

Heating & Cooling Chamber

Ambient temperature type (-5°C), horizontal airflow

-5 to 100°C temperature range to meet basic test requirements



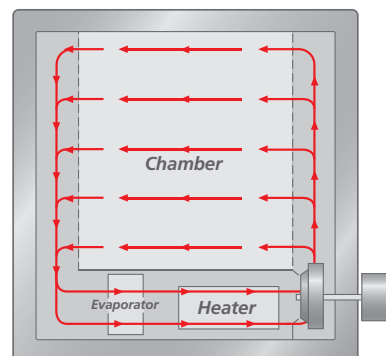
PMV-040

with 2ea wire shelves (standard), Recorder, Signal lamp (option)



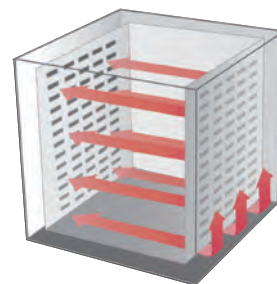
Completion of Temperature Verification According to Strict International Standard

- Temperature verification in accordance with DIN 12880 and IEC 60068-3-5 provides excellent reliability and reproducibility.
- Provided specification the fluctuation and gradient in typical temperature point.
- Provided heating / cooling time data to help select the right model for testing purposes.
- Tested recovery time in accordance with specifications to provide data that is useful for real-use.



Structural Functional Features

- Chamber structure with excellent sealing and insulation provides a stable long-term test and reduce costs by minimizing energy loss.
- According to international standards, even when operated at upper temperature, the surface temperature does not exceed 51°C. (EN 563 standard)
- Door consists of a double-sealed structure to satisfy DIN 58371. (door airtight guidance)
- Durability even after long-term repeated use has been verified by satisfying the door load test. (SEFA standard)
- Door structure is a two-point hang structure, building more stable seal with less force.

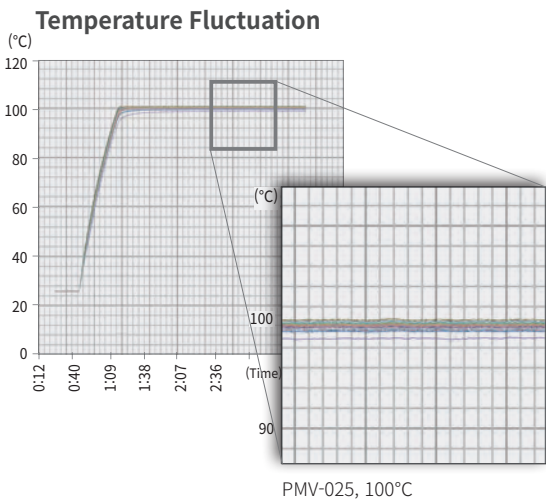


Optimized Dedicated Control System

- 3.5-inch color touch display controller.
- Intuitive screen configuration for easy and convenient control.
- Graph display makes it easier to check operation.
- PID zone subdivided into 4 zones for more precise control stability.
- RS-232 port (default) and RS-485 port (option) supported.
- Control and data processing by connecting up to 32 devices to PC at same time via RS-485 port.
- Includes software for PC control.
- Saving data, convenient for reporting.

Use Convenience Features

- Convenient opening and closing door with either side latches.
- Door handle with built-in key lock.
- Identification of the control and operating conditions at the front panel.
- Design by stainless steel internal chamber provides clean maintenance and excellent corrosion resistance.
- Easy to clean as it is easy to remove refrigerator condenser grill, making it convenient to maintain efficiency of refrigeration.
- Equipped with easy-to-move/install caster.
- Perforated shelf for heavy-load sample. (option)
- Convenient and various options such as signal lamps, cable port, air cycle rate, gas purge, etc.

