

CHAIN OPERATED ACTUATOR ____

KATO RADIO

TORQUE 300 N - TRUCK 400 MM
ELECTRICAL FEEDING 230V~ 50Hz



INSTRUCTION MANUAL



ENGLISH 

nekos products are specially manufactured in safe materials in compliance with the requirements of legislation in force. When correctly mounted, installed and used in accordance with the present instructions, our products constitute no danger to people, animals or property.

Products subject to EU directives comply with the essential requirements stipulated by the latter. **CE** markings mean that our products can be sold and installed throughout the European Union without any further formality.

The **CE** mark on our products, packaging and user manuals provided with the product, indicate “presumed in conformity with directives” issued by the EU. **nekos** holds the technical file with all the documentation to show that our products have all been inspected to ensure compliance with directives conformity.

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SAFETY INDICATIONS



ATTENTION: PLEASE READ THE FOLLOWING SAFETY INDICATIONS CAREFULLY BEFORE ATTEMPTING INSTALLATION OF THIS APPLIANCE. THESE INDICATIONS WILL HELP TO AVOID CONTACT WITH ELECTRICAL CURRENT, INJURY AND OTHER ACCIDENTS. PLEASE KEEP THIS MANUAL FOR FUTURE CONSULTATION .

The **KATO RADIO** chain operated actuator has been designed exclusively for moving windows. **Any use of the actuator for applications other than those indicated must previously be authorized by the manufacturer upon technical verification of the application.**

Carefully observe the following safety indications .

- The device must only be installed by competent and qualified technical staff.
- After removing all packaging, please verify that all parts of the appliance are present.
- Any plastic bags, polystyrene, or small metallic parts such as nails, clips, etc. must be stored out of the reach of children as they constitute potential sources of danger.
- Before connecting the appliance to the electricity supply, check that the electricity supply in use has the same characteristics as those indicated on the technical data label on the device.
- This appliance is destined exclusively for the use for which it has been designed and the manufacturer cannot be held responsible for any damages incurred by improper use.
- The chain operated actuator has been designed for the exclusive purpose of internal installation. The manufacturer must be consulted for any other application.
- Installation of the device must be carried out in accordance with the instructions set out by the manufacturer. Failure to follow these instructions could compromise safety.
- Electricity supply installation must be carried out in accordance with regulations in force.
- To ensure effective separation from the electricity grid, we suggest installation of a temporary approved type bipolar switch (push button). A multi -pole main switch with minimum contact opening of 3 mm should be installed at the start of the command line.
- Never clean the device with solvents or jets of water. Never immerse appliance in water .
- Eventual repairs must only be carried out by qualified staff at a service centre authorized by the manufacturer.
- Always require exclusive use of original spare parts. Failure to comply with this stipulation could compromise safety and forfeit warranty benefits for the device.
- In the event of trouble or doubts, please refer to your trust retailer or directly to producer.

WARNING



Risk of injury in the event that the window should fall on outward opening window frames. A safety system should be mounted onto the window to guard against falls. This system should be able to withstand at least three times the total weight of the window .



This device may cause injury by crushing or dragging. During function, when the actuator closes the frame, it applies a pressure force of 300N against the ledge of the casing, and all due measures, care and attention should be taken to avoid any crushing of fingers .



Check that limit switch selection is less than at least one centimetre with respect to the mechanical stops, limit switches or any eventual obstacles preventing opening of the wing



In the event of damage or malfunction, switch off the device, disconnect any electrical connections and request the intervention of a qualified technician .

MANUFACTURE AND REFERENCE STANDARDS

- The **KATO RADIO** chain operated actuator has been designed and produced to open and close bay or outward opening windows, hopper frame windows , dormer windows, cupolas and skylights. It has been specifically designed for providing ventilation and air circulation of areas and can also be used in combination with the **P2/R** radio operated rain sensor. It is firmly recommended the actuator not be used for any other purpose without previously obtaining authorisation from the manufacturers.
- Electrical connections must conform to regulations in force for the design and set up of electrical equipment.
- The actuator has been manufactured in accordance with European Union directives and has been certified in conformity with **CE** marking.
- Any eventual service and control device for the actuator must be manufactured in accordance with regulations in force and must conform to respective European Community regulation.

