

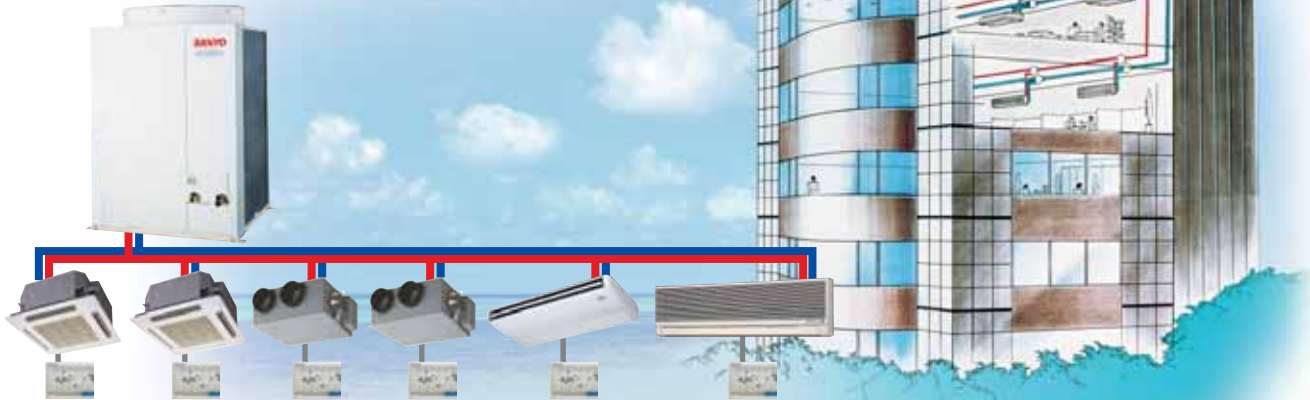
SANYO "ECO MULTI" SYSTEM AIR CONDITIONER



SANYO ECO

Economy

Power control circuit and redesigned structural parts contribute to a major reduction in initial and running cost.



X *Ceiling-Recessed Type*



T *Ceiling-Suspended Type*



MULTI SYSTEM

Suitable air-conditioning for numerous commercial applications including office and industrial.

"ECO MULTI SYSTEM," the new individual air-conditioning system that effectively combines a power control compressor and an electronic refrigerant control valve.

With the ECO MULTI it is possible to connect indoor units with a capacity of up to 135%* of the outdoor unit maximum capacity. Assuming that the minimum capacity of an indoor unit is 12,000 BTU/h, it is possible to connect eight units to one outdoor unit.

* The actual total capacity of the indoor unit's will not exceed the outdoor unit maximum capacity.

Max. 8 units

Outdoor unit

CHY7243

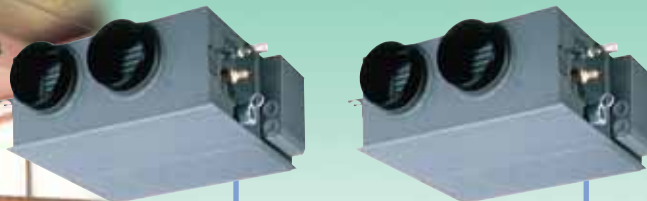
Capacity

Cooling Max. 72,000 BTU/h

Heating Max. 80,000 BTU/h



Concealed-Duct Type



Wall-Mounted Type

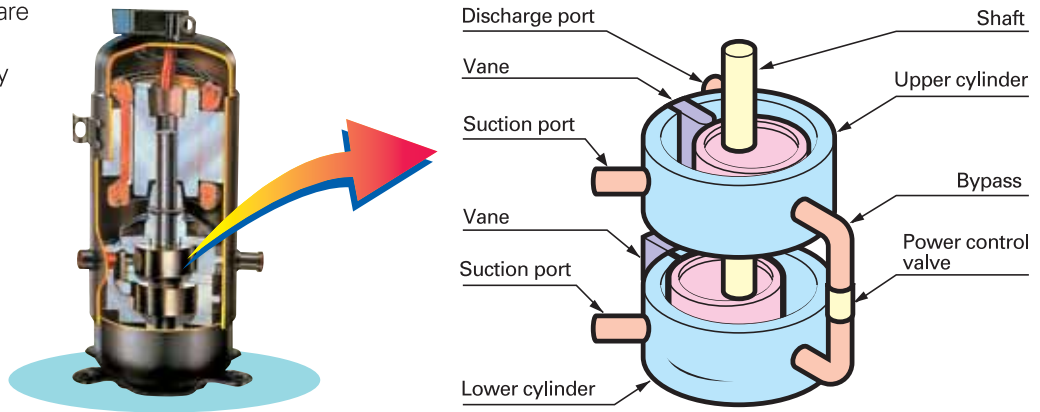


UNIQUE FEATURES OF ECO MULTI SYSTEM

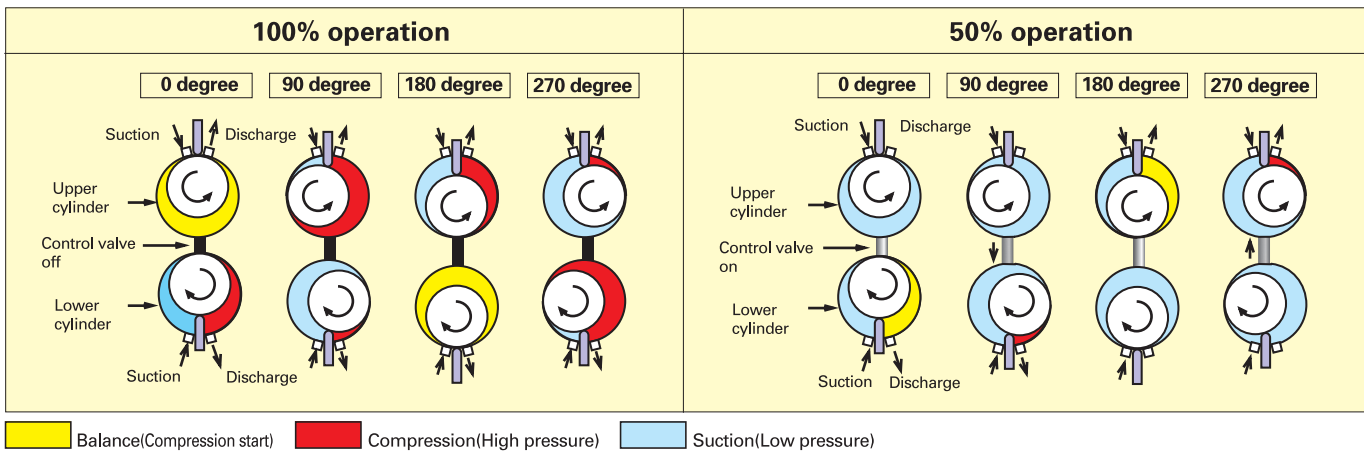
High technology features

Power control compressor

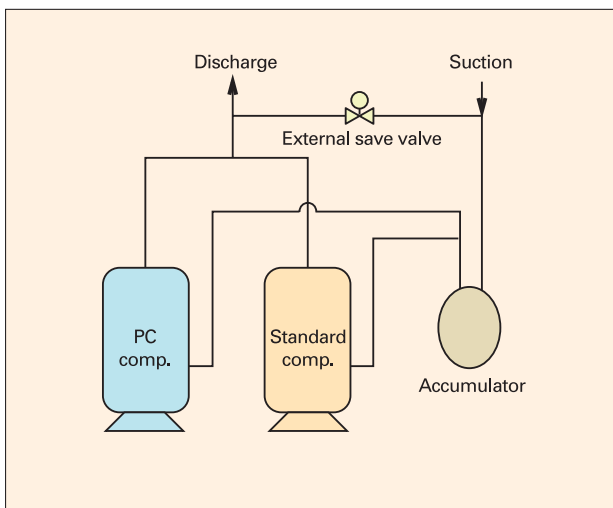
The upper and lower cylinders are connected by a bypass and capacity control is performed by the power control valve.



