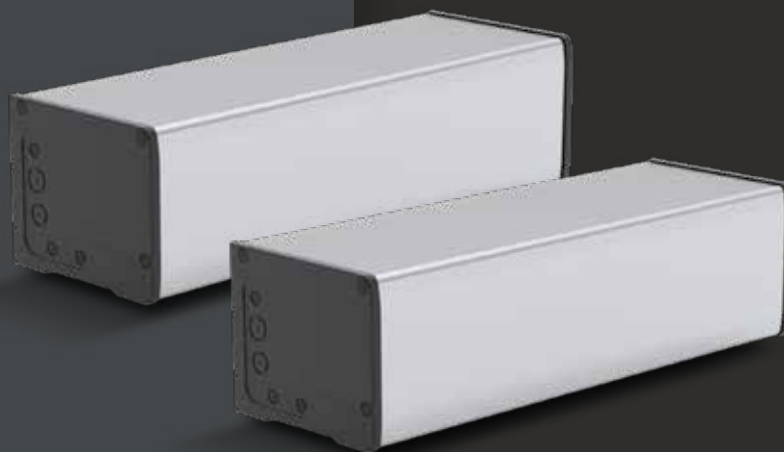


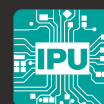
NAV SERIES

TODAY'S DIGITAL INTELLIGENCE
MOVES YOUR GATE

 **ROGER**
BRUSHLESS



 **ROGER**
TECHNOLOGY
100% Made in Italy



WHAT WE DO

INNOVATION, TOP NOTCH MECHANICS AND NEVER-ENDING TECHNOLOGICAL RESEARCH ARE THE ELEMENTS THAT MAKE ROGER TECHNOLOGY A UNIQUE AND DIFFERENT COMPANY

Starting from our first day of work we immediately gave priority to the development and production of excellent, completely Italian mechanics, based only on top quality ferrous and non ferrous raw materials and guaranteed by impeccable production and surface treatment processes. It was just a few years later, in the 1990s, that we created the first major step in our history, by implementing a mass production line for completely robotised motors, thus becoming a reference outsourcer for major brands of the gate automation market.

PEOPLE, IDEAS AND PRODUCT EXPERIENCE

From the very beginning **Roger Technology** has evolved and grown because it's people believe that any bright idea can lead to great change in the future. Our people are passionate and innovative in their approach to every challenge, always pushing the boundaries to develop extraordinary products.

In our language we translate the word "**experience**" as passion. It is this passion that drives us in the development of revolutionary **new products** that serve the real needs of our customers. We understand that our customers want a product designed around the way that they work.

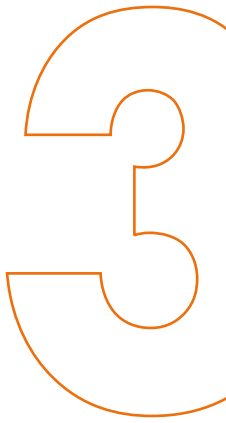
Primo Florian
Founding partner
Engineering
and design

Dino Florian
Founding President
Development
and design

Renato Florian
Founding partner
Assembly
and quality



OUR PLUSES



EXCELLENT RAW MATERIALS

Steel, ductile cast iron, aluminium, bronze, copper and titanium have always been the main and exclusive raw materials used in the advanced engineering processes of our company.



PRODUCTION TECHNOLOGY

At Roger Technology all internal manufacturing is carried out on optimised production lines making use of very advanced technology. We have invested heavily in robotics and automated all product manufacturing phases. This ensures that all components and semi-finished products are highly reliable and are fully compliant with our exceptionally high quality standards.



INTERNAL ASSEMBLY

Our highly qualified and dedicated staff oversee the fitting and assembly stages. Every piece of equipment is checked by our all Italian personnel to ensure that we deliver reliable products to our customers.



MADE IN ITALY

All solutions, products, design and the complete production process of Roger Technology is developed in Italy with the use of materials of primary quality always found in the market through partner suppliers that share the same passion and professionalism of our company in developing products technologically reliable, efficient and simple in the way that they have been made for being installed and used.