ACCESSORIES

The KATO RADIO actuator is packed in one single carton. Each package contains:

- Actuator with 2 metre ($\pm 5\%$) lead.
- Standard support brackets with distancer (A).
- Bracket for vertical assembly of the actuator (B).
- Bracket for transom window (C).
- Bracket for outward opening fixture (D).
- Adhesive template for boring.
- Instruction manual.

TECHNICAL DATA

MODEL	KATO RADIO 230V
Pressure torque	300 N
Traction torque	300 N
Track runs <i>(can be selected at any time)</i>	100, 200, 300, 400 mm
Voltage	230V~ 50 Hz
Current consumption at nominal charge	0,115 A
Charge absorbed at nominal load	~ 28 W
No load speed	10 mm/s
No load duration <i>(400 mm)</i>	40 s
Double electrical insulation	YES
Type of service	S ₂ of 3 min
Working temperature	- 5 + 65 °C
Protection index	IP30
Adjustment of socket at casing	Autopositioning
Connection of two or more devices in parallel	YES
Limit switch stop at opening	Electronic
Limit switch stop at closure	At absorption of charge
Dimensions	386,5x59x37
Weight	0,970 Kg

Any information reported in this table is not binding and may be susceptible to variations without notice

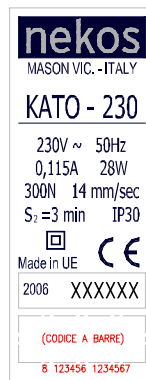
LABEL DATA AND MARKINGS

The actuators have been assigned **CE** marking and can be sold onto the market and used throughout European Union territory without further requirement.

The **CE** marking on the product, packaging and user warnings indicate “*presumed conformity to directives*” issued by the EEC.

The manufacturer holds technical archives with documentation to prove that products have been examined to assess conformity to directives.

Rating plate data is located on an adhesive polyethylene label on the outside of the container, printed in blue on a grey background. All data conform to stipulations required by community standards in force.



ELECTRICITY SUPPLY

The only electrical connection on the actuator is for connection to the electricity supply at 230V~ 50Hz (AC) by connecting the two wires (**L** (phase) **N** (neutral)) on

the feeder cable. The commands for **OPEN** and **CLOSE** are controlled by electrically connected radio operated remote control device on 433.92 MHz.

REMOTE CONTROL DEVICES (Radio operated remote control and Rain sensor)

The radio operated remote control device is the only device used for manually controlling the actuator. The KATO RADIO model has been designed without any switch or button commands.

The **BLU'R** radio operated remote control has four command buttons, 433.92MHz transmitter, rolling code, 16 billion billion combinations. Transmitter cloning is impossible as the code changes at each transmission according to an algorithm which masks the code.

As the codes used are rolling, each transmitter will transmit a different signal. The receiver must therefore be able to recognise the transmitters enabled.

Each key on the radio operated remote control corresponds to a motor control which will be memorised by the operator (*see following paragraphs*).

Another remote control electronic command device is the radio operated **P2/R** rain sensor (*For installation of the P2/R rain sensor, see the "installation and use manual" provided in the box of the sensor packaging*).

WARNING. THE ONLY RAIN SENSOR WHICH CAN BE USED IS THE RADIO OPERATED P2/R – OTHER MODELS WILL NOT FUNCTION. THE SUPPLY CABLE HAS ONLY 2 WIRES CONNECTED (WHITE (+), YELLOW (-))

The two devices (radio operated remote control and rain sensor) cannot be programmed at the same time.

The receiver can memorise up to **8** transmitters. Any number of transmitters over and above this will not be accepted.

