

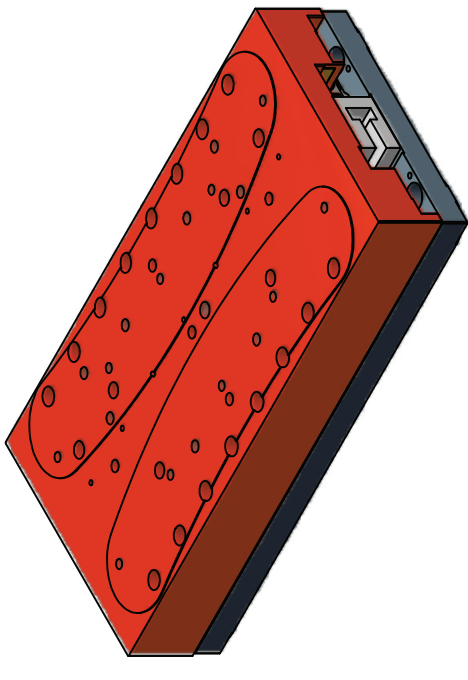


# ALIO STAGE AND MOTOR SPECIFICATIONS

MODEL	UNITS	AI-LM-5000	AI-LM-10000	AI-LM-15000	AI-LM-20000	AI-LM-25000	AI-LM-30000
TRAVEL	mm	50	100	150	200	250	300
MAX VELOCITY	m/s	0.7	0.7	0.7	1.0	1.0	1.0
MAX ACCELERATION	G	1.0	1.0	1.0	1.0	0.7	0.7
ASSEMBLY MASS	kg	2.2	4.0	4.4	7.8	9.4	15.2
MOVING MASS	kg	1.4	2.4	2.7	4.8	5.6	9
<b>MOTOR INFORMATION</b>							
MOTOR TYPE	--	LINEAR BRUSHLESS					
MOTOR MODEL	--	P12-1	P12-2	P12-2	P16-2	P16-2	P16-3
MAGNETIC PITCH (N-N)	mm	30.48	30.48	30.48	30.48	30.48	30.48
MAX VOLTAGE (LINE TO LINE) [1]	V	500	500	500	500	500	500
ELECTRICAL TIME CONSTANT	msec	0.19	0.19	0.19	0.20	0.20	0.20
MAX MOTOR TEMP	°C	130	130	130	130	130	130
<b>DELTA CONNECTION</b>							
FORCE CONSTANT	N/Apk	8.1	16.3	16.3	28.7	28.7	43.0
PHASE RESISTANCE (@25°C) [2]	Ohm	5.8	11.6	11.6	11.7	11.7	17.6
PHASE RESISTANCE (@130°C) [2]	Ohm	8.2	16.4	16.4	16.6	16.6	24.9
INDUCTANCE	mH	1.1	2.1	2.1	2.3	2.3	3.5
CONTINUOUS FORCE [3]	N	23	47	47	93	93	140
CONTINUOUS CURRENT [3]	Apk	2.9	2.9	2.9	3.2	3.2	3.2
PEAK FORCE [4]	N	75	151	151	295	295	442
PEAK CURRENT [4]	Apk	9.2	9.2	9.2	10.3	10.3	10.3
BACKEMF CONSTANT	V/m/s	8.1	16.3	16.3	28.7	28.7	43.0
<b>WYE CONNECTION</b>							
FORCE CONSTANT	N/Apk	14.1	28.2	28.2	49.7	49.7	74.5
PHASE RESISTANCE (@25°C) [2]	Ohm	17.4	34.7	34.7	35.2	35.2	52.8
PHASE RESISTANCE (@130°C) [2]	Ohm	24.6	49.1	49.1	49.8	49.8	74.7
INDUCTANCE	mH	3.2	6.4	6.4	7.0	7.0	10.6
CONTINUOUS FORCE [3]	N	23	47	47	93	93	140
CONTINUOUS CURRENT [3]	Apk	1.7	1.7	1.7	1.9	1.9	1.9
PEAK FORCE [4]	N	75	151	151	295	295	442
PEAK CURRENT [4]	Apk	5.4	5.4	5.4	5.9	5.9	5.9
BACKEMF CONSTANT	V/m/s	14.1	28.2	28.2	49.7	49.7	74.5

**Notes:**

1. Back EMF plus IR drop must not exceed maximum line to line voltage.
2. Resistance values do not include cable resistance. Cable resistance adds 0.146 ohm/m for Delta connection and 0.44 ohm/m for Wye Connection.
3. Continuous operating limits are based on continuous operation at maximum temperature with aluminum heat sink (300mm x 12.5mm x motor length).
4. Maximum on time at peak operating limits is 10 seconds.
5. All specifications may vary by 12% from listed values.
6. Additional motor options are available for optimized performance as necessary per customer requirements.



A

DRAWN  
NBROWN  
CHECKED



TITLE

**AI-LM-(TRAVEL)00**

SIZE

B

DWG NO

**0010-08002**

REV

001

SCALE

SEE NOTES

FINISH

ALIO STD TEMPLATE - REV 006

SHEET

1

OF

1

B

2

3

4

1

2

3

4