BRUSHLESS MOTOR

A DIGITAL BRUSHLESS MOTOR WITH PERMANENT MAGNETIC FIELD, DIGITAL ELECTRONICS FOR THE COMPLETE MANAGEMENT OF THE AUTOMATION SYSTEM CONTROL. DESIGNED FOR SUPER INTENSIVE USE WITH THE ADDED BENEFIT OF A SUPER LOW POWER CONSUMPTION: **THIS IS ROGER BRUSHLESS**

We are the creators at the heart of the product!
All of our digital brushless motors are designed and manufactured in our own factories. Using dedicated automated machines the motors are wound with ultimate precision.

DIGITAL BRUSHLESS MOTOR

Revolutionary and innovative digital Brushless motor with permanent magnetic field, three-phase sinusoidal power supply with native encoder that allows super-intensive use of the automation system with extremely low power consumption, not only providing 100% compliance with all the automation system management and safety rules, but setting new standards in gate safety.

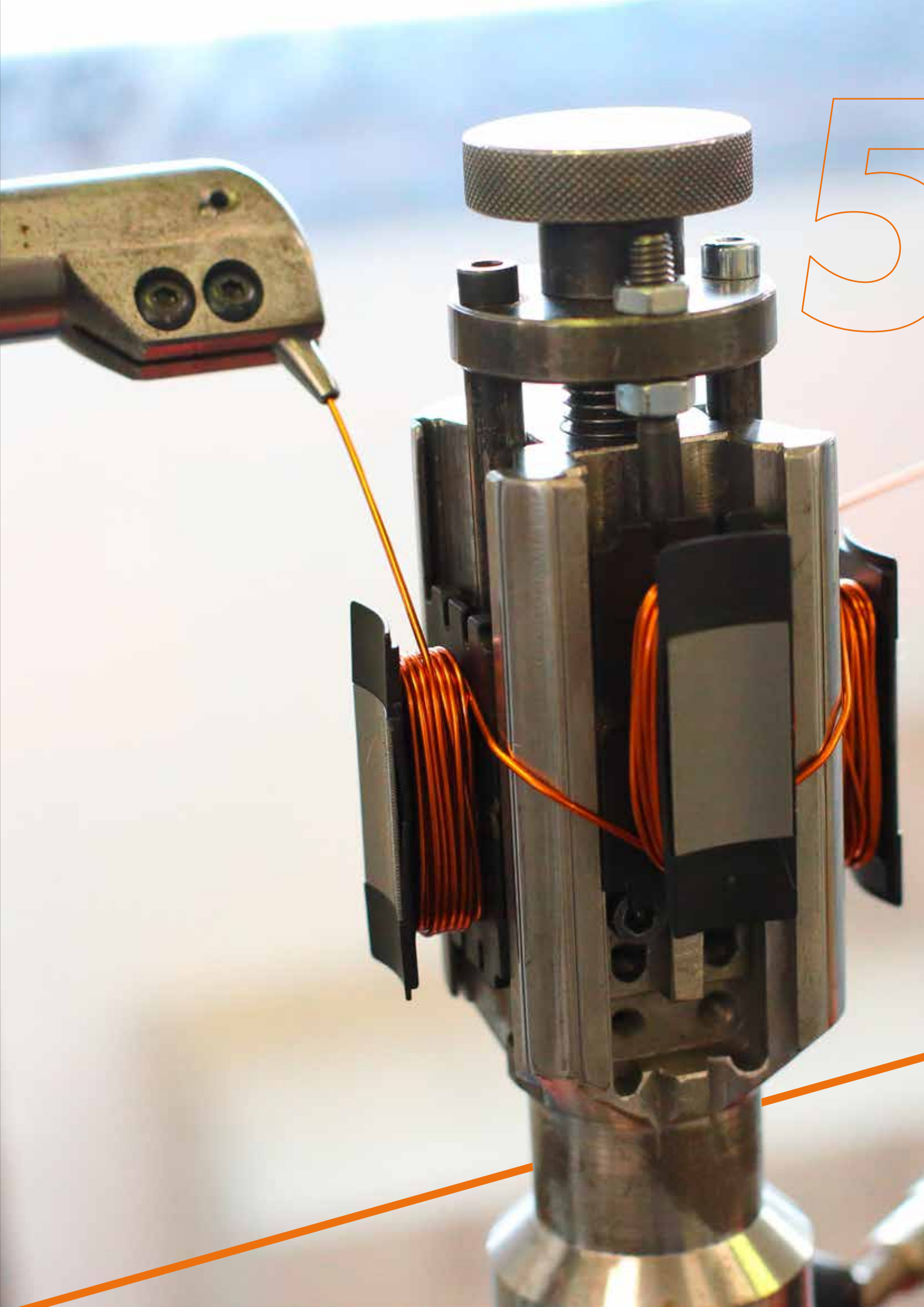
NEW GENERATION OF ELECTRONICS

The new control unit with onboard digital Brushless controller. Without traditional relays and due to the revolutionary MOSFET quadrant system and its control technology entirely based on a DSP (Digital Signal Processor) microcontroller, it represents a new generation of electronic cards created to safely handle all movement phases of the automation system.

ENGINEERING PASSION

All the mechanical components and gears are manufactured in steel, cast iron and bronze. The automation system casings are made from titanium-reinforced die-cast aluminium. All the gears are inspected and assembled on high-quality bearings and inserted on precise seats machined to provide absolute precision between the axes.

A TECHNOLOGY THAT OFFERS MAXIMUM PERFORMANCE
BUT CONSUMES LESS POWER THAN OTHER MOTORS



COMPLETELY BRUSHLESS

THE REVOLUTIONARY DIGITAL MOTOR WITH 12 UNIQUE FEATURES



3-PHASE DIGITAL BRUSHLESS MOTOR

A very powerful motor with substantial torque. The motor is compact and neat due to the special concentrated coil windings, it is powered by a **three phase sinusoidal system**.



NO PROBLEM IN THE EVENT OF POWER FAILURE

With the help of internal or external batteries and the associated battery charging card, your automation system continues to operate for a considerable time **even during prolonged power cuts**, ensuring many more operations than traditional technologies.



SPEED, ACCELERATION AND DECELERATION WITH EXTREME ELEGANCE