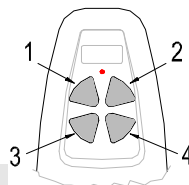
Memorising radio commands; actuator dip-switches accessible.

WARNING: NEVER ASSIGN THE SAME KEY TO MORE THAN ONE ACTUATOR

1. Set dip-switch n° **1** to **ON**. The red led pilot light will turn on. Set the dip-switch immediately to **OFF**.
2. Press the key to be assigned to the actuator until the led pilot light starts to flash.
3. The led pilot light will stop flashing.
4. Programming is complete, all commands are ready or ready for normal function.

Memorising another radio control device; dip-switch NOT accessible.

1. Press buttons 1, 2, and 4 on the radio control device for around 1 second, then press the key to command the actuator.
2. The red pilot light on the actuator will come on.



3. Press the button on the new radio control device to be assigned to the actuator. The activator pilot light will start to flash as soon as the key is released.
4. The pilot light should stop flashing.
5. Programming is now complete. All commands are ready for normal function.

Memorising commands for the radio operated P2/R rain sensor

The **P2/R** rain sensor commands all memorised motors within 60m out in the open area (*walls, metal panels, iron cages etc all drastically reduce capacity*).






Memorising commands for the radio operated **P2/R** rain sensor for the KATO RADIO actuator follows a similar procedure to that used for the radio operated remote control, as follows:

- A. Set dip-switch n° 1 to **ON**. The red led pilot light will turn on. Set the dip-switch immediately to **OFF**.
- B. Touch the sensitive area of the sensor (*shaped in the form of the letter N*) with your hand or a wet cloth for around 1 second. There is no danger of electrical shock as the sensitive area has no electricity supply.
- C. The led pilot light will stop flashing.
- D. Programming is complete. The rain sensor will be ready to function in 2 minutes.

PROGRAMMING THE ACTUATOR

The actuator comes out of factory “NOT PROGRAMMED”. It must be programmed to apply commands from the radio operated remote control or rain sensor and must also be programmed to stop at the end course point required by the user.

Programming is carried out using the dip-switches (*4 in total*) on the side of the actuator opposite the feeder cable. On the left of the opening is a led light to indicate functions in course. The following designs indicate the meanings and position of the dip-switches:

- Programming phase..... 
- Programming of course to 100 mm 
- Programming of course to 200 mm 
- Programming of course to 300 mm 
- Programming of course to 400 mm 

Limit switches at opening

Four (4) positions can be selected for the limit switch of the outgoing chain. As seen above, to program, adjust the two dip-switches no.3 and no.4. Programming is simple, immediate and can be carried out at any time by adjusting the two dip-switches as indicated in the following table.

<i>Limit switch at: (mm)</i>	<i>Dip-switch</i>	
	3	4
100	OFF	OFF
200	ON	OFF
300	OFF	ON
400	ON	ON

After the limit switches have been programmed, run a few check manoeuvres. In the event of error, programming can be repeated to give the desired track run.

Limit switches at closure

The limit switch at closure is automatic, electronically operated and cannot be programmed. The actuator stops when the charge is absorbed when the window is completely closed and the weather stripping is completely depressed, or when the charge absorbed is more than 10% of the nominal charge. In this case, at maximum charge the actuator exercises a traction force of over 330N.

After each closure or intervention of the electrical protection mechanism, the chain moves in the opposite direction for around 15/2,0 mm. This is to loosen the tension of the mechanical parts and gives correct pressure to the weather stripping.

TECHNICAL INFORMATION ABOUT FUNCTION

The chain operated actuator opens and closes windows by means of a steel chain located inside the cover. Movement is powered by electricity which powers a gear motor controlled by an electronic function device.

Window opening can be programmed to open at 100, 200, 300 and 400 mm (see *respective chapter*).

During closure the end course uses a self-regulating electronic process with power absorption and therefore requires no regulation.

The actuator leaves the factory with factory settings of +1 cm for the return course which allows the actuator to be assembled without electricity, with the window in closed position after assembly is complete.

