

## ALI3 Model C€

- 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.

ALI3 (Vac 3-phase)					
Fmax (N)	Speed (mm/s)	Version	Motor size	Motor power (KW)	Motor speed (rpm)
2600	20	M01	IEC50	0.09	2800
2800	14	M02	IEC50	0.09	2800
4800	7	M03	IEC50	0.09	2800
5000	5	M04	IEC50	0.09	2800
5000	2.5	M05	IEC50	0.06	2800

ALI3 (Vdc)						
Fmax (N)	Speed (mm/s)	Version	Motor size	Motor power (KW)	Motor speed (rpm)	Max Current for Fmax(A) 24Vdc
3600	35	M01	61.5	-	5000	13
3600	25	M02	61.5	-	5000	9
6000	12	M03	61.5	-	5000	10
6000	9	M04	61.5	-	5000	7,6
6000	5	M05	61.5	-	5000	5,8

ALI3 VRS (ballscrew) (Vac 3-phase)					
Fmax (N)	Speed (mm/s)	Version	Motor size	Motor power (KW)	Motor speed (rpm)
5000	9	M01	IEC50	0.09	2800
5000	3,5	M02	IEC50	0.09	2800

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

When stroke is 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.

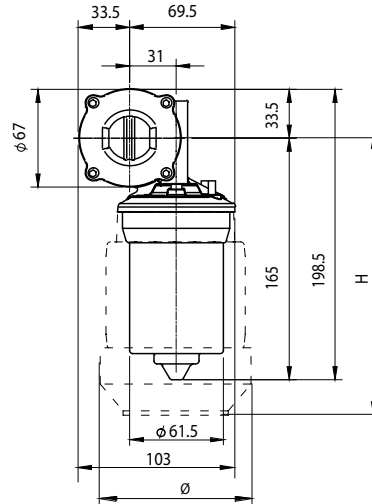
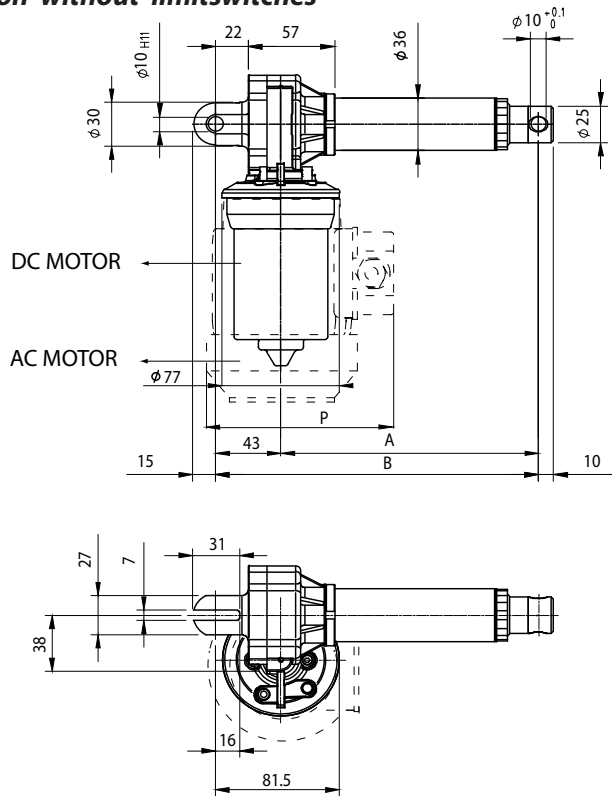
ACTUATOR SHALL NOT COME TO **MECHANICAL STROKE-END**, TO AVOID **FAILURES**.

CONSIDER MECVEL's LIMITSWITCHES ( MODEL ALI3-F or ALI3-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.