Principle of 50% capacity control by power control compressor



Capacity Control



Twin-compressor design featuring a power control compressor (PC comp.) and standard compressor.

Combination of external save valve (bypass valve) makes it possible to realize compressor capacity control of 8 steps.

In addition, an electronic refrigerant control valve on the indoor unit provides even more precise control of refrigerant flow volume for better capacity control in accordance with load.

Operating Capacity		12.5%	25%	37.5%	50%	62.5%	75%	87.5%	100%
PC Compressor	100% Operation	OFF	OFF	ON	ON	OFF	OFF	ON	ON
	50% Operation	ON	ON	OFF	OFF	ON	ON	OFF	OFF
AC Compressor		OFF	OFF	OFF	OFF	ON	ON	ON	ON
External Save Valve		ON	OFF	ON	OFF	ON	OFF	ON	OFF

Advanced refrigerant control with 16-bit microprocessor

By using electronic control valves for linear control, the capacity of the indoor unit can be controlled from 25 to 100% (during cooling) to provide a more stable room temperature at a constant air flow rate.



Automatic restart function for power failure

Even when power failure occurs, preset programmed operation can be reactivated once power is resumed.



Self-diagnosing function

Details of previous warnings are stored and can be verified on the liquid crystal display. This makes it easier to diagnose malfunctions, greatly reducing service labor.



(RCS-SH80UG)

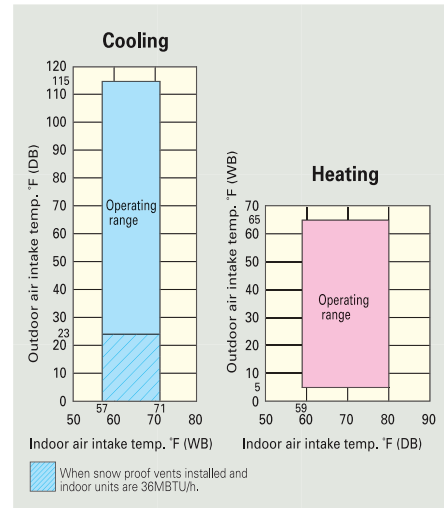
Common-use indoor units with single heat pump system (4 series)

Even more, these indoor units can be connected with a standard single outdoor unit (heat pump type) in case of design changes for air conditioning, allowing more flexible designs than before.



Low ambient operation

Cooling can be performed throughout the year for computer rooms, banquet halls, etc. Wider operation range covers outdoor temperatures of as low as 23°F for cooling, 5°F for heating.



Simple, convenient features (Indoor Units)



3 Fan speeds and Automatic fan operation

Convenient microprocessor control automatically adjusts fan speed to High, Medium or Low, corresponding to room sensor and maintains comfortable airflow throughout the room.



Air Sweep Control

The air sweep function moves the flap up and down in the air outlet, directing air in a "sweeping" motion around the room and providing comfort in every corner.



ON/OFF Timer Remote controller (RCS-SH80UG)

ON/OFF timer can be set to 0.5 hour increments (max. 72 hours).



Hot Start Heating System

Right from the start, air is warm and

comfortable. The Hot Start Heating System prevents any cold blasts at the beginning while the heat pump is warming up, or even defrosting. (Heat pump only)



Dry mode

By intermittent control of compressor and indoor unit's fan, "New Mild Dry" gives you comfort. It realizes efficient dehumidification according to room temperature.



Filter sign

Filter sign informs you when maintenance is necessary.
2,500 hrs: X, T-types
150 hrs: K type



(RCS-SH80UG)



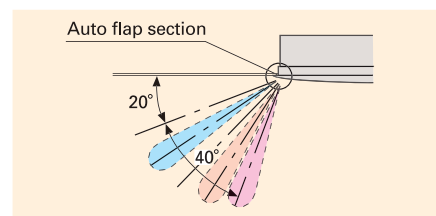
Built-in drain pump

Max. head 30 inches from the bottom of the unit. (condensate pump is only for allowing drain line to meet minimum gravity flow requirements.)



Comfortable auto-flap control

When the unit is first turned on, flap position is automatically adjusted in accordance with the cooling or heating operation. This initial flap position can be preset within a certain range, for both cooling and heating. Auto button is included for continuous movement of flap to vary airflow direction.

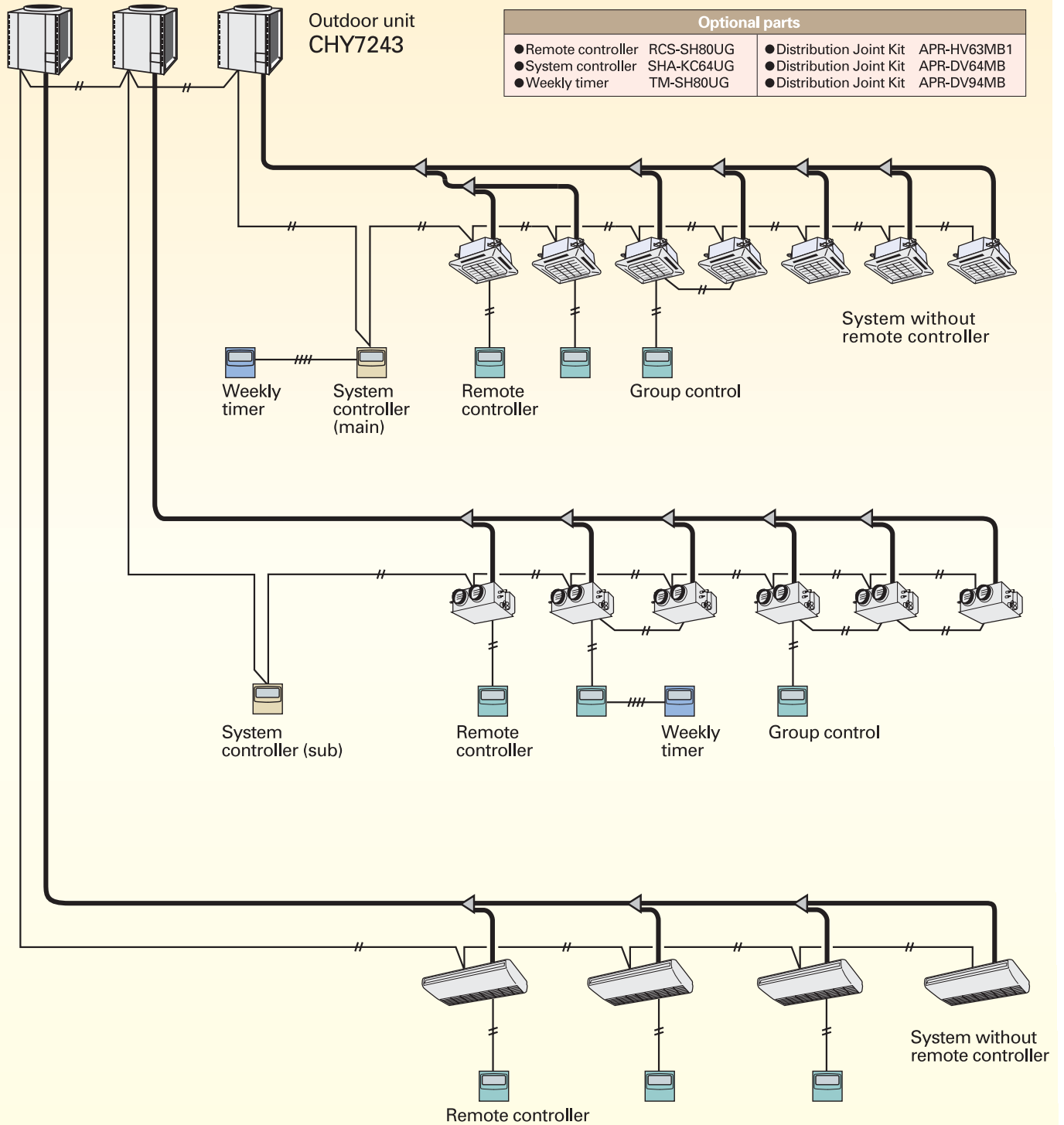


CONTROL SYSTEM DIAGRAM

New control wiring system (S-Net) for easy installation of wiring

The indoor and outdoor units each have communications terminals that allow connection of as many as 94 units (Indoor unit : Max. 64+Outdoor unit : Max. 30) to a single communications line (non-polar twin-line main bus).

