

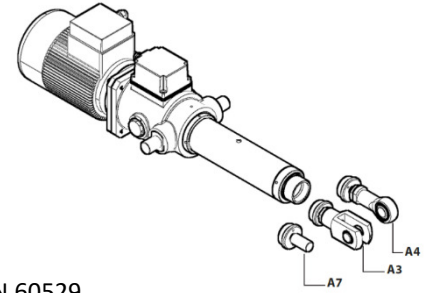
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Linear Actuators

EC1, EC2, EC3, EC4 and EC5 Model

Features and Options:

- ✓ AC Motor, Flange B14 - CE
- ✓ Planetary 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
- ✓ Integrated Limit switches for standard
- ✓ Potentiometer and encoder on request



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



EC1(VAC)					
FMAX (N)	SPEED (MM/S)	VERSION	MOTOR SIZE	MOTOR POWER (KW)	MOTOR SPEED (RPM)
500 ¹	193	M01	IEC63	0.37	2800
1250 ¹	97	M02	IEC71	0.37	1400
2000 ¹	60	M03	IEC71	0.37	900
5000	24	M04	IEC71	0.55	1400
5000	15	M05	IEC71	0.25	900
5000	6	M06	IEC63	0.13	1400

EC1 VRS (BALLSCREW) (VAC)					
FMAX (N)	SPEED (MM/S)	VERSION	MOTOR SIZE	MOTOR POWER (KW)	MOTOR SPEED (RPM)
500 ¹	230	M01	IEC63	0.18	2800
1250 ¹	115	M02	IEC63	0.18	1400
2000 ¹	75	M03	IEC71	0.25	900
5000	30	M04	IEC63	0.18	1400
5000	19	M05	IEC71	0.18	900
5000	7	M06	IEC63	0.13	1400

EC2 (VAC)					
FMAX (N)	SPEED (MM/S)	VERSION	MOTOR SIZE	MOTOR POWER (KW)	MOTOR SPEED (RPM)
1000 ¹	193	M01	IEC80	0.75	2800
2500 ¹	97	M02	IEC80	0.75	1400
2500 ¹	60	M03	IEC80	0.55	900
10000	24	M04	IEC80	1.1	1400
10000	15	M05	IEC80	0.55	900
10000	6	M06	IEC71	0.25	1400

EC2 VRS (BALLSCREW) (VAC)					
FMAX (N)	SPEED (MM/S)	VERSION	MOTOR SIZE	MOTOR POWER (KW)	MOTOR SPEED (RPM)
1250 ¹	230	M01	IEC71	0.37	1400
2500 ¹	150	M02	IEC80	0.55	900
5000 ¹	60	M03	IEC71	0.37	1400
1000	35	M04	IEC80	0.55	900
1000	15	M05	IEC63	0.18	1400

EC3 (VAC)					
FMAX (N)	SPEED (MM/S)	VERSION	MOTOR SIZE	MOTOR POWER (KW)	MOTOR SPEED (RPM)
2500 ¹	193	M01	IE90	2.20	2800
5000 ¹	97	M02	IE90	1.80	1400
5000 ¹	60	M03	IE90	1.50	900
15000	24	M04	IE90	1.80	1400
15000	15	M05	IE90	1.10	900
15000	6	M06	IE71	0.37	1400

EC3 VRS (BALLSCREW) (VAC)					
FMAX (N)	SPEED (MM/S)	VERSION	MOTOR SIZE	MOTOR POWER (KW)	MOTOR SPEED (RPM)
3000 ¹	230	M01	IEC80	0.75	1400
3000 ¹	150	M02	IEC80	0.55	900
10000 ¹	60	M03	IEC80	0.75	1400
15000	35	M04	IEC80	0.55	900
15000	15	M05	IEC71	0.25	1400

