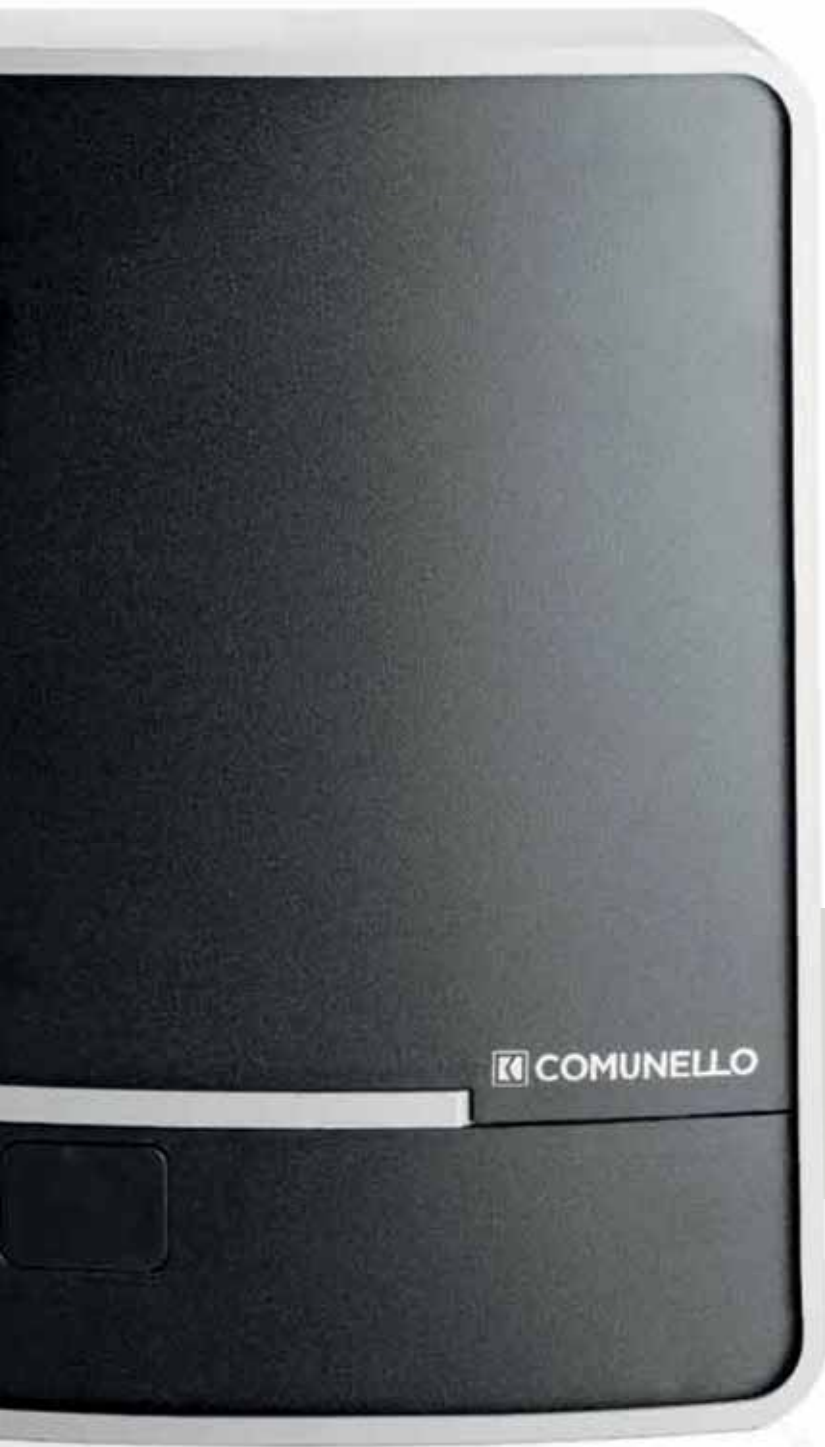




Life
made
easy



AUTOMATION
FOR GATES, DOORS
AND BARRIERS

GENERAL CATALOGUE



 **COMUNELLO**

Life
made
easy

EUROPEAN STANDARDS

EN 12453 - EN 12445

Comunello Group is at your side:

1. To inform:

a. What are the current regulations?

EN 12453 and EN 12445 standards specifies compliance and safety requirements for automated locking that may come into contact with people, allowing you to define all the technical solutions necessary for the safety of the user.

b. What are the contexts required by European standards?

Type of control		Hold to run	Impulse located in sight of gate	Impulse not located in sight of gate (radio control)	Automatic (Impulse)
Exemples		switch or key operated switch	switch or key operated switch	Radio control unit	Operating cycle
Conditions of use	no public present TRAINED User	A	C	C	C + D
	no public present UNTRAINED User	C	C	C + D	C + D
	public may be present TRAINED User	B	C	C + D	C + D
	public may be present UNTRAINED User	-	C + D	C + D	C + D

c. What are the required safety devices?

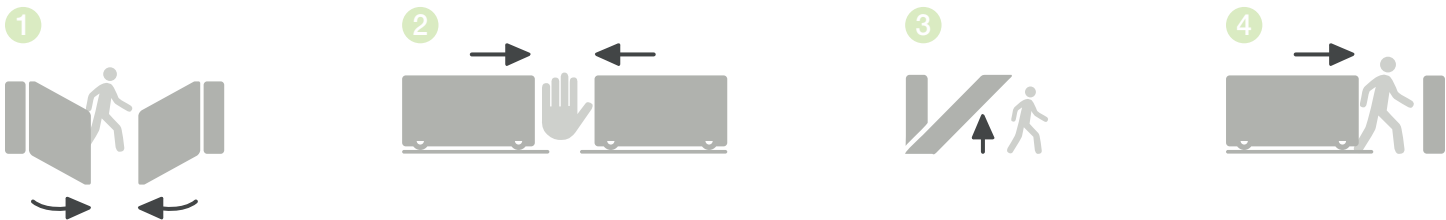
- A Operator Presence (continuous pressure required).
- B Operator Presence (continuous pressure not required).
- C Mechanical (sensitive edges) and electronic devices. You need to check whether the maximum impact forces are in line with the values required by the standards.
- D Photocells, to allow detection of the presence of an obstacle in the automation operational area.

2. To offer “turnkey solution” :

a. COMUNELLO certifies the products are in compliance with the standards.

When a gate, a door or other type of opening is automated, it becomes a a machinery which may involve risks. These are of different types:

- 1- Crushing
- 2- Shearing
- 3- Lifting (in case of barrier with a vertical movement)
- 4- Conveying



b. provides complete solution in order to certify the installation.

the wide range of automation for slide and swing gates, barriers and garage doors has been developed and produced conforming to the security European Norms. Such automations allow the installer to certify his installation. For further details please contact our tech support.

technical_assistance@comunello.it

1. Swing gates

			
EAGLE	ABACUS 220 / 300 / 500	CONDOR 220 / 350	CONDOR 500
36	46	66	80

3. Garage doors

	
RAMPART	SALIENT
128	134

4. Barrier gates

				
RAM 220 / 300 / 500	BORDER 400 BORDER 600	LIMIT 500	LIMIT 600	LIMIT 800
88	144 148	152	164	172

2. Sliding and cantilever gates

			
FORT 400 / 500	FORT 600/700/1000/1500	FORT DUAL 1000	FORT 3500
100	108	116	120

5. Accessories

				
5.1 MECHANICAL ACCESSORIES	5.2 CONTROL UNIT	5.3 CONTROL ACCESSORIES	5.4 SAFETY ACCESSORIES	5.5 WIRING DIAGRAMS
184	208	218	244	252

A company with 50 years of manufacturing experience, a clear international vision based on the quality of our design, our groundbreaking technology, the solidity of our production, and our commitment to technical service and customer care.

Automation for now and for the future.

 **COMUNELLO**

The strength of a solid industrial group



The Comunello Group of companies is built on a solid, reliable, well-structured manufacturing base. The Group comprises 4 Divisions with all products from each Division 100% designed and manufactured at the company premises in Italy. This total control over manufacturing processes guarantees the highest levels of quality. Comunello was founded in 1965 and today exports to more than 105 countries worldwide.

COMUNELLO
GATE DIVISION

COMUNELLO
AUTOMATION

COMUNELLO
FRAME DIVISION

COMUNELLO
FRAME AUTOMATION



1 Swing gates



EAGLE 38



ABACUS 220 / 300 / 500	46
ABACUS 220	48
ABACUS 300	54
ABACUS 500	60



CONDOR 220 / 350	66
CONDOR 220	68
CONDOR 350	74



CONDOR 500 80



RAM	88
RAM 220 / 300	90
RAM 500	92



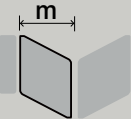
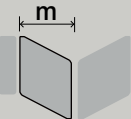
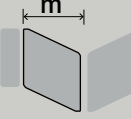
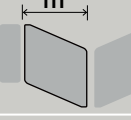
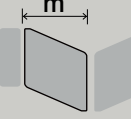
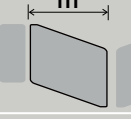
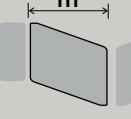
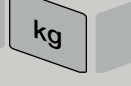
COMUNELLO
AUTOMATION

Swing gates

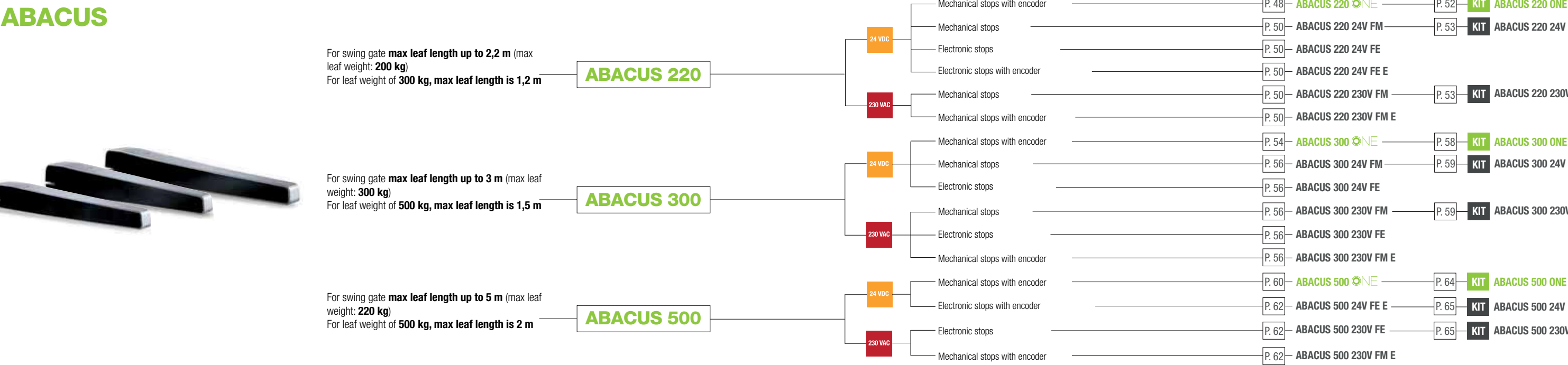
Selection guide

ONE 24 VDC 230 VAC

COMUNELLO
AUTOMATION

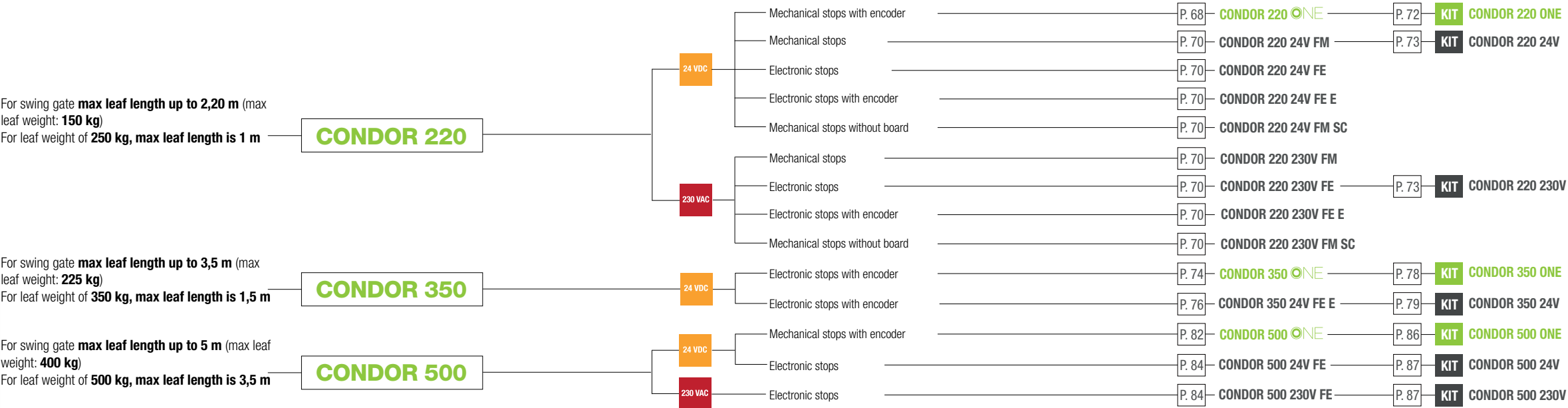
CONDOR	CONDOR 220 24V ONE	 max leaf length 2,2 m max leaf weight150 kg	 max leaf weight 250 kg max leaf length 1 m
	CONDOR 220 24V FM		
	CONDOR 220 24V FE		
	CONDOR 220 24V FE E		
	CONDOR 220 24V FM SC		
	CONDOR 220 230V FM		
	CONDOR 220 230V FE		
	CONDOR 220 230V FE E		
	CONDOR 220 230V FM SC		
RAM	RAM 220 24V		
ABACUS	ABACUS 220 24V ONE	 max leaf length 2,2 m max leaf weight200 kg	 max leaf weight 300 kg max leaf length 1,2 m
	ABACUS 220 24V FM		
	ABACUS 220 24V FE		
	ABACUS 220 24V FE E		
	ABACUS 220 230V FM		
	ABACUS 220 230V FM E		
ABACUS	ABACUS 300 24V ONE	 max leaf length 3 m max leaf weight300 kg	 max leaf weight 500 kg max leaf length 1,5 m
	ABACUS 300 24V FM		
	ABACUS 300 24V FE		
	ABACUS 300 230V FM		
	ABACUS 300 230V FE		
	ABACUS 300 230V FM E		
RAM	RAM 300 24V		
	RAM 300 230V		
CONDOR	CONDOR 350 24V ONE	 max leaf length 3,5 m max leaf weight225 kg	 max leaf weight 350 kg max leaf length 1,5 m
	CONDOR 350 24V FE E		
EAGLE	EAGLE 24V	 max leaf length 3,5 m max leaf weight350 kg	 max leaf weight 600 kg max leaf length 2 m
	EAGLE 24V EC		
	EAGLE 230V		
	EAGLE 230V EC		
CONDOR	CONDOR 500 24V ONE	 max leaf length 5 m max leaf weight400 kg	 max leaf weight 500 kg max leaf length 3,25 m
	CONDOR 500 24V FE		
	CONDOR 500 230V FE		
ABACUS	ABACUS 500 24V ONE	 max leaf length 5 m max leaf weight220 kg	 max leaf weight 500 kg max leaf length 2 m
	ABACUS 500 24V FE E		
	ABACUS 500 230V FE		
	ABACUS 500 230V FM E		
RAM	RAM 500 24V		
	RAM 500 230V		

