

ELECTRO-MECHANICAL ACTUATORS

ACTUATOR MODEL	SIGNAL PROCESSOR	RATIO	STALL THRUST (LBS)	THRUST FACTOR NOTE 5	DESIGN THRUST (LBS)	MAX LOAD @ 0.06 (LBS) NOTE 1	MAX LOAD @ 0.1 (LBS) NOTE 2	MAX LOAD @ 0.25 (LBS) NOTE 1	MAX MOTOR RPM	MAX ACTUATOR SPEED (IN/SEC)	MAX LINE SPEED (FT/MIN) NOTE 7	MAX STROKE (INCH)
LA-9	CDP, DP-20/30, D-MAX	1.00	43	0.58	25	416	249	100	600	0.98	1500	2.75
GAB-1-2	CDP, DP-20/30, D-MAX	2.40	132	0.72	95	1589	953	381	1400	1.94	4500	18
GAB-1/DAB-1	CDP, DP-20/30, D-MAX	3.00	165	0.72	119	1986	1191	477	1400	1.56	3300	18
GAG-2/DLAB-3	CDP, DP-20/30, D-MAX	6.00	331	0.61	202	3365	2019	808	1400	0.78	900	18
GAG-3/DAG-3	CDP, DP-30, D-MAX	6.00	497	0.61	303	5054	3033	1213	1560	0.87	1200	18
GMA-1-3 / GMA-D1-3	CDP, DP-20/30, D-MAX	3.00	166	0.72	119	1991	1195	478	1400	1.53	3200	12
GMA-1-6 / GMA-D1-6	CDP, DP-20/30, D-MAX	6.00	332	0.69	229	3817	2290	916	1400	0.77	900	12
GMA-1-8 / GMA-D1-8	CDP, DP-20/30, D-MAX	7.71	426	0.69	294	4905	2943	1177	1400	0.60	570	12
GMA-3-3 / GMA-D3-3	CDP, DP-30, D-MAX	3.00	249	0.72	179	2991	1795	718	1560	1.71	4000	12
GMA-3-6 / GMA-D3-6	CDP, DP-30, D-MAX	6.00	499	0.69	344	5734	3440	1376	1560	0.85	1100	12
GMA-3-8 / GMA-D3-8	CDP, DP-30, D-MAX	7.71	641	0.69	442	7368	4421	1768	1560	0.66	700	12
LAB-10-5	CDP, DP-30, D-MAX	5.06	541	0.69	373	6225	3735	1494	1450	0.96	1400	10
LAB-10-7	CDP, DP-30, D-MAX	7.04	753	0.69	520	8660	5196	2078	1450	0.69	750	10
LAB-10-9	CDP, DP-30, D-MAX	9.00	963	0.69	664	11072	6643	2657	1450	0.54	500	10
LAG-10-6	CDP, DP-30, D-MAX	6.00	511	0.58	296	4935	2961	1184	1450	1.01	1500	18
LAG-10-8	CDP, DP-30, D-MAX	7.58	645	0.58	374	6235	3741	1496	1450	0.80	1000	18
LAG-10-10	CDP, DP-30, D-MAX	9.80	834	0.58	484	8061	4837	1935	1450	0.62	600	18
LAG-10-13	CDP, DP-30, D-MAX	13.12	1116	0.58	648	10792	6475	2590	1450	0.46	350	18
AG-11-6	D-MAX 2/VTB-60	6.00	1505	0.61	918	15305	9183	3673	1800	1.25	2500	18
AG-11-8	D-MAX 2/VTB-60	7.58	1902	0.61	1160	19336	11602	4641	1800	0.99	1500	18
AG-11-10	D-MAX 2/VTB-60	9.80	2459	0.61	1500	24999	14999	6000	1800	0.77	900	18
AG-11-13	D-MAX 2/VTB-60	13.12	3292	0.61	2008	33468	20081	8032	1800	0.57	550	18
AB-12-7	D-MAX 2/VTB-60	7.25	1819	0.66	1201	20010	12006	4802	1800	1.03	1600	16
AB-12-9	D-MAX 2/VTB-60	8.70	2183	0.66	1441	24012	14407	5763	1800	0.86	1200	16
AB-12-11	D-MAX 2/VTB-60	10.87	2727	0.66	1800	30001	18001	7200	1800	0.69	750	16
AB-12-13	D-MAX 2/VTB-60	13.06	3277	0.66	2163	36049	21629	8652	1800	0.57	550	16

