

TMP-4304LMC

Standard Specifications

Pump Main Unit

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| Turbo molecular pump | | TMP-4304LMC |
| Inlet flange | | VG350 |
| Outlet flange | | KF40 |
| Cooling method | | Water |
| Ultimate pressure (after baking) | | 10^{-7} Pa order |
| Maximum allowable Argon gas flow rate | | 2200 mL/min (Note 1) |
| Maximum allowable inlet pressure | | 40 Pa |
| Maximum allowable outlet pressure | | 270 Pa |
| Pumping speed (Note 2) | N ₂ | 4400 L/s |
| | Ar | 4200 L/s |
| | H ₂ | 2600 L/s |
| Compression ratio | N ₂ | 1×10^9 or more |
| | He | 3×10^4 |
| | H ₂ | 2×10^3 |
| Rated speed | | 24000 rpm |
| Start-up time | | 18 minutes or less |
| Mounting position | | In any desired direction |
| Vibration level (by Shimadzu's method) | | 0.01 μ m or less (0-peak) |
| Recommended flow rate of purge gas | | 30 mL/min (Note 1) |
| Recommended pumping speed | | 1500 L/min or more |

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| of backing pump in case of gas purge | | |
| Environmental Temperatures | | 0 to 40 degrees C. |
| Admissible ambient magnetic field | Radial direction | 3 mT |
| | Axial direction | 15 mT |
| Water | Flow rate | 2 to 4 L/min |
| | Pressure | 0.2 to 0.5 MPa |
| | Temperature | 5 to 25 degrees C. |
| Mass | | 105 kg |

(Note 1)mL/min : volume flow rate at 0 degrees C., 1 atm. (compatible with SCCM.)

(Note 2)Without a protective net for VG300 flange. Pumping speed for N₂ is 4000 L/s with a protective net.

Power Supply Unit

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| Power supply unit | | EI-R04M |
| Battery | | Not Necessary |
| Exchangeable compatibility | | The control cable is interchangeable between any pump and power supply unit. |
| Speed variation | | Speed is variable between 25 % and 100 % of the rated speed. (set as 0.1 %) |
| Communication | Contact | REMOTE (MR-34) Input : START / STOP / RESET / LOW SPEED Output : ROTATION / ACC. / BRAKE / NORMAL / REMOTE / ALARM / WARNING |
| | Serial | Front panel : RS-232C (D-sub 9 pin male, Screw lock size : M2.6) Rear panel : RS-485 (D-sub 9 pin female, Screw lock size : M2.6) |
| Environmental | Temperature | Operation 0 to 45 degrees C. (No dew condensation) |

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| conditions | Relative humidity | 40 to 80 %RH |
| Input electric power | Voltage | Single phase 200 to 240 VAC \pm 10 % (50/60 Hz \pm 2 Hz) |
| | Maximum power | 1.5 kVA |
| Mass | | 8 kg |