ASSEMBLY

These indications are intended for the attention of technicians and specialized personnel. Basic job and safety techniques are therefore not included.

All preparatory operations, assembly and electrical connections must be carried out by technical and specialized personnel to guarantee best performances and good function of the KATO RADIO chain operated actuator.

First of all, please check that the following fundamental points have been satisfied:

- ☞ Gear motor performances must be sufficient to move the window; any limits indicated in the technical data table on the product cannot be exceeded (page 6). Any eventual calculations may be made using the formula on page 18 of this manual.
- ☞ **Warning.** Check that the electricity supply is **230V~ (AC) 50/60Hz**.
- ☞ Check that the actuator has not been damaged during transport, first visually and then by working it in both directions.
- ☞ Check that the inner section of the window length (where the actuator will be hung), is over 405 mm in length. Anything shorter than this will not allow for assembly of the actuator.
- ☞ Ensure that all load limits for the actuator are always respected in accordance with the specifications listed in the table on page 6. The actuator must be able to move the blind without being hindered by any obstruction of any kind; in the event of any obstruction, select a suitable track run to avoid blockage.
- ☞ Check that once the actuator has been installed the distance between the fixed part of the window frame (where the actuator will be mounted) and the moveable part of the window frame (where the bracket will be mounted) is more than 0 mm (Fig. 1). If the distance is not more than this figure, the actuator will not be able to complete its function, as the window will not be able to close properly. A wedge should be placed under the support brackets to redress the balance.
- ☞ **Transom window frames entail the risk of injury caused by accidental fall of the window. A compass limit switch or alternative safety system suitably designed to prevent any accidental falls should be installed**



Fig. 1

Assembly with outward opening window.

- A. Pencil in an "X" over the centre line of the window frame (Fig. 2).
- B. Select the correct form of brackets (Fig. 3).
- C. Attach the adhesive template to the window frame (fixed part) and line axis up with the centre line "X" traced earlier (Fig. 4). **Warning:** for window frames not on the same plane, cut the part of the adhesive template coloured in grey and fix this to the moveable part of the window frame, taking care to keep it in the same position .
- D. Bore holes in the window frame at the points indicated on the adhesive template (Fig. 5).
- E. Assemble the two brackets with the distancer (to help position correctly. Once it has served its purpose it can be removed) . Mount the supports onto the frame with the appropriate screws provided. Check that everything is aligned both horizontally and vertically .
- F. Mount the bracket for outward opening windows onto the moveable part of the frame in accordance with the markings indicated on the adhesive template .
- G. Complete assembly of the chain terminal with the rapid release hook inserted onto the pin $\varnothing 4 \times 32$ (provided) in median position (see fig. 6).
- H. Mount the actuator onto the brackets by inserting the two openings at each side onto the corresponding pins on the brackets .
- I. Rotate the actuator 90°, bring the chain terminal up to the bracket and insert the pin into the opening on the bracket. Insert the rapid release hook into the bracket. For the first few times, this may fairly stiff, but in time the pieces involved will adapt to their positions .
- J. Check that the exit on the chain is perfectly aligned with the bracket. If the chain is not aligned with the bracket, loosen the fixing screws and reposition the bracket correctly .
- K. Check all electrical connections with the diagram on the label attached to the lead .



Fig. 2



Fig.3



Fig. 4

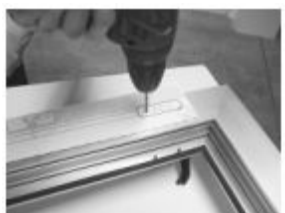


Fig. 5



Fig. 6

- L. Carry out a complete check of opening and closure of the window. Once the closure phase has been completed, check that the window frame is completely closed by checking the pressure on the weather strips .
- M. On re-entry the actuator limit switch functions automatically. The device exerts a traction force of over 300 N to guarantee perfect sealing up of the weather strips .