- The main bus is twin-core and non-polar for easier wiring.
 - Indoor unit settings are automated for easy installation.
- Note** A "bus" is a pathway for transmitting control signals.



CONVENIENT SYSTEM CONTROLS

Optional Parts

Wired remote controllers (Optional)

Remote controller (RCS-SH80UG)



- Group (collective) control of up to 8 indoor units (maximum) with a remote controller is possible.
- Control with multiple remote controls (main/sub) is possible (max. 2).
- Operating status appears on a large crystal display, and service check function is also provided.
- Comes with 72-hour ON/OFF timer.
- Size (inch): 4-23/32 (H) x 4-23/32 (W) x 5/8 (D)

System controller (SHA-KC64UG)



- Used in combination with remote controllers, the system controller can control up to 64 groups of indoor units (max. 64 indoor units).
- Separating the 64 indoor units into 4 zones, each zone can be controlled individually.
- Up to 16 groups (indoor units) can be registered to each zone.
- Collective control and individual group (unit) control can also be performed.
- System without remote controller is also available.
- Up to 2 system controllers (1 main, 1 sub) can be installed in a system.
- Alarm and operation outputs for an external collected signal are available (potential free contact).
- Size: See the diagram on page 5.

Weekly timer (TM-SH80UG)



- Program covering a week, in which the operation can be stopped 3 times per day, can be set.
- * In case of power failure, the timer stores recorded programs for up to 100 hours.
- Temporary cancellation with cancel button is also possible.
- Can be used concurrently with remote controller and system controller.
- Size (inch): 4-23/32 (H) x 4-23/32 (W) x 5/8 (D)

Remote controller functions

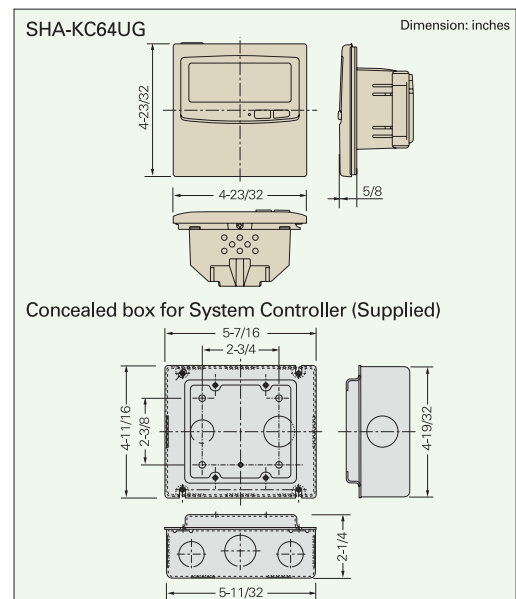
In multi system, the following optional remote controllers can be selected, but there are some functions which cannot be controlled. So, confirm the usable functions from the following table at when selecting.

○ : Controllable × : Uncontrollable

		Remote Controller (RCS-SH80UG)	System Controller (SHA-KC64UG)	
Function	ON/OFF	○	○ (Collective/Individual)	
	Operation mode switch	Heating	○	○ (Individual)
		Dry	○	○ (Individual)
		Cooling	○	○ (Individual)
		Fan	○	○ (Individual)
	Temp setting	○	○ (Individual)	
	Fan speed setting (Hi/Med./Lo/AUTO)	○	○ (Individual)	
	Auto flap	Auto airflow direction setting	○	○
		Arbitrary airflow direction setting	○	○*
	Sweep (Flap swing)	○	○*	
72 hr. ON/OFF timer	○	×		
Sensor temp. display	○	×		
Self-diagnostic function	○	○		
System	Central control (at hand inhibited)	×	○	
	Group control	○ (Up to 8 units)	○ (Up to 16 groups)	
	Concurrent use with weekly timer	○	○	
Setting range	Cooling, dry (°F)	64~86		
	Heating (°F)	60~78		

NOTE: *This function is not usable for indoor unit which is connected to a remote controller.

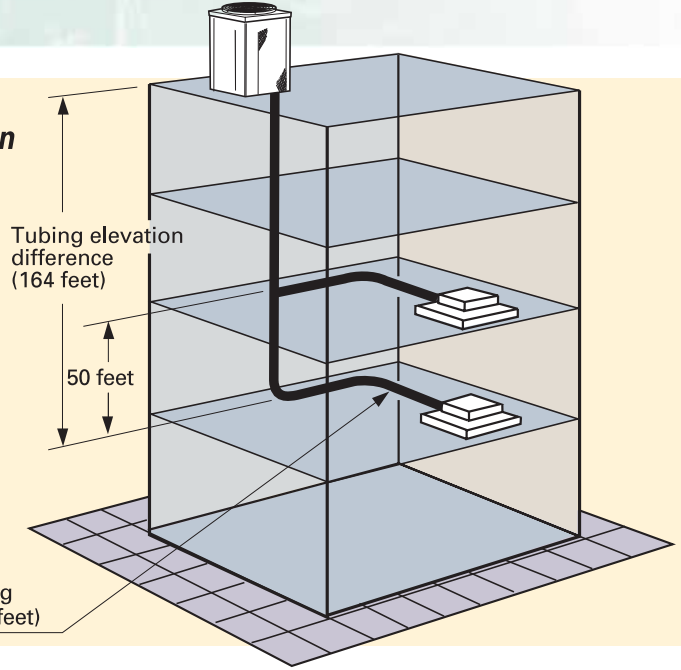
NOTE: If you use both remote controller and system controller concurrently, both controllers can be used on a last-signal priority basis.



INSTALLATION

Ability to use longer tubing and a significant elevation difference between indoor and outdoor units simplify even complicated tubing layouts.

Allowable elevation difference (feet)	Outdoor unit installed higher	≤ 164
	Outdoor unit installed lower	≤ 130
	Between indoor units	≤ 50
Allowable actual tubing length (feet)		≤ 328
Allowable equivalent tubing length (feet)		≤ 410



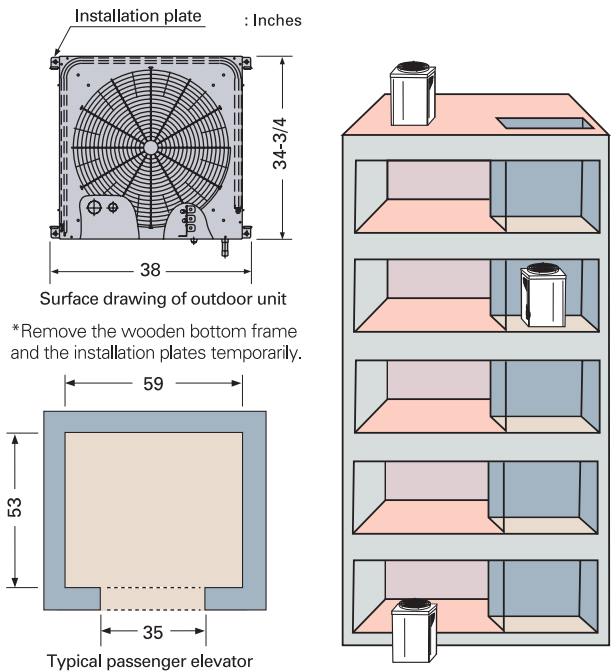
Compact size and lightweight outdoor unit.