The automation system with brushless digital technology creates perfect and elegant movements. With a constant **force and torque** at every point and with the option of varying the speed on deceleration and acceleration the system can be managed with maximum safety.



EXTREMELY LOW ENERGY CONSUMPTION

A motor that can operate at low voltage in super-intensive use and which can operate in environments with extremely demanding weather conditions while maintaining **very low energy consumption and absorption levels**.



DIGITAL AND VECTORIAL AUTOMATION CONTROLLER

The BRUSHLESS digital controller, which operates at low voltage **24V/36V DC**, allows 100% control of the automation system in digital mode. Due to its operation entirely based on a DSP microcontroller the travel and all the movements of your automation system can therefore be programmed and customised easily, precisely and elegantly.



MOTOR AT AMBIENT TEMPERATURE

The BRUSHLESS motor was created with the main goal of being a motor for super intensive use and **with a 99% efficiency**. Regardless of how many operations the engine performs in a day, it always remains cold or at the most reaches the outside ambient temperature.



THE DIGITAL SILENCE OF THE MOTOR

One great impact is the **silence** or the near absence of noise, generated by the BRUSHLESS motor during all its movements.



MOTOR FOR SUPER-INTENSIVE USE

We wanted to surprise our customers with a product that was fundamentally different to any other product on the market. Fact: our motor remains **permanently cold** even after many days of super intensive use.



IMPACT, OBSTACLE DETECTION AND REVERSAL IN TOTAL SAFETY

Thanks to digital technology we are able to **detect an obstacle** and reverse the motor instantly, by simply specifying the torque of the motor, the sensitivity, the time and the travel of the reversal. All in full compliance with safety requirements.



ONBOARD NATIVE DIGITAL ENCODER

The BRUSHLESS motor has a highly advanced **native digital encoder** that controls management of automation systems in a safe, precise and extremely elegant manner.



SIMPLE INSTALLATION WITH A SINGLE 3-WIRE CABLE

The BRUSHLESS motor can be installed by simply connecting it using three wires! What could be easier? This will provide full digital management of your automation system thanks to the **SENSORELESS** and **SENSORED** (absolute encoder) technology incorporated in the BRUSHLESS sliding gate motors.

