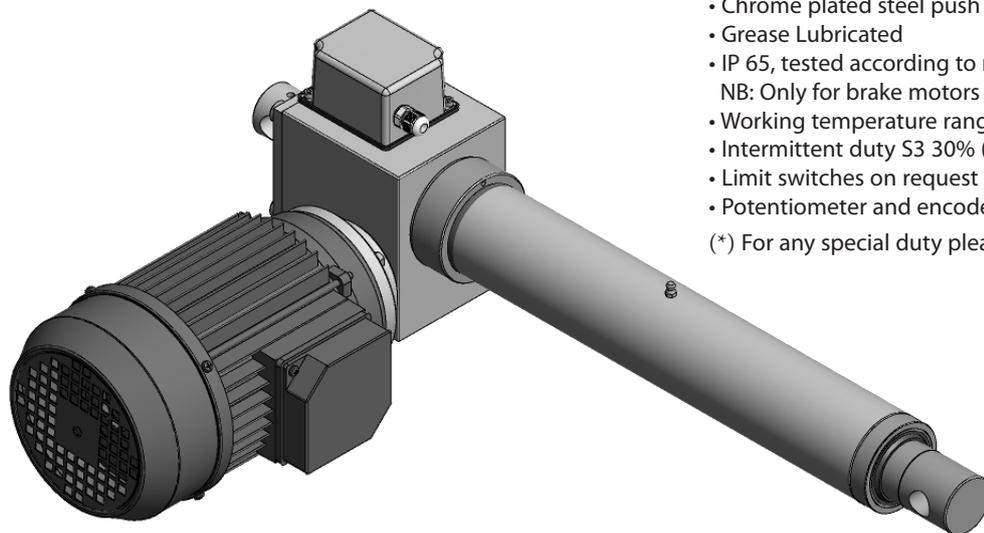


## Model AV3

- A.C. motor, flange B14 - CE
  - Worm gearbox
  - Acme lead screw or ballscrew (VRS)
  - Chrome plated steel push rod
  - Grease Lubricated
  - IP 65, 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 on request
  - Potentiometer and encoder on request
- (\*) For any special duty please contact our technical dept.



AV3 (Vac 3-phase)					
Fmax (N)	Speed (mm/s)	Version	Motor size	Motor power (KW)	Motor speed (rpm)
* 13000	55	M01	IEC90	3.00	2800
20000	30	M02	IEC90	3.00	2800
25000	20	M03	IEC80	1.80	2800
25000	10	M04	IEC80	1.10	1400
25000	5	M05	IEC80	0.75	1400

AV3 VRS (ballscrew) (Vac 3-phase)					
Fmax (N)	Speed (mm/s)	Version	Motor size	Motor power (KW)	Motor speed (rpm)
* 8000	45	M01	IEC80	0.75	2800
13000	22	M02	IEC80	0.55	1400
25000	15	M03	IEC80	0.75	2800
25000	7	M04	IEC80	0.55	1400

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

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.

