



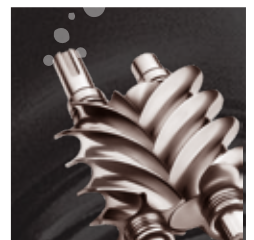
# ***ENERGY MK2***

***kW 7.5 - 90***

# ***ENERGY***

***kW 110 - 250***

***bar 7,5 - 10 - 13***



ROTARY SCREW  
COMPRESSORS

ENERGY MK2 and ENERGY variable speed screw compressors allow for power savings on average between 30%-40% over conventional controlled compressors. ENERGY Series allows for an air supply with minimal peaks, in doing so supplying only the air required for production minimising service costs and operating costs. Designed to operate in the harshest working conditions 24 hours per day. The controller is able to control up to 4 units from one common control panel. All ENERGY Series is equipped as standard with power filters, harmonising the incoming voltage and protecting the inverter and compressor components from surges.



### DNair2 CONTROLLER

The innovative DNair2 controller is utilised on all ENERGY models. Specially designed for simple and flexible programming, it adjusts and controls the operation of the compressor, guaranteeing its efficiency and safety. The user-friendly interface consists of a large backlit LCD display, with simple and clearly understood icons.

All commands and functions are accessed easily using multilingual drop-down menus.

It is possible for up to 4 compressors to be connected simultaneously.

The controller software provides the ability to balance each machine's operating hours and at the same time the pre-set pressure values are rotated along with the machine sequence.

### VARIABLE SPEED DRIVE

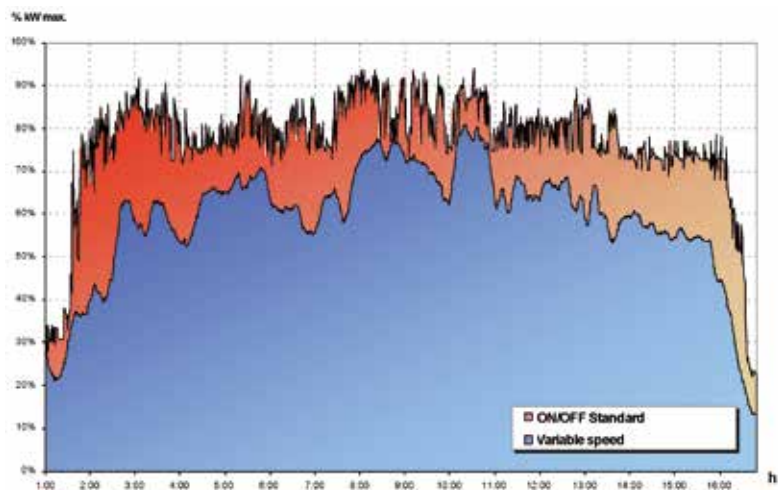
The latest generation inverter drive, allows for a controlled use of energy minimising CO<sub>2</sub> output and lowering energy costs. The inverter and controller ensure for precise control of pressures and volume of the compressor by monitoring production requirements and varying the compressor output and speed without the use of an encoder.

### EFFICIENCY CLASS IE3 MOTOR

- ° Variable speed driving motor IP 55, Class F
- ° High efficiency motor.
- ° Low service factor on the main drive motor

### ENERGY CONSUMPTION COMPARISON

Input power fluctuation during working time



### TRANSMISSION

Original design offering the highest efficiency with ultimate reliability in both the direct and gear adopted versions.

### HIGH EFFICIENCY DRIVE SYSTEM

The air end is directly driven by the electric motor by means of a flexible coupling with an efficiency up to 99,9% .

### AIR COOLING

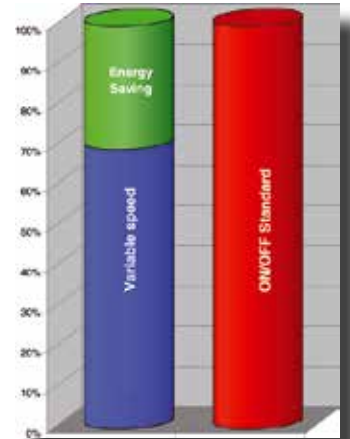
- Oversized combined air/oil cooler
- Low discharge temperatures
- Thermostatically controlled cooling fan
- Low outlet temperatures
- Low compression temperatures
- Extended coolant operating life

