



Technical Sales Guide

ROOFTOP PACKAGED AIR CONDITIONERS

GC201808-V

CAPACITY RANGE: 15.6~80.3kW (53000~274000Btu/h)
SUPER HIGH AMBIENT OPERATION TO 52°C (126°F)



CONTENTS

1 MODELS LIST.....	1
2 NOMENCLATURE	2
3 FUNCTION	3
4 PRODUCT DATA	6
5 FAN CHARACTERISTICS	14
6 CLEARANCES DATA.....	18
7 DIMENSION	22
8 CONTROLLER and WIRING DIAGRM.....	24
9 ACCESSORIES	28

1 MODELS LIST

Model	Nominal Capacity (Ton)	Refrigerant	Power Supply (V, Ph, Hz)	Appearance
GK-H05TH3AX	05	R410A	380~415V, 3Ph, 50/60Hz	
GK-H08TH3AX	08	R410A	380~415V, 3Ph, 50/60Hz	
GK-H15TH3AX	15	R410A	380~415V, 3Ph, 50/60Hz	
GK-H25TH3AX	25	R410A	380~415V, 3Ph, 60Hz	

2 NOMENCLATURE

GK	-	H	05	T	H	3	A	X
1	-	2	3	4	5	6	7	8

NO.	Description	Options
1	Product Category	GK=GREE Rooftop Packaged Air-condition
2	Product Function Code	C = Cooling only type; H = Heat pump type.
3	Cooling/Heating Capacity	05=5Ton; 10=10Ton.....
4	Operating Condition	T=T3 Condition; N=T1 Condition.
5	Airflow Options	H=Horizontal; C=Convertible.
6	Refrigerant Options	1=R22; 2=R407C; 3=R410a;
7	Design Code	A,B,C.....
8	Voltage Options	D=220V,60Hz,1Ph ; F=220V,60Hz,3P £» K=220V,50Hz,1Ph ; M=380-415V,50Hz,3Ph X=380-415V,50/60Hz,3Ph

3 FUNCTION

3.1 Description

GREE R410A rooftop packaged units provide a wide capacity range from 5 to 25 Ton. These units are completely assembled, piped and wired at the factory to provide one-piece shipment and rigging. Each unit is pressurized with a holding charge of refrigerant-410A for storage and shipping. GREE R410A rooftop packaged units can offer the perfect combination of superior product quality, high operating efficiency and cost efficiency. The compact design, attractive appearance, outstanding anti-rust cabinet and quiet operation make these units suitable for almost any manufactured or modular homes. The careful design from each part to the whole unit, together with the all-round process test and unit test, offers the high reliability for the whole system. Perfect system protections can guarantee the safety of the system at utmost and get rid of the irreparable damage to the compressor or other critical parts under the harsh working conditions. Compressors are mounted on rubber isolators to reduce the vibration during transportation. Vertical discharge condenser fans direct sound upward and away from any surrounding structures. All sheet metal parts are constructed of commercial grade galvanized steel. After fabricated, each part is thoroughly cleaned to remove any grease or dirt from its surfaces. The external parts are coated with a power-paint to assure a quality finish for many years. The power-paint finishes with 500-hour salt spray test.

3.2 Features

3.2.1 Standard Features

◆ High reliability

The careful design from each part to the whole unit, together with the all-round process test and unit test, offers the high reliability for the whole system.

◆ High efficient coil

Internal screw copper pipe and aluminum fin is used. It makes the coil exchanging heat efficiently.

◆ Long-term durability

Perfect system protections can guarantee the safety of the system at utmost and get rid of the irreparable damage to the compressor or other critical parts under the harsh working conditions

◆ Quiet operation

The Vertical discharge condenser fan blowing upward, it carries the sound away from any surrounding structures.

◆ Overload protection

Once the tube temperature of heat exchanger is too high, the compressor frequency will slow down.

◆ High/low pressure protection

When suction pressure is too low or discharge pressure is too high, compressor will stop and unit display malfunction code.

◆ Discharge high temperature protection

Once the discharge temperature of compressor is higher than allowable value, compressor will stop and unit display malfunction code.

◆ Anti-freezing protection

When it is detected that the temperature of the evaporator is too low, the compressor will stop to protection the whole system.

◆ Sensor malfunction alarming

Once the sensor short out or shutdown, unit will display malfunction code.

◆ Over-current protection

When it is detected that the running current of the compressor comes abnormal, the compressor will stop to protection the whole system.

◆ Washable filter

The filter can be washed for using again.

◆ Compact structure and easy installation

A smaller dimension makes a larger loading quantity. All units feature base rail design with forklift slots and rigging holes for easier maneuvering. Durable packaging protects all units during shipment and storage.

◆ Communication malfunction

When the unit fails to perform the normal communication, it will stop to protect the whole system.

- ◆ Simple electrical connections

Electric box facilitate connections to room thermostat or outdoor thermostat. Both power and control connections are made on the same side of the unit to simplify installation. In addition, color-coded wires permit easy tracing and diagnostics.

3.2.2 Special protections have been taken for the control of the inverter unit to prevent it from being damaged including:

- ◆ IPM module protection

When the IPM module works abnormally, the unit will stop to protect the whole system.

- ◆ DC busbar voltage protection

When the voltage of the DC bus comes abnormal, the unit will stop to protect the compressor.

- ◆ IPM temperature too high protection

When the temperature of the the IPM module is too high, the unit will stop to protect the whole system.

- ◆ Compressor frequency control

The final running frequency of the compressor is limited to the minimum value to realize the lowest energy consumption.

- ◆ Change rate of the compressor

The frequency change rate varies with the change of the load.

- ◆ 4-way valve control

For the heat pump units, the unit is able to perform heating through the 4-way valve.

- ◆ Automatic defrosting

When the heat pump unit performs heating, the automatic defrosting will work in according to the frosting condition on the outdoor unit so as to protect the whole system.

- ◆ Deicing(optional)

Deicing: the electric heating tape on the chassis will perform heating to prevent the chassis icing which would affect the performance of the unit.

3.2.3 Rigorous Test

- ◆ Rain Test

Place the unit on the test table, energize it, and then shower the unit round and round along the direction of the condenser and the fan with the spraying nozzle above the test table. This test lasts for 30 minutes with the water pressure of 1.0kgf/cm². After the test, the unit should be immediately conducted for the dielectric strength test.

- ◆ Random Vibration Test

Place a sample on the vibration table in the same way as it is put for normal transportation or as per the test requirement. Around the sample, guard rails with an interval of some 15mm should be installed. Set the test parameters, overall g rms: 1.14G, test frequency: 2Hz-200Hz, test duration: 4h.

Report the temperature and humidity at the test field. After the test, check if the packaging and the inside sample are damaged or not.

- ◆ Long Run Test

With the rated/low/high voltage, the unit is conducted to run in the cooling and heating mode alternately for the long run test, frequent ON/OFF test and refrigerant leakage test lasting for 1000 hours (approx. 42days).

4 PRODUCT DATA

4.1 Product Data at Rated Condition

Model			GK-H05TH3AX	GK-H08TH3AX	GK-H15TH3AX	
Rated Capacity	Cooling	Btu/h	53000 (24000~62000)	88000 (31000~123000)	136000 (50000~178000)	
		kW	15.6(7~18.1)	25.8(9.0~36)	40(14.6~52.1)	
	Heating	Btu/h	59500 (15000~75000)	88000 (31000~116000)	160000 (50000~204700)	
		kW	17.4(4.4~22.0)	25.8(9.0~34.0)	47(14.6~60.0)	
Electrical Data	Power supply		V-Hz-Ph	380-415V-50/60Hz -3Ph		
	Rated Power input	Cooling	kW	4.55	7.80	12.35
		Heating	kW	5.00	8.10	13.50
	Rated current	Cooling	A	8.2	13.6	20.5
Heating		A	8.9	14.2	22.5	
EER/ C.O.P.	Cooling	Btu/(W.h)	11.65	11.25	11.00	
	Heating	Btu/(W.h)	11.90	10.85	11.85	
Sound Pressure Level(H/M/L)*		dB(A)	63	69	72	
Refrigerant	Type/weight	-	R410A/5.0kg	R410A/16.0kg	R410A/21.0kg	
	Throttling Method	-	Electronic expansion valve	Electronic expansion valve	Electronic expansion valve	
Air Flow Volume		CFM	1677	2707	4943	
		m ³ /h	2850	4600	8400	
External Static Pressure	Rated/Range	Pa	50(0-110)	70(0-140)	100(0-170)	
		InWg	0.20(0-0.44)	0.28(0-0.56)	0.4(0-0.68)	
Dehumidifying Volume		l/h	2.40	7.6	15.6	
Evaporator Side	Fan motor	Drive Type	-	Direct Drive	Direct Drive	Direct Drive
		Power Output	Hp	1	1	1
	Fan	Type	-	Centrifugal	Centrifugal	Centrifugal
		Quantity	-	2	2	4
		Motor Speed	rpm	900 / 870 / 850 / 800	900/880/840/800	1160/1120/1050/980
	Evaporator	Material	-	Copper tube- Aluminum fin	Copper tube- Aluminum fin	Copper tube- Aluminum fin
		Face Area	sq.ft	8.93	13.56	20.99
			m ²	0.83	1.26	1.95
		Fins per Inch(FPI)	-	16	16	16
	Drain Connection Size		Inch	1.06X0.11	1.06X0.11	1.06X0.11

Rooftop Packaged Air Conditioners Technical Sales Guide

Model				GK-H05TH3AX	GK-H08TH3AX	GK-H15TH3AX
Condenser Side	Compressor	Type	-	Inverter Rotary	Inverter Rotary	Inverter Rotary
		Quantity	-	1	2	2
	Fan motor	Drive Type	-	Direct Drive	Direct Drive	Direct Drive
		Power Output	Hp	1	1	2
	Fan	Type	-	Axial-flow	Axial-flow	Axial-flow
		Quantity	-	1	2	2
	Condenser	Material	-	Copper tube -Aluminum fin	Copper tube -Aluminum fin	Copper tube -Aluminum fin
		Face Area	sq.ft	16.36	26.05	44.78
			m ²	1.52	2.42	4.16
		Fins per Inch(FPI)	-	16	16	16
Permissible Excessive Operating Pressure for the Discharge Side			Mpa	4.2	4.2	4.2
Permissible Excessive Operating Pressure for the Suction Side			Mpa	2.5	2.5	2.5
Operation temp	Cooling	°C	-5-52	5~52	5~52	
	Heating	°C	-15-24	-15~24	10~24	
Filter			mm	PP	PP	PP
Dimension	Outline dimension (W×D×H)	mm	1750×1100×815	2210×1450×1225	2810×2240×1245	
	Package dimension (W×D×H)	mm	1760×1110×850	2220×1460×1250	2825×2255×1285	
Weight	Net weight	kg	300	527	920	
	Gross weight	kg	320	570	965	
Loading quantity			20'GP	12	4	2
			40'GP	26	8	4
			40'HQ	39	16	8