EC4 (VAC)					
FMAX (N)	SPEED (MM/S)	VERSION	MOTOR SIZE	MOTOR POWER (KW)	MOTOR SPEED (RPM)
15000 ¹	56	M01	IEC112	2.20	900
25000 ¹	42	M02	IEC100	4.00	1400
30000	25	M03	IEC112	3.00	900
30000	10	M04	IEC90	1.50	1400

EC4 VRS (BALLSCREW) (VAC)					
FMAX (N)	SPEED (MM/S)	VERSION	MOTOR SIZE	MOTOR POWER (KW)	MOTOR SPEED (RPM)
25000 ¹	60	M01	IEC90	1.80	1400
30000	35	M02	IEC100	1.50	900
30000	15	M03	IEC90	1.10	1400

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



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EC5 (VAC)					
FMAX (N)	SPEED (MM/S)	VERSION	MOTOR SIZE	MOTOR POWER (KW)	MOTOR SPEED (RPM)
50000	11	M01	IEC100	3.00	1400
5000	7	M02	IEC100	2.20	900

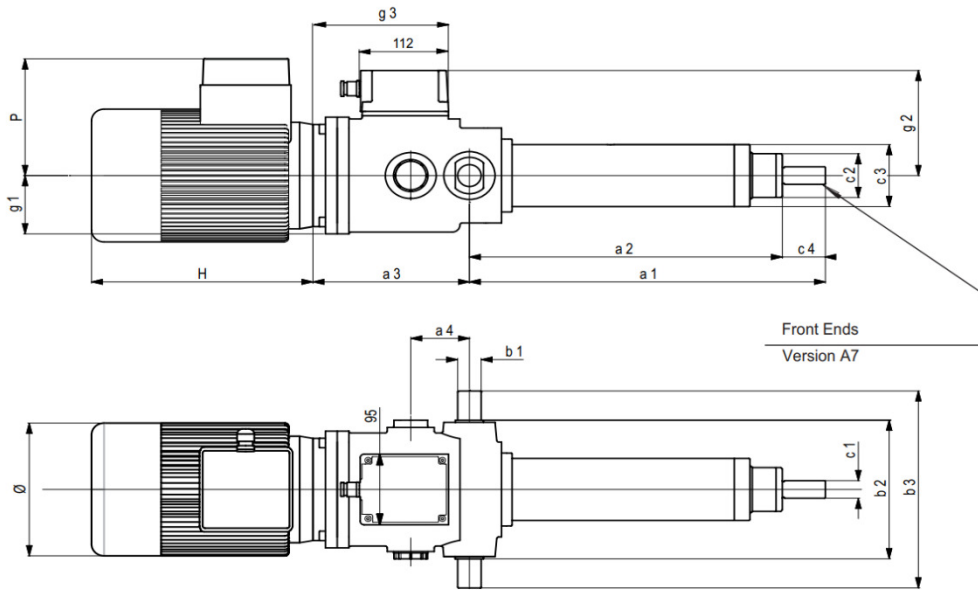
EC5 VRS (BALLSCREW) (VAC)					
FMAX (N)	SPEED (MM/S)	VERSION	MOTOR SIZE	MOTOR POWER (KW)	MOTOR SPEED (RPM)
50000	15	M01	IEC90	1.10	1400
5000	10	M02	IEC90	0.75	900

Please note:

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

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

EC1 / 2 / 3:



DIMENSIONS TABLE:														
SIZE	a1	a2	a3	a4	b1	b2	b3	c1	c2	c3	c4	g1	g2	g3
1	145	111	*	61	Ø14	105	145	M10	Ø30	Ø50	34	50	103	*
2	167	123	*	66	Ø14	140	200	M12	Ø50	Ø70	44	65	118	*
3	255	200	*	75	Ø14	190	270	M18	Ø60	Ø85	55	80	138	*

DIMENSIONS TABLE:														
SIZE	a1	a2	a3	a4	b1	b2	b3	c1	c2	c3	c4	g1	g2	g3
1	169	135	*	61	Ø14	105	145	M10	Ø30	Ø50	30	50	103	*
2	223	189	*	66	Ø20	140	200	M12	Ø50	Ø70	35	65	118	*
3	317	262	*	75	Ø30	190	270	M18	Ø60	Ø85	45	80	138	*

- Dimensions are valid for stroke = 0, for the exact overall dimension add the wanted stroke in mm.
- Dimensions change according to actuator model. See charts side wards.