Dimensions refer to a single leaf

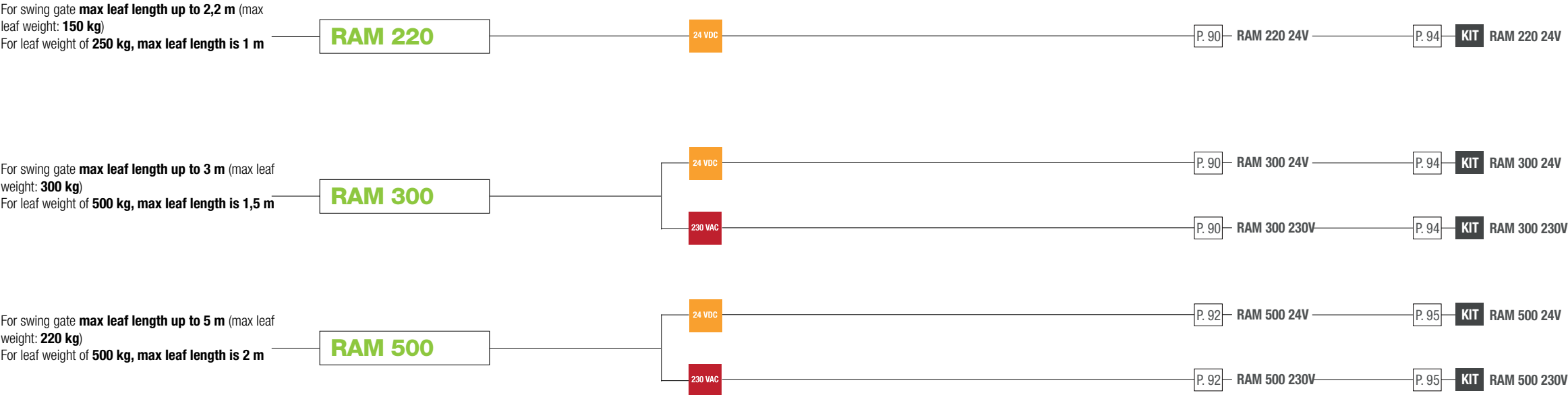




CONDOR



RAM





Swing gates

EAGLE

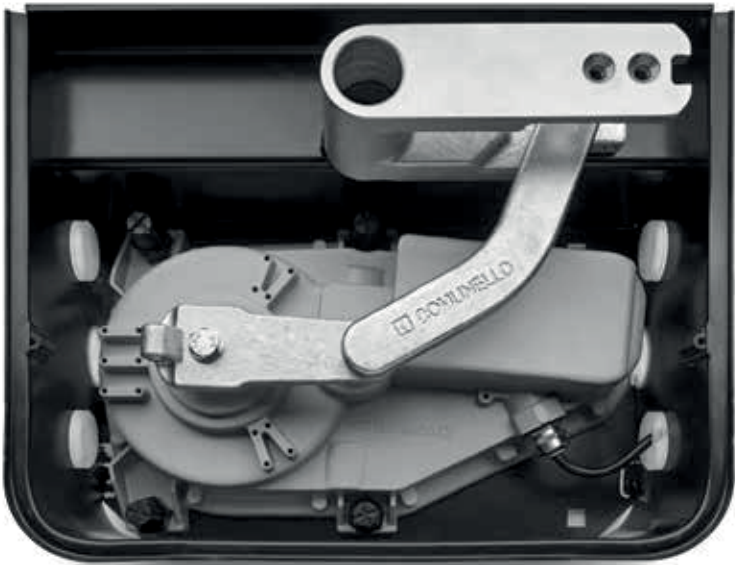
Underground electromechanical actuator for leaf up to 3,5 m (350 kg) / 600 kg for leaf up to 2 m in length



Underground electromechanical actuator

Eagle is a line of in-ground actuators designed to provide a solution for projects and architectural designs which require completely clean lines. These actuators are extremely corrosion resistant, discrete and compact. Absolute security and reliability is guaranteed

across the three models with lever or key release systems available internally and externally. Eagle actuators are practical and rapid to install, simple and intuitive to use. Optional versions with encoder are also available.

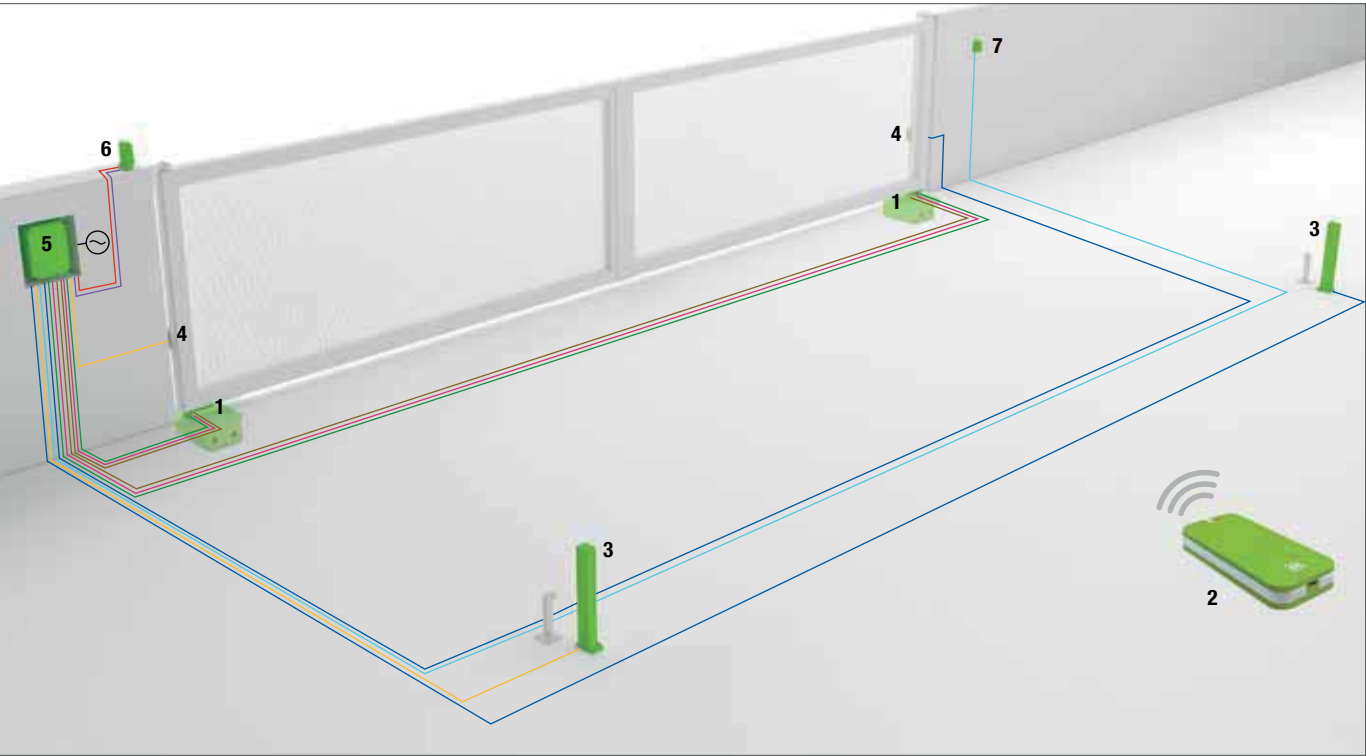


GENERAL INFORMATION

- **VDC and 230 VAC versions.**
Irreversible motors, 24 VDC & 230 VAC
- **Durable and compact**
Steel arms and casings, stainless steel versions are available. Transmission with metal gearings
- **Optional versions with encoder**
- **Safety and reliability**
3 models of lever and or key-release mechanisms available (internal and external)
- **Easy to use**

24 VDC 230 VAC

INSTALLATION TYPE



- 1 EAGLE
- 2 CONTROL RADIO
- 3 COLUMNS
- 4 PHOTOCELLS
- 5 CONTROL UNIT
- 6 SIGNAL LIGHT
- 7 SWITCH

24V	Description	Wire	Length (1 m to 20 m)	Length (20 m to 50 m)
Black	Operating power supply	FROR CBI 20-22 CBI EN 50267- 2-1	2 x 1,5 mm ²	2 x 2,5 mm ²
Green	Motor power supply		2 x 2,5 mm ²	2 x 4,0 mm ²
Purple	Signal light		2 x 0,5 mm ²	2 x 1,0 mm ²
Yellow	Photocell TX		2 x 0,5 mm ²	2 x 1,0 mm ²
Blue	Photocell RX		4 x 0,5 mm ²	4 x 1,0 mm ²
Cyan	Key-operated switch		3 x 0,5 mm ²	3 x 1,0 mm ²
Pink	Limit switch		3 x 0,5 mm ²	3 x 1,0 mm ²
Brown	Encoder	RG58	3 x 0,5 mm ²	3 x 1,0 mm ²
Red	Antenna		max 20 m	max 20 m

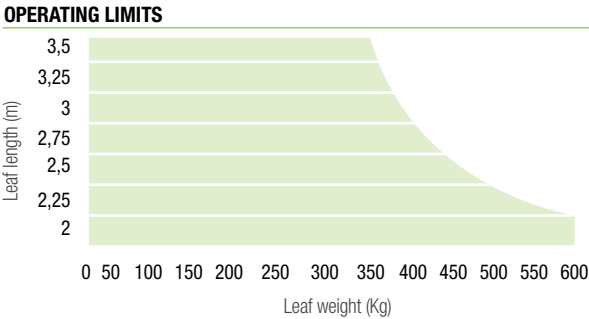
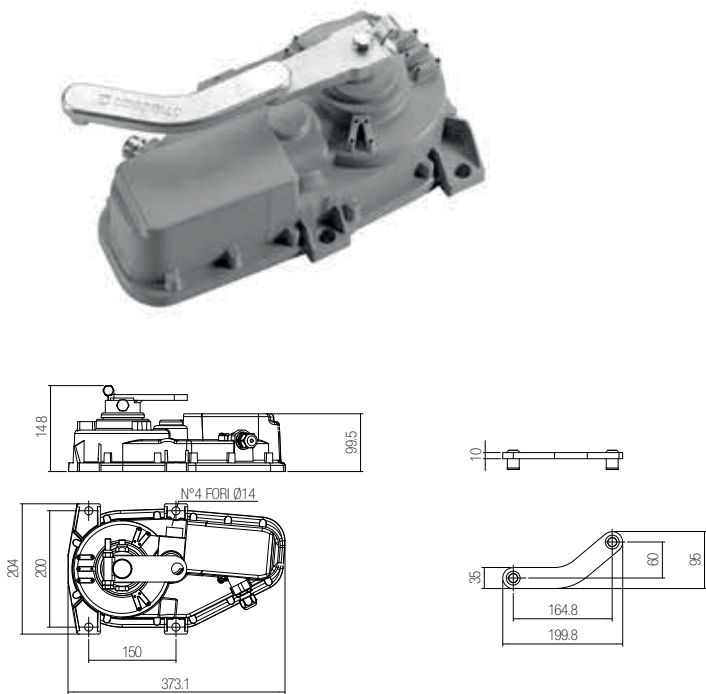
230V



Swing gates

EAGLE ONE

Underground electromechanical actuator for leaf up to 3,5 m (350 kg)per leaf / 600 kg for leaf up to 2 m in length



ONE TECHNOLOGY

ARTICLE	CODE	DESCRIPTION	PACKAGE	WEIGHT	PALETTE
EAGLE ONE	G1E0350ELOG00	24V Underground actuator	1 pcs.	15 kg	60



INSTALLATION CHART	
1	2 EAGLE 24V ONE - G1E0350ELOG00 24V Underground actuator
2	1 QUAD 2M ONE - G1QUAD2MLOG00 2 Motors control unit 24V Basic
3	1 KEEP 2 RC - GKEEP2STNOB00 2 Channels rolling code Remote control
4	2 MAST 50 - GMAST005NOG00 Extruded aluminium column h 50 cm
5	2 DART ONE - G1DARTSTNOB00 Photocells DART RX+TX ONE
6	1 SWIFT ONE - G1SWIFTSTYB00 Flashing signal lights
7	1 INDEX ONE - G1INDEXSTOB00 Key-operated switch
8	1 AC-51 - G1BATTERLOG00 Battery kit

TECHNICAL CHARACTERISTICS

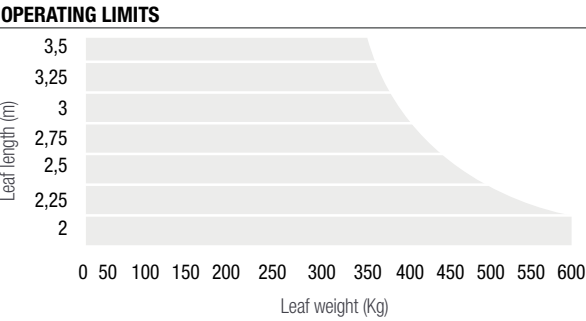
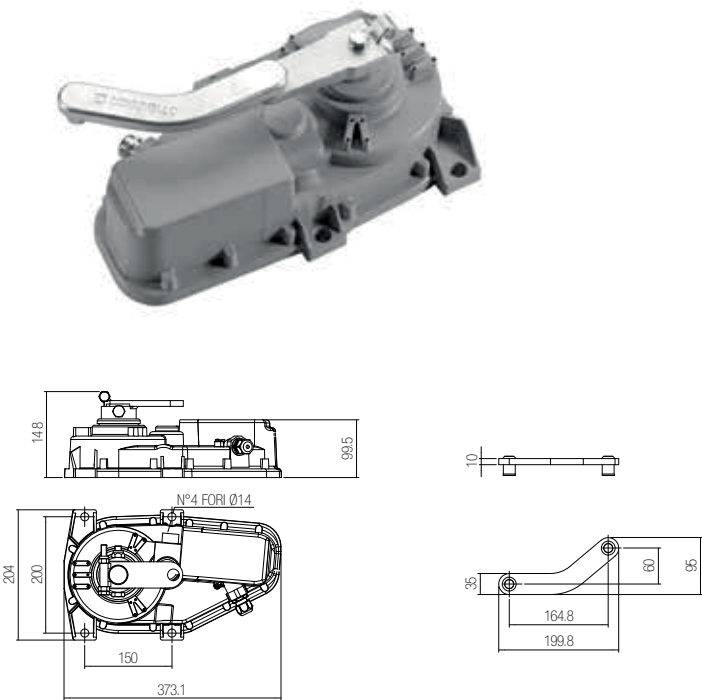
Electrical information	EAGLE ONE
Operating power supply	24 VDC
Power consumption	150 W
Current input	6,5 A
Torque	220 Nm
Duty cycle	intensive use
Protection rating (IP)	IP67