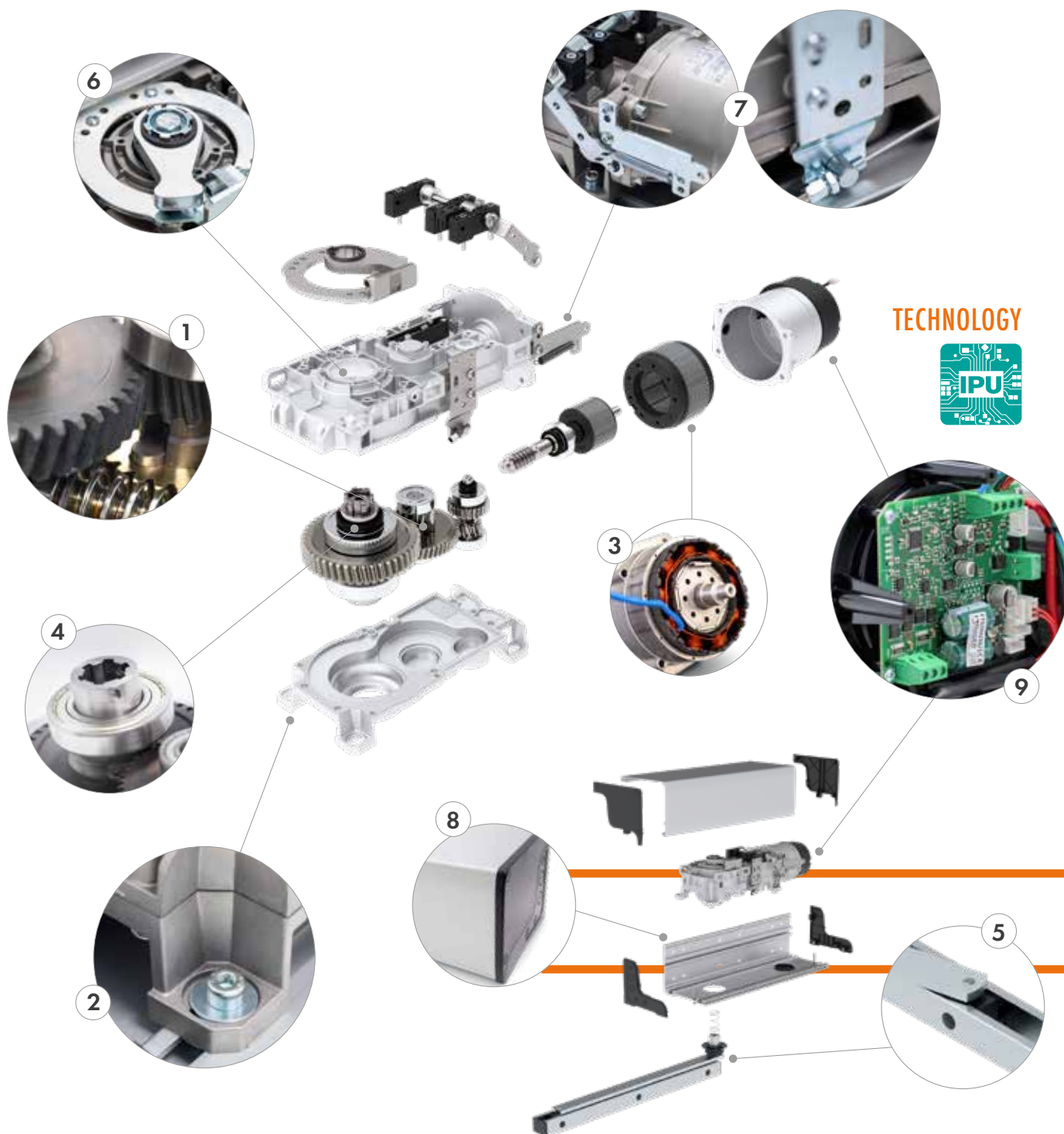


ADVANCED PRECISION ENGINEERING TO OBTAIN OPTIMAL MOTOR PERFORMANCE

We have created a mechanism that gives you the opportunity to get **the maximum performance out of the motor**. A product which combines the quality of the internal production processes, the mechanical processing and the use of high quality ferrous and non-ferrous materials.

