basis magnetic field formation.
 - Electrical losses reduction in power electronics
 - Constant motor torque in a wide range of rotation speed
- The losses reduction produce an increase in the overall compression system efficiency, matched with a Variable Speed drive, results in the best possible performances in terms of energy consumptions and overall compressor life and reliability.

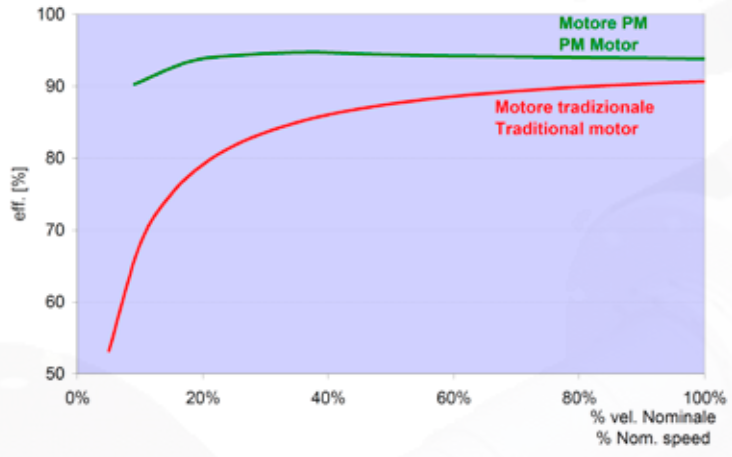


Permanent magnet motor Standard motor

VARIABLE SPEED DRIVE

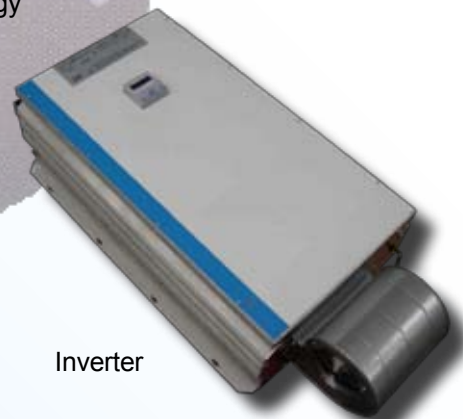
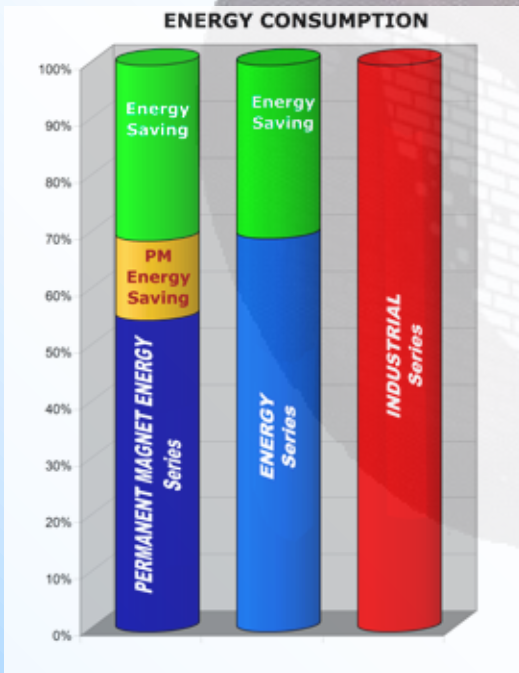
The purchasing cost of an air compressor represents on average a small percentage of the total cost of operating the compressor over its life time. The power required to the machine (kW/hr) is absolutely the highest cost during this time.

Compressed air is used in all industries, it can be very expensive if incorrectly operated. Measurements conducted on a typical application show how the air demand varies constantly during the daily or weekly cycles. A conventional on load/off load compressor uses large amounts of energy when not required compared to a variable speed compressor fitted with permanent magnets motor.



