



## **BH30 SERIES**

Today's digital intelligence moves your gate



## WHY BRUSHLESS...?

Digital, smart, powerful, elegant, robust and all-Italian.



No problem in the event of power failure change to due to the onboard standby batteries with two 12V DC 1.2 a/h batteries and the associated charging card located in a protected position inside the gate operator cover.

# Multifunction digital display

4-quadrant digital display with 6 function keys that allow you to go through the various parameters, change their values, check error messages and input statuses and perform all the self-learning phases.

## Control on DSP microcontroller

Management of the BRUSHLESS motor by connection of a single 3-wire cable, with full digital management of your automation system thanks to the power control technology of the SENSORED motor.

## Plug-in 2-channel radio receiver

Powerful 2-channel radio receiver with up to 500 storable radio controls, available in fixed code or rolling code versions.

# BRUSHLESS digital motor

Digital brushless motor based on a permanent magnetic field which uses neodymium iron-boron magnets inside the rotor. With special concentrated coil windings, powered by a three-phase sinusoidal power system and available in 24V, 36V and 220V AC versions, the motor is extremely compact and operates at ambient temperature, guaranteeing superintensive use with extremely low consumption.

# Extremely powerful digital encoder

Thanks to the SENSORED technology and the native encoder in the motor, it is possible to exploit the technology provided by a motor encoder with a computing capacity of 4096 pulses per revolution. An effective power control that allows safe management of the automation system in all its movements, especially in the obstacle detection phases.

# 9 High quality worm gears and bearings

Special worm gears and motor shafts obtained by pressure rolling processes guarantee durability and silence.
Use of high-quality ball bearings with double protection.

### High precision engineering

Reducer gears made with only with high quality materials such as aluminium, steel, cast iron and bronze; gears assembled with high-quality double-shielded ball bearings in order to obtain absolute precision between their axes.

# Wide availability of inputs

The digital controller offers a wide range of inputs for management and connection of all accessories and safety devices.

# Eccentric aluminium lock release lever The release lever is made entirely of aluminium with opening by key galinder. The appains system is based on a year.

by key cylinder. The opening system is based on a very robust and powerful eccentric operating method, and on the principle of the double lever, which unlocks the automation system easily and reliably.

# Limit switch for any installation

The whole range of sliding gate motors in the BH30 series is available with a mechanical limit switch or magnetic limit switch managed by the powerful onboard native digital encoder.

# Reinforced aluminium body

The BH30 body is made completely of aluminium reinforced with titanium. The thicknesses are increased and reinforced in the areas of greatest stress or possible wear. Treatment with epoxy paints to protect the body from the weather.

