



CREATE SPACE VALUE

happy gate
monban

門番®

PRODUCT CATALOG



Create space value

Sheet shutter (Happy gate Monban) system, it is not only improve working environment such as protection from insect or dust control but also contribute to changing the way of thinking of everyone who works.

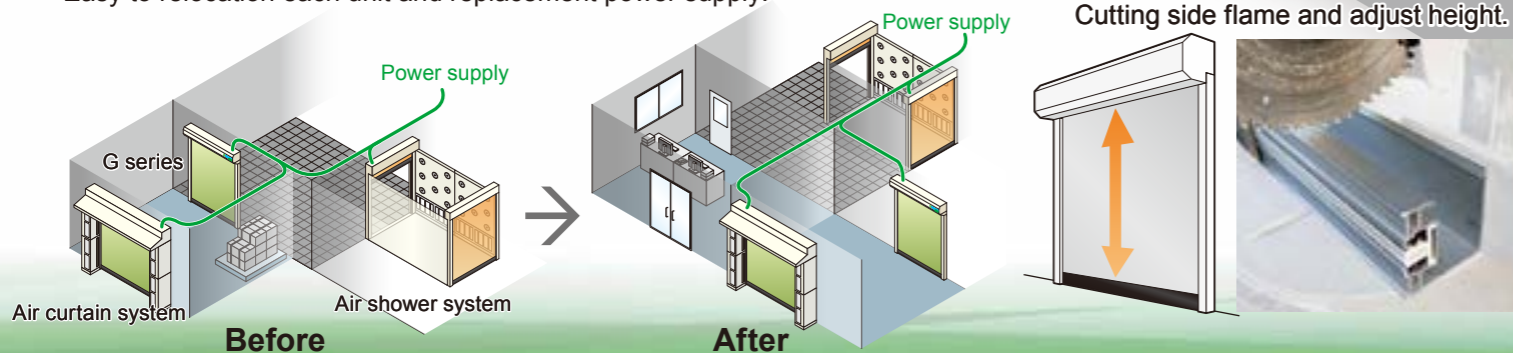


Compact&Integrated Easy size change and relocation

Compact design suitable for changing of layout or production line with productive efficiency, and for partition of factory for energy-saving. Possible to change door height, good for reduce cost and time for factory modification.

Compact	Easy relocation	High speed
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Easy to relocation each unit and replacement power supply.



For receive your wish of Monban that meet to the purpose.

Please see the following steps in order to receive your wish the best of Monban to the consideration environmental of customer.

Installation Environmental & Open Size Select type&size P2 - 11	+	Color Select sheet&Body color P12	+	Movement& Open-Close Method Select peripheral equipment etc. P13 - 14
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Line up

Indoor Lightweight, Slim, Compact, Pipe less G062/022/114/024/119/219/GF17/22 Width 600 ~ 4500 Height 600 ~ 4500 mm → P3		G Series
Independent No need base, short time construction, Pipe less G12S/14S Width 800 ~ 2500 Height 1800 ~ 2500 mm → P5		G Series
Outdoor High air pressure pipe R054/109/209/309/409/RF50/R30W/40W/R30T/40T Width 600 ~ 10000 Height 1000 ~ 6000 mm → P7		R Series
Cold Storage Freezer G11F/R10F Width 800 ~ 3500 Height 1000 ~ 3500 mm → P9		G R Cooling device
Explosion-proof Area G10A/20A/30A/10E/20E/30E Width 800 ~ 4000 Height 2000 ~ 4000 mm → P10		G Explosion proof
Built-in Equipment Monban Unit BUILT-IN → P11		G

Indoor

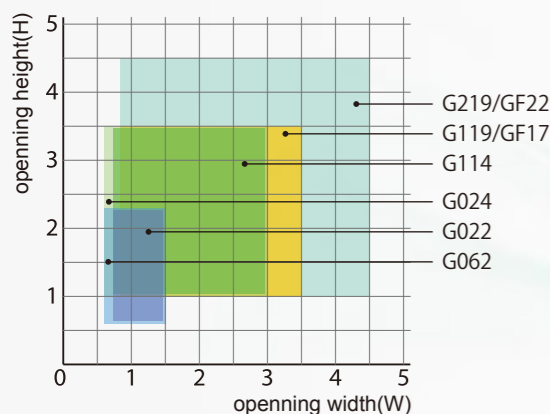
light weight.slim.
compact Pipeless Type



G062/022/114/024/119/219/GF17/22

Width 600 ~ 4500
Height 600 ~ 4500 Unit:mm

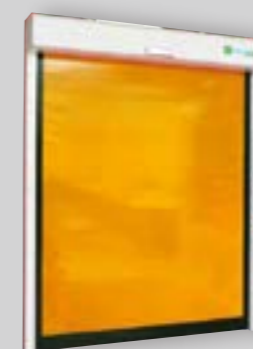
The scope of fabrication



- ※G022/024 the internal controller in the wind-up box
- ※G114/119/219 the internal controller in Side frame
- ※GF17/22 model of different in atmospheric pressure
- ※ Please use a different place controller if you want to install to the location where the assumed influence of water, such as rain or condensation is assumed.



The model of internal controller in wind-up box
G022 / 062(controller in each place) / 024
※Only aluminium Frame



The model of internal controller in side frame
G114 / 119 / 219
※Only aluminium Frame

Fully closed
Within **10Pa**



The model of environment that difference in atmospheric pressure The model of different placed controller
GF17 / 22
※Only steel / stainless steel frame

In the sanitary controlled room that indoor pressure less than or equal 20pa

Fully closed
Within **20Pa**

Relocation of easy unit type

To built in the controller in the winding box and the side frame.



G022 / 024
Winding unit

G114 / 119 / 219
Frame unit
※G062/GF17/22 is controller separate placement.

Sheet out by collision is automatically return to the rails easily

Collision by lift and truck during the operation, the sheet will stop a while and slowly going up (0.5m/s) automatically return into the rails. The structure designed to convenience in case of power failure, woman can also easily get out by simply lifting the sheet.



Self repairing system

Multi monitor

panel and multi are installed inside of countdown monitor.

Display and entry-exit count

The Method of display operation of the passed number .
The number of entry : STOP+OPEN
The number of exit : STOP+DOWN

※It is necessary 1 pair front-back PHB Phototube sensor.



High airtight structure

The structure of high effective repellent and dustproof. It is suitable for various clean environment.

Positive pressure **5.76m³/h·m²** Negative pressure **8.35m³/h·m²**

- ※Ventilation amount of difference in 10Pa atmospheric pressure
- ※Using JISA1516 for airtight experiment inside company
- ※Our products shows the numerical values equipped with air tight seal.(Optional order)

It is suitable for the environmental that small impact of wind and atmospheric pressure in the partition room.

- ※The performanc of breakdown voltage is different depending on the size.
- For more information, please check to person in charge

Flat switches and sensors and a cover that does not remain dust

Hygiene switch that don't remain dust when buit-in frame. To prevent remain dust on winding box that hard to reach. (Optional order)



Obstacle detect sensor

Untouched switch
※There are both 1 point and 3 points switch.

