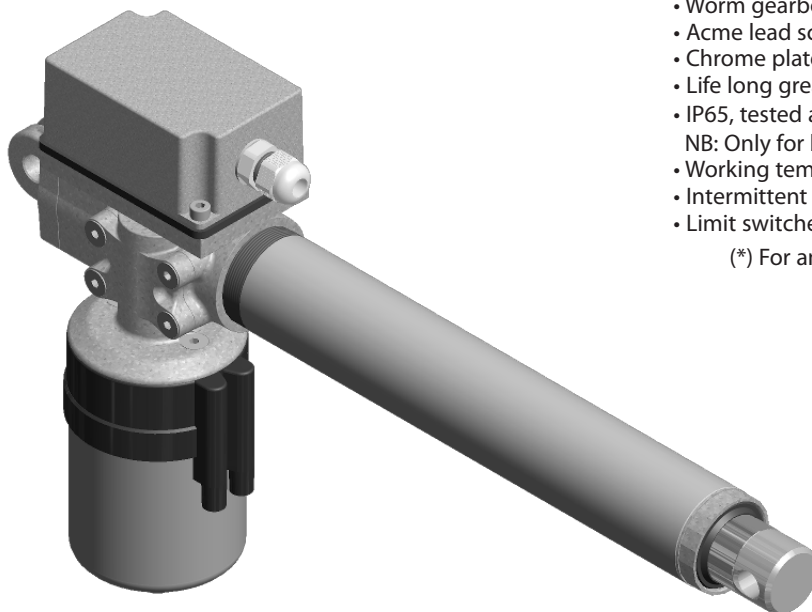




ALI2 Model CE

- Permanent magnet motor CE
- Three phase or single phase motor CE
- Worm gearbox
- Acme lead screw or ballscrew (VRS)
- Chrome plated steel push rod
- Life long grease lubricated
- IP65, tested according to rule CEI EN 60529
- NB: Only for brake motors Standard IP54, IP65 on request
- Working temperature range -10°C +60°C
- Intermittent duty S3 30% (5 min) a +30°C*
- Limit switches, potentiometer and encoder on request
- (*) For any special duty please contact our technical dept.

ALI2 (Vac 3-phase)					
Fmax (N)	Speed (mm/s)	Version	Motor size	Motor power (KW)	Motor speed (rpm)
*	450	110	M01	IEC50	0.09 2800
*	500	70	M02	IEC50	0.09 2800
*	650	50	M03	IEC50	0.09 2800
*	850	40	M04	IEC50	0.09 2800
	1000	30	M05	IEC50	0.06 1400
	1400	20	M06	IEC50	0.06 1400
	2200	10	M07	IEC50	0.06 1400
	2500	5	M08	IEC50	0.06 1400

ALI2 VRS (ballscrew) (Vac 3-phase)					
Fmax (N)	Speed (mm/s)	Version	Motor size	Motor power (KW)	Motor speed (rpm)
*	1500	45	M01	IEC50	0.09 2800
	1800	30	M02	IEC50	0.09 2800
	2000	20	M03	IEC50	0.06 1400
	2500	10	M04	IEC50	0.06 1400
	2500	5	M05	IEC50	0.06 1400

ALI2 (Vdc)							Max Current for F max(A) 24Vdc	**
Fmax (N)	Speed (mm/s)	Version	Motor size	Motor power (KW)	Motor speed (rpm)			
*	800	110	M08	61.5	-	3000	13	
*	850	70	M09	61.5	-	3000	9	
*	1100	55	M10	61.5	-	3000	9,5	
*	1500	40	M11	61.5	-	3000	11	
	2000	30	M12	61.5	-	3000	10,5	
	2500	20	M13	61.5	-	3000	10,5	
	2500	10	M14	61.5	-	3000	9,5	

With single-phase motors type M (see motor choice guideline in paragraph ACCESSORIES) performances are 20% lower than the three-phase motor.

- * When speed is more than 40 mm/s and/or strokes longer than 350mm, check STROKE SETUP section; BRAKEMOTOR IS RECOMMENDED
** For 12 Vdc power supply currents are doubled and loads are 20% lower.

BEFORE OPERATING ACTUATOR MAKE SURE YOU READ AND UNDERSTOOD BASIC OPERATIONAL INSTRUCTIONS SHOWN ON USERMANUALS, AVAILABLE FROM WEBSITE.

