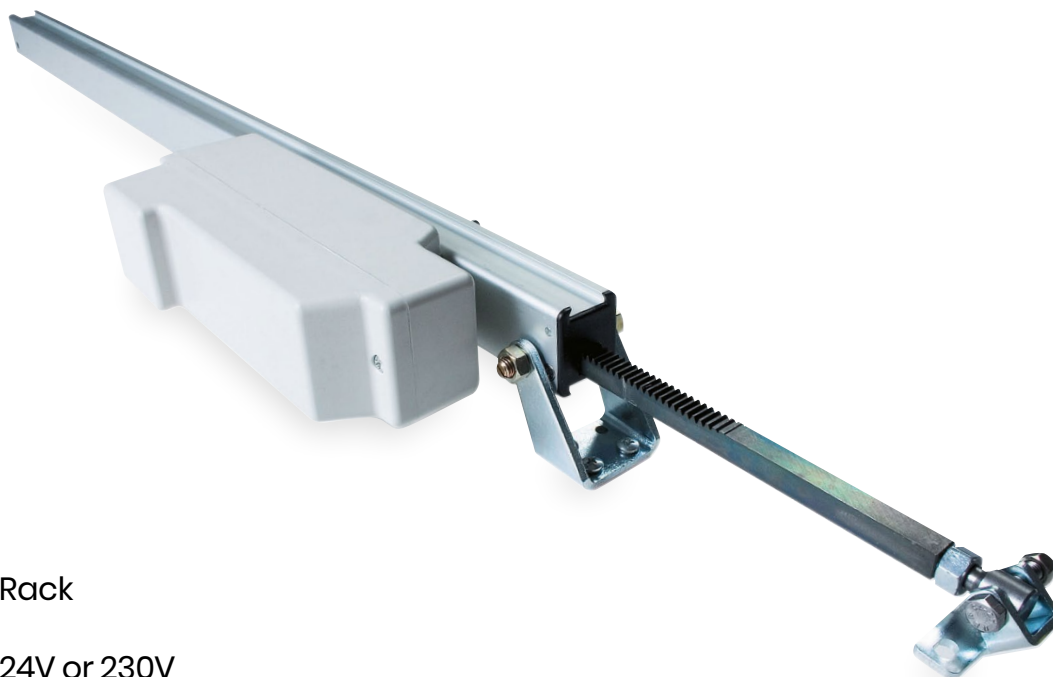


 **NEXT DAY DESPATCH**
 **SOLE UK IMPORTER**
100 SERIES COMPATIBLE
IP55 RATED
DOUBLE & DUAL OPTIONS



-  **TYPE** Rack
-  **VOLTAGE** 24V or 230V
-  **THRUST** Up to 750N/75 kg (Double Rack = 1500N)
-  **STROKE** 180, 350, 550, 750 or 1000mm **OPTIONS**

DO NOT USE FOR SMOKE VENTILATION 

If you do require smoke control products or advice – please call us 

ABOUT THIS ACTUATOR

The UCS Rack actuator, available in 24V and 230V options, is design for top hung, bottom hung and roof vents. The Dual and Double Rack options are intended for use on large or wide windows.

Fixed lower bracket option, or sliding bracket option which allows fixing along the length of the actuator.

PRODUCT HIGHLIGHTS

- ✓ 10mm square rack transmission for stroke 180mm, 350mm, 550mm – 12mm square rack transmission for stroke 750mm and 1000mm
- ✓ Noiseless operation
- ✓ All models can be used in the Dual Rack version via connecting rods and rack groups for particularly large windows

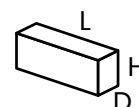
SUITABLE FOR...



COLOUR OPTIONS

-  Black
-  White
-  Anodized Silver
-  Bespoke colours on request

ACTUATOR DIMENSIONS



LENGTH: 400mm (180mm stroke)
 570mm (350mm stroke)
 770mm (550mm stroke)
 970mm (750mm stroke)
 1220mm (1000mm stroke)

HEIGHT: 56mm
DEPTH: 120mm

TECHNICAL DATA >>>

PRODUCT CODES >>>

24 HR DESIGN TECHNICAL DATA

	UCS Rack 230V	UCS Rack 24V
Stroke Adjustment	180mm, 350mm, 550mm, 750mm, 1000mm	180mm, 350mm, 550mm, 750mm, 1000mm
Thrust Force	650N/65 kg 1000mm maximum 350N	750N/75 kg 1000mm maximum 350N
Traction Force	350N/35 kg	650N/65 kg
Absorbed Current	0.1 amps	1.0 amps
Operating Temperature	-10°C to +60°C	-10°C to +60°C
Time Rating	50%	50%
Limit Stop	Electronic	Electronic
Safety Stop	Electronic	Electronic
Feedback Signal	-	Open/Close
Wiring	3 Core + Earth	2 Core + Signalling by Polarity Inversion
Speed	~ 8mm/s	~ 8mm/s
Double Insulated	No	No
Protection Class	IP55	IP55
Parallel Connection Option	Yes	Yes
Weight	2 kg	2 kg
Cable Length (standard)	1.5m	1.5m