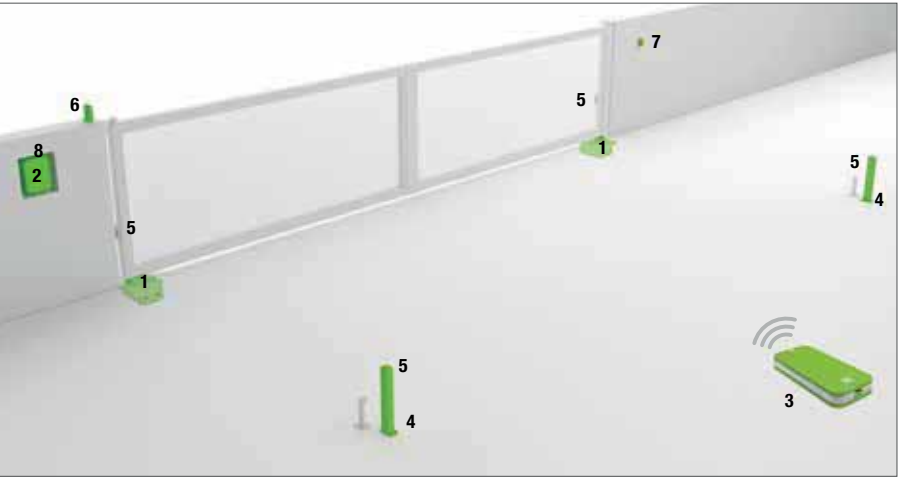
Swing gates

EAGLE

Underground electromechanical actuator for leaf up to 3,5 m (350 kg)per leaf / 600 kg for leaf up to 2 m in length



ARTICLE	CODE	DESCRIPTION	PACKAGE	WEIGHT	PALETTE
EAGLE 24V	GEE03500LOG00	24V Underground actuator	1 pcs.	14,5 kg	60
EAGLE 24V EC	GEE0350ELOG00	24V Underground actuator with encoder	1 pcs.	15 kg	60
EAGLE 230V	GEE03500HOG00	230V Underground actuator	1 pcs.	15 kg	60
EAGLE 230V EC	GEE0350EHOG00	230V Underground actuator with encoder	1 pcs.	15 kg	60



INSTALLATION CHART

1	2 EAGLE 24V - GEE03500LOG00 24V for swing leaves
2	1 QUAD 24V 2M - GQUADST2LOG00 2 Motors control unit 24V Basic
3	1 KEEP 2 RC - GKEEP2STNOB00 2 Channels rolling code Remote control
4	2 MAST 50 - GMAST005NOG00 Extruded aluminium column h 50 cm
5	2 DART - GDARTSTDNOB00 Photocells
6	1 SWIFT - GSWIFTSTLYB00 Flashing signal lights
7	1 INDEX - GINDEXSTNOB00 Key-operated switch avec cylindre standard
8	1 AC-50 - GBATTERYLOG00 Battery kit

TECHNICAL CHARACTERISTICS

Electrical information	24V	230V
Operating power supply	24 VDC	230 VAC
Power consumption	150 W	280 W
Current input	6,5 A	1,2 A
Torque	220 Nm	300 Nm
Duty cycle	intensive use	50%
Protection rating (IP)	IP67	IP67
Insulation class</		



Swing gates

ABACUS 220 / 300 / 500

For leaves up to 2,20 m (Max leaf weight: 200 kg). For leaves up to 300 kg, max leaf length is 1,2 m
For leaves up to 3 m (Max leaf weight: 300 kg). For leaves up to 500 kg, max leaf length is 1,5 m
For leaves up to 5 m (Max leaf weight: 220 kg). For leaves up to 500 kg, max leaf length is 2 m



Electromechanical rod actuators ideal for residential and industrial swing gates

Products in the Abacus line have a one-piece aluminium housing for the mechanical parts and motors which guarantees durability and security. These products are designed to be long-lasting and perform to the highest

standards in all weathers and are built to provide optimum security and reliability. The internal gearing is made from innovative materials for quiet movement. Abacus products are simple to install and maintain.



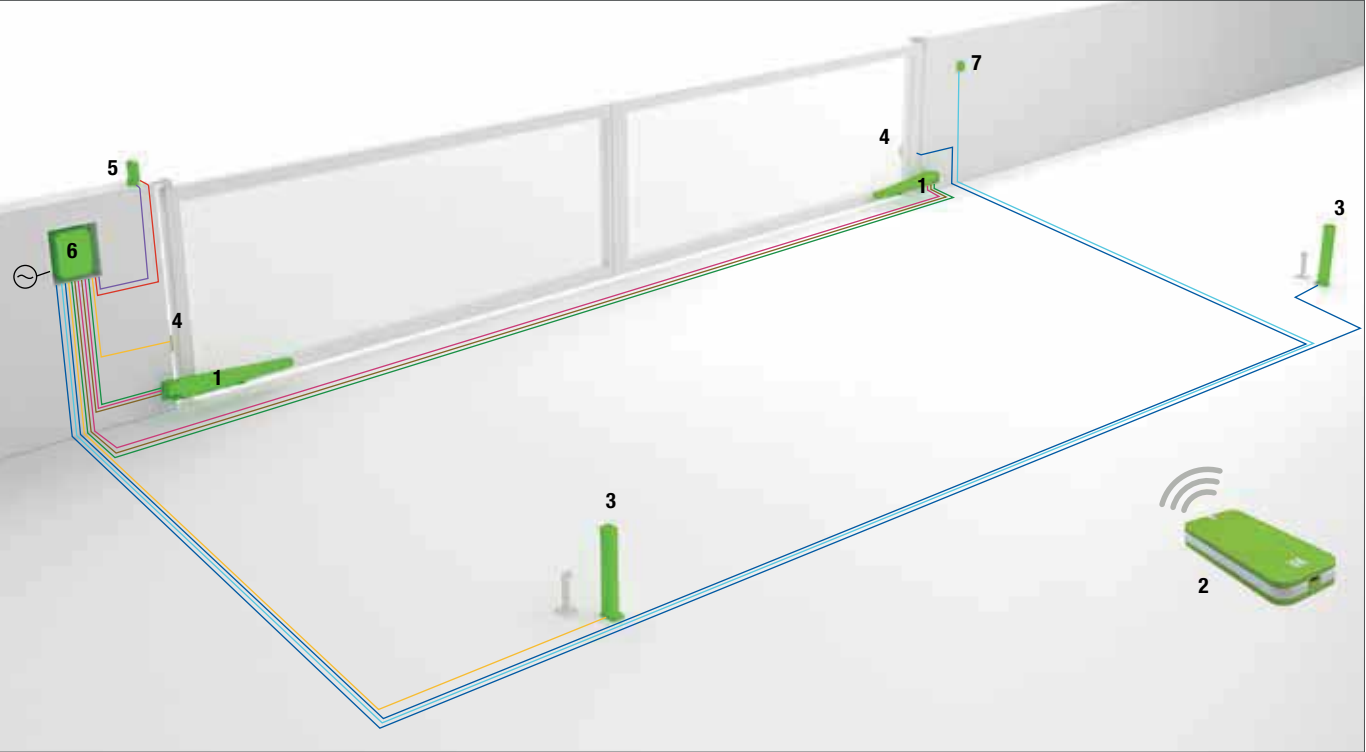
GENERAL INFORMATION

- **24 VDC and 230 VAC versions.**
24 VDC and 230 VAC versions.
- **Durability**
Polyester coated monoblock aluminium casing for maximum durability in all weather conditions
- **Safety and Reliability**
Metal lever - operated emergency release. Protected, easy-to-reach electrical connections
- **Versions with encoder and limit switch**
- **Easy to install**
Easy to install and maintain. Built-in condensor for the 230 Vac version
- **Available in kit form**

24 VDC 230 VAC KIT

Swing gates

INSTALLATION CHART



- 1 ABACUS 220 / 300 / 500
- 2 RADIO CONTROL
- 3 COLUMNS
- 4 PHOTOCELLS
- 5 SIGNAL LIGHT
- 6 CONTROL UNIT
- 7 SWITCH

24V	DESCRIPTION	Wire	Length (1 m / 20 m)	Length (20 m / 50 m)
Black	Power supply	FROR CBI 20-22 CBI EN 50267- 2-1	2 x 1,5 mm ²	2 x 2,5 mm ²
Green	Operating power supply		2 x 2,5 mm ²	2 x 4,0 mm ²
Purple	Flashing signal lights		2 x 0,5 mm ²	2 x 1,0 mm ²
Yellow	Photocell TX		2 x 0,5 mm ²	2 x 1,0 mm ²
Blue	Photocell RX		4 x 0,5 mm ²	4 x 1,0 mm ²
Cyan	Key operated switch		3 x 0,5 mm ²	3 x 1,0 mm ²



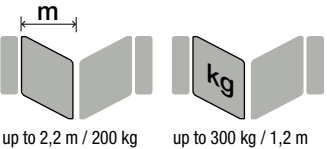
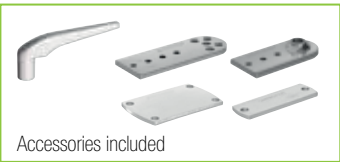
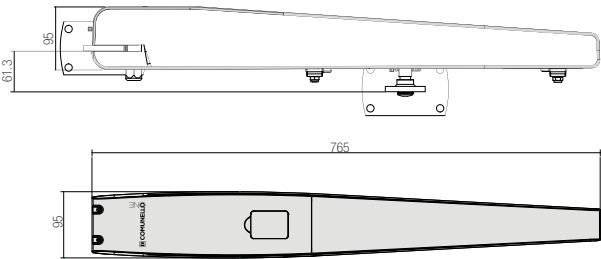
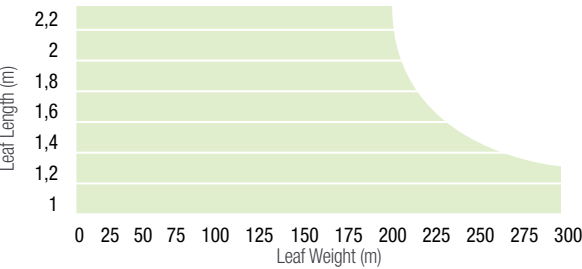
Swing gates

ABACUS 220 ONE

For leaves up to 2,20 m (Max leaf weight: 200 kg). For leaves up to 300 kg, max leaf length is 1,2 m



OPERATING LIMITS



AS220													
Y	X	80		100		120		140		160		180	
		K	Z	K	Z	K	Z	K	Z	K	Z	K	Z
100		a _{max}	C ₀	a _{max}	C ₀	a _{max}	C ₀	a _{max}	C ₀	a _{max}	C ₀	a _{max}	C ₀
		568	55	548	60	528	65	508	75	488	85	468	95
120		98°	648,5	107°	648,5	115°	648,5	118°	648,5	103°	648,5	95°	648,5
		567	60	549	65	529	75	509	85	489	90	469	105
140		97°	649	105°	649	112°	649	106°	649	96°	649	90°	649
		566	65	546	70	526	80	506	90	488	100		
160		96°	649	104°	649	110°	649	95°	649	89°	649		
		564	70	546	75	527	85	508	95				
180		95°	649										



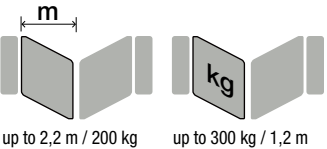
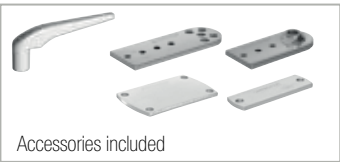
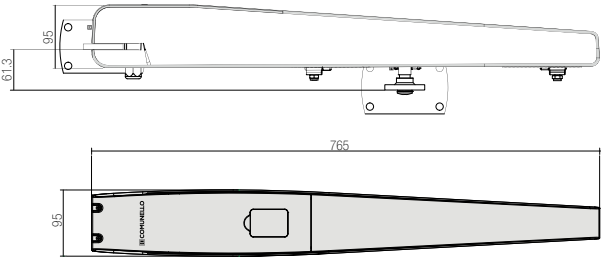
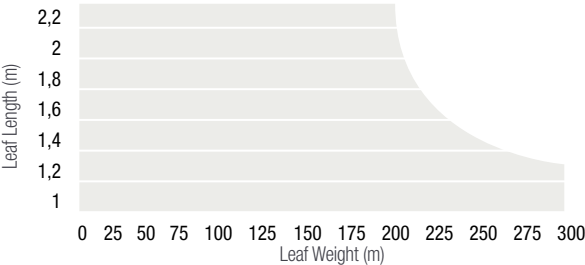
Swing gates

ABACUS 220

For leaves up to 2,20 m (Max leaf weight: 200 kg). For leaves up to 300 kg, max leaf length is 1,2 m



OPERATING LIMITS



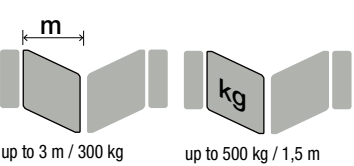
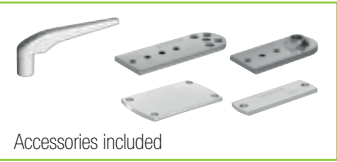
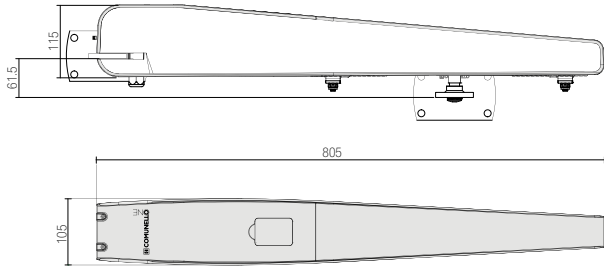
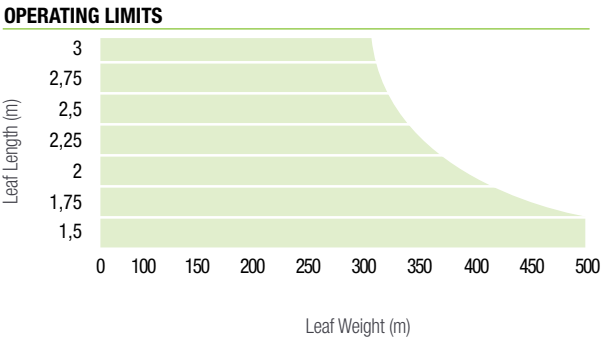
AS220																
Y	X		80		100		120		140		160		180		200	
	K	Z	K	Z	K	Z	K	Z	K	Z	K	Z	K	Z	K	Z
100	568	55	548	60	528	65	508	75	488	85	468	95	448	110	428	125
	98°	648,5	107°	648,5	115°	648,5	118°	648,5	103°	648,5	95°	648,5	90°	648,5	85°	648,5
120	567	60	549	65	529	75	509	85	489	90	469	105	449	120	429	135
	97°	649	105°	649	112°	649	106°	649	96°	649	90°	649	85°	649	80°	649
140	566	65	546	70	526	80	506	90	486	100	466	110	446	120	426	130
	96°	649	104°	649	110°	649	95°									



Swing gates

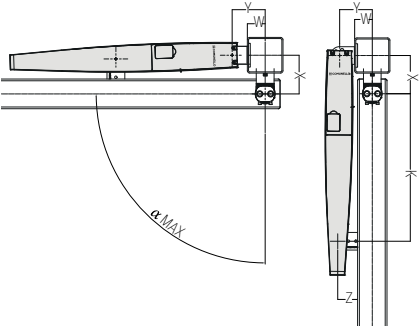
ABACUS 300 ONE

For leaves up to 3 m (Max leaf weight: 300 kg). For leaves up to 500 kg, max leaf length is 1,5 m



AS300													
	X	80	100	120	140	160	180	200					
Y		K _{max}	Z _{C0}	K _{max}	Z _{C0}	K _{max}	Z _{C0}	K _{max}	Z _{C0}	K _{max}	Z _{C0}	K _{max}	Z _{C0}
100		605	65	585	65	565	70	545	75	525	80	505	95
		96°	685	105°	685	114°	685	115°	685	101°	685	94°	685
120		608	75	588	70	568	70	548	75	528	85	508	102.5
		95°	688	104°	688	110°	688	105°	688	95°	688	90°	688
140		607	65	586	65	567	75	547	80	529	90		
		95°	688	105°	688	110°	688	96°	688	90°	688		
160		605	70	584	75	566	80						
		94°	688	100°	688	95°	688						

