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## Linear Actuators

### AV3 - Model



#### Features and Options:

- ✓ AC Motor, flange B14 - CE
- ✓ Worm gearbox
- ✓ Acme lead screw or ball screw (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 requests, please contact our Sales Department for more assistance.

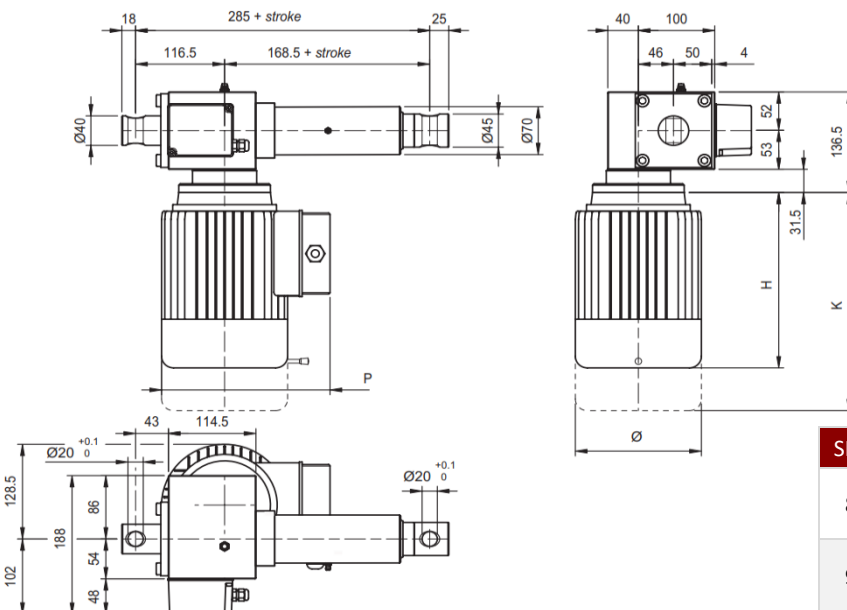
ALI5P - AC - ACME LEAD SCREW - S3 30% (5 MIN) 30°C					
FMAX (N)	SPEED (MM/S)	VERSION	MOTOR SIZE	MOTOR POWER (KW)	MOTOR SPEED (RPM)
13000 <sup>1</sup>	55	M01	IEC90	3.00	2800
2000	30	M02	IEC90	3.00	2800
25000	20	M03	IEC90	1.80	2800
25000	10	M04	IEC90	1.10	1400
25000	2	M05	IEC90	0.75	1400

ALI5P - AC - BALLSCREW - S1					
FMAX (N)	SPEED (MM/S)	VERSION	MOTOR SIZE	MOTOR POWER (KW)	MOTOR SPEED (RPM)
8000 <sup>1</sup>	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

<sup>1</sup>When speed is more than 40 mm/s and/or strokes longer than 350mm, check STROKE SETUP section; BRAKEMOTOR IS RECOMMENDED

With single-phase motors type M performances are 20% lower than the three-phase motor.

#### AV3-F Version with limit switches



#### AC MOTOR DIMENSIONS

SIZE:	TYPE:	H:	K:	Ø:	P:
80	Standard	238		165	220
	Brake Motors		296		
90	Standard	280		182	251
	Brake Motors		344		

THIS DOCUMENT DISPLAYS THE MOST TYPICAL STANDARD FEATURES AND SETUPS. PLEASE CONTACT OUR SALES TEAM FOR MORE INFORMATION

# Linear Actuators

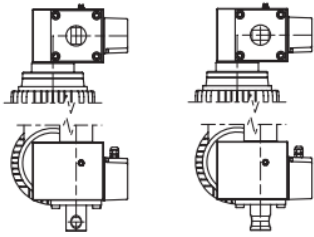
AV3 - Model

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GEARED MOTORS - LINEAR ACTUATORS - CONTROLS

- Over 40 Years of Supplying Africa -

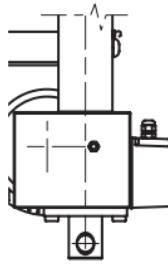
## REAR ENDS



P1 Standard

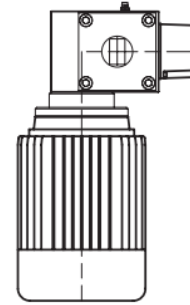
P2 Rotated 90°

## E-BOX POSITION



1 Standard

## MOTOR AND LIMIT SWITCHES POSITION



M1-FC1  
Standard

## Stroke Setup:

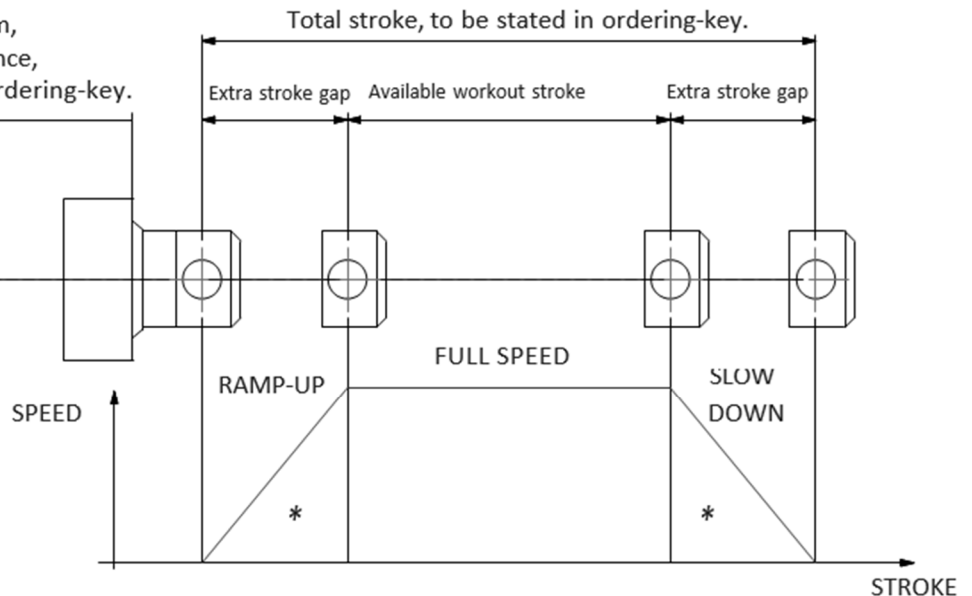
Useful tips for handling stroke and avoid run-on-block collision