The application of a frequency inverter offer many advantages:

- regulation of the speed of the motor to match constantly the plant air demand
- provides a constant air pressure selectable to any value between 6 and 10 bar (13 bar on demand)
- soft start reduces current peaks and allows for additional energy savings
- Air output constantly varying between 25% and 100% of the compressor total capacity.
- Magnetic Energy



Inverter



MAGNET ENERGY Series

direct driven variable speed rotary screw compressors featuring permanent magnets motor

ENERGY CONSUMPTION COMPARISON – PERMANENT MAGNET ENERGY 40% SAVING

PERMANENT MAGNET ENERGY variable speed average 40% saving, Variable speed standard motor average 30% saving, Standard control stop/start no energy saving. Taking into account the initial higher capital exposure on a permanent magnet variable speed compressor and the energy saving of up to 40% over standard control compressor, initial payback on capital could be made within a very short period given the correct selection of permanent magnet compressor.

- Suction electro fan
- Heavy duty encapsulated intake filter 2 micron
- Oversized air-oil radiator for low discharge temperatures
- Oil filter
- 3 stage air oil separator minimising oil carry over, ensuring a clean oil free air supply
- Inverter
- High efficiency condensate separator
- Air intake valve
- German manufactured isometric air end
- Permanent magnets motor
- Robust base



- save energy
- increase your Company profit
- protect the environment



European made for Australia

PERMANENT MAGNET ENERGY Series

Model	Max Pressure		F.A.D.				Power [kW-Hp] nom.	Noise lev. dB(A)	Weight Kg	Dimensions LxWxH (mm)
	bar max	Psig max	[m ³ /min] MIN/MAX		[CFM] MIN/MAX					
PME1309 - 7,5	7,5	109	0,4	1,57	14	55	9 - 12	64	180	1160x597x1034
PME 1309 - 10	10	145	0,4	1,33	14	47				
PME 1315 - 7,5	7,5	109	0,5	2,60	18	92	15 - 20	65	190	
PME 1315 - 10	10	145	0,5	2,30	18	81				
PME 1518 - 7,5	7,5	109	0,5	3,20	18	113	18,5 - 25	69	340	1386x750x1092
PME 1518 - 10	10	145	0,5	2,80	18	99				
PME 1522 - 7,5	7,5	115	0,6	3,80	21	134	22 - 30	69	360	
PME 1522 - 10	10	145	0,6	3,31	21	117				
PME 2030 - 7,5	7,5	109	0,8	4,90	28	173	30 - 40	69	550	1400x800x1500
PME 2030 - 10	10	145	0,8	4,40	28	155				
PME 2037 - 7,5	7,5	109	0,8	6,00	28	212	37 - 50	69	570	
PME 2037 - 10	10	145	0,8	5,36	28	189				
PME 45 - 7,5	7,5	109	1,2	7,80	42	275	45 - 60	73	900	1804x1110x1780*
PME 45 - 10	10	145	1,2	6,50	42	230				
PME 55 - 7,5	7,5	109	1,5	9,70	53	343	55 - 75	73	1000	
PME 55 - 10	10	145	1,5	8,75	53	309				
PME 75 - 7,5	7,5	109	1,5	12,9	53	456	75 - 100	73	1200	
PME 75 - 10	10	145	1,5	11,3	53	399				
PME 90 - 7,5	7,5	109	1,8	16,1	64	569	90 - 125	74	1700	
PME 90 - 10	10	145	1,8	14,2	64	501				

The air flow rates have been measured at the following working pressures:

7 bar for mod. 7,5 bar - 9,5 bar for mod. 10 bar

All compressors are available at 13 bar pressure upon request

Compressors sizes up to 250kW are available upon request

The data and performances were recorded in accordance with standard ISO 1217. The sound level was measured in accordance with PNEUROP/CAGI standards.

* = Dimension for transport.

Total height with standing conveyor H 1893mm

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Broadbent
Air compressors