A.C. MOTORS DIMENSIONS				
SIZE:	VERSION / TYPE:	H	Ø	P
63	Standard	185	123	110
	Brake Motors	234		
71	Standard	215	140	121
	Brake Motors	267		
80	Standard	238	159	138
	Brake Motors	296		
90	Standard	255	176	149
	Brake Motors	319		

VERSION:							
EC1		M01	M02	M03	M04	M05	M06
	a3	147	157	157	157	157	172
	g3	131	141	141	141	141	156

VERSION:							
EC1-VRS		M01	M02	M03	M04	M05	M06
	a3	147	147	157	147	157	172
	g3	131	131	141	131	141	156

VERSION:							
EC2		M01	M02	M03	M04	M05	M06
	a3	182	182	182	182	182	201
	g3	158	158	158	158	158	177

VERSION:							
EC2-VRS		M01	M02	M03	M04	M05	
	a3	169	182	169	182	201	
	g3	145	158	145	158	177	

VERSION:							
EC3		M01	M02	M03	M04	M05	M06
	a3	200	200	200	200	200	226
	g3	173	173	173	173	173	199

VERSION:							
EC3-VRS		M01	M02	M03	M04	M05	
	a3	188	188	188	188	226	
	g3	161	161	161	161	199	

Linear Actuators

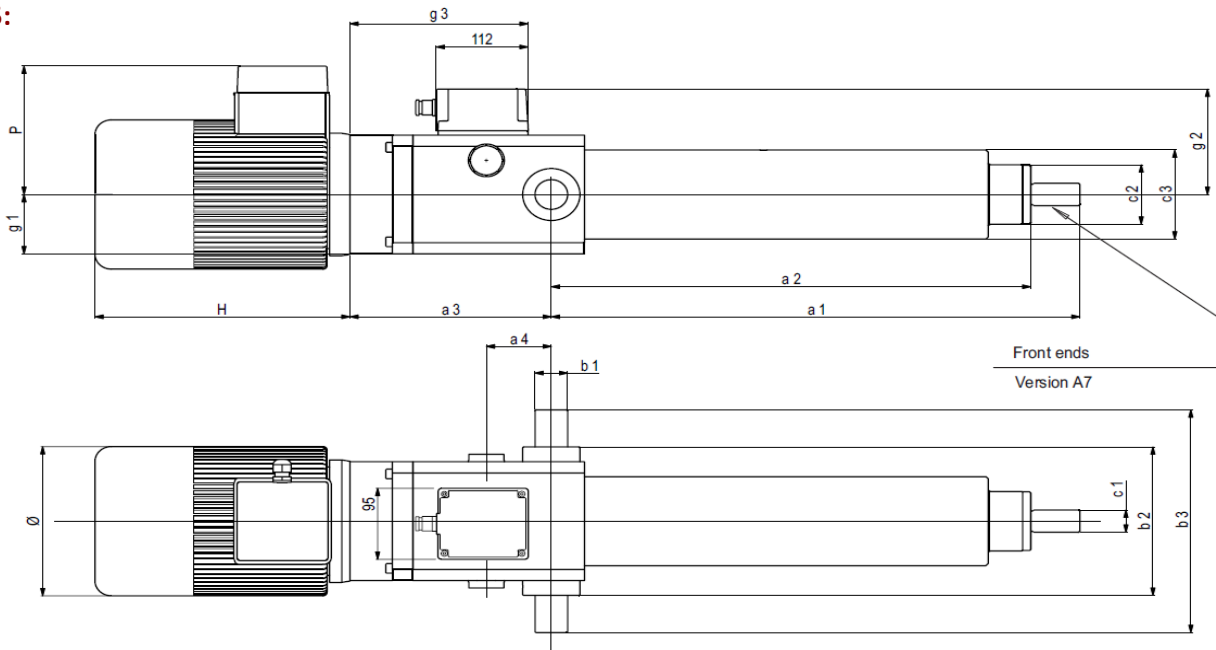
EC1, EC2, EC3, EC4 and EC5 Model

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GEARED MOTORS - LINEAR ACTUATORS - CONTROLS

