



ECODRY 40 - 65 plus & 65 He plus

Designed for clean and precise applications

 **Leybold**

Reliability where it counts

Performance and efficiency you can trust

The ECODRY plus Multistage Roots Pump delivers low noise, low maintenance requirements, and energy efficiency, combined with clean and consistent operation. Designed for precision and reliability, it is a trusted choice for high-performance applications.

So quiet, you'll hardly notice it

Workplaces always involve a certain level of noise, but a healthy working environment means keeping it under control. At levels above 55 dB(A), sound becomes distracting and stressful. Prolonged exposure to such noise can lead to unease, irritability, and increased blood pressure.

With a noise level of just 52 dB(A), the ECODRY plus contributes to a calmer, more focused workspace. Its advanced German engineering ensures minimal noise: non-contacting rotors, a low-vibration drive, an efficient cooling fan, and a high-performance silencer all contribute to its quiet operation.



65 dB(A)
Central AC



60 dB(A)
Summer shower



55 dB(A)
Conversation



52 dB(A)
ECODRY plus

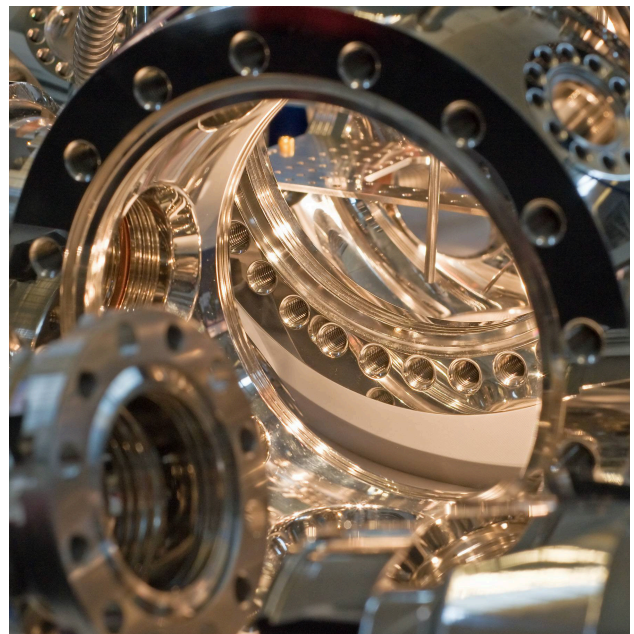
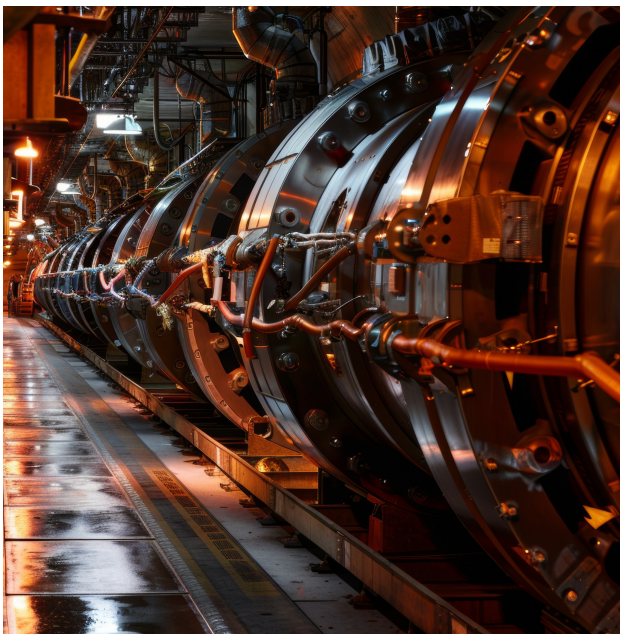
Benefit from a clean pump

The ECODRY plus uses a dry technology design to deliver a clean, oil-free vacuum:

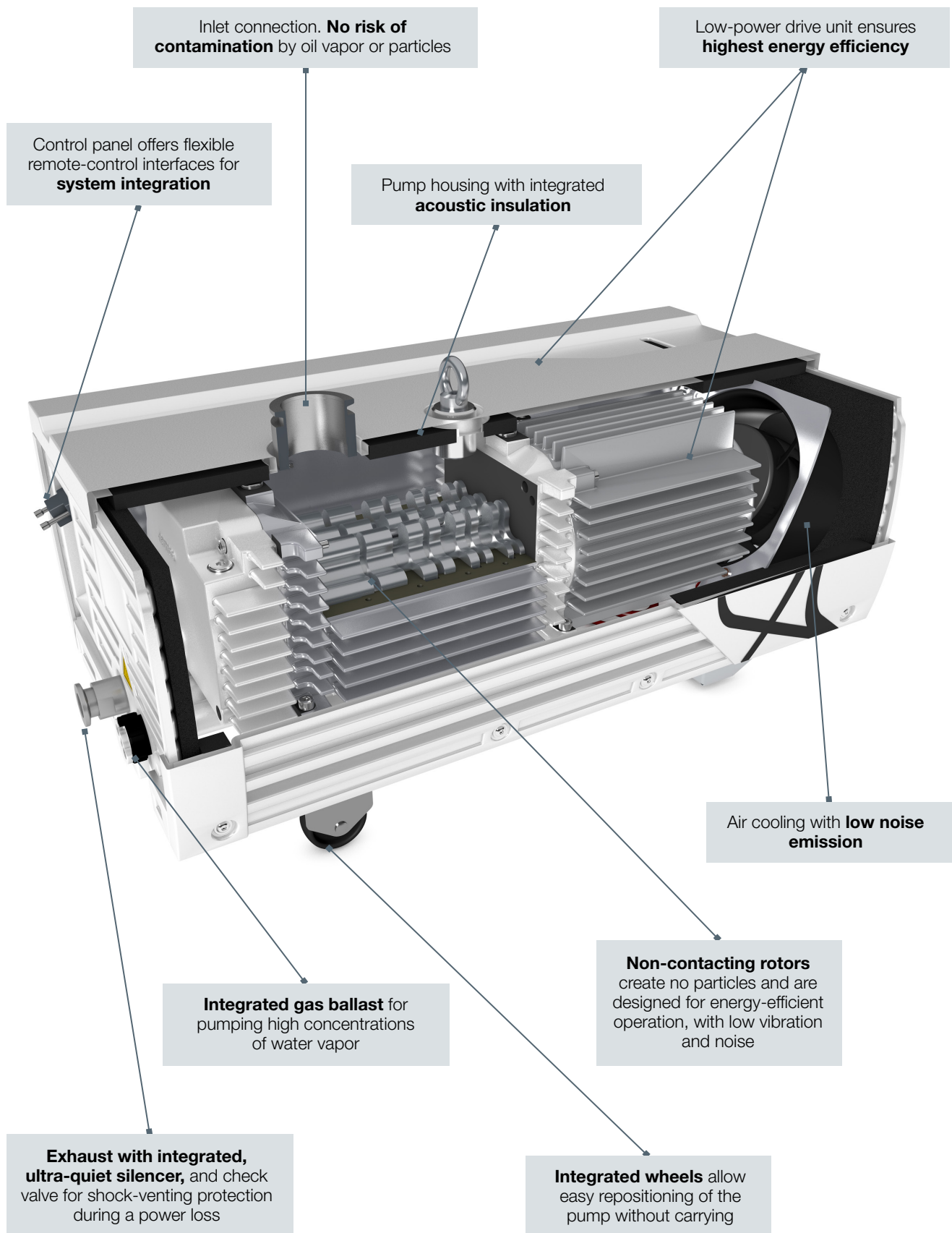
- No oil, particles, or dust in the pumping chamber – ensuring no contamination during the process.
- No smells – for a more pleasant working environment.
- Reliable performance – no oil changes, no seal replacements for up to 5 years.

Achieve more with less

- Low power consumption for more energy efficiency and reduced cooling costs.
- Compact size: the small footprint enables more flexibility where space is limited.
- Fewer limitations with low EMC emission and low leakage current, the ECODRY plus can be powered via regular wall sockets.



