



Medical Life Science Products General Catalog

Medical cool box / Medical freezer & Refrigerator / Medical freezer
Low temperature incubator / Ultra-low temperature freezer /
Cold bench / Clean bench
Prefabricated refrigerator & Freezer & Temperature-controlled storage

Energy-saving, high-accuracy control models

MediFridge Series

For Multi Solution



Flagship models of freezers and refrigerators that change the common sense of freezing and refrigerating storage of specimens and chemicals.

MediFridge Series

Why are only sliding showcases used for refrigerating specimens and chemicals?

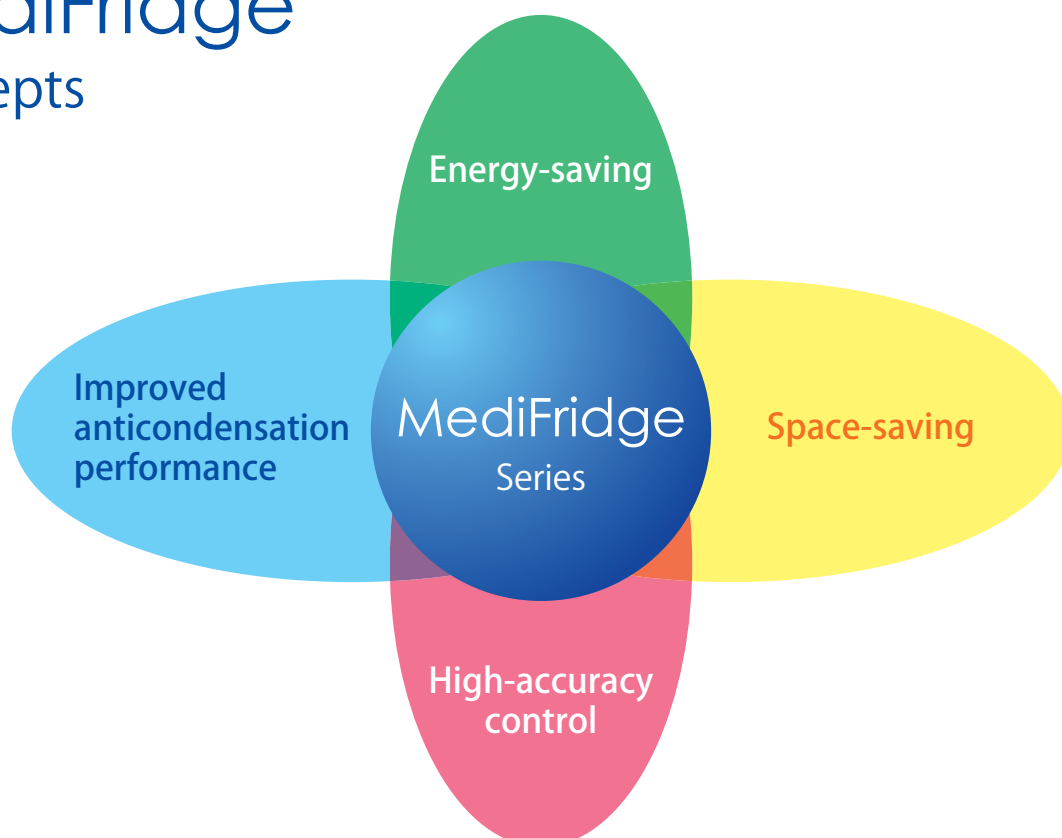
The MediFridge medical cool box was born from such a question, to defy the common wisdom. Since sliding showcases require doors to slide sideways, the moving parts need space, and that space causes many problems such as condensation and cold air leaks.

We want to supply products that can solve such problems, which we espouse in our sub-theme, "For Multi Solutions." We put our desire "to provide new values" into the MediFridge series.

What began with a medical cool box was built upon with freezer-refrigerators, compact medical cool boxes, and medical freezers.

Designed and manufactured under energy- and space-saving, high-accuracy control, improved anticondensation performance concepts series, we provide user-friendliness and new values to you in the MediFridge.

MediFridge Concepts



MediFridge Series



Medical cool box

Achieves high-accuracy temperature control and energy-saving performance by reducing the amount of power consumption about 50% compared with previous models.

▶▶▶ See page 5.



Compact medical cool box

Temperature indication, alarm functions, and a locking device come as standard equipment.

▶▶▶ See page 5.



Medical freezer & refrigerator

Increased storage capacity and a rack-equipped freezer make it easier to use.

▶▶▶ See page 6.



NEW

Medical freezer

The use of the same-size baskets enhances storage capacity and handling.

▶▶▶ See page 6.

MediFridge Series

P3~6

Features of the "MediFridge" series
Medical cool box
Compact medical cool box
Medical freezer & refrigerator
Medical freezer **NEW**

Medical cool box series

P7~8

Slim-type medical cool box
Medical cool box
Color variations
Medical cold storage showcase

Low temperature incubator series

P9

Low temperature incubator
Low temperature incubator BC

Freezer series

P10

Medical freezer personal
Ultra-low temperature freezer (Dual / single compressor)
Ultra-low temperature freezer (Single compressor)

Other cool boxes and associated equipment

P11

Cold bench
Tabletop type clean bench

Large-size assembly series

P12~13

Prefabricated type refrigerator
Prefabricated type freezer
Prefabricated type temperature-controlled storage

Commercial equipment and other associated equipment

P14~18

Commercial refrigerator & freezer
Reach-in showcase with built-in freezer
Reach-in showcase cubic type **NEW**
Icemaker (Cube ice)
Chip ice maker **NEW**
Inverter-controlled multistage open showcase
Quick freezer for refrigerants
Blast chiller / Shock freezer
FE clean water, temperature-controlled serving wagon, Cold storage locker
Freezing stocker, Compact refrigerator, Temperature measurement-related equipment

Products materials

P19~22

Product specifications
Options

MediFridge

Medical cool box series

Low temperature incubator series

Freezer series

Other cool boxes and associated equipment

Large-size assembly series

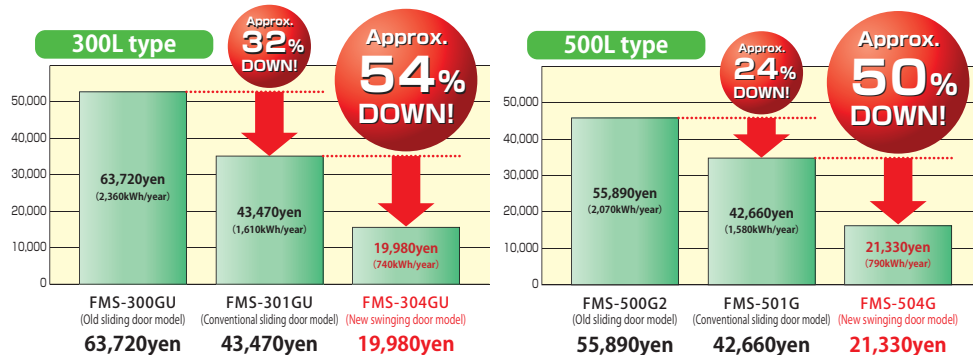
Commercial equipment and other associated equipment

Products materials

Features of the "MediFridge" series

Energy-saving performance

Comparison of annual running costs



* The amount of annual power consumption is indicated for an ambient temperature of 30°C, humidity of 60%, power supply frequency of 60Hz, supply voltage of 100V, set temperature of 5°C, no load, and no door opening/closing.

* The amount of power consumed during product use will vary depending on installation, internal temperature setting, ambient temperature and humidity, frequency of door opening/closing, the volume and temperature of newly stored materials, and usage.

* Electricity costs are calculated based on an reference unit rate of 27 yen/kWh (consumption tax included).

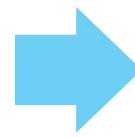
[Source]

"New reference unit electricity rate," Home Electric Appliances Fair Trade Conference

Review of the structure and optimization of the compressor

Changing the conventional sliding doors to swinging doors enhanced sealing around the doors, which greatly reduced heat leakage and intrusion. Moreover, changing the resin-frame glass doors to urethane foam-insulated glass doors reduced heat transfer coefficient.

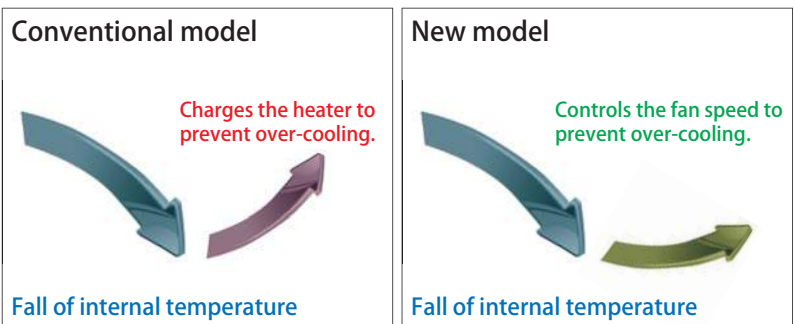
Because thermal influences were minimized, the refrigerating cycle was optimized and downsized. Moreover, large energy-savings were achieved while maintaining the cooling capacity and temperature accuracy of conventional models.



Optimization of temperature control

As with temperature-controlled chambers, over-cooling due to excessive freezer capacity is conventionally prevented by charging the heater. Because electricity was unnecessarily consumed in heater use, the new model successfully prevents over-cooling by controlling the fan speed instead of the heater.

