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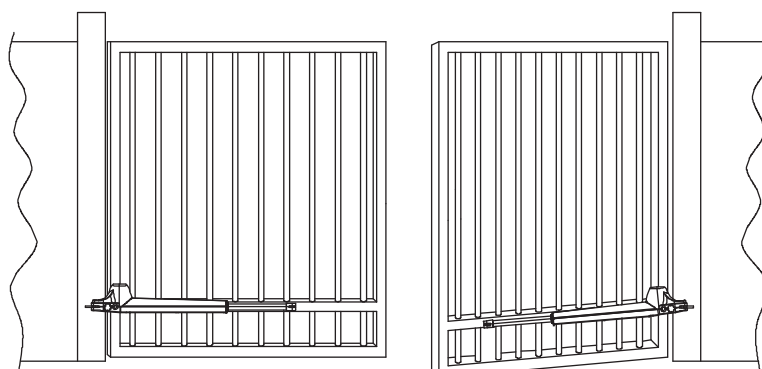
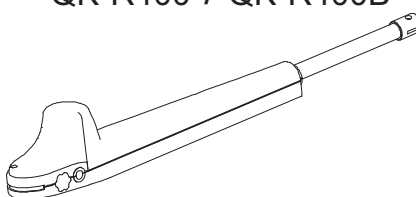
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use and maintenance manual

ROTELLO

SWING GATE OPENER (230/110/24V)

QK-R400 / QK-R400B



qui»lö[®]
opening solutions

TECHNICAL FEATURES	QK-R400	QK-R400B
Power	230Vac 50/60 Hz	24V DC
Current Absorbed (Motor) (A)	0,9 - 1,4	1,7 - 6,64
Power Absorbed (W)	320	160
Capacitor (µF)	10	-
Protection Level (IP)	54	54
Opening Time (sec)	18	18
Stroke (mm)	400	400
Max. Thrust (N)	3000	2000
Working Temp. (°C Min/Max)	-30/+70	-30/+70
Thermal cut-out (°C)	140	-
Working Cycle (%)	50	100
Motor Weight (kg)	9	9
Max. leaf length (m)	4,5	4,5

Also available in 110V. Please add "110" to the item code for 110Vac version
 For 110Vac version, 230Vac in this user manual must be intended as 110Vac.

	Installation limits per leaf Limiti di'impiego per anta Contraintes d'utilisation					
	2m	2,5m	3m	3,5m	4m	4,5m
QK-R400	900kg	700kg	500kg	475kg	450kg	400kg
QK-R400B	600kg	500kg	400kg	375kg	350kg	300kg

The values shown within the table above can be considerably reduced in windy areas.

IMPORTANT NOTICE:

- The installer must refer to the control board user manual to get the full explanation about operating modes, compatible accessories and wirings. 230V models require our QK-CE220BATRL4 swing gate control board, 24V models require our QK-CE24BATRE control board. Quiko motors must be controlled by their relative Quiko control board in order to guarantee correct and safe working operations.

- 24V ROTELLO models can be supplied by a 24V backup battery unit in order to keep them operative during main power supply failures such as blackouts.

To ensure a safe operation of the drive the installer must use our QK-BPACK1 backup battery unit OR equivalent commercial rechargeable batteries with the following specifications:

Type: Lead Acid Battery
 Voltage: 24V (2 x 12V batteries must be connected in series)
 Capacity: 1.3Ah each

Warning:

- The appliance is only to be used with the backup power supply unit provided by the constructor or equivalent backup power supply unit as specified by the constructor;

GENERAL PRECAUTIONS FOR INSTALLERS



WARNING: Important safety instructions. Follow all instructions since incorrect installation can lead to severe injury.

1- BEFORE INSTALLING THE AUTOMATION

Before installing the automation, you must check that:



- Safe handling of drive and other parts weighing more than 20 kg by the use of proper handling means, such as hooks and ropes
- The driven part is in good mechanical condition, correctly balanced and opens and closes properly
- that entrapment between the driven part and the surrounding fixed parts due to the opening movement of the driven part is avoided;
- the actuating member of a biased-off switch is to be located within direct sight of the driven part but away from moving parts. Unless it is key operated, it is to be installed at a minimum height of 1,5 m and not accessible to the public
- the temperature range marked on the drive is suitable for the location;
- Electro-sensitive protective equipment shall be accessible for inspection purposes after installation;
- You have all the tools, materials and safety devices you will need for moving and installing the appliance in total safety in compliance with applicable regulations;
- the installation and movement of the appliance is done respecting the needed safe distances in order to protect fingers, hands, feet and body;
- a switch is incorporated in the fixed wiring in accordance with the wiring rules in order to allow disconnection of the appliance from the power supply after installation;