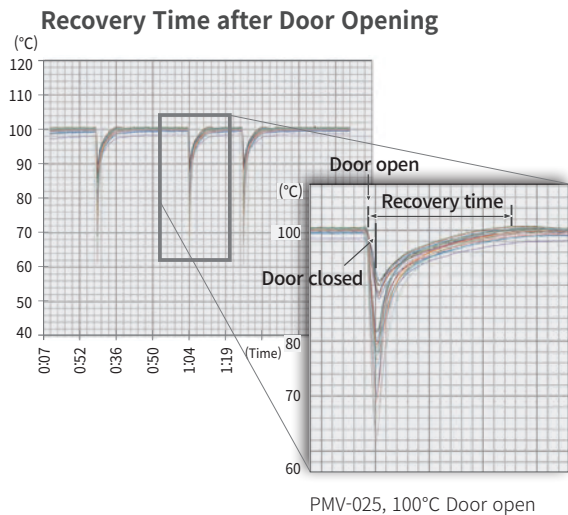


Description	No.
Pattern	100
Repeat time	999
Part repeat time	255
Max. segments / pattern	100
Available max. segments	2000
Programmable process time / segment	99 hr. 59 min.

* It is possible to set 100 segments per pattern, but the maximum number of segments is not 10,000 (100 pattern x 100 segment) but 2,000.

Outstanding Safety

- General over-temperature protection. (over temperature limiter)
- Door open warning and automatic shut off.
- Emergency stop button on the front of the product.
- Over-current and short circuit protection of device.
- When main power connections, users can quickly respond by notifying of electric phase sequence errors.
- Electrical instrumentation access warning and system shutdown.
- Each heater by fuse for more safety using.
- Auto stop when operating current of refrigerator is overloaded.
- Automatic stop in case of over temperature of the compressor.
- Auto shut off in case refrigerant pressure (high/low pressure) is abnormal.



Specification

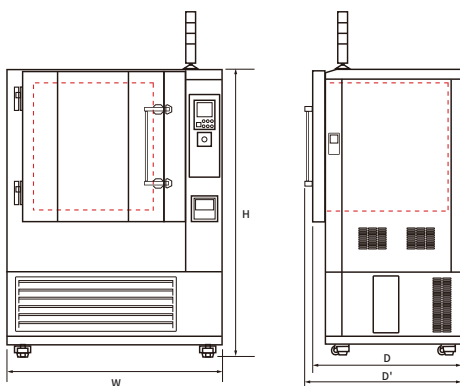
Model	PMV-012	PMV-025	PMV-040	PMV-070	PMV-100
Temperature data					
Range (°C / °F)	-5 to 100 / 23 to 212	-5 to 100 / 23 to 212	-5 to 100 / 23 to 212	-5 to 100 / 23 to 212	-5 to 100 / 23 to 212
Fluctuation (±°C / °F)^{1), 2)}					
at -5°C	0.3 / 0.54	0.3 / 0.54	0.2 / 0.36	0.2 / 0.36	0.3 / 0.54
at 0°C	0.3 / 0.54	0.3 / 0.54	0.2 / 0.36	0.2 / 0.36	0.3 / 0.54
at 25°C	0.3 / 0.54	0.3 / 0.54	0.3 / 0.54	0.3 / 0.54	0.3 / 0.54
at 40°C	0.3 / 0.54	0.3 / 0.54	0.3 / 0.54	0.3 / 0.54	0.3 / 0.54
at 60°C	0.3 / 0.54	0.3 / 0.54	0.3 / 0.54	0.4 / 0.72	0.3 / 0.54
at 80°C	0.3 / 0.54	0.3 / 0.54	0.2 / 0.36	0.2 / 0.36	0.3 / 0.54
at 100°C	0.3 / 0.54	0.3 / 0.54	0.3 / 0.54	0.4 / 0.72	0.3 / 0.54
Gradient (±°C / °F)¹⁾					
at -5°C	0.4 / 0.72	0.4 / 0.72	0.4 / 0.72	0.4 / 0.72	0.3 / 0.54
at 0°C	0.4 / 0.72	0.4 / 0.72	0.4 / 0.72	0.4 / 0.72	0.3 / 0.54
at 25°C	0.2 / 0.36	0.2 / 0.36	0.3 / 0.54	0.4 / 0.72	0.3 / 0.54
at 40°C	0.3 / 0.54	0.3 / 0.54	0.3 / 0.54	0.4 / 0.72	0.3 / 0.54
at 60°C	0.5 / 0.9	0.5 / 0.9	0.4 / 0.72	0.4 / 0.72	0.4 / 0.72
at 80°C	0.7 / 1.26	0.7 / 1.26	0.6 / 1.08	0.5 / 0.9	0.5 / 0.9
at 100°C	1 / 1.8	1 / 1.8	0.8 / 1.44	0.7 / 1.26	0.7 / 1.26
Heating time (min)²⁾					
from -5°C to 25°C	24	24	21	17	19
from 0°C to 25°C	20	20	17	15	16
from 25°C to 40°C	16	16	15	11	11
from 25°C to 60°C	30	30	26	23	25
from 25°C to 80°C	32	32	33	34	38
from 25°C to 100°C	45	45	48	52	56
from -5°C to 100°C	60	60	62	64	75
Cooling time (min)²⁾					
from 25°C to -5°C	36	36	35	31	31
from 25°C to 0°C	30	30	27	25	25
from 40°C to 25°C	17	17	16	14	16
from 60°C to 25°C	37	37	35	31	31
from 80°C to 25°C	52	37	48	43	45
from 100°C to 25°C	65	65	62	59	57
from 100°C to -5°C	97	97	92	87	91
Recovery time after door was opened for 30sec.(min.)²⁾					
at -5°C	8.0	8.0	6.5	5.0	5.0
at 0°C	6.0	6.0	6.0	6.0	8.0
at 25°C	0.5	0.5	4.0	6.0	6.0
at 40°C	2.5	2.5	2.5	2.5	2.5
at 60°C	4.0	4.0	4.5	5.0	6.0
at 80°C	5.0	5.0	5.0	5.5	6.0
at 100°C	7.0	7.0	7.0	6.5	8.0
Electrical data & Ordering information					
Electrical requirements (230V, 50Hz, 1P, A)			15.5	21.7	
Cat. No.	-	-	AAHK4032K	AAHK4042K	-
Cat. No. (EU only)	-	-	AAHK4035K	AAHK4045K	-
Electrical requirements (230V, 60Hz, 1P, A)			15.5	21.7	
Cat. No.	-	-	AAHK4031K	AAHK4041K	-
Electrical requirements (380V, 50/60Hz, 1P, A)	9.7	13.2			
Cat. No.	AAHK4012K	AAHK4022K	-	-	-
Cat. No. (EU only)	AAHK4015K	AAHK4025K	-	-	-
Electrical requirements (380V, 50/60Hz, 3P, A)					6.0
Cat. No.	-	-	-	-	AAHK4058K
Cat. No. (EU only)	-	-	-	-	AAHK4050K