By optimizing temperature control in this way, wasted electricity was reduced and large energy-savings were achieved.

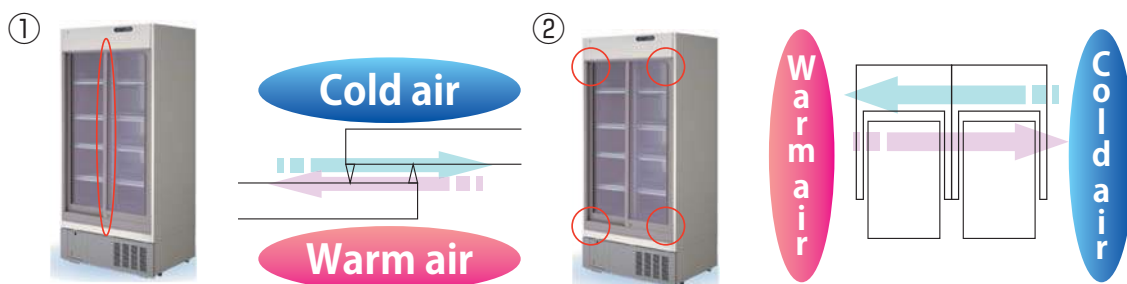


Automatic closing doors with an eccentric shaft

Owing to eccentric rotating shafts, the swinging doors close under their own weight if opened less than 90. This mechanism automatically closes the doors if left open or if they bounce back open after being strongly shut. Since a door sensor comes as standard equipment, the medical cool box provides enhanced security and a safer storage environment.

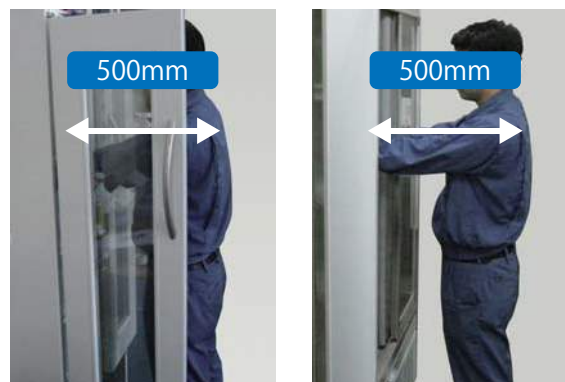
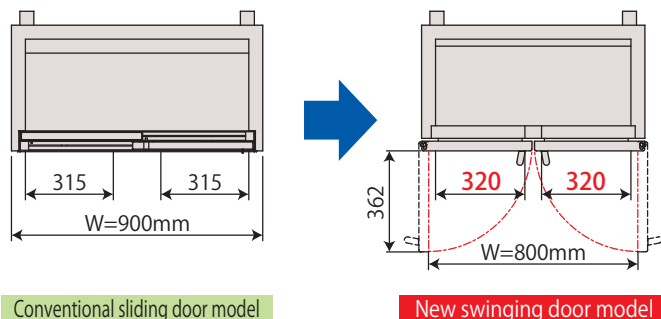
Improved anticondensation performance

Conventional sliding doors structurally have numerous spaces where doors overlap ① and moving parts operate ②. Therefore, the glass surface is cooled by leaked cold air and condensation easily forms. Moreover, the resin frames readily allow heat transfer and condensation when air cools. In the new models, the doors are sealed against the frame on all sides by packing. This eliminates the structural spaces seen in sliding doors and prevents cold air from leaking. Moreover, the use of urethane foam-insulated glass doors reduces heat leakage from the doors themselves. These structural changes have improved anticondensation performance.



Simultaneous pursuit of space-savings and usability

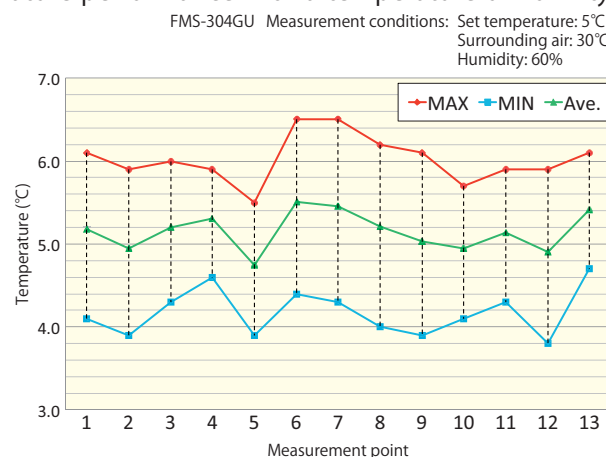
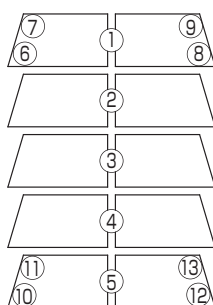
Since the product is 800mm wide, which is 100mm slimmer than conventional products, space-saving installation is now possible. Sliding doors are disadvantageous because only one door can be opened at a time and the front opening is small. However, the use of swinging doors increases the front opening compared with conventional models and enhances product usability. A minimum clearance of 500 mm was required in front of conventional products to place and retrieve materials. However, since the swinging doors extend outwards 362 mm at most when opened, the minimum clearance can be secured in the new models as well without requiring extra space for installation.



High accuracy temperature control (Temperature uniformity and constancy)

Temperature is measured in 13 points in total: 5 points at the center and 4 points at each the top and bottom. Therefore, the medical cool box demonstrates superior temperature performance with a temperature uniformity within 1°C and a temperature constancy within $\pm 2^\circ\text{C}$.

Moreover, because temperature control respond to changes in the set and ambient temperatures, the cool box provides a reliable cold storage environment that is less affected by disturbance.

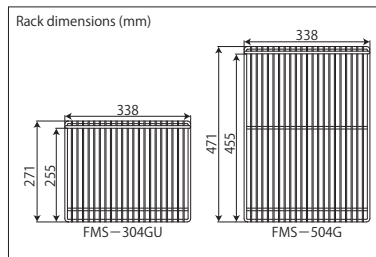


Medical cool box MediFridge

2°C to 14°C
(Unit of 1°C)



FMS-504G



Features

- Running costs are reduced approx. 50% compared with conventional models.
- Anticondensation performance is markedly improved compared with conventional models.
- Automatic closing doors with eccentric shafts
- Reliable mechanism with door sensor as standard equipment

* Conventional models: FMS-301GU, FMS-501G (Sliding door models)

	Model No.	Effective storage capacity	External dimensions *The figures in parentheses are the maximum dimension including protruding parts.	Number of racks	Weight
Medical cool box MediFridge	FMS-304GU	300L	W800×D450 (552) ×H1,825mm	10	100kg
	FMS-504G	500L	W800×D650 (752) ×H1,825mm	10	112kg

Compact medical cool box MediFridge

2°C to 14°C
(Unit of 1°C)



FMS-054GM

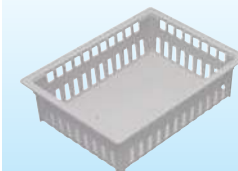


Features

- Compact size that allows installation above and below counters
- Although compact, temperature indication, alarm functions, and a locking device come as standard equipment.
- The basket that comes standard is structured to ensure easy retrieval of materials stored at the rear.
- Reliable mechanism with door sensor as standard equipment

Basket as standard equipment

Internal dimensions
W344×D244×H99mm



	Model No.	Effective storage capacity	External dimensions *The figures in parentheses are the maximum dimension including protruding parts.	Basket	Weight
Compact medical cool box	FMS-054GM	42L	W500×D452 (482) ×H690mm	2 units	27kg

For controlling
poisons and
powerful drugs

Example of lockable
storage set
(Option)



For storing ampoules

Example of subdivided
storage cases
(Option)



Band seal for identification:
1 set (2 sheets) (Option)

Medical freezer & refrigerator MediFridge

Refrigerator
2°C to 14°C
(Unit of 1°C)

Freezer
-30°C to -20°C
(Unit of 1°C)



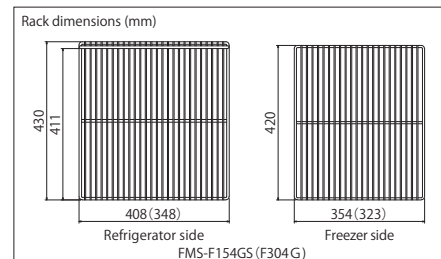
FMS-F154GS



FMS-F304G



FMS-F304G when the doors are opened



Features

- Medical freezer & refrigerator with a small installation footprint but large capacity
- Freezer with height-adjustable racks to improve usability
- Automatic closing doors with eccentric shafts
- Reliable mechanism with door sensor as standard equipment

	Model No.	Effective storage capacity	External dimensions *The figures in parentheses are the maximum dimension including protruding parts.	Number of racks	Weight
Medical freezer & refrigerator	FMS-F154GS	Refrigerator 174L Freezer 62L	W 500 × D 600 (702) × H 1,825mm	Refrigerator 3 Freezer 1	95kg
	FMS-F304G	Refrigerator 315L Freezer 113L	W 800 × D 600 (702) × H 1,825mm	Refrigerator 6 Freezer 2	132kg

Medical freezer MediFridge **NEW**

-30°C to -20°C
(Unit of 1°C)

Dual independently control chambers



FMF-301F



FMF-501F



FMF-501FD

Features

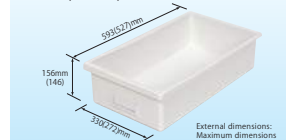
- Use of the same sized baskets ensures easy storage and handling.
- Wall cooling keeps internal temperature stable.
- Four-wheel casters allow easy movement.
- Reliable mechanism with door sensor as standard equipment.