THIS DOCUMENT DISPLAYS MOST TYPICAL STANDARD FEATURES AND SETUPS: CONTACT OUR OFFICES FOR MORE.

ACTUATOR SHALL NOT COME TO **MECHANICAL STROKE-END**, TO **AVOID FAILURES**.

CONSIDER MECVEL's LIMITSWITCHES (MODEL ALI2-F or ALI2-FCM) OR PUT THEM ON MACHINE/FRAME.



MecVel reserves the right to change products information and/or features without notice; all data contained in this catalogue are purely indicative and not binding for the company.

The technical drawing illustrates the Bellows Guard Assembly from two perspectives:

- Top View (Side Elevation):** Shows the assembly's profile. Key features include a mounting bracket at the top with a Ø10 hole, a central shaft with a Ø36 diameter, and a bellows guard at the bottom. Dimensions include a total height of 43, a base offset of 13, a motor width of 45, and a total base length of 129. Labels point to the "DC MOTOR" and "AC MOTOR". Section lines A-A and B-B are indicated.
- Bottom View (Front Elevation):** Shows the assembly from below. It highlights the bellows guard's circular shape with a dashed outline labeled "E". Vertical dimensions show a total height of 72 and various offsets: 32, 52.5, 21.5, 33.5, and two 20-unit segments. Horizontal dimensions show a total width of 79.5, with a 13-unit offset and a 66.5-unit main body width.

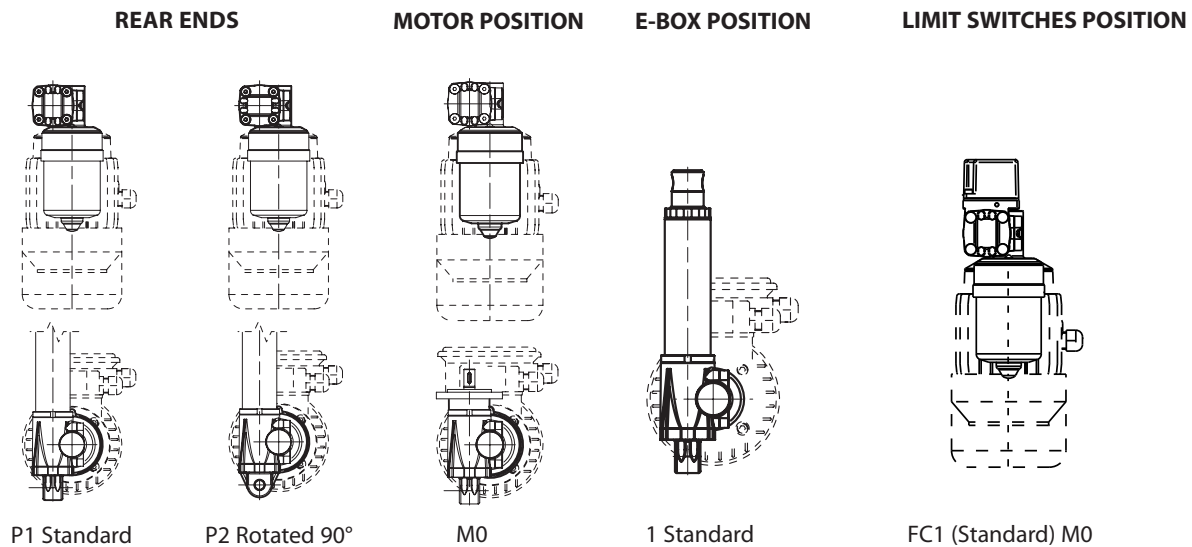
With safety nut "G" = + 30 mm
 ALI2-VRS = + 40 mm (safety nut unavailable)
 Bellows + 20mm (for FCM limitswitches contact our
 Offices)

The technical drawing shows two views of the DC motor assembly:

- Top View:** Shows the motor housing with a width of 76 mm. The mounting bracket has a height of 67 mm and a base width of 43 mm. The central shaft has a diameter of $\varnothing 36$. A dimension of 129 mm indicates the distance from the centerline to the right edge of the motor body.
- Front View:** Shows the motor's profile. The total height is 72 mm, with a base flange thickness of 32 mm. The main body height is 52.5 mm, and the mounting bracket height is 21.5 mm. The distance from the base to the top of the motor body is 33.5 mm. The mounting bracket has a width of 20 mm at its base and 20 mm at its top. The total length of the assembly is 102.5 mm, with a distance of 90 mm from the base to the start of the shaft.