## Technical SPECIFICATIONS

	BH30/603	BH30/604	BH30/803	BH30/804	BH30/503HS	BH30/504HS
Code Description	Electromechanical BRUSHLESS motor, low voltage, super intensive use, with native encoder onboard, irriveersible ideal for sliding gates from 400 Kg to 600 Kg. with built-in digital controller B70 series, mechanical limit switch.	Electromechanical BRUSHLESS motor, low voltage, super intensive use, with native encoder onboard, irreversible ide- al for sliding gates from 400 Kg to 600 Kg. with built-in digital controller B70 series, magnetic limit switch.	Electromechanical BRUSHLESS motor, low voltage, super intensive use, with native encoder onboard, irreversible ide- al for sliding gates from 800 Kg to 1000 Kg. with built-in digital controller B70 series, mechanical limit switch.	Electromechanical BRUSHLESS motor, low voltage, super intensive use, with native encoder onboard, irreversible ideal for sliding gates from 800 Kg to 1000 Kg. with built-in digital controller B70 series, magnetic limit switch.	Electromechanical BRUSHLESS motor, low voltage, super intensive use, with native encoder onboard, irreversible ideal for sliding gates up to 500 Kg, and high speed, with built-in digital controller B70 series, mechanical limit switch.	Electromechanical BRUSHLESS motor, low voltage, super intensive use, with native encoder onboard, irreversible ideal for sliding gates up to 500 Kg, and high speed, with built-in digital controller B70 series, mechanical limit switch.
Max gate weight	from 400 to 600 kg	from 400 to 600 kg	from 800 to 1000 kg	from 800 to 1000 kg	500 Kg	500 kg
Line power supply	230V AC - 115V AC 50/60Hz +-10%	230V AC - 115V AC 50/60Hz +-10%	230V AC - 115V AC 50/60Hz +-10%	230V AC - 115V AC 50/60Hz +-10%	230V AC - 115V AC 50/60Hz +-10%	230V AC - 115V AC 50/60Hz +-10%
Brushless motor power supply	24V	24V	24V	24V	24V	24V
Rated power	130W	130W	200W	200W	200W	200W
Frequency of use	Super Intensive	Super Intensive	Super Intensive	Super Intensive	Super Intensive	Super Intensive
Operating temperature	-20 +55°C	-20 +55°C	-20 +55°C	-20 +55°C	-20 +55°C	-20 +55°C
Degree of protection	IP43	IP43	IP43	IP43	IP43	IP43
Speed of operation	0,16 m/sec	0,16 m/sec	0,16 m/sec	0,16 m/sec	0,44 m/sec RAPID	0,44 m/sec RAPID
Thrust	50 - 600 N	50 - 600 N	50 - 1000 N	50 - 1000 N	50 - 500 N	50 - 500 N
Encoder	Digital native encoder	Digital native encoder	Digital native encoder	Digital native encoder	Digital native encoder	Digital native encoder
Limit switch type	Mechanical with microswitch	Magnetic	Mechanical with microswitch	Magnetic	Mechanical with microswitch	Magnetic
Onboard control unit	B70/1DC	B70/1DC	B70/1DC	B70/1DC	B70/1DC	B70/1DC
Daily operation cycles (open / close - 24 hours non-stop)	1300	1300	1300	1300	800	800
Packaged product weight	11,2 kg	11,2 kg	11,2 kg	11,2 kg	11,2 kg	11,2 kg
Release	Eccentric lever with key cylinder	Eccentric lever with key cylinder	Eccentric lever with key cylinder	Eccentric lever with key cylinder	Eccentric lever with key cylinder	Eccentric lever with key cylinder
Rack module	4	4	4	4	4	4
Number of packages per pallet	44	44	44	44	44	44