Outside dimensions and weight of the outdoor unit are reduced by using a new design.

Dimensions: HxWxD (inches)	51-7/8"x34-3/4"x34-3/4"
Net weight (lbs)	542

Can be carried in an ordinary elevator

Since, standard elevators can be used to transport the equipment, a reduction of installation labor can be expected. Renovation or installation of additional units is easy.



• No Address Switch

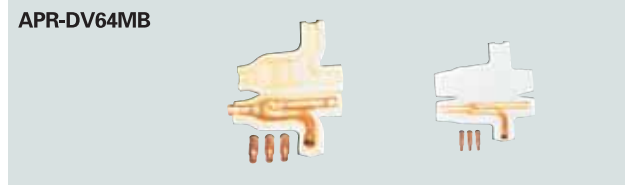
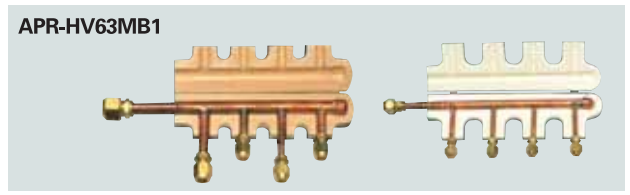
ECO series eliminates address switches in the indoor unit. Installers are free from address switch setting. Manual setting with remote controller is also possible.

• Simple wiring

ECO series adopts innovative 2-wire signal transmission link system (S-Net). The control lines of inter-units are connected without reference to polarity. This system employs an Automatic Check Function for connection errors of inter-unit wiring and piping.

Optional parts (Distribution Joint Kit)

For cooling capacity after distribution of 54,600 BTU/h or less.



For cooling capacity after distribution of more than 54,600 BTU/h.



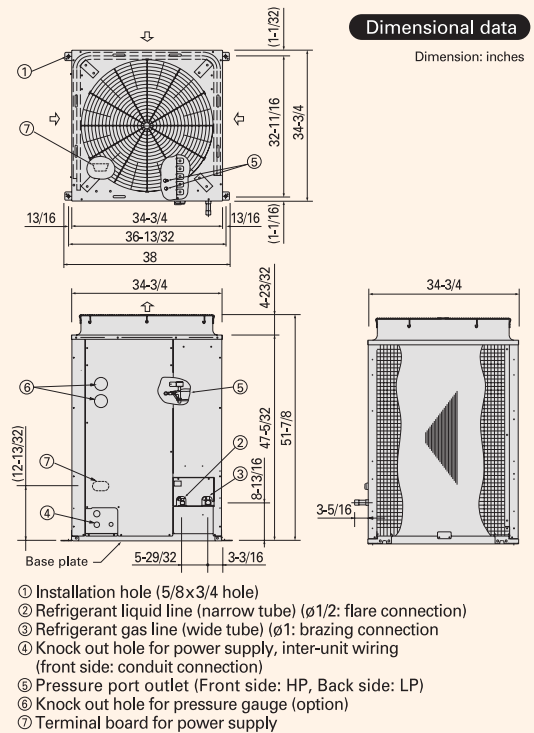
ECO MULTI SYSTEM

OUTDOOR UNIT

Tentative



Model No.		CHY7243		
Power source		3 phase - 60 Hz - 230/208 V		
Performance	Capacity	Cooling	BTU/h	65,000 (72,000)*
		Heating	BTU/h	68,000 (80,000)*
	EER	Cooling	BTU/hW	8.9
		Heating	BTU/WTU	3.0
	COP	Heating	BTU/WTU	3.0
Air circulation (Hi)	CFM	5,300		
Features	Operation Sound (Hi)	dB-A	58	
	Refrigerant tubing connections	Narrow/Wide	Flare/Brazing	
	Refrigerant tube diameter	Narrow tube in.	1/2	
		Wide tube in.	1	
Refrigerant tubing kit/joint kit		Optional		
Dimensions & Weight	Unit dimensions	Height in.	51-7/8	
		Width in.	34-3/4	
		Depth in.	34-3/4	
	Net weight	lbs.	542	



Rated conditions

Cooling : Indoor air temperature 80°F DB/67°F WB Outdoor air temperature 95°F DB
 Heating : Indoor air temperature 70°F DB/60°F WB Outdoor air temperature 47°F DB/43°F WB

*Max. outdoor unit capacity.

INDOOR UNITS

Cooling/Heating capacity

Class	12	18	24	36	42
Capacity BTU/h	12,000/14,000	19,000/21,000	24,000/27,000	32,500/34,000	42,000/44,000
Type (kW)	(3.6/4.2)	(5.6/6.3)	(7.1/8.0)	(9.5/10.0)	(12.3/12.9)
X Type Ceiling-Recessed Type	 XH1242 (Unit No. XH1242 Air Grille No. PNR-XH2442)	 XH1842 (Unit No. XH1842 Air Grille No. PNR-XH2442)	 XH2442 (Unit No. XH2442 Air Grille No. PNR-XH2442)	 XH3642 (Unit No. XH3642 Air Grille No. PNR-XH3642)	 XH4242 (Unit No. XH4242 Air Grille No. PNR-XH3642)
T Type Ceiling-Suspended Type			 TH2442	 TH3642	 TH4242
U Type Concealed-Duct Type	 UH1242	 UH1842	 UH2442	 UH3642	
K Type Wall-Mounted Type	 KH1242	 KH1842	 KH2442	 KH3642	

NOTE: Model numbers of the X type model shown above refer to the main units and intake panels when combined.
 However, main units and intake panels also have their own individual model numbers.

Ceiling-Recessed type (X-series)



The 4-way air flow makes it comfortable right to every corner. Excelling in quietness and needing no special installation space, it suits all the requirements of offices, stores, etc.

● Built-in drain pump

Max. head 30 inches from the bottom of the unit.
(condensate pump is only for allowing drain line to meet minimum gravity flow requirements.)

● Optimum air flow for heating and cooling

● Long-life filter

Long-life, maintenance-free filter good for approximately 2,500 hours is standard equipment. Filter sign on remote controller indicates if maintenance is needed.
Anti-mold treatment for long-life filter, flap and drain-pan.

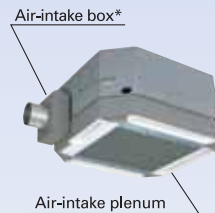
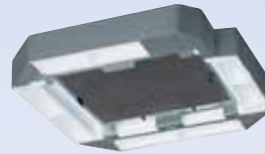
● Air-intake plenum (Option)

Fresh air can be obtained by using the fresh air intake of the unit. However, air-intake plenum (option) should be used to allow more fresh air for the room.

CMB-GSJ80U for XH12, 18, 24 type

CMB-GSJ140U for XH36, 42 type

*Air-intake box is supplied with air-intake plenum.



Ceiling-Suspended type (T-series)

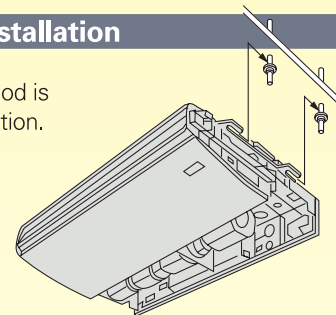


- All models newly designed.
- Reduced operation sound level.
- Improved serviceability/Easy installation.
- Stain and fade resistant surfaces.
- Long-life filter
- Quiet operation

The ceiling-mounted unit is equipped with a highly efficient, multi-blade centrifugal fan that generates a powerful yet gentle airflow throughout the room. A redesigned aerodynamically tested louver structure minimizes operational sound even at high fan speed.

Installation

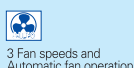
- External suspension method is employed for easy installation.



- Drain hose can be let out from either end (right/left) of the unit.



