

## TMP-3804LMC

### Standard Specifications

#### Pump Main Unit

Turbo molecular pump		TMP-3804LMC
Inlet flange		VG300 / ISO320B
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 <sub>2</sub>	3800 L/s
	Ar	3400 L/s
	H <sub>2</sub>	2500 L/s
Compression ratio	N <sub>2</sub>	$1 \times 10^9$ or more
	He	$3 \times 10^4$
	H <sub>2</sub>	$2 \times 10^3$
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 $\mu$ m or less (0-peak)
Recommended flow rate of purge gas		30 mL/min (Note 1)
Recommended pumping speed		1500 L/min or more

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		115 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 N<sub>2</sub> is 3450 L/s with a protective net.

## Power Supply Unit

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)

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