Fig. 7

Assembly on transom window

- a) Before starting, check that there are at least two mechanical compass safety stops or other form of stops connected to the frame, and ensure that the stops can prevent any accidental fall of the window. Your safety is at hand .
- b) Pencil in an "X" over the centre line of the window frame (Fig. 7).
- c) Select the correct form of brackets (Fig. 8).
- d) Attach the adhesive template to the window frame (*fixed part*) and line axis up with the centre line "X" traced earlier (Fig. 9). **Warning:** for window frames not on the same plane, cut the part of the adhesive template coloured in grey and fix this to the moveable part of the window frame, taking care to keep it in the same position .
- e) Bore holes in the window frame at the points indicated on the adhesive template (Fig. 10).
- f) Assemble the two brackets with the distancer (to help position correctly. Once it has served its purpose it can be removed) . Mount the supports onto the frame with the appropriate screws provided. Check that everything is aligned both horizontally and vertically .
- g) Mount the bracket for outward opening windows onto the moveable part of the frame in accordance with the markings indicated on the adhesive template .
- h) Complete assembly of the chain terminal with the rapid release hook inserted onto the provided pin Ø4x32 in median position (see fig. 11).



Fig. 8



Fig. 9



Fig. 10



Fig. 11

- i) Mount the actuator onto the brackets by inserting the two openings at each side onto the corresponding pins on the brackets .
- j) Rotate the actuator 90°, bring the chain terminal up to the bracket and insert the pin into the opening on the bracket. Insert the rapid release hook into the bracket (see fig. 12).
- k) Check that the exit on the chain is perfectly aligned with the bracket. If the chain is not aligned with the bracket, loosen the fixing screws and reposition the bracket correctly .
- l) Check all electrical connections with the diagram on the label attached to the lead .
- m) Carry out a complete check of opening and closure of the window. Once the closure phase has been completed, check that the window frame is completely closed by checking the pressure on the weather strips .
- n) On re-entry the actuator limit switch functions automatically. The device exerts a traction force of over 300 N to guarantee perfect sealing up of the weather strips .



Fig. 12



Fig. 13

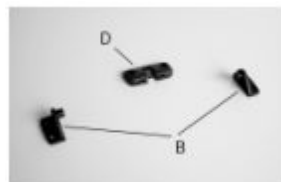


Fig. 14

Assembly of actuator onto bay or outward opening window.

- A. Pencil in an "X" over the centre line of the window frame (fig. 13).
- B. Select the correct form of brackets (fig. 14).
- C. Fold the adhesive template along the green dotted line and keep in position at 90°. Attach one part to the window frame (*fixed part*), taking care to line up the axis with the "X" previously pencilled in on the central line and line the folded part up against the moveable part of the frame. **Warning:** as various different applications are possible, place the actuator in a central position and adjust the positions of the brackets, taking care to keep the actuator aligned with the window section .
- D. Bore holes into the window frame at the points indicated (fig. 15).