NOT SUGGESTED

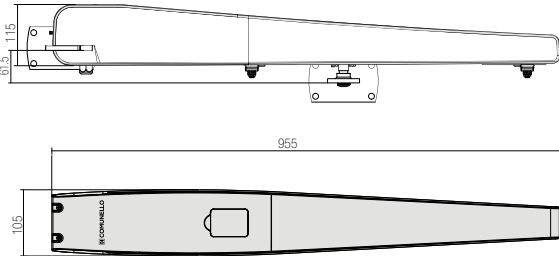




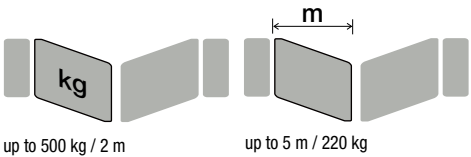
Swing gates

ABACUS 500

For leaves up to 5 m (Max leaf weight: 220 kg). For leaves up to 500 kg, max leaf length is 2 m



OPERATING LIMITS



		ASS00															
Y	X	80		100		120		140		160		180		200		220	
		K	Z	K	Z	K	Z	K	Z	K	Z	K	Z	K	Z	K	Z
		a _{max}	C ₀	a _{max}	C ₀	a _{max}	C ₀	a _{max}	C ₀	a _{max}	C ₀	a _{max}	C ₀	a _{max}	C ₀	a _{max}	C ₀
100		758	60	738	60	718	60	698	65	678	75	658	85	638	95	618	102,5
		95°	838	104°	838	113°	838	120°	838	127°	838	130°	838	135°	838	133°	838
120		757	60	737	60	717	65	698	70	678	80	658	90	638	100		
		94°	837	102°	837	110°	837	116°	838	123°	838	128°	838	132°	838		
140		756</															



Swing gates

CONDOR 220 / 350

Actuators with articulated arms for swing for leaves up to 2,2 m and 3,5 m (Max leaf weight: 150kg and 225kg)
For 250 kg leaf weight, max leaf length is 1 m



Electromechanical actuators with articulated arm

Condor is a line of impact-resistant articulated arm actuators designed to perform to the highest standards in all weathers. Constructed to provide absolute security in case of emergency as well as maximum power output from elevated torque. The new

control panel performs to the highest standards and provides simple automated/semi-automated programming of the stop position. Easy and practical to install, these actuators are the ideal solution for heavy use situations.

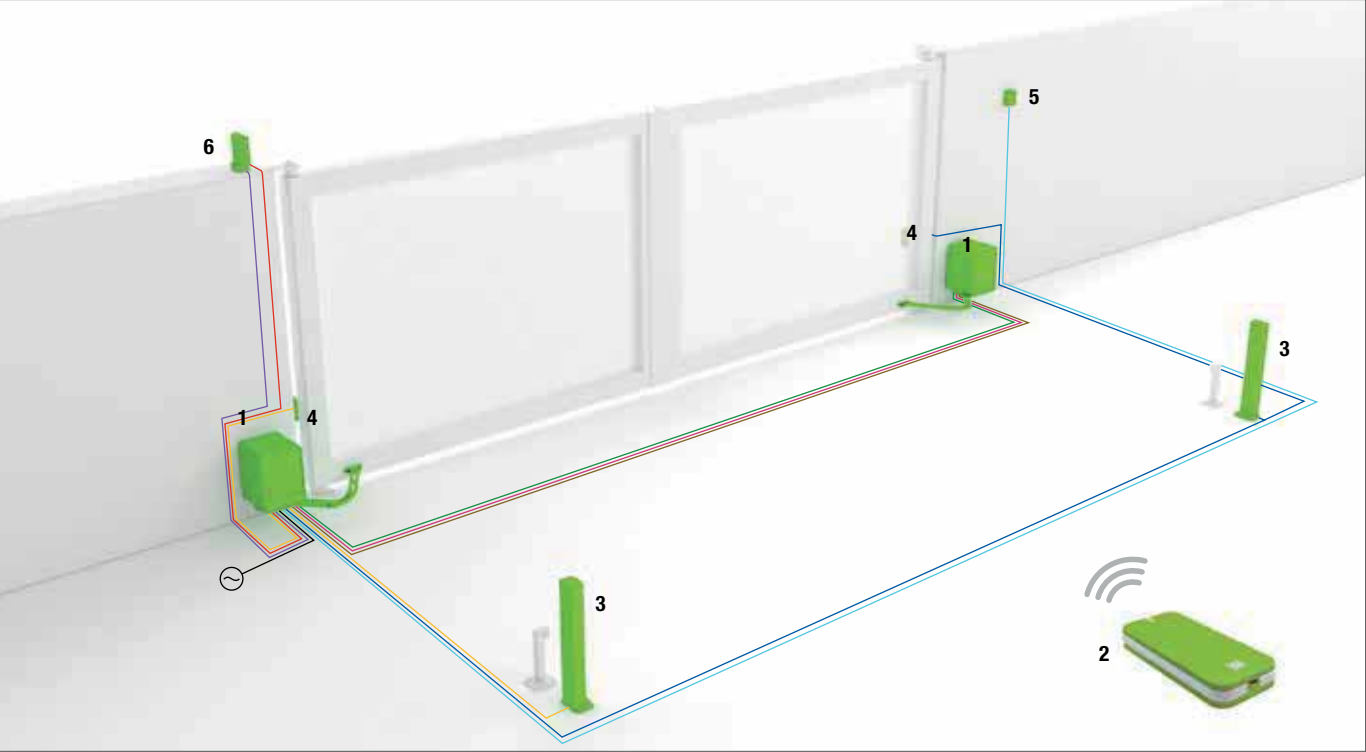


GENERAL INFORMATION

- **24 VDC and 230 VAC versions.**
Irreversible motors, 24 VDC & 230 VAC complete with galvanised articulated arm
- **Durability**
Compact, aluminium impact-resistant frame. Diecast alloy (or stainless steel) arm
- **Safety and Reliability**
Key and lever-operated emergency release mechanism
- **Versions with encoder and limit switch**
- **Maximun power**
From elevated torque. Bronze gearings available.
- **Easy to install**
- **New control board**
Preconfigured connection board. LED / Trimmer adjustments for easy reading.
Programmable automatic/semi-automatic limit switch, timer and reduced speeds. Built-in receiver
- **Available in kit form**

24 VDC 230 VAC KIT

INSTALLATION CHART



- 1 CONDOR 220 / 350
- 2 CONTROL RADIO
- 3 COLUMNS
- 4 PHOTOCELLS
- 5 KEY OPERATED SWITCH
- 6 FLASHING SIGNAL LIGHTS

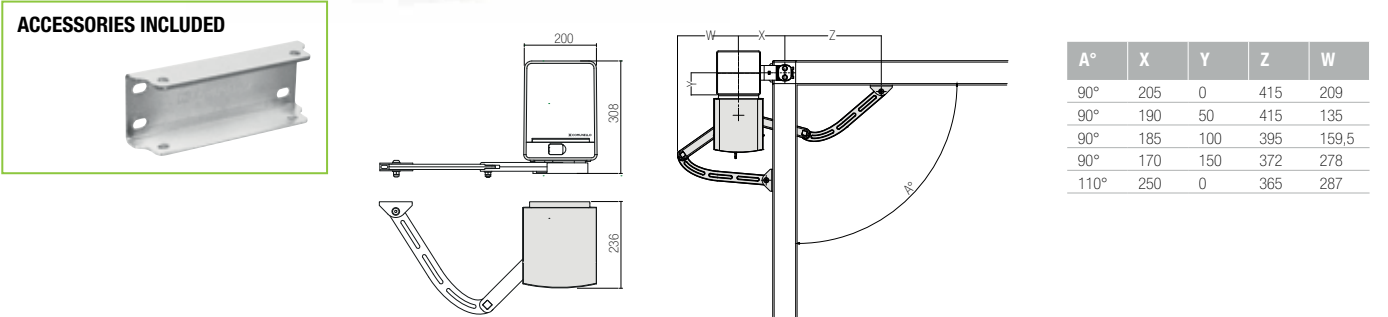
24V	DESCRIPTION	Wire	Length (1 m / 20 m)	Length (20 m / 50 m)
Black	Power supply	FROR CBI 20-22 CBI EN 50267- 2-1	2 x 1,5 mm ²	2 x 2,5 mm ²
Green	Operating power supply		2 x 2,5 mm ²	2 x 4,0 mm ²
Purple	Flashing signal lights		2 x 0,5 mm ²	2 x 1,0 mm ²
Yellow	Photocell TX		2 x 0,5 mm ²	2 x 1,0 mm ²
Blue	Photocell RX		4 x 0,5 mm ²	4 x 1,0 mm ²
Cyan</				



Swing gates

CONDOR 220

Actuators with articulated arms for swing for leaves up to 2,20 m (Max leaf weight: 150 kg)
For 250 kg leaf weight, max leaf length is 1 m



ARTICLE	CODE	DESCRIPTION	PACKAGE	WEIGHT	PALETTE
CONDOR 220 24V FM	GCR220MCL0B00	24V built-in control board with mechanical stops	1 pcs.	10 kg	36
CONDOR 220 24V FE	GCR220ECL0B00	24V built-in control board with electronic limit switches	1 pcs.	10 kg	36
CONDOR 220 24V FE E	GCR220EEL0B00	24V built-in control board with electronic limit switches and encoder	1 pcs.	10 kg	36
CONDOR 220 24V FM SC	GCR220MOL0B00	24V without control board with mechanical stops	1 pcs.	10 kg	36
CONDOR 220 230V FM	GCR220MCH0B00	230V built-in control board with mechanical stops	1 pcs.	10 kg	36
CONDOR 220 230V FE	GCR220ECH0B00	230V entrale integrata with electronic limit switches	1 pcs.	10 kg	36
CONDOR 220 230V FE E	GCR220EEH0B00	230V built-in control board with electronic limit switches and encoder	1 pcs.	10 kg	36
CONDOR 220 230V FM SC	GCR220MOH0B00	230V without control board with mechanical stops	1 pcs.	8 kg	36



CONDOR 500

Actuators with articulated arms for swing for leaves up to 5 m (Max leaf weight: 400 kg)
For 500 kg leaf weight, max leaf length is 3,25 m



LEFT OR RIGHT MOUNTING

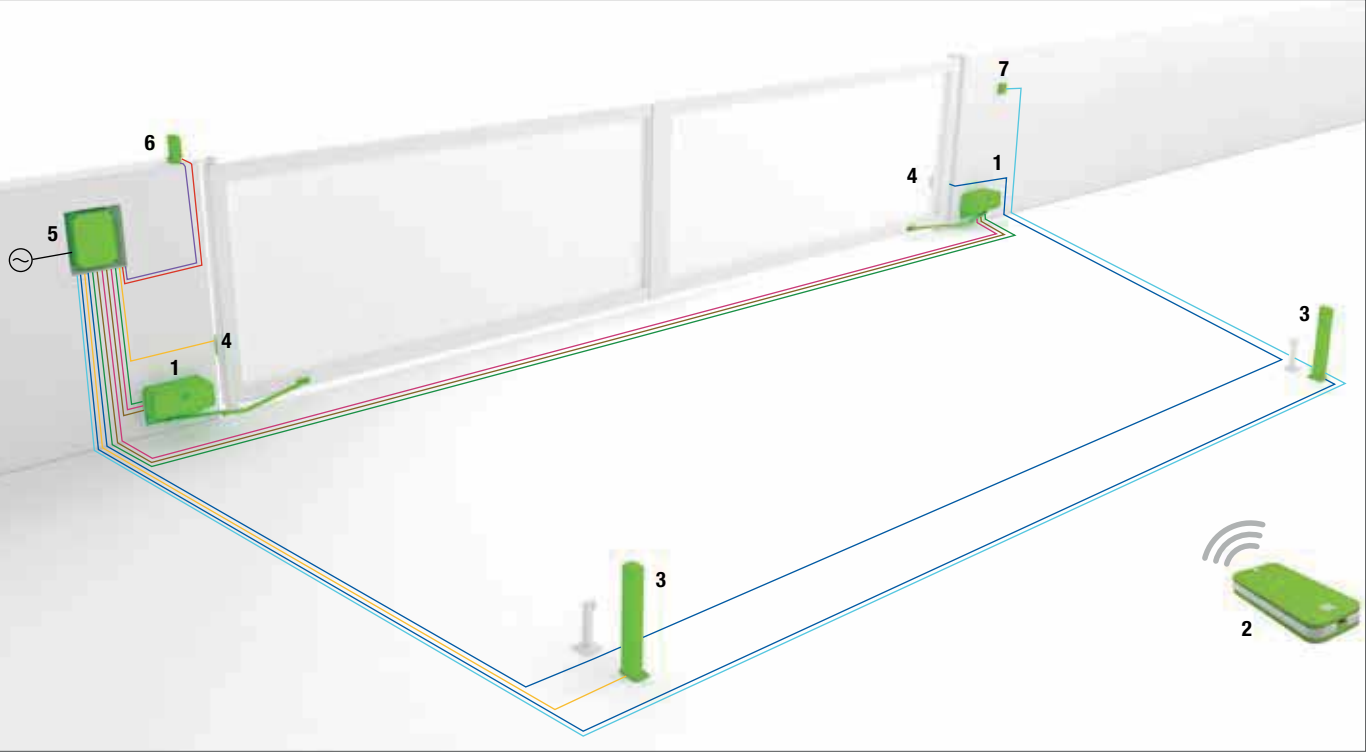


GENERAL INFORMATION

- **24 VDC and 230 VAC versions. Left or right mounting**
Irreversible motors, 24 VDC & 230 VAC for Left or right mounting, complete with galvanised articulated arm
- **Durable and compact**
Robust non-shearing steel arm. Transmission with metal gears. Compact
- **Safety and reliability**
Key and lever-operated emergency release mechanism. Possibility of remote cable operation
- **Built-in twin limit switch**
Pre-cabled both for opening and closing
- **Easy to install, no welding necessary**
- **Available in kit form**

24 VDC230 VACKIT

INSTALLATION CHART



- 1 CONDOR 500
- 2 CONTROL RADIO
- 3 COLUMNS
- 4 PHOTOCELLS
- 5 CONTROL UNIT
- 6 FLASHING SIGNAL LIGHTS
- 7 KEY OPERATED SWITCH

24V	DESCRIPTION	Wire	Length (1 m / 20 m)	Length (20 m / 50 m)
Black	Power supply	FROR CEI 20-22 CEI EN 50267- 2-1	2 x 1,5 mm²	2 x 2,5 mm²
Green	Operating power supply		2 x 2,5 mm²	2 x 4,0 mm²
Purple	Flashing signal lights		2 x 0,5 mm²	2 x 1,0 mm²
Yellow	Photocell TX		2 x 0,5 mm²	2 x 1,0 mm²
Blue	Photocell RX		4 x 0,5 mm²	4 x 1,0 mm²
Cyan	Key operated switch		3 x 0,5 mm²	3 x 1,0 mm²
Pink	Limit switch		3 x 0,5 mm²	3 x 1,0 mm²
Brown	Encoder	RG58	3 x 0,5 mm²	3 x 1,0 mm²
Red	Antenna		max 20 m	max 20 m