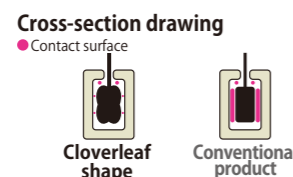
Inclination cover (Optional order)

Slippery and high flexible tube type

Both sides Sheet are adopted by the original tube that silent and prevent damage for instead of conventional fasteners



Operating noise reduced **10%**



contact area is narrow,friction is few High durability, dust,abrasion and light Silencing effect up with integral molding (quiet performance, damage prevention) The improvement of pressure resistance performance. it does not fall out by light touch when compared with the round shape

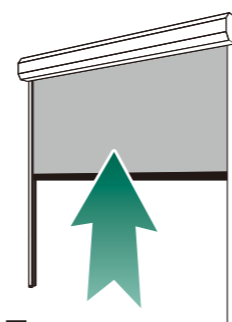
The rate of increasing in the fastest business field

The operation of start up sensor or switch will be ran by machine usually driving shorten opening time , efficiency operation is developed concurrently with the improvement of preventing of insect, dust, outside air and energy saving

The highest opening speed in the industry

3.2 m/sec
(G119 fastest speed)

Normal operation by operation sensors or switch



Reverse opening for safety

middle speed **1.5** m/sec
phototube sensor detecting, scan. going up except the lowest position

low speed **0.5** m/sec
detect touching or bear while machine is running

Compact design

40% compacter than the conventional model Suitable for the entrance of the factory and office



G022
D180mm
H240mm

G022
D53mm
H50mm

※Dimensions is vary according to format

Independence

No need base, Quick construction, Pipe less.
※Indoor Specification Series

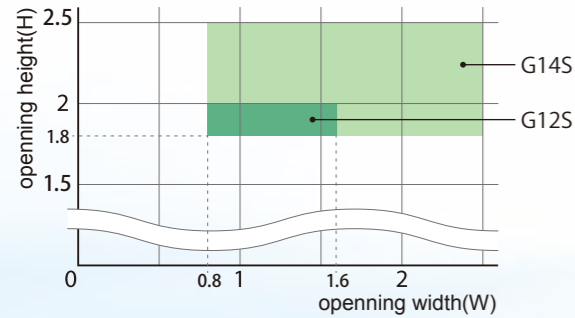


G12S / 14S

Width 800 ~ 2500

Height 1800 ~ 2500 Unit:mm

The scope of fabrication



Independence Model
G12S / 14S

Suite for various kinds of places such as begin from cooking food until resturant.



Good slide and high flexible tube type.

contact area is narrow, friction is few High durability, dust, abrasion and light Silencing effect up with integral molding (quiet performance, damage prevention) The improvement of pressure resistance performance. it does not fall out by light touch when compared with the round shape

Operating noise reduced

10%

Cross-section drawing

Contact surface



Cloverleaf shape



Conventional product

Both sides Sheet are adopted by the original tube that silent and prevent damage for instead of conventional fasteners

Standard equipment: Obstacle detect sensor and Untouched Switch

Standard equipment : Untouched Switch

Good looking built in design; able to protect any dust goes inside

Multi monitor

panel and multi are installed inside of countdown monitor.



Pipe less and soft lower end side

Safety reversal equipment when touch.

Secure design; there's any hard impact in case touched the shutting down shutter cause the shutter will be reversed to upside. You can rely in security.



High speed **2.6 m/sec** (setting highest speed)

the operation of start up sensor or switch will be ran by usually machine driving

Middle speed **1.5 m/sec**

phototube sensor detecting scan rising from not the lowest position

Low speed **0.5 m/sec**

detect touching or bear while machine is running

High airtight structure

The structure of high effective repellent and dustproof. It is suitable for various clean environment.

Positive pressure **5.76 m³/h · m²**

Negative pressure **8.35 m³/h · m²**

※Ventilation amount of difference in 10Pa atmospheric pressure
※Using JISA1516 for airtight experiment inside company
※Our products shows the numerical values equipped with air tight seal.(Optional order)

It is suitable for the environmental that small impact of wind and atmospheric pressure in the partition room.

Fully closed **Within 10 Pa**

※The performanc of breakdown voltage is different depending on the size.
For more information, please check to person in charge

Sheet out by collision is automatically return to the rails easily

Collision by lift and truck during the operation, the sheet will stop a while and slowly going up (0.5m/s) automatically return into the rails. The structure designed to convenience in case of power failure, woman can also easily get out by simply lifting the sheet.



size • standardized goods and option

World class super fast transportation shipping within **3 days** (Japan only) shortly appointment

size/ option goods (switch sensor) 3 types of standard products be sent within 3 days

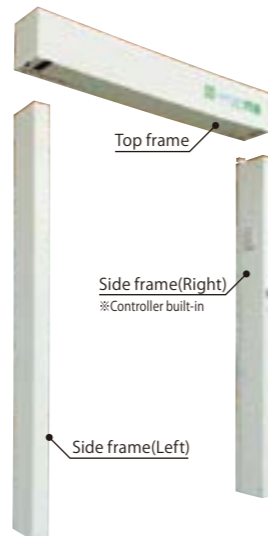
Stype(G12S) W900 × H2000	Mtype(G14S) W1200 × H2000	Ltype(G14S) W1800 × H2000
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color: oyster white
sheet's color: SS clear
Optional parts: 2sets of PHB photocell sensor,
2 units of touchless switch (each on front and back)

※Above-mentioned sheet (no window)
※In case of non-standard, the shipping's time is around 7~10days
※For the schedule of installation, please contract later.

Unit Construction Quick Construction

Unnecessary foundation



Saving wiring and easy design

The structure have 2 units of wiring box unit and flame&controller so it can save much more time.

No need the underlying steel frame, just set up the supporter in the area where you desire.

Maintenance time is also short!

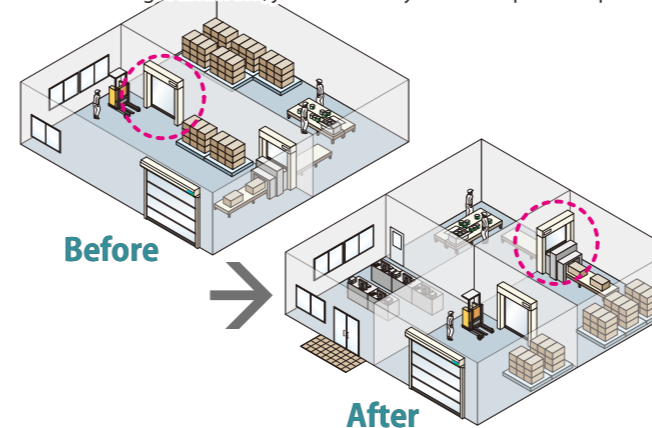
Able to change sheet and motor without bring shutter box down.

※Above-mentioned installation time is the average time when set up the single unit in general floor.
For installation time will be different depend on installation environment.

Relocation layout is so simple by unit design and change electrical power input.

simple moving

anything you would like to move such as layout it's so easy to do! No need groundwork, just move only electrical power input



Outdoor

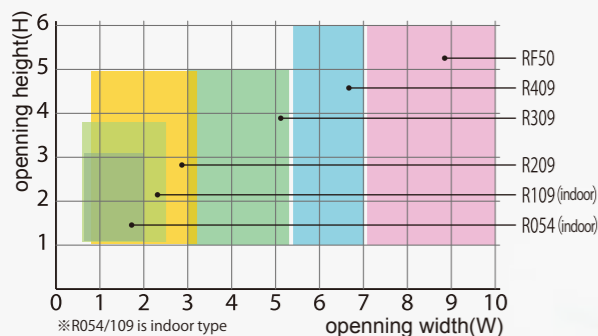
strong pipe type on wind pressure



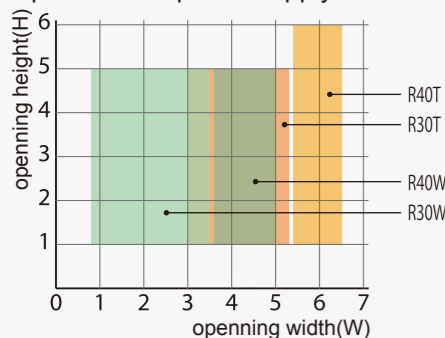
R054/109/209/309/409/RF50
R30W/40W/R30T/40T

Width 600 ~ 10000
Height 1000 ~ 6000 Unit:mm

The scope of fabrication



High pressure resistance, high wind resistance/ 3phase 200v power supply model



※Please use a different place controller if you want to install to the location where the assumed influence of water, such as rain or condensation is assumed.

R054 / 109 / 209 / 309 / 409 / RF50
※To specify aluminium/color copper plate/stainless copper plate frame.
※RF50 is only color copper plate/stainless copper plate frame.
※Stainless copper plate is order specification.



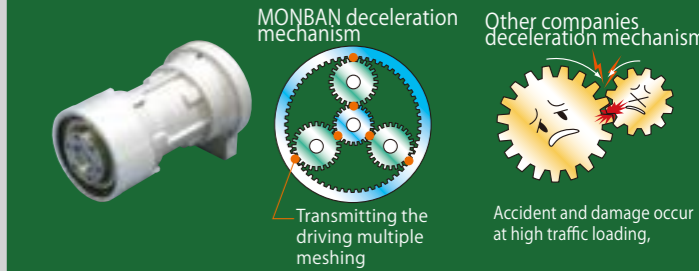
High air pressure resistance, wind resistance model
R30W / 40W
Be suitable for environment that affected by wind, such as the entrance of factory near beaches and wind gust such as monsoon.



