

Product profile



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Unser Zeichen // Our Ref.

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BITZER ORBIT PRO: propane scroll compressors with extended application limits for heat pump and air conditioning applications

The ORBIT PRO series extends the BITZER ORBIT scroll compressor portfolio with versions specifically designed for propane (R290). The use of a natural refrigerant such as propane offers system manufacturers and operators numerous advantages, particularly in view of increasingly stringent regulatory requirements in Europe. Thanks to extended application limits and a broad model range, the ORBIT PRO series is the right choice for a wide variety of applications.

The broad application range of the ORBIT PRO series extends from heat pumps and process cooling to IT cooling and air conditioning. The scroll compressors enable operation at evaporating temperatures between -30°C and $+30^{\circ}\text{C}$ and condensing temperatures between $+10^{\circ}\text{C}$ and $+80^{\circ}\text{C}$. With cooling capacities ranging from 16 to 64 kW and heating capacities from 21 to 82 kW* (*operating points: $t_0 = +5^{\circ}\text{C}$, $t_c = +50^{\circ}\text{C}$ at 50 Hz), the scroll compressors deliver high performance. The ORBIT PRO series comprises two housing sizes (ORBIT 6 PRO and ORBIT 8 PRO) with a total of nine models, covering displacements from 19.8 to 77.2 m³/h at 50 Hz. ORBIT 6 PRO scroll compressors can optionally be operated with an external frequency inverter for speed control in the range from 45 to 75 Hz, delivering higher efficiency, particularly under part load conditions¹.

For higher capacity and reliable oil management, compressors of the ORBIT PRO series can be flexibly and easily combined in tandem or trio configurations thanks to BITZER Advanced Header Technology (BAHT), a specialised piping technology. Like all scroll compressors in the BITZER ORBIT

¹ Cf. <https://www.bitzer.de/empco>

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portfolio, the propane versions are characterised by low sound emissions and low oil carry over rates during operation.



As an independent specialist for refrigeration, air conditioning and heat pump technology, BITZER is present all over the world: with products and services for refrigeration, air conditioning and process cooling as well as transport, BITZER ensures optimum temperature conditions for trade in goods, industry processes and indoor climate control – always striving for the highest possible energy efficiency and quality. BITZER is represented all over the world with 74 sites in 40 countries, including its sales companies and production facilities. Trade and service partners included, the BITZER network of manufacturing, development and sales extends to almost all countries in the world. In 2025, 4,500 employees generated a turnover of €1.135 billion; expenditure for research and development totalled €67 million.

www.bitzer.de

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Image: ORBIT PRO scroll compressors are optimised for propane (R290) and available in two housing sizes