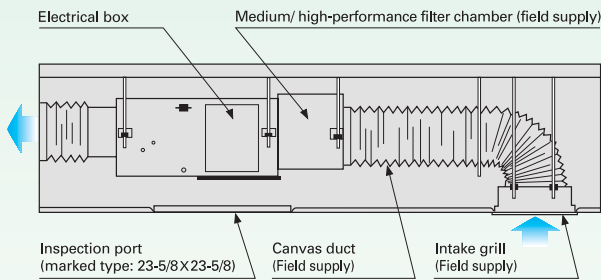
- Improved accessibility to electronic components (control box) for servicing.



Concealed-Duct type (U-series)



- Outline diagram with medium- or high-performance filter installed.



- **Built-in drain pump**
Max. head 30 inches from the bottom of the unit.
(condensate pump is only for allowing drain line to meet minimum gravity flow requirements.)

- **Installation Example**
The basic systems in the concealed-duct type air conditioner.



Above picture shows the standard ducting system, where air is taken in from the back of the unit. This system is useful for places which need extensive air conditioning, including conference halls, showrooms, and restaurants.

Wall-Monuted type (K-series)

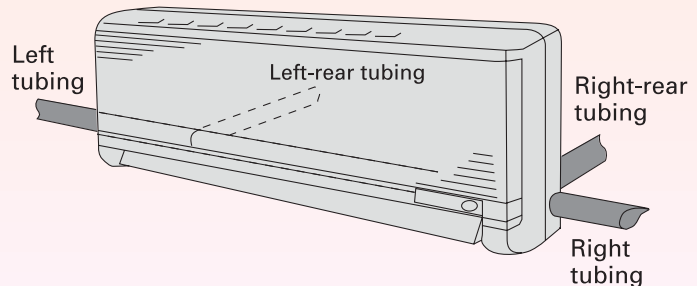


- Easy installation
- Easy-to-clean Air Filter



- **Air sweep function**
The air sweep function moves the flap up and down in the air outlet, directing air in a "sweeping" motion around the room and providing comfort in every corner.

- **Distribution tubing can be connected from any of 4 directions.**



Ceiling-Recessed type



MODEL No.	Indoor unit		XH1242	XH1842	XH2442	XH3642	XH4242					
Power source			1 phase - 60Hz - 230/208V									
Performance	Capacity	BTU/h	12,000	14,000	19,000	21,000	24,000	27,000	32,500	34,000	42,000	44,000
		kW	3.6	4.2	5.6	6.3	7.1	8.0	9.5	10.0	12.3	12.9
	Air circulation (Hi/Med./Lo)	CFM	600/450/380		710/530/450		710/530/450		1050/840/720		1050/840/720	
	Moisture removal (High)	Pints/h	2.8	—	5.3	—	7.9	—	10.5		14.4	
Electrical Rating	Voltage rating	V	230/208		230/208		230/208		230/208		230/208	
	Available voltage range	V	187/253		187/253		187/253		187/253		187/253	
	Running amperes	A	0.6/0.6	0.5/0.5	0.7/0.7	0.6/0.6	0.7/0.7	0.6/0.6	0.9/0.8	0.7/0.7	1.0/0.9	0.9/0.8
	Power input	W	130/110	110/90	150/130	130/110	150/130	130/110	180/150	160/140	200/170	190/160
Features	Fan motor locked rotor amperes	A	1/1		1/1		1/1		2/2		2/2	
	Operation sound (Hi/Med./Lo) dB-A		35/31/27		38/35/31		38/35/31		44/37/33		44/37/33	
	Refrigerant tubing connections		Flare type		Flare type		Flare type		Flare type		Flare type	
	Refrigerant tube diameter		Narrow tube in.	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8
		Wide tube in.	1/2	5/8	3/4	3/4	3/4	3/4	3/4	3/4	3/4	
	Built-in drain pump		Max. Head 19-11/16 inch above drain connection									
Dimensions & Weight	Unit Height	in.	13-5/16		13-5/16		13-5/16		14-1/2		14-1/2	
	Width	in.	33-27/32		33-27/32		33-27/32		45-9/32		45-9/32	
	Depth	in.	33-27/32		33-27/32		33-27/32		33-27/32		33-27/32	
	Net weight	lbs.	60		60		60		75		75	

Rated conditions

Cooling : Indoor air temperature 80°F DB/67°F WB Outdoor air temperature 95°F DB

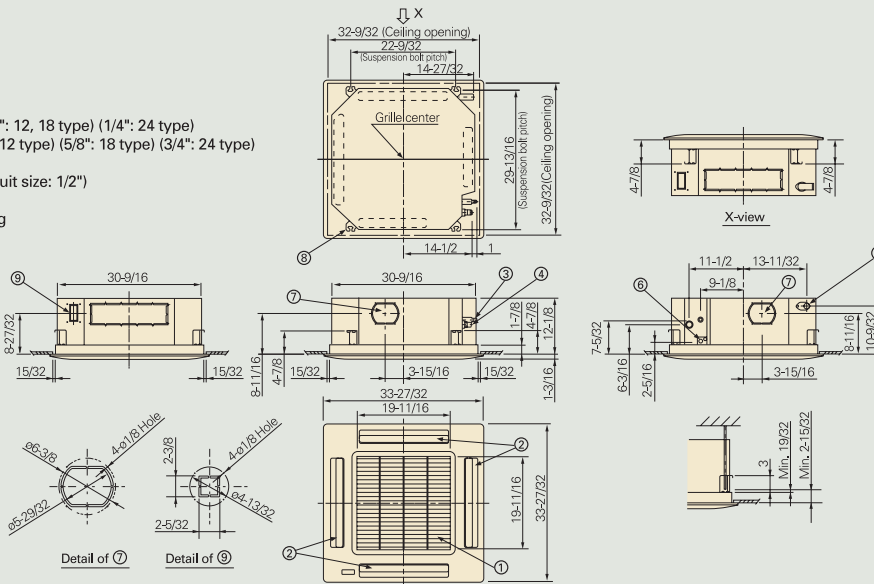
Heating : Indoor air temperature 70°F DB/60°F WB Outdoor air temperature 47°F DB/43°F WB

Data subject to change without notice.

Dimensional data

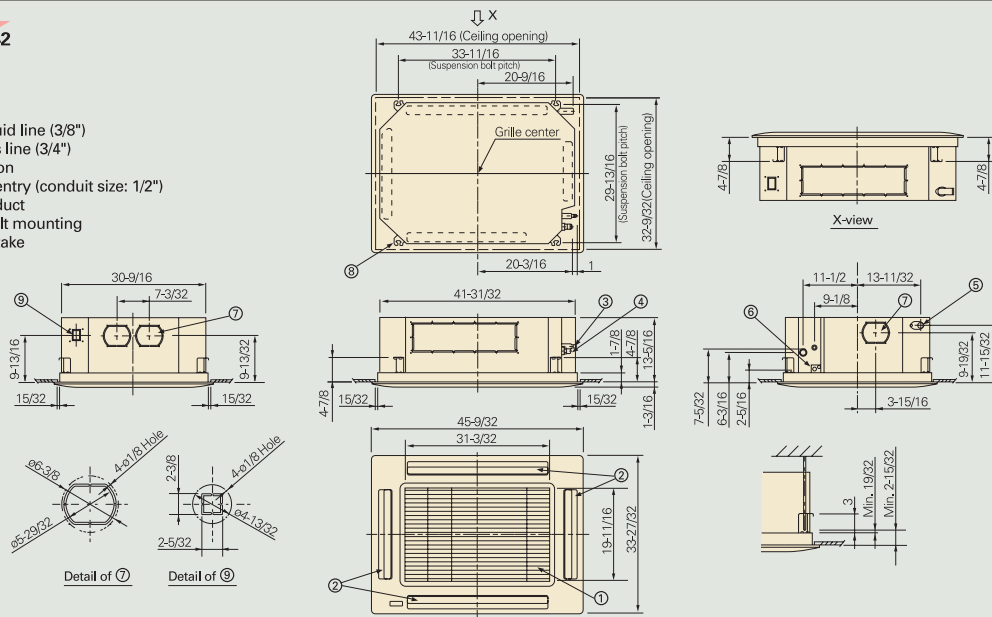
XH1242~XH2442

- ① Air intake grille
- ② Air outlet
- ③ Refrigerant liquid line (3/8": 12, 18 type) (1/4": 24 type)
- ④ Refrigerant gas line (1/2": 12 type) (5/8": 18 type) (3/4": 24 type)
- ⑤ Drain connection
- ⑥ Power supply entry (conduit size: 1/2")
- ⑦ For discharge duct
- ⑧ Suspension bolt mounting
- ⑨ For fresh air intake



