

ALI4-P

ELECTRIC LINEAR ACTUATOR

A NEW VERSION FOR NEW SOLUTIONS

A NEW CONFIGURATION OF ELECTRIC LINEAR ACTUATOR TO MEET APPLICATIONS REQUESTS FOR NEW LINEAR HANDLING SOLUTIONS

ALI4-P is more than a simple product restyling, it is a new version born on the basis of market requests, developed to meet specific linear automation needs in a more effectively and efficiently way

Since 1987 the core business of the company is the design and the manufacture of linear actuators and screw jacks, electromechanical devices transforming the rotatory motion of a motor into a linear movement, pushing, pulling, lifting or positioning loads even higher of 20 tons.

An important customization service allows to configure any of these products to model it according to the application to which it is intended, offering a tailor-made solution for each project.

Through this customization service and a deep technical know-how, the ALI4-P development has been possible.

This linear actuator, in its DC motor version, is born to satisfy specific needs of customers operating in the photovoltaic field, looking for a product able to provide greater resistance to the static load (that increases accordingly to the photovoltaic panel or the solar concentrator dimension) and meet the very low speed required by these plants, to maximize the whole system efficiency.

The position of the panel or the concentrator, in fact, must be continually "adjusted" to maintain the sun-rays perpendicular to the surface, optimizing the conversion of solar energy into electricity.

The double reduction, given by the motor mounted parallel to the linear actuator body, allows to considerably reduce the speed, even up to 1 or 2 mm/s, meeting the standard values of the photovoltaic industry.

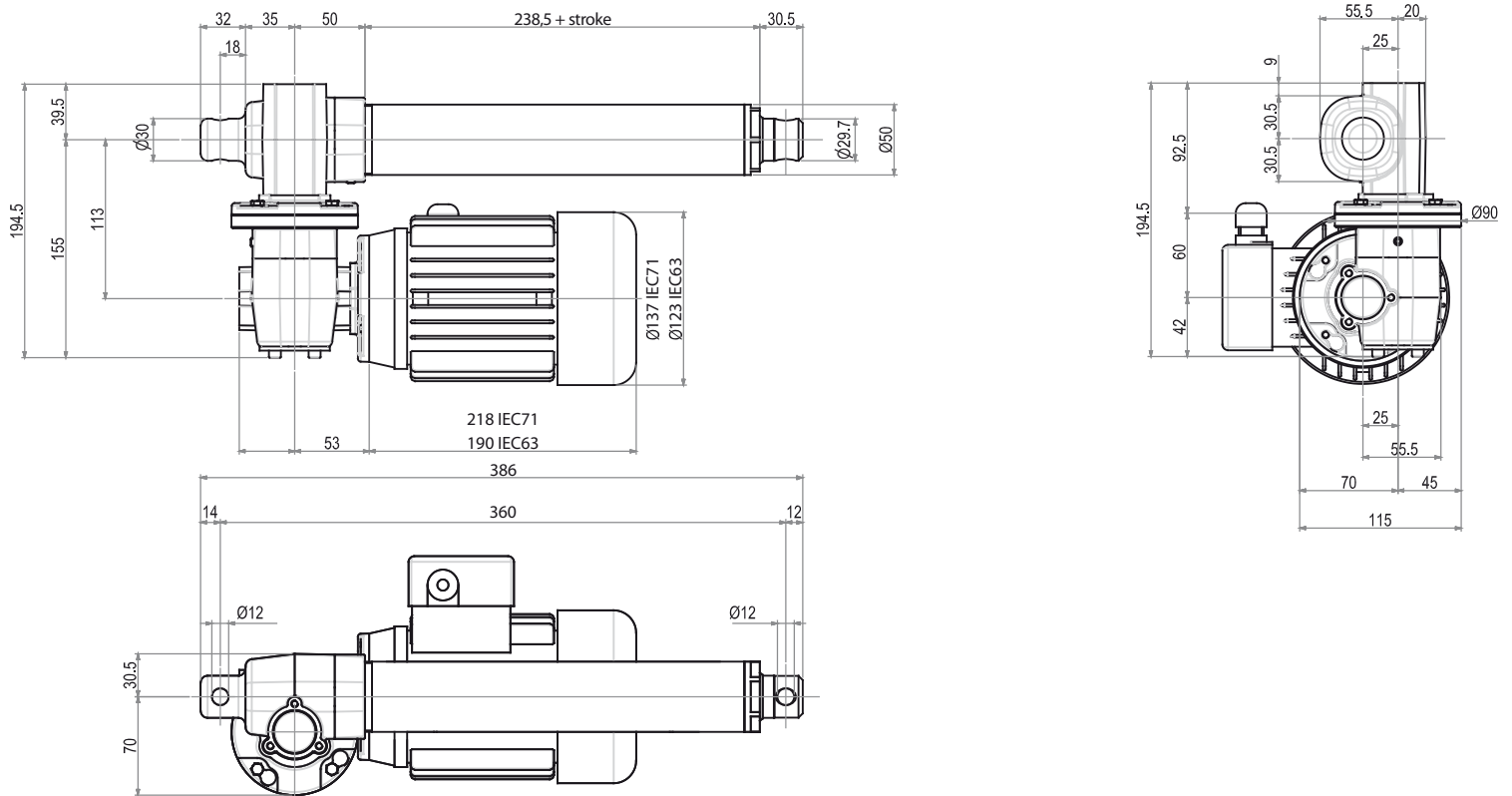
At the same time, the mechanics characterizing this model is able to support a high load, ensuring greater resistance also in case of difficult climatic conditions, first of all the presence of wind.