Baskets come as standard equipment

One basket can store up to 12 sets of 10 microplates each.
(A total of 1,680 microplates can be stored in 14 baskets.)

* FMF-301F comes with 7 baskets.
FMF-501F comes with 14 baskets.
FMF-501FD comes with 12 baskets.

External (Internal) dimensions of inner basket



	Model No.	Effective storage capacity	External dimensions *The figures in parentheses are the maximum dimension including protruding parts.	Basket	Weight
Medical freezer	FMF-301F	300L	W 500 × D 729 (781) × H 1,795mm	7 units	95kg
	FMF-501F	548L	W 820 × D 729 (781) × H 1,795mm	14 units	125kg
	FMF-501FD	516L	W 820 × D 729 (796) × H 1,795mm	12 units	144kg

Specifications
P19-20 Options
P21-22

* Specifications for most models can be download from our website.
URL <http://www.fukusima.co.jp/fms>

Slim-type medical cool box

2°C to 14°C
(Unit of 1°C)

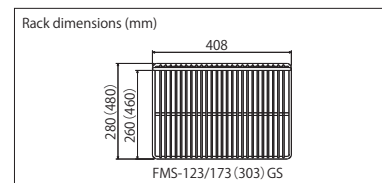


FMS-123GS

FMS-173GS

FMS-303GS

* Photo shows a cool box fitted with a temperature recorder (option).



Features

- A width of only 50cm allows space-saving installation.
- Automatic closing door with eccentric shaft.
- Reliable mechanism with door sensor as standard equipment.

	Model No.	Effective storage capacity	External dimensions *The figures in parentheses are the maximum dimension including protruding parts.	Number of racks	Weight
Slim-type medical cool box	FMS-123GS	115L	W500×D450 (552) ×H1,360mm	3枚	72kg
	FMS-173GS	177L	W500×D450 (552) ×H1,827mm	5枚	90kg
	FMS-303GS	297L	W500×D650 (752) ×H1,827mm	5枚	105kg

Medical cool box

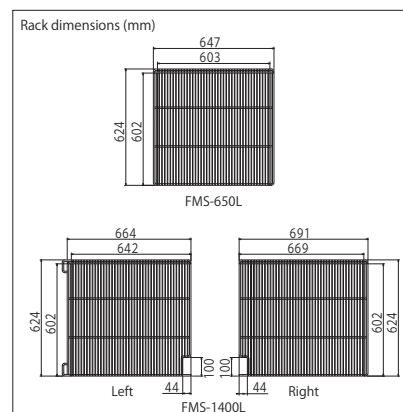
2°C to 23°C
(Unit of 1°C)



FMS-650L

FMS-1400L

* Photo shows a cool box fitted with a temperature recorder (option).



Features

- Medical cool box of large-capacity storage type. The use of side ducts reduces temperature fluctuations.
- A standard equipped service outlet and measurement hole can be used for various applications.

	Model No.	Effective storage capacity	External dimensions *The figures in parentheses are the maximum dimension including protruding parts.	Number of racks	Weight
Medical cool box	FMS-650L	635L	W770×D795 (897) ×H1,905mm	4	126kg
	FMS-1400L	1355L	W1,500×D795 (897) ×H1,905mm	8	206kg

* This medical cool box is available with no glass window as well.

Selectable color variations



A color of your choice can be selected from 6 variations.

In addition to the standard color (ivory), 6 colors (brown, pink, orange, yellow, green, and sky blue) are available. Select the color of your choice.

Creation of pleasant yet practical work environments.

The color of mechanical parts compartment panel and top decorative panel can be matched to workplace interiors.

Zoning

Zoning by color makes each section easier to recognize. Color-coding according to medical treatment enables users to intuitively identify stored materials.

Management by reagent, chemical and person in charge

Using different colors according to stored materials and person in charge enables users to visually identify targets and prevent mistakes.

* For products with color variations, see the product specifications (pages 19 and 20).



* The colors above are shown as reference. The reference colors may slightly differ from actual product colors.

Medical cold storage showcase

2°C to 14°C
(Unit of 1°C)



FMS-702G



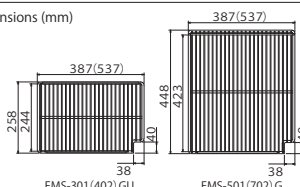
Sliding rack specification

● The sliding rack makes it easier to place and retrieve drugs and samples.



* Sliding racks are on the right-side only.

Rack dimensions (mm)



	Model No.	Effective storage capacity	External dimensions *The figures in parentheses are the maximum dimension including protruding parts.	Number of racks	Weight
Medical cold storage showcase	FMS-301GU	309L	W900×D450(500)×H1,917mm	10	145kg
	FMS-402GU	436L	W1,200×D450(500)×H1,917mm	10	170kg
	FMS-501G	552L	W900×D650(700)×H1,917mm	10	160kg
	FMS-702G	770L	W1,200×D650(700)×H1,917mm	10	195kg
Medical cold storage showcase Sliding rack specification	FMS-301GU-SR	275L	W900×D450(500)×H1,917mm	5	149kg
	FMS-402GU-SR	402L	W1,200×D450(500)×H1,917mm	5	175kg
	FMS-501G-SR	497L	W900×D650(700)×H1,917mm	5	166kg
	FMS-702G-SR	715L	W1,200×D650(700)×H1,917mm	5	202kg

* In some environments, condensation may form due to the structure of stored products. It is recommend to use the MediFridge series of improved anticondensation performance.

Low temperature incubator

-15°C to 50°C
Unit of 0.5°C
(35°C to 40°C: Unit of 0.1°C)



FMU-054I

* No locking device or lighting.



FMU-133I



FMU-263I

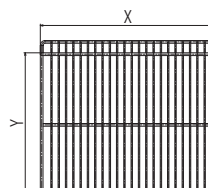
Option



Special base for FMU-054I
External dimensions:
W600×D600×H750mm

Special base for FMU-133I
External dimensions:
W820×D586×H1,125mm

Special base for FMU-204I
External dimensions:
W820×D816×H1,125mm



Rack dimensions (mm)

	X	Y
FMU-054I	385	302
FMU-133/263I	605	313
FMU-204/404I	605	518

Features

- The temperature can be set in a wide range from -15°C to 50°C.
- Air discharge from the bottom and suction from the top keep samples from drying out.
- Programmable operation (2 different programs can be created with up to 8 operation steps each) allows use for various purposes.

	Model No.	Effective storage capacity	External dimensions *The figures in parentheses are the maximum dimension including protruding parts.	Number of racks	Weight
Low temperature incubator	FMU-054I	50L	W 483×D487 (554) ×H685mm	2	40kg
	FMU-133I	130L	W 700×D502 (569) ×H1,063mm	3	70kg
	FMU-204I	207L	W 700×D732 (799) ×H1,063mm	3	100kg
	FMU-263I	259L	W 700×D502 (569) ×H1,633mm	5	95kg
	FMU-404I	408L	W 700×D732 (799) ×H1,633mm	5	120kg

Low temperature incubator BC (High-accuracy model)

-15°C to 50°C
Unit of 0.5°C
(35°C to 40°C: Unit of 0.1°C)

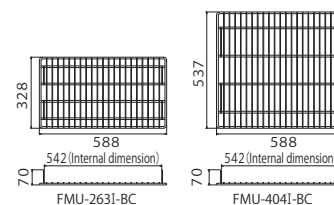


FMU-404I-BC



Internal side ducts

Rack dimensions (mm)



Features

- This high-accuracy model uses side ducts to further reduce temperature fluctuations.
- Ideal for storing materials and infusion solutions that require careful temperature control

	Model No.	Effective storage capacity	External dimensions *The figures in parentheses are the maximum dimension including protruding parts.	棚板枚数	Weight
Low temperature incubator BC	FMU-263I-BC	243L	W 700×D502 (569) ×H1,633mm	8枚、スノコ板1枚	95kg
	FMU-404I-BC	383L	W 700×D732 (799) ×H1,633mm	8枚、スノコ板1枚	120kg

Medical freezer personal

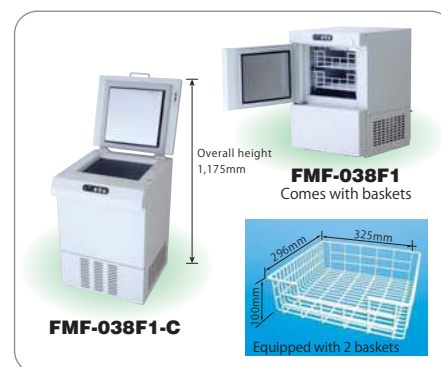
-40°C to -15°C
(Unit of 1°C)



FMF-038F1-C



FMF-038F1



Features

- This "space-saving" personal type of medical freezer can be installed both above and underneath lab benches.
- The temperature can be set in a wide range from -40°C to -15°C (in units of 5°C).
- When equipped with a temperature recorder (option), the freezer is ideal for storing a small amount of frozen plasma.

