

VARIAIR FREQUENCY INVERTER VAU4/4, VAU7.5/3 & VAU11-22/3



VARIAIR FREQUENCY INVERTER BY BECKER

Becker's VARIAIR frequency inverters considerably increase the performance characteristics of vacuum pumps and compressors, adapting them precisely to customer requirements. Energy consumption is optimised and constant pressure ensured, even with varying or heavily fluctuating air demand. Noise emissions, such as unneeded suction or blowing noises when expelling surplus air, have been eliminated. The pumps' soft start reduces wear on mechanical components and increases service life. The variable performance range of VARIAIR vacuum pumps and compressors helps to reduce the need for a broad model range.

- Airflow speed adjustable exactly according to needs
- Significant increase to energy efficiency, especially with varying operating points
- Reduced wear on device and network due to soft start of pumps with full torque
- The combined IE3 motor and VARIAIR frequency inverter technologies meets IE3 requirements
- For side channel blowers
 - Up to 100 % higher flow rate due to 100 Hz operation in a 50 Hz network
 - Up to 15 % higher flow rate than other 87 Hz frequency conversion solutions due to 100 Hz operation
- For rotary vane pumps
 - Up to 20 % higher flow rate due to 60 Hz operation in a 50 Hz network
- Constant pressure for the complete range of applications via PID control, also via sensorless internal regulation for side channel blowers
- Device protection due to operation based on individual characteristics diagrams
- Internal PLC allows for customer-specific software
- configuration Master-slave operation possible without higher-level control
- Optional support for established fieldbus systems (CANopen, Profibus and EtherCAT)
- Simple error analysis with flash codes and acknowledge button
- VARIAIR provides machine manufacturers with optimum air supply independent of power supply and frequency (200/400/480 V 50/60 Hz)
- The higher level VARIAIR Controller+, which scales to fit your specifications, merges the individual pumps (VARIAIR units) into a user-friendly overall system



Oil-free rotary vane pumps



Oil-lubricated rotary vane vacuum pumps



Screw vacuum pumps



Side channel blowers



Radial blowers

BEST IN CLASS

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TECHNICAL DATA VAU4/4, VAU7.5/3 & VAU11-22/3



| | | VAU4/4 | VAU7.5/3 | VAU11-22/3 | | | |
|---|-----------|--|---|---|------|------|------|
| Typical motor performance (4-pole asynchronous motor) | kW | 4.0 | 7.5 | 11.0 | 15.0 | 18.5 | 22.0 |
| Voltage 3~ | V | 400 (-15 %) ... 480 (+10 %) | | 400 (-15%) ... 480 (+10 %) | | | |
| Mains frequency | Hz | 47 - 63 | | 47 - 63 | | | |
| Dimensions (L x W x H) | mm | 270 x 189 x 140 | | 307 x 223 x 181 | | | |
| Weight incl. adapter plate | kg | 5.0 | | 8.7 | | | |
| Protection class | | IP 65 | | IP 55 | | | |
| Order no. | | 79630271115 Standard 79630274115 incl. CANopen 79630275115 incl. Profibus 79630276115 incl. EtherCAT | 79630251115 Standard 79630254115 incl. CANopen 79630255115 incl. Profibus 79630256115 incl. EtherCAT | 79630261115 Standard 79630264115 incl. CANopen 79630265115 incl. Profibus 79630266115 incl. EtherCAT | | | |
| Protective features | | over- and undervoltage, I ² t restriction, short-circuit, motor temperature, frequency inverter temperature, stall prevention (current limit) and blocking protection | | | | | |
| Optional accessories | | hand-held operating unit, wall mount, vacuum- and/or pressure sensors | | | | | |

THE BECKER SOLUTIONS

As a leader in the field of suction and blast air we offer complete solutions driven by your individual needs.



OUR SOLUTION COMPONENTS

▪ CUSTOMIZATION

We develop customized solutions for your individual requirements and applications.

▪ EFFICIENCY

We optimize your air supply to ensure a better efficiency for your complete system.

▪ SUPPORT

Our consulting and planning add value to your individual application for an optimal solution.

▪ COMPETENCE

With over 130 years of experience, we have the expertise to create innovative solutions for your current and future needs.

▪ SERVICE

Our worldwide subsidiaries and representatives are able to provide service solutions to meet your individual needs.

▪ PRODUCTS

We develop "Best in Class" solutions from individual units to entire systems according to your specific requirements.

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