- Over 40 Years of Supplying Africa -

EC4 / 5:



DIMENSIONS TABLE:

SIZE	a1	a2	a3	a4	Øh7 b1	b2	b3	c1	c2	c3	c4	g1	g2	g3
4	272	212	*	79.5	40	200	300	M30x2	80	120	60	80	136	*
5	272	212	*	79.5	40	200	300	M30x2	80	120	60	80	136	*

VERSION:

EC4	VERSION:			
	M01	M02	M03	M04
a3	246.5	246.5	246.5	238.5
g3	218	218	218	210

- Dimensions are valid for stroke = 0, for the exact overall dimension add the wanted stroke in mm.
- Dimensions change according to actuator model. See charts side wards.

VERSION:

EC4-VRS	VERSION:		
	M01	M02	M03
a3	200.5	246.5	238.5
g3	172	218	210

A.C. MOTORS DIMENSIONS

SIZE:	VERSION / TYPE:	H	Ø	P
90	Standard	185	123	110
	Brake Motors	234		
100	Standard	215	140	121
	Brake Motors	267		
112	Standard	238	159	138
	Brake Motors	296		

VERSION:

EC5	VERSION:	
	M01	M02
a3	284.5	284.5
g3	256	256

VERSION:

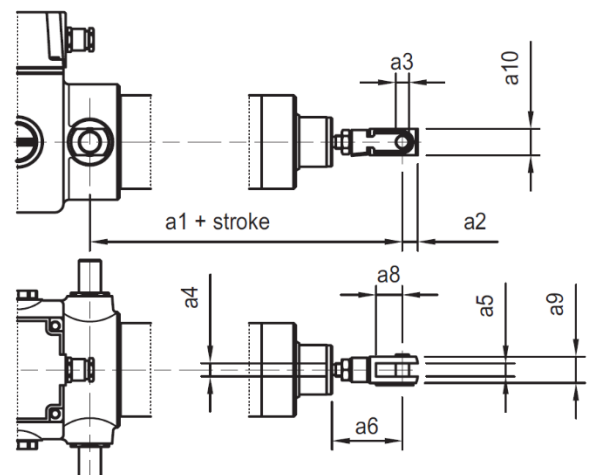
EC5-VRS	VERSION:	
	M01	M02
a3	238.5	238.5
g3	210	210

Front ends:

DIMENSIONS TABLE

SIZE:	a1	a1 VRS (BALLSCREW)	a3	a4	a5	a6	a8	a9	a10
1	172	14	Ø12	M12	12	61	24	24	24
2	220	25	Ø20	M20x1,5	20	97	40	40	40
3	317	35	Ø25	M24x2	25	117	50	50	50
4/5	345	38	Ø30	M27x2	30	131	54	55	55

A3 = YOKE WITH CLIP DIN 71752 / UNI 1676



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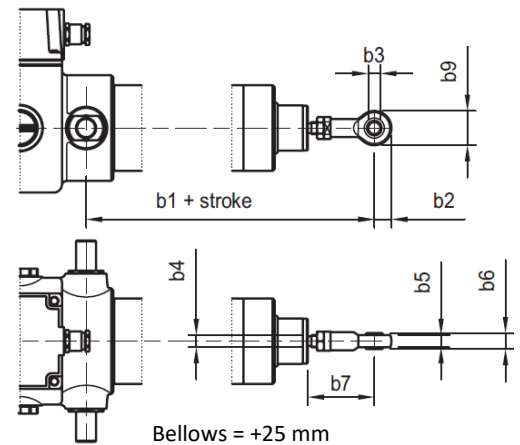
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DIMENSIONS TABLE