	Model No.	Effective storage capacity	External dimensions	Basket	Weight
Medical freezer personal	FMF-038F1-C	37L	W480×D520×H770mm	None	45kg
	FMF-038F1	38L	W483×D513×H717mm	2 units	45kg

Ultra-low temperature freezer (Dual / single compressor)

single
-86°C

Dual
-95°C
-90°C for 700DWI

Features

- This highly safe cooling system uses two single compressor systems.
- The freezer is equipped with a vacuum release mechanism that prevents internal temperature from rising.
- High operability is achieved with the full touch screen controller.



HKF-500DWI



HKF-350CDWI

		Model No.	Effective storage capacity	External dimensions	Weight
Ultra-low temperature freezer upright type	single	HKF-300SWI	308L	W710×D750×H1,980mm	180kg
		HKF-400SWI	393L	W840×D750×H1,980mm	210kg
		HKF-500SWI	503L	W840×D890×H1,980mm	240kg
	Dual	HKF-300DWI	308L	W710×D750×H1,980mm	220kg
		HKF-400DWI	393L	W840×D750×H1,980mm	260kg
		HKF-500DWI	503L	W840×D890×H1,980mm	300kg
		HKF-700DWI	714L	W1,120×D890×H1,980mm	320kg
Ultra-low temperature freezer chest type	single	HKF-350CWI	350L	W1,685×D745×H1,150mm	200kg
		HKF-500CWI	500L	W2,140×D745×H1,150mm	230kg
		HKF-600CWI	600L	W2,440×D745×H1,150mm	260kg
	Dual	HKF-350CDWI	350L	W1,685×D745×H1,150mm	260kg
		HKF-500CDWI	500L	W2,140×D745×H1,150mm	300kg
		HKF-600CDWI	600L	W2,440×D745×H1,150mm	320kg

* Single models are available in single-phase 100V or single-phase 200V specifications.

* Dual models are available in single-phase 200V or three-phase 200V specifications.

Ultra-low temperature freezer (Single compressor)

-80°C
-85°C for LAB8

Features

- The single compressor enables good cost performance.
- The freezer can be used on single-phase 100V power supplies.



LAB8



LAB41

	Model No.	Effective storage capacity	External dimensions	Weight
Ultra-low temperature freezer	LAB8	90L	W600×D730×H865mm	48kg
	LAB11	130L	W725×D730×H865mm	53kg
	LAB21	230L	W1,055×D730×H865mm	66kg
	LAB31	300L	W1,305×D730×H865mm	78kg
	LAB41	365L	W1,505×D730×H865mm	83kg

* A-60°C specification freezer is also available.

Cold bench

Freezing and refrigeration switching type
Freezing: -20°C, Refrigeration: 5



FMC-61PNBSAXL

Features

- Ideal for operations that require low temperatures
- The inverter enables energy-savings, quick cooling, and stable control.
- The flat handrail enhances workability.
- The eco-cover that prevents cold air from leaking while the product is on standby comes as standard equipment.
- The temperature can be switched between freezing and refrigeration by one-touch operation.

● Equipped with patrol light

The patrol light indicates whether the product is freezing or refrigerating.
The installation location should be:
L end: Left when facing the front
R end: Right when facing the front



● Wastewater evaporator

High-performance type that uses an evaporator



● Easy-to-see temperature indicator



● Eco-cover

User-friendly storage and handling
Energy-saving on standby



	Model No.	Work area	External dimensions *The figures in parentheses are the maximum dimension including protruding parts.	Weight
Cold bench	FMC-41PNBSAXL(R)	W986×D766mm	W1,200×D900×H800mm	140kg
	FMC-61PNBSAXL(R)	W1,586×D766mm	W1,800×D900×H800mm	165kg

Tabletop type clean bench (Vertical airflow type) <Cleanliness: ISO-5 (Class 100)>



FMM-240TCB

Features

- A highly-durable glass shutter is used.
- The use of a DC turbo fan achieves energy-savings and low noise.
<FMM-240TCB: 54dB (Test based on JIS)>
- A slanted shutter glass is used in consideration of working posture.
- The switch and outlet are located on the front to enhance operability.
- An inverter-driver stabilizer for a fluorescent light is used to save energy and prevent flickering.

* This product cannot be used as a safety cabinet.

A gas burner with foot switch comes as standard equipment.



* When placing an order for this product, please inform Fukushima whether city gas or propane gas is used.

Gas hose connecting port

	Model No.	Work area	External dimensions	Weight
Tabletop type clean bench	FMM-240TCB	W995×D510×H555mm	W1,000×D575×H825mm	57kg
	FMM-320TCB	W1,295×D510×H555mm	W1,300×D575×H825mm	71kg

Prefabricated refrigerator & freezer & temperature-controlled storage (Incubator)



Built-in freezer type

Separate freezer type

Features

- Safe and secure panel assembly by group company FSP Corporation
- Can be designed in sizes desired by customers.
- Can be used for a variety of applications.

Structure of prefabricated storage chamber

- Freezer: -20°C or lower
- Refrigerator: -3°C or higher
- Temperature-controlled storage: 35°C or higher

Prefabricated Controller

Alarm 4 (Option) Centralized monitoring of temperature abnormalities, fire alarm, and locked-in alarm

Wall panel

Top panel

Manual single sliding door
(An automatic door type is also available.)

Corner panel

Thermometer (A digital thermometer is available as an option.)

Door switch (Option)

This energy-saving switch interlocks fan operation with door opening/closing.

Internal light (Inside)

An incandescent LED and straight tube LED are available. Both are of low-temperature and drip-proof type.

Relief valve

This pressure control valve regulates expansion of internal air (only for freezer).

Push bar and safety escape handle

To ensure safety, persons who are locked inside can easily open the doors from the inside.

Standard handle

Energy-saving curtain (Option)

Minimizes cold air leaks from the inside when placing or retrieving stored items.

Cooling unit
(For built-in freezer type)

Single swinging door

Available with either a right-hand-opening or left-hand-opening door.

The panel surface material is prepainted steel sheet (soft ivory).

Drainboard

Protects floor panel and improves cold air circulation.
(Only for chambers equipped with floor panels)

Floor panel

Resin base

Internal light switch

Basic size: H2,200mm

Area	External dimensions: Width (W) x Depth (D)
1.62m ²	W900 × D1,800mm
2.43m ²	W900 × D2,700mm
3.24m ²	W1,800 × D1,800mm
4.86m ²	W1,800 × D2,700mm
6.48m ²	W3,600 × D1,800mm
7.29m ²	W2,700 × D2,700mm
8.1m ²	W4,500 × D1,800mm
9.72m ²	W3,600 × D2,700mm

* Please contact Fukushima with your dimensional requirements.

* This product is for indoor use only. Electric work and drainage facilities are required.

* This is a custom-made product. Please inform Fukushima of required specifications.

Examples of introducing prefabricated refrigerators & freezers

Hospitals

Refrigerator

Storage of drugs and chemicals
Storage of foods in the kitchen



Pharmaceutical companies

Freezer

Storage of new medicines

Refrigerator

Refrigerated storage of drugs



Food processing plants

Freezer

Freezing storage of food

Refrigerator

Storage of food

Temperature-controlled storage

Fermentation of food

◆Total planning is also possible.



Universities

Low-temperature laboratory

Research conducted at low temperatureRefrigerator

Refrigerator


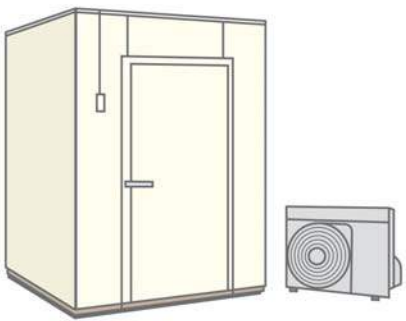
Storage of drugs and samples

Temperature-controlled storage

Breeding and culturing



Differences between built-in freezer types and separate freezer types

		
Advantages	<ul style="list-style-type: none"> ●Construction costs are low because no piping work is required. 	<ul style="list-style-type: none"> ●Specifications can be optimized according to application and capacity. ●The outdoor unit is installed outdoors, so no heat is accumulated.
Disadvantages	<ul style="list-style-type: none"> ●Heat is exhausted indoors and can accumulate until triggering a high-voltage cutout. ●The capacity of built-in freezer type is limited, so there are not many options. 	<ul style="list-style-type: none"> ●The construction costs are required for piping work.

Upright refrigerator & freezer

Refrigerator
-5°C to 10°C
(Unit of 1°C)

Freezer
-25°C to -10°C
(Unit of 1°C)



URD-060RMA



URD-120RMA



URD-150RMA

Features

- Reconfigured door frame throat for better energy-saving performance.
- Standard equipped with ground-fault circuit interrupter.
- Mechanical compartment panel holding construction for easier condenser filter clean-up and other routine servicing jobs.

	Model No.	Effective storage capacity	External dimensions	Weight
Upright refrigerator	URD-060RMA	504L	W610×D800×H1,950mm	85kg
	URD-120RMA	1090L	W1,200×D800×H1,950mm	125kg
	URD-150RMA	1381L	W1,490×D800×H1,950mm	145kg
Upright freezer	URD-062FMA	504L	W610×D800×H1,950mm	85kg
	URD-124FMA	1083L	W1,200×D800×H1,950mm	140kg
	URD-154FMA	1374L	W1,490×D800×H1,950mm	160kg

Table type refrigerator & freezer

Refrigerator
-5°C to 10°C
(Unit of 1°C)

Freezer
-25°C to -10°C
(Unit of 1°C)



YRC-120RMA



YRC-150RMA

Features

- Reconfigured door frame throat for better energy-saving performance.
- Standard equipped with ground-fault circuit interrupter.
- Modular construction for easier servicing.