XH3642~XH4242

- ① Air intake grille
- ② Air outlet
- ③ Refrigerant liquid line (3/8")
- ④ Refrigerant gas line (3/4")
- ⑤ Drain connection
- ⑥ Power supply entry (conduit size: 1/2")
- ⑦ For discharge duct
- ⑧ Suspension bolt mounting
- ⑨ For fresh air intake



Ceiling-Suspended type



MODEL No.		Indoor unit		TH2442		TH3642		TH4242	
Power source				1 phase - 60Hz - 230/208V					
Performance	Capacity	BTU/h	Cooling	Heating	Cooling	Heating	Cooling	Heating	
			24,000	27,000	32,500	34,000	42,000	44,000	
			kW	7.1	8.0	9.5	10.0	12.3	12.9
	Air circulation (Hi/Med./Lo)	CFM	550/490/460		1,100/930/750		1100/930/750		
	Moisture removal (High)	Pints/h	8.0	—	10.7	—	13.8	—	
Electrical Rating	Voltage rating		V		230/208		230/208		
	Available voltage range		V		187-253		187-253		
	Running amperes		A		0.5/0.5	0.5/0.5	0.8/0.7	0.8/0.7	
	Power input		W		110/95	110/95	175/145	175/145	
	Fan motor locked rotor amperes		A		1/1		1/1		
Features	Operation sound (Hi/Med./Lo) dB-A			40/38/36		46/42/37		47/43/35	
	Refrigerant tubing connections			Flare type		Flare type		Flare type	
	Refrigerant tube diameter	Narrow tube	in.	3/8		3/8		3/8	
		Wide tube	in.	3/4		3/4		3/4	
Air deflection (Horizontal/Vertical)			Manual/Auto		Manual/Auto		Manual/Auto		
Dimensions & Weight	Unit Dimensions	Height	in.	7-15/32		9-7/16		9-7/16	
		Width	in.	51-3/16		62-1/32		62-1/32	
		Depth	in.	26-3/8		26-3/8		26-3/8	
	Net weight		lbs.	60		90		90	

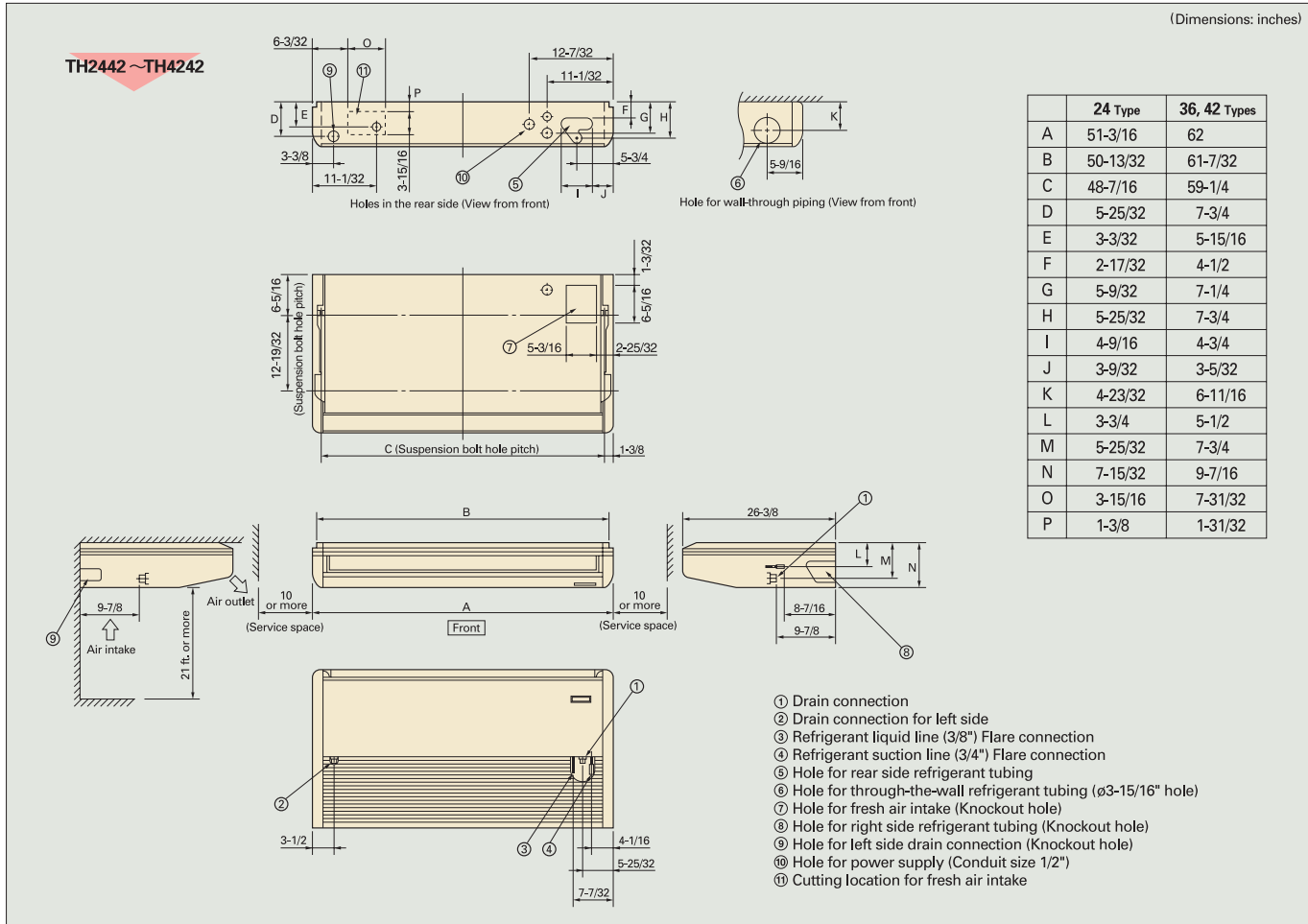
Rated conditions

Cooling : Indoor air temperature 80°F DB/67°F WB Outdoor air temperature 95°F DB

Heating : Indoor air temperature 70°F DB/60°F WB Outdoor air temperature 47°F DB/43°F WB

Data subject to change without notice.

