

GALILEI

Be cool, Be alive.

Low temperature incubator

LAB Line

Wide range model HC series
The temperature setting range is
enlarged to - 20°C to 60°C.



Low temperature incubator specifications

Model name		FMU-054I	FMU-133I	FMU-204I	FMU-263I	FMU-404I	FMU-100I-HC	FMU-180I-HC	FMU-230I-HC	FMU-380I-HC	
Size	Outer shape (mm) (width X depth X height)	483×487(554)×685	700×502(569)×1107	700×732(799)×1107	700×502(569)×1677	700×732(799)×1677	700×502(598)×1107	700×732(828)×1107	700×502(598)×1677	700×732(828)×1677	
	Inner shape (mm) (width X depth X height)	400×335×370	620×340×584	620×545×584	620×340×1154	620×545×1154	592×315×511	592×545×511	592×315×1081	592×545×1081	
Effective inner capacity (L)		50	130	207	259	408	106	178	230	383	
Product weight (kg)		40	70	100	95	120	84	95	115	130	
Size	Exterior	Coated steel plate									
	Interior	Stainless steel plate									
	Door	Surface: coated steel plate Rear face: stainless steel plate Equipped with special double glass window Magnet type 1 door									
	Insulator	Hard foamed polyurethane									
Adjustable rack	Steel wire antimicrobial resin coating										
Set temperature range (ambient temperature 30℃, no load)		-15~50℃					-20~60℃				
Cooling system	Compressor nominal output	85W	175W	180W	300W			400W			
	Refrigerant control method	Capillary tube									
	Condenser	Wire tube forced air cooling type									
	Cooler	Finned tube cold air forced circulation type									
	Refrigerant	R-134a					R-404A				
	Temperature control	Microcomputer control digital temperature indication									
	Defrosting method	Microcomputer control heater defrost									
Heating method	Heater	Heater 120W	Heater 190W	Heater 400W	Heater 350W	Heater 400W	Heater 300W	Heater 400W	Heater 450W		
	Temperature control	Inside forced circulation type									
Power	Applicable breaker	Single-phase 100V 10A 50/60Hz	Single-phase 100V 15A 50/60Hz								
	Applicable outlet	L-type grounding-equipped bipolar 15A 125V									
Electric properties	Allowable voltage range (V)	90~110									
	Cooling time (50/60Hz)	Operating current (A)	1.7/1.4	3.0/2.4	2.4/2.3	4.9/3.3	3.8/3.6	4.3/3.2	4.3/3.3	4.6/3.7	5.2/4.3
		Starting current (A)	16.8/16.7	18.6/17.6	13.8/14.7	24.4/26.8	17.0/17.6	24.1/25.0	24.5/25.2	27.5/27.3	26.8/26.2
		Power consumption (W)	130/135	245/235	210/220	360/320	335/355	320/315	316/316	370/360	425/430
		Power factor (%)	76/96	82/98	88/96	71/97	88/99	74/97	75/97	81/98	81/98
	Defrosting time (50/60Hz)	Operating current (A)	1.4/1.4	2.5/2.5	4.1/4.1	3.9/3.9	4.5/4.5	3.7/3.2	4.5/4.5	4.8/4.8	5.2/5.3
		Power consumption (W)	140/140	250/250	410/410	393/393	443/443	365/370	435/435	485/465	520/525
	Maximum time (50/60Hz)	Operating current (A)	3.1/2.8	4.4/4.6	7.8/7.6	8.0/7.6	8.3/8.2	7.3/6.2	7.5/7.3	8.1/8.0	9.2/9.0
		Power consumption (W)	270/275	430/440	595/615	720/730	765/770	630/660	695/740	770/790	865/875
Operating ambient temperature (℃)		-5~35℃ 80% RH or lower									
Radiation amount (50/60Hz) (W)		266/279	525/560	625/655	735/745	815/915	630/650		660/670	870/900	
Lighting		Fluorescent lamp 15W									
Leg caster		Rubber-made Four swivel casters									
Accessories		2 rack plates, 1 light shielding plate	3 rack plates, key		5 rack plates, key		2 racks, key		5 racks, key		

Centralized control system

Triple S
SSS master

- Realizes the centralized control of temperature and humidity, etc. for a plurality of devices.
- Records and stores all measured data automatically.
- Notifies an occurrence of error by E-mail and FAX immediately.
- Secures the reliability of electronic data through user management, digital sign, audit trail, etc. (In compliant with FDA 21CFR Part.1.1)

Validation support
service

Measurement points	We will discuss this with you separately at your request.
Charges	We will provide you with a separate quote at your request.