	Model No.	Effective storage capacity	External dimensions	Weight
Table type refrigerator	YRC-120RMA	237L	W1,200×D600×H800mm	75kg
	YRC-150RMA	325L	W1,500×D600×H800mm	85kg
Table type freezer	YRC-122FMA	237L	W1,200×D600×H800mm	80kg
	YRC-152FMA	325L	W1,500×D600×H800mm	90kg

Reach-in showcase with built-in freezer

0°C to 10°C
(Unit of 1°C)

Features

- Microcomputer controller control is used.
- The use of double-paned glass improves display and energy-savings.
- Defrosting is regularly performed.



MMC-20GWSR2

NEW



MSS-120GHWSR

	Model No.	Effective storage capacity	External dimensions	Weight
Showcase with built-in freezer	MMC-20GWSR2	270L	W600×D545×H1,810mm	100kg
	MSS-120GHWSR	810L	W1,200×D650×H1,900mm	150kg

* Other than the above, models of various sizes are available. * These products require wastewater treatment.

Reach-in showcase cubic type

NEW

3°C to 10°C



CRC-060GSWSR



CRC-080GSWSR



CRC-080GLWSR

特 徴

- The large inner effective capacity allows the storage of a large amount of products inside.
- The installation of the cooling unit at the bottom makes the height of the show case suitable for smoothly taking out products from inside.
- The use of stainless-steel top plate allows an effective use of the space on the top of the case.

	Model No.	Effective storage capacity	External dimensions	Weight
Showcase with built-in freezer	CRC-060GSWSR	141L	W630×D550×H1,080mm	55kg
	CRC-080GSWSR	173L	W750×D550×H1,080mm	60kg
	CRC-080GLWSR	265L	W750×D550×H1,410mm	70kg

* Other than the above, models of various sizes are available. * These products require wastewater treatment.

Icemaker (Cube ice)

Ice-making capacity
25kg to 480kg
There are diverse variations.

Running costs are
reduced to approx. **64%** compared
with conventional models.



FIC-A25KT



FIC-A95KT

Features

- This icemaker has good water-saving and electric power-saving properties.
- A clear-coating that makes dirt difficult to adhere and easy to remove is used. (External front panel, door, machine chamber panel)

	Model No.	Ice-making capacity	Volume of ice storage	External dimensions	Weight
Icemaker (Cube ice)	FIC-A25KT	25kg	approx.13.5kg	W398×D450×H800mm	45kg
	FIC-A35KT	35kg	approx.17kg	W500×D450×H800mm	50kg
	FIC-A95KT	95kg	approx.45.9kg	W1,000×D600×H800mm	80kg

* Other than the above, models of various sizes are available. * These products require water supply and drainage facilities.

Chip ice maker **NEW**

Features

- This icemaker can be operated with reduced electric power and water consumption.
- This icemaker has the structure that prevents the penetration of dust and water droplets inside from the upper door part.
- The user can easily grab the door when opening it.



FIC-A100CT

	Model No.	Ice-making capacity	Volume of ice storage	External dimensions	Weight
Chip ice maker	FIC-A100CT	100kg	approx.34kg	W600×D600×H800mm	61kg

Inverter-controlled multistage open showcase

3°C to 20°C

5°C to 10°C



MEU-41GKSA5L



MET-31GDSS4S

Features

- Equipped with an inverter and freezer, the icemaker makes energy-saving and freshness control compatible.
- An external acrylic lighting plate on the top maintains internal temperature and improves the exterior.
- A night cover can be equipped as an option.

	Model No.	Effective storage capacity	External dimensions	Weight
Inverter-controlled multistage open showcase	MEU-41GKSA5L	544L	W1,165×D650×H1,900mm	225kg
	MET-31GDSS4S	218L	W900×D550×H1,400mm	130kg

Quick freezer for refrigerants

-30°C or lower

Features

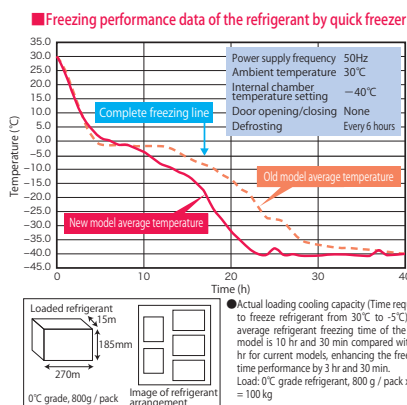
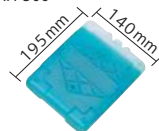
- The refrigerant packs are economical as they can be repeatedly used by refreezing.
- The running costs are lower than ice and dry ice.
- * Dry ice should be handled carefully as it may cause frostbite and generates carbon dioxide gas.

FKD-082FMD7-S



Net basket (option) makes retrieval easy.

Example of refrigerant CAH-500



	Model No.	Effective storage capacity	External dimensions	Weight
Quick freezer for refrigerants	FKD-082FMD7-S	485L	W755 × D800 (870) × H1,960mm	130kg

* This product requires drainage facilities.

Blast chiller / Shock freezer

-40°C to 10°C

Features

- Rapidly cool and freeze hot foods and samples.
- Proprietary suction circulation method demonstrates good cooling capacity.
- The internal structure makes cleaning easier and an internal drying mode comes as standard equipment.
- Operation data can be saved via the USB port (option).



QXF-012SFSV1



QXF-006SFLT1

	Model No.	Storage capacity	External dimensions	Weight
Blast chiller / Shock freezer	QXF-012SFSV1	1/1 pan or grid: 12 units	W770 × D880 (932) × H1,882mm	265kg
	QXF-006SFLT1	1/1 pan or grid: 6 units	W1,200 × D750 (802) × H800mm	150kg

* These products require drainage facilities. * Photo shows a product fitted with pans (option).

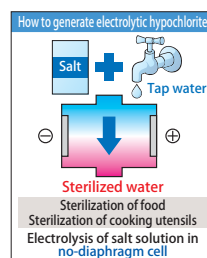
Electrolytic Hypochlorite Generator FE Clean Water FE clean water



FE-1U-10000
All-in-one type



FES-12L
5L tank



Economical, at the low cost of only 0.3 yen* per liter.
Open the faucet and out it comes, just like tap water!

* For a chloride concentration of 40 ppm, tap water at 205 yen/t, salt at 100 yen/kg, and electricity unit rate of 27 yen/kWh.

FE clean water has the same components as sodium hypochlorite.

Features

- Large generation volume means that electrolytic hypochlorite can be produced just by opening the faucet. (12.5 L/m: 40 ppm)
- Multiple faucets can be installed.
- The effective chloride concentration can be set to one of four levels.
- Produces electrolytic hypochlorite of a constant concentration without past issues with dilution or inconsistent concentrations caused by dilution errors.
- Sterilization and cleaning of foods such as vegetables and fish
- Sterilization and cleaning of cooking utensils such as cutting boards and knives
- Sterilization of dish and hand towels
- Sterilization of processing equipment
- Sterilization and deodorization of floors and drainage channels

	Model No.	Salt tank capacity	Salt tank weight	Main body external dimensions
FE clean water	FES-12L	5L	0.7Kg	W250 × D210 × H320mm
	FES-12H	20L	3.0Kg	W250 × D210 × H320mm
	FE-1U-10000	Built-in salt tank		W1,000 × D600 × H1,790mm

* This product requires water supply and drainage facilities.

Temperature-controlled serving wagon



Features

- The serving wagons can be loaded into service elevators (dumbwaiters).
- Compact temperature-controlled serving wagons are suitable as flat trays.
- Both hot foods and cold foods can be served in an easy-to-eat arrangement.



	Model No.	Flat tray	External dimensions	Weight
Temperature-controlled serving wagon	NFRW-DF-24	24	W990 × D770 × H1,170mm	155kg

Specifications P19-20
Options P21-22

* Specifications for most models can be download from our website.
URL <http://www.fukusima.co.jp/fms>

Cold storage locker

2°C to 12°C
(Unit of 1°C)

Same temperature for all lockers

Features

- Microcomputer controller control is used.
- The use of double-paned glass improves display and energy-savings.
- Defrosting is regularly performed.



HPK-8R9



Easy removal of inner box

	Model No.	Effective storage capacity	External dimensions	Weight
Cold storage locker	HPK-8R9	36L×8室(計288L)	W1,000×D544(569)×H1,815mm	145kg

Freezing stocker

-20°C

Features

- Large-capacity, large-volume freezing storage



SH-170X



SH-280X



SFS180A

	Model No.	Effective storage capacity	External dimensions	Weight
Freezing stocker	SH-170X	164L	W611×D662×H893mm	42kg
	SH-280X	276L	W901×D662×H893mm	54kg
	SFS180A	180L	W550×D582×H1,430mm	50kg

Compact refrigerator

10°C or lower

Features

- Glass doors make the management of materials inside easy. (AG series)
- Compact design enables installation in any location.



AG-54XE



AGV-90X



ML-40B

	Model No.	Effective storage capacity	External dimensions	Weight
Compact refrigerator	AG-54XE	54L	W429×D445×H822mm	34kg
	AGV-90X	96L	W423×D478×H1,378mm	60kg
	ML-40B	40L	W400×D430×H560mm	12.3kg

* Products of various sizes are available.