1) According to IEC 60068-3-5

2) According to DIN 12880

※ Above specification value is recorded by 230V/60Hz, 380V/50Hz.

※ Above specifications can be changed without prior notice.



Dimension

Model	PMV-012	PMV-025	PMV-040	PMV-070	PMV-100
Interior dimensions					
Chamber volume (L / cu ft)	125 / 4.41	250 / 8.83	400 / 14.13	700 / 24.72	1000 / 35.31
Width (mm / inch)	500 / 19.7	600 / 23.6	750 / 29.5	900 / 35.4	1000 / 39.4
Depth (mm / inch)	500 / 19.7	650 / 25.6	700 / 27.6	800 / 31.5	910 / 35.8
Height (mm / inch)	500 / 19.7	650 / 25.6	800 / 31.5	1000 / 39.4	1100 / 43.3
Quantity of shelves (standard/max.)	2 / 6	2 / 9	2 / 11	2 / 15	2 / 16
Distance of between shelves (mm / inch)	30 / 1.2	30 / 1.2	30 / 1.2	30 / 1.2	30 / 1.2
Max. Load per shelf (kg / lbs)	15 / 33.1	20 / 44.1	30 / 66.1	40 / 88.2	45 / 99.2
Permitted total load (kg / lbs)	50 / 110.2	70 / 154.3	90 / 198.4	120 / 264.6	150 / 330.7
Cable port (Φ, mm/inch)	50 / 2.0	50 / 2.0	80 / 3.1	80 / 3.1	80 / 3.1
Exterior dimensions					
Width (mm / inch), W	1060 / 41.7	1154 / 45.4	1304 / 51.3	1454 / 57.2	1720 / 67.7
Depth / with handle (mm - inch), D/D'	672 / 702 26.5 / 27.6	822 / 852 32.4 / 33.5	872 / 902 34.3 / 35.5	1510 / 1540 59.4 / 60.6	1620 / 1650 63.8 / 65
Height (mm / inch), H	1340 / 52.8	1540 / 60.6	1724 / 67.9	1628 / 64.1	1534 / 60.4
Weight (kg / lbs)	360 / 793.7	420 / 925.9	520 / 1146.4	640 / 1411	700 / 1543.2