WHY BRUSHLESS?

DIGITAL, SMART, POWERFUL, ELEGANT, ROBUST AND ALL-ITALIAN



1 GEAR MOTOR WITH PERFECT GEARS

The gear motor is made entirely of aluminium, steel and bronze. All reduction gears are helical, treated with a temperature process and assembled with high quality bearings. This ensures excellent, noiseless performances.

2 ALUMINIUM-TITANIUM SHELL

The gear motor is housed in two titanium-reinforced aluminium die castings. We machine all supporting surfaces to place the gasket and make the gear motor watertight. Absolute precision between the axes is ensured by machining the bearing seats.

3 DIGITAL BRUSHLESS MOTOR

Digital Brushless motor with low voltage 36V permanent magnetic field. Extremely compact and powerful, it operates at ambient temperature, making it suitable for extremely intense use with low energy consumption.

4 MAIN OUTPUT SHAFT

The main gearbox shaft is connected to the slide arm through splined mount Z6 uni8953, equipped with an adjustment screw to adjust the distance between the automation system and the slide arm millimetrically.

5 SLIDE ARM

Robust slide arm with sliding-intensive roller and height-adjustable grooved bushing.

6 GATE OPENING MECHANICAL STOP

Robust mechanical opening limit switch, with multi-adjustment system to adjust the door accurately.

7 ROBUST AND LONG-LASTING LOCK RELEASE SYSTEM

Sturdy lock release system, with eccentric rotation fitted on bronze bearings. It allows releasing the automation system effortlessly, under any condition. With safety microswitch supplied as standard. Cord-operated RL674 release set-up.

8 ELEGANT ALUMINIUM SUPPORT

Elegant anodised aluminium support with pre-drilled fastening holes, cable holes on both sides, and watertight cover with gaskets. Set-up and factory assembled for right or left mount.

9 IPU (POWER MOTOR CONTROL) TECHNOLOGY INVERTER BOARD



The innovative PMC inverter board with IPU TECHNOLOGY is installed on board, and it includes the high-resolution 4096 PPR digital encoder. The inverter board is housed inside the automation system, near the Brushless motor, and it controls the motor power section. Its position near the motor and the built-in encoder ensure excellent performances, smooth movements, and instant obstacle detection. The automation system and the IPU control unit are connected via 4-wire ModBus RS485 protocol, creating a robust communication system between the two units. This simple and efficient connection is achieved through 2 power cables and 2 communication cables.



TECHNICAL SPECIFICATIONS

	NV/200/DX	NV/200/SX
DESCRIPTION	Low-voltage IPU TECHNOLOGY BRUSHLESS electromechanical gear motor, for intensive use, irreversible, onboard inverter power module with digital encoder, compatible with single-leaf and double-leaf folding doors, mechanical opening limit switch. Without slide arm, prefitted gear motor for right mount.	Low-voltage IPU TECHNOLOGY BRUSHLESS electromechanical gear motor, for intensive use, irreversible, onboard inverter power module with digital encoder, compatible with single-leaf and double-leaf folding doors, mechanical opening limit switch. Without slide arm, prefitted gear motor for left mount.
		
POWER LINE SUPPLY	230V AC - 50Hz	230V AC - 50Hz
MOTOR POWER SUPPLY	36V DC	36V DC
POWER RATING	240W	240W
FREQUENCY OF USE	Intensive use 	Intensive use 
TORQUE	240 N m	240 N m
OPERATING TEMPERATURE	-20 C° +55 C°	-20 C° +55 C°
PROTECTION LEVEL	IP44	IP44
REDUCTOR TYPE	Irreversible	Irreversible
MANOEUVRE SPEED	0,75 - 2,8 Rpm	0,75 - 2,8 Rpm
OPENING TIME	10 s	10 s
LIMIT SWITCH	Mechanical stopper in opening	Mechanical stopper in opening
RECOMMENDED DIGITAL CONTROLLERS	F70/IPU36/BOX/P - F70/IPU36/BOX/SL	F70/IPU36/BOX/P - F70/IPU36/BOX/SL
ENCODER	Digital magnetic encoder SENSORED 4096 PPR	Digital magnetic encoder SENSORED 4096 PPR
RELEASE SYSTEM	External lever with cord	External lever with cord
OPERATING CYCLES PER DAY (OPENING/ CLOSING - 24 HOURS NO STOP)	500	500
BATTERIES RECOVERY	3 external batteries 12V DC 4,5 Amp/h (on external box) - optional	3 external batteries 12V DC 4,5 Amp/h (on external box) - optional
MAXIMUM DIMENSION PRODUCT IN MM (L X W X H)	547 x 182,5 x 152,5	547 x 182,5 x 152,5
PRODUCT WEIGHT PACKED (KG)	18,2	18,2
NUMBER ITEMS PER PALLET	24	24