Model				GK-H25TH3AX	
Total Capacity	Cooling		Btu/h	144000 (68000~274000)	
			kW	42.0 (19.9~80.3)	
	Heating		Btu/h	244000 (70000~260000)	
			kW	71.5 (20.5~76.2)	
Electrical Data	Power supply		V-Hz-Ph	380-415V-60Hz-3Ph	
	Rated Power input	Cooling	kW	13.0	
		Heating	kW	24.6	
	Rated current	Cooling	A	21.0	
		Heating	A	39.0	
EER/C.O.P.			Cooling	Btu/kW	11.10
			Heating	Btu/kW	9.90
Sound Pressure Level			dB(A)	72	

Model			GK-H25TH3AX		
Refrigerant	Type/weight		-	R410A/25.0kg	
	Throttling Method		-	Electronic expansion valve	
Air Flow Volume			CFM	8533	
			m ³ /h	14500	
External Static Pressure	Rated/Rangew	Pa	100(0-220)		
		InWg	0.4(0-0.88)		
Dehumidifying Volume			l/h	25.5	
Evaporator Side	Fan motor	Drive Type	-	Belt Drive	
		Power Output	Hp	7.5	
	Fan	Type	-	Centrifugal	
		Quantity	-	2	
		Motor Speed	rpm	770	
	Evaporator	Material	-	Copper tube-Aluminum fin	
		Face Area	sq.ft	27.45	
			m ²	2.55	
		Fins per Inch(FPI)	-	18	
	Drain Connection Size			Inch	1.20*0.059
Condenser Side	Compressor	Type	-	Inverter Rotary	
		Quantity	-	2	
	Fan motor	Drive Type	-	Direct Drive	
		Power Output	Hp	2	
	Fan	Type	-	Axial-flow	
		Quantity	-	2	
	Condenser	Material	-	Copper tube -Aluminum fin	
		Face Area	sq.ft	51.88	
			m ²	4.82	
		Fins per Inch(FPI)	-	17	
Permissible Excessive Operating Pressure for the Discharge Side			Mpa	4.2	
Permissible Excessive Operating Pressure for the Suction Side			Mpa	2.5	
Operation temp	Cooling	°C	18~52		
	Heating	°C	-10~24		
Filter			-	PP	
Dimension	Outline dimension (W×D×H)	mm	2880×2240×1270		
	Package dimension (W×D×H)	mm	2893×2253×1290		
Weight	Net weight	kg	1157		
	Gross weight	kg	1201		

Model		GK-H25TH3AX	
Loading quantity	20'GP	1	
	40'GP	4	
	40'HQ	8	

- ◆ The cooling capacity stated above is measured under following conditions.
Indoor Conditions:27°C (81 °F)DB/19°C (67 °F)WB;
Outdoor Conditions:35°C (95°F)DB/24°C (76 °F)WB;
- ◆ The air volume is measured at the relevant standard external static pressure.
- ◆ The technical parameters are changed along with the products improvement; please refer to the nameplate of the unit for actual data.



4.2 Cooling Performance(SI Units)

4.2.1 GK-H05TH3AX

Outdoor Air Dry Bulb Temperature		Air Flow Rate		Entering Air DBT		Indoor Air Wet Bulb Temperature °F(°C)														
						62°F(17°C)				67°F(19°C)				72°F(22°C)						
						Total Capacity		Sensible Capacity		Power Input	Total Capacity		Sensible Capacity		Power Input	Total Capacity		Sensible Capacity		Power Input
°C	°F	m ³ /hr	cfm	°C	°F	kW	Mbh	kW	Mbh	kW	kW	Mbh	kW	Mbh	kW	kW	Mbh	kW	Mbh	kW
25	77	2850	1677	8.1	75.2	14.20	48.44	11.39	38.86	3.91	15.70	53.56	11.46	39.10	4.00	16.17	55.17	9.52	32.47	4.05
				27	80.6	14.20	48.44	11.70	39.92	4.00	15.91	54.29	11.54	39.39	4.05	16.38	55.89	10.76	36.73	4.10
				29	84.2	14.20	48.44	11.86	40.45	4.05	15.91	54.29	11.70	39.92	4.10	16.54	56.42	11.39	38.86	4.10
				31	87.8	14.35	48.97	12.17	41.52	4.10	16.01	54.64	11.86	40.45	4.14	16.69	56.95	11.54	39.39	4.14
		2650	1560	24	75.2	13.42	45.78	11.08	37.79	3.87	15.29	52.16	10.76	36.73	3.96	15.76	53.76	9.05	30.87	4.00
				27	80.6	13.57	46.31	11.23	38.32	3.96	15.44	52.69	10.92	37.26	4.00	15.91	54.29	9.83	33.53	4.00
				29	84.2	13.73	46.84	11.39	38.86	4.00	15.60	53.23	11.08	37.79	4.05	16.07	54.82	10.76	36.73	4.05
				31	87.8	14.04	47.90	11.70	39.92	4.05	15.76	53.76	11.39	38.86	4.10	16.07	54.82	10.92	37.26	4.14
		2300	1354	24	75.2	12.79	43.65	10.30	35.13	3.78	14.51	49.50	9.67	33.00	3.91	14.98	51.10	8.58	29.27	3.96
				27	80.6	12.95	44.18	10.61	36.19	3.87	14.82	50.57	9.98	34.07	3.96	15.13	51.63	9.20	31.40	4.00
				29	84.2	12.95	44.18	10.76	36.73	3.91	15.13	51.63	10.45	35.66	4.00	15.29	52.16	10.14	34.60	4.05
				31	87.8	13.10	44.71	11.08	37.79	3.96	15.29	52.16	10.76	36.73	4.05	15.44	52.69	10.45	35.66	4.10
35	95	2850	1677	24	75.2	13.57	46.31	11.08	37.79	4.32	15.44	52.69	10.42	35.54	4.55	15.91	54.29	9.67	33.00	4.60
				27	80.6	13.73	46.84	11.39	38.86	4.37	15.60	53.23	10.92	37.26	4.55	16.07	54.82	10.30	35.13	4.69
				29	84.2	13.88	47.37	11.54	39.39	4.41	15.76	53.76	11.23	38.32	4.64	16.22	55.36	10.92	37.26	4.73
				31	87.8	14.20	48.44	11.86	40.45	4.46	15.91	54.29	11.50	39.24	4.73	16.38	55.89	11.39	38.86	4.78
		2650	1560	24	75.2	11.70	39.92	10.61	1.92	4.28	14.20	48.44	9.52	32.47	4.46	14.35	48.97	8.74	29.81	4.46
				27	80.6	11.86	40.45	10.92	1.99	4.32	14.35	48.97	10.14	34.60	4.50	14.82	50.57	9.36	31.94	4.50
				29	84.2	11.86	40.45	11.39	2.06	4.37	14.82	50.57	10.76	36.73	4.50	15.13	51.63	10.14	34.60	4.55
				31	87.8	12.32	42.05	11.70	2.34	4.41	15.13	51.63	11.23	38.32	4.50	15.29	52.16	10.76	36.73	4.60
		2300	1354	24	75.2	11.42	38.95	9.83	33.53	4.19	12.97	44.26	9.05	30.87	4.37	13.36	45.59	7.88	26.90	4.41
				27	80.6	11.53	39.35	10.14	34.60	4.23	13.10	44.71	9.36	31.94	4.41	13.50	46.05	8.77	29.93	4.46
				29	84.2	11.54	39.39	10.61	36.19	4.28	13.10	44.71	9.98	34.07	4.46	13.73	46.84	9.05	30.87	4.50
				31	87.8	11.65	39.74	10.92	37.26	4.32	13.24	45.16	10.46	35.67	4.50	13.88	47.37	9.54	32.56	4.55

Outdoor Air Dry Bulb Temperature		Air Flow Rate		Entering Air DBT		Indoor Air Wet Bulb Temperature °F(°C)														
						62°F(17°C)					67°F(19°C)					72°F(22°C)				
						Total Capacity		Sensible Capacity		Power Input	Total Capacity		Sensible Capacity		Power Input	Total Capacity		Sensible Capacity		Power Input
°C	°F	m³/hr	cfm	°C	°F	kW	Mbh	kW	Mbh	kW	kW	Mbh	kW	Mbh	kW	Mbh	kW	Mbh	kW	
46	115	2850	1677	24	75.2	11.39	38.86	10.61	36.19	5.14	13.26	45.24	9.83	33.53	5.23	13.57	46.31	8.89	30.34	5.28
				27	80.6	11.54	39.39	10.92	37.26	5.23	13.42	45.78	10.30	35.13	5.32	13.73	46.84	9.52	32.47	5.32
				29	84.2	11.70	39.92	11.39	38.86	5.28	13.42	45.78	10.61	36.19	5.37	14.66	50.03	10.14	34.60	5.32
				31	87.8	11.86	40.45	11.86	40.45	5.37	13.57	46.31	11.08	37.79	5.41	15.13	51.63	10.76	36.73	5.37
		2650	1560	24	75.2	11.42	38.95	10.14	34.60	5.10	12.97	44.26	9.20	31.40	5.14	13.36	45.59	7.88	26.90	5.19
				27	80.6	11.53	39.35	10.61	36.19	5.19	13.10	44.71	9.67	33.00	5.19	13.50	46.05	8.58	29.27	5.23
				29	84.2	11.54	39.39	11.08	37.79	5.28	13.10	44.71	10.14	34.60	5.28	13.73	46.84	9.05	30.87	5.32
				31	87.8	11.65	39.74	11.39	38.86	5.32	13.24	45.16	10.46	35.67	5.37	13.88	47.37	9.54	32.56	5.37
		2300	1354	24	75.2	10.14	34.60	9.05	30.87	5.05	12.01	40.98	8.42	28.74	5.10	12.32	42.05	7.33	25.02	5.14
				27	80.6	10.61	36.19	9.67	33.00	5.10	12.01	40.98	8.89	30.34	5.14	12.64	43.11	7.96	27.15	5.19
				29	84.2	10.61	36.19	10.30	35.13	5.14	12.32	42.05	9.36	31.94	5.19	13.26	45.24	8.42	28.74	5.23
				31	87.8	10.76	36.73	10.92	37.26	5.19	12.64	43.11	9.83	33.53	5.23	13.57	46.31	9.05	30.87	5.28