# FUNCTIONS of automated sliding gate motor

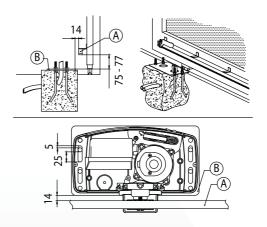
RZZEK/ with rolling code connection RZZEK/ with rolling coll connology RZEK/ with rolling code connection RZZEK/ with rolling code connection RZZEK/ with rolling code connection RZZEK/ with rolling connology RZEK/ with rolling connection RZZEK/ with rolling connection RZEK/ RZEK/ RZEK/ with	DESCRIPTION	BH30/603 - BH30/604	BH30/803 - BH30/804	BH30/503HS BH30/504HS
Disboard digital centroller  B76/BCC  B77/BCC  B	Max ante weight	from 400 kg to 600 Kg	from 800 kg to 1000 Kg	un to a 500 ka
Readin receiver type  REALEX / with fload code connection M22 REALEX / with fload code connection M22 REALEX / with rolling code connection M22 REALEX / wit		• •	•	· · ·
Motor management technology (ETC)  SENSORED technology  Magnetic Digital SENSORED, 4096 pulses per revolution revolution Mains power supply  230V 50/60 ltz  240 DC LED  240 DC LE	Radio receiver type	H93/RX22A/I with fixed code connectionH93/	H93/RX22A/I with fixed code connectionH93/	H93/RX22A/I with fixed code connectionH93/
Render type revolution recovering the form of the process of the p	Motor power supply	24V DC	24V DC	24V DC
recolution revolution recovery of continuous power adjustment in start-up and deceleration of the slowdown starting point    Source adjustment of the slowdown starting point    Source and notes reversed eduction (also in position recovery and of the slowdown starting point of the slowdown starting point    Source and note reversed eduction (sof-start)    Source and note to thick and note that the slowdown starting point    Source and note the slowdown starting point    Sourc	Motor management technology (ETC)	SENSORED technology	SENSORED technology	SENSORED technology
Sentery operation (optional) 2 internal batteries 12V DC, 1.2 q/s (optional)	Encoder type			Magnetic Digital SENSORED, 4096 pulses per revolution
Integry consumption Very low consumption Very low consumption Very low consumption Number of motors  Power supply for accessories 240 DC ED 240 DC	Mains power supply	230V 50/60 Hz	230V 50/60 Hz	230V 50/60 Hz
Number of motors  Power supply for accessories  24V DC 24V DC 24V DC ED  24V DC LED  24V	Battery operation	(optional) 2 internal batteries 12V DC, 1.2 a/h	(optional) 2 internal batteries 12V DC, 1.2 a/h	(optional) 2 internal batteries 12V DC, 1.2 a/h
Power supply for accessories         24V DC         24V DC LED	Energy consumption	Very low consumption	Very low consumption	Very low consumption
Flacking light type  24V DC LED  24V DC LE	Number of motors			
Output for gate opening indicator and automation system on warning light         √         √           Output for courtey light         40W         40W         40W           Cote edge safety management, 8.2KΩ or standard         √         √         √           Gate edge safety management, 8.2KΩ or standard         √         √         √           Force adjustment in nominal movement         √         √         √           Force adjustment in start-up and deceleration         √         √         √           Obstacle detection (also in position recovery made) - Motor reversal         √         √         Adjustable separately in opening and closure starting point         √         √         Adjustable separately in opening and closure starting point         √         √         Adjustable separately in opening and closure starting point         √         √         Adjustable separately in opening and closure starting point         √         √         Adjustable separately in opening and closure starting point         √         √         Adjustable separately in opening and closure starting point         √         √         Adjustable separately in opening and closure starting point         √         √         Adjustable separately in opening and closure starting point starting point         √         √         √         √         √         √         √         √         √         √	Power supply for accessories	24V DC	24V DC	24V DC
Dutput for courtery light 40W 40W 40W 40W 40W 50W 50W 50W 50W 50W 50W 50W 50W 50W 5	Flashing light type	24V DC LED	24V DC LED	24V DC LED
Timed and guaranteed automatic closing $$ $\sqrt$	Output for gate opening indicator and automation system on warning light	√	$\sqrt{}$	$\checkmark$
Gate edge safety management, 8.2K $\Omega$ or standard    Mechanical - Magnetic   Mechanical -	Output for courtesy light	40W	40W	
Standard V V V V V V V V V V V V V V V V V V V	Timed and guaranteed automatic closing	$\sqrt{}$	$\sqrt{}$	√
Force adjustment in nominal movement  Force adjustment in start-up and deceleration  Force adjustment in start-up and deceleration  Force adjustment in start-up and deceleration  Force adjustment  Force adjustment in start-up and deceleration  Force adjustment  Force adjustment in start-up and deceleration  Force adjustment in start-up and deceleration adjustment in start-up and deceleration and closure  Force adjustment in start-up and deceleration  Force adjustment in start-up and closure  Force adjust	Gate edge safety management, $8.2 \text{K}\Omega$ or standard	√	$\sqrt{}$	$\sqrt{}$
Force adjustment in start-up and deceleration $\sqrt{}$	Limit switch type	Mechanical - Magnetic	Mechanical - Magnetic	Mechanical - Magnetic