Designed to serve your needs

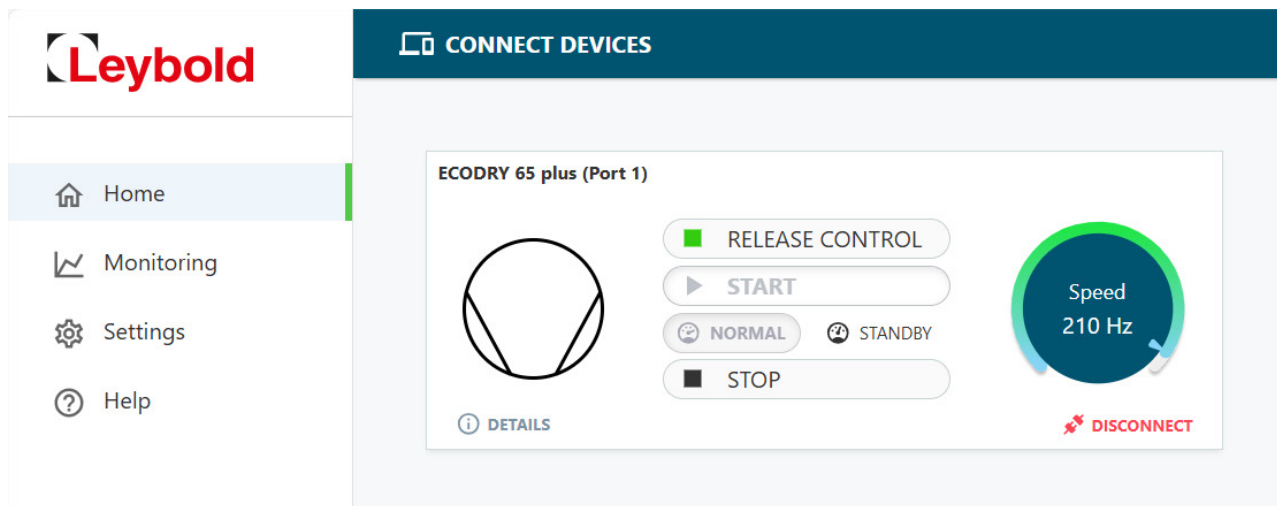
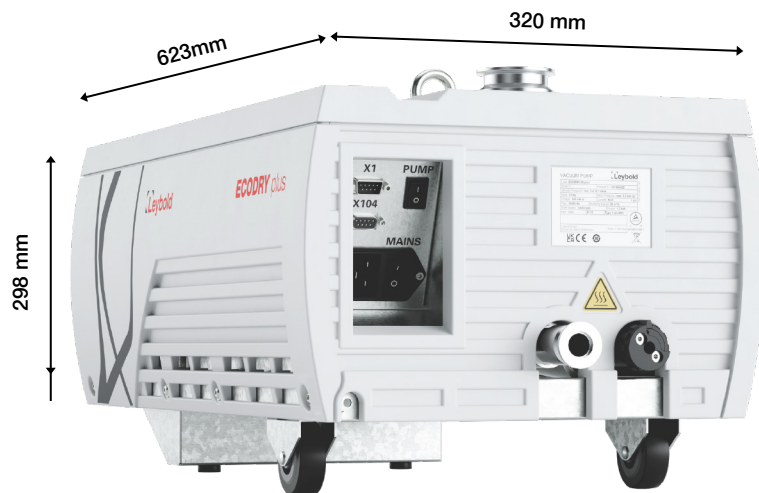


Compact and flexible



Flexible control modes:

- Manual operation with integrated switch.
- Remote controlled via digital I/O interface from customer system.
- Computer-controlled via RS485/MODBUS.
- Compatible with LEYASSIST for easy monitoring, remote control, and data logging.



Supports innovation

At the heart of our production testing stations, we rely on the same vacuum pump we offer to our customers. That's how confident we are in its performance, reliability, and cleanliness. The ECODRY plus is engineered to meet the highest standards across a wide range of specialized applications.

- **Analytical instruments:** essential for mass spectrometers and other precision tools requiring stable and clean vacuum conditions.
- **Electron microscopy:** provides dependable backing for multiple turbomolecular pumps.
- **Cryo-pump regeneration:** handles high water vapor loads efficiently.
- **Ultra-high vacuum (UHV) systems:** quiet, clean, and maintenance-free. Perfect for advanced UHV applications.
- **Large-scale accelerators:** efficient evacuation while preventing contamination.