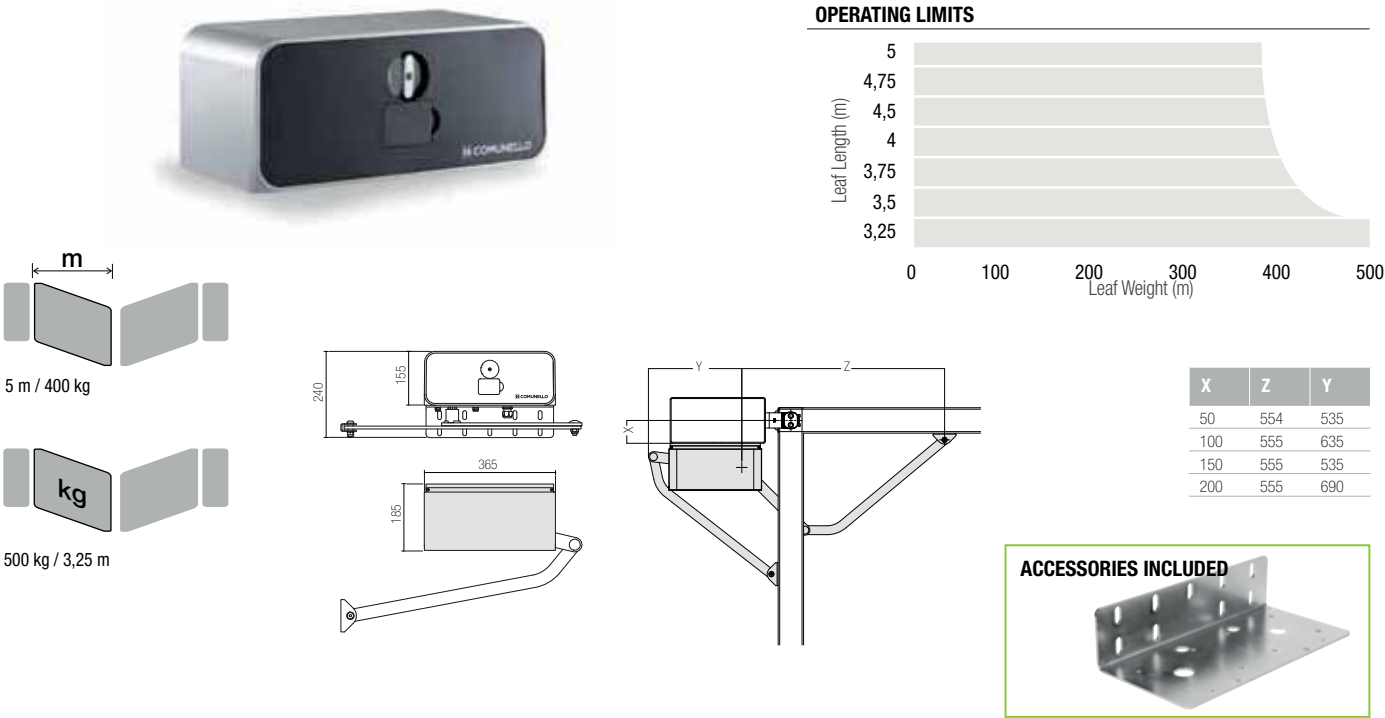
230V	DESCRIPTION	Wire	Length (1 m / 20 m)	Length (20 m / 50 m)
Black	Power supply	FROR CEI 20-22 CEI EN 50267- 2-1	3G x 1,5 mm²	3G x 2,5 mm²
Green	Operating power supply		4G x 1,5 mm²	



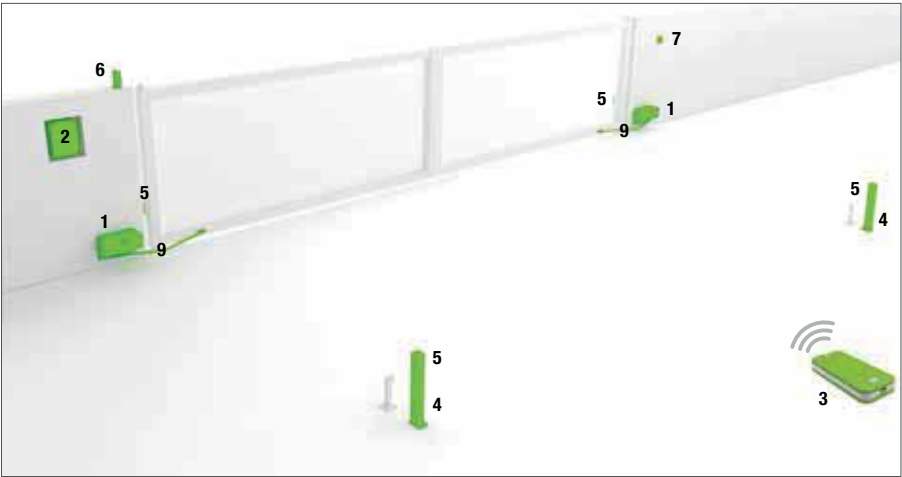
Swing gates

CONDOR 500

Actuators with articulated arms for swing for leaves up to 5 m (Max leaf weight: 400 kg)
For 500 kg leaf weight, max leaf length is 3,25 m



ARTICLE	CODE	DESCRIPTION	PACKAGE	WEIGHT	PALETTE
 CONDOR 500 24V FE	GCR500E0LOB00	24V Electronic limit switches without control board	1 pcs.	12 kg	60
 CONDOR 500 230V FE	GCR500E0H0B00	230V Electronic limit switches without control board	1 pcs.	12 kg	60



INSTALLATION CHART	
1	2 CONDOR 500 24V FE - GCR500E0LOB00 24V Electronic limit switches without control board
2	1 QUAD 24V HP - GQUADHP2LOG00 Control unit for 1/2 motors 24V HP
3	1 KEEP 2 RC - GKEEP2STNOB00 2 Channels rolling code Remote control
4	2 MAST 50 - GMAST005NOG00 Extruded aluminium column h 50 cm
5	2 DART - GDARTSTDNOB00 Photocells
6	1 SWIFT - GSWIFTSTLYB00 Flashing signal lights
7	1 INDEX - GINDEXSTNOB00 Key operated switch
8	1 AC-50 - GBATTERYLOG00 Battery kit
9	2 AC-100 - GCR001BANOG00 Reversible longer articulated arm

TECHNICAL CHARACTERISTICS

Electrical information	24V	230V
Operating power supply	24 VDC	230 VAC 50 Hz
Power consumption	150 W	280 W
Current input	6,5 A	1,2 A
Torque	330 Nm	4



Swing gates

RAM 220 / 300 / 500

Telescopic reversible rod actuators for swing leaves up to 2,2 m, 3 m and 5 m:



Reversible electromechanical actuator with telescopic rod

Ram is a line of telescopic actuators for swing gates with leaves up to 5 m. Built to last using the highest quality mechanical components, these actuators provide optimum performance in all weathers. A simple,

secure emergency release lever guarantees elevated levels of safety and reliability. The use of standard screw-fixed support brackets make these actuators extremely easy to install.



LEFT OR RIGHT MOUNTING



GENERAL INFORMATION

- **24 VDC and 230 VAC versions. Left or right mounting**
Irreversible motors, 24 VDC & 230 VAC for Left or right mounting
- **Durable**
With durable moving parts. Epoxy coated diecast aluminium casing. Bronze gearings available
- **Safety and reliability**
Lever-operated emergency release mechanism
- **Rapid installation**
From standard screw-on mounting brackets
- **Reversible**
- **Available in kit form**

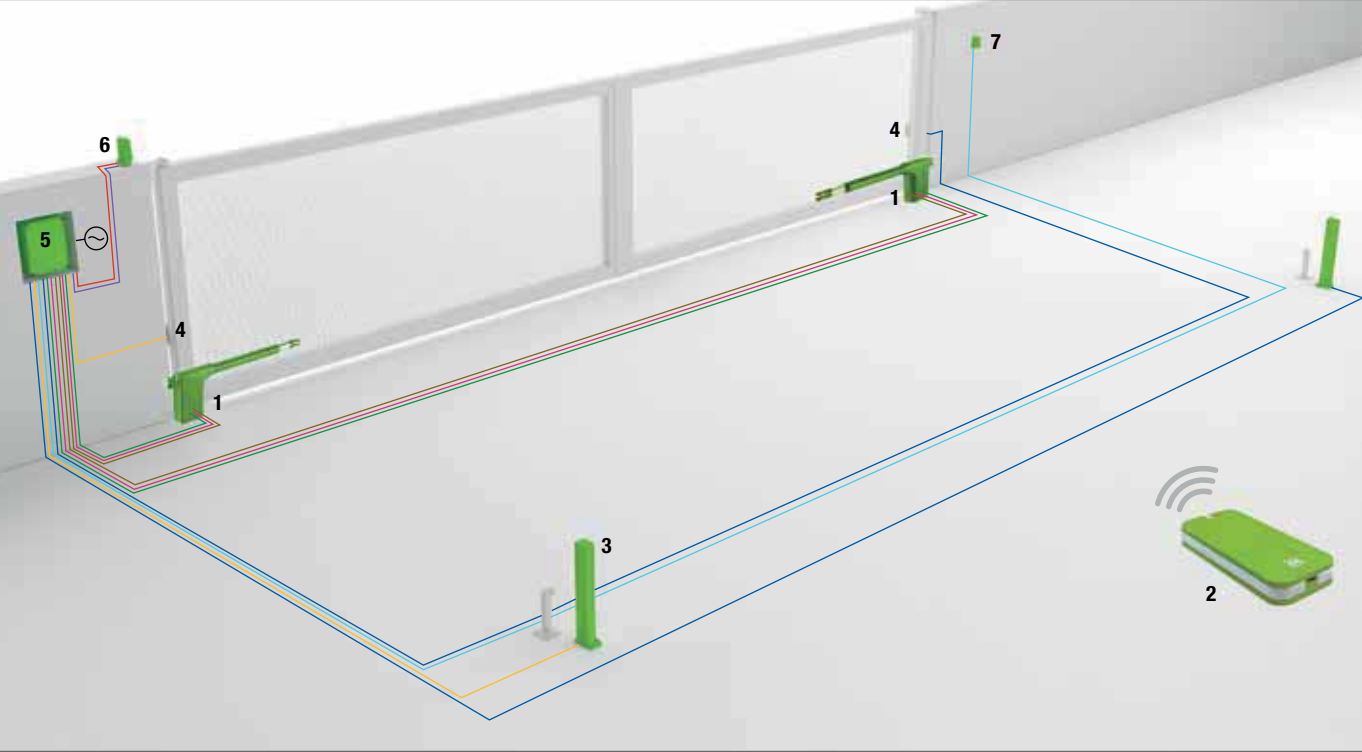
110 VAC
ON DEMAND

24 VDC

230 VAC

KIT

INSTALLATION CHART



				Length (1 m / 20 m)	Length (20 m / 50 m)
1	RAM 220 / 300				
2	CONTROL RADIO				
3	COLUMNS				
4	PHOTOCELLS				
5	CONTROL UNIT				
6	FLASHING SIGNAL LIGHTS				
7	SWITCH				

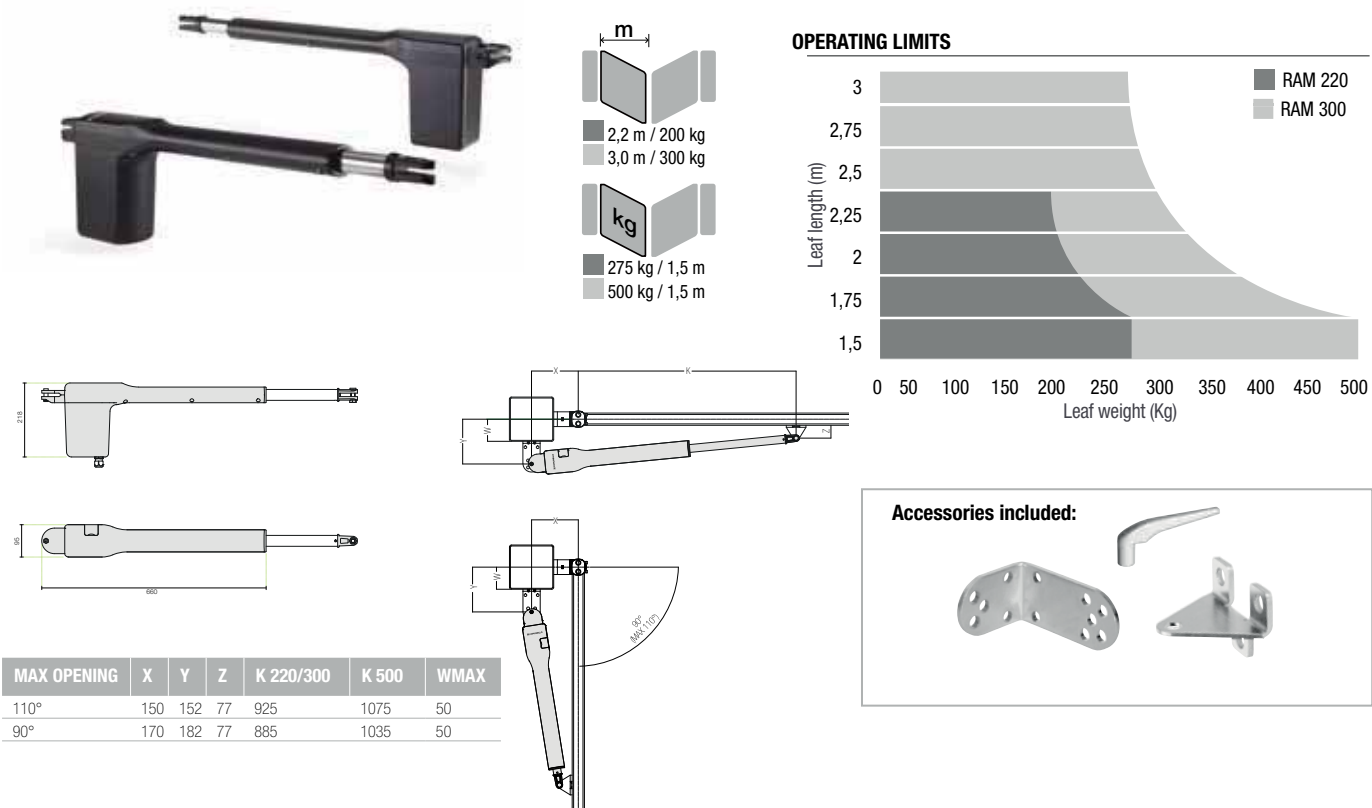
24V	DESCRIPTION	Wire	Length (1 m / 20 m)	Length (20 m / 50 m)
Black	Power supply		2 x 1,5 mm ²	2 x 2,5 mm ²
Green	Operating power supply		2 x 2,5 mm ²	2 x 4,0 mm ²
Purple	Flashing signal lights		2 x 0	