Obstacle detection (also in position recovery mode) - Motor reversal  Speed adjustment  ✓  Adjustable separately in opening and closure of the slowdown starting point  Starting acceleration (soft-start)  Starting acceleration (soft-start)  ✓  Adjustable separately in opening and closure of the slowdown starting point  Starting acceleration (soft-start)  ✓  Adjustable separately in opening and closure of the slowdown starting point  ✓  Starting acceleration (soft-start)  ✓  Adjustable separately in opening and closure of the slowdown starting point  ✓  Adjustable separately in opening and closure of the slowdown starting point  ✓  Adjustable separately in opening and closure of the slowdown starting point  ✓  Adjustable separately in opening and closure of the slowdown starting point  ✓  Adjustable separately in opening and closure of the slowdown starting point  ✓  Adjustable separately in opening and closure of the slowdown starting point of the	Force adjustment in nominal movement	$\sqrt{}$	$\sqrt{}$	√
Speed adjustment  √  Adjustable separately in opening and closure  √  Adjustable sepa	Force adjustment in start-up and deceleration	√	$\sqrt{}$	$\sqrt{}$
Deceleration $$ Adjustable separately in opening and closure $$ Management of the slowdown starting point $$ Adjustable separately in opening and closure $$	Obstacle detection (also in position recovery mode) - Motor reversal	√	$\sqrt{}$	$\sqrt{}$
Management of the slowdown starting point $\sqrt{}$ Adjustable separately in opening and closure $\sqrt{}$ Adjustable se	Speed adjustment	√	$\sqrt{}$	Adjustable separately in opening and closure
Starting acceleration (soft-start) $$ Adjustable separately in opening and closures  Guaranteed closing $$ Stopping space and motor braking $$ Pertial opening control  Pedestrian entry  Pedestrian entry  Pedestrian entry  Pedestrian entry  Pedestrian entry  Pedestrian entry  Foundaminium function $$ Condominium function $$ $$ Safety device configuration $$ $$ $$ Installation test function $$ $$ $$ Perestore factory default values $$ $$ $$ $$ Information on use of motor $$ Adjustable separately in opening and closures $$ $$ Adjustable separately in opening and closures $$ $$ $$ Adjustable separately in opening and closures $$ $$ $$ Adjustable separately in opening and closures $$ $$ $$ Adjustable separately in opening and closures $$ Adjustable separately	Deceleration	√	$\sqrt{}$	Adjustable separately in opening and closure
Guaranteed closing $$ $$ $$ $$ Stopping space and motor braking $$ $$ $$ $$ Partial opening control Pedestrian entry $$ $\sqrt$	Management of the slowdown starting point			$\sqrt{}$
Stopping space and motor braking  Pedestrian entry   √  Condominium function  √  √  ✓  Installation test function  (prog button)  (prog button)  (prog button)  Operating temperature  -20°C/+55°C  -20°C/+55°C  -20°C/+55°C  A  Restore factory default values  √  √  √  √  √  ✓  ✓  ✓  ✓  ✓  ✓  ✓  ✓	Starting acceleration (soft-start)	√	√	Adjustable separately in opening and closure
Partial opening control Pedestrian entry Pedestrian entry Pedestrian entry Pedestrian entry Pedestrian entry Pedestrian entry  √ √ Condominium function √ √ ✓ Condominium function √ ✓ ✓ Condominium function √ ✓ Condominium function ✓ Condomini	Guaranteed closing	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$
Human presence control $\sqrt{}$ $\sqrt{}$ $\sqrt{}$ $\sqrt{}$ Condominium function $\sqrt{}$ $\sqrt{}$ $\sqrt{}$ $\sqrt{}$ Safety device configuration $\sqrt{}$ $\sqrt{}$ $\sqrt{}$ $\sqrt{}$ $\sqrt{}$ Safety device configuration $\sqrt{}$ $\sqrt{}$ $\sqrt{}$ (prog button) $\sqrt{}$ $$	Stopping space and motor braking	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$
Condominium function $$ $$ $$ $$ Safety device configuration $$ $$ $$ $$ Installation test function (prog button) (pr	Partial opening control	Pedestrian entry	Pedestrian entry	Pedestrian entry
Safety device configuration $$ $$ $$ Installation test function (prog button) (prog button	Human presence control	$\sqrt{}$	$\sqrt{}$	√
Installation test function (prog button) (prog button) (prog button) (prog button)  Operating temperature $-20^{\circ}\text{C}/+55^{\circ}\text{C}$ $-20^{\circ}\text{C}/+55^{\circ}\text{C}$ $-20^{\circ}\text{C}/+55^{\circ}\text{C}$ Inverter thermal protection $\sqrt{}$ $\sqrt{}$ $\sqrt{}$ Restore factory default values $\sqrt{}$ $\sqrt{}$ $\sqrt{}$ Information on use of motor $\sqrt{}$ $\sqrt{}$	Condominium function	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$
Operating temperature $-20^{\circ}\text{C}/+55^{\circ}\text{C}$ $-20^{\circ}\text{C}/+55^{\circ}\text{C}$ $-20^{\circ}\text{C}/+55^{\circ}\text{C}$ Inverter thermal protection $$ $$ $$ Restore factory default values $$ $$ $$ Information on use of motor $$	Safety device configuration	$\sqrt{}$	$\sqrt{}$	√
Inverter thermal protection $\sqrt{}$ $\sqrt{}$ $\sqrt{}$ Information on use of motor $\sqrt{}$ $\sqrt{}$	Installation test function	(prog button)	(prog button)	(prog button)
Restore factory default values $$ $$ $$ Information on use of motor $$ $$	Operating temperature	-20°C/+55°C	,	,
Information on use of motor $\sqrt{}$	Inverter thermal protection	$\sqrt{}$	√	√
	Restore factory default values	$\sqrt{}$	$\sqrt{}$	√
Security password management $\sqrt{}$	Information on use of motor	$\sqrt{}$	√	√
	Security password management	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$