4.2.2 GK-H08TH3AX

Outdoor Air Dry Bulb Temperature		Air Flow Rate		Entering Air DBT		Indoor Air Wet Bulb Temperature °F(°C)														
						62°F(17°C)					67°F(19°C)					72°F(22°C)				
						Total Capacity		Sensible Capacity		Power Input	Total Capacity		Sensible Capacity		Power Input	Total Capacity		Sensible Capacity		Power Input
°C	°F	m³/hr	cfm	°C	°F	kW	Mbh	kW	Mbh	kW	kW	Mbh	kW	Mbh	kW	Mbh	kW			
25	77	4600	2707	24	75.2	23.48	80.11	18.83	64.26	6.71	25.96	88.58	18.95	64.66	6.86	26.74	91.24	15.74	53.70	6.94
				27	80.6	23.48	80.11	19.35	66.02	6.86	26.32	89.79	19.09	65.14	6.94	27.09	92.43	17.80	60.74	7.02
				29	84.2	23.48	80.11	19.61	66.90	6.94	26.32	89.79	19.35	66.02	7.02	27.35	93.31	18.83	64.26	7.02
				31	87.8	23.74	80.99	20.12	68.66	7.02	26.49	90.37	19.61	66.90	7.10	27.61	94.19	19.09	65.14	7.10
		4200	2472	24	75.2	22.19	75.71	18.32	62.50	6.63	25.28	86.27	17.80	60.74	6.79	26.06	88.91	14.96	51.06	6.86
				27	80.6	22.45	76.59	18.58	63.38	6.79	25.54	87.15	18.06	61.62	6.86	26.32	89.79	16.25	55.46	6.86
				29	84.2	22.70	77.47	18.83	64.26	6.86	25.80	88.03	18.32	62.50	6.94	26.57	90.67	17.80	60.74	6.94
				31	87.8	23.22	79.23	19.35	66.02	6.94	26.06	88.91	18.83	64.26	7.02	26.57	90.67	18.06	61.62	7.10
		3800	2236	24	75.2	21.16	72.18	17.03	58.10	6.47	23.99	81.87	16.00	54.58	6.71	24.77	84.51	14.19	48.42	6.79
				27	80.6	21.41	73.06	17.54	59.86	6.63	24.51	83.63	16.51	56.34	6.79	25.03	85.39	15.22	51.94	6.86
				29	84.2	21.41	73.06	17.80	60.74	6.71	25.03	85.39	17.29	58.98	6.86	25.28	86.27	16.77	57.22	6.94
				31	87.8	21.67	73.94	18.32	62.50	6.79	25.28	86.27	17.80	60.74	6.94	25.54	87.15	17.29	58.98	7.02

Rooftop Packaged Air Conditioners Technical Sales Guide

Outdoor Air Dry Bulb Temperature		Air Flow Rate		Entering Air DBT		Indoor Air Wet Bulb Temperature °F(°C)														
						62°F(17°C)					67°F(19°C)					72°F(22°C)				
						Total Capacity		Sensible Capacity		Power Input	Total Capacity		Sensible Capacity		Power Input	Total Capacity		Sensible Capacity		Power Input
°C	°F	m³/hr	cfm	°C	°F	kW	Mbh	kW	Mbh	kW	kW	Mbh	kW	Mbh	kW	kW	Mbh	kW	Mbh	kW
35	95	4600	2707	24	75.2	22.45	76.59	18.32	62.50	7.41	25.54	87.15	17.23	58.78	7.80	26.32	89.79	16.00	54.58	7.88
				27	80.6	22.70	77.47	18.83	64.26	7.49	25.80	88.03	18.06	61.62	7.80	26.57	90.67	17.03	58.10	8.03
				29	84.2	22.96	78.35	19.09	65.14	7.57	26.06	88.91	18.58	63.38	7.96	26.83	91.55	18.06	61.62	8.11
				31	87.8	23.48	80.11	19.61	66.90	7.64	26.32	89.79	19.02	64.90	8.11	27.09	92.43	18.83	64.26	8.19
		4200	2472	24	75.2	19.35	66.02	17.54	1.92	7.33	23.48	80.11	15.74	53.70	7.64	23.74	80.99	14.45	49.30	7.64
				27	80.6	19.61	66.90	18.06	1.99	7.41	23.74	80.99	16.77	57.22	7.72	24.51	83.63	15.48	52.82	7.72
				29	84.2	19.61	66.90	18.83	2.06	7.49	24.51	83.63	17.80	60.74	7.72	25.03	85.39	16.77	57.22	7.80
				31	87.8	20.38	69.54	19.35	2.34	7.57	25.03	85.39	18.58	63.38	7.72	25.28	86.27	17.80	60.74	7.88
		3800	2236	24	75.2	18.88	64.42	16.25	55.46	7.18	21.46	73.21	14.96	51.06	7.49	22.10	75.40	13.04	44.49	7.57
				27	80.6	19.07	65.07	16.77	57.22	7.25	21.67	73.94	15.48	52.82	7.57	22.32	76.16	14.51	49.51	7.64
				29	84.2	19.09	65.14	17.54	59.86	7.33	21.67	73.94	16.51	56.34	7.64	22.70	77.47	14.96	51.06	7.72
				31	87.8	19.26	65.72	18.06	61.62	7.41	21.89	74.68	17.29	59.00	7.72	22.96	78.35	15.78	53.85	7.80
46	115	4600	2707	24	75.2	18.83	64.26	17.54	59.86	8.81	21.93	74.83	16.25	55.46	8.97	22.45	76.59	14.71	50.18	9.05
				27	80.6	19.09	65.14	18.06	61.62	8.97	22.19	75.71	17.03	58.10	9.13	22.70	77.47	15.74	53.70	9.13
				29	84.2	19.35	66.02	18.83	64.26	9.05	22.19	75.71	17.54	59.86	9.20	24.25	82.75	16.77	57.22	9.13
				31	87.8	19.61	66.90	19.61	66.90	9.20	22.45	76.59	18.32	62.50	9.28	25.03	85.39	17.80	60.74	9.20
		4200	2472	24	75.2	18.88	64.42	16.77	57.22	8.74	21.46	73.21	15.22	51.94	8.81	22.10	75.40	13.04	44.49	8.89
				27	80.6	19.07	65.07	17.54	59.86	8.89	21.67	73.94	16.00	54.58	8.89	22.32	76.16	14.19	48.42	8.97
				29	84.2	19.09	65.14	18.32	62.50	9.05	21.67	73.94	16.77	57.22	9.05	22.70	77.47	14.96	51.06	9.13
				31	87.8	19.26	65.72	18.83	64.26	9.13	21.89	74.68	17.29	59.00	9.20	22.96	78.35	15.78	53.85	9.20
		3800	2236	24	75.2	16.77	57.22	14.96	51.06	8.66	19.87	67.78	13.93	47.54	8.74	20.38	69.54	12.13	41.37	8.81
				27	80.6	17.54	59.86	16.00	54.58	8.74	19.87	67.78	14.71	50.18	8.81	20.90	71.30	13.16	44.90	8.89
				29	84.2	17.54	59.86	17.03	58.10	8.81	20.38	69.54	15.48	52.82	8.89	21.93	74.83	13.93	47.54	8.97
				31	87.8	17.80	60.74	18.06	61.62	8.89	20.90	71.30	16.25	55.46	8.97	22.45	76.59	14.96	51.06	9.05

4.2.3 GK-H15TH3AX

Outdoor Air Dry Bulb Temperature		Air Flow Rate		Entering Air DBT		Indoor Air Wet Bulb Temperature °F(°C)														
						62°F(17°C)					67°F(19°C)					72°F(22°C)				
						Total Capacity		Sensible Capacity		Power Input	Total Capacity		Sensible Capacity		Power Input	Total Capacity		Sensible Capacity		Power Input
°C	°F	m³/hr	cfm	°C	°F	kW	Mbh	kW	Mbh	kW	kW	Mbh	kW	Mbh	kW	Mbh	kW	Mbh	kW	
25	77	8400	4943	24	75.2	36.40	124.20	29.20	99.63	10.62	40.25	137.33	29.38	100.25	10.87	41.46	141.45	24.40	83.25	10.99
				27	80.6	36.40	124.20	30.00	102.36	10.87	40.80	139.21	29.60	101.00	10.99	42.00	143.30	27.60	94.17	11.12
				29	84.2	36.40	124.20	30.40	103.72	10.99	40.80	139.21	30.00	102.36	11.12	42.40	144.67	29.20	99.63	11.12
				31	87.8	36.80	125.56	31.20	106.45	11.12	41.06	140.11	30.40	103.72	11.24	42.80	146.03	29.60	101.00	11.24
		7600	4473	24	75.2	34.40	117.37	28.40	96.90	10.50	39.20	133.75	27.60	94.17	10.74	40.40	137.84	23.20	79.16	10.87
				27	80.6	34.80	118.74	28.80	98.27	10.74	39.60	135.12	28.00	95.54	10.87	40.80	139.21	25.20	85.98	10.87
				29	84.2	35.20	120.10	29.20	99.63	10.87	40.00	136.48	28.40	96.90	10.99	41.20	140.57	27.60	94.17	10.99
				31	87.8	36.00	122.83	30.00	102.36	10.99	40.40	137.84	29.20	99.63	11.12	41.20	140.57	28.00	95.54	11.24
		6800	4002	24	75.2	32.80	111.91	26.40	90.08	10.25	37.20	126.93	24.80	84.62	10.62	38.40	131.02	22.00	75.06	10.74
				27	80.6	33.20	113.28	27.20	92.81	10.50	38.00	129.66	25.60	87.35	10.74	38.80	132.39	23.60	80.52	10.87
				29	84.2	33.20	113.28	27.60	94.17	10.62	38.80	132.39	26.80	91.44	10.87	39.20	133.75	26.00	88.71	10.99
				31	87.8	33.60	114.64	28.40	96.90	10.74	39.20	133.75	27.60	94.17	10.99	39.60	135.12	26.80	91.44	11.12
35	95	8400	4493	24	75.2	34.80	118.74	28.40	96.90	11.73	39.60	135.12	26.71	91.14	12.35	40.80	139.21	24.80	84.62	12.47
				27	80.6	35.20	120.10	29.20	99.63	11.86	40.00	136.48	28.00	95.54	12.35	41.20	140.57	26.40	90.08	12.72
				29	84.2	35.60	121.47	29.60	101.00	11.98	40.40	137.84	28.80	98.27	12.60	41.60	141.94	28.00	95.54	12.84
				31	87.8	36.40	124.20	30.40	103.72	12.10	40.80	139.21	29.49	100.62	12.84	42.00	143.30	29.20	99.63	12.97
		7600	4473	24	75.2	30.00	102.36	27.20	1.92	11.61	36.40	124.20	24.40	83.25	12.10	36.80	125.56	22.40	76.43	12.10
				27	80.6	30.40	103.72	28.00	1.99	11.73	36.80	125.56	26.00	88.71	12.23	38.00	129.66	24.00	81.89	12.23
				29	84.2	30.40	103.72	29.20	2.06	11.86	38.00	129.66	27.60	94.17	12.23	38.80	132.39	26.00	88.71	12.35
				31	87.8	31.60	107.82	30.00	2.34	11.98	38.80	132.39	28.80	98.27	12.23	39.20	133.75	27.60	94.17	12.47
		6800	4002	24	75.2	29.27	99.88	25.20	85.98	11.36	33.26	113.50	23.20	79.16	11.86	34.26	116.90	20.21	68.97	11.98
				27	80.6	29.57	100.89	26.00	88.71	11.49	33.60	114.64	24.00	81.89	11.98	34.61	118.08	22.50	76.75	12.10
				29	84.2	29.60	101.00	27.20	92.81	11.61	33.60	114.64	25.60	87.35	12.10	35.20	120.10	23.20	79.16	12.23
				31	87.8	29.86	101.89	28.00	95.54	11.73	33.94	115.79	26.81	91.47	12.23	35.60	121.47	24.47	83.48	12.35
46	115	8400	4943	24	75.2	29.20	99.63	27.20	92.81	13.96	34.00	116.01	25.20	85.98	14.20	34.80	118.74	22.80	77.79	14.33
				27	80.6	29.60	101.00	28.00	95.54	14.20	34.40	117.37	26.40	90.08	14.45	35.20	120.10	24.40	83.25	14.45
				29	84.2	30.00	102.36	29.20	99.63	14.33	34.40	117.37	27.20	92.81	14.57	37.60	128.29	26.00	88.71	14.45
				31	87.8	30.40	103.72	30.40	103.72	14.57	34.80	118.74	28.40	96.90	14.70	38.80	132.39	27.60	94.17	14.57
		7600	4473	24	75.2	29.27	99.88	26.00	88.71	13.83	33.26	113.50	23.60	80.52	13.96	34.26	116.90	20.21	68.97	14.08
				27	80.6	29.57	100.89	27.20	92.81	14.08	33.60	114.64	24.80	84.62	14.08	34.61	118.08	22.00	75.06	14.20
				29	84.2	29.60	101.00	28.40	96.90	14.33	33.60	114.64	26.00	88.71	14.33	35.20	120.10	23.20	79.16	14.45
				31	87.8	29.86	101.89	29.20	99.63	14.45	33.94	115.79	26.81	91.47	14.57	35.60	121.47	24.47	83.48	14.57
		6800	4002	24	75.2	26.00	88.71	23.20	79.16	13.71	30.80	105.09	21.60	73.70	13.83	31.60	107.82	18.80	64.15	13.96
				27	80.6	27.20	92.81	24.80	84.62	13.83	30.80	105.09	22.80	77.79	13.96	32.40	110.55	20.40	69.60	14.08
				29	84.2	27.20	92.81	26.40	90.08	13.96	31.60	107.82	24.00	81.89	14.08	34.00	116.01	21.60	73.70	14.20
				31	87.8	27.60	94.17	28.00	95.54	14.08	32.40	110.55	25.20	85.98	14.20	34.80	118.74	23.20	79.16	14.33