Accessories Page 342

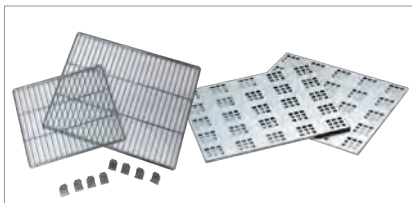
Cable Port, Shelves, Viewing Window, Signal Lamp, Recorder, Fan Speed Adjuster, Gas Purge System, Hour Meter

Accessories



Cable Port

- Both cap and silicone plug are included as standard in Ø50 mm cable port.
- It is available to add Ø50 mm, Ø80 mm.



Wire Shelf, Perforated Shelf

- Excellent corrosion resistance as made of stainless steel.
- 2 wire shelves are given as standard.
- Perforated shelf suitable for high load samples. (optional)



Viewing Window

- Constantly observing the samples under test in anytime.
- Tempered glass window with wire heater and LED lamp.



Signal Lamp

- Figuring out equipment status remotely.
- Run/Stand-by/Error displayed by color.



LC DataKeeper (only TC3 models)

- Cat. No.: SSA11001 (1yr), SSA11002 (permanent)
- High-integrity software compliant with FDA 21 CFR Part 11
- Integrated with Jeio Tech equipment for GMP audits



LC GreenBox

- Monitor and control the operation status of the device in real time via mobile app with simple internet connection.
- One LC GreenBox can connect up to 4 devices. (only TC3 model (Cat. No.: AAHQ1011K))