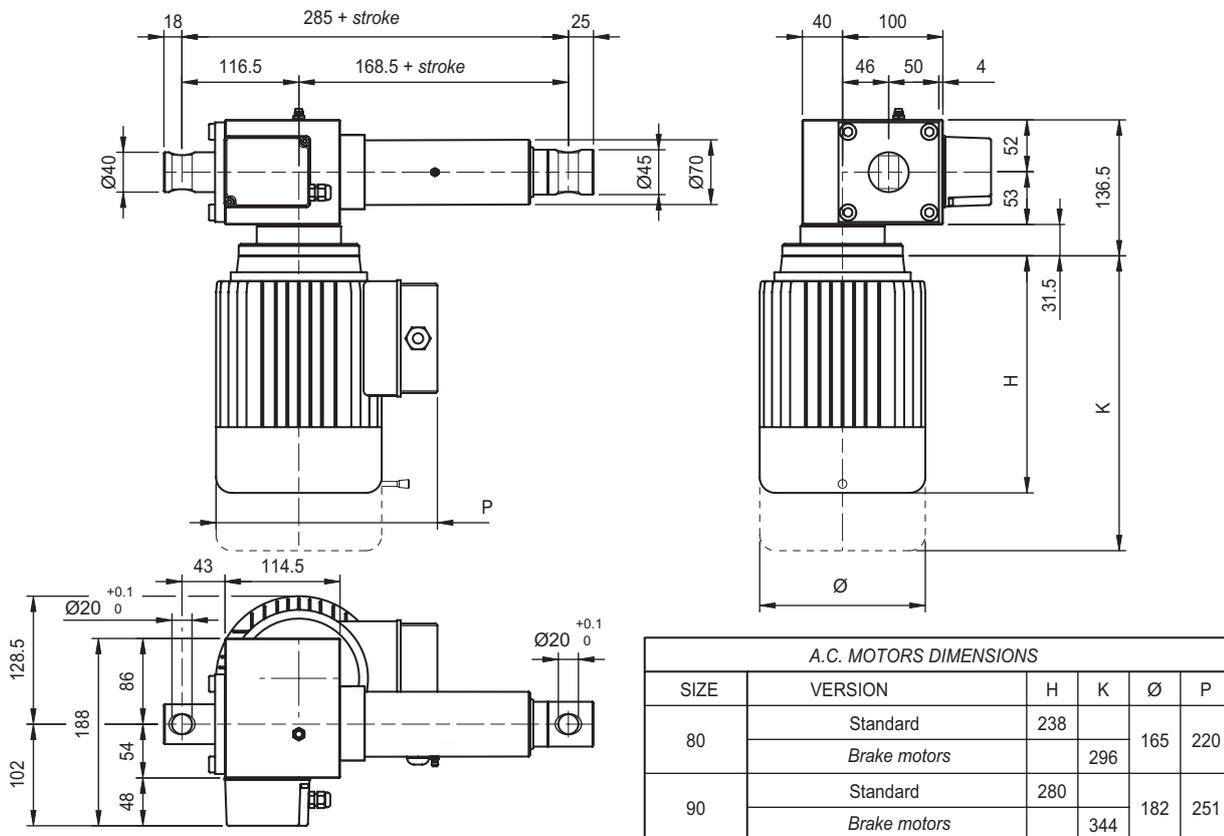
ACTUATOR SHALL NOT COME TO **MECHANICAL STROKE-END**, TO **AVOID FAILURES**.

CONSIDER MECVEL's LIMITSWITCHES ( MODEL AV3-F or AV3-FCM) OR PUT THEM ON MACHINE/FRAME.

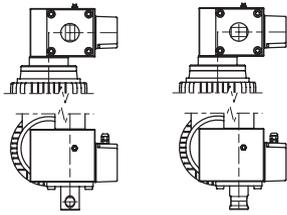


MecVel reserves the right to change products information and/or features without notice; all data contained in this catalogue are purely indicative and not binding for the company.

