

Body specification

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

Aluminium
(Anodizing)
※ Aluminium frame only
※ Except GF

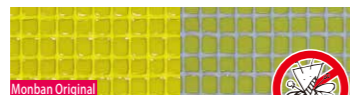
Stainless
(SUS304 Hairline)
※ G series only top frame
(Except Gf)

Sheet line up



SS clear
Transmittance 68%
Visibility ★★★★★
Insect-proof effective ★★★★★
Flameproof certified : F-26183
Thickness : 1.0mm

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



Magic option
Prevent attractive to flying insects 80.7%
Insect-proof effective ★★★★★
Visibility ★★★★★
Flameproof certified : F-26240
Thickness : 0.78mm

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



Electrification-proof nonflammable sheet
Noncombustible flameproof certified
Antistatic ★★★★★
UVprotection ★★★★★
Noncombustible certified : NM-3553
Flameproof certified : F-24171
Thickness : 0.53mm

Certification of incombustible and flameproof, usable at explosion proof areas.



Rat-protection bottom sheet blended with high concentration capsaicin
Flameproof certified : F-25041
Thickness : 0.53mm

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

Varieties of sheet colour available



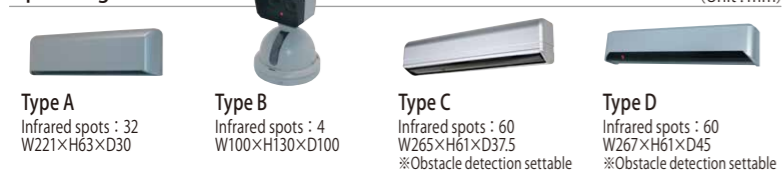
Clear Orange/Semitransparent orange Opacity blue Opacity orange Opacity black Opacity Silver

※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"
※Antibacterial orange sheet will be out of Eco Mark certification.
※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 E & L. Co.,Ltd

Option equipment can be chosen according to the application and size

Please specify the option equipment which suit to your usage of the sheetshutter when order.

Operating sensor



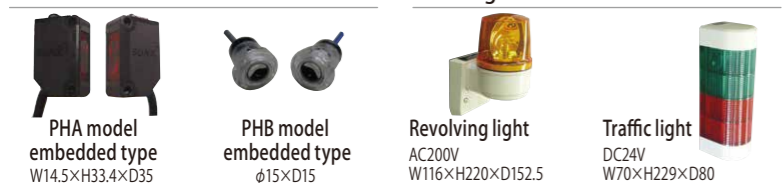
Type A
Infrared spots : 32
W221×H63×D30

Type B
Infrared spots : 4
W100×H130×D100

Type C
Infrared spots : 60
W265×H61×D37.5
※Obstacle detection setttable

Type D
Infrared spots : 60
W267×H61×D45
※Obstacle detection setttable

Obstacle detect sensor



PHA model embedded type
W14.5×H33.4×D35

PHB model embedded type
φ15×D15

Revolving light
AC200V
W116×H220×D152.5

Traffic light
DC24V
W70×H229×D80

Switch up down



Embedded type /Outcrop type
1 point, 3 points, non-contact switch
W52×H112×D193 (Outcrop 1 point, 3 points switch)
W52×H112×D193 (Outcrop non-contact switch DC5V)
W52×H112×D23.5 (Outcrop non-contact switch DC24V)

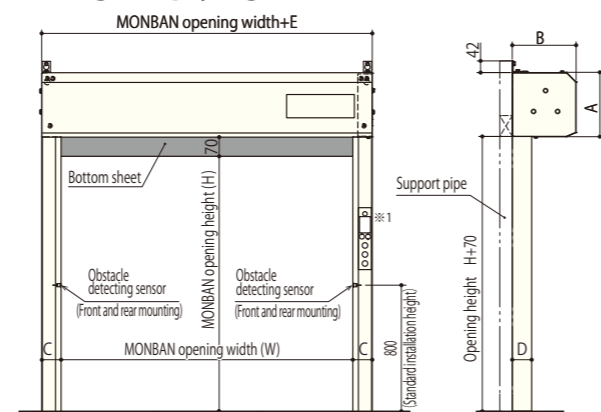
Rain proof model
1 point, 3 points switch
W60×H120×D67 (1 point)
W49×H152.5×D34 (3 points)