KIT PACKAGING

L.: 59,2 cm

P.: 19,8 cm

H. 19,8 cm



FUNCTIONS

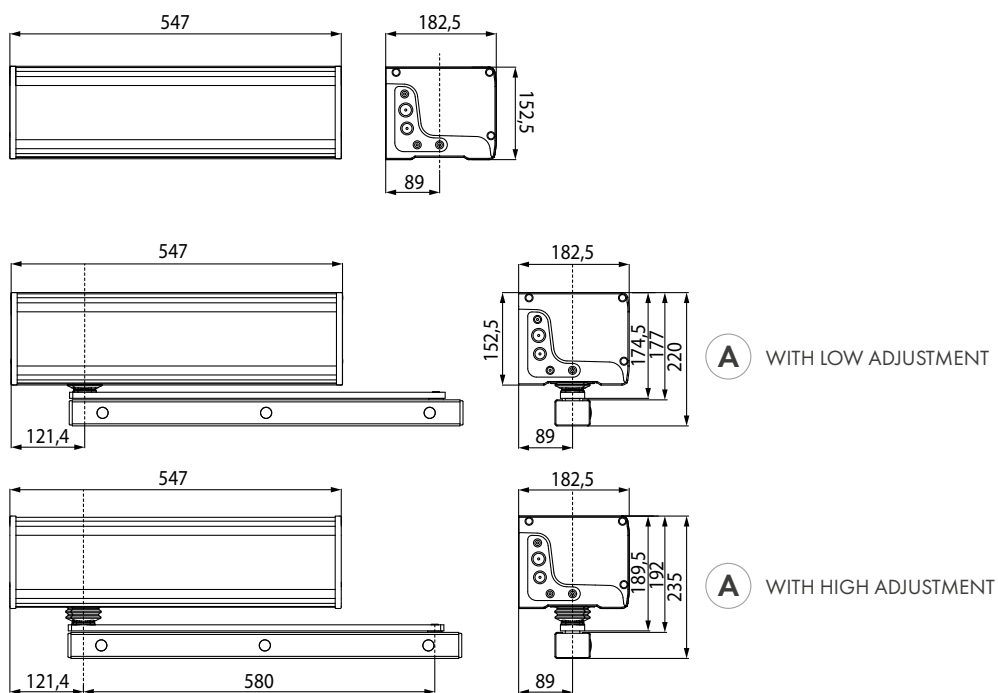
OF INDUSTRIAL AUTOMATION

DESCRIPTION	NV/200/DX	NV/200/SX
MAXIMUM LENGTH OF DOUBLE GATE LEAF	1,5 M	1,5 M
MAXIMUM WEIGHT OF DOUBLE GATE LEAF	200 kg	200 kg
MAXIMUM LENGTH OF SINGLE GATE LEAF	2 m	2 m
MAXIMUM WEIGHT OF SINGLE GATE LEAF	300 kg	300 kg
DIGITAL CONTROLLER IPU TECHNOLOGY	F70/IPU36/BOX/P - F70/IPU36/BOX/SL	F70/IPU36/BOX/P - F70/IPU36/BOX/SL
RADIO RECEIVER TYPE	H93/RX20/I with fixed code connection H93/RX22A/I with fixed code connection H93/RX2RC/I with rolling code connection	H93/RX20/I with fixed code connection H93/RX22A/I with fixed code connection H93/RX2RC/I with rolling code connection
MOTOR POWER SUPPLY	36V	36V
MOTOR POWER CONTROL TECHNOLOGY (ETPC)	(POWER MOTOR CONTROL) TECHNOLOGY INVERTER BOARD	(POWER MOTOR CONTROL) TECHNOLOGY INVERTER BOARD
ENCODER TYPE	SENSORED α 4096 PPR	SENSORED α 4096 PPR
MAINS POWER SUPPLY	230V 50 Hz	230V 50 Hz
ENERGY CONSUMPTION	Very low consumption	Very low consumption
NUMBER OF MOTORS	2	2
POWER SUPPLY FOR ACCESSORIES	24V DC	24V DC
FLASHING LIGHT TYPE	24V DC LED	24V DC LED
OUTPUT FOR GATE OPENING INDICATOR AND AUTOMATION SYSTEM ON WARNING LIGHT	√	√
OUTPUT FOR COURTESY LIGHT	40W	40W
TIMED AND GUARANTEED AUTOMATIC CLOSING	√	√
GATE EDGE SAFETY MANAGEMENT, 8.2KΩ OR STANDARD	√	√
LIMIT SWITCH TYPE	Mechanical stop on opening	Mechanical stop on opening
SEPARATE MANAGEMENT FOR MOTOR 1 - 2	√	√
FORCE ADJUSTMENT IN NOMINAL MOVEMENT	√	√
FORCE ADJUSTMENT IN START-UP AND DECELERATION	√	√
OBSTACLE DETECTION - MOTOR REVERSAL	√	√
ADJUSTMENT IMPACT FORCE SEPARATE MOTOR 2	√	√
