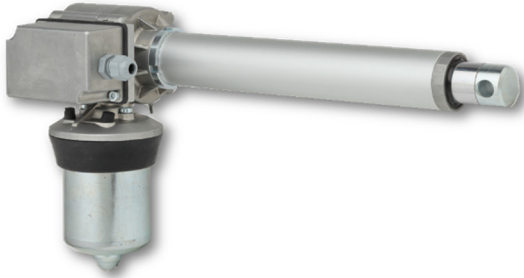


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 e: 01@BirCraft.co.za w: www.BirCraft.co.za

Linear Actuators

ALI 3 – Model



For any special duty requests, please contact our Sales Department for more assistance.

Features and Options:

- ✓ Permanent magnet motor CE
- ✓ Three phase or single-phase motor CE
- ✓ Worm gearbox
- ✓ Acme lead screw or ball screw (VRS)
- ✓ Chrome plated steel push rod
- ✓ Lifelong 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

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	
4800	7	M03	IEC50	0.09	
5000	5	M04	IEC50	0.09	
5000	2.5	M05	IEC50	0.06	

ALI3 (VDC)					
FMAX (N)	SPEED (MM/S)	VERSION	MOTOR SIZE	MOTOR SPEED (RPM)	MAX CURRENT FOR FMAX 24VDC ¹
3600	35	M01	61.50	5000	13
3600	25	M02			9
6000	12	M03			10
6000	9	M04			7.6
6000	5	M05			5.8

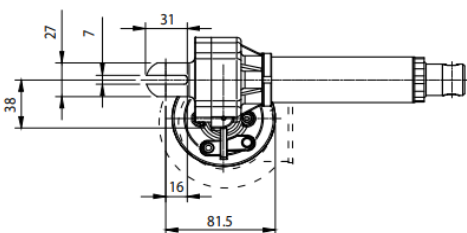
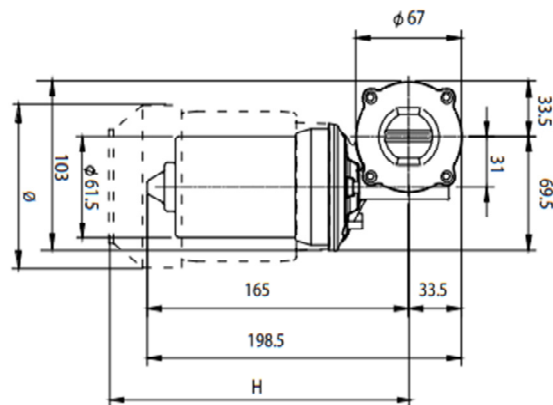
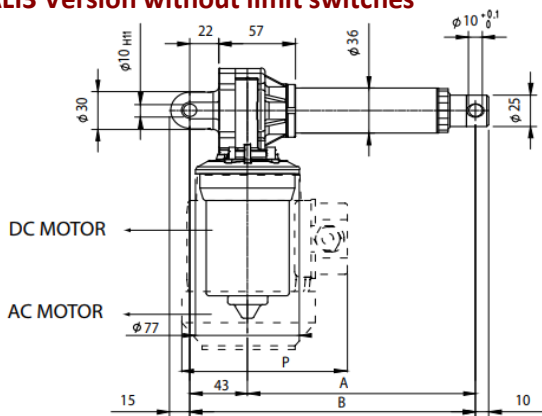
ALI3 VRS (BALLSCREW) (VAC 3-PHASE)					
FMAX (N)	SPEED (MM/S)	VERSION	MOTOR SIZE	MOTOR POWER (KW)	MOTOR SPEED (RPM)
5000	9	M01	IEC50	0.09	2800
5000	3.5	M02	IEC50	0.09	2800

When stroke is longer than 350mm, check STROKE SETUP section; BRAKEMOTOR IS RECOMMENDED

¹For 12 Vdc power supply currents are doubled and loads are 20% lower.

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

ALI3 Version without limit switches



DIMENSION	STROKE < TO 320 MM	STROKE > 320 MM
A	69 + stroke	79 + stroke
B	112 + stroke	122 + stroke