### AL13 Version without limitswitches

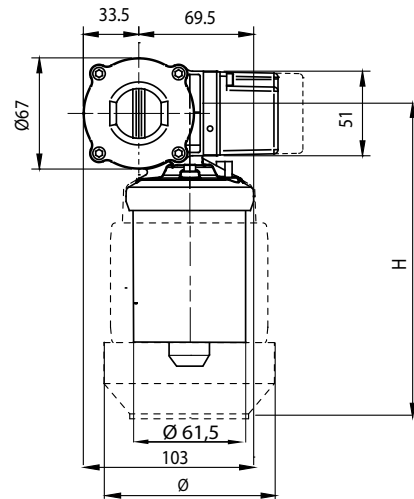
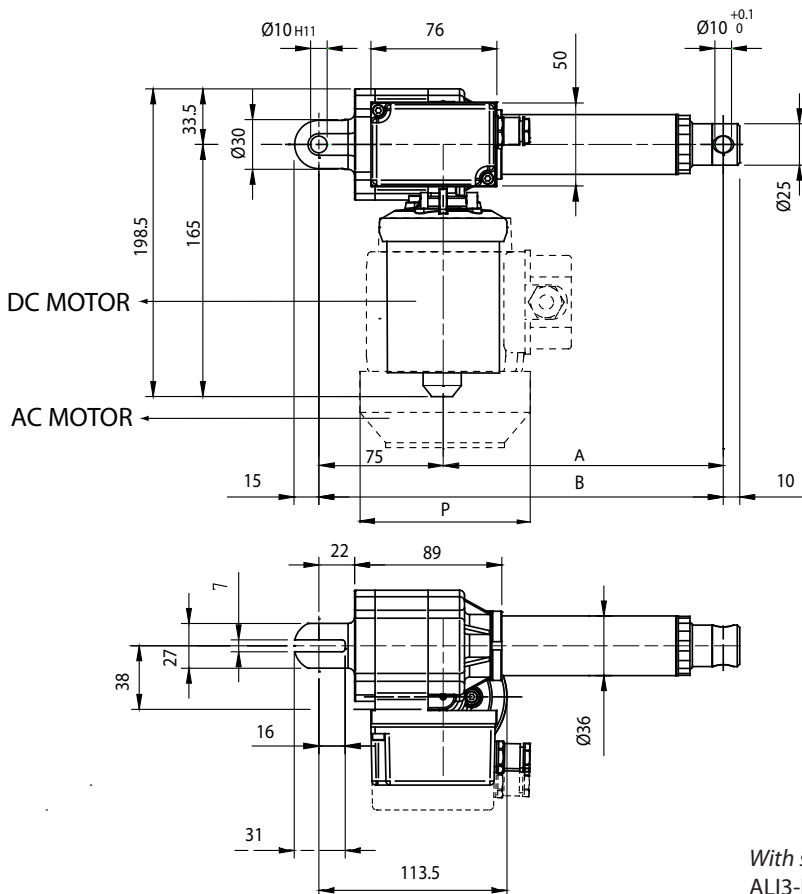


DIM.	Stroke < to 320 mm.	Stroke > to 320 mm.
A	69 + stroke	79 + stroke
B	112 + stroke	122 + stroke

A.C MOTORS DIMENSIONS				
SIZE	TYPE	H	$\phi$	P
50	Standard	188	110	105
	Brake Motors	226		
56	Standard	216	110	108
	Brake Motors	260		

With safety nut "G" = + 30 mm  
 AL13-VRS = + 40 mm ( safety nut unavailable)  
 Bellows + 20mm (for FCM limitswitches contact our Offices)

