



# Simply the Best

## 19 SEER AIR HANDLER WITH VERTICAL DISCHARGE CONDENSING UNIT

R410a environmentally friendly refrigerant.

**R410A**

**24V low voltage control**  
Safe, reliable, and can be used with third-party IDUs.



**World famous brand rotary compressor**

Quick response, stable operation, low noise, small size and light weight.



**Fan motor**

DC fan motor, high efficiency and stable operation.



**Intelligent defrosting program**

Auto judge the defrosting time according to the system real requirement, reduce the heating loss by unnecessary defrosting and make the indoor side more comfortable.



**Multi protections to avoid unit broken.**



Discharge Temp. Protection

Sensor T3 Protection

Low Pressure Protection

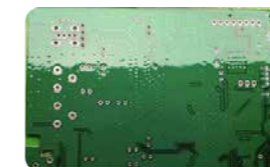
High Pressure Protection

**Anticorrosion choice**

Golden fin



Intensified moisture proof PCB



Painted galvanized steel cabinet.

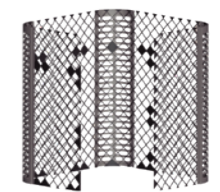


**Two condenser guard grilles optional**

Optional louvered steel grille and plastic grille can be selected to effectively protect the condenser.



Louvered steel grille



Plastic grille

**Refrigerant cooling technology**

The refrigerant pipeline cooling is used to cool the electronic control board. Make the circuit temperature more stable and the operation life longer.



PCB

Refrigerant Pipeline

**High efficiency condenser**

Composed of inner groove copper tube and hydrophilic aluminum foil, which has better heat exchange efficiency.



**Expansion device**

Use EXV as expansion device for outdoor unit in heating mode.



- Precise control
- Fast response to load change
- Wider part load variation than TXV
- Maintains max capacity control at part loads
- Injects exactly the right amount of refrigerant

