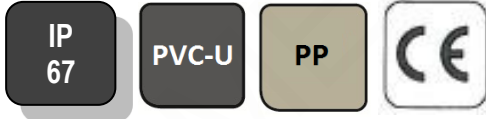


# PL1 VALVE WITH SA ELECTRIC ACTUATOR

## FEATURES

The PL1 butterfly-valves are wafer-style valves intended for current valve applications. This PN10 butterfly-valve of reinforced polypropylene is used to isolate low-pressure water, acid or alkaline\* fluid networks. The materials used are anti-UV coated. The valve has an ISO 5211 mounting pad for the direct mounting of the SA actuator. This is perfectly adapted to both indoor and outdoor industrial use.



## AVAILABLE VERSIONS

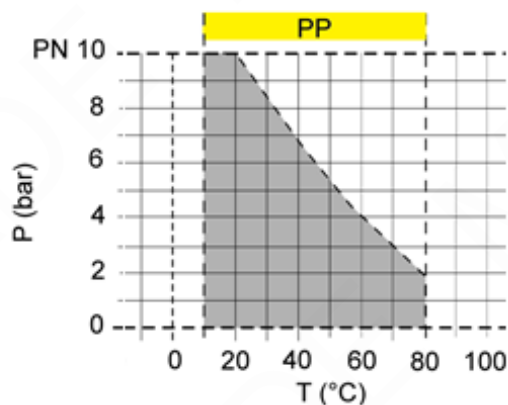
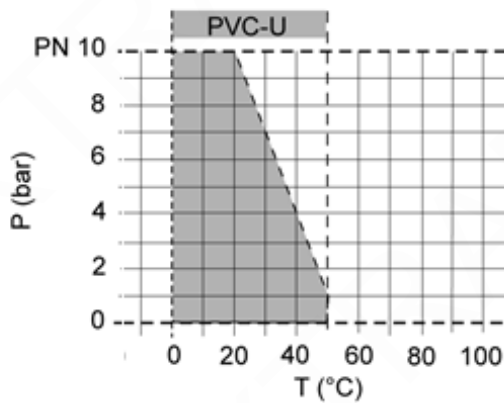
PVC-U or PP body, PP-GF butterfly, EPDM or FPM sleeve.  
 DN40 to DN350 diameters.  
 Connection between EN1092-1 PN10 flanges.  
 12V DC, 24V AC-DC and 230V AC supply voltages.

## LIMITS OF USE

Fluid pressure: WP	10 bar
Fluid temperature: WT°	See curves
Ambient temperature	0°C to +60°C
Service factor	S2: 15mm – S4 : 50%