Temperature measurement-related equipment

Mini-thermometer data logger testo 174T

1ch temperature logger with a built-in temperature sensor



Comes with dedicated USB interface adapter
testo 174T set

- Temperatures can be measured down to -30°C.

Thermometer data logger testo 175T1

1ch temperature logger with a built-in thermistor



- Temperatures can be measured down to -35°C.
- The SD card enables data collection.

Temperature monitoring system testo Saveris

For remotely monitoring temperature of prefabricated refrigerators



- Wireless temperature monitoring with PC from a remote location
- Alarm functions

* This product is custom-made. Please inform Fukushima of control requirements.

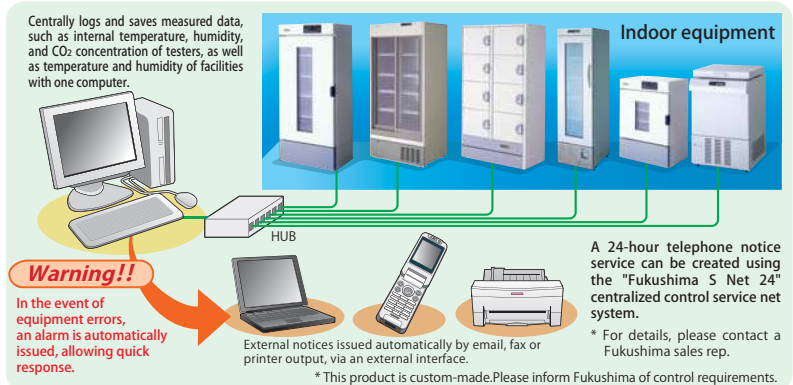
	Model No.	Measurement ranges	External dimensions	Battery life
Temperature measurement-related equipment	testo 174T set	-30°C~+70°C	60×38×18.5mm	Approx. 500 days
	testo 175T1	-35°C~+55°C	89×53×27mm	Approx. 3 years

* Various sizes are available.

Equipment centralized control system for the pharmaceutical industry

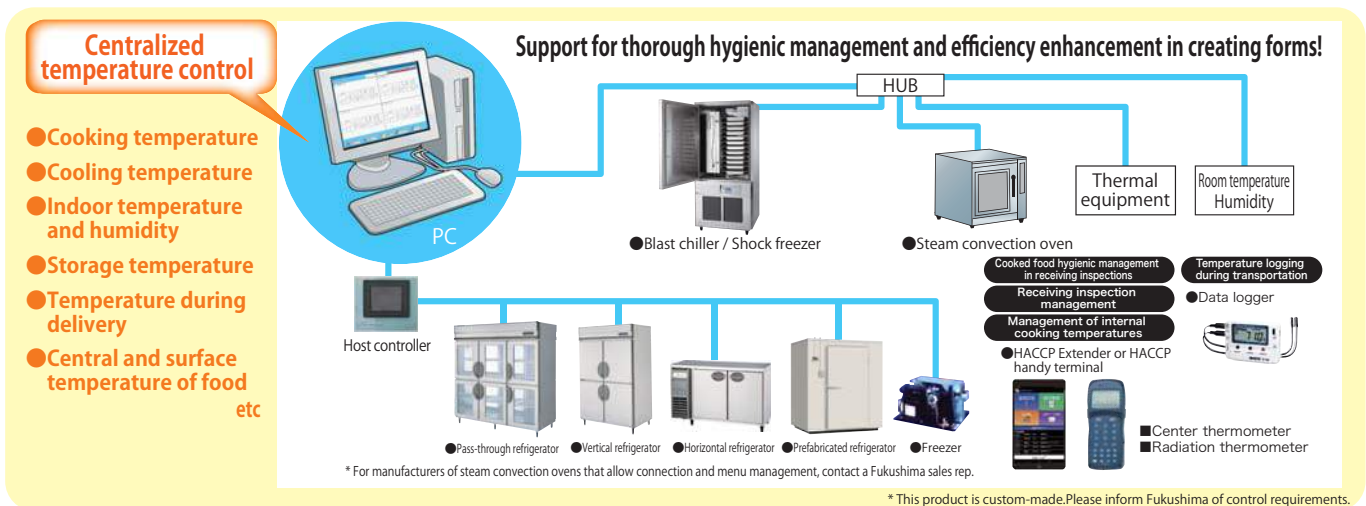
Triple S SSS master

- Compliant with electronic data standards FDA 21CFR Part.11 (Part 11 of Title 21 of the Code of Federal Regulations) for the pharmaceutical industry
- All equipment in the facilities can be efficiently controlled from one computer.
- Automatic data saving prevents the risk of forgetting saving records.
- Measurement errors are monitored in real-time.
- Data falsification preventive function, access privilege setting, etc.



Total temperature control system for the food industry

HACCP Master V3



Maintenance contract

For safe and secure use of our products, we recommend customers conclude a maintenance contract with us. By managing customers, we can quickly respond to sudden troubles 365 days a year!

Customers can always feel safe and reassured when using our products.

Advantages of the maintenance contract

- ① Fukushima performs periodic inspections twice a year under a yearly contract to preempt possible failures.
- ② Repairs are based on the checklists so they are fast and precise, and enhance safety.
- ③ Fukushima reduces the chance of failures that may result in damage and ensures the safe use of products.
- ④ By performing periodic inspections, Fukushima helps reduce power consumption and prolong equipment life.
- ⑤ With a yearly contract, customers can make an annual budget and plan capital investment.
- ⑥ After one year, customers can freely choose to renew the contract or not. The maintenance contract can be also concluded during the warranty period.

Check operating conditions by periodic inspections

Prevent occurrence of failure.

Repairs are free of charge if failure occurs.

Reduce running costs.



Matters to check before purchase

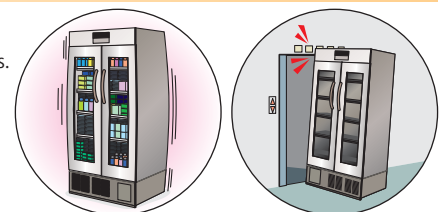
- ① Check the storage conditions of targeted storage items.
- ② Choose the size of refrigerator that enables 60% of its effective internal capacity to be used for storage. If excessively packed, stored items are not sufficiently cooled and the amount of power consumption increases.
- ③ Check the installation environment for air conditioning and nighttime air conditioning. High temperature and humidity reduce the life of refrigerators and may cause condensation and frost.
- ④ Check the power source. An improper power source may prevent normal operations.
- ⑤ Check the outlet shape.
- ⑥ Check the opening of doors. Our products can be made with either a right-hand-opening door or a left-hand-opening door. (Must be determined before shipment; Option.)
- ⑦ Check if the installation space and neighboring equipment generate high temperatures.
- ⑧ Check the transport route (if an elevator can be used and how much opening the doors have)

*If products must be transported to the installation site

Please inform Fukushima of transport conditions.

(Work description)

- Use of an elevator
- Number of stories that the product needs to be carried up
- Use of cranes (The installation site including transport route opening needs to be checked)
- Presence or absence of used products that require removal and disposal
- Size and weight of used products that require removal and disposal



Product specifications



	Product name	Model name	Temperature zone				MediFridge energy-saving	Space-saving (W800 or lower)	Anticondensation	Microcomputer control and digital display	Lock	Alarm function	
			Ultra-low temperature	Freezing	Refrigeration	Temperature-controlled							
MediFridge series	Compact medical cool box	FMS-054GM					●	●	●	●	●	●○	
	Medical cool box	FMS-304GU					●	●	●	●	●	●○	
		FMS-504G(-SR)					●	●	●	●	●	●○	
Medical cool box series	Medical freezer & refrigerator	FMS-F154GS					●	●	●	●	●	●○	
		FMS-F304G					●	●	●	●	●	●○	
	Medical freezer	FMF-301F					●	●	●	●	●	●○	
FMS series		FMF-501F					●		●	●	●	●○	
		FMF-501FD					●		●	●	●	●○	
	Slim-type medical cool box	FMS-123GS						●	●	●	●	●○	
Low temperature incubator series		FMS-173GS						●	●	●	●	●○	
		FMS-303GS						●	●	●	●	●○	
		FMS-650L						●	●	●	●	●○	
FMU series	Medical cool box	FMS-1400L							●	●	●	●○	
		FMS-301GU(-SR)								●	●	●○	
	Medical cold storage showcase	FMS-402GU(-SR)								●	●	●○	
Freezer series		FMS-501G(-SR)								●	●	●○	
		FMS-702G(-SR)								●	●	●○	
		FMU-054I					●	●	●	●	○	●○	
Other cool boxes and associated equipment		FMU-133I					●	●	●	●	●	●○	
		FMU-204I					●	●	●	●	●	●○	
		FMU-263I					●	●	●	●	●	●○	
Large-size assembly series		FMU-404I					●	●	●	●	●	●○	
		FMU-263I-BC					●	●	●	●	●	●○	
		FMU-404I-BC					●	●	●	●	●	●○	
Commercial equipment and other associated equipment		HKF-300SWI/DWI						●		●	●	●	
		HKF-400SWI/DWI								●	●	●	
		HKF-500SWI/DWI								●	●	●	
Products materials		HKF-700DWI								●	●	●	
		HKF-350CWI/CDWI								●	●	●	
		HKF-500CWI/CDWI								●	●	●	
Others		HKF-600CWI/CDWI								●	●	●	
		LAB8						●		●	●	●	
		LAB11						●		●	●	●	
Commercial equipment and other associated equipment		LAB21								●	●	●	
		LAB31								●	●	●	
		LAB41								●	●	●	
Commercial equipment and other associated equipment	Medical freezer personal	FMF-038F1-C						●	●	●	●	●	
		FMF-038F1						●	●	●	●	●	
	Cold bench	FMC-41PNBSAXL (R)								●		●	
Commercial equipment and other associated equipment		FMC-61PNBSAXL (R)								●		●	
	Clean bench	FMM-240TCB											
		FMM-320TCB											
Commercial equipment and other associated equipment	Reach-in showcase with built-in freezer	MMC-20GWSR2						●		●	○	●(*)	
		MSS-120GHWSR								●	○	●(*)	
		FIC-A25KT						●				●(*)	
Commercial equipment and other associated equipment	Icemaker (Cube ice)	FIC-A35KT						●				●(*)	
		FIC-A95KT										●(*)	
		MEU-41GKSA5L								●		●(*)	
Commercial equipment and other associated equipment	Multistage open case	MET-31GDSS4S								●		●(*)	
	Quick freezer for refrigerants	FKD-082FMD7—G						●		●	○	●(*)	
	Blast chiller / Shock freezer	QXF-012SFSV1						●		●		●(*)	
Commercial equipment and other associated equipment		QXF-006SFLT1								●		●(*)	
	Temperature-controlled serving wagon	NFRW-DF-24								●		●(*)	
	cold storage locker	HPK- 8 R9								●	●	●(*)	
Commercial equipment and other associated equipment		SH-170X						●		●	●	●	
	Freezing stocker	SH-280X								●	●	●	
		SFS180A								●		●	
Commercial equipment and other associated equipment		AG-54XE						●			○		
	Compact refrigerator	AGV-90X						●			○		
		ML-40B						●					