UCS RACK: ALTERNATIVE OPTIONS

Available on request

DUAL RACK

Push force 650N (230V) – 750N (24V). Each system assembly requires 1 Rack actuator, 1 Rack group, 1 connecting rod and 2 end brackets.

DOUBLE RACK

Push force 1300N (230V) – 1500N (24V). Each system requires 1 Rack actuator, 1 Auxiliary Rack actuator in parallel connection, 1 connecting rod and 2 end brackets.

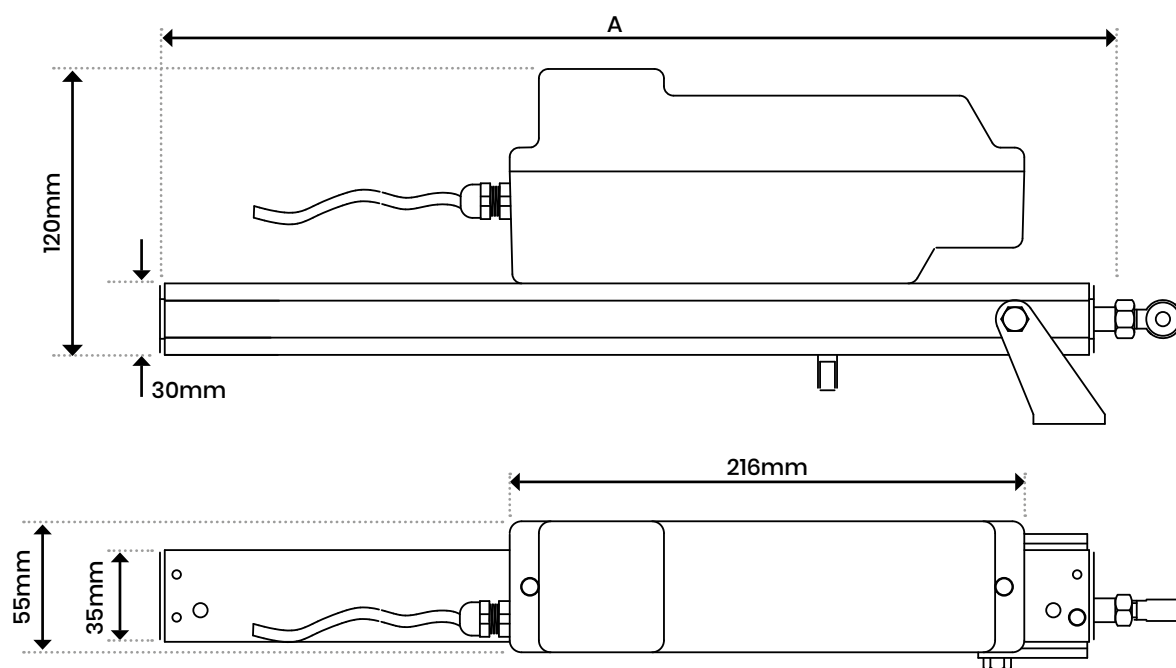
OTHER MULTIPLE SYSTEMS

Also available is a Rack Double Pivot for system assembly providing 3 or more push points.

WHAT'S IN THE BOX?

- ✓ UCS Rack Actuator
- ✓ Upper Bracket Connecting Pack
- ✓ Fitting/Drilling Template
- ✓ Installation and User Guide
- ✓ Safety Plate

DIMENSIONS



Stroke (mm)	A (mm)
180	400
350	570
550	770
750	970
1000	1220



PRODUCT CODES >>>



BRACKET & ACCESSORY CODES



Fixed Lower Bracket
AXUC-RAC-BFIX-0001



Sliding Lower Bracket
AXUC-RAC-BSLI-0001

12mm Diameter Connecting Rod
1000mm AXUC-RAC-CONN-0100
1500mm AXUC-RAC-CONN-0150
2000mm AXUC-RAC-CONN-0200

ACTUATOR CODES

UCS Rack 24V
Silver 180mm ACUC-RAC-024V-SI02
Silver 350mm ACUC-RAC-024V-SI03
Silver 550mm ACUC-RAC-024V-SI04
Silver 750mm ACUC-RAC-024V-SI05
Silver 1000mm ACUC-RAC-024V-SI01