NA type starts at page 8

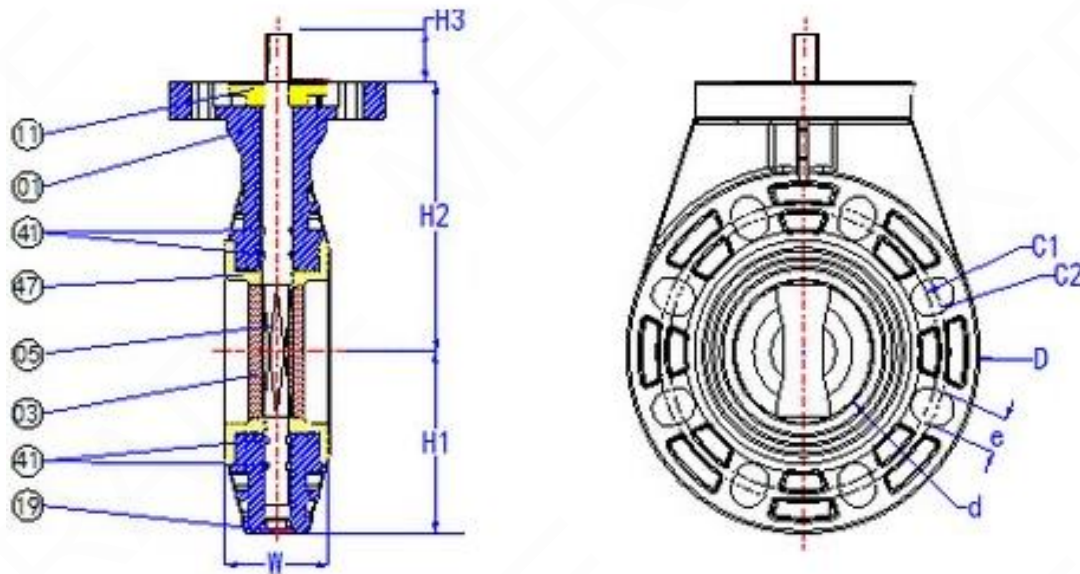


## DIRECTIVES AND MANUFACTURING STANDARDS

	Standard		Standard
Pressure Equipment Directive 97/23/EC	DN40 to 350	Category I	Connection Motorisation
Connection between flanges	EN 1092-1		Actuator
Final test	EN 12266		

**DIMENSIONS (mm)**

DN	d	C1	C2	H1	H2	H3	D	W	e
40	40	98	110	74	114	15	148	34	19
50	52	120	1250	81	124	15	162	44	19
65	66	140	145	89.5	129	19	179	46	19
80	78.5	150	160	97.5	145	18	195	57	19
100	104	175.5	190.5	112.5	160	19	225	60	19
125	127	210	216	127.5	175	16	255	66	23
150	151	240	241	140	190	20	280	72	23
200	200	290	298	172.5	219.5	25	340	82	23


**CONSTRUCTION**

N°	Item	PL1 PVC-U	PL1 PP
01	Body	PVC-u	PP
03	Butterfly	PP-GF	PP-GF
05	Stem	1.4301 SS	1.4301 SS
11	Stem ring	PVC-u	PP
19	Plug	PP	PP
41	O-ring	EPDM / FPM	EPDM / FPM
47	Liner	EPDM / FPM	EPDM / FPM

**FLOW-RATE COEFFICIENT Kv (m<sup>3</sup>/h)**

DN	40	50	65	80	100	125	150	200
Kv	70	87.6	123	201	372	663.6	939	2349

## SA ELECTRICAL MOTORISATION

The SA motorisation proposed as standard extends to:

- IP67 epoxy coated aluminium housing for actuator and steel gear box,
- safety coefficient of 1.3 minimum compared to the nominal torque of the valve,
- upstream / downstream pressure difference  $\Delta P=10$  bar max,

The actuator's assembly is direct.




DN	Actuator	Power 230V AC / 24V AC/DC	Current 230V AC / 24V AC/DC	Time 230V AC / 24V AC/DC	Standard equipment of the actuator
40	SA 05	6 W / 15 W	0.23 A / 1.8 A	17 s / 10 s	2 adjustable limit switches 2 dry auxiliary contacts Anti-condensation heater 5W Thermal protection of the motor Lever declutching Stand-by manual control with key Backlit position indicator Electrical connection: 2 C.G. M20x1.5
50	SA 05	6 W / 15 W	0.23 A / 1.8 A	17 s / 10 s	
65	SA 05	6 W / 15 W	0.23 A / 1.8 A	17 s / 10 s	
80	SA 05	6 W / 15 W	0.23 A / 1.8 A	17 s / 10 s	
100	SA 05	6 W / 15 W	0.23 A / 1.8 A	17 s / 10 s	
125	<b>See PL1 + NA</b>				
150					
200					