	External output (Option)	Door		Defrost		Electric leakage breaker	Power		Caster	Medical device	Validation	Color variations	Model name
		Sliding door	Door	Manual	Automatic		Single-phase 100V	Three-phase 200V					
	●		●		● ★		●				●	○	FMS-054GM
	●		●		● ★	●	●		●		●	○	FMS-304GU
	●		●		● ★	●	●		●		●	○	FMS-504G(-SR)
	●		●	● (freezer)	● ★ (refrigerator)	●	●		●		●	○	FMS-F154GS
	●		●	● (freezer)	● ★ (refrigerator)	●	●		●		●	○	FMS-F304G
	●		●	●			●		●		●	○	FMF-301F
	●		●	●			●		●		●	○	FMF-501F
	●		●	●			●		●		●	○	FMF-501FD
	●		●		● ★	●	●				●	○	FMS-123GS
	●		●		● ★	●	●		●		●	○	FMS-173GS
	●		●		● ★	●	●		●		●	○	FMS-303GS
	●		●		● ★	●	●		●		●		FMS-650L
	●		●		● ★	●	●		●		●		FMS-1400L
	●	●			● ★	●	●		●		●		FMS-301GU(-SR)
	●	●			● ★	●	●		●		●		FMS-402GU(-SR)
	●	●			● ★	●	●		●		●		FMS-501G(-SR)
	●	●			● ★	●	●		●		●		FMS-702G(-SR)
	●		●		●	●	●				●		FMU-054I
	●		●		●	●	●				●		FMU-133I
	●		●		●	●	●		●		●		FMU-204I
	●		●		●	●	●		●		●		FMU-263I
	●		●		●	●	●		●		●		FMU-404I
	●		●		●	●	●		●		●		FMU-263I-BC
	●		●		●	●	●		●		●		FMU-404I-BC
	●		●	●			*2	*3	●		●		HKF-300DWI
	●		●	●			*2	*3	●		●		HKF-400DWI
	●		●	●			*2	*3	●		●		HKF-500DWI
	●		●	●				*3	●		●		HKF-700DWI
	●		●	●			*2	*3	●		●		HKF-350CDWI
	●		●	●			*2	*3	●		●		HKF-500CDWI
	●		●	●			*2	*3	●		●		HKF-600CDWI
	●		●	●			●				●		LAB8
	●		●	●			●				●		LAB11
	●		●	●			●				●		LAB21
	●		●	●			●				●		LAB31
	●		●	●			●				●		LAB41
	●		●	●			●				●		FMF-038F1-C
	●		●	●			●				●		FMF-038F1
	●				●		●		●		●		FMC-41PNBSAXL (R)
	●				●		●		●		●		FMC-61PNBSAXL (R)
						●	●						FMM-240TCB
						●	●						FMM-320TCB
	●		●		●	●	●		●		●		MMC-20GWSR2
	●	●			●	●	●		●		●		MSS-120GHWSR
	●					●	●						FIC-A25KT
	●					●	●						FIC-A35KT
	●					●	●						FIC-A95KT
	●				●	●	●						MEU-41GKSA5L
	●				●	●	●						MET-31GDSS4S
	●		●		●			●					FKD-082FMD7—G
	●		●	●				●					QXF-012SFSV1
	●		●	●				●					QXF-006SFLT1
	●		●		●			●	●			○	NFRW-DF-24
	●		●		●		●				●		HPK- 8 R9
			●	●			●						SH-170X
			●	●			●						SH-280X
			●	●			●						SFS180A
			●		●	●	●						AG-54XE
			●		●	●	●						AGV-90X
			●		●		●						ML-40B

● Standard specification ○ Available as an option ◎ Detailed alarm setting is possible. * Only alarm display with no buzzer notice
 *2 Single-phase 100V/200V *3 Single-phase 200V/Three-phase 200V ★ Cycle defrost

MediFridge

Medical cool box
seriesLow temperature
incubator series

Freezer series

Other cool boxes and
associated equipmentLarge-size
assembly seriesCommercial equipment and
other associated equipment

Products materials

FMS series option



Temperature recorder
(Comes with one year's worth of recording paper.)



Drug safe
Large size:W305×D214×H363mm
Small size:W255×D150×H215mm



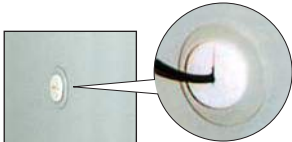
Light shield film specification



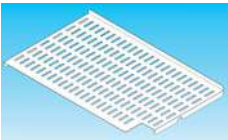
Glassless specification



Right-hand-opening specification
Reversal of the standard left-hand-opening



Measurement hole
Inside diameter: φ 40



Flat rack
(Punched plate for small bottles)



Sliding rack specification
● Convenient for placing and retrieving chemicals and samples
* Sliding racks are for the right-hand side only.



Cooling pillow storage rack
○ For FMS-F154GS
Can store up to 10 cooling pillows.
○ For FMS-F304G
Can store up to 20 cooling pillows.
* Cooling pillows are optional.

	薬用保冷庫 MediFridge	薬用冷凍冷蔵庫 MediFridge		スリム型薬用保冷庫	薬用保冷庫		Medical cold storage showcase (Sliding specification)
	FMS-304GU,504G	FMS-F154GS	FMS-F304G	FMS-123GS,173GS,303GS	FMS-650L	FMS-1400L	FMS-301GU,402GU,501G,702G (Common for -SR models)
Temperature recorder	○	○	○	○	○	○	○
Temperature recorder mounting bracket	○	○	○	○	○	○	—
Drug safe (Large size)	○	○	○	○	○	○	○
Drug safe (Large size) mounting bracket	○	○	○	○	○	○	○
Drug safe (Small size)	○	○	○	○	○	○	○
Drug safe (Small size) mounting bracket	○	○	○	○	○	○	○
Light-shielding film specification (Set of doors)	○	×	○	×	×	○	○
Light-shielding film specification (Door)	×	○	×	○	○	×	×
Glassless specification	○	○	○	○	○	○	×
Right-hand-opening specification	—	○	—	○	○	—	—
Measurement hole	○	○(Only refrigerator)	○(Only refrigerator)	○	—	—	—
Flat rack (Punched plate for small bottles)	○	○	○	○	○	○	○
Flat rack (Punched plate for small bottles)	○	×	×	(For the lower two rows only)	○	○	—
External alarm contact output (No-voltage contact point)	○	○	○	○	○	○	○
Racks (With 4 rack supports)					(Designate right or left.)		(Designate right or left.)

○ : Available as an option — : Standard equipment × : Unavailable
 🔗 : Contact Fukushima or an authorized dealer.

FMS-054GM option



Temperature recorder
(Comes with one year's worth of recording paper.)



Band seal for identification:
1 set (2 sheets)



Right-hand-opening specification
(Reversal of the standard left-hand-opening)



Subdivided storage case
Example of storage

Subdivided storage case

	Tray internal dimensions	Color
AT-8	W113×D73×H58	Clear white
AT-10	W240×D73×H59	Light green
A T -11	W56×D70×H58	Light yellow
AT-14	W235×D75×H42	Light blue
		Pink



Storage set with lock
Example of use

Storage set with lock

	Drawer internal dimension	Color
①	W213×D161×H110×1個	トウメイ/アンバー
②	W103×D160×H112×2個	
③	W103×D160×H112×1個 W103×D162×H51×2個	
④	W103×D162×H51×4個	

FMU series option

	FMU-054I	FMU-133I	FMU-204I	FMU-263I	FMU-404I	FMU-263I-BC	FMU-404I-BC
Right-hand-opening specification							
Lighting timer specification							
Lock specification		—	—	—	—	—	—
Base (Separate shipping cost required)				×	×	×	×
Racks (With 4 rack supports)							
External alarm							

—: Standard equipment ×: Unavailable



Lighting timer specification
(The built-in 24-hour timer turns lighting on/off automatically.)