Fig. 15

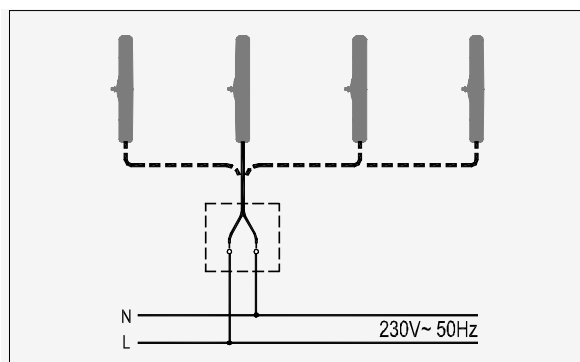


Fig. 16

- E. Mount the bracket for outward opening windows onto the moveable part of the frame in accordance with the markings indicated on the adhesive template .
- F. Complete assembly of the chain terminal with the rapid release hook inserted onto the provided pin Ø4x32 in median position (see fig. 16).
- G. Mount the two brackets on to the sides of the actuator .
- H. Position the actuator onto the window frame and line up with the holes bored earlier. Fix the actuator in position with the screws provided .
- I. Bring the chain terminal up to the bracket and insert the pin into the hole on the bracket. Attach the rapid release hook to the bracket .
- J. Check that the exit of the chain is perfectly aligned with the bracket. If the chain is not aligned, loosen the fixing screws and reposition the bracket correctly .
- K. Check all electrical connections with the diagram on the label attached to the lead .
- L. Carry out a complete check of opening and closure of the window. Once the closure phase has been completed, check that the window frame is completely closed by checking the pressure on the weather strips .
- M. On re-entry the actuator limit switch functions automatically. The device exerts a traction force of over 300 N to guarantee perfect sealing up of the weather strips .

ELECTRICAL CONNECTIONS

The cable supplied with the actuator is around 2 m long ($\pm 5\%$) and complies with safety standard regulations. See the diagram below for wiring.



LUMINOUS INDICATIONS ON LED

Before activating the actuator, familiarise yourself with messages indicated by the red led opposite the lead. This will allow you to check that the machine is functioning properly or allow you to recognize possible irregularities.

The led is only visible when the actuator has been turned on .

<i>Status of LED</i>	<i>Meaning</i>
CONSTANTLY LIT	<i>MOTOR IN USE.</i>
OFF AND FLASHING	<i>MOTOR HAS REGULARLY REACHED A LIMIT STOP BUT IS STILL CONNECTED TO ELECTRICITY SUPPLY.</i>
NORMAL REGULAR BLINKING	<i>MOTOR IN ELECTRONICAL PROTECTION DUE TO EXCESSIVE CHARGE.</i>
ON AND FLASHING	<i>MOTOR IS IN STRANGE POSITION – MOTOR IS NO LONGER PROGRAMMED.</i>

CHECKING FOR CORRECT ASSEMBLY

- ➔ Check that the window has closed completely, even at the corners, and check there are no obstacles caused by assembly in the wrong position .
- ➔ Check that when the window frame is closed, the chain terminal is at least a couple of millimetres distant from the actuator body. This will ensure correct closure of the window with correct pressure on the weather stripping. If the chain terminal is not positioned as stated there is no guarantee the window will close correctly .
- ➔ Check that all attachments and support brackets are tightly fixed to the window frame and that all screws are correctly tightened .
- ➔ Check that the window moves to the desired position in accordance with the limit switch selected .

EMERGENCY MANOEUVRES, MAINTENANCE AND CLEANING

Should the window have to be opened manually in the event of no electricity, mechanical failure, or for normal maintenance or cleaning of the external surface of the window frame, the following instructions should be followed:

1. Release the rapid release hook locking the chain terminal to the bracket .
2. Hold the window with one hand and pull the pin out of the opening with the other hand . *(This operation should be carried out with window open about 10 cm as this makes it easier to unhook the chain).*
3. Manually open the window .



TROUBLESHOOTING

Please consult the following table for any eventual problems with function during installation or normal use :

Problem	Possible cause	Solution
Actuator doesn't work	<ul style="list-style-type: none"> • No electricity supply for feeder. • Connecting cable not connected or wire not connected. • Winder on the transformer is broken. 	<ul style="list-style-type: none"> • Check state of safety switch. • Check all electrical connections of gear motor. • Replace the electronics card of the feeder.
LED is lit but actuator doesn't work.	<ul style="list-style-type: none"> ▪ Gear motor is damaged due to a shock. Motor connection has unsoldered or has been disconnected. 	<ul style="list-style-type: none"> ▪ Send gear motor to a Service Centre.
Although selection has been carried out correctly the gearmotor will not take a limit switch.	<ul style="list-style-type: none"> ▪ Programming hasn't been carried out correctly. ▪ Irregular function or break in the electrical contact for the dip-switch. 	<ul style="list-style-type: none"> ▪ Repeat programming for dip - switch. ▪ Send gear motor to a Service Centre.
Actuator does not move.	<ul style="list-style-type: none"> ▪ The radio command has not been accepted by the radio receiver. 	<ul style="list-style-type: none"> ▪ Repeat the memorisation procedure for the radio command.
Rain sensor does not close window.	<ul style="list-style-type: none"> ▪ Sensor has not been accepted by the radio receiver. ▪ The sensor is not a radio operated P2/R model. (May only be the P2 model which looks exactly the same). 	<ul style="list-style-type: none"> ▪ Repeat the memorisation procedure for the rain sensor. ▪ Replace the sensor with the P2/R model.