SIZE:	b1	b1 VRS (BALLSCREW)	b2	b3 (ØH7)	b4	b5	b6	b7	b9
1	174	198	16	Ø12	M12	12	16	63	32
2	217	283	25	Ø20	M20x1,5	18	25	94	50
3	313	375	30	Ø25	M24x2	22	31	113	60
4/5	345	392	35	Ø30	M27x2	25	37	131	70

A4 = ROD END DIN 648 serie K / UNI 6126



Stroke Setup:

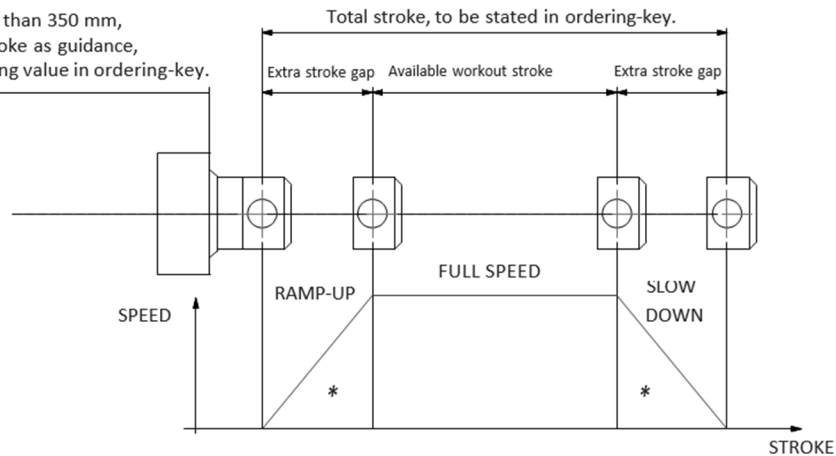
Useful tips for handling stroke and avoid run-on-block collision

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

WARNING:

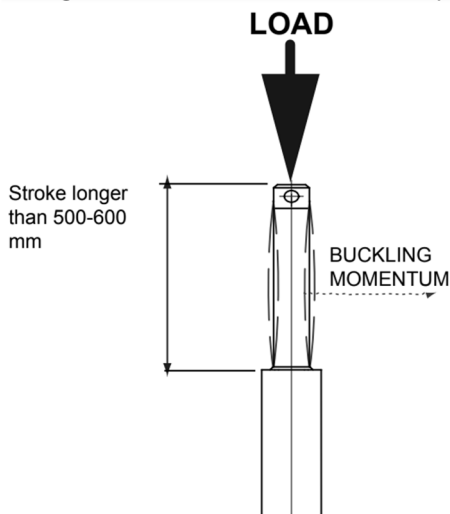
SPEED-TIMING ALONG STROKELENGTH:
Ramps are extremely important with high speed. Inverter or PWM drive recommended.

* 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 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, please contact our Sales Department.

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Ordering Key:

EC1 / 0250 / M01 / CA-400-50-T-56-4-0,09 / AB / E05 / 2FC2 / POT01A / A3

MODEL: _____

EC1 / EC2 / EC3 / EC4 / EC5

EC1-VRS / EC2-VRS / EC3-VRS / EC4-VRS

EC5-VRS

STROKE: _____

es. 250 mm = 0250

VERSION: _____

Advise: choose among

M00 = Not standard speed

Flanged Version:

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: _____

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)

ENCODER: _____

None: Leave blank

LIMIT SWITCHES: _____

None: Leave blank

POTENTIOMETER: _____

POT01A (1Kohm) POT10A (10Kohm) None: Leave blank

FRONT END: _____

A3 = Yoke + Clip A4 = Rod end A7 = Male threaded pin

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