Pull switch
W68×H140×D62

Remote control
W52×H85×D8.7 (Transmitter)

Fitting simply figure

※Figure of G062



	G062	G022	G114	G024	G119	G219	GF17	GF22	G125	G145
A	190	240	230	280	300	300	280	320	191.8	231.8
B	180	180	230	230	300	300	280	330	200	240
C	50	50	70	50	70	70	73	73	90	90
D	53	53	70	53	70	70	90	90	200	240
E	100	100	140	100	140	140	154.6	154.6	180	180

[Caution]
Please always attach one set of front and rear obstacle detection sensor.
Additionally, please check the optimal position, objects and number of passing in advance.
※1 In case of using separated controller, cannot use panel built-in frame.

Happygate MONBAN with varies specifications for customers in every environment.

Cold storage and refrigerator model -25 °C ~ 5 °C warehouse entrance or use as partition

Explosion proof model The air drive + air control system installed in high explosion proof areas

High temperature heat-resistant model In the entrance of a high-temperature environment such as 100 °C of drying booth

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TEL 82-31-498-6655

<https://www.komatsuelec.co.jp/monban/>

※1.Please install at place that the product will not directly to the rain and water. ※2.Please refrain from using at place such as coastal areas, various types of metal powder, chemicals for use in corrosive atmosphere or places of environmental conditions such as condensation and freezing and poisonous gas. ※3.The production of the body (W / H) will be 100mm unit. ※4.Please contact us for size out of standard production range. Please note that it may not be able to manufacture. ※5.Appearance and specification of product may be change for improvement the quality without prior notice. ※6.Please use read the instruction manual correctly and carefully for using. ※7.Please use read the instruction manual correctly and carefully for using.

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Create space value

Save power, Save energy, Quality control

happy gate 門番
monban

Incredible effects to the environment and air-conditioning.



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.

※Attaching the back up power supply could secure the passage (optional)

Extra high speed

Self-repairing system

Silent

Hi durability

Hi grade airtight

KOMATSU ELECTRIC INDUSTRY CO.,LTD.