Model	Standard	Cable Port ø50	Cable Port ø80	Wire Shelf	Perforated Shelf	Viewing Window	Signal Lamp
TC3-KE-025	ø50 Cable Port	AAA8T612	N/A	00RTD0000679	AAA80602-6	N/A	AAA80550
TC3-KE-065	ø50 Cable Port	AAA8T612	AAA8T611	00RTD0000680	AAA80602-7	N/A	AAA80550
TC3-KE-100	ø50 Cable Port	AAA8T612	AAA8T611	00RTD0000681	AAA80602-8	N/A	AAA80550
TC3-ME-025	ø50 Cable Port	AAA8T612	N/A	00RTD0000679	AAA80602-6	N/A	AAA80550
TC3-ME-065	ø50 Cable Port	AAA8T612	AAA8T611	00RTD0000680	AAA80602-7	N/A	AAA80550
TC3-ME-100	ø50 Cable Port	AAA8T612	AAA8T611	00RTD0000681	AAA80602-8	N/A	AAA80550
KBD-012	ø50 Cable Port	AAAK8511	AAAK8512	00LTV0000070	AAAK1501	N/A	AAA80550
KBD-025	ø50 Cable Port	AAAK8511	AAAK8512	00LTV0000053	AAAK1502	N/A	AAA80550
KBD-040	ø80 Cable Port	AAAK8511	AAAK8512	00LTV0000029	AAAK1503	N/A	AAA80550
KBD-070	ø80 Cable Port	AAAK8511	AAAK8512	00LTV0000030	AAAK1504	N/A	AAA80550
KBD-100	ø80 Cable Port	AAAK8511	AAAK8512	00LTV0000057	AAAK1505	N/A	AAA80550
KMV-012	ø50 Cable Port	AAAK8511	AAAK8512	00LTV0000070	AAAK1501	AAAK8501	AAA80550
KMV-025	ø50 Cable Port	AAAK8511	AAAK8512	00LTV0000053	AAAK1502	AAAK8501	AAA80550
KMV-040	ø80 Cable Port	AAAK8511	AAAK8512	00LTV0000029	AAAK1503	AAAK8501	AAA80550
KMV-070	ø80 Cable Port	AAAK8511	AAAK8512	00LTV0000030	AAAK1504	AAAK8601	AAA80550
KMV-100	ø80 Cable Port	AAAK8511	AAAK8512	00LTV0000057	AAAK1505	AAAK8601	AAA80550
JMV-025	ø50 Cable Port	AAAK8511	AAAK8512	00LTV0000053	AAAK1502	AAAK8501	AAA80550
JMV-040	ø80 Cable Port	AAAK8511	AAAK8512	00LTV0000029	AAAK1503	AAAK8501	AAA80550
JMV-070	ø80 Cable Port	AAAK8511	AAAK8512	00LTV0000030	AAAK1504	AAAK8601	AAA80550
JMV-100	ø80 Cable Port	AAAK8511	AAAK8512	00LTV0000057	AAAK1505	AAAK8601	AAA80550
PBV-012	ø50 Cable Port	AAAK8511	AAAK8512	00LTV0000070	AAAK1501	AAAK8501	AAA80550
PBV-025	ø50 Cable Port	AAAK8511	AAAK8512	00LTV0000053	AAAK1502	AAAK8501	AAA80550
PBV-040	ø80 Cable Port	AAAK8511	AAAK8512	00LTV0000029	AAAK1503	AAAK8501	AAA80550
PBV-070	ø80 Cable Port	AAAK8511	AAAK8512	00LTV0000030	AAAK1504	AAAK8501	AAA80550
PBV-100	ø80 Cable Port	AAAK8511	AAAK8512	00LTV0000057	AAAK1505	AAAK8501	AAA80550
PMV-012	ø50 Cable Port	AAAK8511	AAAK8512	00LTV0000070	AAAK1501	AAAK8501	AAA80550
PMV-025	ø50 Cable Port	AAAK8511	AAAK8512	00LTV0000053	AAAK1502	AAAK8501	AAA80550
PMV-040	ø80 Cable Port	AAAK8511	AAAK8512	00LTV0000029	AAAK1503	AAAK8501	AAA80550
PMV-070	ø80 Cable Port	AAAK8511	AAAK8512	00LTV0000030	AAAK1504	AAAK8501	AAA80550
PMV-100	ø80 Cable Port	AAAK8511	AAAK8512	00LTV0000057	AAAK1505	AAAK8501	AAA80550
LCH-11	ø80 Cable Port	AAA8T610	AAA8T611	00EDA0008219	AAA22521	N/A	N/A
LCH-21	ø80 Cable Port	AAA8T610	AAA8T611	00EDA0008220	AAA22522	N/A	N/A
LCH-31	ø80 Cable Port	AAA8T610	AAA8T611	AAAK6531	AAAK6532	N/A	N/A
LCH-11-2C	ø80 Cable Port	AAA8T610	AAA8T611	00EDA0008219	AAA22521	N/A	N/A
LCH-11G	ø80 Cable Port	AAA8T610	AAA8T611	00EDA0008219	AAA22521	N/A	N/A
LCH-21G	ø80 Cable Port	AAA8T610	AAA8T611	00EDA0008220	AAA22522	N/A	N/A
LCH-31G	ø80 Cable Port	AAA8T610	AAA8T611	AAAK6531	AAAK6532	N/A	N/A
LCH-11G-2C	ø80 Cable Port	AAA8T610	AAA8T611	00EDA0008219	AAA22521	N/A	N/A



Recorder (Paper)

- Up to 6 channels supported.
- Set recording range and speed.
- Paper width: 100mm.



Recorder (Digital)

- Paperless. (5.7" LCD Display)
- Up to 6 channels supported.
- Data stored in internal/external memory.



Gas Purge System

- Gas system that can replace and purge the inside of chamber with nitrogen and CO₂ gas.



Hour Meter

- Cumulative usage time management. (No reset function)
- Minimum units of measurement: 0.1 hours. (6 minutes)
- Maximum display 99999.9 hours.



Stand (1 Stage)

- Dedicated stand for small appliances.
- Provides Lower drawer and loading space.
- Casters provided as standard for moving/fixing.



Stand (2 Stage)

- Placing of two compact devices vertically.
- Minimized installation space for different temperature and tests.