3 phase 200v power supply model
R30T / 40T
Lineup T type that support controller and motor to the 3 phase power supply with function of R series.
※controller size:W240×H400×D105

High endurance. enhanced life. silent. saving energy
Newly developed engine
High speed opening and closing rising 2m/second by new type engine, by shortening the opening time of inlet and outlet, It is useful to improve the working environment at the same time.

Rising High speed
2m/sec
※Only R054/109



Effective of high visibility with high power saving
compare with conventional clear transparency is developed secure safety when pass through and keep room brightness by contribute energy saving.



※There are the case that Photo is different from actual.
※There are the case that can not product depend on aperture size, please inquiry.

Roller unit that quietly open and close

To adopt dedicated rubber ring for developing tranquility in roller unit that install in both side pipe. It was provided smooth closing and opening to prevent abrasion and tear of sheet due to friction.

※RF50 is different.

Roller unit

R054/109 R209 R309/409

Dedicated rubber ring

To prevent the broken of lower pipe

Less maintenance costs, soften the impact of the collision by the bottom pipe with cushion structure.

High tension pipe
Cushion part
Roller

Image of bottom pipe

※W1600 upper only
※R409 / 40W / 40T / RF50 does not correspond to the cushion structure.

Pipe type with wind and air pressure strong resistant

Tightly sealed to prevent a gap that can be from the bulge of the sheet by the wind and pressure difference. High grade airtight structure in the top frame and side frame.



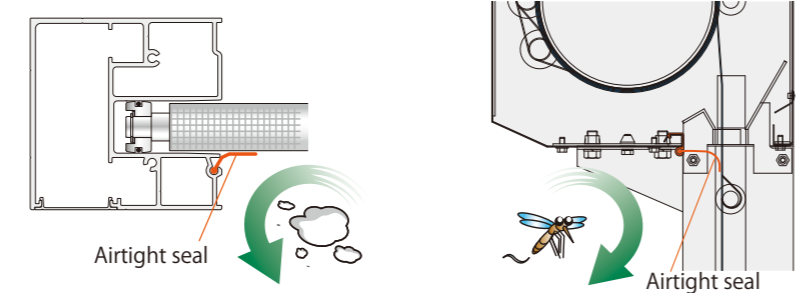
High effectiveness of insectproof and dustproof

To adopt the airtight concept of wind-up box, side frame. It is further improved air-tightness in combination with an air tight seal, prevent invasion of dust and insect when fully closed. To achieve a higher quality control and clean work environment.

Positive pressure **10.21** Negative pressure **6.16**
(Unit: m³/h·m²)

※Ventilation amount of difference in 10Pa atmospheric pressure
※Using JISA1516 for airtight experiment inside company
※Our products shows the numerical values equipped with air tight seal. (make order)

Airtight concept image



Setting compact

To refresh appearance and the controller do not obstacle internal work environment to frame in compact.



Separate controller

Worry of condensation caused by rain and fog also resolved. Able to use together with separate countdown monitor for more safety. (Optional order)

GA controller
W170×H630×D80 (For R054)

KVA controller
W242×H400×D105 (For R109/209)
W242×H450×D105 (For R309/409/R30W/40W)
W242×H850×D105 (For RF50)

Separate placement count down monitor
(W97.2×H156×D18.2)
※Only KV Controller
※Optional order
※RF50 is different from picture
※please, prepare count down monitor in the case of separate placement controller, specially.

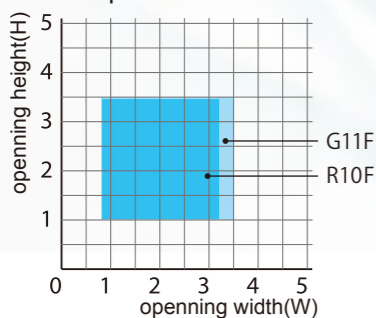
Cold Storage Freezer G·R

Cooling device

G11F / R10F

Width 800 ~ 3500
Height 1000 ~ 3500 Unit:mm

The scope of fabrication



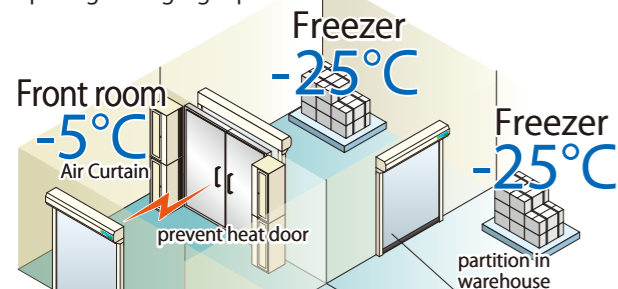
※G10F is pipeless type.
※R10F is pipe type.



pipeless model G11F

Entrance&Exit warehouse and partition between 2rooms is 25c-5c
To develop quality control about temperature changing in warehouse
To control saving energy and efficiency of temperature in warehouse.

To control temperature of indoor partition in each room, efficiently. It is useful to saving energy for temperature changing when opening-closing high speed.



Setting environment -25°C

※In the case of less than 25c, please consult.

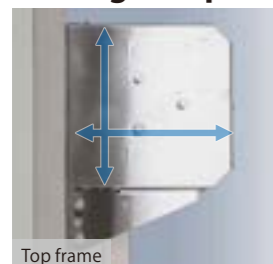
Preventing adhesion of frost and drop water

To adopt program that driving periodic. To protect adhesion frost and dew at sheet and contribute to control quality and closing-opening smoothly.



when on the function of prevent frost adhesion

Setting compact



Top frame
G11F D280×H280
R10F D330×H320



Side frame
G11F W70×D105
R10F W110×D110 (unit:mm)

Wind and air pressure resistant pipe model is also lineup.

It is suitable to entrance warehouse face outdoor and warehouse that control air conditioning with indoor pressure.



Pipe model R10F

Clear sheet for low temperature

It is excellent in visibility even in low temperature warehouse.

Corresponding environment temperature

-25 ~ 5°C



Functional Part resist in frost and dew

To use at ease because prevent damage and malfunction by use internal heater functional part.



■ motor with heater



■ photoelectric tube sensor with heater

■ frame with internal heater

■ controller dedicate cold storage freezer (W240×H630×D105)



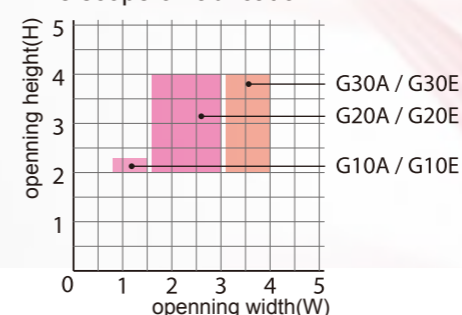
Explosion-proof Area

Explosion proof

G10A/20A/30A/10E/20E/30E

Width 800 ~ 4000
Height 2000 ~ 4000 Unit:mm

The scope of fabrication



※please, use in indoor windless, pressure less environment.
※G10A/20A/30A is air driving force, air control type.
※G10E/20E/30E is air driving force, electric control type.



Air driving force + Air control system

Spec of dustproof that can set in all dustproof area

control, area driving force in industry first

Electric ZERO

※Please, provide perfect safety measure against line condition while construction.



Air driving force section

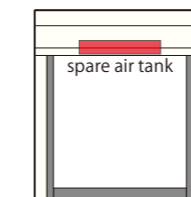
Security of emergency time

Standard installation of spare tank that can be performed once upward movement when emergency. Design safely to able to ensure passage when compressor stop by power outage.



Normal operation by start sensor or switch operation.

※Air tank is for emergency refuge. But not guarantee the air preservation for long time.
※To support only air driving force, air control type.



shorten opening-closing time

To shorten opening-closing time by ascent high speed 1.2m/sec, and help in saving energy for in-out flow of air in-put.

control rollover security

To ascent rollover to once stop even touch in sheet while downward, to guarantee passage the relieve impact at part and passage through person.

