

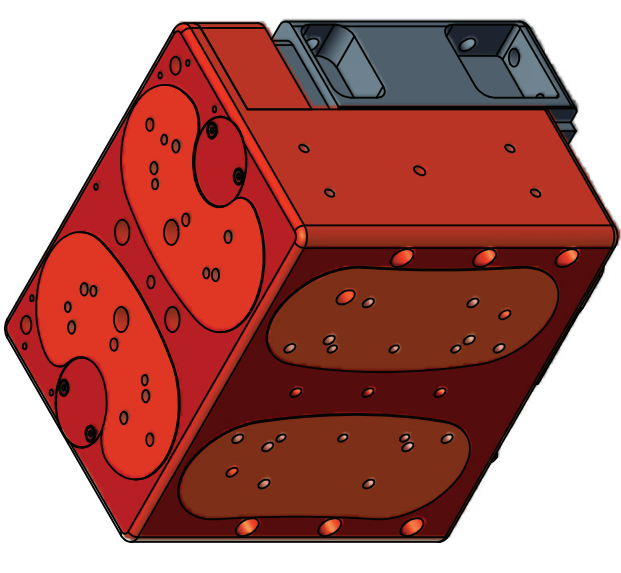


ALIO STAGE AND MOTOR SPECIFICATIONS

MODEL	UNITS	AI-VC-2400-120N-Z-CB	AI-LLM-6000-50N-Z-CB
TRAVEL [7]	mm	24	60
MAX VELOCITY	m/s	0.5	0.5
MAX ACCELERATION	G	1.0	1.0
ASSEMBLY MASS	kg	8.0	12.3
MOVING MASS	kg	4.0	7.3
MAX PAYLOAD [8]	kg	16	20
COUNTERBALANCE PRESSURE [9]	psi	75	100
MOTOR INFORMATION			
MOTOR TYPE	--	VOICE COIL	LINEAR BRUSHLESS
MOTOR MODEL	--	VC30-43	P20-1
MAGNETIC PITCH (N-N)	mm	--	60.96
MAX VOLTAGE (LINE TO LINE) [1]	V	33	500
ELECTRICAL TIME CONSTANT	msec	1.1	0.3
MAX MOTOR TEMP	°C	155	130
DELTA CONNECTION [5]			
FORCE CONSTANT	N/Apk	35.1	18.3
PHASE RESISTANCE (@25° C) [2]	Ohm	2.6	3.9
PHASE RESISTANCE (@130° C) [2]	Ohm	--	5.5
INDUCTANCE	mH	2.9	1.2
CONTINUOUS FORCE [3,10]	N	120	50
CONTINUOUS CURRENT [3]	Apk	3.4	2.7
PEAK FORCE [4,10]	N	445	223
PEAK CURRENT [4]	Apk	12.7	12.2
BACKEMF CONSTANT	V/m/s	35.1	18.3
WYE CONNECTION [5]			
FORCE CONSTANT	N/Apk	--	31.7
PHASE RESISTANCE (@25° C) [2]	Ohm	--	11.6
PHASE RESISTANCE (@130° C) [2]	Ohm	--	16.5
INDUCTANCE	mH	--	3.6
CONTINUOUS FORCE [3]	N	--	71
CONTINUOUS CURRENT [3]	Apk	--	2.2
PEAK FORCE [4]	N	--	223
PEAK CURRENT [4]	Apk	--	7.1
BACKEMF CONSTANT	V/m/s	--	31.7

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 0.66 ohm/m for Delta connection and 0.99 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. Delta connection option applies only to linear brushless motor.
6. All specifications may vary by 12% from listed values.
7. Travel listed is travel between hard stops.
8. Higher payload options available upon special request.
9. Pneumatic counterbalance supply pressure listed is the estimated pressure required at the max payload.
10. Voice coil peak and continuous forces are reduced by 25% at the ends of travel.



DRAWN
NBROWN
5/12/2012
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TITLE

**AI-(MOTOR)-(TRAVEL)00-
(FORCE)-Z-CB**

Tolerances: Surface Roughness:
x.x ± .05 in [1.3 mm]
x.xx ± .01 in [0.25 mm]
x.xxx ± .005 in [0.13 mm]
Angles ± 0.5°
RMS MAX. ✓

MATERIAL

FINISH
SEE NOTES

SIZE
B

DWG NO
0010-08005

SCALE

ALIO STD TEMPLATE - REV 006

SHEET 1 OF 1

REV
001

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