Model	Recorder (Paper)	Recorder (Digital)	Fan Speed Adjuster	Gas Purge System	Hour Meter	Stand (1 stage)	Stand (2 stage)
TC3-KE-025	AAA8T504	AAA8T506	N/A	N/A	N/A	AAA80631	AAA80634
TC3-KE-065	AAA8T504	AAA8T506	N/A	N/A	N/A	AAA80632	AAA80635
TC3-KE-100	AAA8T504	AAA8T506	N/A	N/A	N/A	AAA80633	N/A
TC3-ME-025	AAA8T504	AAA8T506	N/A	N/A	N/A	AAA80631	AAA80634
TC3-ME-065	AAA8T504	AAA8T506	N/A	N/A	N/A	AAA80632	AAA80635
TC3-ME-100	AAA8T504	AAA8T506	N/A	N/A	N/A	AAA80633	N/A
KBD-012	AAA8T500	AAA8T505	N/A	N/A	N/A	N/A	N/A
KBD-025	AAA8T500	AAA8T505	N/A	N/A	N/A	N/A	N/A
KBD-040	AAA8T500	AAA8T505	N/A	N/A	N/A	N/A	N/A
KBD-070	AAA8T500	AAA8T505	N/A	N/A	N/A	N/A	N/A
KBD-100	AAA8T500	AAA8T505	N/A	N/A	N/A	N/A	N/A
KMV-012	AAA8T500	AAA8T505	AAAK1531	AAA80691	AAAK1532	N/A	N/A
KMV-025	AAA8T500	AAA8T505	AAAK1531	AAA80691	AAAK1532	N/A	N/A
KMV-040	AAA8T500	AAA8T505	AAAK1531	AAA80691	AAAK1532	N/A	N/A
KMV-070	AAA8T500	AAA8T505	AAAK1531	AAA80691	AAAK1532	N/A	N/A
KMV-100	AAA8T500	AAA8T505	AAAK1531	AAA80691	AAAK1532	N/A	N/A
JMV-025	AAA8T500	AAA8T505	AAAK1531	AAA80691	AAAK1532	N/A	N/A
JMV-040	AAA8T500	AAA8T505	AAAK1531	AAA80691	AAAK1532	N/A	N/A
JMV-070	AAA8T500	AAA8T505	AAAK1531	AAA80691	AAAK1532	N/A	N/A
JMV-100	AAA8T500	AAA8T505	AAAK1531	AAA80691	AAAK1532	N/A	N/A
PBV-012	AAA8T500	AAA8T505	AAAK1531	AAA80691	AAAK1532	N/A	N/A
PBV-025	AAA8T500	AAA8T505	AAAK1531	AAA80691	AAAK1532	N/A	N/A
PBV-040	AAA8T500	AAA8T505	AAAK1531	AAA80691	AAAK1532	N/A	N/A
PBV-070	AAA8T500	AAA8T505	AAAK1531	AAA80691	AAAK1532	N/A	N/A
PBV-100	AAA8T500	AAA8T505	AAAK1531	AAA80691	AAAK1532	N/A	N/A
PMV-012	AAA8T500	AAA8T505	AAAK1531	AAA80691	AAAK1532	N/A	N/A
PMV-025	AAA8T500	AAA8T505	AAAK1531	AAA80691	AAAK1532	N/A	N/A
PMV-040	AAA8T500	AAA8T505	AAAK1531	AAA80691	AAAK1532	N/A	N/A
PMV-070	AAA8T500	AAA8T505	AAAK1531	AAA80691	AAAK1532	N/A	N/A
PMV-100	AAA8T500	AAA8T505	AAAK1531	AAA80691	AAAK1532	N/A	N/A
LCH-11	AAA8T500	AAA8T505	N/A	N/A	N/A	N/A	N/A
LCH-21	AAA8T500	AAA8T505	N/A	N/A	N/A	N/A	N/A
LCH-31	AAA8T500	AAA8T505	N/A	N/A	N/A	N/A	N/A
LCH-11-2C	AAA8T500	AAA8T505	N/A	N/A	N/A	N/A	N/A
LCH-11G	AAA8T500	AAA8T505	N/A	N/A	N/A	N/A	N/A
LCH-21G	AAA8T500	AAA8T505	N/A	N/A	N/A	N/A	N/A
LCH-31G	AAA8T500	AAA8T505	N/A	N/A	N/A	N/A	N/A
LCH-11G-2C	AAA8T500	AAA8T505	N/A	N/A	N/A	N/A	N/A