※This function do not guarantee safety.
※Please, use accessory function under windless, pressureless environment.

Air press + electric lineup available using sensor.

Electrics controller lineup for automatic opening and closing with explosion proof certified sensor.

(G10E / 20E / 30E)

※In case of electronic controller, controller will be required to installation of both air control panel and electric panel.



Obstacle detective sensor (One pair only) ※Optional order



Controller

Electrification-proof nonflammable sheet

Non-combustible sheet prevented electrostatic from opening and closing activities. ※Available both G series and R series.

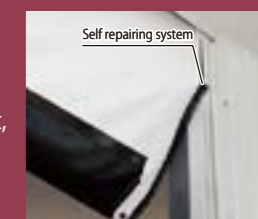
Surface electronic resistance

10⁹Ω



Self-repairing system structure.

In case of accidentally contact, the sheet will open up and automatically return to guide rail.



Self repairing system

Built-in Equipment monban unit

BUILT-IN

Embed in compact

implant monban unit is constructed by (wind-up unit)(guide unit)(control unit) the compact is appropriate for implant at machine. To use space of machine and implant unit, increase added value of machine that interlog with machine. more over, it is favorable to saving energy by interlog control and develop production efficiency and quality.



Engine



Operation switch



Controller base



Sheet.wind-up part

Guide rail

Main implant part

Engine Wind-up part
Controller Wind-up part
Sheet Switch.sensor

OPTION

Also use peripheral equipment for monban ,conveniently. (connection to controller base)

Switch for embedding



Start sensor



Multi-monitor

To display total frequency of driving and moving downward in front counter. And display in monitor counting frequency of thing passage through conveyer and frequency of in-out room that use 2 sensors more over, can output signal.

Display and entry-exit count

The Method of display operation of the passed number .
The number of entry: STOP+OPEN
The number of exit: STOP+DOWN

Implant at wide machine.raise interlog,production efficiency,quality!!

- elevating machine
- conveyor
- partition production line
- painting
- welding booth
- etc.

※In the case necessary to special waterproof treatment in engine,controller in sprinkle water machine.



Example of implant conveyor line



Partition implant

Color & Window Sheet

Abundant lineup machining with various environment

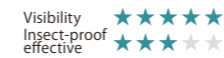
monban original

Visibility out standing



•SS clear

Transmittance 68%



compare with conventional clear transparency is developed secure safety when pass through and keep room brightness by contribute energy saving.

Efficiency of high pesticide



• Magic optron®

Prevent attractive to flying insects 80.7%

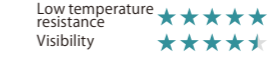


Green outside for prevent invaded by outside insects. Yellow inside make inside factory brighter and guide invaded insect to outside.



Clear for low temperature

Setting environment -25°C~5°C



Clear sheet for low temperature it is excellent in visibility even in low temperature warehouse.



• Electrification-proof nonflammable sheet

※Excepting R30W/40W



Prevent static electricity due to friction at the time of opening and closing . Non-combustible , flameproof certification which can be use in all of the explosion-proof area .



Rat-protection bottom sheet blended

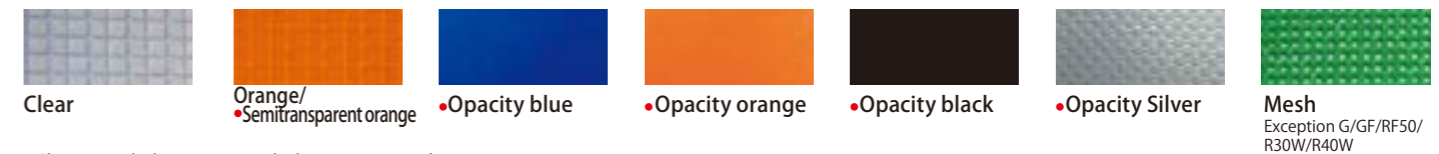
with high concentration capsaicin

standard spec

New develop from the voice of customer such as food factory, rats biting the sheet and enter inside problem.

Type of sheet	SS clear	Magic optron	Clear for low temperature	Electrification-proof nonflammable sheet	Rat-protection bottom sheet blended
Property	lighting,pesticide.safety	pesticide.safety	low temperature resistance	non heat. re prevention	Rat prevention
Light transmission rate	68%	15%	68%	2%	-
thickness(mm)	1.0	0.78	1.3	0.53	0.53
Fireproof,Non-heat certification number	Certi cation of re prevention: F-26183	Certi cation of re prevention: F-27303	Certi cation of re prevention: F-24225	Pcerti cation of non heat:NM-3553 Certi cation of re prevention:F-24171	Certi cation of re prevention: F-25041

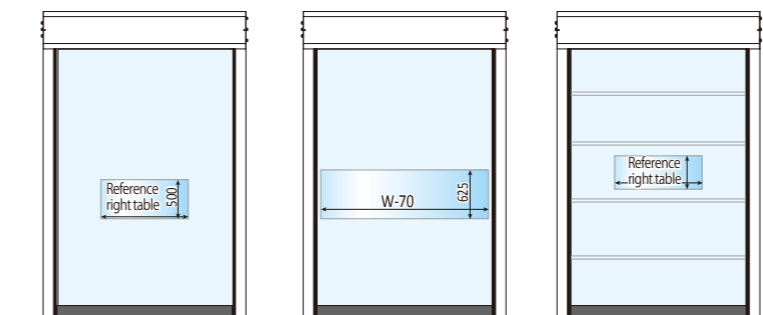
Various colour is also lineup



※Above numeral value is measuring value but not guarantee value.
※This photo is only image, colour may different from actual product. Product appearance and specification can change without notice.
※Flame proof product number "N-0793"
※SS clear, Opacity blue, orange, silver may not be produced. Depends on door size. Please ask for more information show order specification
※Magic Optron is a joint development products of Ikari Co.,Ltd and TAISEI FINE CHEMICAL Co.,Ltd
※ is spec-built.

Sheet window

To increase safety that can con rm car passage and opposite people in high transparency sheet.



G/GF series			R series		
opening width(W)	window width	quantity	opening width(W)	window width	quantity
800 ~ 900	500	1	800 ~ 900	450	1
1000 ~ 1400	600		1000 ~ 1400	600	
1500 ~ 1900	900		1500 ~ 1900	900	
2000 ~ 2400	1200		2000 ~ 2400	1200	
2500 ~ 2900	1500	2	2500 ~ 2900	1500	2
3000 ~ 3400	1700		3000 ~ 3400	1700	
3500 ~ 4000	1700		3500 ~ 4000	1700	

※Target of G062/022/114/024/119/219/GF17/22 ※Target of R054/109/209/309/409/PF50/R30T/40T

※In the case of G series xing door,spec is xing the wind-up box.
※Hieght of door of R series is R054:300mm,R109/209:400mm,R309/409/PF50/R30T/40T:500mm, R30W:180mm,R40W:300mm.but there are the case that size of 2 step is di erent from below.
※In the case of R series,installment hieght is di erent by e ctive because there are pipe in the middle of sheet.

Body color.quality of material

Oyster white
(CGCC colour steel plate)
JPMA No. H27-85B correspondent
(Japan Paint Manufacturers 2015 H-edition)

Aluminium
(Anodizing)
※ Aluminium frame only
※Except GF/RF50/cold storage freezer/dustproof type

Stainless
(SUS304 Hairline)
spec-built:※Spec of cold storage freezer is standard spec.
※ G series only top frame. (Except Gf)
※RF50 is frame only.

Option Parts

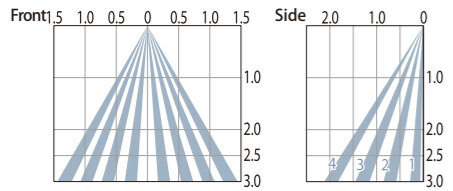
Abundant peripheral equipment that choose and match with utility.size.
Please,specify option part,spec-built such as airtight seal when order.