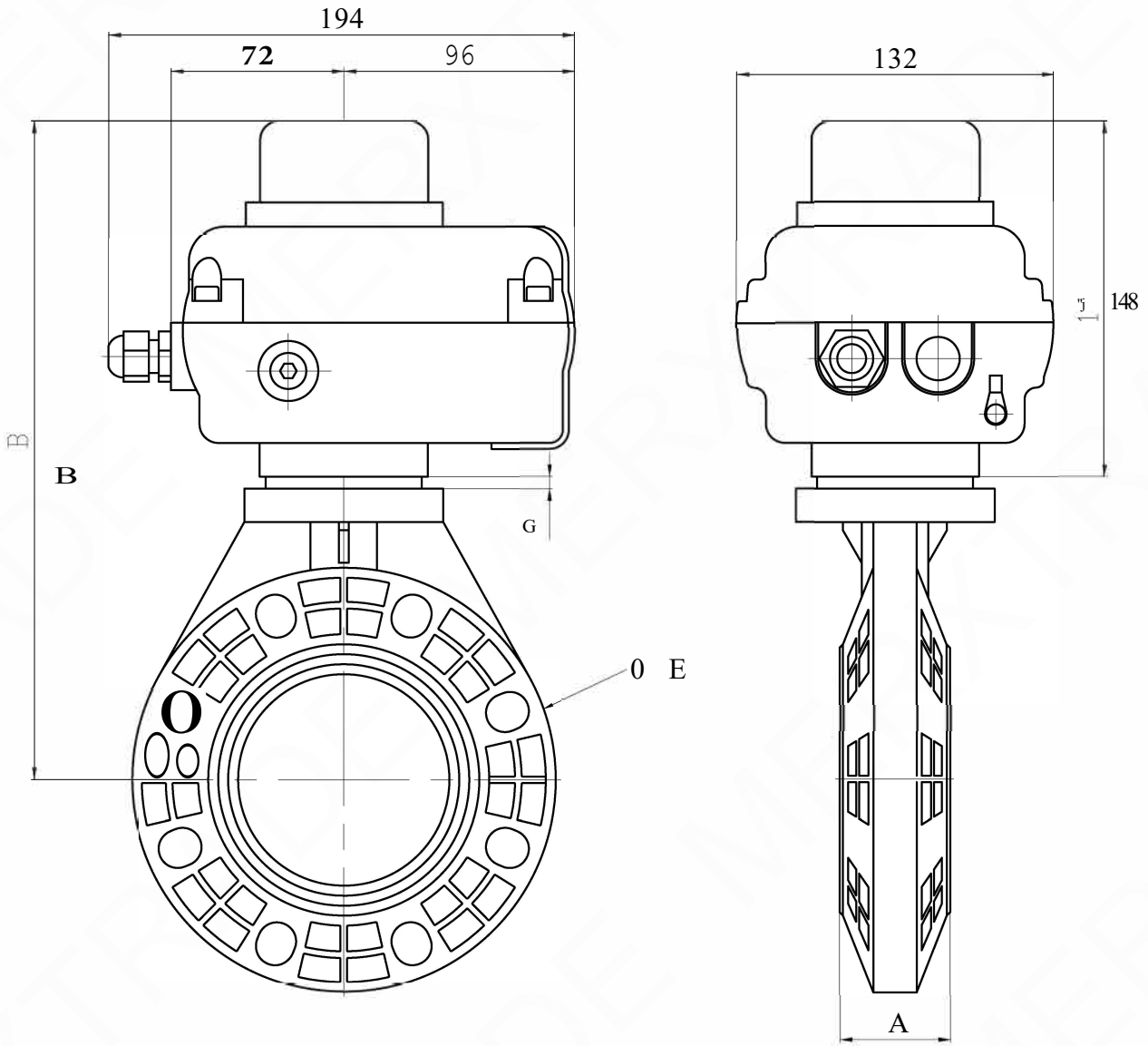
For any other operating conditions, please contact us.

\* indicative time for actuator running empty

## MOTORISATION OPTIONS

There are many options for which you are invited to contact our sales service:

1	2	3
SA 05 S: 70 s slow actuator	SA 05 PCU: 4-20mA or 0-10V proportional control unit actuator	SA 05 RBP: fail safe/security electric actuator
		
10	NA actuator with override by handwheel	



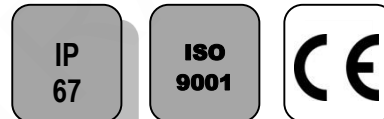
DN	40	50	65	80	100
SERVO	SA05	SA05	SA05	SA05	SA05
A	34	44	46	57	60
B	267	277	292	308	323
OE	148	162	179	195	148
G	5	5	5	5	5
KG	4,2	4,2	4,7	4,9	5,2


## FEATURES

The SA 05 electric actuator is intended for motorising industrial 1/4" turn valves. The torque is of 50 Nm. With a compact, robust construction and IP67 epoxy-coated aluminium housing, the SA actuator is especially well suited for motorising ball valves and butterfly valves installed in workshops or outdoors. The SA 05 has a manual key control and a 3D visual position indicator. Compliant with the EN 15714-2 standard.