SPEED ADJUSTMENT	√	√
DECELERATION	√	√
STARTING ACCELERATION (SOFT-START)	√	√
GUARANTEED CLOSING	√	√
WIND PROTECTION FUNCTION WITH GATE CLOSED	√	√
MOTOR STOPPING DISTANCE AND BRAKING DISTANCE	√	√
PARTIAL OPENING CONTROL	Pedestrian entry	Pedestrian entry
HUMAN PRESENCE CONTROL	√	√
LOCK MANAGEMENT	√	√
CONDOMINIUM FUNCTION	√	√
SAFETY DEVICE CONFIGURATION	√	√
INSTALLATION TEST FUNCTION	(prog button)	(prog button)
OPERATING TEMPERATURE	-20°C/+55°C	-20°C/+55°C
INVERTER THERMAL PROTECTION	√	√
CURRENT ABSORPTION MAPPING SYSTEM	(MCA)	(MCA)
RESTORE FACTORY DEFAULT VALUES	√	√
INFORMATION ON USE OF MOTOR	√	√
B-CONNECT UNIT INPUT ON-BOARD	√	√
SECURITY PASSWORD MANAGEMENT	√	√

INSTALLATION

DIMENSIONS

Note: all measurements in the drawings are in millimetres



CONTROL UNIT



**F70/IPU36/
BOX/SL**

36V IPU controller to manage 2 IPU TECHNOLOGY BRUSHLESS motors with onboard inverter, in a slim plastic box



**F70/IPU36/
BOX/P**

36V IPU controller to manage 2 IPU TECHNOLOGY BRUSHLESS motors with onboard inverter, in a slim plastic box with push-button panel

OPTIONAL ACCESSORIES

13

NAVI: EVERYTHING YOU NEED FOR A COMPLETE,
PROFESSIONAL INSTALLATION



B71/BCIPU

Batteries charger for Brushless
digital controller IPU36



RL674

Kit for unlocking from inside
with 4.5 m wire cord
for NAVI series



BT12V45

Battery 12V 4.5 Ah (1 pc)



**B74/
BCONNECT
VERS. HW2**

Module WI-FI B-CONNECT
- Remote management and
programming system in IP
web browser mode via Wi-Fi
hot spot P2P connection
for Brushless control units
(B70/2ML - EDGE1 - CTRL -
B70/1DC - B70/1DCHP -
B70/1T - B70/1THP -
F70/IPU36)