Dimensional data



Concealed Duct type



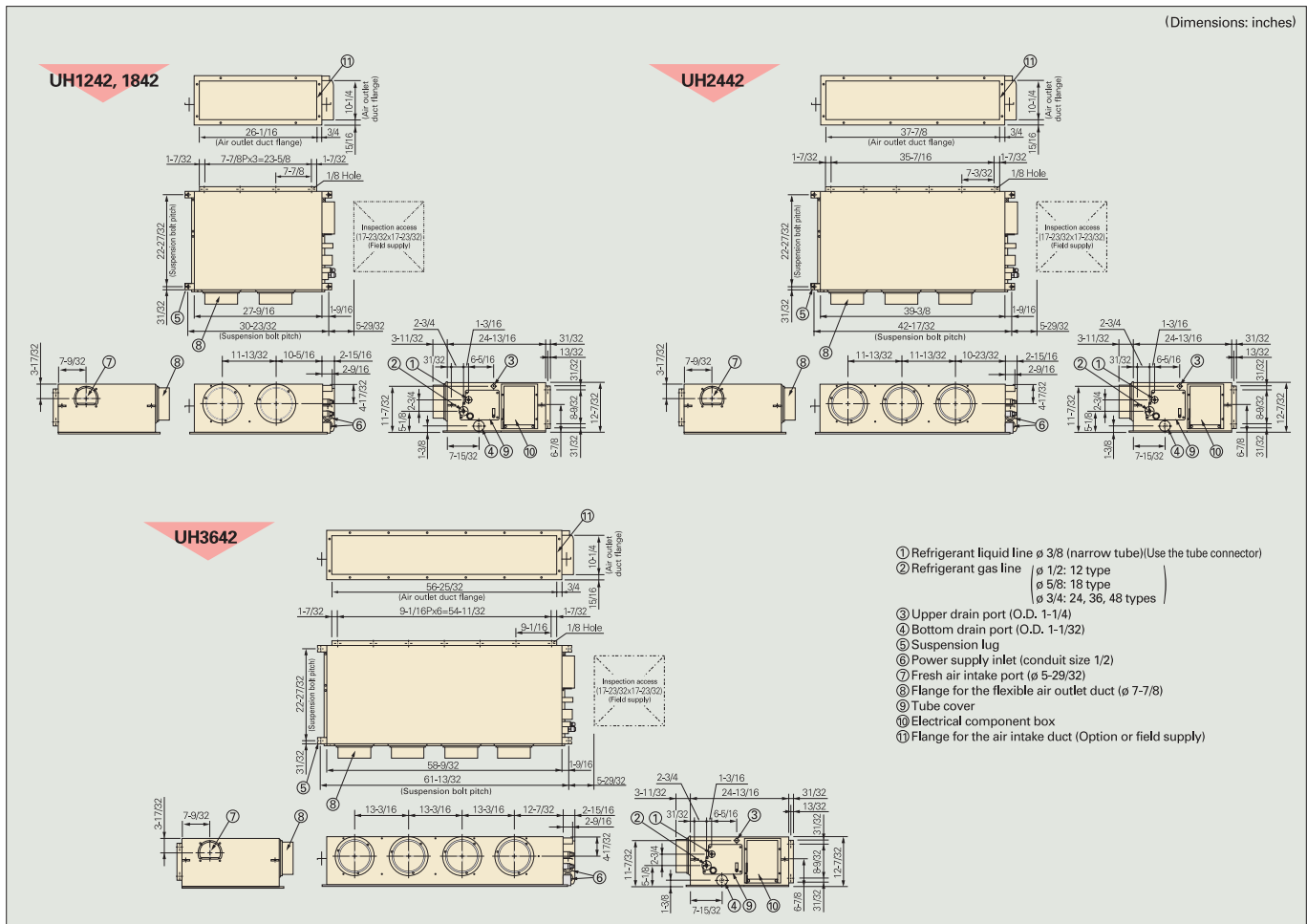
MODEL No.	Indoor unit	UH1242		UH1842		UH2442		UH3642		
Power source		1 phase - 60Hz - 230/208V								
Performance	Capacity	BTU/h	12,000	14,000	19,000	21,000	24,000	27,000	32,500	34,000
		kW	3.6	4.2	5.6	6.3	7.1	8.0	9.5	10.0
	Air circulation (Hi/Med./Lo)	CFM	360/300/250		420/370/320		670/530/460		1,060/920/750	
	External static pressure	in. Aq (Pa)	0.16 (39): at shipment 0.27 (66): using jumper cable		0.16 (39): at shipment 0.27 (66): using jumper cable		0.20 (49): at shipment 0.40 (100): using jumper cable		0.24 (59): at shipment 0.38 (94): using jumper cable	
	Moisture removal (High)	Pints/h	3.8	—	6.4	—	8.4	—	10.0	—
Electrical Rating	Voltage rating	V	230/208		230/208		230/208		230/208	
	Available voltage range	V	187/253		187/253		187/253		187/253	
	Running amperes	A	0.4/0.4	0.3/0.3	0.5/0.5	0.4/0.3	0.9/0.8	0.7/0.7	1.0/1.0	0.9/0.8
	Power input	W	85/75	70/60	95/80	80/70	175/155	160/140	220/195	205/175
	Fan motor locked rotor amperes	A	1/1		1/1		2/2		2/2	
Features	Operation sound (Hi/Med./Lo) dB-A		29/26/22: at shipment 32/29/26: using jumper cable		30/28/25: at shipment 33/30/28: using jumper cable		34/30/27: at shipment 38/34/30: using jumper cable		38/33/31: at shipment 42/38/33: using jumper cable	
	Refrigerant tubing connections		Flare type		Flare type		Flare type		Flare type	
	Refrigerant tube diameter	Narrow tube in.	3/8		3/8		3/8		3/8	
		Wide tube in.	1/2		5/8		3/4		3/4	
Built-in drain pump		Max. Head 19-1/16 inch above drain connection								
Dimensions & Weight	Unit Dimensions	Height in.	12-7/32		12-7/32		12-7/32		12-7/32	
		Width in.	27-9/16		27-9/16		39-3/8		58-9/32	
		Depth in.	24-13/16		24-13/16		24-13/16		24-13/16	
	Net weight lbs.		53		55		71		104	

Rated conditions

Cooling : Indoor air temperature 80°F DB/67°F WB Outdoor air temperature 95°F DB
 Heating : Indoor air temperature 70°F DB/60°F WB Outdoor air temperature 47°F DB/43°F WB

Data subject to change without notice.