Rooftop Packaged Air Conditioners Technical Sales Guide

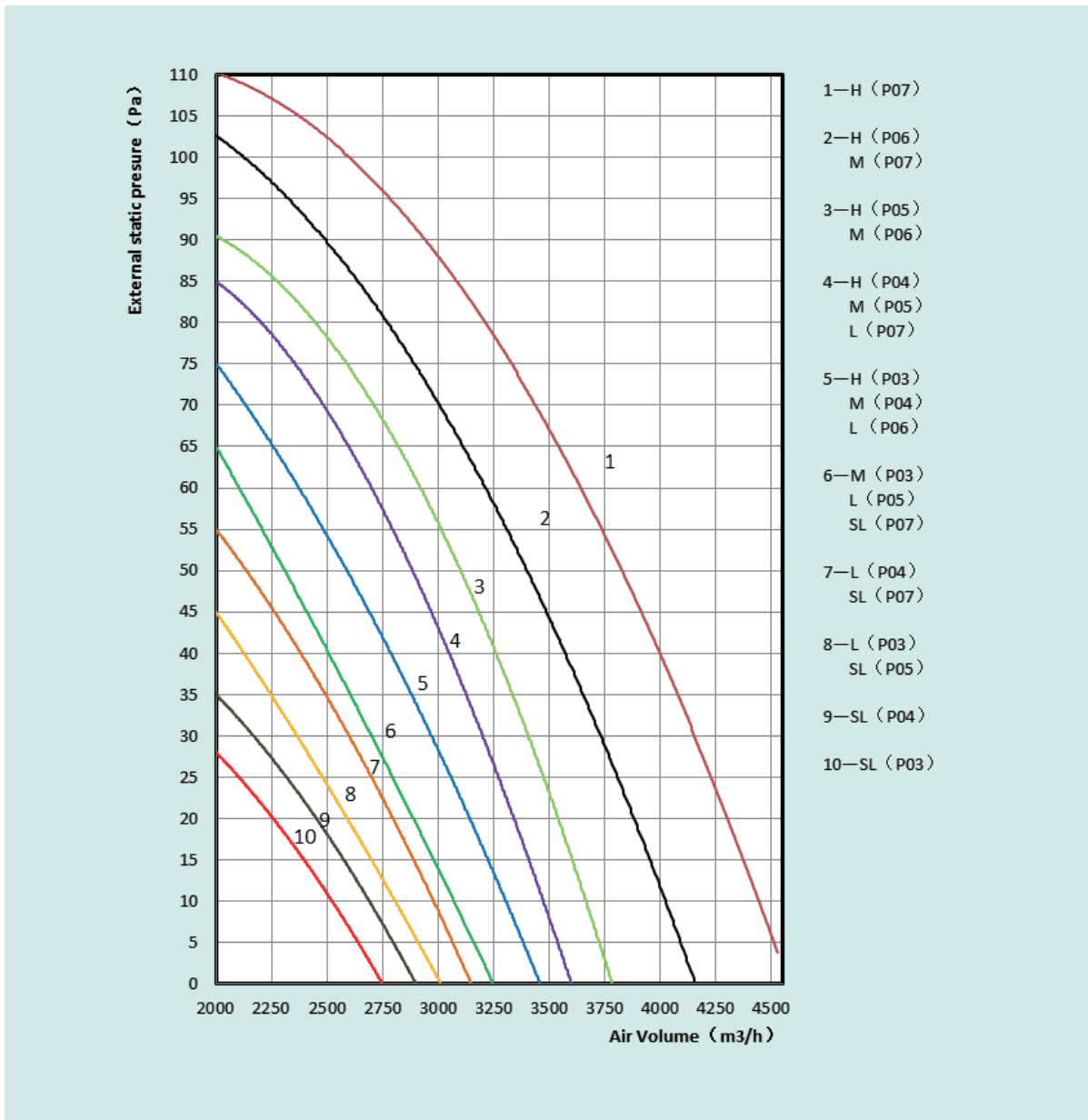
4.2.4 GK-H25TH3AX

Outdoor Air Dry Bulb Temperature		Air Flow Rate		Entering Air DBT		Indoor Air Wet Bulb Temperature °F(°C)														
						62°F(17°C)					67°F(19°C)					72°F(22°C)				
						Total Capacity		Sensible Capacity		Power Input	Total Capacity		Sensible Capacity		Power Input	Total Capacity		Sensible Capacity		Power Input
°C	°F	m³/hr	cfm	°C	°F	kW	Mbh	kW	Mbh	kW	kW	Mbh	kW	Mbh	kW	Mbh	kW	Mbh	kW	
25	77	14500	8533	24	75.2	72.24	246.50	62.13	211.99	27.52	77.68	265.05	58.26	198.79	28.16	80.79	275.65	60.59	206.74	28.48
				27	80.6	73.23	249.87	62.98	214.89	28.16	78.74	268.67	59.06	201.51	28.48	81.89	279.42	61.42	209.57	28.80
				29	84.2	73.23	249.87	62.98	214.89	28.48	78.74	268.67	59.06	201.51	28.80	81.89	279.42	61.42	209.57	28.80
				31	87.8	73.70	251.48	63.38	216.27	28.80	79.25	270.40	59.44	202.80	29.12	82.42	281.22	61.82	210.91	29.12
		17000	10006	24	75.2	74.58	254.47	64.14	218.85	28.29	80.20	273.63	60.15	205.22	28.72	83.40	284.57	62.55	213.43	29.01
				27	80.6	75.34	257.07	64.79	221.08	28.61	81.01	276.42	60.76	207.31	29.05	84.25	287.48	63.19	215.61	29.34
				29	84.2	76.10	259.67	65.45	223.31	28.94	81.83	279.21	61.37	209.41	29.38	85.11	290.38	63.83	217.78	29.67
				31	87.8	76.86	262.26	66.10	225.55	29.26	82.65	282.00	61.99	211.50	29.70	85.96	293.28	64.47	219.96	30.00
		19500	11477	24	75.2	76.22	260.05	65.55	223.65	29.50	81.95	279.63	61.47	209.72	30.41	85.23	290.81	63.92	218.11	30.72
				27	80.6	77.26	263.61	66.44	226.70	29.84	83.07	283.45	62.31	212.59	30.76	86.40	294.79	64.80	221.09	31.04
				29	84.2	77.26	263.61	66.44	226.70	30.17	83.07	283.45	62.31	212.59	31.10	86.40	294.79	64.80	221.09	31.36
				31	87.8	77.76	265.31	66.87	228.16	30.51	83.61	285.28	62.71	213.96	31.45	86.95	296.69	65.22	222.52	31.68
35	95	14500	8533	24	75.2	71.08	242.52	61.13	208.57	30.40	76.43	260.77	57.32	195.58	32.00	79.49	271.20	59.61	203.40	32.32
				27	80.6	71.80	244.97	61.74	210.67	30.72	77.20	263.41	57.90	197.55	32.00	80.29	273.94	60.22	205.46	32.96
				29	84.2	72.51	247.42	62.36	212.78	31.04	77.97	266.04	58.48	199.53	32.64	81.09	276.68	60.82	207.51	33.28
				31	87.8	73.23	249.87	62.98	214.89	31.36	78.74	268.67	59.06	201.51	33.28	81.89	279.42	61.42	209.57	33.60
		17000	10006	24	75.2	73.83	251.90	63.49	216.63	32.24	79.38	270.86	59.54	203.15	33.24	82.56	281.70	61.92	211.27	33.60
				27	80.6	74.64	254.67	64.19	219.02	32.57	80.26	273.84	60.19	205.38	33.58	83.47	284.79	62.60	213.59	33.92
				29	84.2	76.36	260.52	65.67	224.05	32.57	82.10	280.13	61.58	210.10	33.58	85.39	291.34	64.04	218.50	33.92
				31	87.8	77.26	263.61	66.44	226.70	32.57	83.07	283.45	62.31	212.59	33.58	86.40	294.79	64.80	221.09	33.92
		19500	11477	24	75.2	75.23	256.68	64.70	220.75	33.50	80.89	276.00	60.67	207.00	34.90	84.13	287.04	63.10	215.28	35.20
				27	80.6	75.99	259.27	65.35	222.98	33.85	81.71	278.79	61.28	209.09	35.26	84.98	289.94	63.73	217.46	35.52
				29	84.2	76.71	261.72	65.97	225.08	34.20	82.48	281.42	61.86	211.07	35.62	85.78	292.68	64.33	219.51	35.84
				31	87.8	78.18	266.77	67.24	229.42	34.55	84.07	286.85	63.05	215.13	35.99	87.43	298.32	65.57	223.74	36.48
46	115	14500	8533	24	75.2	58.87	200.87	50.63	172.75	36.16	63.30	215.99	47.48	161.99	36.80	65.84	224.63	49.38	168.47	37.12
				27	80.6	59.59	203.32	51.25	174.86	36.80	64.08	218.63	48.06	163.97	37.44	66.64	227.37	49.98	170.53	37.12
				29	84.2	60.31	205.77	51.87	176.96	37.12	64.85	221.26	48.64	165.95	37.76	67.44	230.11	50.58	172.58	37.44
				31	87.8	61.03	208.22	52.48	179.07	37.76	65.62	223.90	49.22	167.92	38.08	68.24	232.85	51.18	174.64	37.76
		17000	10006	24	75.2	59.59	203.32	51.25	174.86	36.63	64.08	218.63	48.06	163.97	37.72	66.64	227.37	49.98	170.53	38.08
				27	80.6	60.31	205.77	51.87	176.96	37.26	64.85	221.26	48.64	165.95	38.38	67.44	230.11	50.58	172.58	38.72
				29	84.2	60.31	205.77	51.87	176.96	37.58	64.85	221.26	48.64	165.95	38.70	67.44	230.11	50.58	172.58	39.04
				31	87.8	61.03	208.22	52.48	179.07	37.90	65.62	223.90	49.22	167.92	39.03	68.24	232.85	51.18	174.64	39.36
		19500	11477	24	75.2	61.74	210.67	53.10	181.18	38.33	66.39	226.53	49.79	169.90	39.93	69.05	235.59	51.79	176.69	40.64
				27	80.6	61.74	210.67	53.10	181.18	39.00	66.39	226.53	49.79	169.90	40.62	69.05	235.59	51.79	176.69	41.28
				29	84.2	62.46	213.12	53.72	183.29	39.33	67.16	229.16	50.37	171.87	40.97	69.85	238.33	52.39	178.75	41.60
				31	87.8	62.46	213.12	53.72	183.29	39.66	67.16	229.16	50.37	171.87	41.32	69.85	238.33	52.39	178.75	41.92