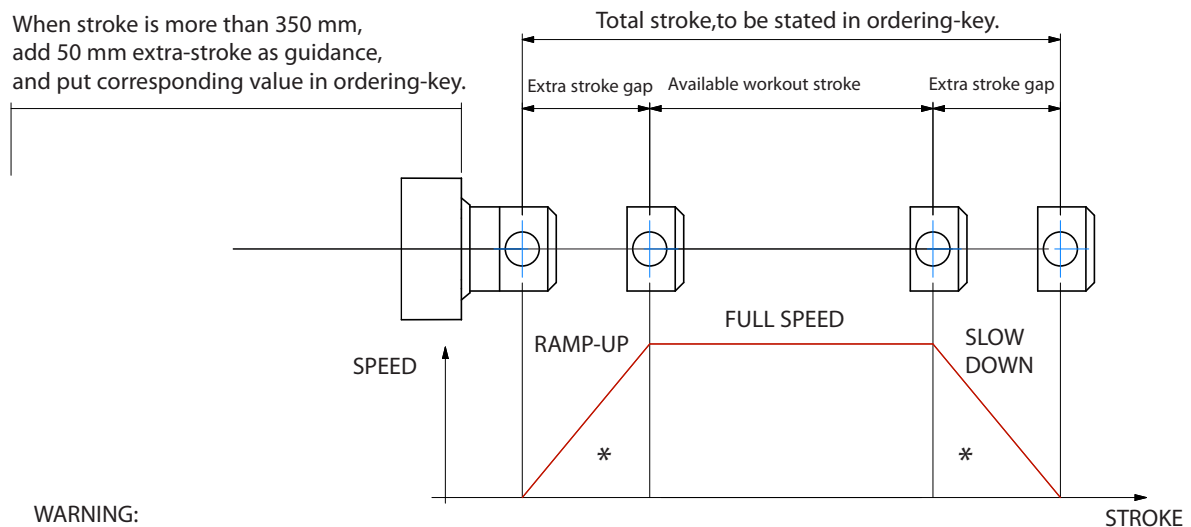
Additional labels include "es Box" and "over type)" pointing to the top view, "DC MOTOR" and "AC MOTOR" pointing to the motor body, and "A" and "B" indicating distances from the centerline to the right edge of the motor body.

With safety nut "G" = + 30 mm
 ALI2-F-VRS = + 40 mm (safety nut unavailable)
 Bellows + 20mm (for FCM limitswitches contact our
 Offices)



STROKE SETUP: Useful tips for handling stroke and avoid run-on-block collision.

When stroke is more than 350 mm, add 50 mm extra-stroke as guidance, and put corresponding value in ordering-key.



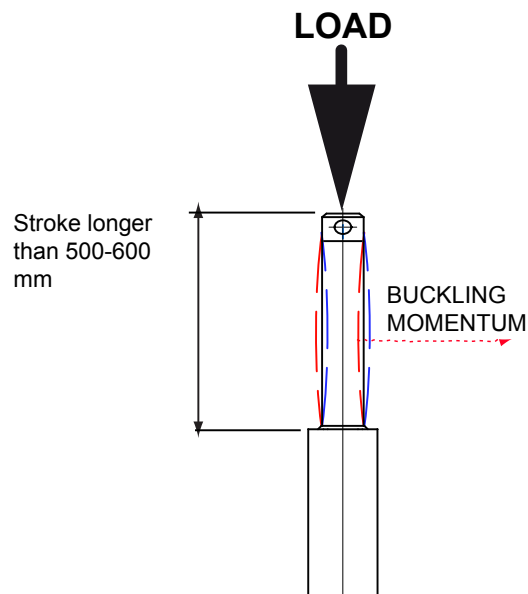
WARNING:

SPEED-TIMING ALONG STROKELENGTH:

ramps are extremely important when speed is > 40mm/s !!! Inverter or PWM drive recommended!

* The more speed raises the more extra stroke has to raise too.

BUCKLING: When stroke is longer than 500mm, BUCKLING can be a risk: please check mounting with our offices and/or see user-manuals.