2- AFTER INSTALLING THE AUTOMATION

After installing the automation, you must check that:

- that the mechanism is properly adjusted and that the protection system and any manual release function correctly;
- the label concerning the manual release, adjacent to its actuating member is permanently fixed;
- fixed wirings which may come in contact with sharp edges or high temperature parts are properly protected by insulating sleeving having an appropriate temperature rating;

Quiko Italy Srl is liable only for products it manufactures and commercializes. Once automated, the gate becomes a machine and is therefore subject to the rules of the “Machinery Directive”. It is on the installer to verify its security. **WARNING:** Quiko Italy Srl is not liable for any damages to people, animals or things due to unauthorised modifications, alterations or betterments on its products by third parties.

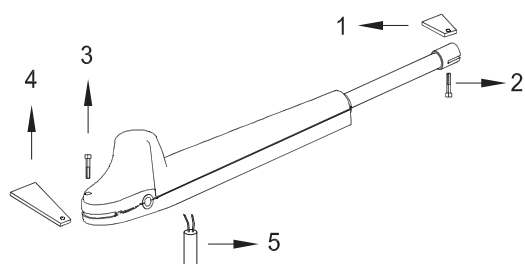
PRE-INSTALLATION CONTROL

Before installing the automation, you must check that the gate's shutter:

- can turn without sticking in the ground;
- does not swing during its movement;
- is kept in axis by the special hinges;
- owns stoppages when opening and closing.

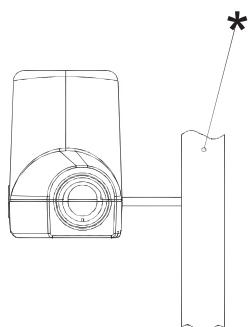
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MATERIALS FOR INSTALLATION

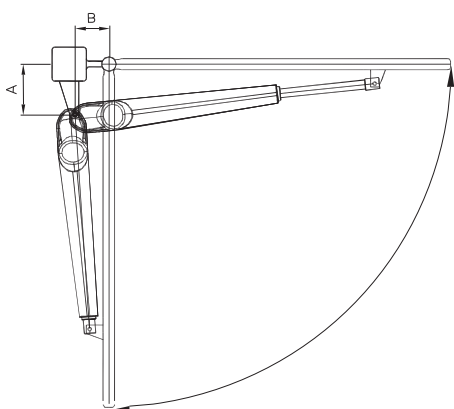
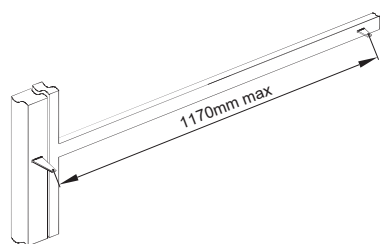


- 1 – Galvanized bracket
- 2 – Gate Bracket Screw
- 3 – 8x50mm stainless steel screw
- 4 – Galvanized bracket
- 5 – Capacitor (for 230V / 110V model only)

MEASURES TO BE RESPECTED

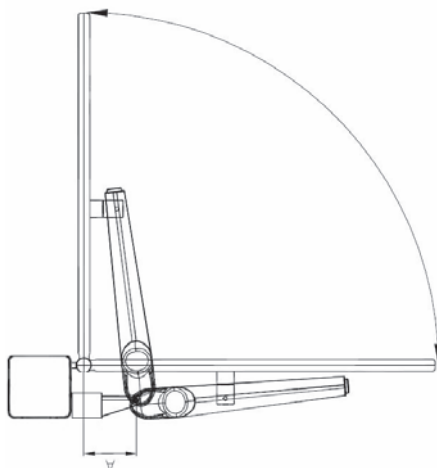


* brackets must be installed so that the actuator, once pegged on them, comes out in a horizontal position.

