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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 COEFFICENT 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 COEFFICENT 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.