**TABLE 1
ELECTRO-MECHANICAL ACTUATOR SELECTION USING ENGLISH UNITS**

ACTUATOR MOUNTING TYPES	
A	CLEVIS
B	SPERICAL ROD END BRG
C	KLB KANTIROLLER
D	KA-4 KANTIROLLER
E	KLB KAMBEROLLER & LRB
F	KA KAMBEROLLER
G	KCA,KHA,KWA,KWB,KHWA
H	KHS,KXS,KXWA,KXWB,KYWA
J	RECTANGLE, KYD,KYE,KXT
KLB	GMA: KLB KANTIROLLER, KLB KAMBEROLLER, LRB
KR	GMA: KA KANTIROLLER, KA, KCA, KHA KAMBEROLLER
Z	SPECIAL
AP	AIR PURGED

NOTES

1. THE STANDARD COEFFICIENT OF FRICTION IS 0.06 FOR ROLLING BEARINGS AND 0.25 FOR SLIDING.
2. ROLLING COEFFICIENT OF FRICTION OF 0.1 CAN BE USED FOR IMPROVED PERFORMANCE AND LIFE.
3. THE LAB-10 IS NOT AS HEAVY DUTY AS THE LAG-10.
4. MAXIMUM ACTUATOR TEMPERATURE IS 125°F. (SEE NOTE 6 FOR D-MAX ACTUATORS).
5. THRUST FACTOR BASED ON BELT DRIVE VERSUS GEAR DRIVE, NUMBER OF BELTS OR GEARS AND SIZE.
6. ACTUATORS WITH "D" IN THE MODEL NUMBER **ONLY** WORK WITH THE D-MAX CONTROLLERS. THESE ACTUATORS ARE RATED IP-54 AND CAN WITHSTAND 140° F.
7. WHEN GUIDING EDGE TRIMMED OR PREVIOUSLY GUIDED ROLLS, USE 2X MAXIMUM LINE SPEED.