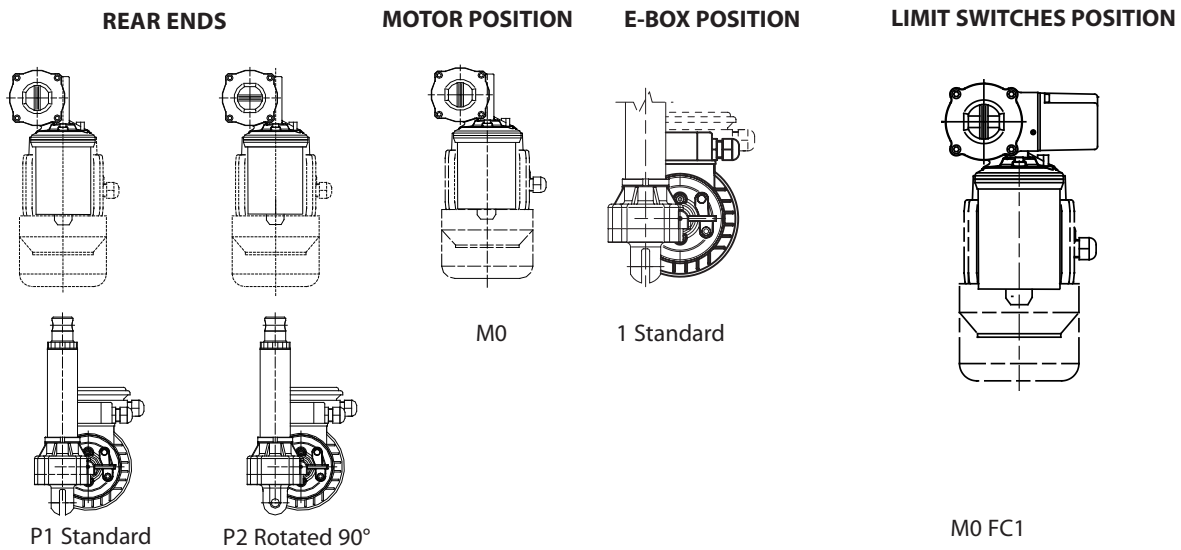
### AL13-F Version with limitswitches



DIM.	Stroke < to 320 mm.	Stroke > to 320 mm.
A	69 + stroke	79 + stroke
B	144 + stroke	154 + stroke

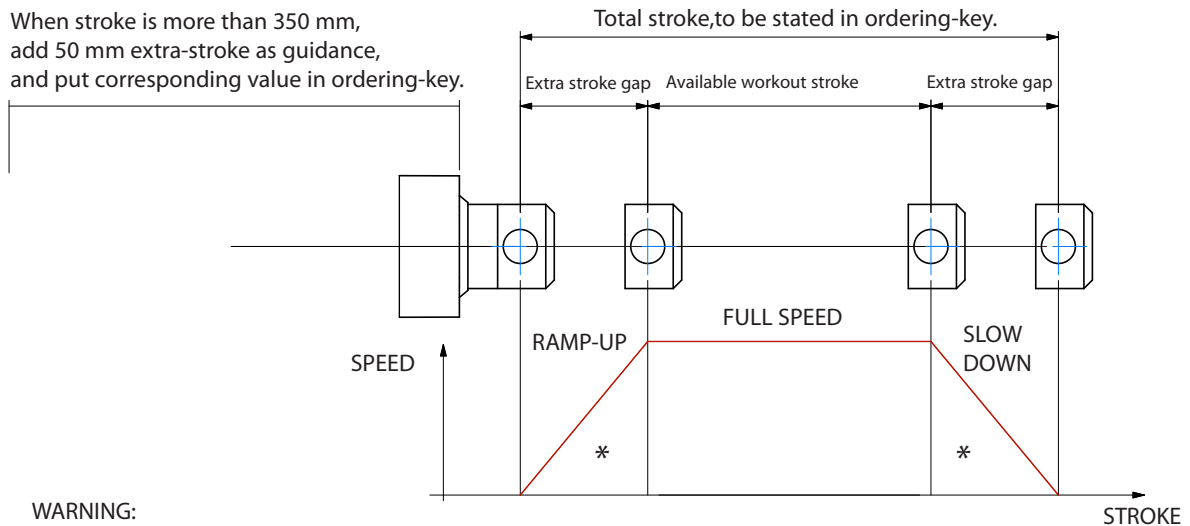
A.C MOTORS DIMENSIONS				
SIZE	TYPE	H	$\phi$	P
50	Standard	188	110	105
	Brake Motors	226		
56	Standard	216	110	108
	Brake Motors	260		

With safety nut "G" = + 30 mm  
 AL13-F-VRS = + 40 mm ( safety nut unavailable)  
 Bellows + 20mm (for FCM limitswitches contact our Offices)



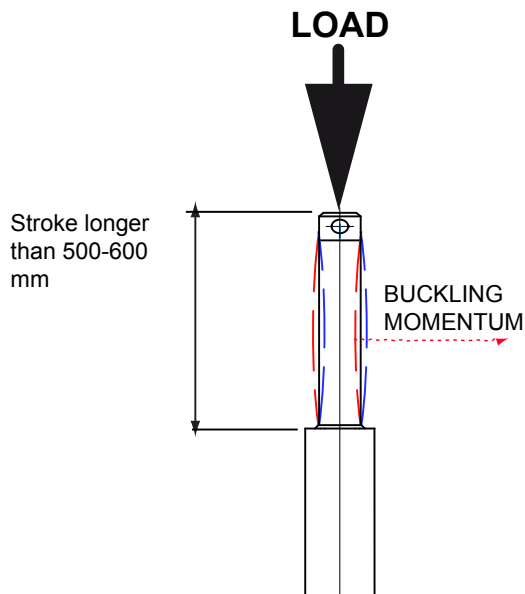
**STROKE SETUP:** Useful tips for handling stroke and avoid run-on-block collision.