## AVAILABLE MODELS

Supply voltages: 230V AC (50-60Hz), 24V AC/DC and 12V DC



## LIMITS OF USE

IP Code	IP 67
Ambient temperature	- 20°C / +70°C
Service factor	S2: 15mn - S4: 50%

## MECHANICAL FEATURES

Gear box	treated steel pinions
Torque	50 Nm
Angle of rotation	90° +/- 5°
Declutching	Without
Override control	by key (except for SA 05 S)



Actuator	SA 05			SA 05 S	
	Voltage	230V AC	24V AC/DC	12V DC	230V AC
Torque (Nm)	50				
Manoeuvring time (s)	17	10	11	100	100
ISO 5211	F03/F05/F17 star 14				

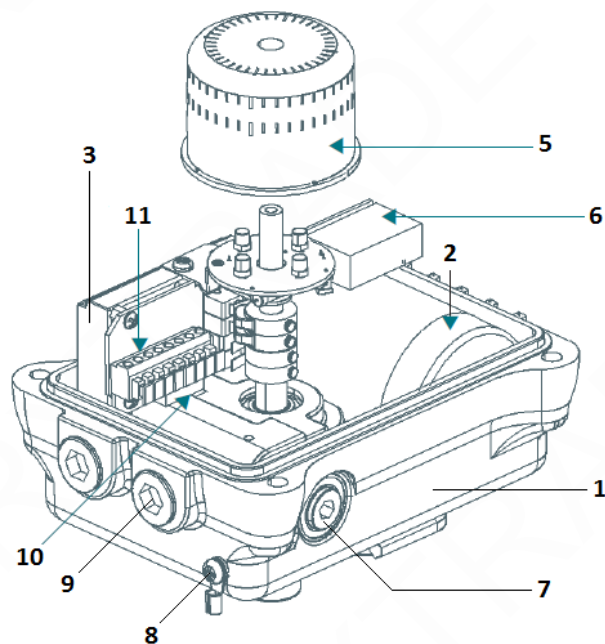
## ELECTRICAL FEATURES

Motor protection	Thermal switch	Anti-condensation	5W heater
Limit switches	2 adjustable switches	Electrical connection	2 x P.E. M20x1.5
Auxiliary switches	2 adjustable dry switches		

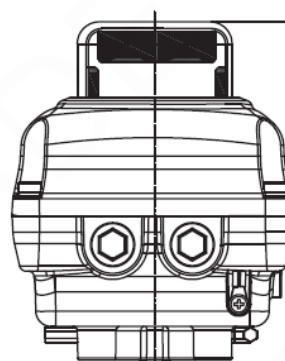
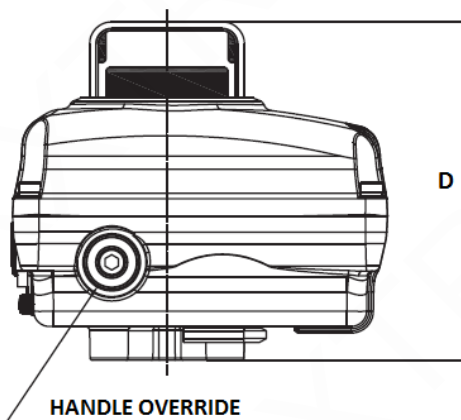
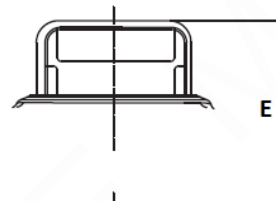
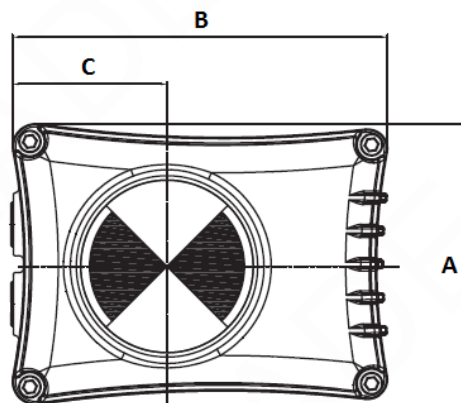
Actuator	SA 05			SA 05 S	
	Voltage	230V AC	24V AC/DC	12V DC	230V AC
Power (W)	6 W	15 W	6 W	6 W	15 W
Current (A)	0.23	1.8	3.2	0.23	1.8