Start sensor

for small opening until **H3000**

Type A

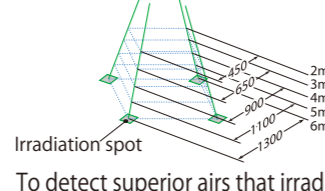
Untill **W3m** infra-red **32 spots**



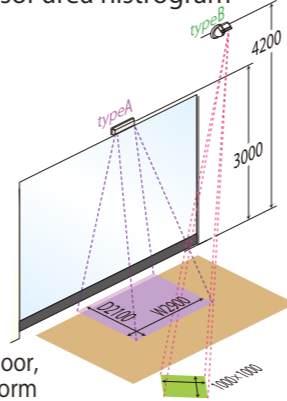
for detection **spot**

Type B

right left direction **360°** liberty of adjust angel infra-red **4 spots**



Sensor area histogram

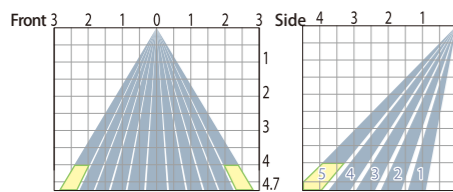


To detect superior airs that irradiation spot. small superior airs that not spot can not detected. gure display the shape when irradiation vertical with oor, in the case of irradiation obliquely to oor,it will be deform

for middle opening until **H4500**

Type C

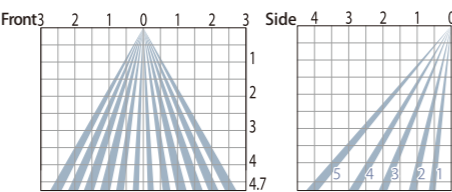
Untill **W5m** configurable the failure detection infra-red **60 spots**



※Row1.2,3 can use for detecting stand still superior airs.
※In the case irradiation area of set the installing height more than 4.0m,it is not possible to detect even in detective scope of both ends.

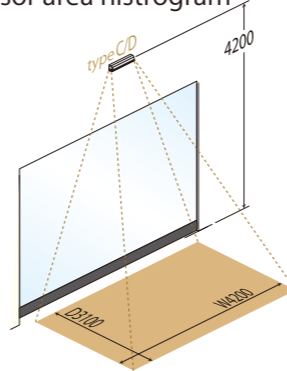
Type D

Untill **W5m** configurable the failure detection infra-red **60 spots**



※Row1.2 can use for stand still superior airs by setting.

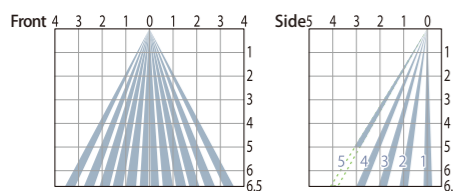
Sensor area histogram



for big opening until **H6000**

Type E

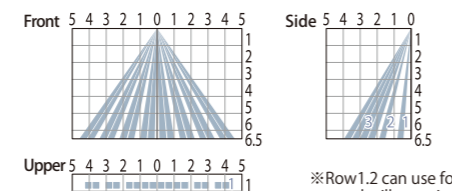
Untill **W7m** with direction detection function that protect useless opening-closing infra-red **60 spots**



※Row1.2 can not use for detection stand still superior airs.
※While using direction detective function, in the case of human 1.5m from sensor until overhead.In the case of vehicle from sensor to upper vehicle is necessary to 2.0m distance.

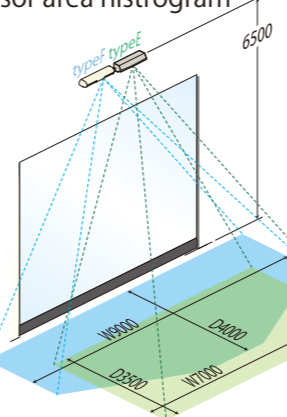
Type F

Untill **W8m** configurable the failure detection infra-red **48 spots**



※Row1.2 can use for stand still superior airs detection by setting.

Sensor area histogram



Type	A	B	C	D	E	F
Irradiation distance	within 3m	2~6m	2.5~4.7m	2.5~4.7m	2~6.5m	2.5~6.5m
Output	open corrector	open corrector	1a/1b change 1b	2a/2b change	2a/2b change	2a/2b change
Electric power	DC24V					
Stand still detection time	2·15·180sec/unlimit	2·15·60sec/unlimit	2·15·60sec/unlimit	2·60sec/10min/unlimit	2·30·180sec/unlimit	2·15·60sec/unlimit
Size	W221×H63×D30	W100×H130×D100	W265×H61×D37.5	W267×H61×D45	W321×H102×D91	W371×H73×D72
Frequency of infra-red spot	32	4	60	60	60	48

※Those sensor irradiat infra-red rays and recieve infra-red rays that re ex in irradiation area.
※To detect the changing near infra-red rays that re ex by human and thing entry in area.
※The irradiation area that recorded is design value. It doesn't specify the setting condition accurately.
※Area is changable by setting environment, oor material and color.targrt thing(garment.material.colour).setting.adjustment.
※must adjust sensitivity and adjust area after setting. more over,con rm that area is setted correctly in periodic.
※To express area in the condition that maximum setting sensor.There are the case that di erent in use environment and use condition.

Warning indication



downward front count

Count down monitor

※It is possible to count 1-9secplease, use and adjust when upper limit stop.
※Only KV controller.



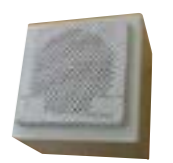
Revolving light

※It is necessary special relay base
※To prepare ashing light with buzzer. Please,specify when order.



Traffic light

※It is necessary separate placement relay base.



Melody buzzer

※Maximum sound pressure is in 1m forward.
※16 kind of tone color,sound pressure90db.
※It is necessary special relay base.

Type	Count down monitor	Revolving light	Traffic light	Melody buzzer
Electric power	DC24V	AC200V	DC24V	AC200V
Size	W97.2×H156×D18.2(explosion model)	W116×H220×D152.5(lensφ110)	W70×H229×D80	W100×H88×D85.3

Obstacle detect sensor

※Please,specify sensor type when order.



PHA model embedded type



PHB model embedded type

Type	PHA	PHB
Detective distance	10m	10m
Electric power	DC12~24V	DC24V
Accessory cable	2m	15m(projector),5m(recieving light)

Please note at the time of install obstacle detect sensor

Please confirmed the side frames's in right level and firmly fixed in order to prevent the optical axis displaced by vibration.

Guard pole for protect touching

Protect frame



With the base

Big diameter: φ139.8×920
Small diameter: φ114.3×420
Base part200×200



Embedded type

Big diameter: φ139.8×length 1620
embedded part 500mm
Small diameter: φ114.3×length 720
embedded part 200mm

Switch up down



Embedded type /Outcrop type 1point, 3points, non-contact switch

※In the case of using outdoor,please install in the area where no rain directly.

picture,photo graphic exposure

Embedded type /Outcrop type



Rain proof model 1point, 3points switch

※1 point,pull switch use until 25c environment.



Pull switch

※To prepare uritane orange rope that good in sanitary. (order product)



Thin model switch



Remote control

Type	1 point/3point (Embedded type /Outcrop type)	out of connect (Embedded type /Outcrop type)	1points(rain proof)	3points(rain proof)	pull switch	thin model 1point	1point.3point.3channel remote control
Contact construction	1a(1point),3a(3point)	1a	1a	3a	1a	1a	1a(1point/3channel)3a(3point)
Size	W50×H112×D19.3 (exposion)	W50×H112×D23.5 (exposion)	W60×H120×D67	W49×H152.5×D34	W68×H140×D62	W40×H194×D10	W52×H85×D8.7 (transmitter)

Vehicle detective sensor



Pull coil sensor

※It is possible to use only automatic mode
※Please, entry vehicle speed less than 10km/h.
※vehicle standard is minicar.

Coil lenth	unit100m
Electric power	AC/DC12~24V

Switch for emergency stop



Emergency stop switch in separete placement

※In the case of RT series,appearance and spec is di erent.

Contact construction	1b
Size	W100×H88×D102.3(buttonφ65)

Emergency electrical power



Back up electrical unit

※The frequency of opening-closing is di erent from storage of electricity.
※Capacity recieving box is di erent from model.size.
※It is necessary to setting speed.model,please consult previously.

in-out electrical power AC single phase200v

Spec of cold storage freezer



Failure detective sensor with heater

Detective distance	10m
Electric power	AC100V
Accessory cable	15m(projector), 5m(recieving light)

Dustproof spec



3 points switch

※Can use until 1 point 2 pieces,3 points 1 piece.Above switch is air control model.