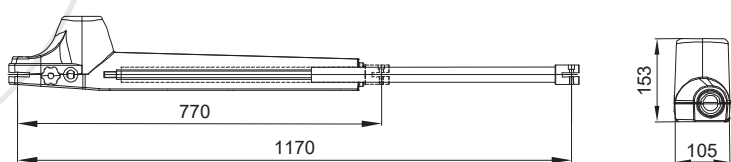


QK-R400 AND QK-R400B					
$\alpha = 90^\circ$			$\alpha = 100^\circ$		
A (mm)	B (mm)		A (mm)	B (mm)	
	min	max		min	max
110	120	250	120	120	220
120	120	250	130	120	220
130	120	250	140	120	220
140	120	250	150	120	210
150	120	250	160	120	210
160	120	230	170	120	200
170	120	230	180	120	190
180	120	220	190	120	180
190	120	200	200	120	170
200	120	190	210	120	160
210	120	190	220	120	160
220	120	180	230	120	130
230	120	160	240	120	120
240	120	160	250	120	120
250	120	150			
260	120	140			
270	120	130			
280	120	120			

If necessary, extending the bracket on the column/pillar, it is possible to install the motor internally and let the gate open externally (push to open) as shown within the image below:



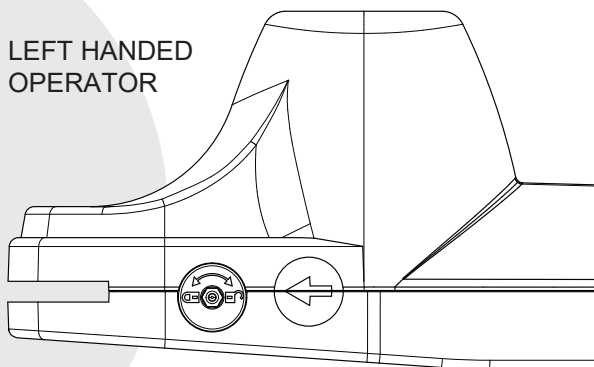
MEASURES OF THE ACTUATOR (mm)



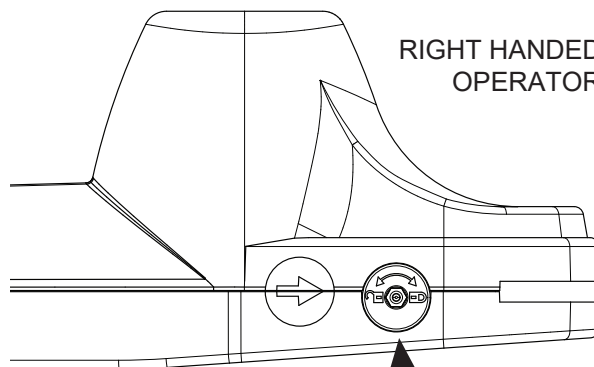
MAXIMUM ALLOWED EXTENSION

As per the drawing on the left, QK-R400 output tube maximum allowed extension is 1170 mm. Make sure that, once installed on the gate, this measure isn't exceeded.

USE OF MANUAL UNLOCKING



LEFT HANDED OPERATOR



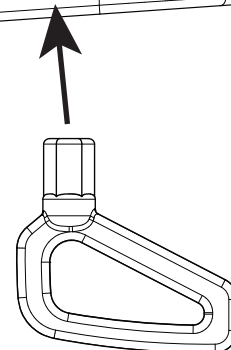
RIGHT HANDED OPERATOR

To unlock the actuator:

- 1) Insert the unlocking key shown in the picture on the right into its socket;
- 2) Turn the key until the arrow on the actuator's body points towards the unlocked padlock;

To re-lock the actuator:

- 1) Turn the key until the arrow on the actuator's body points towards the locked padlock.



WARNING:

- perform locking and unlocking operations with motor cut off.
- activation of the manual release may cause uncontrolled movement of the driven part due to mechanical failures or an out-of-balance condition