## Dimensions

# 329 165,8

## preparations

for standard installation



A = Rack

B = Fastening plate (thickness 3mm)

Note: All measurements in the drawings are in millimetres



### KIT BH30/605

Sliding gates from 400 Kg to 600 Kg, mechanical limit switch

### KIT BH30/606

sliding gates from 400 Kg to 600 Kg, magnetic limit switch

### **KIT BH30/805**

sliding gates from 800 Kg to 1000 Kg, mechanical limit switch

### KIT BH30/806

sliding gates from 800 Kg to 1000 Kg, magnetic limit switch

## Contents of

standard BH30 swing gate motor kit



1 sliding gate motor with onboard



1 radio receiver with 2 fixed code

channels, H93

series



ing function, E80 series

digital controller

2 fixed code remote control units with copy-

1 pair of photocells, R90 series

1 flashing light LED 24V DC

1 antenna

"Automatic Opening" warning notice

### **ACCESSORIES**

BH30 everything you need for a complete, professional installation.

#### **OPTIONAL ACCESSORIES**



KT214/SC

Adapter plate complete with tie-rods and screws for H30 series



GA553

Nylon rack, module 4, 6 attachments, length 1000



KT221

Raised fastening plate for H30 series



GA554

Pack of 6 spacers with screws



GA550

Steel rack 22x22x1000, galvanised, module 4



R99/C/001

"Automatic Opening" warning notice



GA551

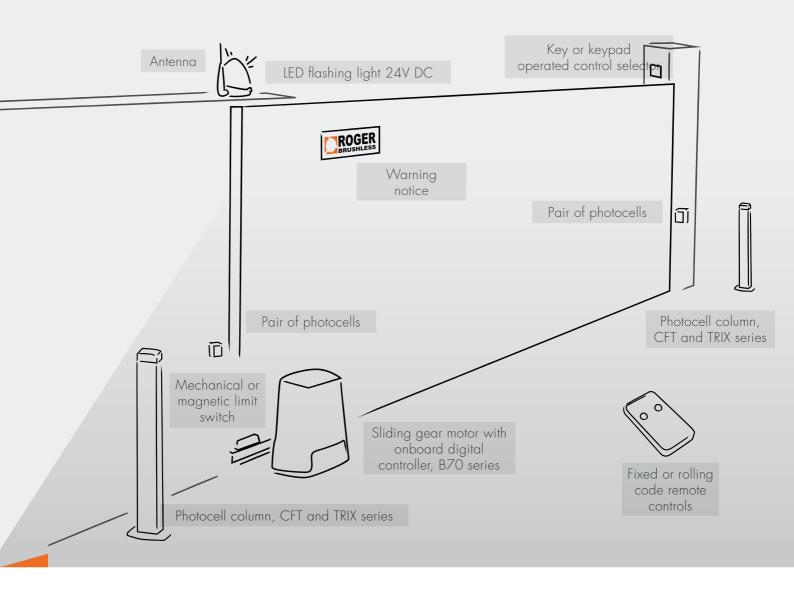
Steel rack 30x12x1000, galvanised, module 4, complete with spacers and screws





#### STANDARD ACCESSORIES

Always included in the individual product package or kit



## STANDARD INSTALLATION

A practical example for your successful