ENVIRONMENTAL PROTECTION

All materials used in the manufacture of this appliance are recyclable. We recommend that the device itself, and any accessories, packaging, etc. be sent to a centre for ecological recycling.

WARRANTY

The Manufacturer guarantees good machine function and undertakes to replace any defective parts due to bad quality materials or construction defects in accordance with article 1490 of the Civil Code .

The guarantee is only valid if all sections of the form on the last page of the present manual for installation and use have been completed in full, including the declaration describing any irregularities encountered during function.

This warranty covers products or their single parts for a period of **2 years** from the date of purchase. The warranty is valid if the buyer can present proof of purchase and has satisfied any conditions of payment accorded .

The guarantee of good function of the device accorded by the manufacturer is understood to cover the replacement and repair free of charge, in the shortest possible period of time, of any eventual parts that should be damaged when under warranty. The Buyer has no right to any compensation for possible damages, direct or indirect, or other expenses. Any attempt at repair by unauthorised persons renders this warranty null and void.

All fragile parts and those parts exposed to natural wear, as well as parts submitted to agents or corrosive processes, temporary overload etc. are excluded from this warranty. The Manufacturer will not accept responsibility for possible damages caused by erroneous assembly, movement or insertion, use of excessive stress or improper use.

Any repairs carried out under warranty are always intended *“Ex-factory producer”*. Relative transport expenses (outgoing / return) will be the responsibility of the Buyer.

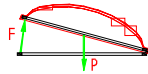
Formulas to calculate frames opening an closing torque

F = Torque required to open and closed

P = Window weight (only fixed part)

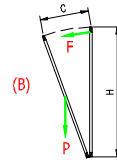
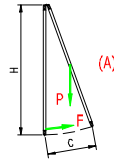
C = Window opening truck run (actuator truck run)

A = Window height



For horizontal domes and dormer windows

$$F = 0,54 \times P$$



For outward opening (A) or transom (B) windows

$$F = (0,54 \times P) \times (C:H)$$

Notes

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DECLARATION OF CONFORMITY

	NEKOS S.r.l. - Via Capitoni, 7/5 36064 Mason Vicentino (VI) – ITALY Phone 0424 411011 – Fax 0424 411013 www.nekos.it info@nekos.it

I, the undersigned, representative of the company **NEKOS S.r.l.**, declares that the product defined below complies with the following directives :

73/23/CEE
(Low tension directive)

89/336/CEE
(EMC Directive)

and that the following standards have been applied :

**EN60950:1992-08; EN60950 EC:1992-10; EN60950/A1:1993; EN60950/A2:1993-08;
EN60950/A3:1995-10; EN60950/A3 EC1996-01; EN60950/A4:1997-03;
EN60950/A11:1997-10 EN55022:1998**

**EN61000-3-2:1995; EN61000-3-3:1995; EN61000-3-2/A1:1998; EN61000-3-2/A2:1998
EN50130-4 :1995; EN50130-4/A1:1998**

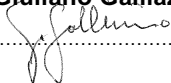
Series number: (see number on label attached on device).

Electrical appliance

Model	Description
KATO RADIO	CHAIN ACTUATOR 230V

Mason Vicentino, **1/03/2006**

Giuliano Galliazzo



Model	Series No.	Customer	
		Name	
		Address	
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