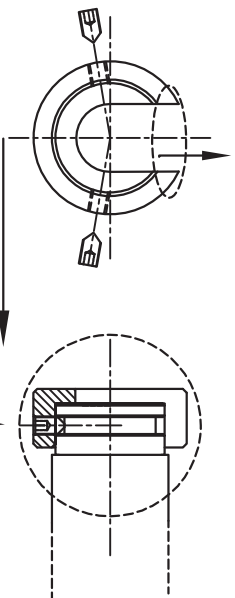


QK-FCR400

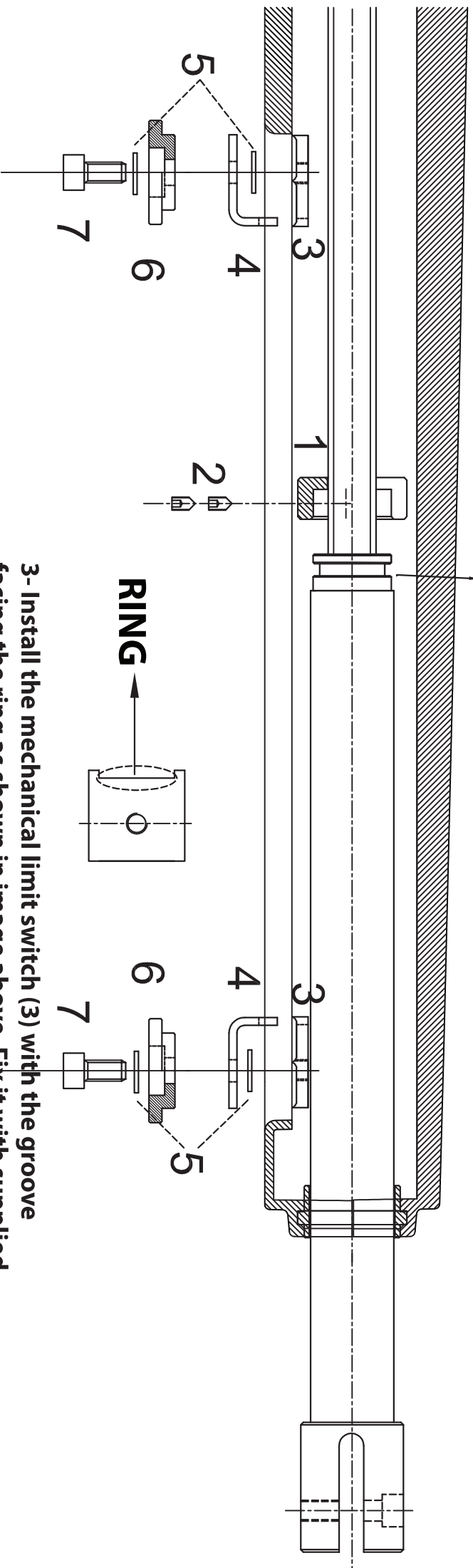
Mechanical limit switch for opening or closing for one QK-R400 gearmotor

OPTIONAL

1 - Install the ring (1) with the open side facing the UP position as shown in figure below.



2 - Fix the ring with the supplied grub screws in the position shown within image below.



3 - Install the mechanical limit switch (3) with the groove facing the ring as shown in image above. Fix it with supplied screw (7) along with its other components (4-5-6).

Mechanical limit switch can be installed in either open or closed position as show in image above.



***WARNING: Important safety instructions.
It is important for the safety of persons to
follow these instructions. Save these
instructions.***

***WARNING: The drive shall be disconnected
from its power source during cleaning,
maintenance and when replacing parts***

Install a gate's safety system that complies with current regulations. Choose short routes for cables and keep power cables separate from control ones. Install the control card in a waterproof box. Please refer to current regulations when setting the gear motor's maximum torque. We advise you to install an outdoor switch, in compliance with European standards on the issue of safety, to turn the electricity off when servicing the gate. Check that each single installed device is efficient and effective. Affix easily readable signs warning about the presence of a motorised gate.

USE

It is absolutely forbidden to use the device for any other purposes. The installed electronic unit (which must have built-in electric friction), allows to select the following functions:

- automatic: one control impulse will open or close the gate;
- semi-automatic: one control impulse will open or close the gate.

In case of a blackout, manual operation is possible by activating the unlocking device.

Having an automatic and electric power device requires special attention in a few situations:

- do not allow children to play with the appliance or its controls, including remotes
- the appliance is not to be used by persons (including children) with reduced physical, sensory or mental capabilities or lack of experience and knowledge, unless they have been given supervision or instruction;
- not to touch the device with wet hands and/or wet or bare feet;
- to turn off electricity before opening the control box and/or actuator;
- not to pull the lead to pull the plug out;
- to put the gate in movement only when it is completely visible;
- to keep out of the gate's range of action if it is moving. Wait until it has stopped;
- not to let children or animals play near the gate;
- not to let children use the remote control or other operating devices;
- to carry out routine maintenance;
- in case of failure, to turn off electricity and operate the gate manually only if it is possible and safe. Refrain from touching the gate and call an authorised technician.
- when operating a biased-off switch, make sure that other persons are kept away
- frequently examine the installation for imbalance and signs of wear or damage to cables, springs and mounting. Do not use if repair or adjustment is necessary

MAINTENANCE

Actuators need very little maintenance; however their function depends also on the gate conditions, hence here are operations to be done to keep the gate efficient at all times.