Outlet shape



Single-phase 100V
grounding type
Bipolar 15A 125V

Be sure to use the outlet
with a grounding electrode.



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FUKUSHIMA GALILEI CO.LTD.



Safety precautions

- The products shown in this leaflet are for indoor use. Please use and store the products in places not exposed to rainwater.
- Read the "instruction manual" carefully before correct use of the product.
- Specifications and appearances are subject to change without notice for reform.
- The colors of products in this leaflet may be slightly different from the actual products due to print conditions.
- The prices of all products listed in this leaflet do not include consumption tax.
- "Precautions for use" label is affixed to products.
- Download the catalogs and specifications from:
URL <https://www.galilei.co.jp>

For inquiries about and ordering products made by Fukushima GALILEI Co, Ltd.

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contact us

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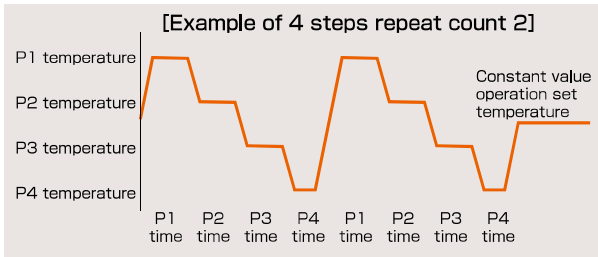
What is *LAB Line* ?

In our desire to be even more helpful to our users, we envisioned *LAB* as a community connected like a "*Line*" from the users conducting research, experiments, and inspections to our company.

Features of low temperature incubator *LAB Line*

8 step program operation

The operating program can be set from 1 step to 8 steps. Also, up to 8 steps can be set and registered for two patterns. (For example, weekday operation and holiday operation)



- Set temperature range
Standard model
-15.0~50.0℃
Wide range model
-20.0~60.0℃
Can be set by the unit of 0.5℃.
Can be set by the unit of 0.1℃ between 35.0℃ and 40.0℃.

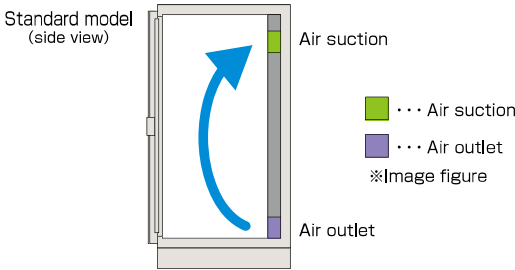
Enhanced alarm function

If temperature abnormality occurs, it is reported by a buzzer and the alarm is indicated at the digital display.

- Temperature abnormality
Temperature and time until the alarm trigger can be set. (Set temperature: from ±3℃~, delay 0 (approx. 20 seconds) to 180 minutes)
- Door opening abnormality
0 (approx. 20 seconds) to 10 minutes. Can be set by the unit of 1 minute.

Structure that reduces dryness

The incubator has the structure that reduces dryness because, with the installation of air outlet at the lower part and air suction at the upper part, the air hardly hits test pieces directly.

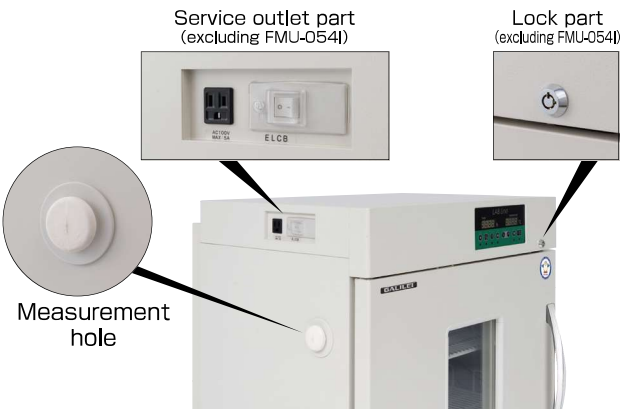


Locking device

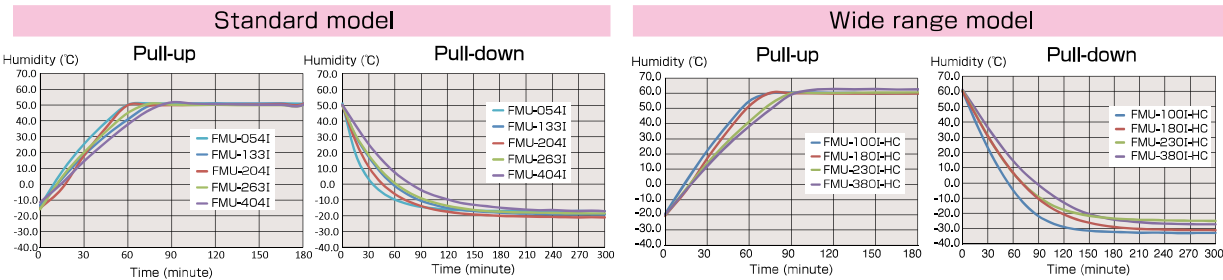
(Locking device is optional for FMU-054I)