# Direct driven variable speed rotary screw compressors

## VARIABLE SPEED DRIVE

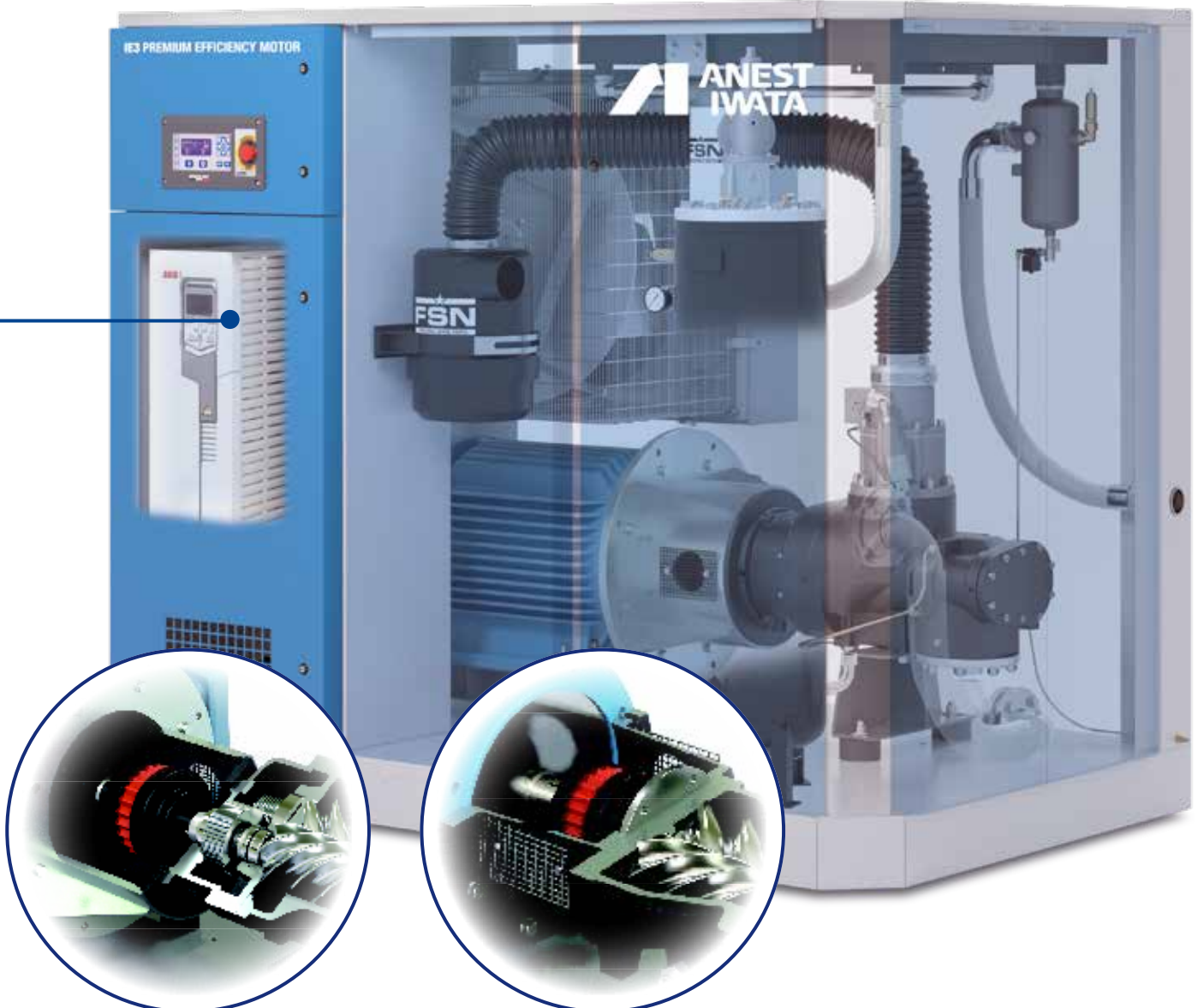
The initial capital outlay of any air compressor represents on average a small percentage of the total cost of operating the compressor over its operating life. The absorbed power of any compressor represents the highest cost of the unit over its operating life.

Compressed air, if incorrectly used, is one of the most expensive forms of services any production facility will operate. The installation of an Energy Series variable speed compressor can, on average, reduce running costs by between 30% - 40% respect a standard on/off screw compressor.



