

3.1 ACME SCREW LINEAR ACTUATOR **ATL 10**

Compact acme screw linear actuator with integral electric motor suitable for push and pull motions.

- Electric AC 1-phase, 3-phase or DC motors, available with or without brake.
- Internal safety clutch (FS), available on request, to prevent damage caused by dynamic overloads.
- The dimensional drawings in this catalogue show the standard motor mounting position on the right side. On request the motor can be mounted on the left side, at 180° with respect to the standard position.
- Rear fixing attachment can be also supplied mounted at 90° with respect to the motor axis.

ACCESSORIES	Electric stroke limit device FCE	Magnetic stroke limit device FCM
	Rear bracket SP	Wide range of front attachments

PERFORMANCE with: Duty Cycle Fi = 30 % over 10 min. at 25 °C environment

Max. static loads admitted: pull load 3000 N - push load 4000 N.

The linear speeds and dynamic loads stated below are performances achievable both at the same time during a working condition.

PERFORMANCE WITH AC 3-PHASE MOTOR

LINEAR SPEED [mm/s]	DYNAMIC LOAD [N]		RATIO	SELF-LOCKING COEFFICIENT
	AC MOTOR 0.06 kW	AC BRAKE-MOTOR 0.09 kW		
93	390	580	RH2	0.40
60	590	880	RV2	0.41
35	730	1100	RH1	0.25
30	1000	1550	RN2	0.35
22	1050	1600	RV1	0.25
15	1750	2650	RL2	0.27
11	1850	2800	RN1	0.22
7.5	2800	3000	RXL2	0.18
5.5	3000	3000	RL1	0.16
2.8	3000	3000	RXL1	0.11

PERFORMANCE WITH AC 1-PHASE MOTOR

LINEAR SPEED [mm/s]	DYNAMIC LOAD [N]	RATIO	SELF-LOCKING COEFFICIENT
90	580	RH2	0.40
58	880	RV2	0.41
35	1100	RH1	0.25
28	1550	RN2	0.35
21	1600	RV1	0.25
14	2650	RL2	0.27
11	2800	RN1	0.22
7	3000	RXL2	0.18
5	3000	RL1	0.16
2.5	3000	RXL1	0.11

PERFORMANCE WITH DC MOTOR 24 V or 12 V

LINEAR SPEED [mm/s]	DYNAMIC LOAD [N]	RATIO	SELF-LOCKING COEFFICIENT	RUNNING CURRENT [A]	
				24 V	12 V
100	430	RH2	0.40	7	14
64	650	RV2	0.41	6.5	13
37	800	RH1	0.25	6	12
32	1150	RN2	0.35	6	12
24	1200	RV1	0.25	6	12
16	1950	RL2	0.27	5.5	11
12	2000	RN1	0.22	5.5	11
8	3000	RXL2	0.18	4.5	9
6	3000	RL1	0.16	4.5	9
3	3000	RXL1	0.11	2.5	5

3.2 ACME SCREW LINEAR ACTUATORS Series ATL with AC 3-PHASE MOTORS
PERFORMANCE with: Duty Cycle Fi = 30 % over 10 min. at 25 °C environment

ATL 20				
LINEAR SPEED [mm/s]	DYNAMIC LOAD [N]	RATIO	MOTOR POWER [kW] NUMBER OF POLES SPEED [rpm]	SELF-LOCKING COEFFICIENT
93	600	RH2	0.12 kW 2 poles 2800	0.40
60	1000	RV2	0.12 kW 2 poles 2800	0.41
46	850	RH2	0.09 kW 4 poles 1400	0.40
35	1100	RH1	0.12 kW 2 poles 2800	0.25
30	1750	RN2	0.12 kW 2 poles 2800	0.35
22	1500	RV1	0.12 kW 2 poles 2800	0.25
15	3000	RL2	0.12 kW 2 poles 2800	0.27
11	4000	RN1	0.12 kW 2 poles 2800	0.22
7.5	4000	RL2	0.09 kW 4 poles 1400	0.27
5.5	4000	RL1	0.12 kW 2 poles 2800	0.16
2.8	4000	RL1	0.09 kW 4 poles 1400	0.16
1.4	4000	RXL1	0.09 kW 4 poles 1400	0.11

ATL 25				
LINEAR SPEED [mm/s]	DYNAMIC LOAD [N]	RATIO	MOTOR POWER [kW] NUMBER OF POLES SPEED [rpm]	SELF-LOCKING COEFFICIENT
93	830	RH2	0.12 kW 2 poles 2800	0.38
60	1250	RV2	0.12 kW 2 poles 2800	0.38
46	1300	RH1	0.12 kW 2 poles 2800	0.27
30	2200	RN2	0.12 kW 2 poles 2800	0.33
23	1650	RH1	0.09 kW 4 poles 1400	0.27
15	3750	RL2	0.12 kW 2 poles 2800	0.25
7.5	5550	RL1	0.12 kW 2 poles 2800	0.18
3.5	6000	RL1	0.09 kW 4 poles 1400	0.18
1.9	6000	RXL1	0.09 kW 4 poles 1400	0.12