Functional measurement hole (1 one hole is equipped as standard)

- The measurement hole through which cables and electric wires are inserted into the incubator has high sealing performance and excellent energy saving properties.
- Since cables and electric wires can be inserted in any shape, the measurement hole is user-friendly and functional.



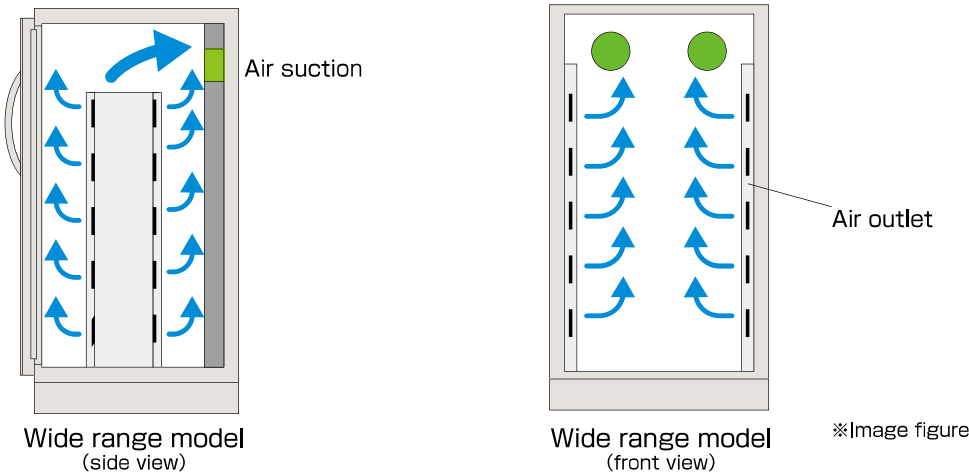
Pull-up and pull-down data



※Measurement conditions: ambient temperature 30℃, humidity 60%, no load inside, measurement of air temperature at one central point inside.
※Characteristic values may differ according to product, operation and set conditions.
※Each data are measured based on criterion of our company.

Wide range model HC series Model change
Temperature setting range extended and lineup added.

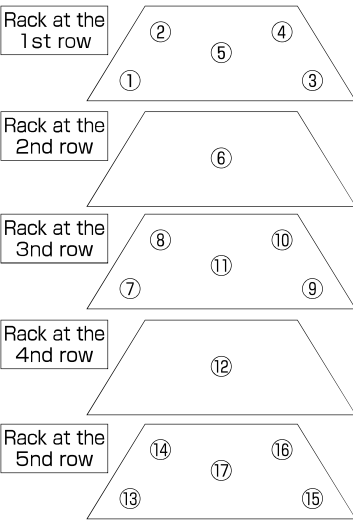
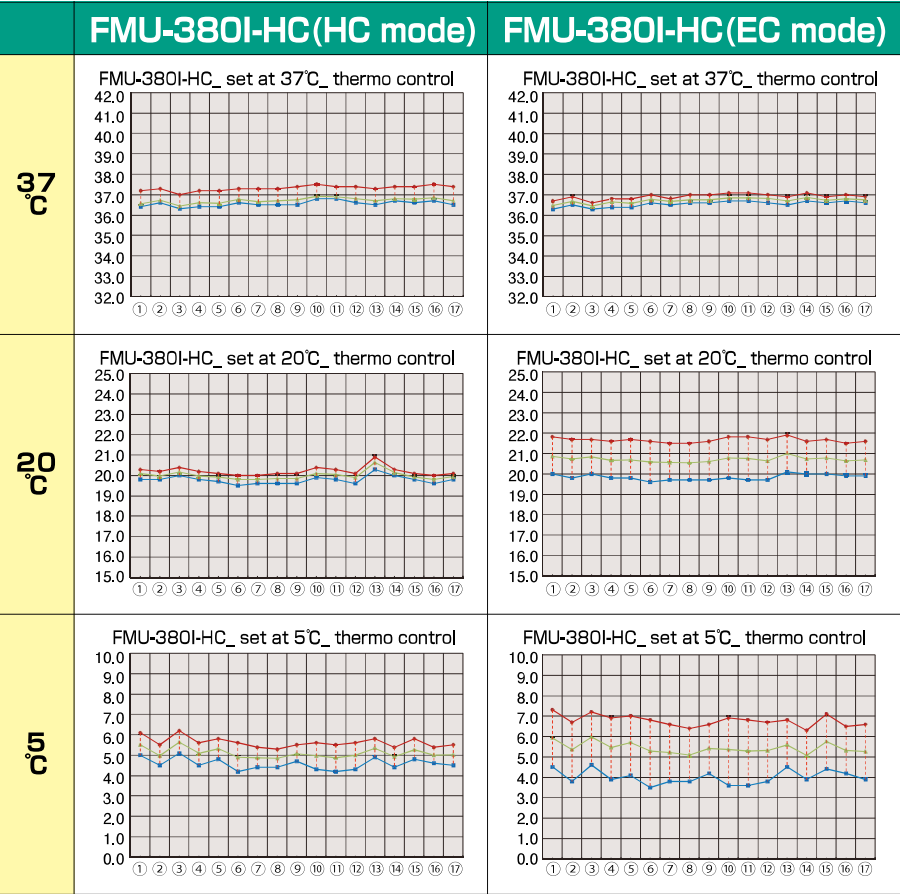
1. Efficient temperature distribution due to air dust structure and many air outlets.