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 with high speed !!! Inverter or PWM drive recommended!  
\* The more speed raises the more extra stroke has to raise too.

**BUCKLING:** With strokes longer than 500mm, BUCKLING can be a risk: please check mounting with our offices and/or see usermanuals.



**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.  
Push tube will have this 100 mm-portion always inside the over tube, improving guidance against buckling.  
For more information on this, contact our office.

**ALI3 / 0250 / M01 / CA-400/50-T-56-4-0,09 / AB / M1 / 1 / E01 / 2FC1 / POT01A / FC1 / P1 / A1**

**MODEL:** \_\_\_\_\_  
 ALI3 / ALI3-F / ALI3-VRS / ALI3-F-VRS / ALI3-FCM

**STROKE:** \_\_\_\_\_  
 es. 250 mm = 0250

**VERSION:** (Pag. 29) \_\_\_\_\_  
 M01 / M02 / M03 / M04 / M05 (version D.C.)  
 M01 / M02 / M03 / M04 / M05 (version A.C.)  
 M00 = Not standard speed

**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) \_\_\_\_\_  
 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**  
 No Motor or DC Motor: Leave blank

**ENCODER:** (Pag. ACCESSORIES) \_\_\_\_\_  
 None: Leave blank

**LIMIT SWITCHES:** (Pag. ACCESSORIES) \_\_\_\_\_  
 None: Leave blank

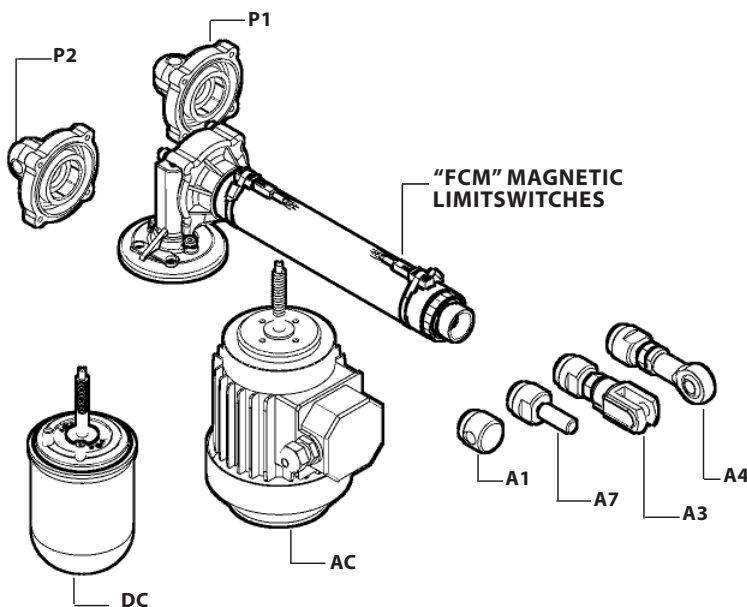
**POTENTIOMETER:** (Pag. ACCESORIES) \_\_\_\_\_  
**POT01A** (1Kohm) **POT10A** (10Kohm) None: Leave blank

**LIMIT SWITCHES POSITION:** \_\_\_\_\_  
**FC1** None: Leave blank

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

**FRONT END:** \_\_\_\_\_  
**A1** = Eyelet (Std pag.30) **A4** = Rod end  
**A3** = Yoke + Clip **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

- |                                  |                               |
|----------------------------------|-------------------------------|
| ALI3 = See pictures              | With safety nut "G" = + 30 mm |
| ALI3 stroke > 320 mm = + 10 mm   | ALI3-VRS = + 40 mm            |
| ALI3-FCM = + 34 mm               | ALI3-F-VRS = + 63 mm          |
| ALI3-FCM stroke > 320 mm = +44   | Bellows + 20mm                |
| ALI3-F = + 23 mm                 |                               |
| ALI3-F stroke > 320 mm = + 33 mm |                               |