Dimensional data



Wall-Mounted type



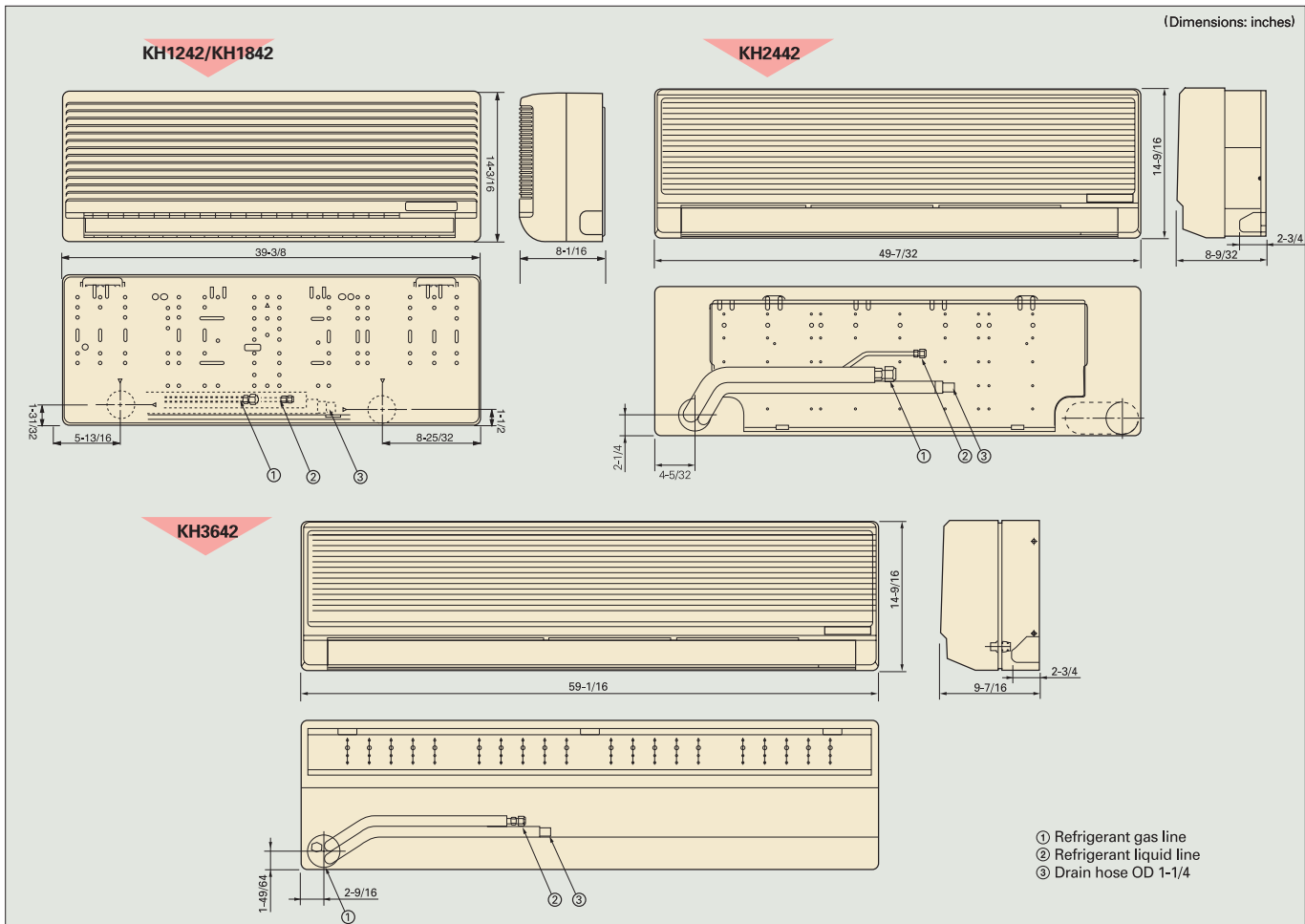
MODEL No.		Indoor unit		KH1242		KH1842		KH2442		KH3642	
Power source				1 phase - 60Hz - 230/208V							
Performance	Capacity	BTU/h	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	
			12,000	14,000	17,000	20,000	24,000	27,000	32,500	34,000	
	kW		3.6	4.2	5.0	6.0	7.1	8.0	9.5	10.0	
	Air circulation (Hi/Med./Lo)	CFM	370/290/250		470/390/310		540/460/380		830/710/590		
Moisture removal (High)	Pints/h	3.4	—	5.3	—	7.1	—	10.6	—		
Electrical Rating	Voltage rating	V	230/208		230/208		230/208		230/208		
	Available voltage range	V	187-253		187-253		187-253		187-253		
	Running amperes	A	0.3/0.3	0.3/0.3	0.4/0.4	0.4/0.4	0.4/0.4	0.4/0.4	0.5/0.5	0.5/0.5	
	Power input	W	75/60	75/60	85/75	85/75	85/75	85/75	105/95	105/95	
	Fan motor locked rotor amperes	A	1/1		1/1		1/1		1/1		
Features	Operation sound (Hi/Med./Lo) dB-A		40/37/34		46/42/37		45/42/40		48/44/40		
	Refrigerant tubing connections		Flare type		Flare type		Flare type		Flare type		
	Refrigerant tube diameter	Narrow tube in.	3/8		3/8		3/8		3/8		
		Wide tube in.	1/2		5/8		3/4		3/4		
Air deflection (Horizontal/Vertical)		Manual/Auto									
Dimensions & Weight	Unit Dimensions	Height in.	14-3/16		14-3/16		14-9/16		14-9/16		
		Width in.	39-3/8		39-3/8		49-7/32		59-1/16		
		Depth in.	8-1/16		8-1/16		8-9/32		9-7/16		
	Net weight lbs.		33		33		38		73		

Rated conditions

Cooling : Indoor air temperature 80°F DB/67°F WB Outdoor air temperature 95°F DB
 Heating : Indoor air temperature 70°F DB/60°F WB Outdoor air temperature 47°F DB/43°F WB

Data subject to change without notice.

Dimensional data



⚠ Safety Precautions

■ Usage

- The air conditioners listed herein are only for cooling/heating areas used by people. Do not use the unit for foods, animals, plants, precision machines, works of art or other objects. Doing so may cause damage to the unit. Do not use the unit for vehicles or vessels. Doing so may cause unit water leakage and short circuiting.

■ Before Using

- Please read the Operating Instructions carefully and use the air conditioner properly.

■ Installation

- Requires a qualified technician/installer to install the air conditioner. Improper installation by yourself may result in water leakage, electric shock or fire.
- When installing in a small room, take measures to keep refrigerant leakage within acceptable density limits. According to local/national safety code requirements.

■ Location

- Do not install where inflammable gas may leak or inflammable objects exist. Do not install where there is any inflammable gas emission, inflow or leftover, or where carbon fibers are in the air. This could be the cause of fire.

Caution On Installation and Use

● Location

Blocking air intake or outlet can be the cause of trouble including the loss of air flow power, or short-cycled air emission drawn into the intake. Be sure to install in an airy place.

● Avoid Installation in Highly Humid Locations

- (1) Avoid installation where the humidity is excessive. This causes condensation during cooling.
- (2) Installation in a room where the temperature and humidity are high around the ceiling due to sunlight will result in condensation. Use insulation or take other preventive measures to block the sunlight.

● Exposure to Oil

Avoid installation where there is exposure to oil or soot (such as in kitchens or machinery plants). Oil will adhere to the heat exchanger. This will lower heat exchange performance, emit mist, or deform or damage synthetic resin parts.

● Cleaning

After using the air conditioner for several seasons, the insides becomes dirty and this results in low performance. In addition to regular cleaning, a maintenance contract with a service person is recommended.

● Features of Heat Pump Heating

Heating power (kW) indicated in the catalog is based on the following conditions: outdoor temperature of 47°F DB and indoor temperature of 70°F DB, as specified by ARI. Heating capacity decreases as outdoor temperature drops. Therefore, if heating power is insufficient due to low outdoor temperature, use the air conditioner together with other heating equipment. When heated air rises and collects in a room with a high ceiling, install an air circulator as well.

● Noise Emissions

The noise emission rate indicated in the catalog shows values (A scale) measured in an anechoic chamber. In actual installation conditions, noise emission is generally greater than the indicated rate due to surrounding noise and echoing.

● Odor Emissions

Even though an air conditioner does not contain odor-emitting parts, discharged air can in certain conditions have an unpleasant odor. This is the result of odoriferous particles such as from smoke, cosmetics, and foods afflicting themselves to the air conditioner. Although the odor does not affect performance, cleaning the air filter and the inside of the air conditioner is recommended.

● Noise Caused by Electromagnetic Waves

When installing near equipment that emits electromagnetic waves, be sure that the air conditioner does not suffer noise damage.

● Remote Control Wiring

For remote control wiring and control wiring between indoor units, do not install with the power wiring (208/230V) in the same tube nor wherever power wiring exists. Doing so may cause a malfunction.


Operation Range

	Temperature	Indoor Air Intake Temp.	Outdoor Air Intake Temp.
Cooling	Maximum	95°F DB/71°F WB	115°F DB
	Minimum	67°F DB/57°F WB	23°F DB/or 0°F DB*
Heating	Maximum	80°F DB/67°F WB	75°F DB/65°F WB
	Minimum	-F DB/-F WB	5°F WB


*For details, see pages 4.

ISO Certification

SANYO Electric Air Conditioning Co., Ltd. (Tochigi Japan)



Accredited by RvA



UKAS ENVIRONMENTAL MANAGEMENT

ISO 9001 Certificate Number: JQ116B ISO 14001 Certificate Number: EC00J0303-33

■ Do not install an air conditioner in a room where the limit density will be exceeded if refrigerant leaks. The refrigerant (R-22) used by this system is itself a safe refrigerant; however, if for some reason the refrigerant leaks and the limit density is exceeded, there is a risk of injury to persons due to a lack of oxygen. For further information, ask your dealer or consult references such as an engineering manual and install the air conditioner correctly.

Because its products are subject to continuous improvements, Sanyo reserves the right to modify product design and specifications without notice and without incurring any obligations.
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