ATL 30				
LINEAR SPEED [mm/s]	DYNAMIC LOAD [N]	RATIO	MOTOR POWER [kW] NUMBER OF POLES SPEED [rpm]	SELF-LOCKING COEFFICIENT
93	1650	RV2	0.25 kW 2 poles 2800	0.37
46	2550	RV1	0.25 kW 2 poles 2800	0.25
23	5200	RN2	0.25 kW 2 poles 2800	0.28
15	6850	RL2	0.25 kW 2 poles 2800	0.22
11	7500	RN1	0.25 kW 2 poles 2800	0.20
7.5	10000	RL1	0.25 kW 2 poles 2800	0.16
5.5	9500	RN1	0.18 kW 4 poles 1400	0.20
4	10000	RL1	0.18 kW 4 poles 1400	0.16

ATL 40				
LINEAR SPEED [mm/s]	DYNAMIC LOAD [N]	RATIO	MOTOR POWER [kW] NUMBER OF POLES SPEED [rpm]	SELF-LOCKING COEFFICIENT
93	3500	RV2	0.55 kW 2 poles 2800	0.37
46	5400	RV1	0.55 kW 2 poles 2800	0.26
23	10500	RN2	0.55 kW 2 poles 2800	0.25
18	12000	RL2	0.55 kW 2 poles 2800	0.24
11	12000	RN1	0.55 kW 2 poles 2800	0.18
9	12000	RL2	0.37 kW 4 poles 1400	0.24
5.5	12000	RN1	0.37 kW 4 poles 1400	0.18
4.5	12000	RL1	0.37 kW 4 poles 1400	0.17

3.2 ACME SCREW LINEAR ACTUATORS Series ATL with AC 1-PHASE MOTORS
PERFORMANCE with: Duty Cycle Fi = 30 % over 10 min. at 25 °C environment

ATL 20				
LINEAR SPEED [mm/s]	DYNAMIC LOAD [N]	RATIO	MOTOR POWER [kW] NUMBER OF POLES SPEED [rpm]	SELF-LOCKING COEFFICIENT
93	600	RH2	0.12 kW 2 poles 2800	0.40
60	1000	RV2	0.12 kW 2 poles 2800	0.41
46	850	RH2	0.09 kW 4 poles 1400	0.40
35	1100	RH1	0.12 kW 2 poles 2800	0.25
30	1750	RN2	0.12 kW 2 poles 2800	0.35
22	1500	RV1	0.12 kW 2 poles 2800	0.25
15	2500	RL2	0.12 kW 2 poles 2800	0.27
11	3750	RN1	0.12 kW 2 poles 2800	0.22
7.5	4000	RL2	0.09 kW 4 poles 1400	0.27
5.5	4000	RL1	0.12 kW 2 poles 2800	0.16
2.8	4000	RL1	0.09 kW 4 poles 1400	0.16
1.4	4000	RXL1	0.09 kW 4 poles 1400	0.11

ATL 25				
LINEAR SPEED [mm/s]	DYNAMIC LOAD [N]	RATIO	MOTOR POWER [kW] NUMBER OF POLES SPEED [rpm]	SELF-LOCKING COEFFICIENT
93	770	RH2	0.12 kW 2 poles 2800	0.38
60	1100	RV2	0.12 kW 2 poles 2800	0.38
46	1200	RH1	0.12 kW 2 poles 2800	0.27
28	2050	RN2	0.12 kW 2 poles 2800	0.33
23	1600	RH1	0.09 kW 4 poles 1400	0.27
14	3450	RL2	0.12 kW 2 poles 2800	0.25
7	5100	RL1	0.12 kW 2 poles 2800	0.18
3.5	6000	RL1	0.09 kW 4 poles 1400	0.18
1.9	6000	RXL1	0.09 kW 4 poles 1400	0.12

ATL 30				
LINEAR SPEED [mm/s]	DYNAMIC LOAD [N]	RATIO	MOTOR POWER [kW] NUMBER OF POLES SPEED [rpm]	SELF-LOCKING COEFFICIENT
93	1500	RV2	0.25 kW 2 poles 2800	0.37
46	2350	RV1	0.25 kW 2 poles 2800	0.25
23	4800	RN2	0.25 kW 2 poles 2800	0.28
15	6300	RL2	0.25 kW 2 poles 2800	0.22
11	6950	RN1	0.25 kW 2 poles 2800	0.20
7.5	9200	RL1	0.25 kW 2 poles 2800	0.16
5.5	9500	RN1	0.18 kW 4 poles 1400	0.20
4	10000	RL1	0.18 kW 4 poles 1400	0.16

ATL 40				
LINEAR SPEED [mm/s]	DYNAMIC LOAD [N]	RATIO	MOTOR POWER [kW] NUMBER OF POLES SPEED [rpm]	SELF-LOCKING COEFFICIENT
93	3400	RV2	0.55 kW 2 poles 2800	0.37
46	5400	RV1	0.55 kW 2 poles 2800	0.26
23	10000	RN2	0.55 kW 2 poles 2800	0.25
18	12000	RL2	0.55 kW 2 poles 2800	0.24
11	12000	RN1	0.55 kW 2 poles 2800	0.18
9	12000	RL2	0.37 kW 4 poles 1400	0.24
5.5	12000	RN1	0.37 kW 4 poles 1400	0.18
4.5	12000	RL1	0.37 kW 4 poles 1400	0.17