Type	3 points switch	Pull switch	Foot switch
Contact construction	Mechanical bulb	Mechanical bulb	Mechanical bulb
Size	W65×H120×D50	W186×H140×D55.6	W71×H72×D177



Pull switch

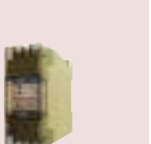


Foot switch



PHD type obstacle detective sensor (essential safety explore proof(i2g4)

Detective distance	10m
Electric power	DC 7V
Accessory cable	5m



Barrier contraller

Barrier contraller sensor is installed in explore proof area.Bar is installed in contraller controller is set outside

※Please,understand that there are sometime changing appearance and spec by no previos notice becaus.

Specification

Indoor (pipe less type)

		Small opening					Middle opening	Small opening	Middle opening	
Model		G062	G022	G114	G024	G119	G219	GF17	GF22	
Manufacturable Dimension	W	600~1500	700~1500	600~3000	700~3000	800~3500	800~4500	800~3500	800~4500	
	H	600~2300			1000~3500			1000~4500	1000~3500	1000~4500
Opening & closing m/c	Input power source	Single-phase AC200V ~ 230V±10%								
	Output	0.2kw			0.4kw			0.95kw		
	Opening and closing speed (default)	opening:2.0m/sec closing:0.7m/sec			opening:2.0m/sec closing:0.7m/sec			opening:1.5m/sec closing:0.7m/sec		
	Reduction Speed Ratio	1/10			1/14			1/23		
	Reduction method	Planetary helical gear reduction method								
Control roller	Built-in top frame	—	●GA	—	●GA	—	—	—	—	
	Built-in side frame	—	—	(In the right side frame) ●GA	—	(In the right side frame) ●GA	(In the right side frame) ●GA	—	—	
	Separate controller	●GA	—	●GA	—	●KVA	●KVA	●KVA	●KVA	
Using frequency	100 times / hr									
Using environment	Ambient temperature more than -10 °C ~ less than 40 °C (except frozen state), ambient humidity: RH85% or less.									

※ G Series is for indoor installation type. G219 is using bottom weights up type. ※Operation switch is installed at the right frame. However, G114 / 119/219 in the case of H2200 or less, it will be installed in the left frame.
 ※controller ,G022/024 is only internal wind-up box ,G114 is internal side frame or GA separate placement,G119/219 is internal side frame or KVA separate placement.
 ※G062/022/114/024/119/219 is only aluminium.GF17/22 is only color copper plate/stainless copper plate frame.

Explosion protection (pipe less type)

		All air			Air + Electric		
Model		Small opening		Middle opening	Small opening		Middle opening
		G10A	G20A	G30A	G10E	G20E	G30E
Manufacturable Dimension	W	800~1500	1600~3000	3100~4000	800~1500	1600~3000	3100~4000
	H	2000~2300	2000~4000			2000~2300	2000~4000
Driving force	2 air cylinders						
Control	Bulb Storage control panel (with 3 points switch)						
Opening and closing speed (default)	opening:1.2m/sec closing:0.7m/sec	opening:1.0m/sec closing:0.7m/sec	opening:0.8m/sec closing:0.7m/sec		opening:1.2m/sec closing:0.7m/sec	opening:1.0m/sec closing:0.7m/sec	opening:0.8m/sec closing:0.7m/sec
Emergency operations	Raising operation one time with the air tank,Lift sheet lower end						
Air pressure	More than 0.5MPa						
Consumption air amount(maximum)	12L	45L	47L		12L	45L	47L
Sheet	Antistatic non-heat sheet,(Surface electrical resistance value less than 10 ⁹ Ω)						
Using frequency	60 times / hr						
Using environment	Ambient temperature more than -10 °C ~ less than 40 °C (except frozen state), ambient humidity: RH85% or less.						

※If you use a start sensor,obstacle detection sensor,contact type operation switch,it will be air+ electric type G10E / 20E / 30E.
 ※Explosion-proof air tight seal is a can not be used. ※Only color copper plate, stainless copper plate frame.

Refrigerated freezer specification

		Pipe less type	Pipe type
Model		G11F	R10F
Manufacturable Dimension	W	800~3500	800~3200
	H	1000~3500	1000~3500
Opening & closing m/c	Input power source	Single-phase AC200V~230V±10%	
	Output	0.95kw	
	Opening and closing speed (default)	opening:1.5m/sec closing:0.7m/sec	
	Reduction Speed Ratio	1/23	
	Heater	Waterproof silicon rubber heater	
Control roller	Controller specifically for specification of refrigeration and freezers. (Heater built-in)		
Start-up method	1-point switch, Pull switch		
Obstacle detection sensor	Photocell sensor embedded type with heater.		
Sheet	Refrigeration and freezers specification dedicated sheet		
Using environment	more than 25 °C ~less than 5 °C		

※When the power is turned OFF,frost will adhere to the fastener part,and it may not be properly opened and closed
 ※Please turn on the power supply and the frost adhesion prevention function.
 ※Please remove the frost of sheet and driving part ,floor surface regularly.
 ※Only a stainless steel frame.

Independence model

		Pipe less type	
		Indoor type	
Model		G12S	G14S
Manufacturable Dimension	W	800~1600	800~2500
	H	1800~2000	1800~2500
Opening & closing m/c	Input power source	Single-phase AC200V ~ 230V±10%	
	Output	0.2kw	0.4kw
	Opening and closing speed (default)	opening:2.0m/sec closing:0.7m/sec	
	Reduction Speed Ratio	1/10	1/14
	Reduction method	Planetary helical gear reduction method	
Control roller	Built-in side frame GA(In the right side frame)		
Using frequency	100 times / hr		
Using environment	Ambient temperature more than -10 °C ~ less than 40 °C (except frozen state), ambient humidity: RH85% or less.		

Outdoor (pipe type) ※R054/109 is indoor spec

		Indoor type		Small opening	Middle opening	Big opening	
Model		R054	R109	R209	R309	R409	RF50
Manufacturable Dimension	W	600~2000	600~2500	800~3200	3000~5300	5400~7000	7100~10000
	H	1000~3600	1000~3800	1000~5000	1000~5000	1000~6000	2000~6000
Opening & closing m/c	Input power source	Single-phase AC200V ~ 230V±10%					
	Output	0.4k w		0.95k w			
	Opening and closing speed (default)	opening:1.2m/sec closing:0.7m/sec	opening:1.6m/sec closing:0.7m/sec	opening:1.0m/sec closing:0.7m/sec	opening:1.0m/sec closing:0.7m/sec	opening:0.55m/sec closing:0.55m/sec	opening:0.55m/sec closing:0.55m/sec
	Reduction Speed Ratio	1/14	1/10	1/23	1/50	1/74	1/74×2
	Reduction method	Planetary helical gear reduction method					
Sheet core material	Middle pipe	φ15.9×t1.2		φ27.2×t1.2	φ38.1×t1.2		φ48.6×t1.8
	Bottom pipe	φ27.2×t1.2+VE28 (VP,VU pipe)		φ38.1×t1.2+VP40 (VP,VU pipe)		φ38.1×t1.2(With sponge)	φ48.6×t1.8(With sponge)
Control roller	Built-in side frame	●GA	●GA	●GA	●GA	—	—
	Separate controller	●GA	●KVA	●KVA	●KVA	●KVA/B	●RF50用
Using frequency	100 times / hr				60 times / hr		
Using environment	Ambient temperature more than -10 °C ~ less than 40 °C (except frozen state), ambient humidity: RH85% or less.						

※When order R054/109/209/309 please select built-in controller and placing separately. ※Please use controller placing separately type when install in the place which may be impact from water such as rain or condensation. ※Controller which placing R054 separately has difference spec from R109/209/309. ※Use gate width less than W5400 ~ 6100mm, Gate high more than H5000mm for R409 type and for gate width W6200 ~ 7000mm, Gate high H4200mm please use KVB(Large-capacity type). ※RF50/R30T/40T has only color steel plate/stainless steel plate frame. ※In the case of the controller is R054/109/209/309 aluminum frame, built-in frame or R054 is GA separate placement. R109 / 209/309 is KVA separate placement, In the cast of the steel plate frame is separate placement. R409 is KVA KVB or KVB separate placement depend on size.