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

### WARNING:

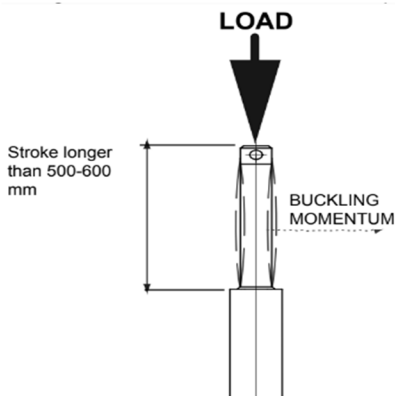
SPEED-TIMING ALONG STROKELENGTH:  
Ramps are extremely important when speed is > 40mm/s. Inverter or PWM drive recommended.

\* The more speed raises the more extra stroke must raise too



## Buckling:

When stroke is longer than 500 mm, BUCKLING can be a risk  
Please check mounting with our Sales Department



### 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.  
Push tube will have this 100 mm-portion always inside the over tube, improving guidance against buckling.

For more information on this, please contact our Sales Department.

### Ordering Key:

AV3 / 0250 / M01 / CA-400/50-T-56-4-0,09 / AB / M1-FC1 / 1 / E05 / 2FC2 / POT01A / P1 / A1

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

AV3 AV3-VRS

**STROKE:** \_\_\_\_\_

es. 250 mm = 0250

**VERSION:** \_\_\_\_\_

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

Advise only if with motor: version, voltage, type, size, n°pole, power

With motor flange only put 0 / With special motor flange put: PD

**AC MOTOR OPTIONS:** \_\_\_\_\_

Motor flange: for motor flange version only advise size - i.e. for IEC71 B14 put 71B14

No motor: leave all following parameters blank

Protection Degree: IP65, for self-brake motor IP54 standard

Brake type: for brake motors only: ES. FECA - Options: Advise if needed (ES. AB 2'shaft)

**MOTOR LIMIT SWITCHES POSITION:** \_\_\_\_\_

M1-FC1

None: Leave blank

**E-BOX POSITION:** \_\_\_\_\_

1 No Motor: Leave blank

**ENCODER:** \_\_\_\_\_

None: Leave blank

**LIMIT SWITCHES:** \_\_\_\_\_

None: Leave blank

**POTENTIOMETER:** \_\_\_\_\_

**POT01A** (1Kohm) **POT10A** (10Kohm)

None: Leave blank

**REAR END:** \_\_\_\_\_

**P1** = Eyelet **P2** = Eyelet (90°)

**FRONT END:** \_\_\_\_\_

**A1** = Eyelet **A3** = Yoke + Clip

**A4** = Rod end **A7** = M12 male

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

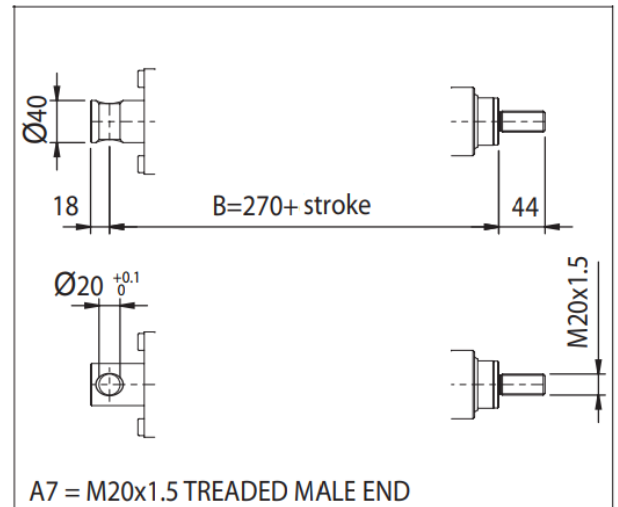
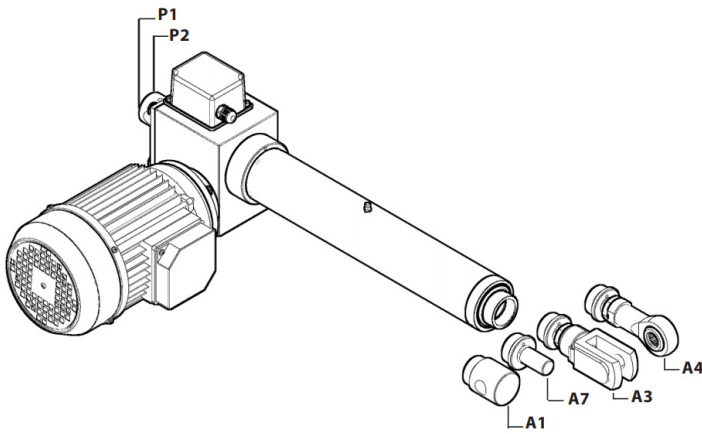
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## NOTES:

"B" dimension variations depending on model

AV3 = See pictures

With safety nut "G" = + 40 mm

AV3-VRS = + 20 mm

Bellows = + 25mm

