

PRODUCT TECHNICAL BRIEF

CBVAC JFB-400/4201 Hybrid-Bearing Turbomolecular Pump, 4,200 L/s

CBVAC JFB-400/4201 Hybrid-Bearing Turbomolecular Pump, 4,200 L/s - LeakLab solutions for leak testing, vacuum systems and test equipment.

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Technical Data

PARAMETER	PUBLISHED VALUE / INFORMATION
Pumping speed	4,200 L/s for nitrogen; 3,000 L/s for helium
Ultimate pressure	$<2 \times 10^{-6}$ Pa for the LF version under stated test conditions
Compression ratio	1×10^8 for nitrogen; approximately 5×10^3 to 1×10^4 for helium depending on document revision
Main inlet	DN400 LF/ISO-K
Foreline / purge ports	KF40 / KF16
Recommended backing pump	30-70 L/s
Maximum continuous foreline pressure	300 Pa for nitrogen; 200 Pa for helium
Nominal rotor speed	18,000 rpm
Acceleration / stopping time	Approximately 20 min / 25-30 min
Supply and maximum power	220 V AC $\pm 10\%$, 50/60 Hz; up to 2,200 W
Cooling	Water, approximately 3 L/min at $\leq 20^\circ\text{C}$ and 0.15 MPa in the source record
Controller	External JFB-VI or integrated JFB-VI-B; RS-485 and DB15 control
Approximate weight	90 kg external-controller version; 95 kg integrated version
Operating orientation	Vertical, within $\pm 5^\circ$

Technical and Project Information

Large DN400 LF turbomolecular pump with 4,200 L/s nitrogen and 3,000 L/s helium pumping speed. The water-cooled JFB-400/4201 uses grease-lubricated ceramic ball bearings, a 220 V controller and RS-485/DB15 control for industrial

high-vacuum systems.

CBVAC JFB-400/4201 Turbomolecular Pump

The JFB-400/4201 is a large DN400 LF turbomolecular pump for high-throughput industrial and research vacuum systems. Its rotor uses grease-lubricated ceramic ball bearings and must operate close to the specified vertical orientation.

Confirm the current manual, controller version, lifting points, mounting loads, cooling-water quality, purge, cable and interlock interface before ordering. Ultimate pressure is conditional on system cleanliness, conductance, leaks and backing performance.

This pump has a high-energy rotor. Use engineered guarding, lifting, mounting, cooling, pressure and speed interlocks, and never move or vent the system abruptly while the rotor is turning.

- Vacuum Pumps Atmosphere-to-High-Vacuum Dry Pumps High-Vacuum Pumping Stations Ion Pumps KYKY RV Rotary-Vane Pumps Roots Booster Pumps Screw Vacuum Pumps Tank Evacuation Systems Turbomolecular Pumps Grease-Lubricated KYKY Turbomolecular Pumps JFB Ceramic-Bearing Turbomolecular Pumps KYKY CXF Magnetically Levitated Turbomolecular Pumps KYKY FF Turbomolecular Pumps for Vacuum Insulation MTP Magnetically Levitated Turbomolecular Pumps
- Atmosphere-to-High-Vacuum Dry Pumps
- High-Vacuum Pumping Stations
- KYKY RV Rotary-Vane Pumps
- Roots Booster Pumps
- Screw Vacuum Pumps
- Tank Evacuation Systems
- Turbomolecular Pumps Grease-Lubricated KYKY Turbomolecular Pumps JFB Ceramic-Bearing Turbomolecular Pumps KYKY CXF Magnetically Levitated Turbomolecular Pumps KYKY FF Turbomolecular Pumps for Vacuum Insulation MTP Magnetically Levitated Turbomolecular Pumps
- Grease-Lubricated KYKY Turbomolecular Pumps
- JFB Ceramic-Bearing Turbomolecular Pumps
- KYKY CXF Magnetically Levitated Turbomolecular Pumps
- KYKY FF Turbomolecular Pumps for Vacuum Insulation
- MTP Magnetically Levitated Turbomolecular Pumps
- Helium Reference Leaks
- Scanning Electron Microscopes
- Leak-Detector Accessories

WORLDWIDE PROJECT CONTACT

Send the test object or system, operating conditions, target sensitivity or pressure range, applicable standard, destination country, quantity and schedule. LeakLab will review the project scope.

mail@leaklab.org

Regarding: CBVAC JFB-400/4201 Hybrid-Bearing Turbomolecular Pump, 4,200 L/s

Specifications, standards, verification scope, availability and commercial terms must be confirmed for the exact configuration and destination jurisdiction before order or project acceptance.