3.2 ACME SCREW LINEAR ACTUATORS Series ATL with DC MOTORS
PERFORMANCE with: Duty Cycle Fi = 30 % over 10 min. at 25 °C environment

ATL 20 with DC motor 24 V 5.5 A 100 W 3000 rpm				
LINEAR SPEED [mm/s]	DYNAMIC LOAD [N]	RATIO	RUNNING CURRENT [A]	SELF-LOCKING COEFFICIENT
100	600	RH2	10	0.40
64	920	RV2	9.5	0.41
37	1150	RH1	9	0.25
32	1650	RN2	9	0.35
24	1700	RV1	8.5	0.25
16	2800	RL2	8.5	0.27
12	2900	RN1	8	0.22
8	4000	RXL2	6.5	0.18
6	4000	RL1	6	0.16
3	4000	RXL1	3	0.11

ATL 25 with DC motor 24 V 8.4 A 150 W 3000 rpm				
LINEAR SPEED [mm/s]	DYNAMIC LOAD [N]	RATIO	RUNNING CURRENT [A]	SELF-LOCKING COEFFICIENT
100	900	RH2	14.5	0.38
64	1330	RV2	13.5	0.38
50	1450	RH1	15	0.27
32	2100	RV1	14	0.27
16	4000	RL2	12	0.25
8	6000	RL1	11.5	0.18
4	6000	RXL1	5.5	0.12

ATL 30 with DC motor 24 V 15.6 A 300 W 3000 rpm				
LINEAR SPEED [mm/s]	DYNAMIC LOAD [N]	RATIO	RUNNING CURRENT [A]	SELF-LOCKING COEFFICIENT
100	1750	RV2	26	0.37
50	2750	RV1	27	0.25
25	5600	RN2	23	0.28
16	7500	RL2	21	0.22
12	8400	RN1	22	0.20
8	10000	RL1	18	0.16

ATL 40 with DC motor 24 V 25 A 500 W 3000 rpm				
LINEAR SPEED [mm/s]	DYNAMIC LOAD [N]	RATIO	RUNNING CURRENT [A]	SELF-LOCKING COEFFICIENT
100	3000	RV2	43	0.37
50	4700	RV1	44	0.26
25	9200	RN2	38	0.25
20	11000	RL2	36	0.24
12	12000	RN1	31	0.18
10	12000	RL1	26	0.17

**3.3 ACME SCREW LINEAR ACTUATORS Series ATL with AC 3-PHASE MOTORS
PERFORMANCE with: Duty Cycle Fi = 30 % over 10 min. at 25 °C environment**

ATL 50				
LINEAR SPEED [mm/s]	DYNAMIC LOAD [kN]	RATIO	MOTOR POWER [kW] NUMBER OF POLES SPEED [rpm]	SELF-LOCKING COEFFICIENT
93	13.7	RV2	2.2 kW 2 poles 2800	0.34
46	17	RV2	1.5 kW 4 poles 1400	0.34
30	25	RN2	2.2 kW 2 poles 2800	0.26
23	25	RV1	1.5 kW 4 poles 1400	0.24
15	25	RN2	1.5 kW 4 poles 1400	0.26
11	25	RL2	0.75 kW 4 poles 1400	0.23
7.5	25	RN1	0.75 kW 4 poles 1400	0.18
5.5	25	RL1	0.75 kW 4 poles 1400	0.15

ATL 63				
LINEAR SPEED [mm/s]	DYNAMIC LOAD [kN]	RATIO	MOTOR POWER [kW] NUMBER OF POLES SPEED [rpm]	SELF-LOCKING COEFFICIENT
93	18	RV2	3 kW 2 poles 2800	0.32
46	33	RV2	3 kW 4 poles 1400	0.32
23	45	RV1	3 kW 4 poles 1400	0.21
11	40	RN1	1.5 kW 4 poles 1400	0.18
5.5	50	RL1	1.5 kW 4 poles 1400	0.13

ATL 80				
LINEAR SPEED [mm/s]	DYNAMIC LOAD [kN]	RATIO	MOTOR POWER [kW] NUMBER OF POLES SPEED [rpm]	SELF-LOCKING COEFFICIENT
140	17	RV2	4 kW 2 poles 2800	0.34
70	31	RV2	4 kW 4 poles 1400	0.34
46	41	RN2	4 kW 2 poles 2800	0.24
35	48	RV1	4 kW 4 poles 1400	0.23
23	73	RN2	4 kW 4 poles 1400	0.24
17	80	RL2	4 kW 4 poles 1400	0.22
11	80	RN1	4 kW 4 poles 1400	0.16
8.5	80	RL1	3 kW 4 poles 1400	0.15