happygatemonban
Product introduction
video

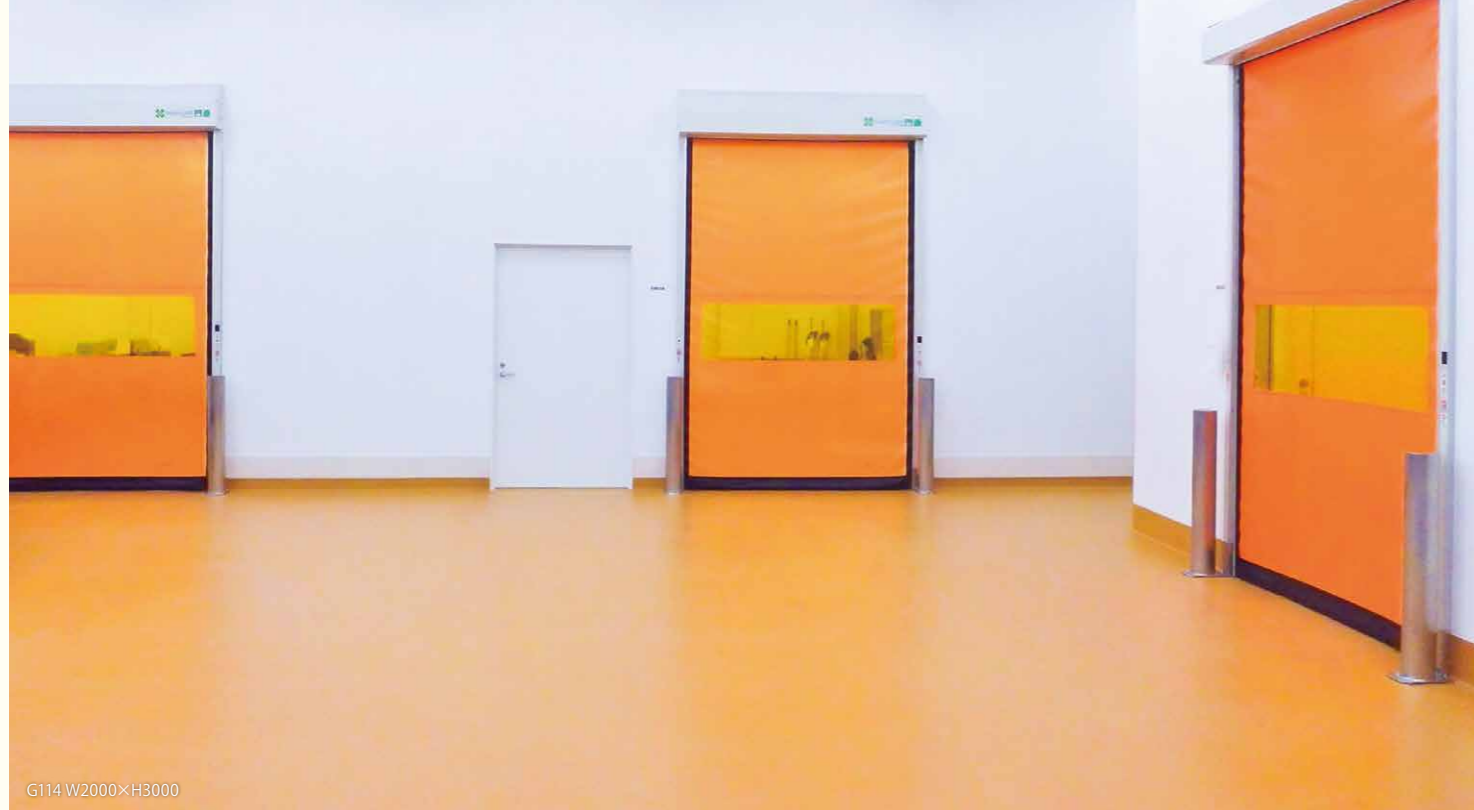
Patent pending



G Series indoor · pipeless type
G062 / 022 / 114 / 024 / 119 / 219 / GF17 / 22

Insect proof, dust proof
Energy saving
and air-conditioning
Improve working
environment

Width 600 ~ 4500
Height 600 ~ 4500 Unit : mm



G114 W2000×H3000



GF16 W2600×H2700



G104 W2000×H2300



GF17 W2400×H2700

Evolution of high-speed opening and closing, self repairing system, silent, high durability and high grade airtight

Pipe-less shutter reborn, in more fast, more quiet, and more safety.

Extra high speed

The highest opening speed in the industry.

3.2 m/sec (G119 highest speed)

Normal operation by operation sensors or switch

Extra opening speed 3.2m/s
Safety closing speed 0.7m/s
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
※Opening and closing speed you can change according to the application. Adjustable speed, please refer to the following specification.

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

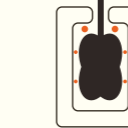
Silent

Heavy duty less maintenance

Operating noise reduced 10% compared with conventional Quietness by MONBAN tube
Sheet both sides using MONBAN tube instead of conventional fastener for more silent operation and prevent damage.

Cross-section drawing

● contact surface



Cloverleaf shape



Conventional product

High grade airtight



Structure of air tight achieve high grade airtightness (Optional order)

Air tight seal attached to the top frame with high insect and dust proof effect, and ideal for a variety of clean environment.



※circulating air at 10Pa
※Carried out testing at JIS A 1516 indoor airtight examination center
※Our products can be any number of airtight seals.
※Wind pressure performance can be different depending on the size
※Air tight seal attached on the top frame only.