The match with an AC motor allows to have medium-high forces without renouncing to speed, providing an efficient and versatile solution suitable for different kinds of linear movements.

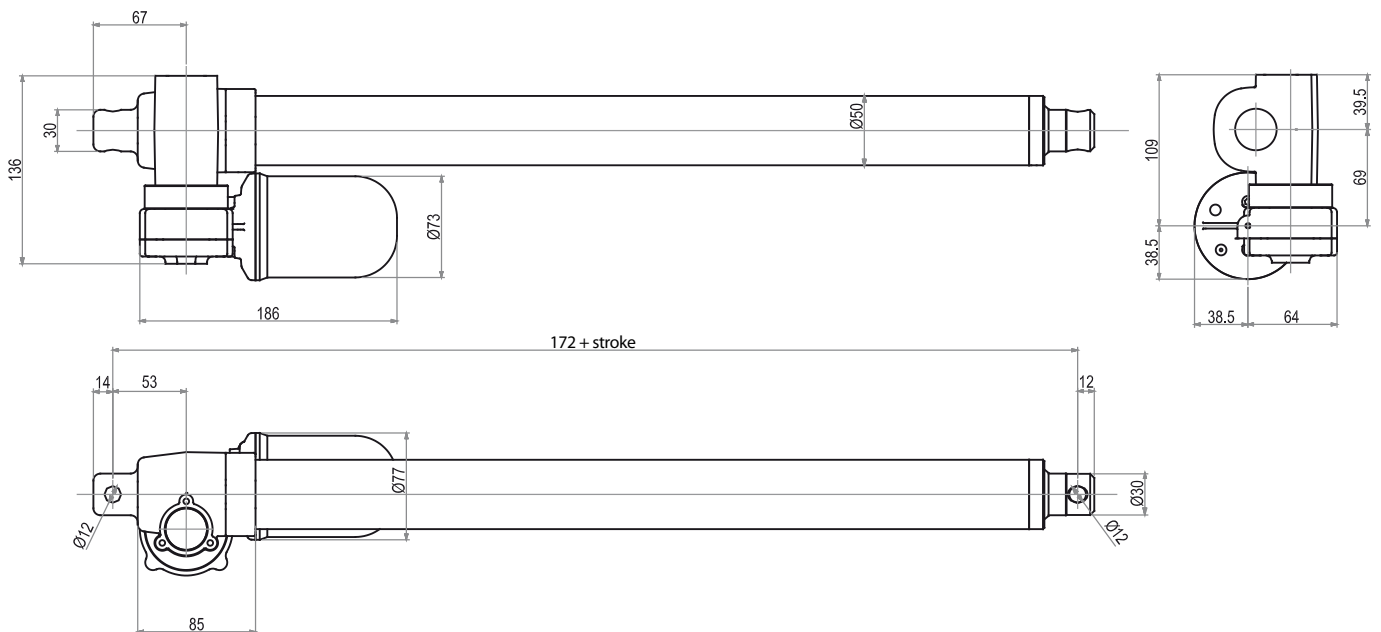
PERFORMANCES

AC MOTOR VERSION									
Fmax [N]	Max speed [mm/s]	Version	Motor size	Motor power [KW]	Motor speed [rpm]	Screw diameter [mm]	Screw pitch [mm]	Gear ratio	Efficiency
11.000	12	M15	IEC 71	0,55	3000	18	4	1:16	0,26
15.000	6	M16	IEC 63	0,37	1500	18	4	1:16	0,26
DC MOTOR VERSION - SUITABLE FOR THE PHOTOVOLTAIC FIELD									
Fmax [N]	Max speed [mm/s]	Version	Motor size	Motor speed [rpm]	Screw diameter [mm]	Screw pitch [mm]	Gear ratio	Efficiency	Max current for Fmax (A) 24 V
7.000	2,5	M14	59	4900	20	8	1:260	0,33	4
10.000	5	M10	59	4900	18	8	1:104	0,37	9
13.000	2,5	M08	59	4900	18	4	1:104	0,26	9
15.000	2	M13	59	4900	20	8	1:260	0,33	7

DIMENSIONS - AC MOTOR VERSION



DIMENSIONS - DC MOTOR VERSION



SIZE CHANGING ACCORDING TO OPTIONS

- ALI4-P-F = +30 mm
- ALI4-P-FCM = +47 mm
- ALI4-P with bellows boot B = +15 mm
- ALI4-P with antirotation L = +15 mm
- ALI4-P with safety nut G = +30 mm
- Special executions, customizations and VRS versions available on demand

ORDERING KEY