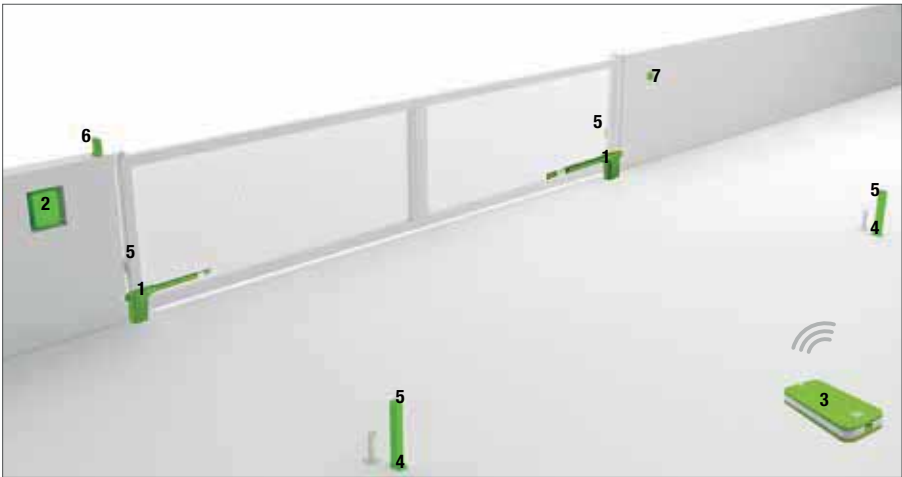
Swing gates

RAM 220 / 300

Telescopic reversible rod actuators for swing leaves up to 2,2 m and 3 m



RTICOLO	CODE	DESCRIPTION	PACKAGE	WEIGHT	PALETTE
RAM 220 24V	RM220 24V	24V for swing leaves up to 2,2 m	2 pcs.	14 kg	16
RAM 300 24V	RM300 24V	24V for swing leaves up to 3 m	2 pcs.	15,6 kg	16
RAM 300 230V	RM300 230V	230V for swing leaves up to 3 m	2 pcs.	16,6 kg	16
110 VAC Power supply version on demand					



INSTALLATION CHART	
1	2 RAM 220 24V - GRM22000LOB00 Telescopic rod actuators 24V
2	1 QUAD 24V 2M - GQUADST2LOG00 Control unit for 2 motors 24V basic
3	1 KEEP 2 RC - GKEEP2STNOB00 2 Channels rolling code Remote control
4	2 MAST 50 - GMAST005NOG00 Extruded aluminium column h 50 cm
5	2 DART - GDARTSTDNOB00 Photocells
6	1 SWIFT - GSWIFTSTLYB00 Flashing signal lights
7	1 INDEX - GINDEXSTNOB00 Key operated switch
8	1 AC-50 - GBATTERYLOG00 Battery kit

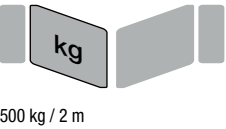
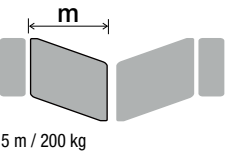
TECHNICAL CHARACTERISTICS

Electrical information	RAM 220 24V	RAM 300 24 V	RAM 300 230 V
Power supply	24 VDC	24 VDC	230 VAC
Power consumption	70 W	110 W	280 W
Current input	3 A	5 A	1,2 A
Maximum thrust	1500 N	2000 N	1800 N
Nominal thrust	500 N	600 N	700 N
Duty cycle	30%	intensive use	40%
Protection rating (IP)	IP44	IP44	IP44
Insulation class	3 (SELV)	3 (SELV)	

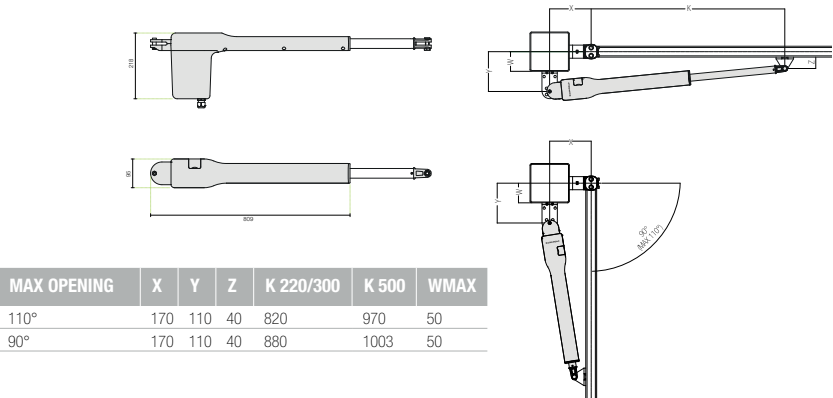
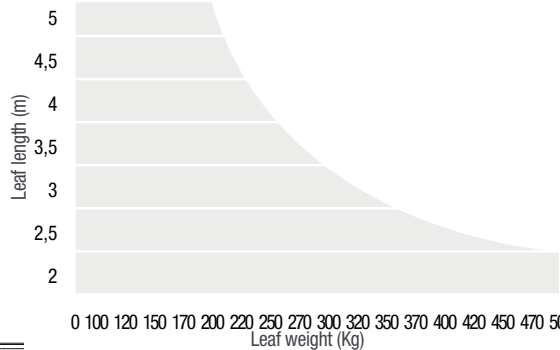


RAM 500

Telescopic reversible rod actuators for swing leaves up to 5 m
For 500 kg leaf weight, max leaf length is 2,00 m



OPERATING LIMITS



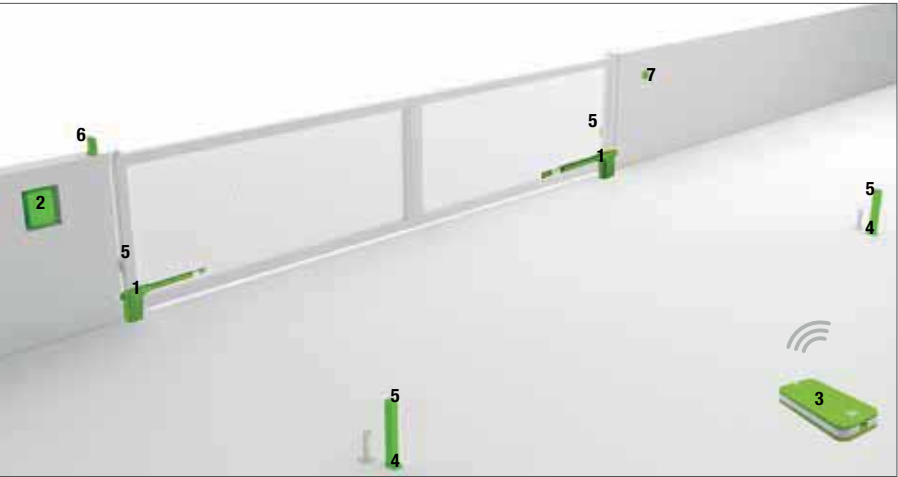
MAX OPENING	X	Y	Z	K 220/300	K 500	WMAX
110°	170	110	40	820	970	50
90°	170	110	40	880	1003	50

Accessories included:



RTICOLO	CODE	DESCRIPTION	PACKAGE	WEIGHT	PALETTE
RAM 500 24V	GRM5000LOB00	24V for swing leaves up to 5 m	2 pcs.	17,6 kg	16
RAM 500 230V	GRM5000HOB00	230V for swing leaves up to 5 m	2 pcs.	18,6 kg	16

110 VAC Power supply version on demand



INSTALLATION CHART

- 2 RAM 500 24V - GRM5000LOB00
Telescopic rod actuators 24V
- 1 QUAD 24V 2M - GQUADST2LOG00
Control unit for 2 motors 24V basic
- 1 KEEP 2 RC - GKEEP2STNOB00
2 Channels rolling code Remote control
- 2 MAST 50 - GMAST005NOG00
Extruded aluminium column h 50 cm
- 2 DART - GDARTSTDNOB00
Photocells
- 1 SWIFT - GSWIFTSTLYB00
Flashing signal lights
- 1 INDEX - GINDEXSTNOB00
Key operated switch
- 1 AC-50 - GBATTERYLOG00
Battery kit

TECHNICAL CHARACTERISTICS

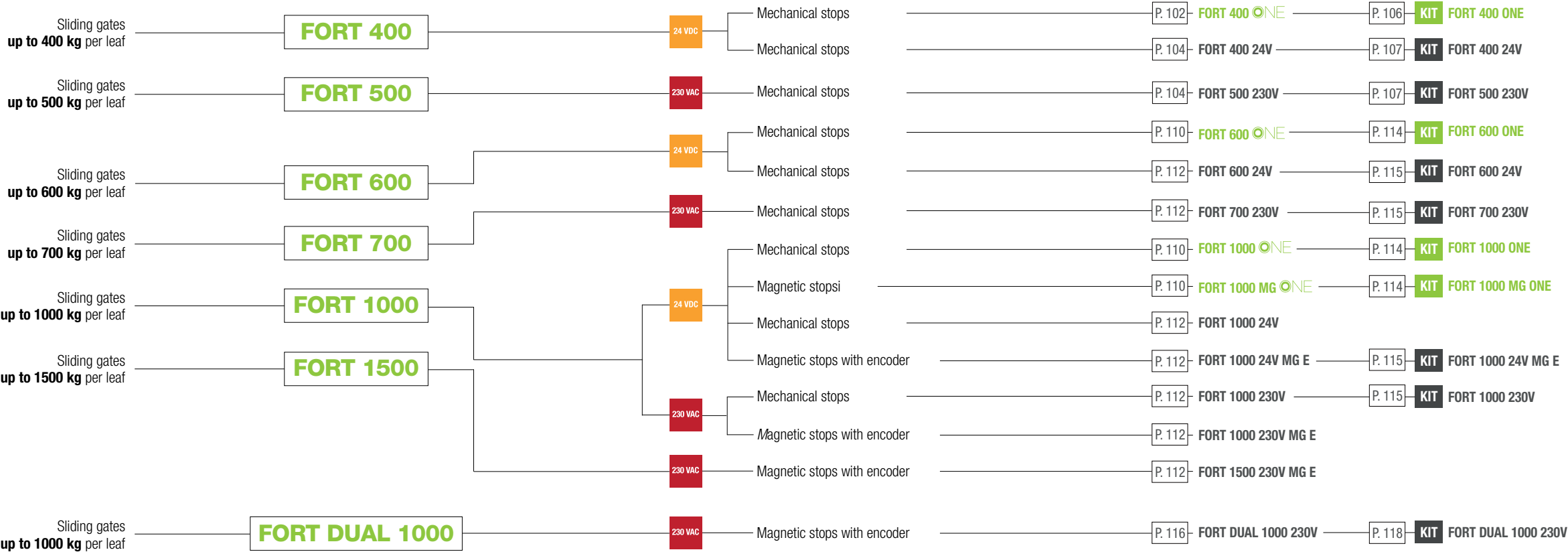
Electrical information	RAM500 24V	RAM500 230V
Operating power supply	24 VDC	230 VAC
Power consumption	110 W	280 W
Current input	5 A	1,2 A
Maximum thrust	1800 N	2000 N
Nominal thrust	600 N	700 N
Duty cycle	intensive use	30%
Protection rating (IP)	IP44	IP44
Insulation class	3 (SELV)	1 (earthing)
Working temperature	-20°C / +50°C	-20°C / +50°C
Speed	22 mm/s	15 mm/s
Weight	8,8 Kg	



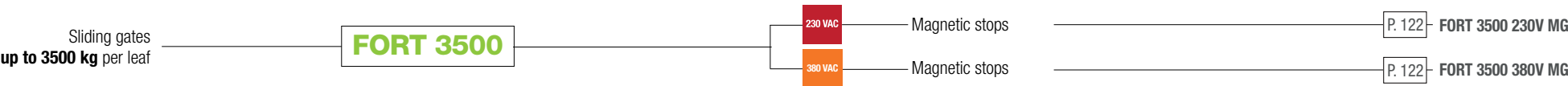
Sliding and cantilever gates

Selection guide by model

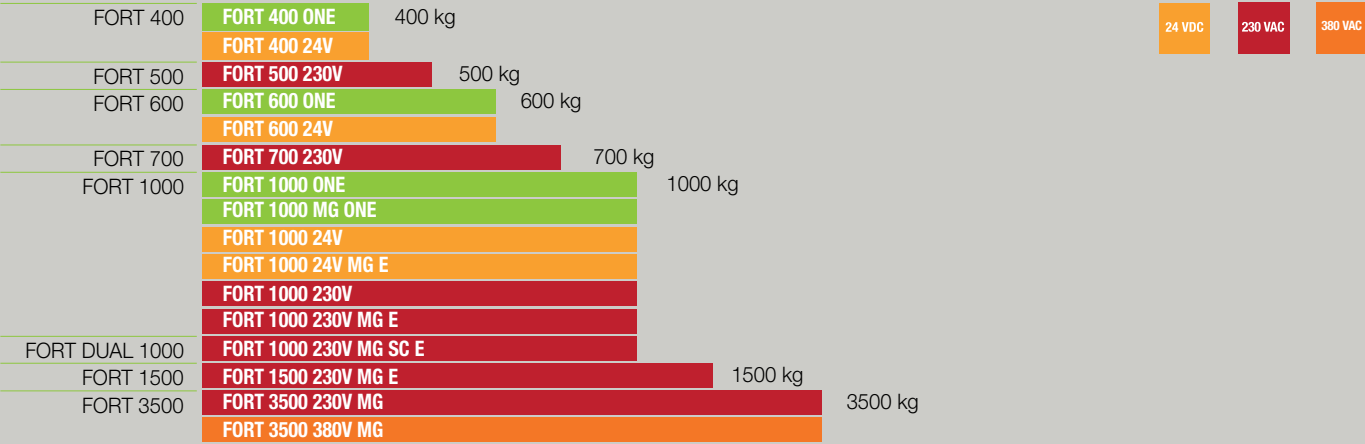
FORT



FORT



Selection guide by weight





Sliding and cantilever gates

FORT 400 / 500

Electromechanical actuators for residential sliding gates up to 400 and 500 Kg



Electromechanical actuators for residential and industrial sliding gates

In residential and industrial contexts actuators from the Fort series provide an attractive and intelligent solution. The on-board control panel provides access to a vast range of features including obstacle detection and programmable

operation times. The receiver is built in to the control panel. The motor support bushings guarantee silent movement even under full load.