Built-in controller, easy to move



G022/024 Top Frame unit

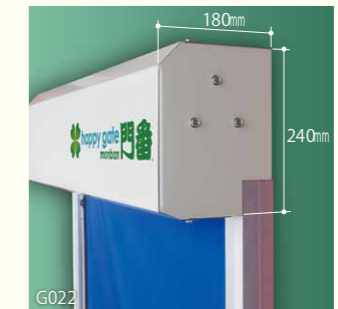


G114/119/219 Frame unit

Controller built in the top frame or side frame, saving wiring and space, Easy to move or relocate

※G062/GF17/22 using separate controller

Compact design



G022



G022

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

Separate controller

Please use separate controller if install to the location where the influence of water is assumed.

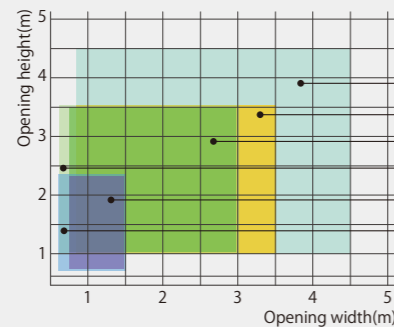


GA controller W170×H630×D80 (For G062/114)



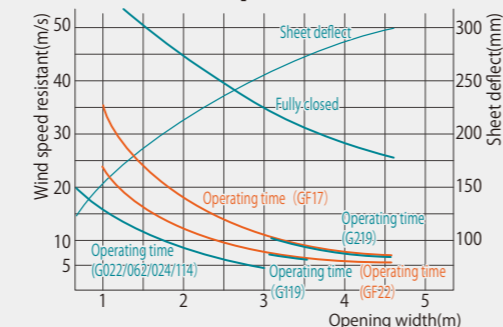
KVA controller W242×H400×D105 (For G119/219/GF17/22)

Installable dimension



※G022/024 controller built in top frame.
※G114/119/219 controller built in side frame
※GF17 / 22 medium-pressure difference environment model
※Please use separate controller if install to the location where the influence of water, such as rain or condensation is assumed.

Wind resistant performance



For install in order to adjust the room pressure for hygienic control, please refer to below model guideline.

Room pressure difference Fully closed Within 10 Pa (G062/022/114/024/119/GF22)
Room pressure difference Fully closed Within 20 Pa (G219/GF17)

※Number and pressure resistance performance is varies depend on the room pressure difference.

Specification

Type	Model	G062	G022	G114	G024	G119	Strong wind resistance type			
Manufacturable Dimension	Opening width (mm)	600 ~ 1500	700 ~ 1500	600 ~ 3000	700 ~ 3000	800 ~ 3500	800 ~ 4500	800 ~ 3500	800 ~ 4500	
	Opening height (mm)	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 Speed (Setting when shipment) (m/s)	3.0 ~ 1.5 [2.0]	3.0 ~ 1.5 [2.0]	3.0 ~ 1.5 [2.0]	3.0 ~ 1.5 [2.0]	3.2 ~ 1.2 [2.0]	1.5 ~ 0.7 [1.5]	1.5 ~ 0.7 [1.5]	1.5 ~ 0.7 [1.5]	1.5 ~ 0.7 [1.5]
	Closing Speed (Setting when shipment) (m/s)	1.5 ~ 0.5 [0.7]	1.5 ~ 0.5 [0.7]	1.5 ~ 0.5 [0.7]	1.5 ~ 0.5 [0.7]	1.5 ~ 0.5 [0.7]	1.5 ~ 0.5 [0.7]	1.5 ~ 0.5 [0.7]	1.5 ~ 0.5 [0.7]	1.5 ~ 0.5 [0.7]
	Reduction Speed Ratio	1/10			1/14			1/10		
Reduction method	Planetary helical gear reduction method									
Control roller	Built-in top frame	—	●GA	—	●GA	—	—	—	—	
	Built-in side frame	—	—	●GA(In the right side frame)	—	●GA(In the right side frame)	●GA(In the right side frame)	—	—	
	Separate controller	●GA	—	●GA	—	●KVA	●KVA	●KVA	●KVA	
Side frame	Aluminum frame	●	●	●	●	●	●	—	—	
	Colour · stainless steel	—	—	—	—	—	—	●	●	

※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 built-in top frame only, G114 placed side frame or use GA separate controller, G119 / 219 built-in side frame or use KVA separate controller.

