

Magnetically Levitated Turbo Molecular Pump

# TMP-03 Series

In spite of the simple and compact design, these models provide excellent pumping performance.

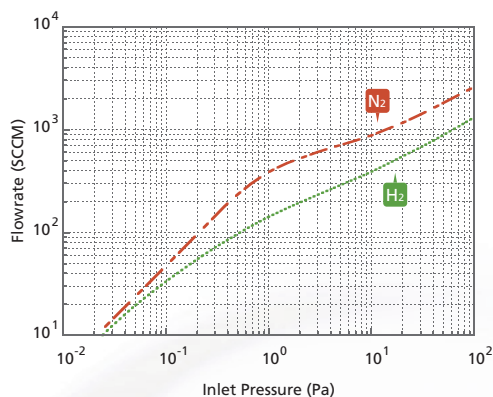
The lightweight pump and half rack sized digitally controlled power supply unit will contribute to the miniaturization of equipment at customers.



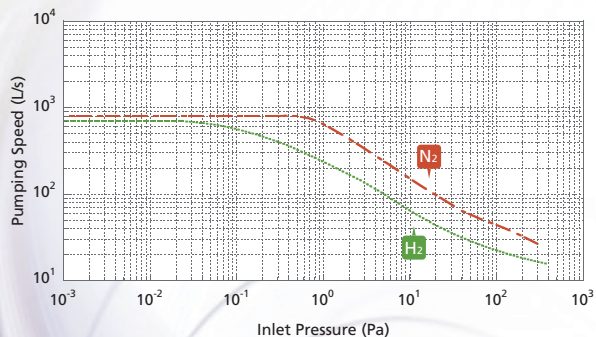
## Excellent Pumping Performance

High pumping efficiency is achieved by applying rarefied gas flow analysis and structure analysis technology.

Gas Throughput Curve (TMP-803)

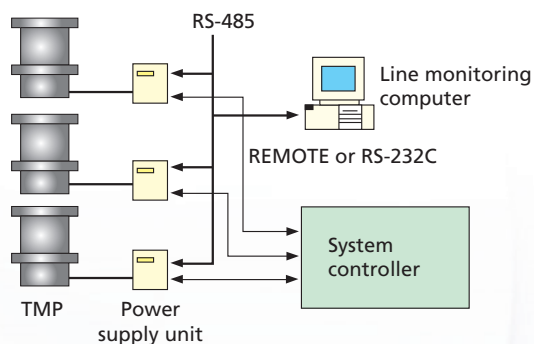


Pumping Speed Curve (TMP-803)



## Network Connection Enabled

Equipped with RS-232C and RS-485-compatible serial communication ports, which enable operations to start/stop the TMP, monitor operational status, and read out the operational log. Thanks to the optional monitor software, up to 32 TMPs can be monitored using a single computer via RS-485 communications.



## By-Product-Resistant

Thanks to the rotor coating and pump temperature control, the pump is fully protected from by-products generated by semiconductor and LCD etching process. (Please inquire for the detailed specifications.)

## Compact and Highly Functional

All the pumps in the 03 series and 04 series can be supported by two types (for small TMP and large TMP) of power supplies. In addition, they can be operated without adjustment procedures even when the combination of pumps, power supplies, and cables (3 to 30 m in length) is changed.



