



LINEAR MOTOR LMU020



This series of linear motor is well suited for applications that require precision positioning, high speed, quick acceleration such as Semiconductor manufacturing equipment. It is also able to be utilized in limited work spaces. It is the most appropriate linear motor design for the reduction of manufacturing equipment size.

Standard Specifications

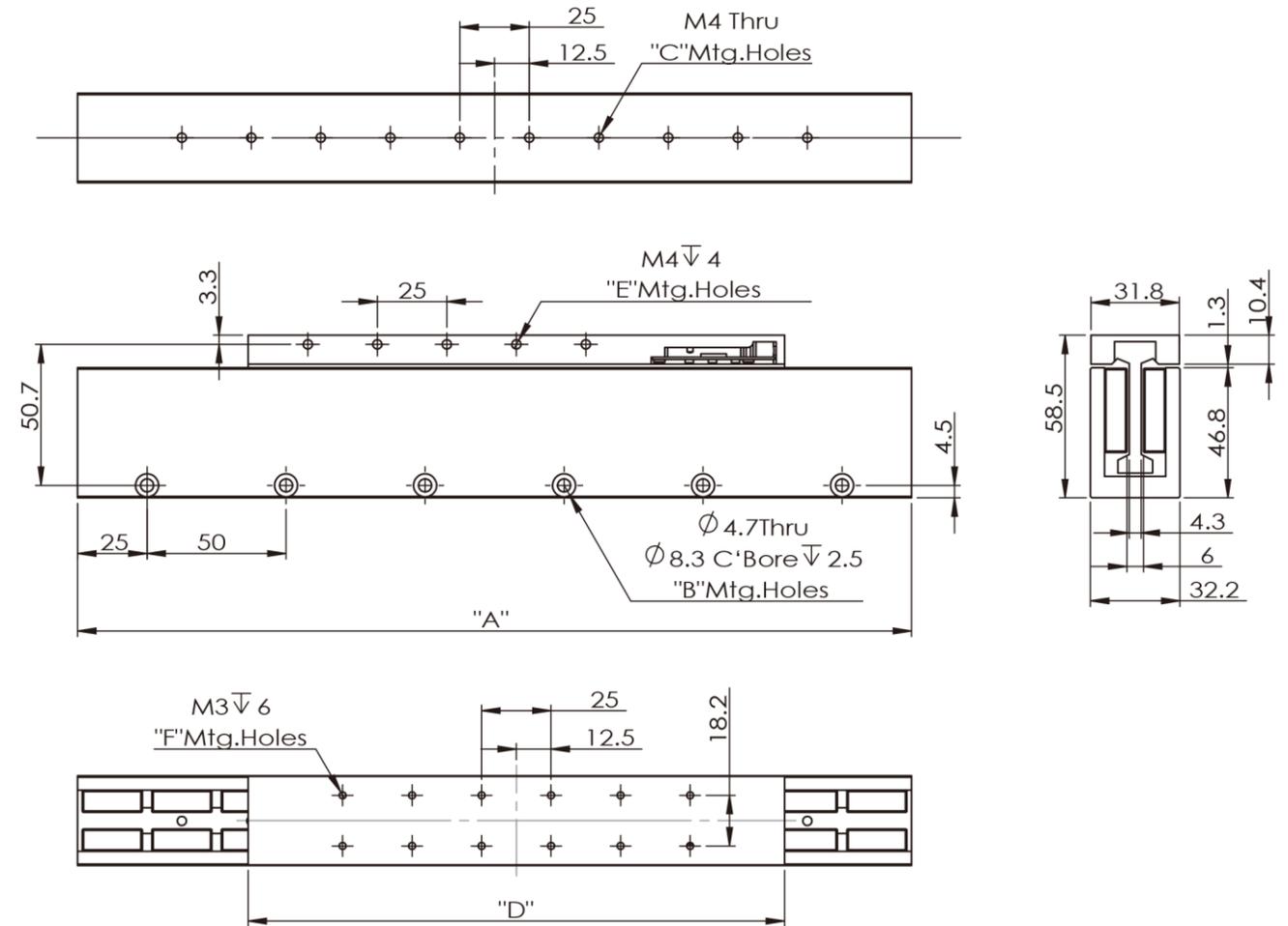
Insulation Capacity	: AC1500V 1min
Operating Range	: 0~25°C
Cooling Method	: Self-cool
Insulation Resistance	: DC500V 100MΩ or more
Operating range (in controlled environment)	: 20~80%(No condensation)
Maximum temperature	: 125°C

Specification

Parameter	Unit	LMU020-CP93	LMU020-CP143	LMU020-CP193	LMU020-CP268
Performance Specifications					
Continuous Force	N	55	85	110	135
Peak Force	N	385	595	770	945
Electrical Specifications					
BEMF Constant(line-line,peak)	V/(m/s)	12.76	21.28	29.79	42.55
Continuous Current	Arms	3.50	3.25	3.00	2.58
Peak Current,Stall	Arms	24.52	22.74	21.02	18.06
Force Constant	N/Arms	15.7	26.17	36.64	52.34
Motor Constant	N/√W	5.66	8.20	10.29	11.52
Resistance,25°C (line-line)	Ω	2.89	4.82	6.75	9.65
Inductance,(line-line)	mH	0.83	1.33	1.9	3.4
Thermal Resistance	°C/W	1.62	1.12	0.93	0.87
Maximum Bus Voltage	V _{DC}	340	340	340	340
Machanical Specifications					
Coil Weight	kg	0.16	0.26	0.34	0.52
Coil Length	mm	93	143	193	268
Magnet Track Weight	kg/m	6.59			
Magnetic Pole Pitch (NN)	mm	50			

- Notes:
1. Performance is dependent upon heat sink configuration, system cooling conditions, and ambient temperature.
 2. Values shown @ 100°C rise above a 25°C ambient temperature, with motor mounted to the specified aluminum heat sink.
 3. Peak force assumes correct rms current; consult SMJ.
 4. Force constant and motor constant specified at stall.
 5. All performance and electrical specifications ±10%.

Dimensions(mm)



Magnet Plate

Model No.	A	B	C
LMU020-MP150	150	3	4
LMU020-MP300	300	6	10

Coil Plate

Model No.	D	E	F
LMU020-CP93	93	5	4
LMU020-CP143	143	8	8
LMU020-CP193	193	12	12
LMU020-CP268	268	17	20