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(CGCC colour steel plate)
JFMA No. H27-85B correspondent
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Aluminium
(Anodizing)
※ Aluminium frame only
※ Except RF50

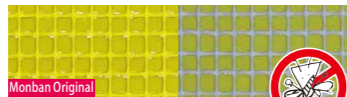
Stainless
(SUS304 Hairline)
※ Only frame for RF50 Model

Sheet line up



SS clear
Transmittance 68%
Visibility ★★★★★
Insect-proof effective ★★★★★
Flameproof certified : F-26183
Thickness : 1.0mm

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



Magic optron
Prevent attractive to flying insects 80.7%
Insect-proof effective ★★★★★
Visibility ★★★★★
Flameproof certified : F-26240
Thickness : 0.78mm

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



Electrification-proof nonflammable sheet
Noncombustible flameproof certified
Antistatic ★★★★★
UVprotection ★★★★★
Noncombustible certified : F-25041
Flameproof certified : F-24171
Thickness : 0.53mm

Certification of incombustible and flameproof, usable at explosion proof areas.



Rat-protection bottom sheet blended with high concentration capsaicin
Flameproof certified : F-25041
Thickness : 0.53mm

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

Varieties of sheet colour available

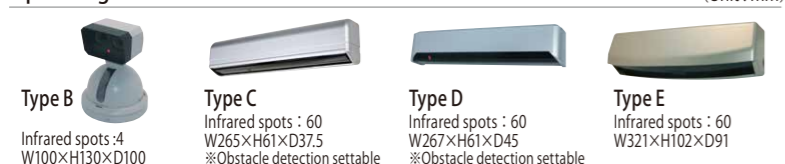


Clear **Orange/Semitransparent orange** **Opacity blue** **Opacity orange** **Opacity black** **Opacity Silver** **Mesh**
※ This photo is only image, colour may different from actual product. Product appearance and specification can change without notice.
※ Flame proof product number "N-0793"
※ SS clear, 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 E & L. Co.,Ltd

Option equipment can be chosen according to the application and size

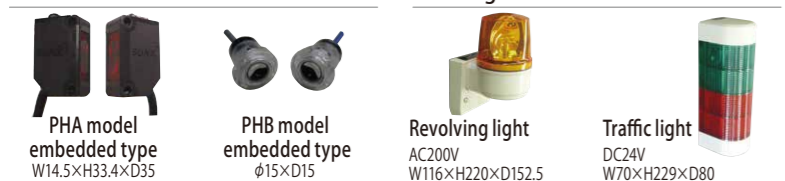
Please specify the option equipment which suit to your usage of the sheetshutter when order.

Operating sensor



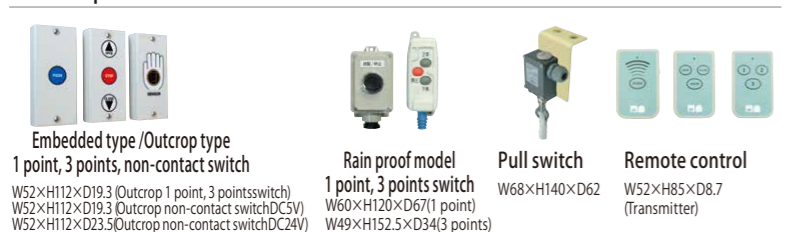
(Unit : mm)