**CONSTRUCTION**

1	Housing	Polyester-coated aluminium
2	Electrical motor	
3	Gear box	Treated steel pinions
4	Cover	Polyester-coated aluminium
5	Position indicator	Polycarbonate plastic
6	Condenser	
7	Handle override	
8	Earthing	
9	Cable inlet	
10	Anti-condensation heater	
11	Terminal box	


**DIMENSIONS (mm) AND WEIGHT (kg)**

Dimensions (mm)	A	B	C	D	E	Weight (kg)
SA 05	127	170	70	153	80	3.2



**WIRING DIAGRAM 230V AC 50Hz/60Hz**

1	common	<p>CLS : Close Limit Switch (250VAC 3A)          OLS : Open Limit Switch (250VAC 3A)          ACLS : Aux Close Limit Switch (250VAC 3A)          AOLS : Aux Open Limit Switch (250VAC 3A)          TP : Thermal Protector (250VAC 3A)          RM : Motor Regulation</p>
2	Anti-condensation heater	
3	closing command	
4	opening command	
5	closing auxiliary	
6	closing auxiliary	
7	opening auxiliary	
8	Opening auxiliary	

**WIRING DIAGRAM 24V AC/DC-12V DC**

1	Common or +	<p>CLS : Close Limit Switch (250VAC 3A)          OLS : Open Limit Switch (250VAC 3A)          ACLS : Aux Close Limit Switch (250VAC 3A)          AOLS : Aux Open Limit Switch (250VAC 3A)          TP : Thermal Protector (250VAC 3A)          RM : Motor Regulation</p>
2	Closing command	
3	Opening command	
4	closing auxiliary	
5	opening auxiliary	
6	Auxiliaries common	
7	Anti-condensation heater power supply	
8	Anti-condensation heater power supply	

**OPTIONS**

1	SA 05 X: version for ATEX zone
2	SA 05 PIU: version with feedback potentiometer
3	SA 05 CPT: version with position transmitter 4-20 mA
4	SA 05 PCU: version with adjustment card 0-10, 2-10V, 2-20 mA, 4-20 mA
5	SA 05 LCU: version with local control
6	SA 05 RBP: version with in-built fail safe/security

## PL1 VALVE WITH NA ELECTRIC ACTUATOR

### FEATURES

PL1 type butterfly valves are centering ear valves intended for common valve applications.

This valve with reinforced PP butterfly, PN10, is used to isolate water or acid or basic \* low pressure fluid networks.

The materials used are treated for UV protection.

The valve is fitted with an ISO 5211 plate allowing direct mounting of the NA actuator.

It is perfectly suited for industrial use indoors and outdoors.



### AVAILABLE VERSIONS

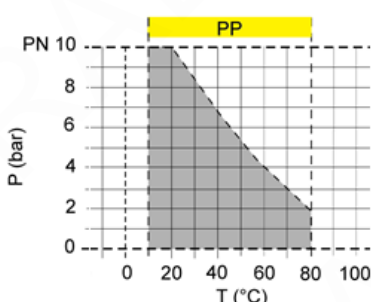
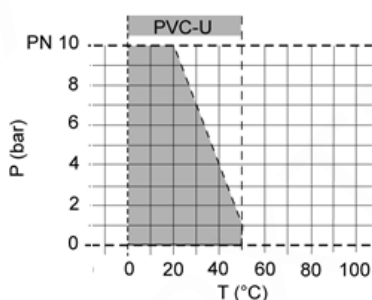
PVC-U or PP body, PP-GF butterfly, EPDM or FPM sleeve Diameters

DN40 to DN350 Connection between flanges EN1092-1 PN10

Supply voltages 24V AC-DC, 230V AC, tri400 V ACAC

### LIMITS OF USE

Fluid pressure: WP	10 bar
Fluid temperature: WT°	See curves
Ambient temperature	0°C to +60°C
Service factor	S2 – 70%