## ADVANTAGES OF OPERATING A VARIABLE SPEED COMPRESSOR

- 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 13 Bar, depending on the chosen compressor model
- Soft start reduces current peaks and allows for additional energy savings
- Air output constantly varying between 30% and 100% of the compressor total capacity



## ENERGY MK2 Series: 7.5-90 kW

| Model                 | Max Pressure |      | F.A.D                 |                    | Power<br>[kW-Hp]<br>nom | Noise level<br>dB(A) | Weight<br>kg | Dimensions<br>L x W x H (mm) |
|-----------------------|--------------|------|-----------------------|--------------------|-------------------------|----------------------|--------------|------------------------------|
|                       | bar          | Psig | [m3/min]<br>MIN - MAX | [CFM]<br>MIN - MAX |                         |                      |              |                              |
| ENERGY MK2 7.5 - 7.5  | 7.5          | 109  | 0.6 - 1.3             | 21 - 46            | 7.5 - 10                | 63                   | 194          | 940 x 770 x 1020             |
| ENERGY MK2 7.5 - 10   | 10           | 145  | 0.5 - 1.1             | 18 - 39            |                         |                      |              |                              |
| ENERGY MK2 16 - 7.5   | 7.5          | 109  | 0.95 - 2.5            | 34 - 88            | 15 - 20                 | 68                   | 595          | 1200 x 810 x 1180            |
| ENERGY MK2 16 - 10    | 10           | 145  | 0.84 - 2.1            | 30 - 74            |                         |                      |              |                              |
| ENERGY MK2 18.5 - 7.5 | 7.5          | 109  | 1.07 - 3.1            | 38 - 109           | 18.5 - 25               | 62                   | 696          | 1500 x 1000 x 1600           |
| ENERGY MK2 18.5 - 10  | 10           | 145  | 0.93 - 2.6            | 33 - 92            |                         |                      |              |                              |
| ENERGY MK2 22 - 7.5   | 7.5          | 109  | 1.17 - 3.6            | 41 - 127           | 22 - 30                 | 64                   | 731          | 1500 x 1000 x 1600           |
| ENERGY MK2 22 - 10    | 10           | 145  | 1.17 - 3.01           | 41 - 106           |                         | 62                   |              |                              |
| ENERGY MK2 22 - 13    | 13           | 189  | 0.96 - 2.56           | 34 - 90            |                         | 62                   |              |                              |
| ENERGY MK2 30 - 7.5   | 7.5          | 109  | 1.98 - 4.85           | 70 - 171           | 30 - 40                 | 68                   | 1100         | 1800 x 1160 x 1780           |
| ENERGY MK2 30 - 10    | 10           | 145  | 1.6 - 4.3             | 57 - 152           |                         |                      |              |                              |
| ENERGY MK2 37 - 7.5   | 7.5          | 109  | 2.68 - 6.6            | 95 - 233           | 37 - 50                 | 70                   | 1190         | 1800 x 1160 x 1780           |
| ENERGY MK2 37 - 10    | 10           | 145  | 1.71 - 5.4            | 61 - 191           |                         | 69                   | 1130         |                              |
| ENERGY MK2 37 - 13    | 13           | 189  | 1.7 - 4.52            | 60 - 160           |                         | 67                   | 1130         |                              |
| ENERGY MK2 45 - 7.5   | 7.5          | 109  | 3.0 - 8.2             | 106 - 290          | 45 - 60                 | 72                   | 1326         | 1920 x 1420 x 1880           |
| ENERGY MK2 45 - 10    | 10           | 145  | 2.4 - 6.7             | 85 - 237           |                         |                      |              |                              |
| ENERGY MK2 55 - 7.5   | 7.5          | 109  | 3.6 - 10.1            | 127 - 357          | 55 - 75                 | 72                   | 1383         | 1920 x 1420 x 1880           |
| ENERGY MK2 55 - 10    | 10           | 145  | 3.0 - 8.3             | 106 - 293          |                         |                      |              |                              |
| ENERGY MK2 55 - 13    | 13           | 189  | 2.3 - 6.5             | 81 - 230           |                         |                      |              |                              |
| ENERGY MK2 75 - 7.5   | 7.5          | 109  | 4.5 - 12.6            | 159 - 445          | 75 - 100                | 69                   | 3000         | 2560 x 1660 x 2230           |
| ENERGY MK2 75 - 10    | 10           | 145  | 3.8 - 10.5            | 134 - 371          |                         |                      |              |                              |
| ENERGY MK2 75 - 13    | 13           | 189  | 3.48 - 8.7            | 123 - 307          |                         |                      |              |                              |
| ENERGY MK2 76 - 7.5   | 7.5          | 109  | 4.9 - 13.5            | 173 - 477          | 75 - 100                | 67                   | 3035         | 2560 x 1660 x 2230           |
| ENERGY MK2 76 - 10    | 10           | 145  | 4.2 - 11.7            | 148 - 413          |                         | 66                   |              |                              |
| ENERGY MK2 76 - 13    | 13           | 189  | 3.5 - 9.69            | 124 - 342          |                         | 67                   |              |                              |
| ENERGY MK2 90 - 7.5   | 7.5          | 109  | 5.7 - 15.9            | 201 - 562          | 90 - 125                | 68                   | 3110         | 2560 x 1660 x 2230           |
| ENERGY MK2 90 - 10    | 10           | 145  | 4.8 - 13.4            | 170 - 473          |                         | 70                   |              |                              |
| ENERGY MK2 90 - 13    | 13           | 189  | 3.7 - 10.4            | 131 - 367          |                         | 66                   |              |                              |