Warning: no one but the maintenance man, who must be a specialised technician, must be able to control the automatic gate while it is being serviced. For this reason please turn off electricity, avoiding also electric shocks hazard. If on the contrary electricity must be on for certain checks, remember to check or disable any control device (remote controls, push button panels etc.) except the one used by the service man.

Routine maintenance

Each of the following operations must be done when needed and in all cases at least every 6 months:

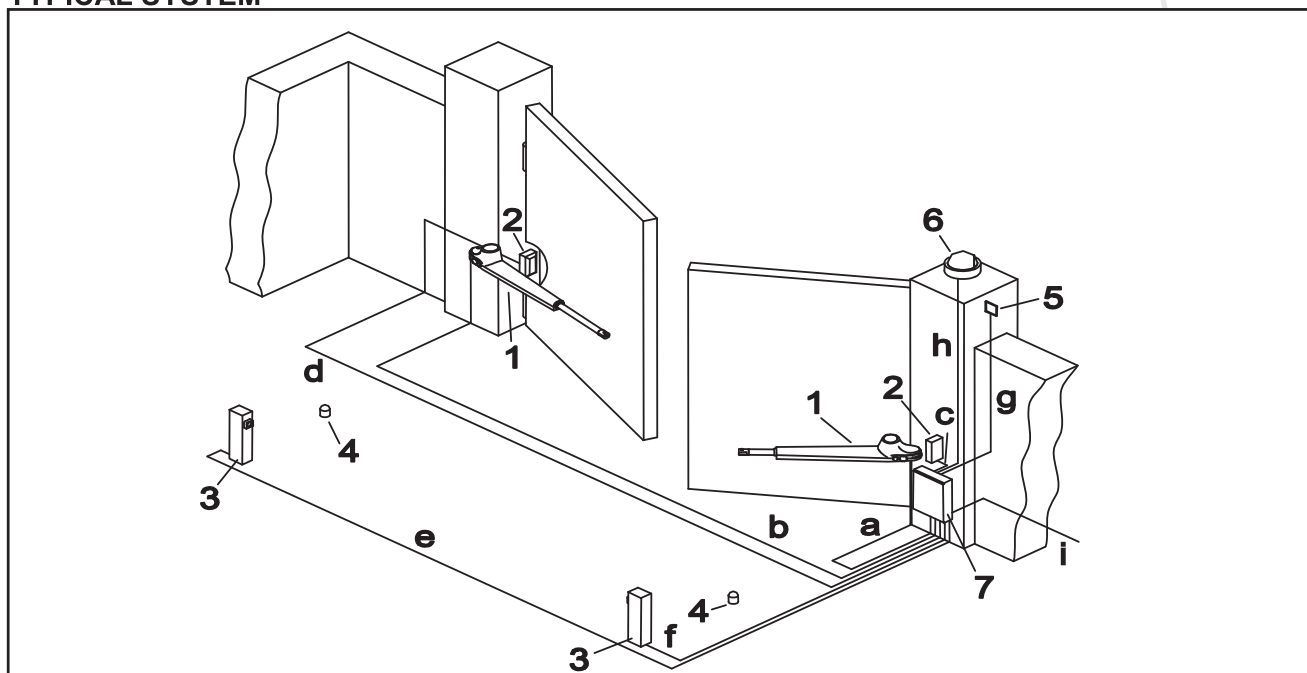
1) Mechanical maintenance

- Lubricate (with oiler) the hinges on which the gate swings
- check the good conditions of brackets and motor's hinges
- do an unlocking operation to be sure the mechanism is always efficient.

2) Electrical maintenance

- Check the proper working of the safety devices
- check the electronic friction's efficacy
- check the earth system's (differential's) efficacy. Try the differential switcher once a month by pushing the special test button on the switcher.