LT339

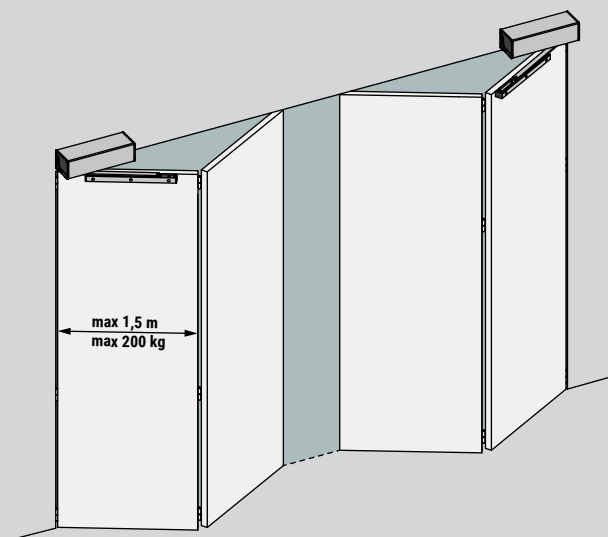
Slide arm for NAVI series



R99/C/001

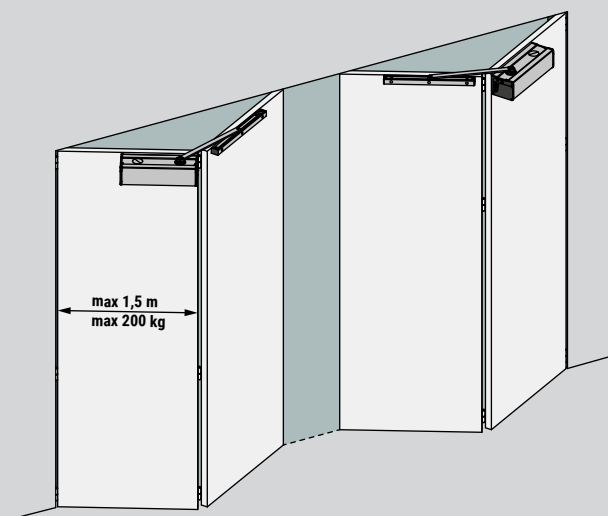
"Automatic Opening"
warning notice

APPLICATION EXAMPLES



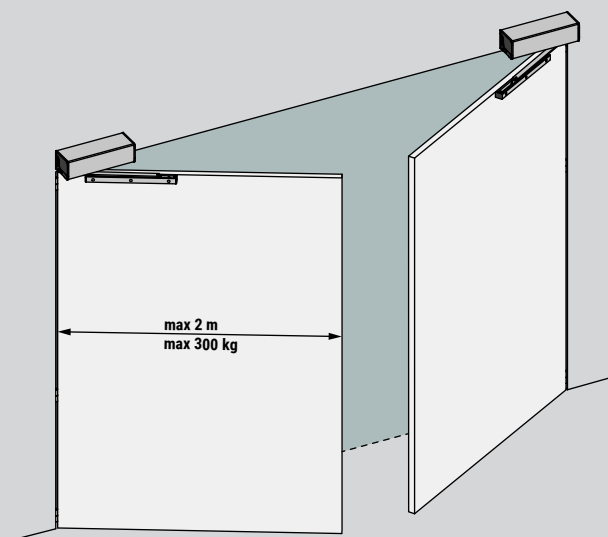
FOLDING DOOR

4-leaf folding door with slide guide, with automation assembly on the right and left wall



FOLDING DOOR

4-leaf folding door with slide guide, with automation assembly on the right and left upturned leaves



SWING DOOR

single or double swing door with automation assembly on the right and left

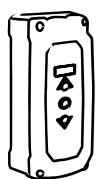
INSTALLATION TYPE

INSTALLATION WITH SLIDE ARM LT339

24V DC LED flashing
lamp unit with
integrated antenna



IPU
control unit



Industrial door motor
with PMC module

Industrial door motor
with PMC module

Warning
notice



Key or
keypad
operated
control
selector



Pair of
photocells

Pair of
photocells

Photocell
column



Photocell
column



Fixed or rolling
code remote
controls



PREMIUM DEALER / PROFESSIONAL DEALER



imaginive ASSOCIATI



F99/E/030EN - 07/2024



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