Obstacle detect sensor

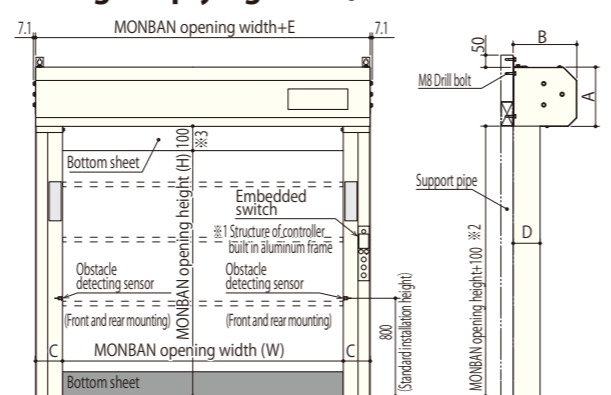


Warning indication

Switch up down



Fitting simply figure



	R054	R109	R209	R309	R409	RF50	R30W	R40W	R30T	R40T
A	240	280	320	380	405	500	380	405	380	405
B	260	300	330	380	420	485	380	420	380	420
C	110	110	110	125	125	138	125	125	125	125
D	110	110	110	125	125	135	125	125	125	125
E	220	220	220	250	250	286	250	250	250	250

(Unit : mm)
[Caution]
Please always attach one set of front and rear obstacle detection sensor.
Additionally, please check the optimal position, objects and number of passing in advance.
※1 In case of using separated controller, cannot use panel built-in frame.
※2 RF50 model is opening height +200, and also depends also the foundation construction method.
Please contact us for more information.
※3 RF50 model the bottom sheet height is 200.

Happygate MONBAN with varies specifications for customers in every environment.

Cold storage and refrigerator model -25℃ ~ 5℃ warehouse entrance or use as partition | **Explosion proof model** The air drive + air control system installed in high explosion proof areas | **High temperature heat-resistant model** In the entrance of a high-temperature environment such as 100℃ of drying booth

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TEL 82-31-498-6655 FAX 82-31-498-6019

<https://www.komatsuelec.co.jp/monban/>

Received award
1991 : Medium and small business research prize
1991 : The highest prize of new business Grand-Prix
1993 : Regional Companies contributor Award
1995 : Science and technology agency
"The selection as remarkable invention"
2007 : Minister of land, Infrastructure and Transport prize
2012 : The Japanese Grand-prix prize for an excellent work
2012 : Japanese Grand-prix Prize for an excellent work. Creation of new industries

※1. Please install at place that the product will not directly to the rain and water. ※2. Please refrain from using at place such as coastal areas, various types of metal powder, chemicals for use in corrosive atmosphere or places of environmental conditions such as condensation and freezing and poisonous gas. ※3. The production of the body (W / H) will be 100mm unit. ※4. Please contact us for size out of standard production range. Please note that It may not be able to manufacture. ※5. Appearance and specification of product may be change for improvement the quality without prior notice. ※6. Please use read the instruction manual correctly and carefully for using. ※7. Please use read the instruction manual correctly and carefully for using.

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Create space value

Save power, Save energy, Quality control

happy gate 門番 monban

Incredible effects to the quality and air-conditioning.

Dust proof, Insect proof

Wind proof, cold proof

Hi speed opening and closing

Hi grade air tight

Wind resistant, pressure resistant



Maximum **10m** width
Install large opening width

Shorten the opening time, improves working efficiency, and contribute to energy saving and quality surplus by the change of indoor environment due to the outside air, insects and dust.

KOMATSU ELECTRIC INDUSTRY CO.,LTD.

happygatemonban
Product introduction
video

Patent pending



R Series outdoor · pipe type
R054 / 109 / 209 / 309 / 409 / RF50 / R30W / 40W / R30T / 40T

Width **800~10000**
 Height **1000~6000** Unit : mm

Wind proof, Cold proof
 Insect proof, dust proof
 Working efficiency
※R054 / 109 indoor specification



Structure of pipe-type model with strong wind and pressure resistant is suitable for insect proof, dust proof, wind proof and cold proof.

Pipe-type with high grade airtight and high speed up fit to all small to large opening size



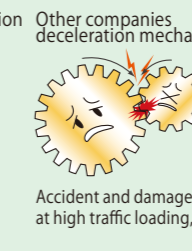
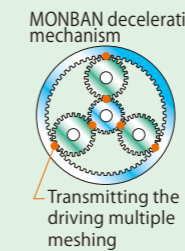
Pipe type with wind and air pressure strong resistant
Wind pressure resistant specification product

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.