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

Linear Actuators

ALI 3 – Model

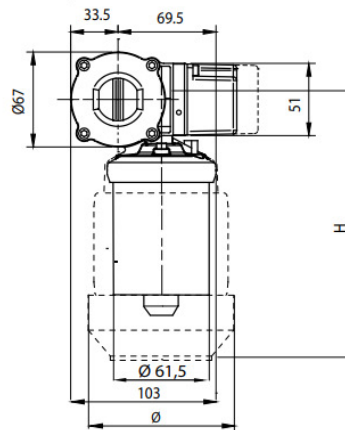
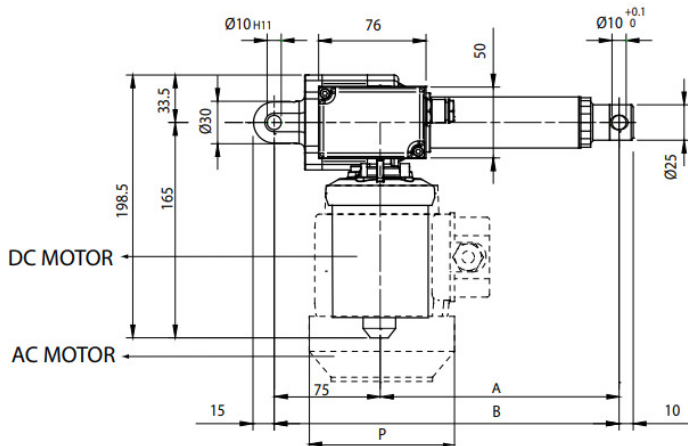
BirCraft

GEARED MOTORS - LINEAR ACTUATORS - CONTROLS

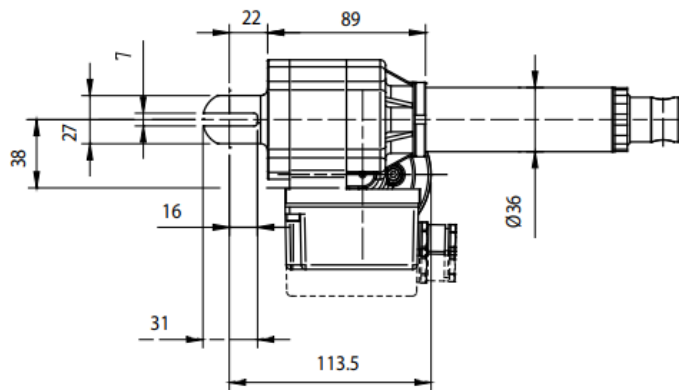
- Over 40 Years of Supplying Africa -

AC MOTOR DIMENSIONS				
SIZE:	TYPE:	H:	Ø:	P:
50	Standard	188	110	105
	Brake Motors	226		
56	Standard	216	110	108
	Brake Motors	260		

ALI3 Version with limit switches



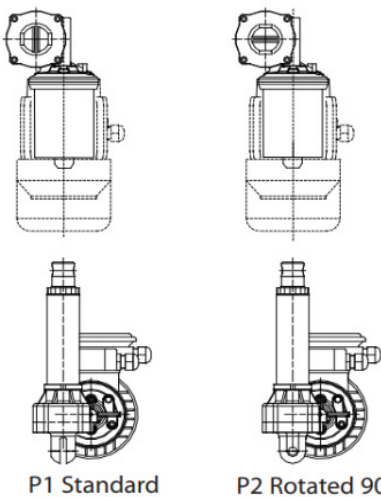
With safety nut "G" = + 30 mm
 ALI3-F-VRS = + 40 mm
 (safety nut unavailable)
 Bellows + 20mm



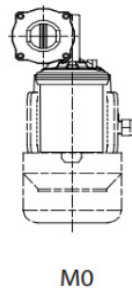
DIMENSION	STROKE < TO 320 MM	STROKE > 320 MM
A	69 + stroke	79 + stroke
B	144 + stroke	154 + stroke

AC MOTOR DIMENSIONS				
SIZE:	TYPE:	H:	Ø:	P:
50	Standard	188	110	105
	Brake Motors	226		
56	Standard	216	110	108
	Brake Motors	260		

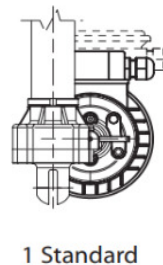
REAR ENDS



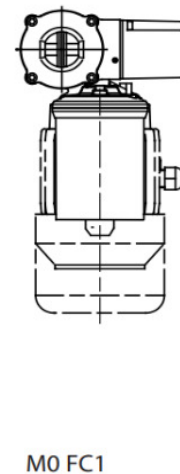
MOTOR POSITION



E-BOX POSITION



LIMIT SWITCHES POSITION



Stroke Setup:

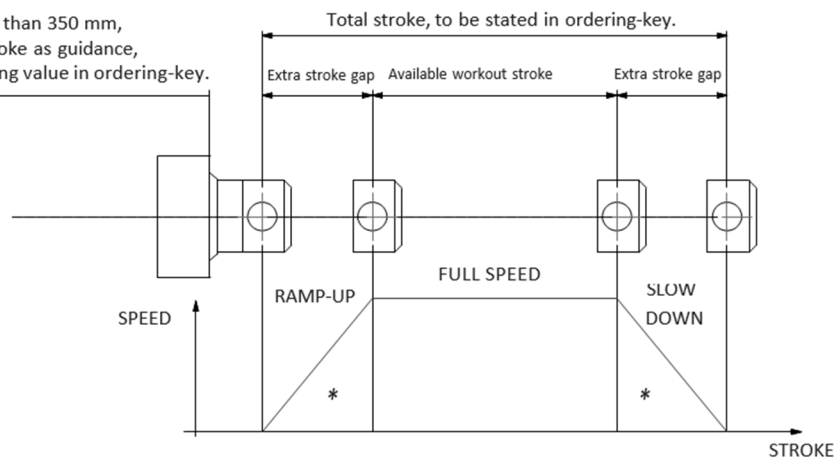
Useful tips for handling stroke and avoid run-on-block collision

WARNING:

SPEED-TIMING ALONG STROKELENGTH:
Ramps are extremely important with high speed. Inverter or PWM drive recommended.

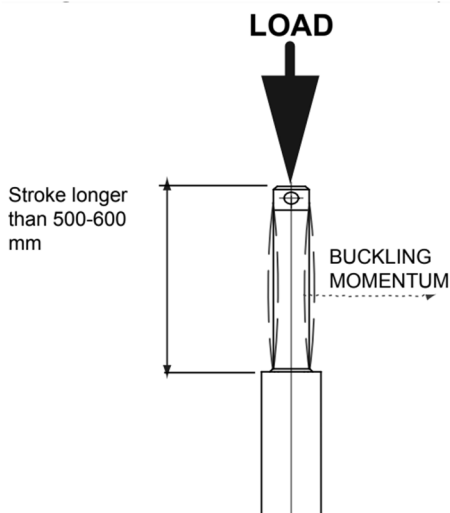
* The more speed raises the more extra stroke must raise too.

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



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.

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

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

Linear Actuators

ALI 3 – Model

BirCraft

GEARED MOTORS - LINEAR ACTUATORS - CONTROLS

- Over 40 Years of Supplying Africa -

Ordering Key:

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:

M01 / M02 / M03 / M04 / M05 (version D.C.)

M01 / M02 / M03 / M04 / M05 (version A.C.)

M00 = Not standard speed

MOTOR:

Advise only if with motor:

AC: version, voltage, type, size, n°pole, power

DC: version, voltage, size, Rpm

AC MOTOR OPTIONS:

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:

None: Leave blank

E-BOX POSITION:

1
No Motor or DC Motor: Leave blank

ENCODER:

None: Leave blank

LIMIT SWITCHES:

None: Leave blank

POTENTIOMETER:

POT01A (1Kohm) POT10A (10Kohm)

None: Leave blank

LIMIT SWITCHES POSITION:

FC1 None: Leave blank

REAR END:

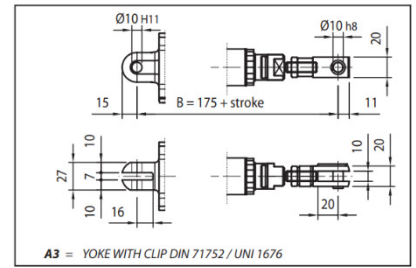
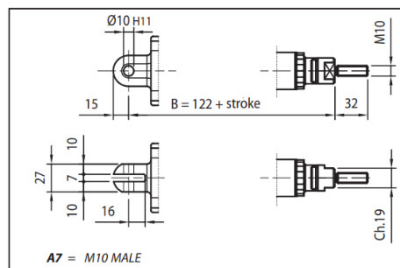
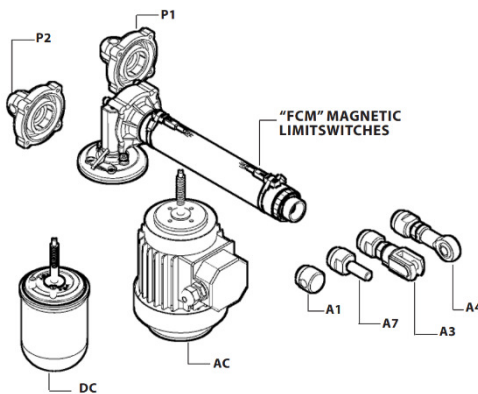
P1 = Eyelet (standard) P2 = Eyelet (90°)

FRONT END:

A1 = Eyelet 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 ON THE BIRCREFT WEBSITE.



NOTES:

"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