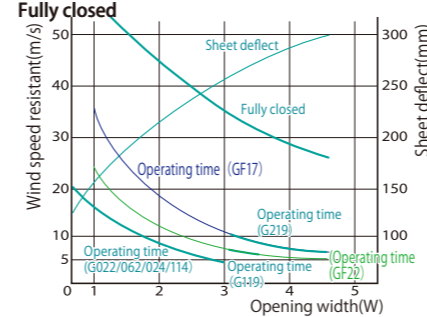
High pressure high wind resistant type model Three-phase 200V power supply type model

		Pipe type		Pipe type	
Model		Small opening		Middle opening	
		R30W	R40W	R30T	R40T
Manufacturable Dimension	W	800~3500	3600~5000	3000~5300	5400~6500
	H	1000~5000		1000~5000	1000~6000
Opening & closing m/c	Input power source	Single-phase AC200V ~ 230V±10%		3 phase AC200V±10%	
	Output	0.95k w		0.75k w	
	Opening and closing speed (default)	opening:0.7m/sec closing:0.55m/sec	opening:0.4m/sec closing:0.4m/sec	opening:1.0m/sec closing:0.7m/sec	opening:0.48m/sec closing:0.48m/sec
	Reduction Speed Ratio	1/74		1/25	1/43
	Reduction method	Planetary helical gear reduction method		Cyclo Engine Drives	
Sheet core material	Middle pipe	φ27.2×t1.2	φ38.1×t1.2	φ38.1×t1.2	
	Bottom pipe	φ38.1×t1.2+VP40 (VP,VU pipe)	φ38.1×t1.2(With sponge)	φ38.1×t1.2+VP40 (VP,VU pipe)	φ38.1×t1.2(With sponge)
Control roller	Separate controller KV separate placement controller		SV separate placement controller		
Using frequency	60 times / hr		60 times / hr		
Using environment	Ambient temperature more than -10 °C ~ less than 40 °C (except frozen state), ambient humidity: RH85% or less.				

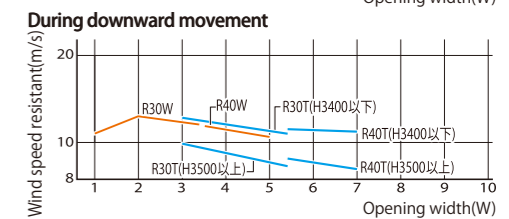
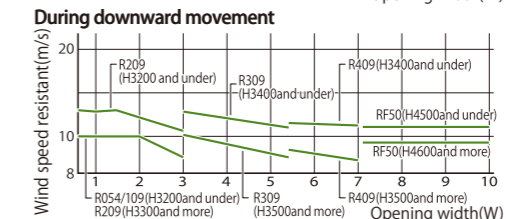
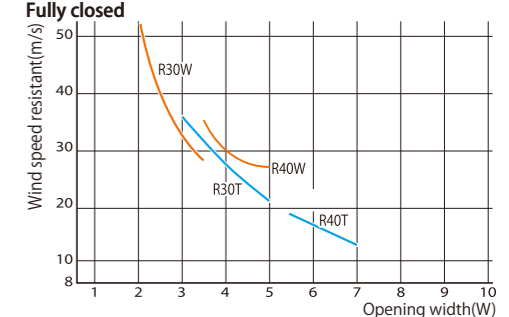
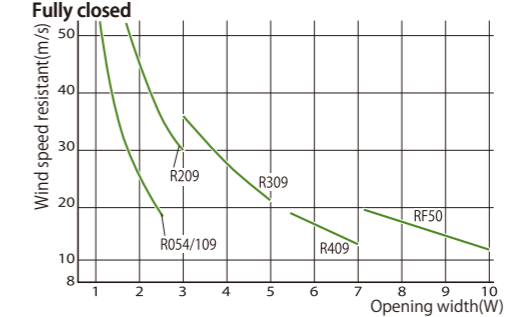
※R30T / 40T will be only color steel plate,stainless steel plate frame. ※Controller is R30W / 40KVA separate placement, R30 / 40T is SVA separate placement.

Wind resistance speed data

G/GF series



R series



※1. Please install for protect production from rain or water directly. ※2.Please refrain from area or location where corrosive atmosphere to deal with coastal areas,species metal powder,scientific medicine etc, and poor areas with environmental conditions such as condensation and freezing, toxic gases etc. ※3.Main body (W · H) will be the production of 100mm unit. ※4.Please separately consult if it exceeds the current rating manufacture range of products.Please understand that sometime it may not be manufactured. ※5.Please understand that there are sometime the appearance and specifications of production is change without notice. ※6.While using,please read and use the instruction manual correctly. ※7. Please refer and select from wind resistance speed data of each model when the model that installable dimensions is overlap.

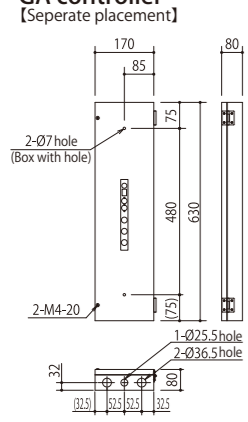
Controller

	GA		KVA	SV
	Seperate placement	Implant		
Target model	G062/114/R054	G022/114/024/119/219 G12S/14S/R054/109/209/309	G119/219/GF17/22/R109/209/309/409/RF50	R30T/40T
controller size	W170×H630×D80	—	W240×H400×D105	W240×H400×D105
Board size	W65×H540×D35.6		W203×H265×D63	W119×H254×D64
Input power source	Single-phase AC200V ~ 230V±10%			3 phase AC200V±10%
Stop position control	Hole IC			Encoder
Motor control	brushless DC motor			Cyclo engine
Lightning surge	Arrester circuit implementation			
External output power	DC24V - 0.6A		DC24V - 1.25A	DC24V - 1.3A
Information monitor	7-segment LED1-digit		16×2 lines with monochromatic LCD backlight	7-segment LED1-digit
Board operation switch	Rising, stopping, descent, confirm, manual-automatic switching, ECO mode			Rising, stopping, descent, confirm, manual-automatic switching, opening high
Basic functions	Self-diagnosis function,variable four steps rising and descending speed, ECO level setting function,operating mode function,0-30 seconds variable rising stop time setting.			
counter	Point down display		8-digit digital display	6-digit digital display
Regenerative resistor size	W182×H44×D15(L500-1500mm with cable)			W75×H21×D45 (Wlth lead wire)
Motor protection	leakage breaker common with Overloading and short-circuit prot-ection (single-p hase AC100-200 common 15A30mA) W32×H70×D51			Overload,short-circuit protection common leakage breaker(15A30mA) W75×H75×D97
Usage environment	Ambient temperature more than -10 °C ~ less than 40 °C (except frozen state), ambient humidity: RH85% or less.			

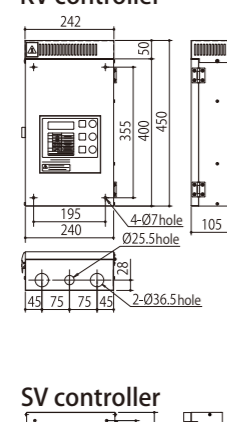
Spec of refrigerated freezer	
Target model	G11F/R10F
controller size	W240×H630×D105(heater buit-in)
Board size	W65×H540×D35.6
Input power source	Single-phase AC200V ~ 230V±10%
Stop position control	Hole IC
Motor control	Brush less dc mortor
Lightning surge	Alester circuit
External output power	DC24V - 1.25A
Information monitor	7-segment LED1-digit
Board operation switch	Rising, stopping, descent, confirm, manual-automatic switching, ECO mode
Basic functions	Frost adhesion prevention function, accident diagnosis function, rise and fall speed four steps variable, ECO level setting function, mode of operation lock function, the upper limit stop time setting variable 0-30 seconds
counter	Down point display
Regenerative resistor size	W182×H44×D15(L500-1500mm with cable)
Motor protection	Leakage breaker (single phase AV100-200V COMMON 15A 30mA) W32×H70×D51
Usage environment	Ambient temperature more than -10 °C ~ less than 40 °C(except frozen state), ambient humidity: RH85% or less.