TYPICAL SYSTEM



MAIN COMPONENTS

- 1 – ACTUATORS
- 2 – PHOTOCELLS
- 3 – PHOTOCELLS ON LITTLE COLUMNS
- 4 – GATE KNOCKERS
- 5 – KEY SELECTOR
- 6 – FLASHING LIGHT
- 7 – CONTROL BOARD

MOTOR CABLES:

- BLUE = NEUTRAL
- BLACK = PHASE 1
- BROWN = PHASE 2

ELECTRICAL CABLES' CROSS SECTION

QK-R400B	QK-R400
A = 2x1.5 mm ²	A = 4x1.5 mm ²
B = 2x1.5 mm ²	B = 4x1.5 mm ²
C = 4x0.5 mm ² D = 2x0.5 mm ² E = 2x0.5 mm ² F = 4x0.5 mm ² G = 3x0.5 mm ² H = 3x1 mm ² I = 3x1.5 (supply line)	

EU Declaration of Conformity

and Declaration of Incorporation of "quasi-machines" (pursuant to the Machinery Directive 2006/42/CE, Att.II, B)

Company name:	QUIKO ITALY SRL
Postal address:	Via Seccalegno, 19
Postcode and City:	36040, Sossano (VI) - Italy
Telephone number:	+39 0444 785513
E-Mail address:	info@quikoitaly.com

declare that the DoC is issued under our sole responsibility and belongs to the following product:

Apparatus model/Product:	ROTELLO: QK-R400 ; QK-R400B
Type:	AUTOMATIONS FOR SWING GATES (230/110/24V)
Batch:	See the label on the motor

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

- **Directive 2006/42/CE (MD Directive)**
 - It is declared that the relevant technical documentation has been drawn-up in compliance with attachment VII B.
 - It is also declared that the following essential health and safety requirements have been respected: 1.1.1 - 1.1.2 - 1.1.3 - 1.1.5 - 1.2.1 - 1.2.6 - 1.3.1 - 1.3.2 - 1.3.3 - 1.3.4 - 1.3.7 - 1.3.9 - 1.5.1 - 1.5.2 - 1.5.4 - 1.5.5 - 1.5.6 - 1.5.7 - 1.5.8 - 1.5.10 - 1.5.11 - 1.5.13 - 1.6.1 - 1.6.2 - 1.6.4 - 1.7.2 - 1.7.3 - 1.7.4 - 1.7.4.1 - 1.7.4.2 - 1.7.4.3.
 - The undersigned declares that the afore-mentioned "partly-completed machinery" cannot be commissioned until the final machine, into which it has been incorporated, has been declared compliant with the Machinery Directive 2006/42/CE.
 - On duly justified request, the manufacturer commits to transmitting the information regarding the "partly-completed machinery" to the national authorities without prejudice to their intellectual property rights.
- **Directive 2014/53/EU (RED Directive)**
- **Directive 2011/65/EU (RoHS)**

The following harmonised standards and technical specifications have been applied:

Title:	Date of standard/specification
EN 61000-6-2	2005 + AC:2005
EN 61000-6-3	2007 + A1:2011+AC:2012,
EN 301 489-1 V2.2.3	2019
EN 301 489-3 V2.1.1	2017
EN 60335-2-103	2015
EN 12453	2017
EN 62479	2010
EN 300 220-2 V3.1.1	2017
EN IEC 63000	2018

Additional information

Signed for and on behalf of:		
Revision:	Place and date of issue:	Name, function, signature
01.00	Sossano, 28/09/2021	(Borinato Luca, Legal Officer)



EU Declaration of Conformity for the Installer

Company name:

Postal address:

Postcode and City:

Telephone number:

E-Mail address:

declare that the DoC is issued under our sole responsibility and belongs to the following product:

Apparatus model/Product:

Type:

Installation location

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

- Directive 2006/42/CE (MD Directive)
- Directive 2014/53/EU (RED Directive)
- Directive 2011/65/EU (RoHS)

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EN 301 489-1 V2.2.3	2019
EN 301 489-3 V2.1.1	2017
EN ISO 12100	2010
EN 12453	2017
EN 12604	2017 +A1: 2020
EN 62479	2010
EN 300 220-2 V3.1.1	2017
EN IEC 63000	2018

Additional information

Signed for and on behalf of:

Revision:	Place and date of issue:	Name, function, signature
01.00	GG/MM/AAAA	(Administrator)

Pursuant to legislation for the implementation of Directive 2012/19/ EU on “Waste electrical and electronic equipment (WEEE)”



It is forbidden to dispose of electrical items and electronic equipment as municipal waste, as evidenced also by the symbol shown on the product and/or its packaging.

These forms of waste are subject to separate collections organised by municipal authorities, or may be returned to the retailer when buying a new appliance of the same type. Improper disposal or misuse of such equipment or its component parts can damage the environment and human health due to the presence of hazardous substances. Illegal disposal of this waste is forbidden of the legislation currently in force.



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*The Manufacturer can technically improve
the quality of its products without
any prior notice.*