## ENERGY Series: 110-250 kW

| Model            | Max Pressure |      | F.A.D                 |                    | Power<br>[kW-Hp]<br>nom | Noise level<br>dB(A) | Weight<br>kg | Dimensions<br>L x W x H (mm) |
|------------------|--------------|------|-----------------------|--------------------|-------------------------|----------------------|--------------|------------------------------|
|                  | bar          | Psig | [m3/min]<br>MIN - MAX | [CFM]<br>MIN - MAX |                         |                      |              |                              |
| ENERGY 110 - 7.5 | 7.5          | 109  | 3.9 - 18.5            | 138 - 653          | 110 - 150               | 75                   | 2860         | 2900 x 1550 x 2160           |
| ENERGY 110 - 10  | 10           | 145  | 4.5 - 15.9            | 159 - 561          |                         |                      |              |                              |
| ENERGY 110 - 13  | 13           | 189  | 4.4 - 13.5            | 155 - 477          |                         |                      |              |                              |
| ENERGY 132 - 7.5 | 7.5          | 109  | 3.5 - 22.2            | 125 - 784          | 132 - 180               | 75                   | 2860         | 2900 x 1550 x 2160           |
| ENERGY 132 - 10  | 10           | 145  | 5.4 - 19              | 191 - 671          |                         |                      |              |                              |
| ENERGY 132 - 13  | 13           | 189  | 6.2 - 16.1            | 220 - 569          |                         |                      |              |                              |
| ENERGY 150 - 7.5 | 7.5          | 109  | 5 - 25.6              | 176 - 904          | 160 - 220               | 74                   | 3350         | 2900 x 1550 x 2160           |
| ENERGY 150 - 10  | 10           | 145  | 5.1 - 22.9            | 181 - 809          |                         |                      |              |                              |
| ENERGY 150 - 13  | 13           | 189  | 6 - 19.4              | 212 - 685          |                         |                      |              |                              |
| ENERGY 200 - 7.5 | 7.5          | 109  | 9.4 - 33.5            | 334 - 1183         | 200 - 270               | 76                   | 4670         | 3300 x 2100 x 2160           |
| ENERGY 200 - 10  | 10           | 145  | 9.9 - 28.5            | 350 - 1006         |                         |                      |              |                              |
| ENERGY 200 - 13  | 13           | 189  | 9.2 - 24.6            | 325 - 869          |                         |                      |              |                              |
| ENERGY 250 - 7.5 | 7.5          | 109  | 9.9 - 42.1            | 349 - 1487         | 250 - 340               | 76                   | 4830         | 3300 x 2100 x 2160           |
| ENERGY 250 - 10  | 10           | 145  | 9.6 - 35.7            | 339 - 1261         |                         |                      |              |                              |
| ENERGY 250 - 13  | 13           | 189  | 9.7 - 30.6            | 342 - 1081         |                         |                      |              |                              |

Reference conditions: air intake temperature 20°C (68°F) - atmospheric pressure 1 bar (14.5 psig). 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 - 12.5 bar for mod. 13 bar. The data and performances were measured in accordance with ISO1217 standards. The sound level was measured in accordance with ISO3744 standards.

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