**AV3-F Version with limitswitches**



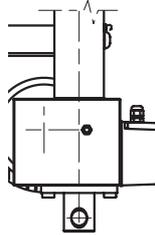
**REAR ENDS**



P1 Standard

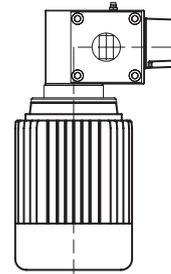
P2 Rotated 90°

**E-BOX POSITION**



1 Standard

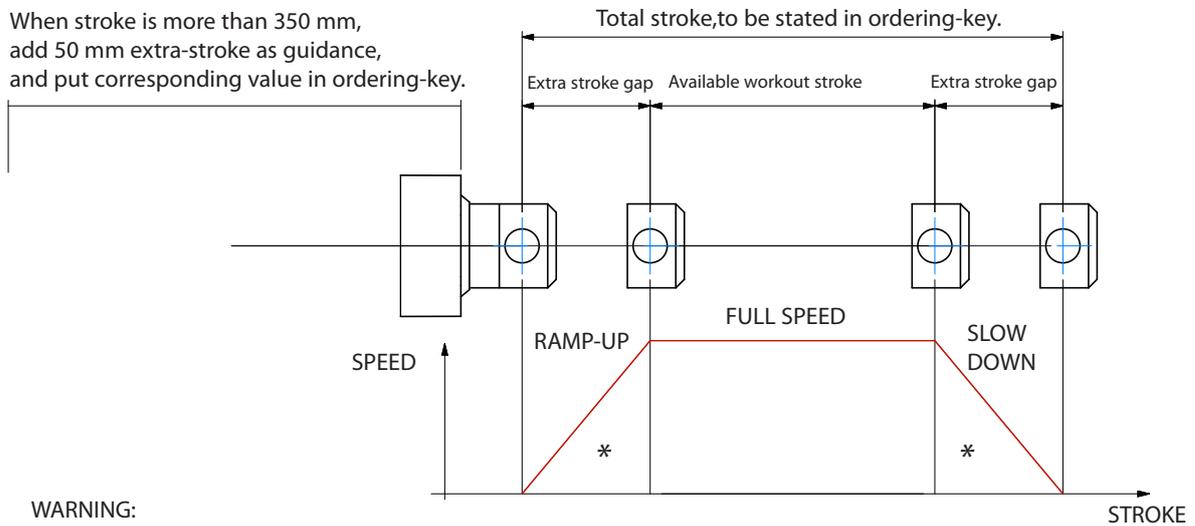
**MOTOR AND LIMIT SWITCHES POSITION**



M1-FC1 Standard

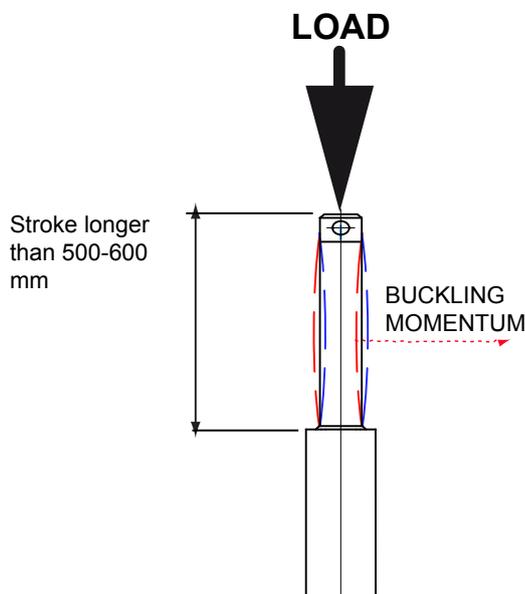
**STROKE SETUP:** Useful tips for handling stroke and avoid run-on-block collision.

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 shows.  
 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

AV3 / 0250 / M01 / CA-400/50-T-56-4-0,09 / AB / M1-FC1 / 1 / E05 / 2FC2 / P0T01A / P1 / A1

**MODEL:** \_\_\_\_\_

AV3 AV3-VRS

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

**VERSION:** (pag. 49) \_\_\_\_\_  
M01 / M02 / M03 / M04 / M05  
M01 / M02 / M03 / M04 (Version VRS ballscrew)  
M00 = Not standard speed  
Flanged Version = Rpm  
Advise reduction ratio and screw pitch

**MOTOR:** (pag. ACCESSORIES) \_\_\_\_\_  
Advise only if with motor:  
version, voltage, type, size, n°pole, power  
With motorflange only put 0  
With special motorflange put: PD

**AC MOTOR OPTIONS:** (pag. ACCESSORIES) \_\_\_\_\_  
Motorflange: for motorflange version only advise size - i.e.for IEC80 B14 put 80B14  
No 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 AND LIMIT SWITCHES POSITION:** \_\_\_\_\_  
M1-FC1 None: Leave blank

**E-BOX POSITION:** \_\_\_\_\_  
1 No Motor: Leave blank

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

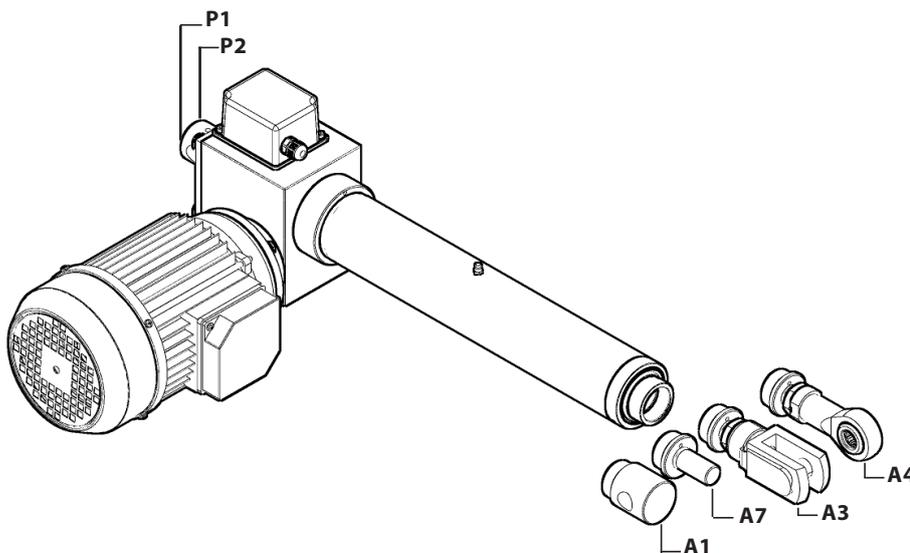
**LIMIT SWITCHES:** (pag. ACCESSORIES) \_\_\_\_\_  
None: Leave blank

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

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

**FRONT END:** \_\_\_\_\_  
A1 = Eyelet (Std pag.50) A4 = Rod end  
A3 = Yoke + Clip A7 = M12 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

AV3 = See pictures  
With safety nut "G" = + 40 mm  
AV3-VRS = + 20 mm  
Bellows = + 25mm