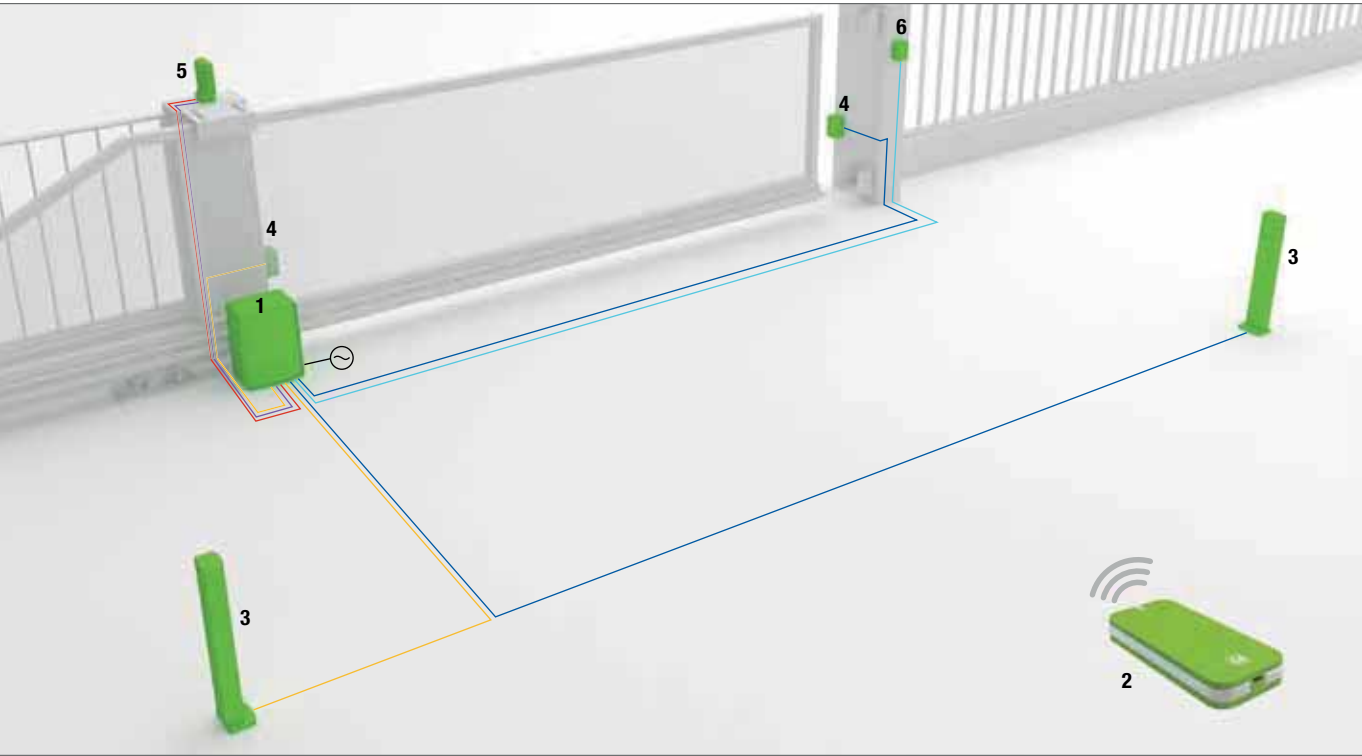
GENERAL INFORMATION

- **24 VDC and 230 VAC versions.**
24 VDC and 230 VAC irreversible motors
- **Durability**
Easy-opening release mechanism with aluminium handle. Practical, functional support and electronics casing. Versions with bronze gearings are available
- **Versions with lever available.**
- **Smart**
Height and plane adjustable. Obstacle detection. Automatic programmable timer with built-in receiver. Silent with dampened motorreductor
- **Available in kit form**
- **Control board**
Electronic control unit prewired. Trimmer adjustments for easy reading. Programmable automatic / semi-automatic limit switch, timer and reduced speeds. Built-in receiver.

24 VDC 230 VAC KIT

Sliding and cantilever gates

INSTALLATION CHART



- 1 FORT 400 / 500
- 2 CONTROL RADIO
- 3 COLUMNS
- 4 PHOTOCELLS
- 5 SIGNAL LIGHT
- 6 SWITCH

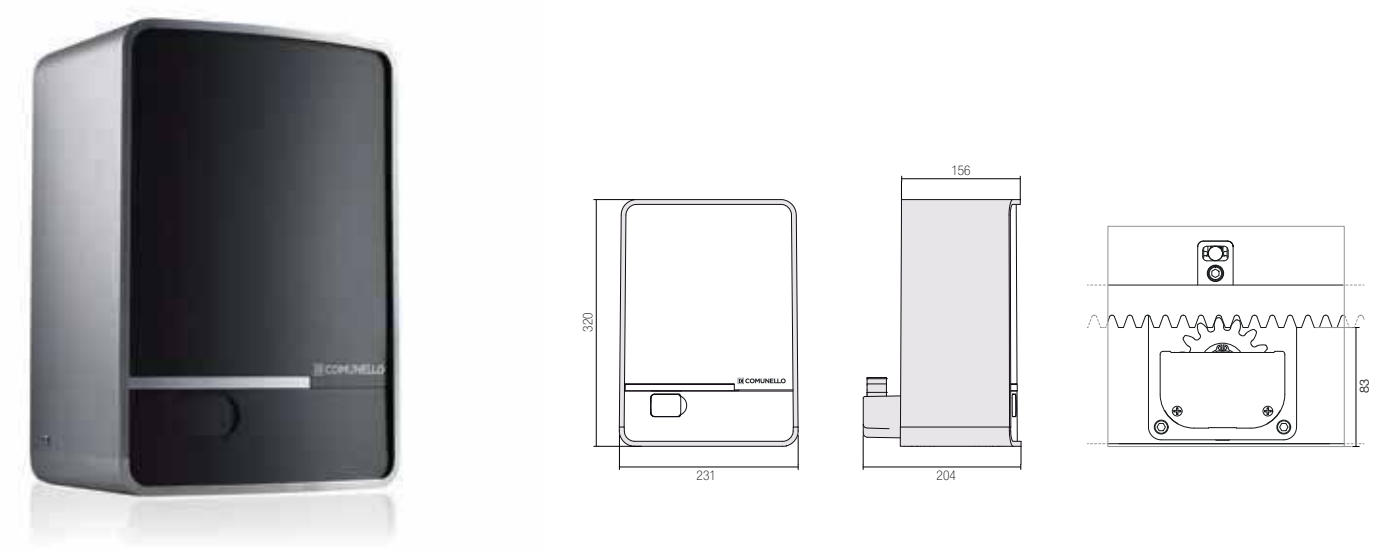
24V	DESCRIPTION	Wire	Length (1 m / 20 m)	Length (20 m / 50 m)
Black	Power supply		2 x 1,5 mm ²	2 x 2,5 mm ²
Purple	Flashing signal lights	FROR CBI 20-22 CBI	2 x 0,5 mm ²	2 x 1,0 mm ²
Yellow	Photocell TX	EN 50267-2-1	2 x 0,5 mm ²	2 x 1,0 mm ²
Blue	Photocell RX		4 x 0,5 mm ²	4 x 1,0 mm ²
Cyan	Key operated switch		3 x 0,5 mm ²	3 x 1,0 mm ²
Red	Antenna	RG58	max 20 m	max 20 m

230V	DESCRIPTION	Wire	Length (1 m / 20 m)	Length (20 m / 50 m)
Black	Power supply		3G x 1,5 mm ²	3G x 2,5 mm ²



FORT 400 / 500

Electromechanical actuators for residential sliding gates up to 400kg e 500kg

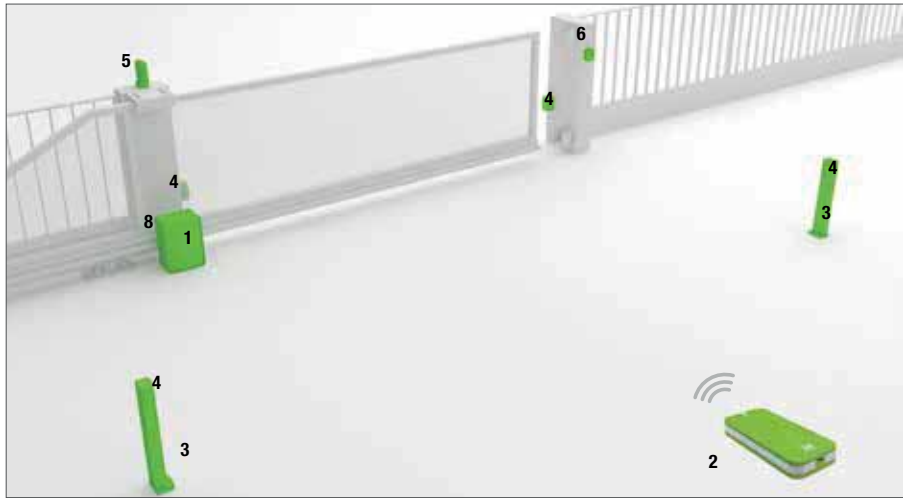


ARTICLE	PRODUCT CODE	DESCRIPTION	PACKAGE WEIGHT		PALETTE
★ FORT 400 24V	GFT040MCL0B00	24V for sliding gates mechanical limit switches up to 400 Kg	1 pcs.	8,9 kg	36
★ FORT 500 230V	GFT050MCH0B00	230V for sliding gates mechanical limit switches up to 500 Kg	1 pcs.	9,9 kg	36

★ Possibility to modified from mechanical limit switches to magnetic limit switches



Accessories included



INSTALLATION CHART	
1	FORT 400 24V - GFT040MCL0B00 24V mechanical limit switches
2	KEEP 2 RC - GKEEP2STNOB00 2 channel radio control unit
3	MAST 50 - GMAST005NOG00 Extruded aluminium column h 50 cm
4	DART - GDARTSTDNOB00 External photocells
5	SWIFT - GSWIFTSTLYB00 Flashing signal lights
6	INDEX - GINDEXSTNOB00 Key-operated switch
7	AC-40 - GSAFETYTNOG00 Signage table
8	AC-50 - GBATTERYLOG00 Battery kit

TECHNICAL CHARACTERISTICS

Electrical information	FORT 400	FORT 500
Power supply	230 VAC 50 Hz	230 VAC 50 Hz
Operating power supply	24 VDC	230 VAC
Power consumption	70 W	280 W
Current input	3,0 A	1,2 A
Maximum thrust	350 N	450 N
Duty cycle	intensive use	50%
Protection rating (IP)	IP44	IP44
Insulation class	1 (earthing)	1 (earthing)
Working temperature	-20°C / +50°C	-20°C / +50°C
Max weight of gate	400 Kg	500 Kg
Rack module	M4	M4
Speed	0,12 m/s	0,17 m/s
Weight	8,9 Kg	9,9 Kg

FORT 400 / 500

ACCESSORIES from page 190 a 191



FORT 600 / 700 / 1000 / DUAL 1000 / 1500

Electromechanical actuators for residential and industrial sliding gates up to 600/700/1000/1500 Kg



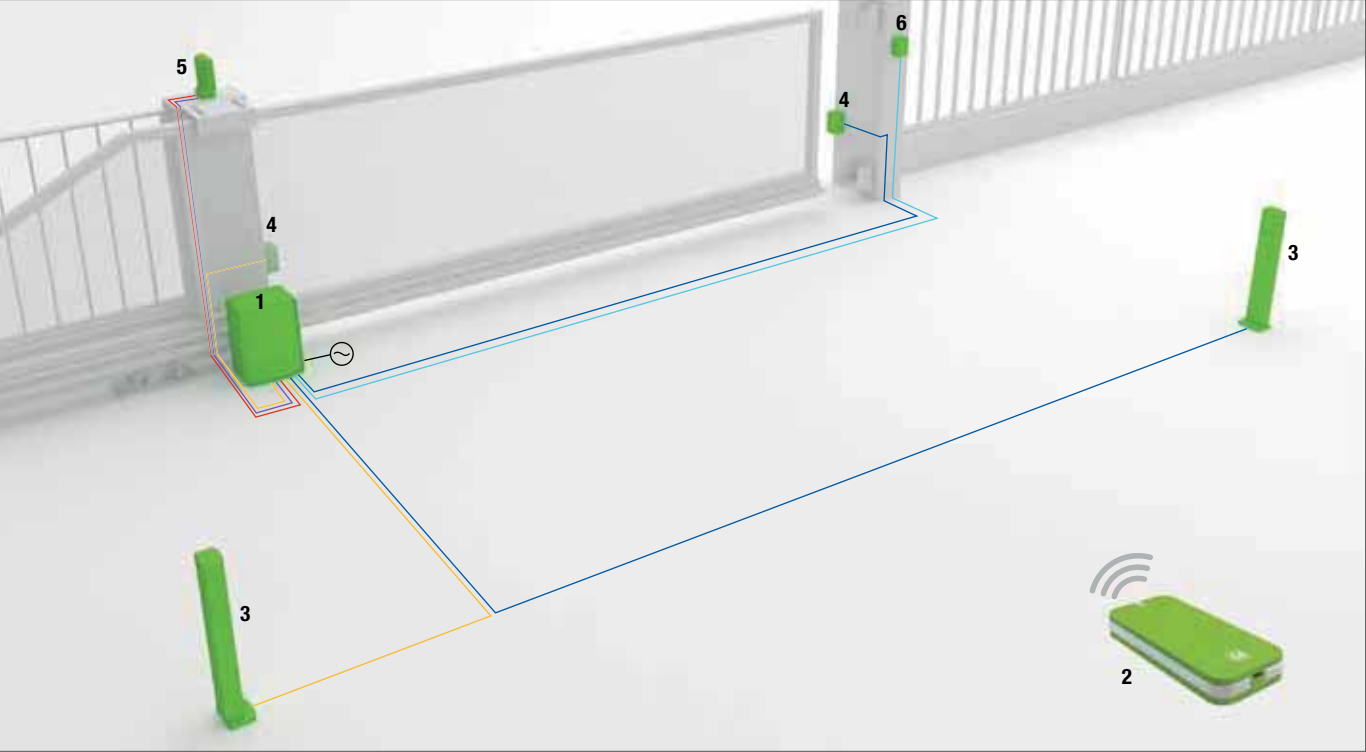
GENERAL INFORMATION

- **24 VDC and 230 VAC versions.**
24 VDC and 230 VAC irreversible motors
- **Durability**
Easy-opening release mechanism with aluminium handle. Practical, functional support and electronics casing. Versions with bronze gearings are available
- **Versions with lever or magnetic limit switch available**
- **Smart**
Height and plane adjustable. Obstacle detection. Automatic programmable timer with built-in receiver. Silent with dampened motorreductor
- **Available in kit form**
- **Control board**
Electronic control unit prewired. Trimmer adjustments for easy reading. Programmable automatic / semi-automatic limit switch, timer and reduced speeds. Built-in receiver..



Sliding and cantilever gates

INSTALLATION CHART



- 1 FORT 600 / 700 / 1000 / 1500
- 2 CONTROL RADIO
- 3 COLUMNS
- 4 PHOTOCELLS
- 5 FLASHING SIGNAL LIGHTS
- 6 KEY OPERATED SWITCH

24V	DESCRIPTION	Wire	Length (1 m / 20 m)	Length (20 m / 50 m)
Black	Power supply		2 x 1,5 mm ²	2 x 2,5 mm ²
Purple	Flashing signal lights	FROR CBI 20-22 CBI	2 x 0,5 mm ²	2 x 1,0 mm ²
Orange	Photocell TX	EN 50267-2-1	2 x 0,5 mm ²	2 x 1,0 mm ²
Blue	Photocell RX		4 x 0,5 mm ²	4 x 1,0 mm ²
Cyan	Key operated switch		3 x 0,5 mm ²	3 x 1,0 mm ²
Red	Antenna	RG58	max 20 m	max 20 m

230V	DESCRIPTION	Wire	Length (1 m / 20 m)	Length (20 m / 50 m)
Black	Power supply		3G x 1,5 mm ²	3G x 2,5 mm ²
Purple	Flashing signal lights	FROR CBI		



FORT DUAL 1000 KIT

The kits contain all the parts and equipment you need to make set up and connection as easy as possible. Instruction manuals and technical information are available on our website at www.comunello.com. We also offer our service to provide expert technical support by phone. The actuator range is in compliance with CE directive (EMC, LVD, and R&TTE) and successive amendments.