Special base for FMU-054I
External dimensions: W600×D600×H750mm
Special base for FMU-133I
External dimensions: W820×D586×H1,125mm
Special base for FMU-204I
External dimensions: W820×D816×H1,125mm

FMF series option

	FMF-501FD	FMF-501F	FMF-301F	FMF-038F1	FMF-038F1-C
Temperature recorder	○	○	○	○	○
Temperature recorder mounting bracket A	○ (2 units are required)	○	○	×	×
Temperature recorder mounting bracket B	×	×	×	○	○
External alarm output	○	○	○	○	○
Basket	○	○	○	×	×
Rack plate (With 4 rack supports)	○	○	○	×	×

○: Available ×: Unavailable

LAB series option



Model: KR-11
Model: KR-06

Storage rack and Box
Convenient dedicated rack for storage (Target model: LAB)



Model: KB-5D
*Equipped with upper handle

Storage rack and Box (Target model: LAB)

Model	Rack dimensions (mm)	Storage
KR-11	W140×D140×H610	11-row storage rack
KR-06	W140×D140×H330	6-row storage rack
KR-11D	W162×D151×H606	11-row storage rack
KR-06D	W162×D151×H331	6-row storage rack
KB-5D	W204×D156.5×H591	5-row storage box
KB-3D	W204×D156.5×H355	3-row storage box

Number of storage racks and boxes

		LAB8	LAB11	LAB21	LAB31	LAB41
pattern①	KR-11	3	6	12	18	21
	KR-06	3	3	3	3	3
pattern②	KR-11D	2	4	8	12	14
	KR-06D	2	2	2	2	2
pattern③	KB-5D	2	4	8	10	12
	KB-3D	2	2	2	2	2

HKF series option



Standard rack for upright type



Horizontal standard rack for upright type



BOX type rack for upright type



BOX type rack for upright type



Standard rack for chest type



BOX type rack for chest type

Product number	Number of racks	Number of columns	External dimensions (mm)	Conforming models
RACK-5×4-F	5	4	W140×D570×H290	HKF-500DWI/700DWI
RACK-5×3-F	5	3	W140×D425×H290	HKF-300DWI/400DWI
RACK-5×4-S	5	4	W140×D570×H290	HKF-500DWI/700DWI
RACK-5×3-S	5	3	W140×D425×H290	HKF-300DWI/400DWI

Product number	Number of racks	Number of columns	External dimensions (mm)	Conforming models
RACK-2×1-425-140	2	1	W140×D425×H290	HKF-300DWI/400DWI
RACK-2×1-570-140	2	1	W140×D570×H290	HKF-500DWI/700DWI
RACK-2×2-425-280	2	2	W280×D425×H290	HKF-300DWI/400DWI
RACK-2×2-570-280	2	2	W280×D570×H290	HKF-500DWI/700DWI
RACK-2×1-425-280	2	1	W280×D425×H290	HKF-300DWI/400DWI
RACK-2×1-570-280	2	1	W280×D570×H290	HKF-500DWI/700DWI
RACK-2×3-425-420	2	3	W420×D425×H290	HKF-300DWI/400DWI
RACK-2×3-570-420	2	3	W420×D570×H290	HKF-500DWI/700DWI

Standard rack

Product number	Number of racks	Number of columns	External dimensions (mm)	Conforming models
RACK-11×11	11	1	W140×D140×H640	HKF-350CDWI/500CDWI/600CDWI

BOX type rack

Product number	Number of racks	Number of columns	External dimensions (mm)	Conforming models
RACK-5×1-140	5	1	W140×D140×H640	HKF-350CW/350CDWI/500CW/500CDWI/600CW/600CDWI

LCO₂ backup system

This system works as auxiliary cooling source during forced cooling and power failure.
(Uses a dedicated gas canister.)



Recorder

Product model	TRM10C	
External dimensions (mm)	144×144×150	
Product general specifications	Input	Thermocouple, resistance thermometer bulb, current, voltage
	Printing type	Dotting Pen type
	Number of inputs	6 inputs 1 pen, 2 pen
	Alarm output	6 points 6 points
	Measuring period	10s/all points 125ms
	Effective recording width	100mm
Others	Communication (RS485, RS232C), DI function	
	Power	Free (100 to 240V AC)



Difference between power consumption and the amount of power consumption

"Power consumption" differs from "the amount of power consumption!" Annual electricity rates are calculated with as the amount of power consumption (unit kwh) x electricity unit rate.

Power consumption indicates the amount of electric energy consumed per second when the internal temperature is the lowest after continuous operation of the refrigerator. To figure out the electricity charge, it is necessary to check the "amount of power consumption," that is the electric energy consumed for a certain period of time under conditions close to the actual conditions of use. Please note that even products indicated as "low power consumption" in the catalog actually consume a "different amount of power."



* Electricity costs are not determined by power consumption (height) but by the amount of power consumption (area).

Awarded the FY2013 "Energy Conservation Grand Prize (Minister's Prize, the Ministry of Economy, Trade and Industry)" Business model that helps to reduce environmental loads.



The creation of the environmental load reduction system based on the energy management system "Bems-you" combined with ESCO (energy service company) won the FY2013 "Energy Conservation Grand Prize (Minister's Prize, the Ministry of Economy, Trade and Industry)" in the business model category.

Validation services

Product name	Measurement point	Charges
Medical cool box, medical freezer & refrigerator, low-temperature incubator, medical cold storage showcase, medical freezer, cold bench, and others	We will discuss this with you separately at your request.	We will provide you with a separate quote at your request.

Recovery of refrigerant

We properly recover refrigerant and dispose of equipment.

Under the Fluorocarbons Recovery and Destruction Law enacted in 2002, when discarding commercial freezing air conditioners such as commercial refrigerators, the equipment user must request chlorofluorocarbon collectors authorized by the prefectural governor to recover chlorofluorocarbons, and bear related expenses. If chlorofluorocarbons are released without permission, penalties can be applied.



Safety precautions

- Products described in this catalog are for indoor use only. Use and store the products in places not where exposed to rainwater.
- Read the "instruction manual" carefully before use to ensure safe correct use of the product.
- Installation and electric work is required. Consult with an authorized dealer or qualified specialist.

■ Warning labels are affixed to products.

● Specifications and appearances are subject to change without notice.

● The colors of products in this catalog may differ slightly from the actual products due to printing conditions.

● Fukushima retains copyrights to all contents of this catalog. Unauthorized reproduction is strictly prohibited.



To prevent global warming, chlorofluorocarbons must be properly collected from this product.

ISO 9001:2008

Acquisition of certification
Okayama Factory
Shiga Factory

ISO 14001:2004

Acquisition of certification
Head Office, Tokyo
Nagoya, Fukuoka
Shiga Factory,
Okayama Factory



● Download catalogs and specifications from: URL <http://www.fukusima.co.jp/fms>

● Send inquiries to: E-mail QFMS@fukusima.co.jp

■ Fukushima International (Thailand) Co., Ltd.

159/16 Serm-Mit Tower 10 Fl., Room 1018, Sukhumvit 21 (Asoke) Rd., Klongtoey-Nua, Wattana, Bangkok 10110 Thailand
Tel.66-2-661-6435

■ Fukushima International (Singapore) Pte., Ltd.

237 Alexandra Road #05-03 The Alexcier Singapore 159929
Tel.65-6271-0460

■ Fukusima International (H.K.) Co., Ltd.

Unit 1005, 10/F, Block B, Sea View Estate, 4-6 Watson Road, Hong Kong
Tel.852-2885-5679

■ Fukushima International Korea Corporation

4F, 7, 48-gil, Hangang-daero, Yongsan-gu, Seoul, Korea 140-872
Tel.82-2-338-4731

■ Taiwan Fukushima International Co., Ltd.

台北市大同区民權西路136号13F-11
Tel.886-2-2553-0859

■ Fukusima International Vietnam Co., Ltd.

Floor 9, PVC Sai Gon, 11Bis Nguyen Gia Thieu, Ward 6, District 3, HCMC, Vietnam
Tel.84-8-3933-3628

■ Fukushima International Malaysia Sdn. Bhd.

Lot 4.40, 4th Floor Wisma Central, Jalan Ampang 50450 Kuala Lumpur, Malaysia
Tel.60-3-2181-1034

■ Fukushima Industries (Thailand) Co., Ltd.

60/105 (Factory address) Moo 3, Mabyangporn Sub-District, Pluakdaeng District, Rayong 21140
60/94 (Office address)
Tel.038020112

FUKUSHIMA INDUSTRIES CORP.

■ Head Office

3-16-11 Mitejima, Nishi Yodogawa-ku, Osaka, Japan 555-0012
Tel.81-6-6477-2051

Address inquiries and orders for products made by Fukushima Industries Corp. to:



The contents of this catalog are valid as of March 2015.
(1508-05) G

MD-1508-A