5 FAN CHARACTERISTICS

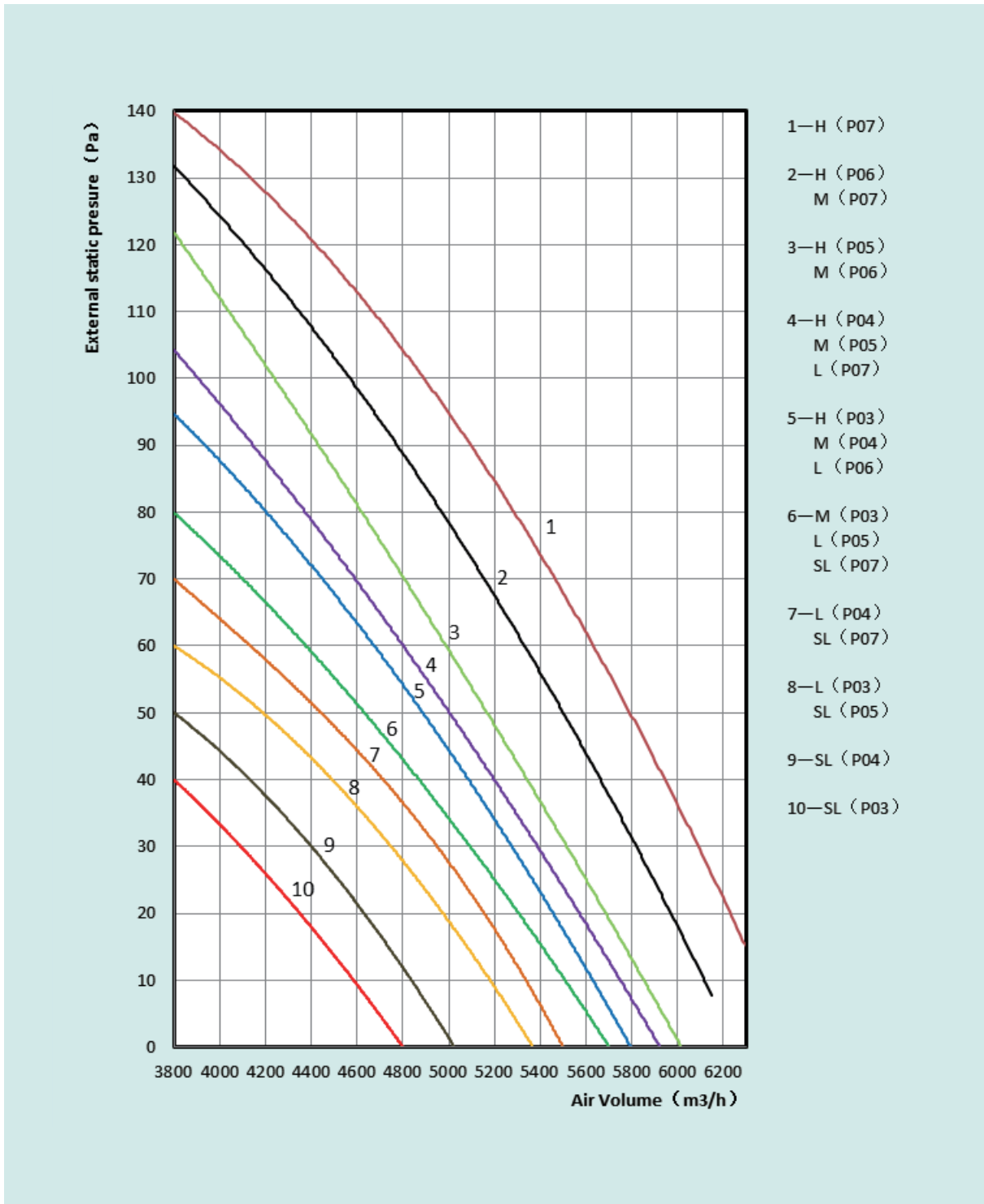
The rotation speed of fan motor of the unit can be adjusted. There are 10 rotation speeds, with ten responding 10 curves . There are multiple static pressure modes, that's P03,P04,P05,P06 and P07. The defaulted static pressure mode is P05. User can select the proper status pressure mode according to the actual air volume. Some curves are corresponding to the fan speeds under different static pressure modes. Eg: Curve 6 is corresponding to the medium fan speed under P03 mode, low fan speed under P05 mode and ultra-low fan speed under P07 mode. The defaulted mode for ex-factory is P05 mode,High fan speed, medium fan speed, low fan speed and ultra-low fan speed are corresponding to curve 3, curve 4, curve 6 and curve 8 respectively.

05Ton:

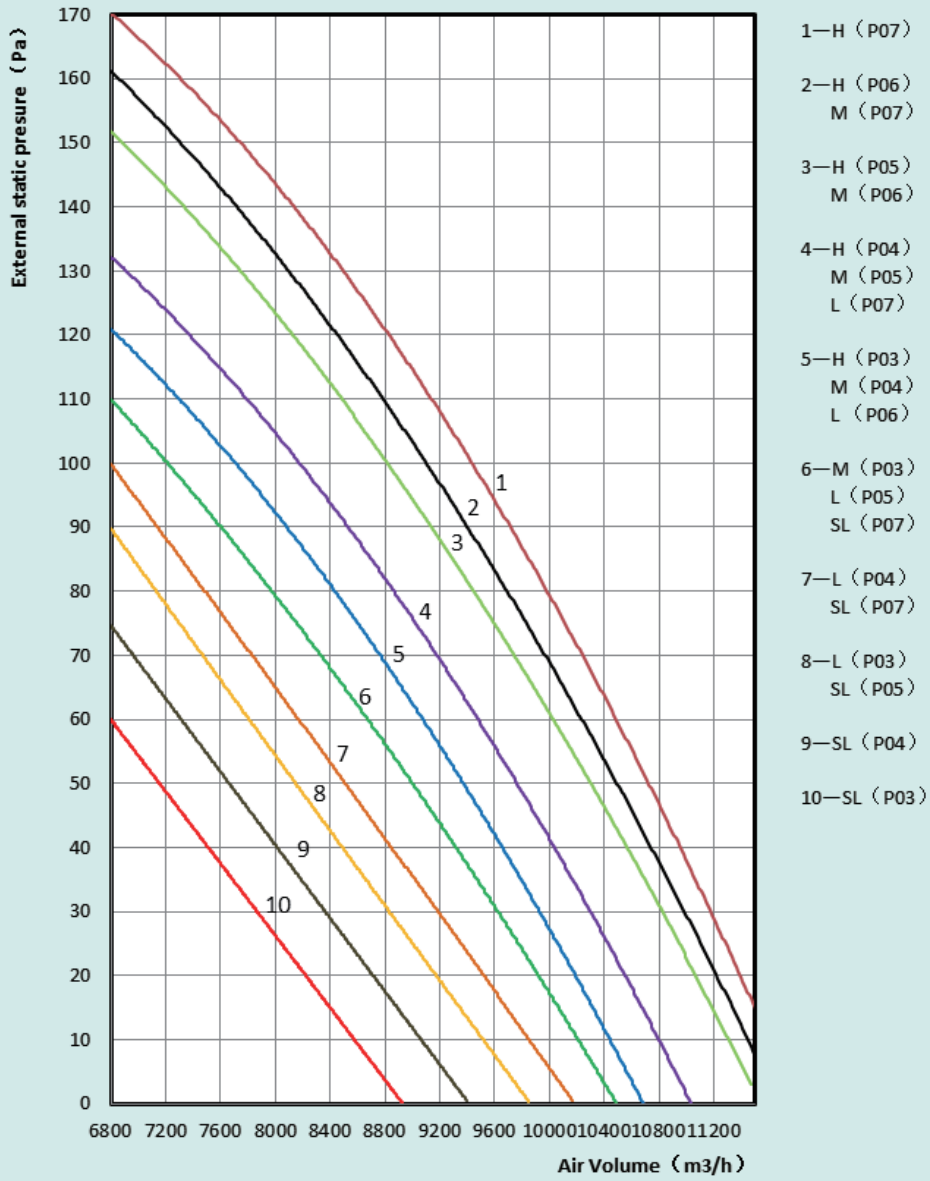


Rooftop Packaged Air Conditioners Technical Sales Guide

08Ton:



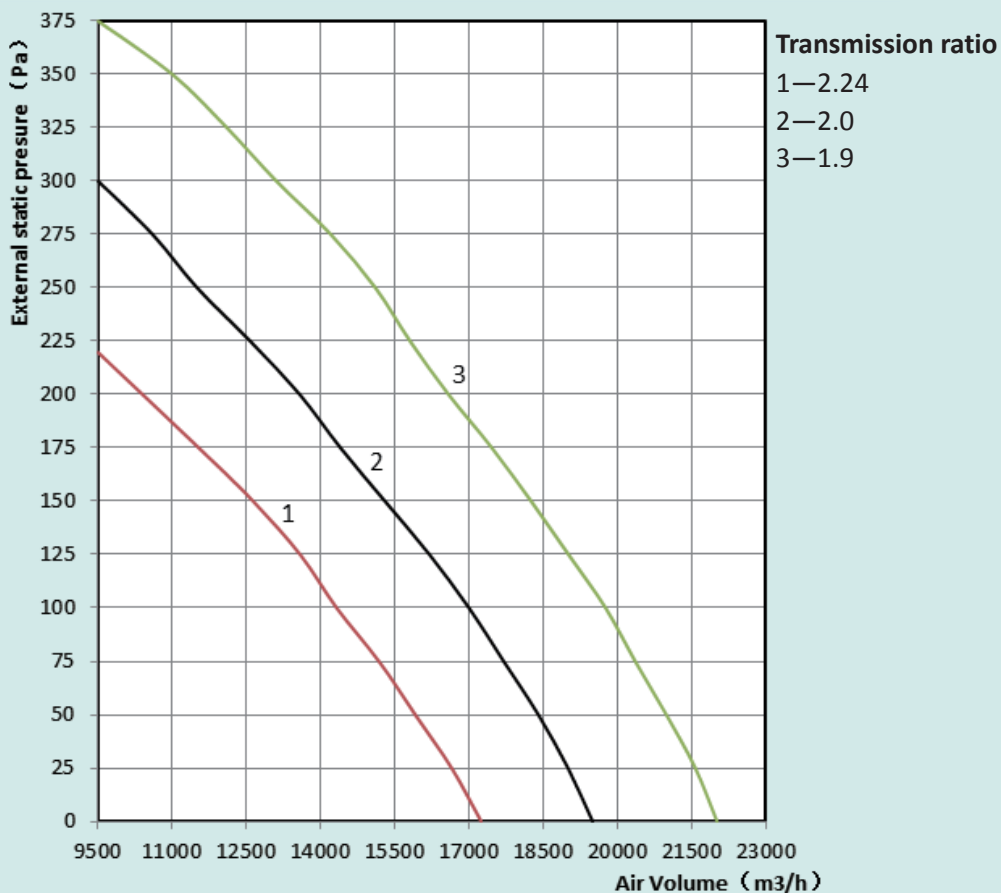
15Ton:



25Ton:

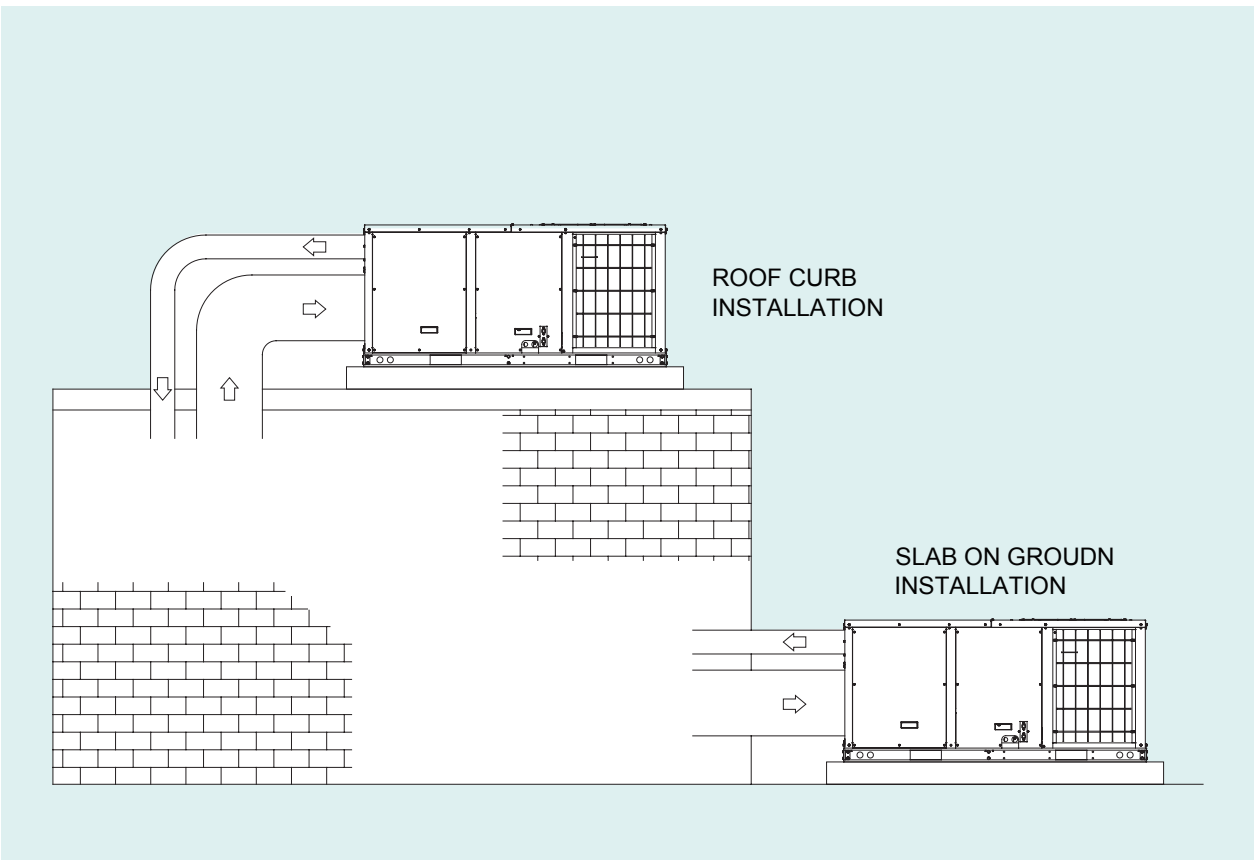
The unit can change the belt, there are three transmission ratios, corresponding to different speeds, unit default transmission ratio is 2.24. The belts are matched as follows.

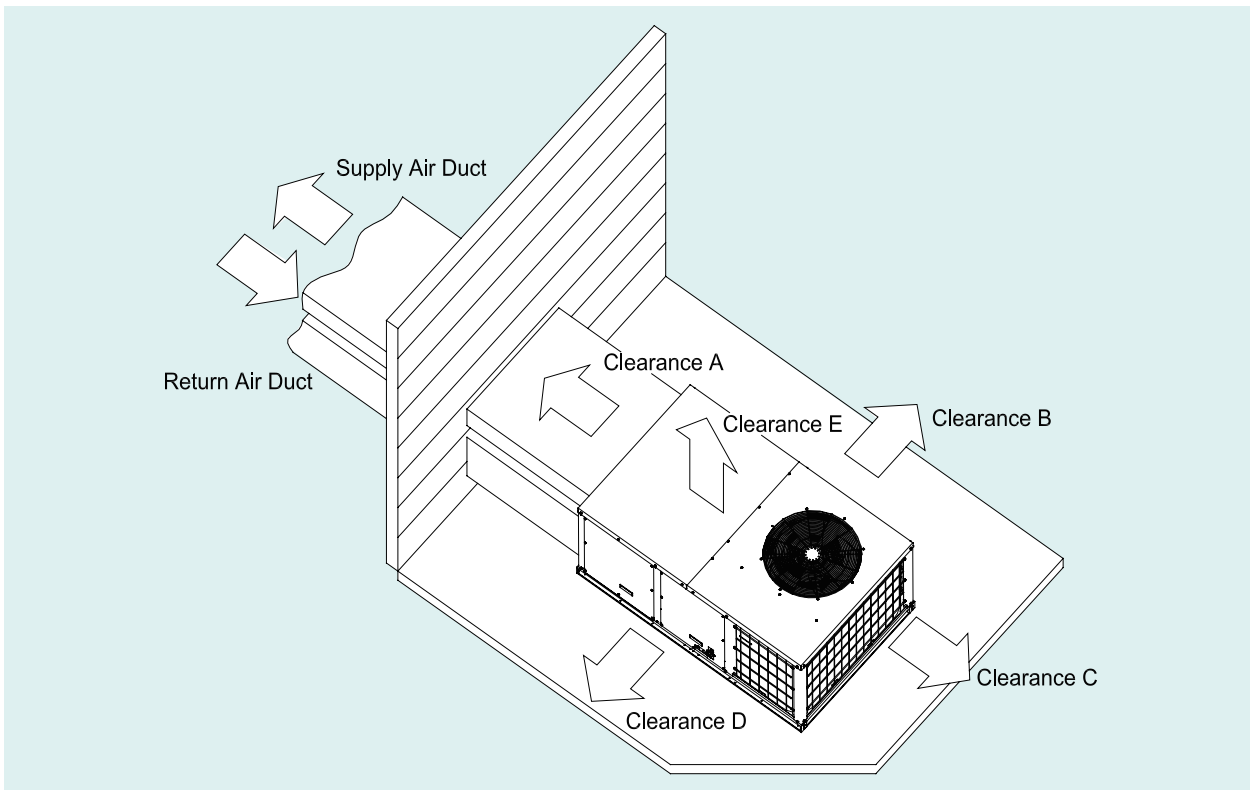
Section area of the belt	Diameter of the small wheel(mm)	Diameter of the big wheel(mm)	The total length of the belt(mm)	Transmission ratio
SPA	100	190	1432	1.9
	106	200	1457	1.9
	112	212	1482	1.9
	118	224	1557	1.9
	100	200	1457	2.0
	106	212	1482	2.0
	112	224	1557	2.0
	100	224	1500	2.24