IMPORTANT:

Long strokes, even if load is low, can generate significant buckling momentums, as sketch slows.

This happens when actuator is in its all-opened position: that's the reason why we recommend 100 mm extra-stroke.

Pushtube will have this 100 mm-portion always inside the overtube, improving guidance against buckling.

For more information on this, contact our office.

ORDERING KEY

ALI2 / 0250 / M01 / CA-400/50-T-50-4-0,09 / AB / M0 / 1 / E01 / 2FC1 / POT01A / FC1 / P1 / A1

MODEL: _____
ALI2 / ALI2-F / ALI2-VRS / ALI2-F-VRS / ALI2-FCM

STROKE: _____
es. 250 mm = 0250
min 50; with 50 as incremental

VERSION: (pag.21) _____
M08 / M09 / M10 / M11 / M12 / M13 / M14 (version C.C.)
M01 / M02 / M03 / M04 / M05 / M06 / M07 / M08 M09 / M10 (version C.A)

MOTOR: (Pag. ACCESSORIES) _____
Advise only if with motor:
A.C.: version, voltage, type, size, n°pole, power
D.C.: version, voltage, size, Rpm

AC MOTOR OPTIONS: (Pag. ACCESSORIES) _____
No motor or DC motor: leave all following parameters blank
Protection Degree: IP65, for selfbrake motor IP54 standard
Brake type: for brakemotors only: ES. FECA
Options: Advise if needed (ES. AB 2'shaft)

MOTOR POSITION: _____
M0 None: Leave blank

E-BOX POSITION: _____
1

ENCODER: (Pag. ACCESSORIES) _____
None: Leave blank

LIMIT SWITCHES: (Pag. ACCESSORIES) _____
2FC1 None: Leave blank

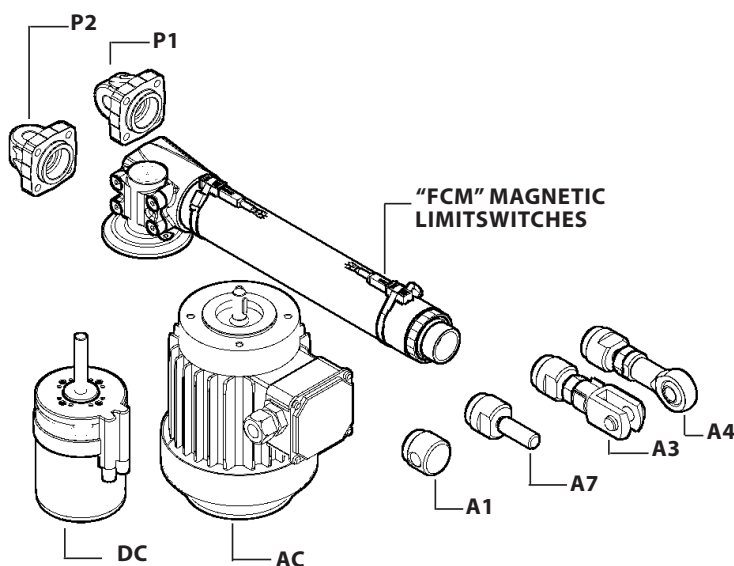
POTENTIOMETER: (Pag. ACCESSORIES) _____
POT01A (1Kohm) **POT10A** (10Kohm) None: / Leave blank

LIMIT SWITCHES POSITION: _____
FC1 None: Leave blank

REAR END: _____
P1 = Eyelet (standard) **P2** = Eyelet (90°)

FRONT END: _____
A1 = Eyelet (Std pag.22) **A3** = Yoke + Clip
A4 = Rod end **A7** = M10 male

NOTE: COMPLETE THE ORDERING KEY ADDING THE OPTIONS YOU CAN FIND IN THE "ACCESSORIES AND OPTIONS" SECTION



Note: "B" dimension changes according to model

ALI2 = See pictures
ALI2 stroke > 320 mm = + 10 mm
ALI2-FCM = + 34 mm
ALI2-FCM stroke > 320 mm = +44
ALI2-F = + 23 mm
ALI2-F stroke > 320 mm = + 33 mm

With safety nut "G" = + 30 mm
ALI2-VRS = + 40 mm
ALI2-F-VRS = + 63 mm
Bellows + 20mm

