

## TMP-X3405 Series

### Standard Specifications

Turbo molecular pump		TMP-X3405LMTC
Inlet flange		VG300 / ISO320B / VG350
Outlet flange		KF40
Cooling method		Water
Ultimate pressure (after baking)		$10^{-7}$ Pa order
Maximum allowable Argon gas flow rate (Note 1)		800 mL/min (Note 2) (Pump's set temperature : 65 degrees C.)
Maximum allowable inlet pressure (N <sub>2</sub> continuous exhaust) (Note 1)		40 Pa
Maximum allowable outlet pressure (N <sub>2</sub> continuous exhaust) (Note 1)		270 Pa
Pumping speed (Note 3)	N <sub>2</sub>	3200 L/s
	Ar	3100 L/s
	H <sub>2</sub>	2150 L/s
Compression ratio	N <sub>2</sub>	$2 \times 10^8$
	H <sub>2</sub>	$2 \times 10^3$
Rated speed		27600 rpm
Start-up time		12 minutes or less
Mounting position		In any desired direction
Vibration level (by Shimadzu's method)		0.05 $\mu$ m or less (0-peak)
Recommended pumping speed of backing vacuum pump in case of gas purge		2000 L/min or more
Display	LED	POWER / ROTATION / TEMP.CONTROL /

		ALARM
Communication	Contact	REMOTE (D-sub 25 pin female, Screw lock size UNC 4-40) Input : START / STOP / RESET / LOW SPEED Output : ROTATION / NORMAL / ACC. / BRAKE / REMOTE / TEMP.STABLE / ALARM / WARNING
	Serial	RS-232C / RS-485
Speed variation		Speed is variable between 25 % and 100 % of the rated speed (set as 0.1 %).
Water	Flow rate	3 L/min or more
	Pressure	0.2 to 0.4 MPa
	Temperature	19 to 30 degrees C. (above dew point)
Admissible ambient magnetic field	Radial direction	3 mT
	Axial direction	15 mT
Input electric power	Voltage	Single phase 200 to 240 VAC $\pm$ 10 % (50 / 60 Hz $\pm$ 2 Hz)
	Maximum power	2.1 kVA
Mass		89 kg

(Note 1) Maximum allowable flow rate, Maximum allowable inlet pressure and Maximum allowable outlet pressure can not be satisfied at same time.

(Note 2) mL/min : volume flow rate at 0 degrees C., 1 atm. (Compatible with SCCM.)

(Note 3) Without a protective net. Pumping speed for N<sub>2</sub> is 2900 L/s with a protective net.