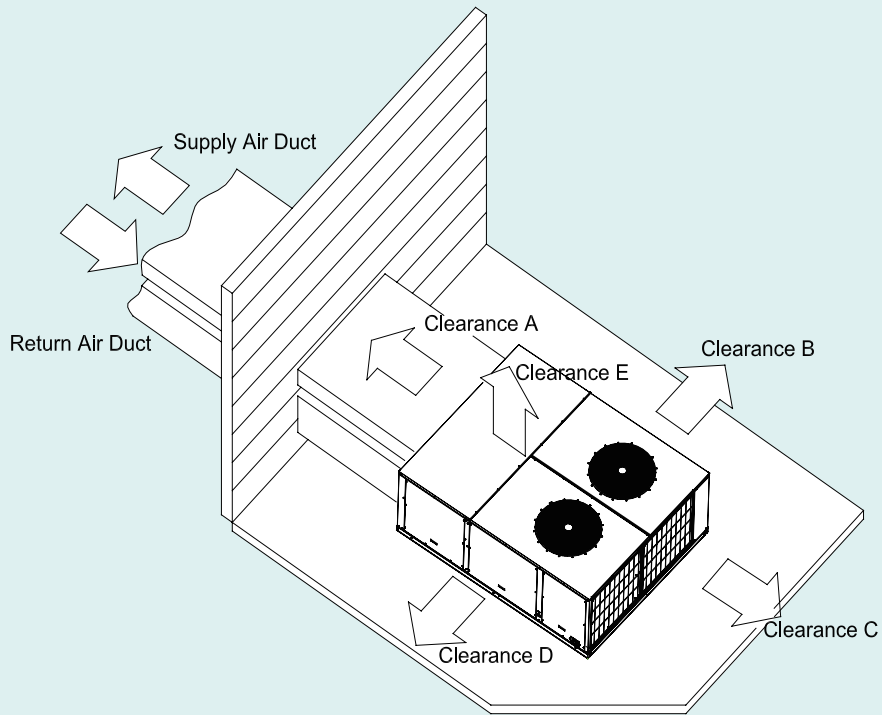
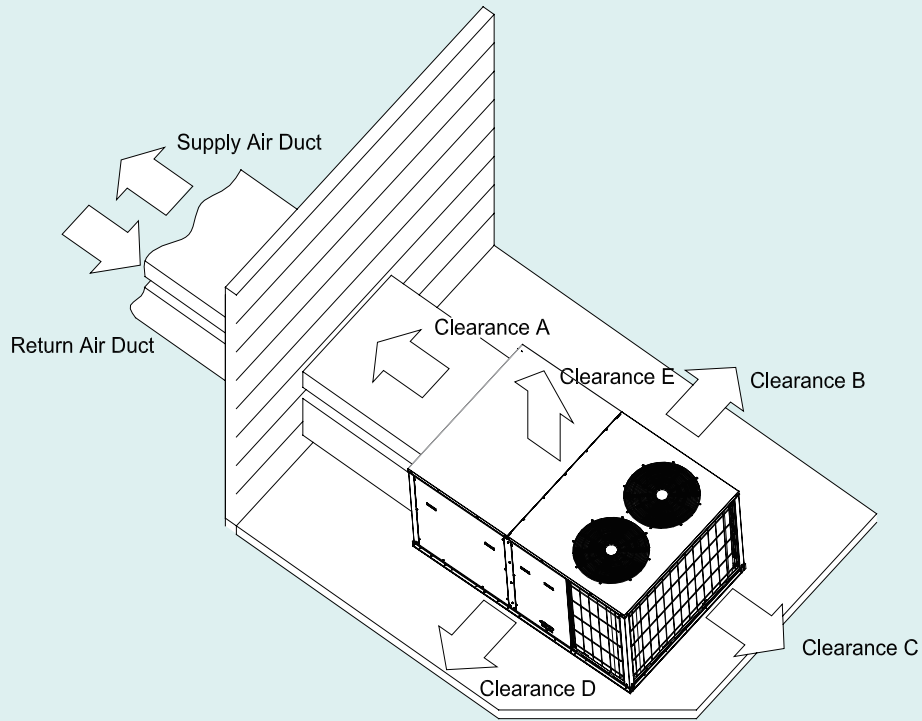
6 CLEARANCES DATA

➔ 6.1 Installation Positions and Clearances

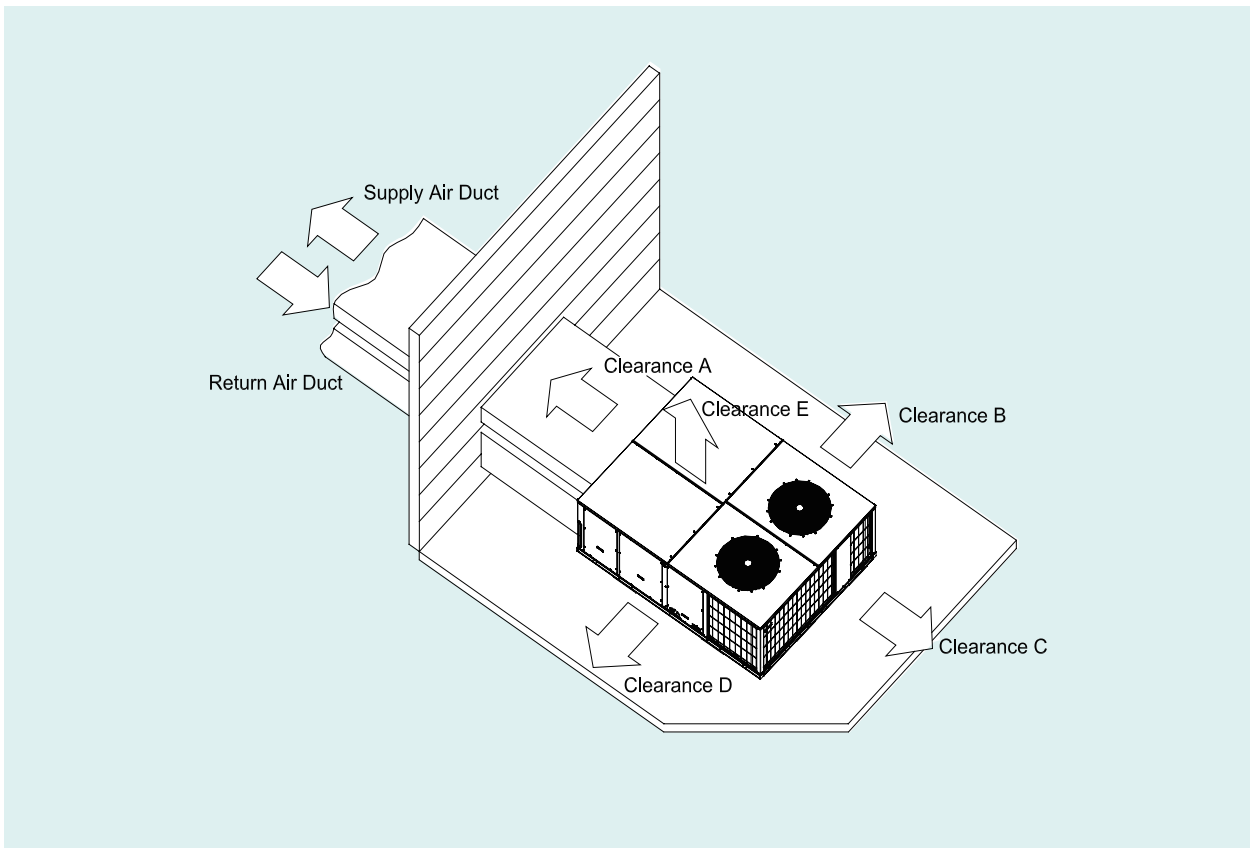




5 Tons Side Supply/Return Installation Clearances		
DIMENSION(Minimum)	mm	inch
A	600	24
B	1100	43
C	860	34
D	1100	43
E	1100	43