UCS Rack 230V
Silver 180mm ACUC-RAC-230V-SI01
Silver 350mm ACUC-RAC-230V-SI02
Silver 550mm ACUC-RAC-230V-SI03
Silver 750mm ACUC-RAC-230V-SI04
Silver 1000mm ACUC-RAC-230V-SI05

UCS Auxiliary Rack 24V
Silver 180mm ACUC-RAC-AU24-SI01
Silver 350mm ACUC-RAC-AU24-SI02
Silver 550mm ACUC-RAC-AU24-SI03
Silver 750mm ACUC-RAC-AU24-SI04
Silver 1000mm ACUC-RAC-AU24-SI05

UCS Auxiliary Rack 230V
Silver 180mm ACUC-RAC-AU23-SI01
Silver 350mm ACUC-RAC-AU23-SI02
Silver 550mm ACUC-RAC-AU23-SI03
Silver 750mm ACUC-RAC-AU23-SI04
Silver 1000mm ACUC-RAC-AU23-SI05

230V

RELATED PRODUCTS AND SERVICES

24V



VENTEC 100
SERIES CONTROL



VENTEC DS
SWITCH



230V TF SERIES
CONTROL



PROJECT
COMMISSIONING



INSTALLATION
& MAINTENANCE



24V TF SERIES
CONTROL



WEATHER
STATION

WINDOW OPERATION FORCE CALCULATION

TOP, BOTTOM OR PIVOT HUNG WINDOWS

The formula for calculating the load the actuator has to move for top hung, bottom hung and pivot windows is the following:

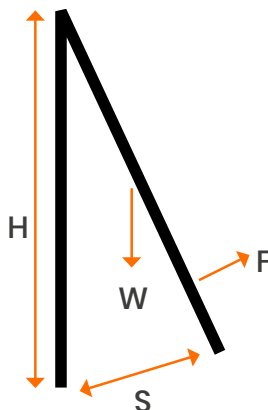
$$F = \frac{W}{2} \times \frac{S}{H} \times 10$$

F = Force required (N)

W = Weight of the window (kg)

S = Opening stroke (mm)

H = Height of the window (mm)



EXAMPLE: 60 kg Weight / 1000mm Height / 500mm Stroke

$$F = 60/2 \times 500/1000 \times 10$$

$$F = 30 \times 0.5 \times 10$$

$$F = 150 \text{ newtons}$$

IMPORTANT: For installation on a pivoting window the given height is to be considered H/2.

IMPORTANT: The indicated loads do not include the force exerted by wind or other extreme weather conditions. If the actuator is to be installed in areas that may be subject to these conditions, contact our technical department to discuss your requirements.

The actuator rotation angle is usually half the height of the opening angle of the window. Check that there are no obstacles to the rotation of the actuator in order to prevent damage to it.

For actuators with non pivoting brackets, the height of the window must not be below a certain height (see individual product details) in order to prevent excessive chain bending. Please contact our sales support team for more details.

If the window width is greater than 1.5m we suggest using an actuator with two thrust points.



IMPORTANT: If the window frame is accessible, or installed at a height of less than 2.5m from the ground, an emergency stop system must be fitted to prevent the crushing or entrapment of clothing or body parts inserted between the moving and fixed elements of the window frame.

DOMES AND SKYLIGHTS

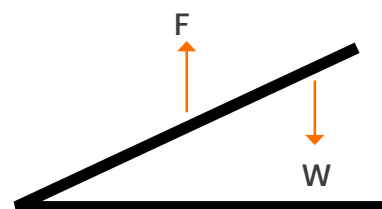
IMPORTANT: When calculating the required force for domes and skylights, Snow Load must be added to the weight of the window leaf (W).

The formula for calculating the load the actuator has to move for domes and skylights is the following:

$$F = \frac{W}{2} \times 10$$

F = Force required (N)

W = Weight of the window (kg)



EXAMPLE: 110 kg Weight / 1000mm Height / 500mm Stroke

$$F = 110/2 \times 10$$

$$F = 55 \times 10$$

$$F = 550 \text{ newtons}$$

SKYLIGHTS: The opening can be hung on one side or have a central axis of rotation. In the latter case, you have to consider the distance between the axis of rotation and the point of application of the actuator as the frame height. A Velux type of opening on a horizontal roof or roof sloping up to 30° horizontally weighs 50% on the hinges and 50% on the actuator. In the case of centre rotation, the weight is practically nothing and is determined only by the windows frictions.

If the window width is greater than 1.5m we suggest using an actuator with two thrust points.