ECODRY 65 He plus

Enhanced leak tightness for specialized applications

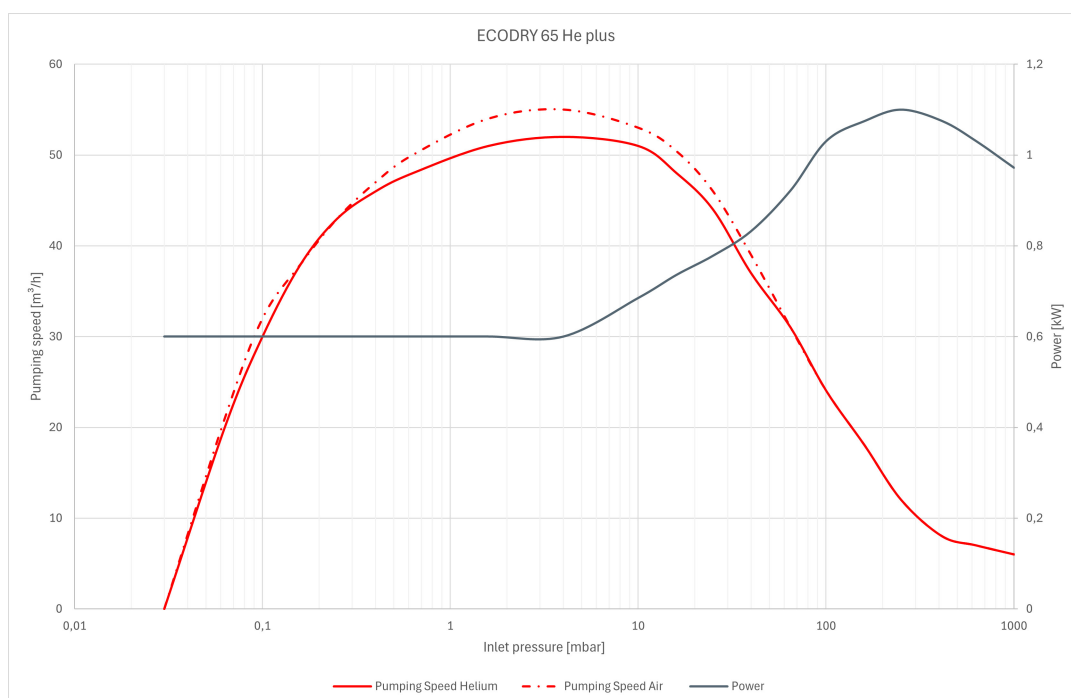
Building on the proven ECODRY 65 plus, this variant is optimized for permanent gases like Nitrogen, Helium-3, Helium-4, Argon, Neon—and in specific setups, SF₆. It offers ultra-low leak rates, making it ideal for helium recovery and recirculation in closed-loop systems. Typical applications include cryostats, dilution refrigeration, leak detection, and superconducting magnets.

Engineered for Helium handling

- Leak tightness $< 5 \times 10^{-8}$ mbar·l/s.
- Integral leak testing confirms compliance with defined performance standards.
- Supplied with a certificate confirming the pump has passed the integral leak test.
- Gas-ballast free design eliminates a potential leakage point and a source of undesired gas contamination.



Pumping speed curves



Technical data | Ordering information

ECODRY		40 plus	65 plus	65 He plus
Maximum air pumping speed without gas ballast	m³/h	40	55	
Maximum helium pumping speed without gas ballast	m³/h	50	52	
Ultimate pressure without gas ballast	mbar	< 0.03		
Ultimate pressure with gas ballast	mbar	< 0.1		n/a
Water vapor capacity with gas ballast	g/h	300	500	n/a
Cooling		Air		
Power consumption at ultimate pressure	W	600		
Mains connector		IEC EN60320 C20		
Noise level	dB(A)	< 52		
Protection class		IP42		
Operating temperature	°C	+5 to +40		
Intake flange		DN 25	DN 40	
Exhaust flange		DN 16		
Weight, approx.	kg	43		
Dimensions W x L x H	mm	320 x 623 x 298		
Certifications		CE, NRTL (cTUVus), RoHS		

ECODRY	40 plus	65 plus	65 He plus
Vacuum Pumps			
High voltage: 200-240 V (+/- 10%), 50/60 Hz	161040V22	161065V22	161065V32
Low voltage: 100-120V (+/- 10%), 50/60 Hz	161040V21	161065V21	161065V31
Inlet screens			
DN 40 ISO-KF	n/a	E41170121	
DN 25 ISO-KF	E41170206	n/a	
Mains cables (mandatory accessories)			
EU (CEE 7/7 - C19, 2.0 m)	161810EU		
UK (BS 1363 - C19, 2.0 m)	161810UK		
US 120 V only (NEMA 5-15P - C19, 2.0 m)	141103US		
US 200-240 V only (NEMA 6-15P - C19, 2.5 m)	161810US		
CN / AU (AS 3112, 2.0 m)	161810CN		
Other accessories			
Casing assembly mounting kit	161831A		
RS485/USB connecting cable for X104 interface, 1.8 m	161820USB		
Gas ballast blank plug	161832A	n/a	
Purge gas adapter (10 mm quick connect)	161833A	n/a	
Replacement control interface jumper X1	161823A		
LEYASSIST software	leyassist.leybold.com		



Pioneering products. Passionately applied.