## 19 SEER Specification



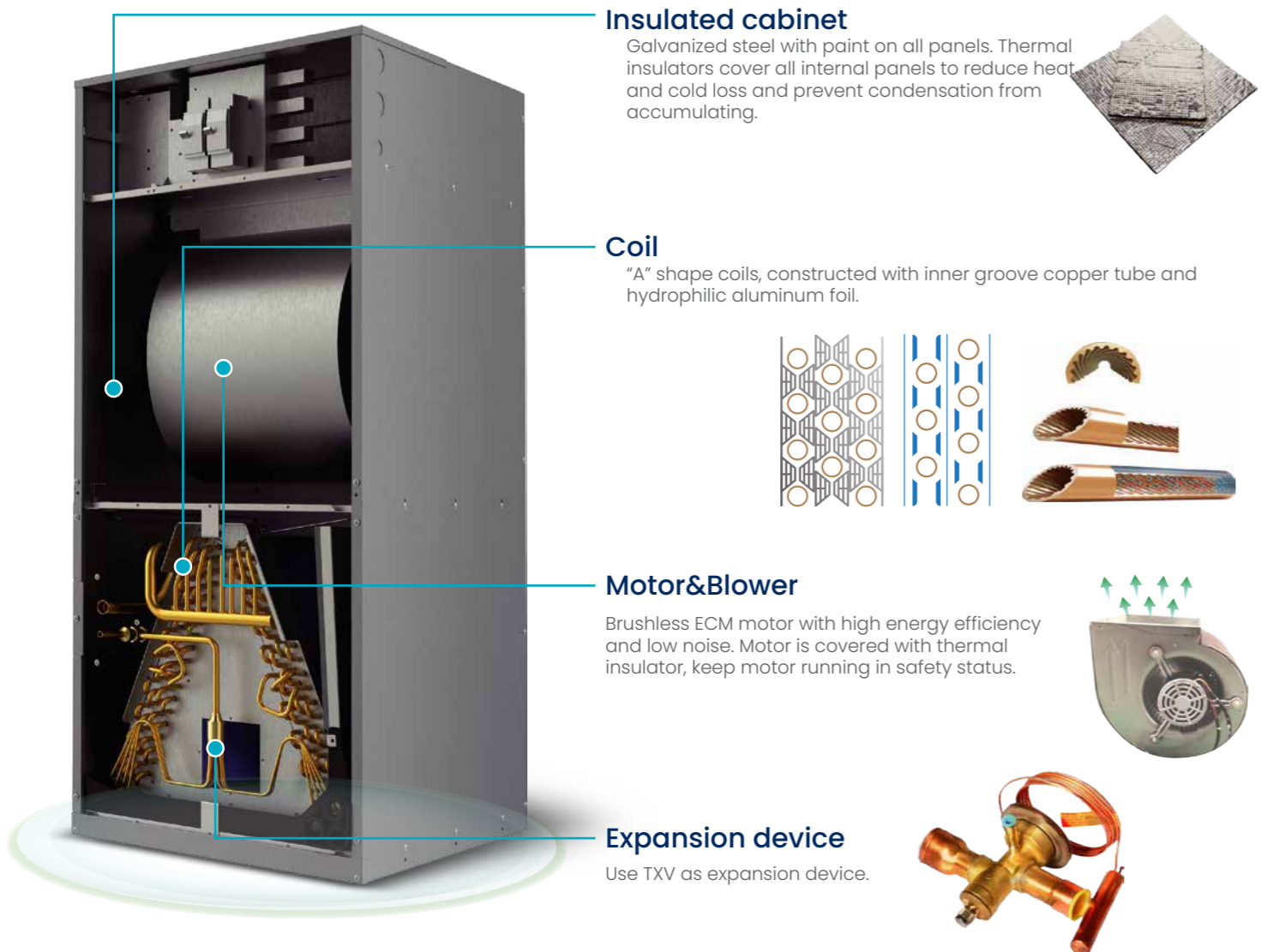
Model			KNT-24KMUQ1-19	KNT-36KMUQ1-19	KNT-48KMUQ1-19	KNT-60KMUQ1-19
Electrical Data	Voltage-Phase-Hz	V-Ph-Hz	208/230V-1Ph-60Hz			
	Minimum Circuit Ampacity	A	14	19	25	29
	Max. Overcurrent Protection	A	20	30	40	50
	Min / Max Volts	V	187 / 253	187 / 253	187 / 253	187 / 253
Cooling	Capacity	Btu/h	23400	34000	45500	54000
	SEER	Btu/h.W	19	19	19	19
Compressor	Model		ATM240D57UFT	ATM240D57UFT	MNB42FCKMCL	MNB42FCKMCL
	Brand		GMCC	GMCC	Mitsubishi	Mitsubishi
	Type		Twin-rotary DC	Twin-rotary DC	Twin-rotary DC	Twin-rotary DC
	Thermal protector	uf	internal	internal	internal	internal
	Capacity	W/h	7130±5%	7130±5%	13780±5%	13780±5%
	Input	W	2200±5%	2200±5%	4040±5%	4040±5%
	Refrigerant oil	ml	870	870	1400	1400
	Rated current(RLA)	A	13.5	18.5	27.2	27.2
	Locked rotor Amp(LRA)	A	45	45	58.1	58.1
Outdoor motor	Model		YDK-110-8P2-AL	YDK-110-8P2-AL	WZDK200-310G	WZDK200-310G
	Brand		Chigo	Chigo	Panasonic	Panasonic
	Type		AC	AC	DC	DC
	Rated HP	W	1/7	1/7	2/7	2/7
	Capacitor	µF	6	6	/	/
	Speed	rpm	850	850	1050	1050
	FLA	A	1	1.1	1.2	1.2
Outdoor Fan	material		Metal			
	Type		Axial flow			
	Diameter	In.	23	23	23-5/8	23-5/8
	Height	In.	4-3/8	4-3/8	4-1/2	4-1/2
	Air flow	CFM	2950	2950	4100	4100
Outdoor coil	Number of row		2	2	2	2
	Tube outside dia	mm (in.)	7 (9/32)	7 (9/32)	7 (9/32)	7 (9/32)
Outdoor noise level		dB(A)	61	62	64	65
Outdoor unit	Dimension (W×H×D)	mm	740×633×740		740×835×740	
		inch	29-1/8×25×29-1/8		29-1/8×32-7/8×29-1/8	
	Packing (W×H×D)	mm	760×660×760		760×875×760	
		in.	30×26×30		30/16×34-4/9×3	
	Net / Gross weight	kg	68 / 72	68 / 72	80 / 85	80 / 85
		lbs	150 / 159	150 / 159	176 / 187	176 / 187
Refrigerant system	Liquid side / Gas side	in.	3/8 / 3/4	3/8 / 3/4	3/8 / 7/8	3/8 / 7/8
	Factory charge R410A	oz	114	114	166	166
Operating temperatures		!	64-118	64-118	64-118	64-118

# Air Handler



Model			KVGH-24KMUQ1-19	KVGH-36KMUQ1-19	KVGH-48KMUQ1-19	KVGH-60KMUQ1-19
Power supply		V/Ph/Hz	208/230V-1Ph-60Hz			
Cooling	Capacity	Btu/h	23400	34000	45500	54000
	SEER	Btu/h.W	19	19	19	19
Indoor coil	Number of rows		4×2	4×2	5×2	5×2
	Tube outside dia. / Type		7mm / Rifled tube			
	Fin spacing / Thickness / Type	mm / mm	1.6 / 0.095 / Non-hydrophilic window slice			
	Tube pitch(a) × row pitch(b)	mm	21 ×13.37	21 ×13.37	21 ×13.37	21 ×13.37
Indoor motor	type		ECM			
	Rated output	HP	1/3	1/2	3/4	3/4
	Rated RPM	r/min	1050	1050	1050	1050
	FLA		1.2	1.4	3.6	4.4
Indoor fan	material		Galvanized plate			
	Type		Centrifugal			
	Diameter	inch	11	11	11	11
	Height	inch	10-5/8	10-5/8	10-5/8	10-5/8
Indoor air flow		CFM	830	1100	1600	1600
ESP		Pa	25	37.5	50	50
Indoor noise level		dB(A)	46	48	55	57
Metering device	Throttle type		TXV			
	Model number		3TR	3TR	5TR	5TR
Electrical Data	Voltage-Phase-Hz	V-Ph-Hz	208/230V 1Ph 60Hz			
	Minimum Circuit Ampacity		1.7	2	5	6
	Max. Overcurrent Protection		3	3	6	6
	Min / Max Volts	V	187 / 253	187 / 253	187 / 253	187 / 253
Indoor unit	Dimension (W×H×D)	mm	500×1162×560		560×1350×620	
		in.	19-5/8×45-3/4×22		22×53-1/8×24-1/2	
	Packing (W×H×D)	mm	580×1210×650		640×1390×710	
		in.	22-5/6×47-5/8×25-3/5		25-1/5×54-3/4×28	
	Net / Gross weight	kg	59 / 65	59 / 65	80 / 86	80 / 86
		lbs	130 / 143	130 / 143	176 / 189	176 / 189
Refrigerant piping Liquid side / Gas side		in.	3/8 / 3/4	3/8 / 3/4	3/8 / 7/8	3/8 / 7/8





