Ceramic Ball Bearing Turbo Molecular Pump [UTM300B]

UTM300B is the compound turbo-molecular pump with the ceramic ball bearings, and has excellent compression ratio. Compact design by integrated controller design. Excellent high back pressure performance allows to use smaller backing pump.

Features

- No limitation in the mounting direction
  - The degree of freedom in system design is high because of free mounting direction.
- On-board controller
  - Integrated controller to the pump body is capable to reduce wire work and downsize pumping system.
- High compression ratio and high back pressure
  - High compression ratio made it possible to run the pump at high back pressure and downsize its backing pump.
- Three kinds of flange
  - Inlet port flange is selectable from ISO100-K, ICF152, and VG100.
- Clean vacuum environment
  - Less back flow of hydrocarbon gases while both the pump is running and stopping.
- Low noise
  - Noise level at the no load is 50dB or less (with ISO-100K flange)
- Applicable standard
  - CE and NRTL

Applications

- Main pumping system for analytical equipments, R&D systems, experimental devices, etc.
- Main pumping system for evaporators and sputtering systems, etc.
- Main pumping system to evacuate low molecule gases such as H₂, He, etc.
Ceramic Ball Bearing Turbo Molecular Pump [UTM300B]

Pump Specification

<table>
<thead>
<tr>
<th>Model</th>
<th>UTM300B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooling method</td>
<td>Natural air cooling</td>
</tr>
<tr>
<td>Inlet Flange</td>
<td>VG100, ICF152, ISO100-K</td>
</tr>
<tr>
<td>Outlet Flange</td>
<td>KF16</td>
</tr>
<tr>
<td>Pumping speed (without a protection screen)</td>
<td>(N_2 \geq 280 \text{ L/sec} )</td>
</tr>
<tr>
<td>Ultimate pressure (With 2-stage back pump)</td>
<td>After baking ( \text{Pa} \ra 10^6 )</td>
</tr>
<tr>
<td></td>
<td>Before baking ( \text{Tor} \ra 10^6 )</td>
</tr>
<tr>
<td>Max. compression rate</td>
<td>( N_2 \geq 1 \times 10^{-9}, \text{He: } 7 \times 10^{-9}, \text{H}_2: 1 \times 10^{-9} )</td>
</tr>
<tr>
<td>Continuous running maximum flow</td>
<td>Without gas purge ( N_2 \geq 10 \text{ccm} /0.2 \text{mbar/sec} )</td>
</tr>
<tr>
<td></td>
<td>With gas purge ( \text{Ar} \geq 40 \text{ccm} /0.7 \text{mbar/sec} )</td>
</tr>
<tr>
<td>Weight</td>
<td>6 kg / 9 kg</td>
</tr>
<tr>
<td>Dimensions</td>
<td>6.3 kg / 9.3 kg</td>
</tr>
<tr>
<td>Flange</td>
<td>KF16</td>
</tr>
</tbody>
</table>

Option

- Fan unit for air cooling (DC24V)
- Venting valve (DC24V, Normal close)
- Gas purge adaptor (KF16)
- Baking heater (AC100V 200W)
- Baking heater (AC230V 200W)
- Interface connector (DC24V Input, RS-485, Connector for relay output)
- Adapter power supply (AC100-240V With AC100V outlet)

Controller Specification

- Input power source: Voltage: DC24 V ± 5 % Maximum power requirement: 180W
- Serial communicator: RS-485 (3-sub 15 pin male. Shared with REMOTE)
- LED Display: POWER NORMAL ALARM
- Switch: START/STOP RESET
- Variable rotation frequency/speed: Change of operation rotation speed number is possible between 25% and 100% from the pump spec by 0.1% step.
- Abnormal operation detection: Detecting alarm and warning.
- Protection circuit: Indicating alarm and warning.

Dimensions

ULVAC, Inc., Components Division

Overseas Sales in Japan  TEL +81-467-89-2261

USA : ULVAC Technologies, Inc.  TEL +1-978-866-7550
GERMANY : ULVAC GmbH  TEL +49-89-92055-6762
CHINA : ULVAC (SHANGHAI) Trading Co., Ltd.  TEL +86-21-6127-6618
TAIWAN : ULVAC TAIWAN, Inc.  TEL +886-3-579-5688
KOREA : ULVAC KOREA, Ltd.  TEL +82-31-863-2922
SINGAPORE : ULVAC SINGAPORE PTE LTD  TEL +65-6452-2700

PHILIPPINES : ULVAC SINGAPORE PTE LTD Philippines Branch  TEL +63-46-437-7700
THAILAND : ULVAC (THAILAND) LTD  TEL +66-2-7388883
INDONESIA : ULVAC SINGAPORE PTE LTD Indonesia Representative Office  TEL +62-21-8990-5070
MALAYSIA : ULVAC MALAYSIA SDN. BHD.  TEL +60-3-5121-4700
INDIA : ULVAC, Inc., India Branch  TEL +91-40-27007306

This catalog is subject to change without notice.
This catalog is published in order to sell this product in overseas. Please see Japanese catalog when purchasing in Japan.
152/2E/20140201/003P