

- Permanent magnet DC motor 12-24 V
- Three phase or single phase AC motor
- Worm gearbox
- Acme lead screw or ballscrew (VRS)
- Chrome plated steel push rod
- Life long grease lubricated
- IP55 AC
- IP65 DC, 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, only for AC
- Limit switches on request
- Potentiometer on request
- Encoder on request
- Version At-Ex II 3 D T4 (AC motor) on request

| ALI3 (Vac 3-phase) |              |         |            |                  |
|--------------------|--------------|---------|------------|------------------|
| Fmax (N)           | Speed (mm/s) | Version | Motor size | Motor power (KW) |
| 2600               | 20           | M01     | IEC56      | 0.09 2 poles     |
| 2800               | 14           | M02     | IEC56      | 0.09 2 poles     |
| 4800               | 7            | M03     | IEC56      | 0.09 2 poles     |
| 5000               | 5            | M04     | IEC56      | 0.09 2 poles     |
| 5000               | 2,5          | M05     | IEC56      | 0.09 2 poles     |

| ALI3 VRS (ballscrew) (Vac 3-phase) |              |         |            |                  |
|------------------------------------|--------------|---------|------------|------------------|
| Fmax (N)                           | Speed (mm/s) | Version | Motor size | Motor power (KW) |
| 5000                               | 9            | M01     | IEC56      | 0.09 2 poles     |
| 5000                               | 3,5          | M02     | IEC56      | 0.09 2 poles     |

| ALI3 (Vdc) |              |         |            |                   |                                |                  |
|------------|--------------|---------|------------|-------------------|--------------------------------|------------------|
| Fmax (N)   | Speed (mm/s) | Version | Motor size | Motor speed (rpm) | Max Current for F max(A) 24Vdc | Fs % base 5 min. |
| 3600 *     | 35           | M01     | 59         | 4900              | 15                             | 10               |
| 3600       | 25           | M02     | 59         | 4900              | 12                             | 10               |
| 6000       | 12           | M03     | 59         | 4900              | 14                             | 10               |
| 6000       | 9            | M04     | 59         | 4900              | 9,5                            | 10               |
| 6000       | 5            | M05     | 59         | 4900              | 7                              | 20               |

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

For the DC models its is possible to add an IP20 break.


\* When speed is more than 30 mm/s and/or strokes longer than 350mm, check STROKE SETUP section.

\*\* For 12 Vdc power supply currents are doubled and loads are 20% lower.

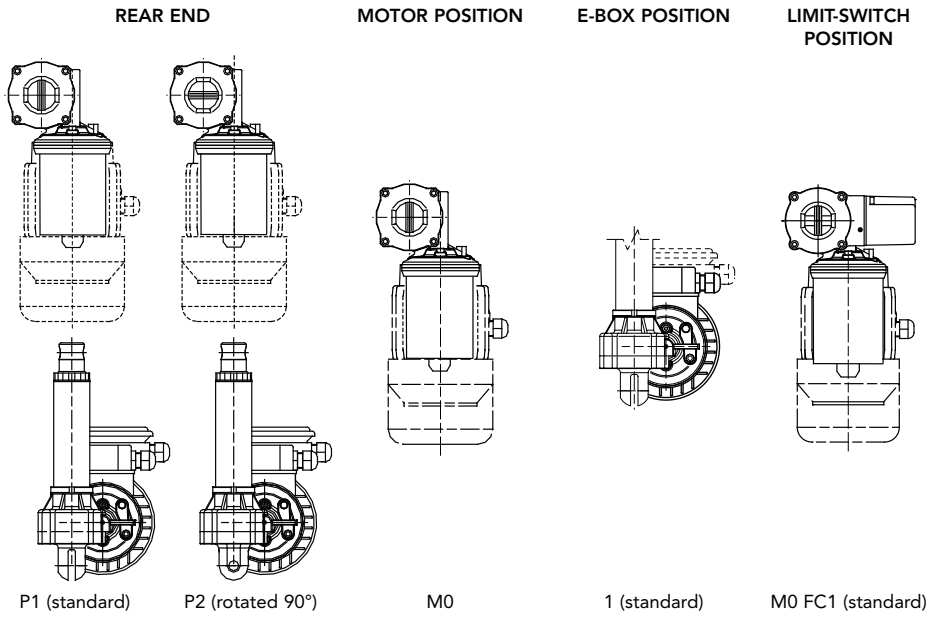
→ The brakemotor is strongly recommended

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.