	Spec of exposure proof all air	Spec of exposur proof air electric/electric
	Target model	G10A/20A/30A
controller size	W400×H850×D160	W400×H850×D160×2type
Input power source	—	Single-phase AC100V ~ 200V
Stop position control	Air type limit switch	Auto switch
control	Air cylinder	
air	0.5Mpa	
Board operation switch	Rising, stopping, descent	Rising, stopping, descent, confirm, manual-automatic switching, ECO mode
Basic functions	—	Rising and descent variable speed ECO level setting function
counter	6 digits air counter	6 digits digital
Motor protection	—	Overload, short-circuit protection common leakage breaker (single-p hase AC100-200 common 15A30mA) W32×H70×D51
Usage environment	Ambient temperature more than -10 °C ~ less than 40 °C(except frozen state), ambient humidity: RH85% or less.	

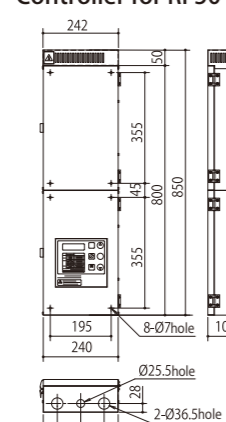
GA controller



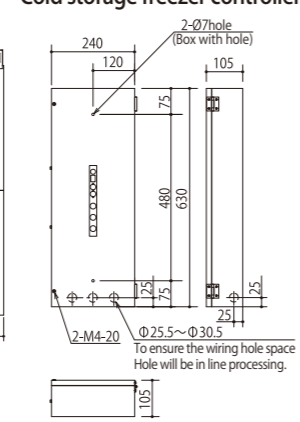
KV controller



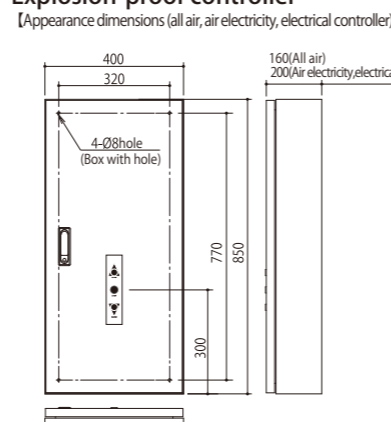
Controller for RF50



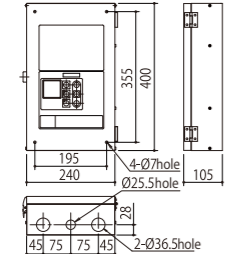
Cold storage freezer controller



Explosion-proof controller



SV controller



※KV Controller (without top cover) is for the GF17 / 22 / G119 / 219 / R109 / 209 type.
 ※KV Controller (with top cover) is for R309 / 30W / R409 / 40W type.

Note about installation environment

Also include the following disclaimer, in the case of shutter performance can not stand a severe environment (winds climate and facilities make impact to the shutter operation such as high wind),Please use another product (steel shutter.over slider etc.)on establishment.For more information, please contact your dealer or manufacturer Product

Product guarantee

About Product guarantee

Warranty coverage : sheet shutter(happy gate monban)system G series/R series/Refrigerated freezer specification/various type of Explosion-proof
 ※ If this product is connected or integrated with other devices, the installation/removing from the device/ construction work for other supplementary/cost of transport/user loss the using opportunity/indirect damage of business interruption and the consequential or incidental damages are out of burden scope,absolutly.

Guarantee period: 1 year or 100,000 times after delivery.
 (Although in the usage period but opening and closing number is more than 10 million times and the failure caused by the installation environment can not guarantee)

Immunity

- 1.Natural disasters and other uncontrollable(For example, defects in the case of the situation that exceeds the performance of the product because heavy rain, storm, ood,storm
- 2.Defects caused by natural phenomena and operating environments.(For example vibration and resonant sound due to wind, coupling, condensation)
- 3.Corrosion or other defects in the poor environment of areas or places.
(Fore example,corrosion or other defects due to corrosion by salt damage in coastal areas,)
- 4.Defects due to exceed the performance of product that has been expressed in this document
- 5.Defects of the product due to other than product Defects, such as deformation of the architectural precursor
- 6.Defects the case of usage is different from using target or in the cast of used out of target in the original.
- 7.Defects due to third-party processing that does not depend on our arrangements, assembly, construction, management,
- 8.The Defects due to the fact that you did not perform proper maintenance or operation error after delivery
- 9.Defects due to Assembly, construction, repair, improvement, due to deficiencies and maintenance etc.
- 10.Defect of abrasion of the contact portion according to use, scratches,
- 12.The problems caused by harmful insects such as rat, cockroaches and the small animals such as dogs, cats,
- 13.the sound that no trouble function,Sensory phenomenon such as vibration
- 14.Damage or failure caused by illegal activities such as crime
- 15.If the cause of the other Defects from the third party

Warranty starting time

Repair and Replace after the expiration of warranty period. In the cast there is no document that can be identified the delivery date after-sales and construction,may i refer warranty period by Date of manufacture of the product without permission.If you have any questions about the warranty period, warranty information ,please inquiries and contact us.

Recommendation of periodic inspection contract

con dence with Manban.In order to get keep forever,as well as daily inspections to carry out daily and the professional inspectand maintenance periodic. Those which it has been installed especially in the high frequency of use location and those which that have been installed in the severe environment of use be facing the outdoor consumable parts are violently, and The durability will be signi cantly reduced. Decreases the function in parts of consumption and aging, there is also a risk that lead to accidents. Although the number of regular inspections can not be set uniformly because di erent in frequency of use and installation environment, consult with the purchase of dealer to guide the following parts inspection and replacement list and recommended that you make a periodic inspection contract.Periodic inspection contract will be reported the results do the inspection based on the check list.If an abnormality such as consumables were observed in the inspection, maintenance by change parts after consult with contractors. Inspection other than the manufacturer certi ed stores sometimes result in personal injury or death or serious accident.

- Periodic inspection noti cation function of controller 50 000 times, 100,000 times, 200,000 times (every subsequent 100 000 times) will inform the inspection time in the alarm and the LCD
- One month inspection: Inspect each installation sensor and detection area and abnormal noise generation once a month. Please check whether to operate normally.

Major inspection content (simple inspection)

- Abnormal sound. driving during opening and closing operations
- Setting stop position (etc overrun)
- damage and abrasion of the guide rail
- Damage and abrasion of sheet
- Damage of body-side frame
- Lubrication

Exchange and inspection period (standard)

G/GF series	Part name	Exchange and inspection period (standard)
Sheet part	Sheet,tube portion	300,000 times or 5 years
	Tube guide	500,000 times or 5 years
Frame part	Return guide	500,000 times or 5 years
	Frame, mounting condition	500,000 times or 5 years
	Winding-up part	500,000 times or 5 years
Driving part	Drum	500,000 times or 5 years
	Drum dsk	500,000 times or 5 years
Control part	Switching device	1,000,000 times or 5 years
	Control panel	1,000,000 times or 5 years
Air tight	Sensor type	1,000,000 times or 5 years
	Switch type	1,000,000 times or 5 years
	Airtight seal	100,000 times or 5 years

Merchandise management system

Monban is assigned the serial number one by one from the initial launched in 1985,and all the specifications such as shutter size and sheet color and other peripheral devices have to be managed. you should provide us with serial number for respond quickly when you periodic inspect and got trouble.

R series

R series	Part name	Exchange and inspection period (standard)
Sheet part	Sheet	300,000 times or 5 years
	Roller unit with Rubber ring	300,000 times or 5 years
Frame part	Resin guide (steel only)	500,000 times or 5 years
	Frame, mounting condition	500,000 times or 5 years
Winding-up part	Winding-up box	500,000 times or 5 years
	Drum	500,000 times or 5 years
Driving part	Drum dsk	500,000 times or 5 years
	Switching device	1,000,000 times or 5 years
Control part	Control panel	1,000,000 times or 5 years
	Sensor type	1,000,000 times or 5 years
	Switch type	1,000,000 times or 5 years
	Airtight seal	100,000 times or 5 years

Manufactured by:



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