ARTICLE	CODE	MOTOR CODE	DESCRIPTION	PACKAGE	WEIGHT	PALETTE	
KIT FORT DUAL 1000 230V	GKFT100DHB000	FORT 1000 230V MG GFT100GCH0B00 / GFT100GCH0B00	Kit Fort 1000 230V 2 leaves sliding gates	1 kit	25,2 kg	18	

FORT DUAL 1000 KIT CONTENTS



FORT 1000 MG
1 FORT motor 1000 MG



FORT 1000 MG SC
1 FORT motor 1000 MG SC



INDEX
Key operated switch



KEEP 2 RC
2 ch. radio control unit



DART
Photocells



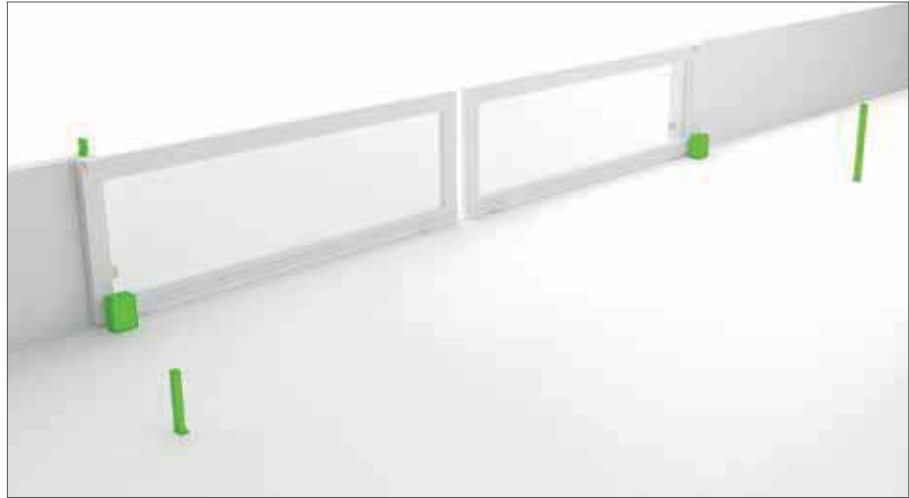
SWIFT-Y
Flashing signal lights



AC 40
Signage table



Accessories included x2



GENERAL INFORMATION

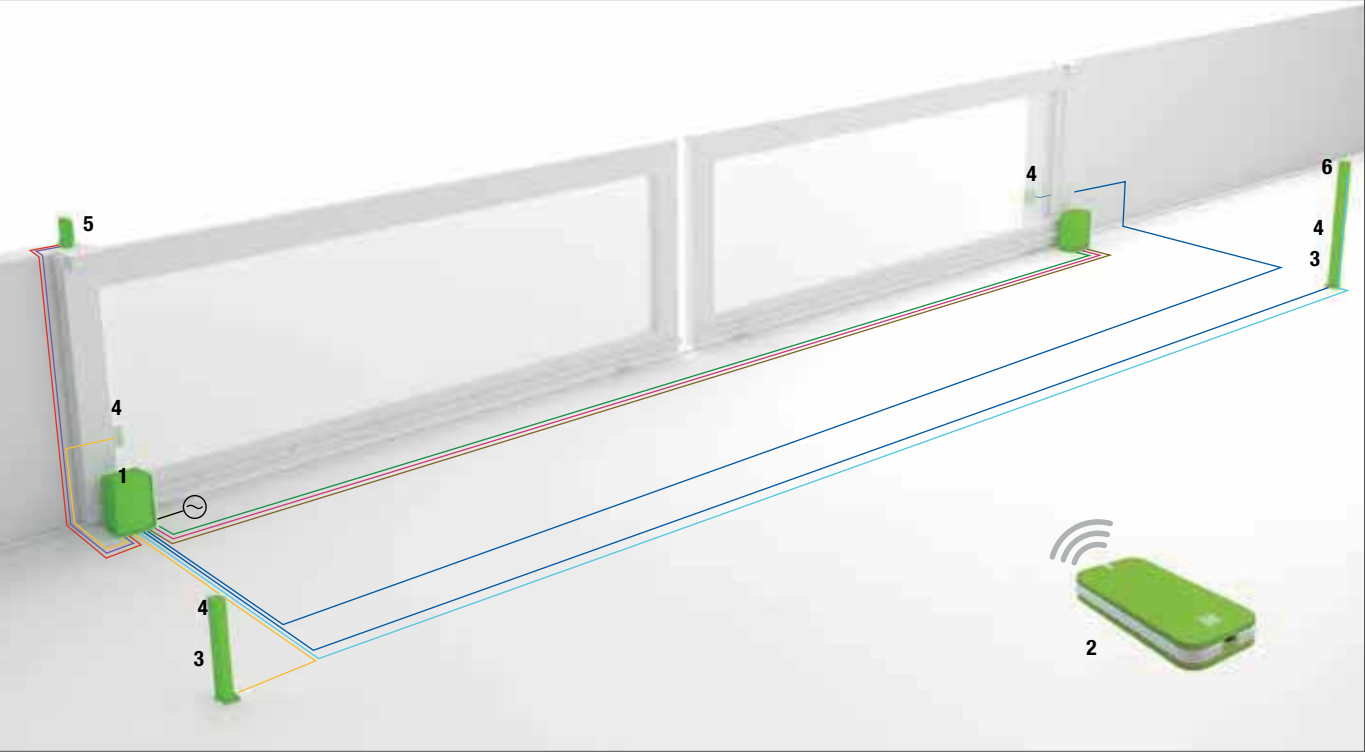
- Versione 230 VAC.**
Motore irreversibles, 230V
- Durability**
Easy-opening release mechanism with aluminium handle. Practical, functional support and electronics casing. Versions with bronze gearings are available
- Versions with lever or magnetic limit switch available**
- Smart**
Height and plane adjustable. Obstacle detection. Automatic programmable timer with built-in receiver. Silent with dampened motorreductor
- Available in kit form**
- Control board**
Electronic control unit prewired. Trimmer adjustments for easy reading. Programmable automatic / semi-automatic limit switch, timer and reduced speeds. Built-in receiver..

230 VAC

KIT

Sliding and cantilever gates

INSTALLATION CHART



230V	DESCRIPTION	Wire	Length (1 m / 20 m)	Length (20 m / 50 m)
Black	Power supply	FROR CBI 20-22 CBI EN 50267-2-1	3G x 1,5 mm ²	



FORT 3500

Electromechanical actuators for industrial sliding gates up to 3500 Kg



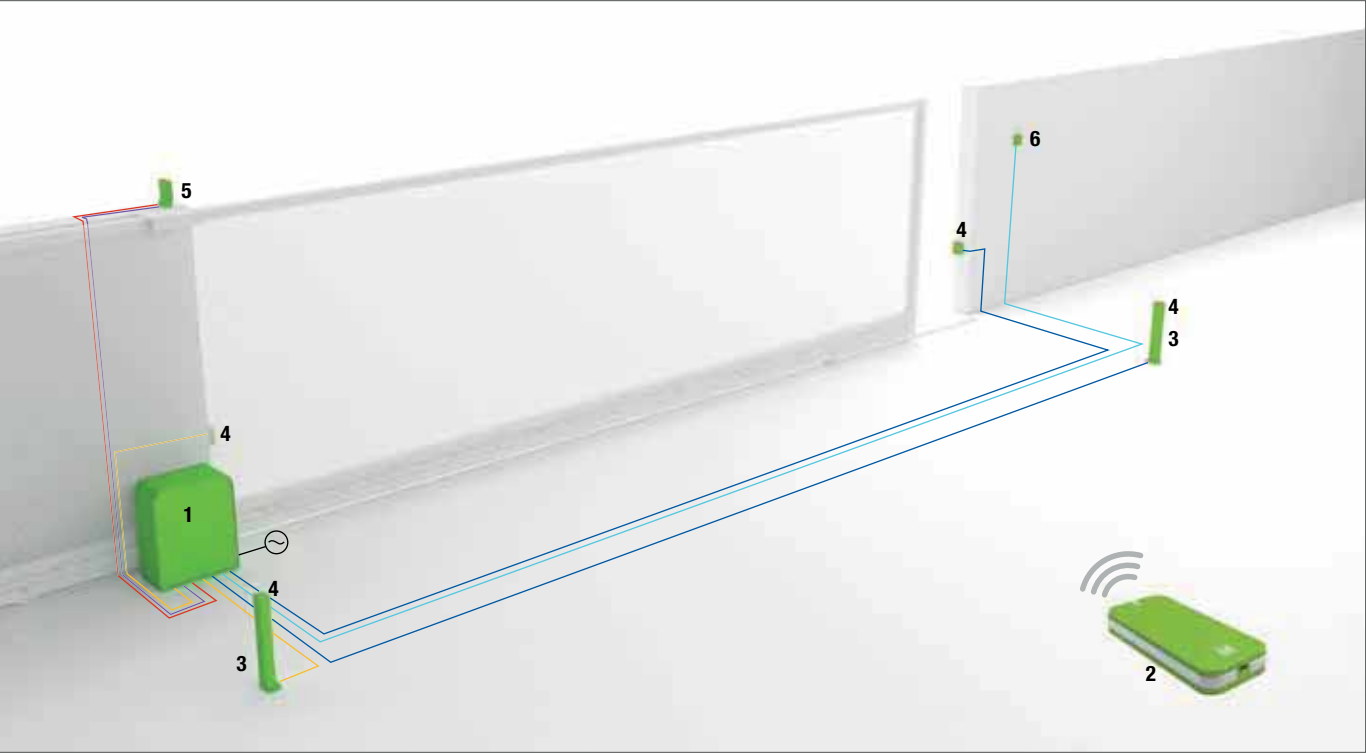
GENERAL INFORMATION

- **230 VDC and 380 VAC versions.**
Irreversible motors, 230 VDC & 380 VAC
- **Magnetic limit switch**
- **Durable**
Pressed steel casing with monophase and three-phase motorreductor. Metal and bronze gearings. Key-operated opening. Easy access to robust, practical release lever
- **Practical and safe**
Electromechanical brake, auto-ventilated motor

24 VDC 380 VAC

Sliding and cantilever gates

INSTALLATION CHART



- 1 FORT 3500
- 2 CONTROL RADIO
- 3 COLUMNS
- 4 PHOTOCELLS
- 5 FLASHING SIGNAL LIGHTS
- 6 KEY OPERATED SWITCH

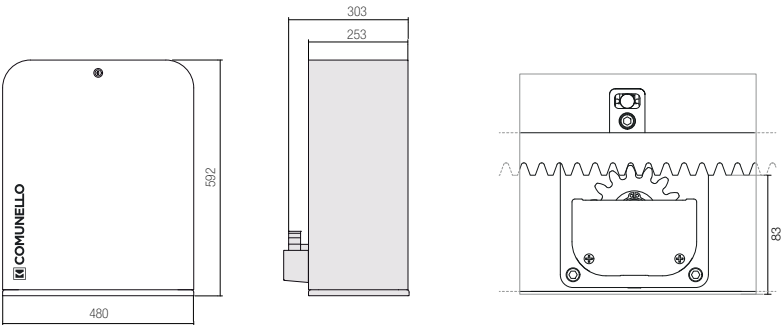
230V	DESCRIPTION	Wire	Length (1 m / 20 m)	Length (20 m / 50 m)
—	Power supply	FROR CEI 20-22 CEI BN 50267-2-1	3G x 1,5 mm ²	3G x 2,5 mm ²
—	Flashing signal lights		2 x 0,5 mm ²	2 x 1,0 mm ²
—	Photocell TX		2 x 0,5 mm ²	2 x 1,0 mm ²
—	Photocell RX		4 x 0,5 mm ²	4 x 1,0 mm ²
—	Key operated switch		3 x 0,5 mm ²	3 x 1,0 mm ²
—	Antenna	RG58	max 20 m	max 20 m



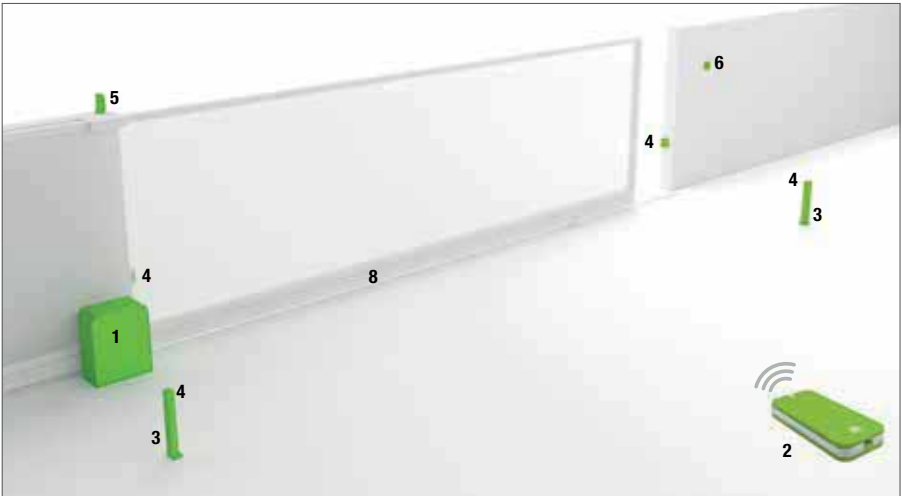
Sliding and cantilever gates

FORT 3500

Electromechanical actuators for industrial sliding gates up to 3500 Kg



ARTICLE	CODE	DESCRIPTION	PACKAGE	WEIGHT	PALETTE
■ FORT 3500 230V	GFT350GCH0B00	230V Magnetic limit switches for sliding gates, Weight maxi 3500 kg	1 pcs.	53 kg	5
■ FORT 3500 380V	GFT350GCG0B00	380V Magnetic limit switches for sliding gates, Weight maxi 3500 kg	1 pcs.	55 kg	5



INSTALLATION CHART	
1	FORT 3500 230V - GFT350GCH0B00 230V Magnetic sensor for sliding gates, Weight max 3500 kg
2	1 KEEP 2 RC - GKEEP2STNOB00 Remote control, rolling code 2 ch.
3	1 MAST 50 - GMAST005NOG00 Extruded aluminium column h 50 cm
4	2 DART - GDARTSTDNOB00 Photocells
5	1 SWIFT - GSWIFTSTLYB00 Flashing signal lights
6	1 INDEX - GINDEXSTNOB00 Key operated switch standard
7	1 AC-40 - GSAFETYTNOG00 Signage table
8	1 ART. 260 30x30x1000 - 11400516 001 Racks

TECHNICAL CHARACTERISTICS

Electrical information	230V	380V
Power supply	230 VAC	380 VDC
Operating power supply	230 VAC	380 VDC
Power consumption	0,8 KW	0,8 KW
Current input	3,5 A	1,2 A
Maximum thrust	3000 N	3000 N
Duty cycle	50%	intensive use
Protection rating (IP)	IP44	IP44
Insulation class	1 (earthing)	1 (earthing)
Working temperature	-20°C / +50°C	-20°C / +50°C
Weight max of gate	3500 Kg	3500 Kg
Rack module	M6	M6
Speed	0,17 m/s	0,17 m/s
Weight	70 Kg	70 Kg

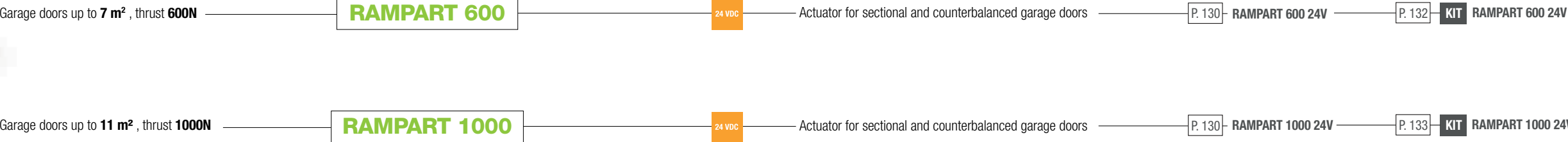
FORT 3500

ACCESSORIES from page 190 a 191

 Outdoor antenna AC 30 / GANTENNANOG00	 Kit 4 anchor bolts M10
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RAMPART



SALIENT