**Insulated cabinet**  
Galvanized steel with paint on all panels. Thermal insulators cover all internal panels to reduce heat and cold loss and prevent condensation from accumulating.

**Coil**  
"A" shape coils, constructed with inner groove copper tube and hydrophilic aluminum foil.

**Motor & Blower**  
Brushless ECM motor with high energy efficiency and low noise. Motor is covered with thermal insulator, keep motor running in safety status.

**Expansion device**  
Use TXV as expansion device.

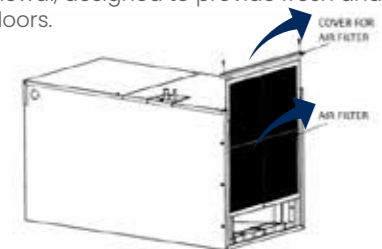
## Optional Electric Heating with Different Power

Description	Ref. Air Handler use
5.0 kW Electric Heating	24K,36K,48K,60K
7.5 kW Electric Heating	24K,36K,48K,60K
10.0kW Electric Heating	24K,36K,48K,60K
15.0kW Electric Heating	36K,48K,60K
20.0kW Electric Heating	48K,60K



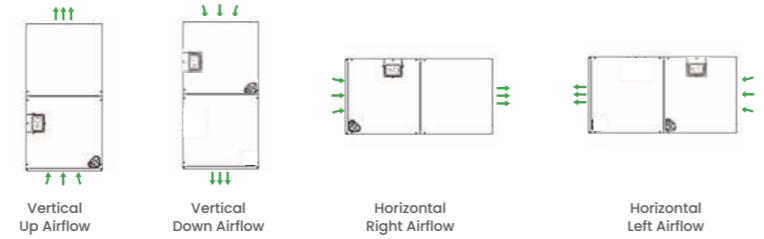
## Filter optional

The detachable air filter is optional for cleaning or renewal, designed to provide fresh and healthy air indoors.



## Multi-position installation

Versatile 4-way convertible design for vertical up airflow, vertical down airflow\*, horizontal left airflow\* and horizontal right airflow.



\* Vertical down airflow and Horizontal left airflow are optional.

## Outdoor Unit Specification (19 SEER)

Model		KNT-24GMUQ1-19	KNT-36GMUQ1-19	KNT-48GMUQ1-19	KNT-60GMUQ1-19
Outdoor Code					
Outdoor power supply		V/Ph/Hz	208-230V/1PH/60Hz	208-230V/1PH/60Hz	208-230V/1PH/60Hz
Cooling	Capacity	Btu/h	24000	34500	47000
	SEER		19	19	18.5
Heating	Capacity	Btu/h	24000	34000	46500
	COP	Btu/h.W	13.0	11.9	12.9
	HSPF		9.5	9.0	9.5
Compressor	Type	GMCC Twin-rotary DC		Mitsubishi Twin-rotary DC	
Outdoor dimension	Unit (WxHxD)	inch	29x29x25	29x29x25	29x29x33
	Packing (WxHxD)	inch	30x30x26	30x30x26	30x30x34
Shipping per STD40HQ			180	180	135

## Indoor Unit Specification (19 SEER)

Model		KVGH-24GMUQ1-19	KVGH-36GMUQ1-19	KVGH-48GMUQ1-19	KVGH-60GMUQ1-19
Indoor Code					
Power supply		V/Ph/Hz	208-230V/1PH/60Hz	208-230V/1PH/60Hz	208-230V/1PH/60Hz
Cooling	Capacity	Btu/h	24000	36000	48000
	Indoor Input	W	105	170	250
	SEER		19	19	18.5
Heating	Capacity	Btu/h	24000	34000	46500
	HSPF				
Indoor Max. current		A	0.91	1.35	2.39
Indoor air flow		CFM	780	1300	1500
ESP		Pa	25	37	50
Indoor dimension	Unit (WxHxD)	inch	20x46x22	20x46x22	22x53x24
	Packing (WxHxD)	inch	22x48x25	22x48x25	25x55x27
Shipping per STD40HQ			154	154	104

Note: The above data may be changed without notice for future improvement on quality and performance.