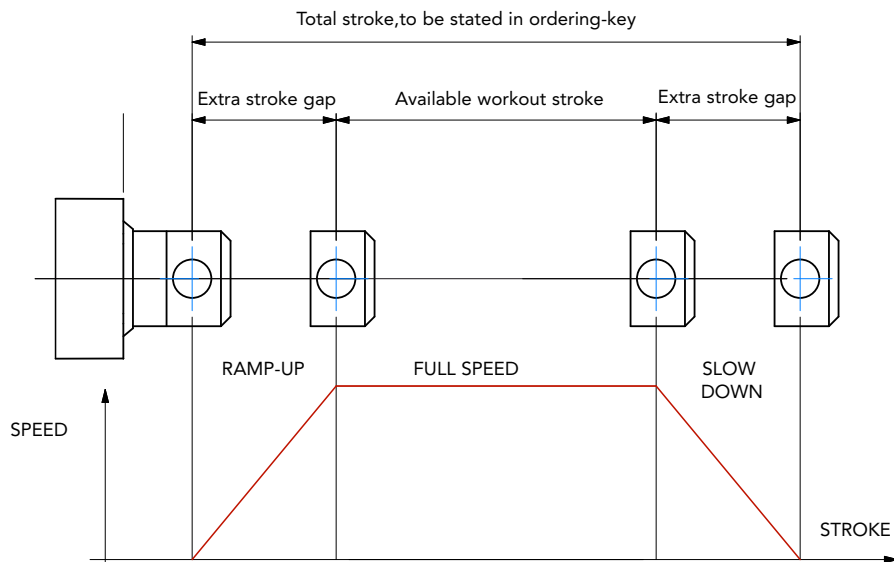




## STROKE SETUP

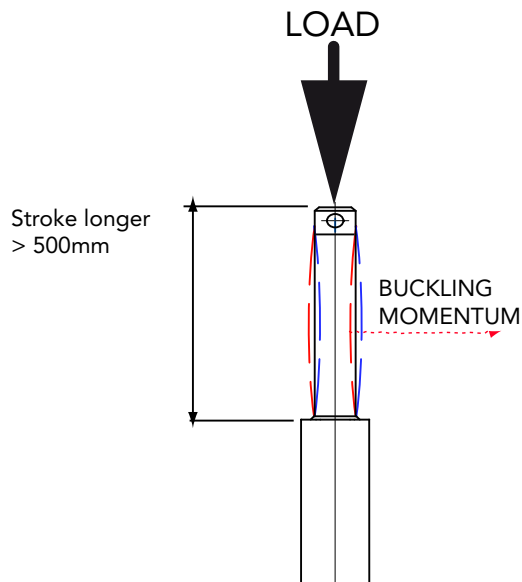
Useful tips for handling stroke and avoid run-on-block collision.

- 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 >30 mm/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 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. Pushtube will have this 100 mm-portion always inside the overtube, improving guidance against buckling.

For more information on this, contact our office.

**ALI3/0250/M03/CA-400/50-T-56-2-0,09/AB/M0/1/E06/2FC1/POT01A/FC1/P1/A1/**
**MODEL** \_\_\_\_\_  
 ALI3 / ALI3-F / ALI3-VRS / ALI3-F-VRS / ALI3-FCM / ALI3-FCM-VRS

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

**VERSION** \_\_\_\_\_  
 M01 / M02 / M03 / M04 / M05 (DC)  
 M01 / M02 / M03 / M04 / M05 (AC)  
 M00 = Not standard speed

**MOTOR** \_\_\_\_\_  
 AC: version, voltage, type, size, n°pole, power  
 CC: version, voltage, size, Rpm

**AC MOTOR OPTIONS** \_\_\_\_\_  
 With DC motor, dont consider the following lines  
 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** \_\_\_\_\_  
 Options pg.76 None: Leave blank

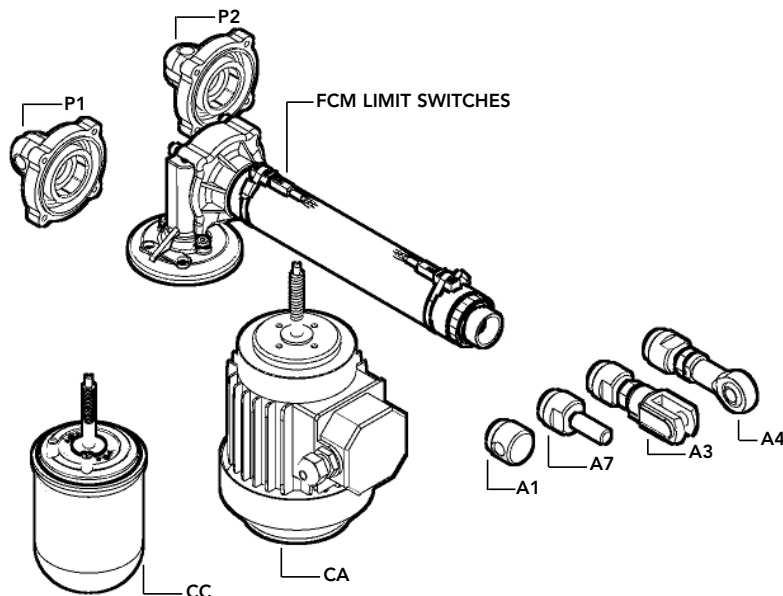
**LIMIT SWITCHES** \_\_\_\_\_  
 2FC1 None: Leave blank

**POTENTIOMETER** \_\_\_\_\_  
 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 (standard) 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
- ALI3 stroke > 320 mm = + 10 mm
- ALI3-FCM = + 34 mm
- ALI3-FCM stroke > 320 mm = +44
- ALI3-F = + 23 mm
- ALI3-F stroke > 320 mm = + 33 mm
- With safety nut "G" = + 30 mm
- ALI3-VRS = + 40 mm
- ALI3-F-VRS = + 63 mm
- Bellows + 20mm