ALI4-P / 0500 / M10 / CC-24-59-4900 / M0 / E01 / POT10A / P1 / A1 / B / L

MODEL:

ALI4-P ALI4-P-F ALI4-P-FCM

STROKE (step of 50 mm):

500 mm = 0500

VERSION (mm/s):

M08 M10 M13 M14 M15 M16

M00 with not standard speed

MOTOR:

With AC motor indicate version, voltage, type, size, n. of poles, power

With DC motor indicate version, voltage, size, rpm

MOTOR POSITION:

M0 Without motor: leave blank

E-BOX POSITION:

1 Without motor or DC motor: leave blank

ENCODER:

E01 (only with DC motor)

E05 E06 E07 E08 Without encoder: leave blank

LIMIT SWITCHES:

2FC2 Without limit switches: leave blank

POTENTIOMETER:

POT10A (10 Kohm) Without potentiometer: leave blank

REAR END:

P1: eyelet P2: 90° eyelet

FRONT END:

A1: eyelet A3: yoke + clip A4: ball joint A7: male M12

OPTIONS:

A: stainless steel version (push rod and front end)

B: bellows boot

FX: anti-corrosion protective painting

G: safety nut

L: anti-rotation device

Never allow the linear actuator to reach the mechanical stop in order to avoid damages of internal components.

MecVel reserves the right to modify without notice any information and/or feature related to its products.

Data contained in this document are indicative and not binding for the company.