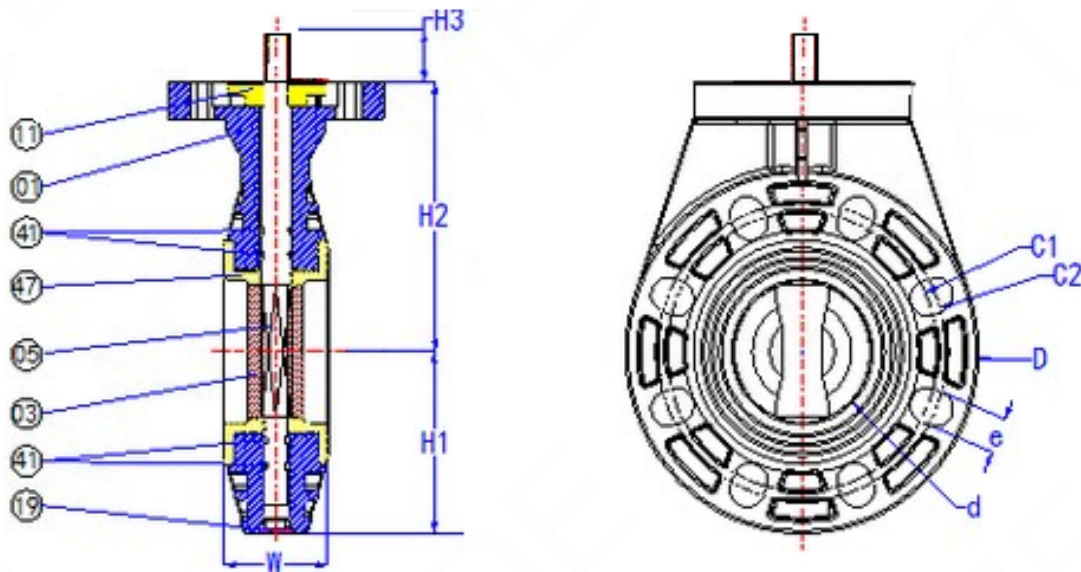
### DIRECTIVES AND MANUFACTURING STANDARDS

	Norme			Norme
Pressure Equipment Directive 97/23/EC	DN40 to 350	Catégorie I	Connection Motorisation	ISO 5211
Between flanges	EN 1092-1		Actuator	EN 12517-2
Final test	EN 12266			



**DIMENSIONS (mm)**

DN	d	C1	C2	H1	H2	H3	D	W	e
40	40	98	110	74	114	26	148	34	19
50	52	120	125	81	124	26	162	44	19
65	66	140	145	89.5	129	26	179	46	19
80	78.5	150	160	97.5	145	26	195	57	19
100	104	175.5	190.5	112.5	160	26	225	60	19
125	127	210	216	127.5	175	30	255	66	23
150	151	240	241	140	190	30	280	72	23
200	200	290	298	172.5	219.5	30	340	82	23


**CONSTRUCTION**

n°	Item	PL1 PVC-U	PL1 PP
01	Body	PVC-u	PP
03	Butterfly	PP-GF	PP-GF
05	Stem	1.4301 SS	1.4301 SS
11	Stem ring	PVC-u	PP
19	Plug	PP	PP
41	O-ring	EPDM / FPM	EPDM / FPM
47	Liner	EPDM / FPM	EPDM / FPM

**FLOW-RATE COEFFICIENT Kv (m<sup>3</sup>/h)**

DN	40	50	65	80	100	125	150	200
Kv	70	87,6	123	201	372	663,6	939	2349

## ELECTRICAL MOTORISATION NA

The SA motorisation proposed as standard extends to:

- IP67 epoxy coated aluminium housing for actuator and steel gear box,
- safety coefficient of 1.3 minimum compared to the nominal torque of the valve,
- upstream / downstream pressure difference  $\Delta P=10$  bar max,

The actuator's assembly is direct.




DN	Actuator	Power (W)	Time (s)*	
40	Voir PL1 + servomoteur SA			
50				
65				
80				
100				
				<b>Standard equipment of the actuator</b>
125	NA 06	15 W	17 s	2 adjustable limit switches + 2 dry auxiliaries 20 W anti-condensation resistance Visual position indicator Motor thermal protection (NA09) Torque limiter (NA15) Racc. electric: 2 cable glands M20 x 1.5 Manual emergency control by disengageable flywheel
150	NA 09	25 W	17 s	
200	NA 15	40 W	20 s	

For any other service condition, please consult us.

\* indicative time of the vacuum actuator

### MOTORIZATION OPTIONS

There are many options for which we ask you to consult our sales department:

1	2	3
NA LCU : Actuator with local control	NA PCU : regulating servomotor 4-20mA or 0-10V	NA RBP : safety servomotor with battery safety block
		
9	NA servo motor with disengageable handwheel emergency control	