2. Temperature setting range expansion



3. The mode can be switched between HC (High Control) mode and EC (Eco Control) mode.



Red MAX
Green AVE
Blue MIN

※If the temperature is set at 5℃ or lower, it temporarily increases due to defrosting.
※Measurement conditions: ambient temperature 30℃, humidity 60%, no load inside, measurement of air temperature at 17 points inside.
※Characteristic values may differ according to product, operation and set conditions.
※Each data are measured based on criterion of our company.

Operation panel

Standard model



*FMU-054I has no LAMP button.

Wide range model



Option

Equipment stand



For FMU-054I

Outside dimensions:
W600×D600×H750mm

For FMU-133I/100I-HC

Outside dimensions:
W820×D586×H1175mm

For FMU-204I/180I-HC

Outside dimensions:
W820×D816×H1175mm

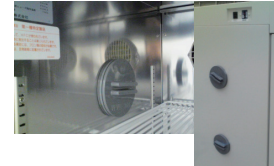
Example of use
(For FMU-133I/
100I-HC)



Addition of
measurement hole
(with rubber stopper of
inside diameter 40φ)



Processing of
measurement holes of
inside diameter 50φ,
75φ, and 100φ



Lighting timer



Alarm contact

FMU-054I locking
device-equipped specification

Glasless door window

Light shielding plate
For FMU-133I, 204I, 100I-HC, 180I-HC,
FMU-263I, 404I, 230I-HC, 380I-HC

Quake-resistance
fixing metal
fittings for legs



Floor fixing bracket
Set of 2 pieces



Additional lighting



Racks (with 4 rack supports)

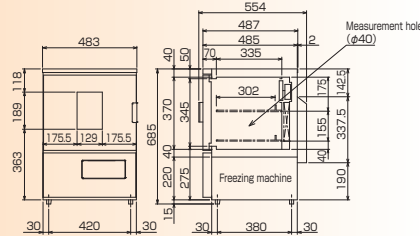
Standard model

FMU-054I Single-phase 100V

Effective inner capacity
50L Temperature
-15 to 50°C



- Outside dimensions:
W483×D487(554)×H685mm
- Product weight:40kg
- Power consumption at maximum time (50/60Hz):
270/275W

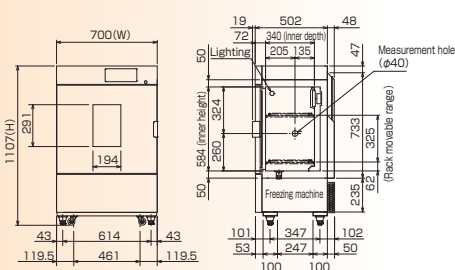


FMU-133I Single-phase 100V

Effective inner capacity
130L Temperature
-15 to 50°C



- Outside dimensions:
W700×D502(569)×H1107mm
- Product weight:70kg
- Power consumption at maximum time (50/60Hz):
430/440W