ELECTRO-MECHANICAL ACTUATORS

ACTUATOR MODEL	SIGNAL PROCESSOR	RATIO	STALL THRUST (N)	THRUST FACTOR NOTE 5	DESIGN THRUST (N)	MAX LOAD @ 0.06 (KG) NOTE 1	MAX LOAD @ 0.1 (KG) NOTE 2	MAX LOAD @ 0.25 (KG) NOTE 1	MAX MOTOR RPM	MAX ACTUATOR SPEED (MM/SEC)	MAX LINE SPEED (M/MIN) NOTE 7	MAX STROKE (MM)
LA-9	CDP, DP-20/30, D-MAX	1.00	190	0.58	110	187	112	45	600	25.00	460	70
GAB-1-2	CDP, DP-20/30, D-MAX	2.40	589	0.72	424	721	432	173	1400	49.4	1370	457
GAB-1/DAB-1	CDP, DP-20/30, D-MAX	3.00	736	0.72	530	901	541	216	1400	39.5	1005	457
GAG-2/DLAB-3	CDP, DP-20/30, D-MAX	6.00	1472	0.61	898	1526	916	366	1400	19.8	275	457
GAG-3/DAG-3	CDP, DP-30, D-MAX	6.00	2211	0.61	1349	2293	1376	550	1560	22.0	365	457
GMA-1-3 / GMA-D1-3	CDP, DP-20/30, D-MAX	3.00	738	0.72	531	903	542	217	1400	38.9	975	305
GMA-1-6 / GMA-D1-6	CDP, DP-20/30, D-MAX	6.00	1476	0.69	1019	1732	1039	416	1400	19.4	274	305
GMA-1-8 / GMA-D1-8	CDP, DP-20/30, D-MAX	7.71	1897	0.69	1309	2225	1335	534	1400	15.1	174	305
GMA-3-3 / GMA-D3-3	CDP, DP-30, D-MAX	3.00	1109	0.72	798	1357	814	326	1560	43.3	1219	305
GMA-3-6 / GMA-D3-6	CDP, DP-30, D-MAX	6.00	2218	0.69	1530	2601	1561	624	1560	21.7	335	305
GMA-3-8 / GMA-D3-8	CDP, DP-30, D-MAX	7.71	2850	0.69	1966	3343	2006	802	1560	16.9	213	305
LAB-10-5	CDP, DP-30, D-MAX	5.06	2408	0.69	1661	2824	1694	678	1450	24.3	425	254
LAB-10-7	CDP, DP-30, D-MAX	7.04	3350	0.69	2311	3929	2358	943	1450	17.4	230	254
LAB-10-9	CDP, DP-30, D-MAX	9.00	4282	0.69	2955	5023	3014	1206	1450	13.6	150	254
LAG-10-6	CDP, DP-30, D-MAX	6.00	2271	0.58	1317	2239	1343	537	1450	25.6	460	457
LAG-10-8	CDP, DP-30, D-MAX	7.58	2869	0.58	1664	2829	1697	679	1450	20.2	305	457
LAG-10-10	CDP, DP-30, D-MAX	9.80	3709	0.58	2151	3657	2194	878	1450	15.7	185	457
LAG-10-13	CDP, DP-30, D-MAX	13.12	4966	0.58	2880	4896	2938	1175	1450	11.7	105	457
AG-11-6	D-MAX 2/VTB-60	6.00	6696	0.61	4085	6944	4166	1667	1800	31.8	760	457
AG-11-8	D-MAX 2/VTB-60	7.58	8460	0.61	5160	8773	5264	2105	1800	25.1	460	457
AG-11-10	D-MAX 2/VTB-60	9.80	10937	0.61	6672	11342	6805	2722	1800	19.4	275	457
AG-11-13	D-MAX 2/VTB-60	13.12	14642	0.61	8932	15184	9111	3644	1800	14.5	170	457
AB-12-7	D-MAX 2/VTB-60	7.25	8091	0.66	5340	9078	5447	2179	1800	26.3	490	406
AB-12-9	D-MAX 2/VTB-60	8.70	9710	0.66	6408	10894	6536	2615	1800	21.9	365	406
AB-12-11	D-MAX 2/VTB-60	10.87	12131	0.66	8007	13611	8167	3267	1800	17.5	230	406
AB-12-13	D-MAX 2/VTB-60	13.06	14576	0.66	9620	16354	9812	3925	1800	14.6	170	406

**TABLE 2
ELECTRO-MECHANICAL ACTUATOR SELECTION USING METRIC UNITS**

ACTUATOR MOUNTING TYPES	
A	CLEVIS
B	SPERICAL ROD END BRG
C	KLB KANTIROLLER
D	KA-4 KANTIROLLER
E	KLB KAMBEROLLER & LRB
F	KA KAMBEROLLER
G	KCA,KHA,KWA,KWB,KHWA
H	KHS,KXS,KXWA,KXWB,KYWA
J	RECTANGLE, KYD,KYE,KXT
KLB	GMA: KLB KANTIROLLER, KLB KAMBEROLLER, LRB
KR	GMA: KA KANTIROLLER, KA, KCA, KHA KAMBEROLLER
Z	SPECIAL
AP	AIR PURGED

NOTES

1. THE STANDARD COEFFICIENT OF FRICTION IS 0.06 FOR ROLLING BEARINGS AND 0.25 FOR SLIDING.
2. ROLLING COEFFICIENT OF FRICTION OF 0.1 CAN BE USED FOR IMPROVED PERFORMANCE AND LIFE.
3. THE LAB-10 IS NOT AS HEAVY DUTY AS THE LAG-10.
4. MAXIMUM ACTUATOR TEMPERATURE IS 52°C. (SEE NOTE 6 FOR D-MAX ACTUATORS).
5. THRUST FACTOR BASED ON BELT DRIVE VERSUS GEAR DRIVE, NUMBER OF BELTS OR GEARS AND SIZE.
6. ACTUATORS WITH "D" IN THE MODEL NUMBER **ONLY** WORK WITH THE D-MAX CONTROLLERS. THESE ACTUATORS ARE RATED IP-54 AND CAN WITHSTAND 60° C.
7. WHEN GUIDING EDGE TRIMMED OR PREVIOUSLY GUIDED ROLLS, USE 2X MAXIMUM LINE SPEED.