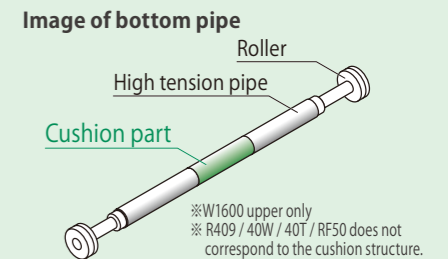
New engine model
Opening high speed 2.0m/s

High-speed opening and closing 2.0m / sec by the new engine. Shorten the opening time at the entrance and contributing to improve working environment enhances the air conditioning effectiveness, insect proof and dustproof effect.

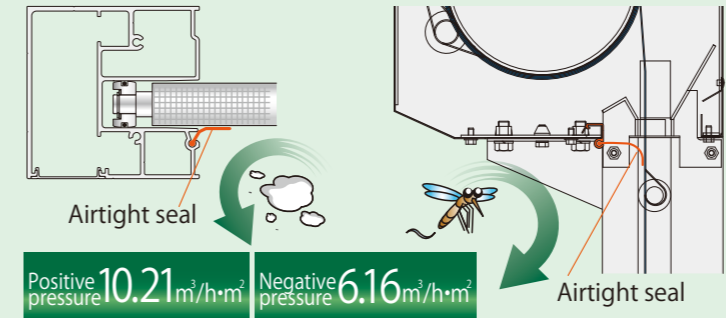


Bottom pipe cushion with strong structure

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



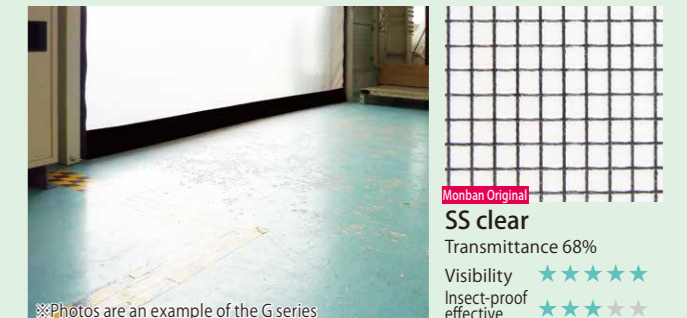
High effectiveness of insectproof and dustproof



Further improved air-tightness in combination with an air tight seal. Possible to prevent the fully closed of insects and dust intrusion, and achieve a higher quality control and clean working environment.

※circulating air at 10Pa using JISS fore testing inside co.
 ※our product attach airtight seals;shown by numerically
 ※Wind pressure performance can be different depending on the size

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.