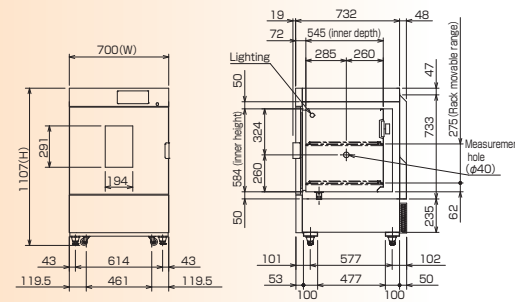


FMU-204I Single-phase 100V

Effective inner capacity
207L Temperature
-15 to 50°C



- Outside dimensions:
W700×D732(799)×H1107mm
- Product weight:100kg
- Power consumption at maximum time (50/60Hz):
595/615W

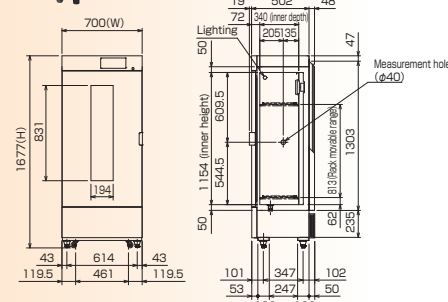


FMU-263I Single-phase 100V

Effective inner capacity
259L Temperature
-15 to 50°C



- Outside dimensions:
W700×D502(569)×H1677mm
- Product weight:95kg
- Power consumption at maximum time (50/60Hz):
720/730W

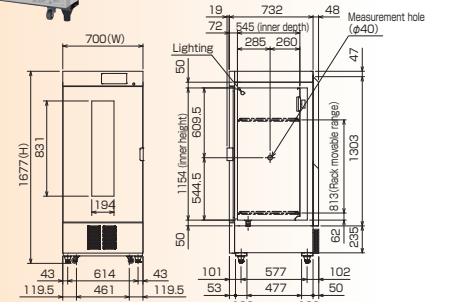


FMU-404I Single-phase 100V

Effective inner capacity
408L Temperature
-15 to 50°C



- Outside dimensions:
W700×D732(799)×H1677mm
- Product weight:120kg
- Power consumption at maximum time (50/60Hz):
765/770W



Wide range model

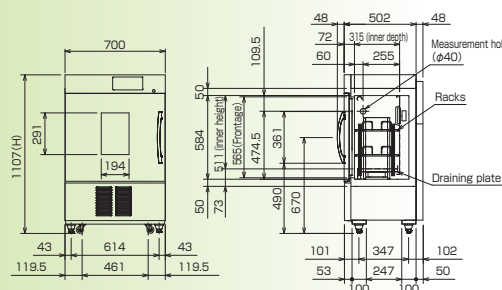
FMU-100I-HC Single-phase 100V

Effective inner capacity
106L Temperature
-20 to 60°C



HC EC

- Outside dimensions:
W700×D502(598)×H1107mm
- Product weight:84kg
- Power consumption at maximum time (50/60Hz):
630/660W



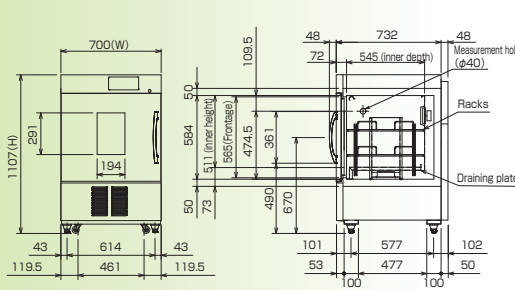
FMU-180I-HC Single-phase 100V

Effective inner capacity
178L Temperature
-20 to 60°C



HC EC

- Outside dimensions:
W700×D732(828)×H1107mm
- Product weight:95kg
- Power consumption at maximum time (50/60Hz):
695/740W



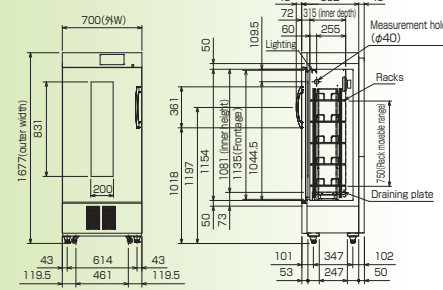
FMU-230I-HC Single-phase 100V

Effective inner capacity
230L Temperature
-20 to 60°C



HC EC

- Outside dimensions:
W700×D502(598)×H1677mm
- Product weight:115kg
- Power consumption at maximum time (50/60Hz):
770/790W



FMU-380I-HC Single-phase 100V

Effective inner capacity
383L Temperature
-20 to 60°C



HC EC

- Outside dimensions:
W700×D732(828)×H1677mm
- Product weight:130kg
- Power consumption at maximum time (50/60Hz):
865/875W