## TMP-03 Series

Turbomolecular Pump Model	TMP-203LM	TMP-303LM	TMP-403LM	TMP-803LM (0)	TMP-1003LM	TMP-1303LM (0)	TMP-1503LM	
Compatible Power Supply Unit	EI-S04M			EI-R04M				
Inlet Flange	VG100 ICF152 ISO100B ISO100C	VG100 ICF152 ISO100B ISO100C	VG150 ICF203 ISO160B ISO160C	VG150 ICF203 ISO160B	VG200 ICF253 ISO200B	VG200 ICF253 ISO200B	VG250 ICF305 ISO250B	
Outlet Flange	KF25			KF40				
Pumping Speed *1	N <sub>2</sub>	190 L/s	320 L/s	420 L/s	800 L/s	1080 L/s	1300 L/s	1500 L/s
	H <sub>2</sub>	120 L/s	320 L/s	340 L/s	700 L/s	790 L/s	750 L/s	800 L/s
Rated Speed	50000 rpm	45000 rpm	45000 rpm	35000 rpm	35000 rpm	30300 rpm	30300 rpm	
Ultimate Pressure (after baking)	10 <sup>-8</sup> Pa order			10 <sup>-9</sup> Pa order		10 <sup>-8</sup> Pa order		
Maximum Allowable Inlet Pressure During N <sub>2</sub> Continuous Exhaust	200 Pa			400 Pa		133 Pa		
Maximum Allowable Outlet Pressure During N <sub>2</sub> Continuous Exhaust	400 Pa			665 Pa		270 Pa		
Weight	9 kg	14 kg	14 kg	33 kg	32 kg	39 kg	42 kg	

\*1: Without a protective net.

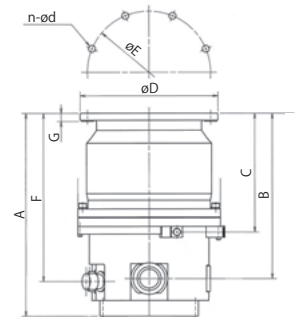
If the protective net is used, the pumping speed for N<sub>2</sub> gas will be as follows: TMP-203: 180 L/s; TMP-303: 300 L/s; TMP-403: 400 L/s; TMP-803 (0): 730 L/s; TMP-1003: 970 L/s; TMP-1303 (0): 1130 L/s; TMP-1503: 1380 L/s.

Power Supply Unit Model	EI-S04M			EI-R04M			
Compatible Pump	TMP-203LM	TMP-303LM	TMP-403LM	TMP-803LM (0)	TMP-1003LM	TMP-1303LM (0)	TMP-1503LM
Input Power Supply	Voltage	Single phase 100 to 120 V AC ±10 % (50/60 Hz ±2 Hz)			Single phase 200 to 240 V AC ±10 % (50/60 Hz ±2 Hz)		
	Maximum Power	450 VA	550 VA		1.0 kVA		
Weight	8 kg			8 kg			

## External Appearance

Units: mm

Model	Inlet Flange	A	B	C	øD	øE	n-ød	G
TMP-203LM	ICF152	252	154	192	ø152	ø130.3	16-ø8.4	20
	VG100	238	140	178	ø185	ø160	8-ø12	12
	ISO100B	238	140	178	ø165	ø145	8-ø9	12
	ISO100C	238	140	178	ø130	-	-	12
TMP-303LM	ICF152	279	204	231	ø152	ø130.3	16-ø8.4	20
	VG100	272	197	224	ø185	ø160	8-ø12	12
	ISO100B	279	204	231	ø165	ø145	8-ø9	12
	ISO100C	279	204	231	ø130	-	-	12
TMP-403LM	ICF203	238	163	190	ø203	ø181	20-ø8.4	22
	VG150	235	160	187	ø235	ø210	8-ø12	12
	ISO160B	241	166	193	ø225	ø200	8-ø11	16
	ISO160C	241	166	193	ø180	-	-	12
TMP-803LM (0)	ICF203	356	291	211	ø203	ø181	20-ø8.4	22
	VG150	350	285	205	ø235	ø210	8-ø11	13.6
	ISO160B	355	290	210	ø225	ø200	8-ø11	17.6
TMP-1003LM	ICF253	315	250	170	ø253	ø231.8	24-ø8.4	25
	VG200	315	250	170	ø300	ø270	8-ø15	16
TMP-1303LM (0)	ISO200B	307	242	162	ø285	ø260	12-ø11	16
	ICF253	347	290	318	ø253	ø231.8	24-ø8.4	25
TMP-1503LM	VG200	307	250	278	ø300	ø270	8-ø13	20.5
	ISO200B	312	255	283	ø285	ø260	12-ø11	17.6
TMP-1503LM	ICF305	296	239	267	ø305	ø284	32-ø8.4	28
	VG250	296	239	267	ø350	ø320	12-ø15	20
	ISO250B	304	247	275	ø335	ø310	12-ø11	17.6



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