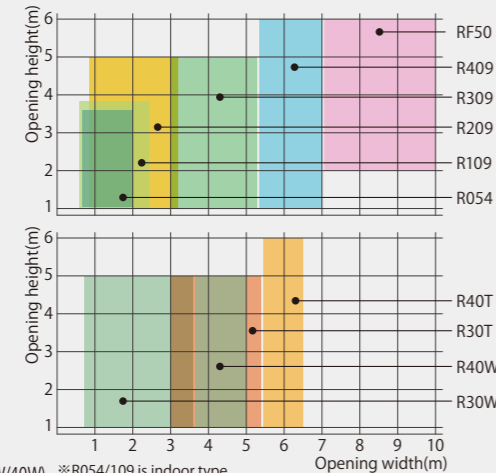
Separate controller

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

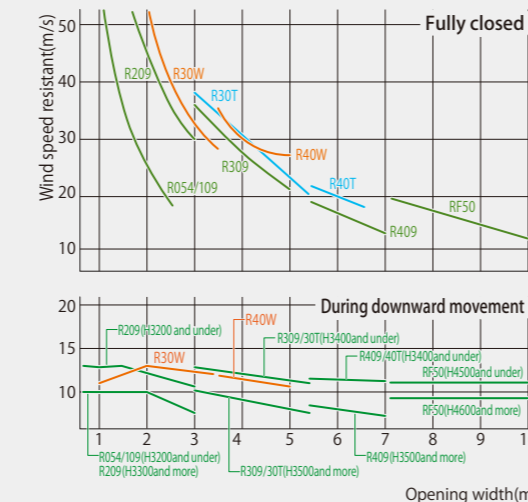


GA controller W170×H630×D80 (For R054)
 KVA controller W242×H400×D105(For R109/209)
 W242×H450×D105(For R309/409/R30W/40W)
 W242×H850×D105(For RF50)

Installable dimension



Wind resistant performance



Specification

Type	Indoor type		Indoor/outdoor combined type				High pressure high wind resistant type		Three-phase 200V power supply type			
	Model	R054	R109	R209	R309	R409	RF50	R30W	R40W	R30T	R40T	
Manufacturable Dimension	Opening width (mm)	600 ~ 2000	600 ~ 2500	800 ~ 3200	3000 ~ 5300	5400 ~ 7000	7100 ~ 10000	800 ~ 3500	3600 ~ 5000	3000 ~ 5300	5400 ~ 6500	
	Opening height (mm)	1000 ~ 3600	1000 ~ 3800	1000 ~ 5000		1000 ~ 6000	2000 ~ 6000	1000 ~ 5000	1000 ~ 5000	1000 ~ 5000	1000 ~ 6000	
Opening & closing m/c	Input power source	Single-phase AC200V ~ 230V±10%						3 phase AC200V±10%				
	Output	0.4kW	0.95kW									
	Opening Speed (Setting when shipment) (m/s)	2.0 ~ 1.2 [1.2]	2.0 ~ 1.6 [1.6]	1.5 ~ 0.7 [1.0]	1.0 ~ 0.7 [1.0]	0.7 ~ 0.55 [0.55]	0.55 [0.55]	0.75 ~ 0.55 [0.7]	0.45 ~ 0.3 [0.4]	1.0 ~ 0.7 [1.0]	0.51 ~ 0.4 [0.48]	
	Closing Speed (Setting when shipment) (m/s)	1.5 ~ 0.5 [0.7]	1.5 ~ 0.5 [0.7]	1.5 ~ 0.5 [0.7]	1.0 ~ 0.5 [0.7]	0.7 ~ 0.55 [0.55]	0.55 [0.55]	0.6 ~ 0.4 [0.55]	0.45 ~ 0.3 [0.4]	1.0 ~ 0.5 [0.7]	0.51 ~ 0.4 [0.48]	
	Reduction Speed Ratio	1/14	1/10	1/23	1/50	1/74	1/74 × 2	1/74	1/74	1/25	1/43	
Sheet core material	Reduction method	Planetary helical gear reduction method									Cyclo Engine Drives	
	Middle pipe	φ15.9×t1.2		φ27.2×t1.2	φ38.1×t1.2		φ48.6×t1.8	φ27.2×t1.2	φ38.1×t1.2	φ38.1×t1.2		
Control roller	Bottom pipe	φ27.2×t1.2+VE28(VPVU pipe)		φ38.1×t1.2+VP40(VPVU pipe)		φ38.1×t1.2(With sponge)	φ48.6×t1.8(With sponge)	φ38.1×t1.2+VP40(VPVU pipe)	φ38.1×t1.2(With sponge)	φ38.1×t1.2+VP40(VPVU pipe)	φ38.1×t1.2(With sponge)	
	Built-in side frame	●GA	●GA	●GA	●GA	—	—	—	—	—	—	
Side frame	Separate controller	●GA	●KVA	●KVA	●KVA	●KVA/B	●For RF50	●KVA	●KVA	●SVA	●SVA	
	Aluminum frame	●	●	●	●	●	—	●	●	—	—	

※ Using frequency: 100 times / hr (R054 / 109/209), 60 times / hr (R309 / 409 / RF50 / R30W / 40W / R30T / 40T) ※ 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 flame.