Rooftop Packaged Air Conditioners

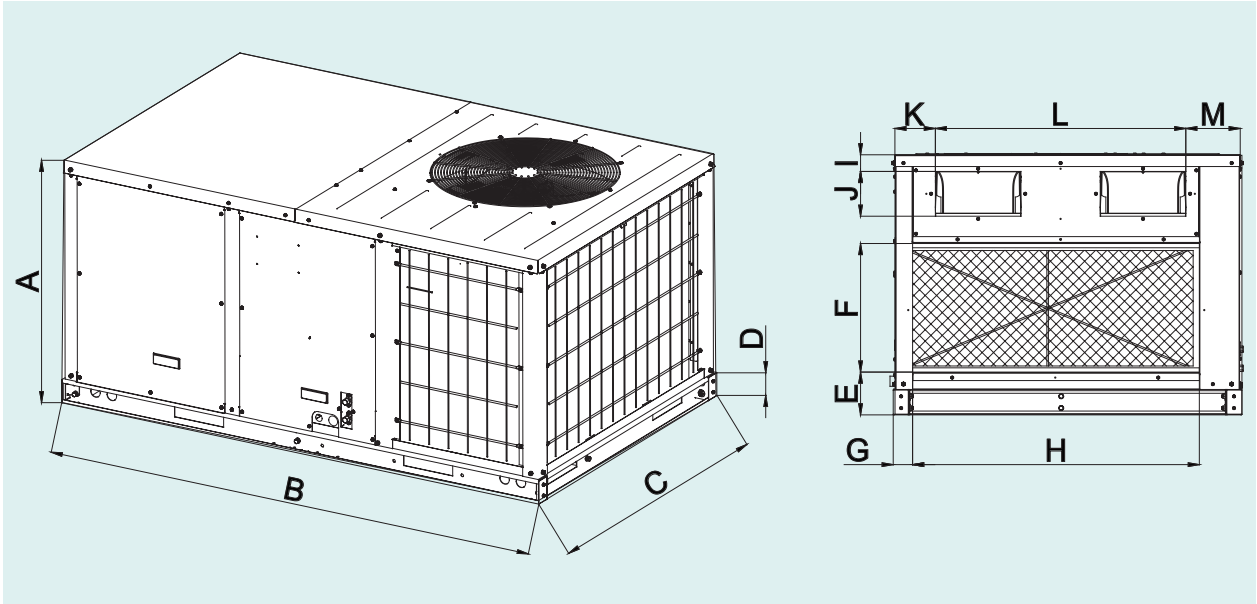


8~25 Tons Side Supply/Return Installation Clearances

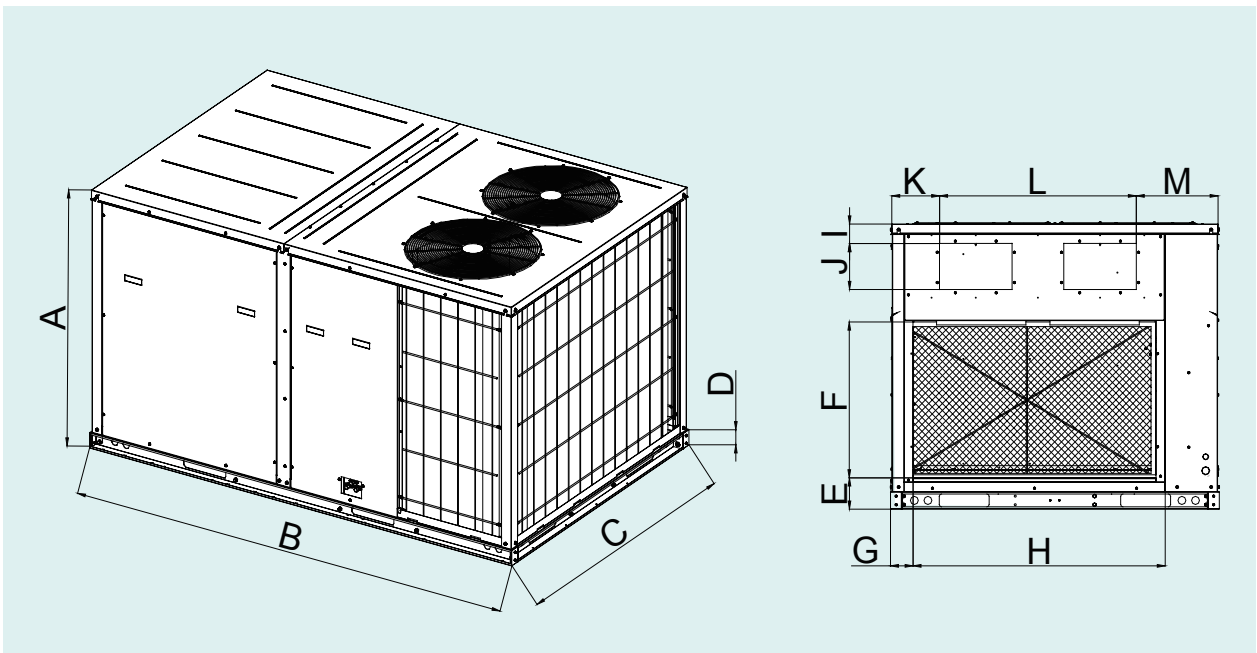
DIMENSION(Minimum)	mm	inch
A	1000	39
B	1500	59
C	1100	43
D	1100	43
E	1830	72

7 DIMENSION

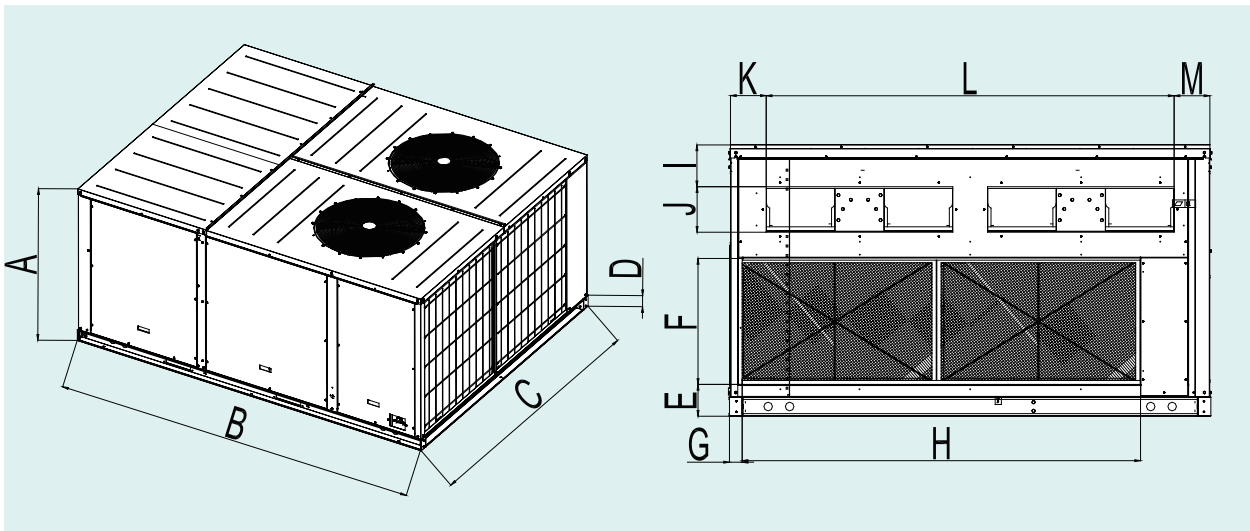
GK-H05TH3AX



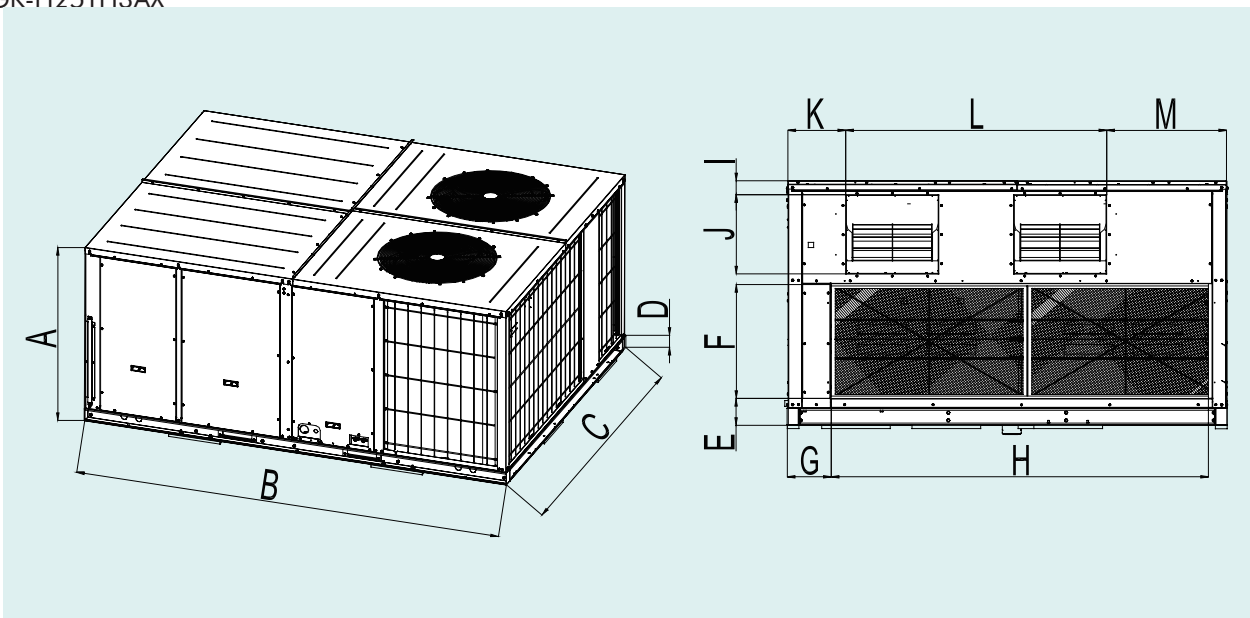
GK-H08TH3AX



GK-H15TH3AX



GK-H25TH3AX



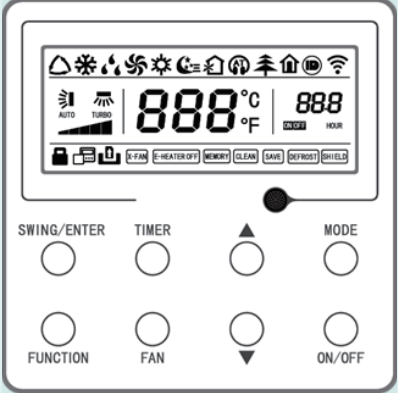
Unit: mm

Dimension (mm)	A	B	C	D	E	F	G	H	I	J	K	L	M
5Ton	815	1750	1100	80	133	408	61	904	50	145	125	795	169
8Ton	1225	2210	1450	75	134	670	100	1112	84	198	211	868	361
15Ton	1245	2810	2240	90	144	592	43	1872	177	211	168	1900	168
25Ton	1270	2880	2240	90	138	585	224	1920	71	407	294	1329	610

Note: Above diagrams may be different from actual model.

8 CONTROLLER and WIRING DIAGRM

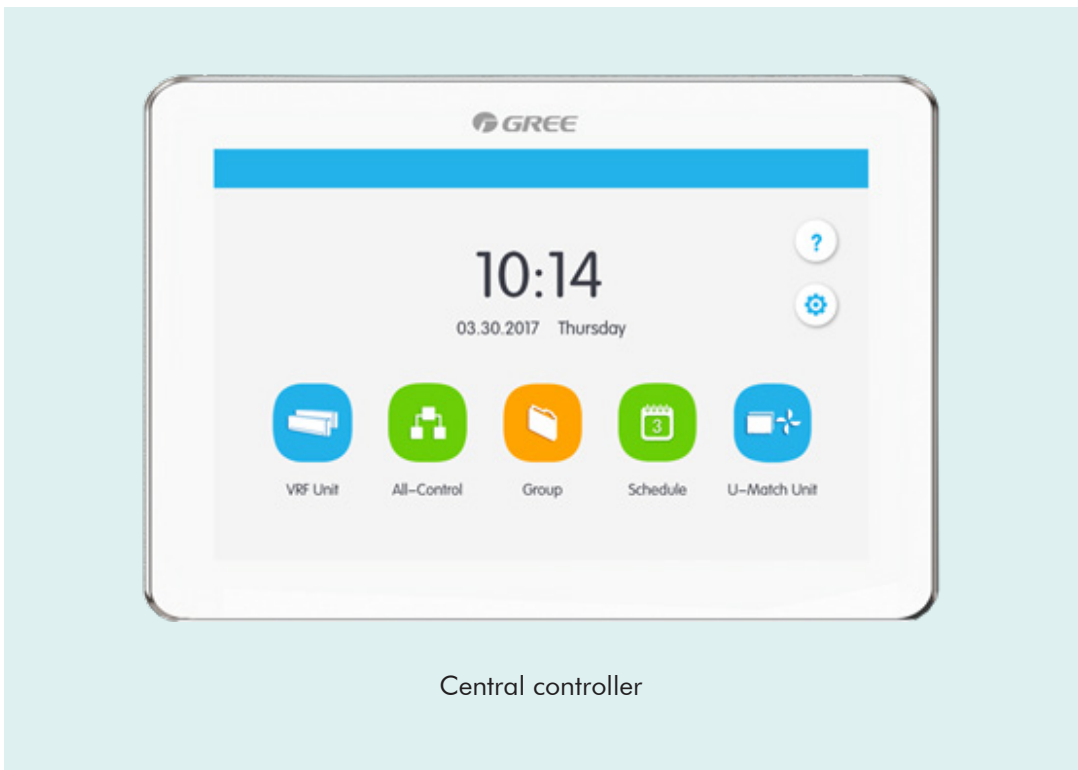
8.1 Controller



Wired Controller (Standard)

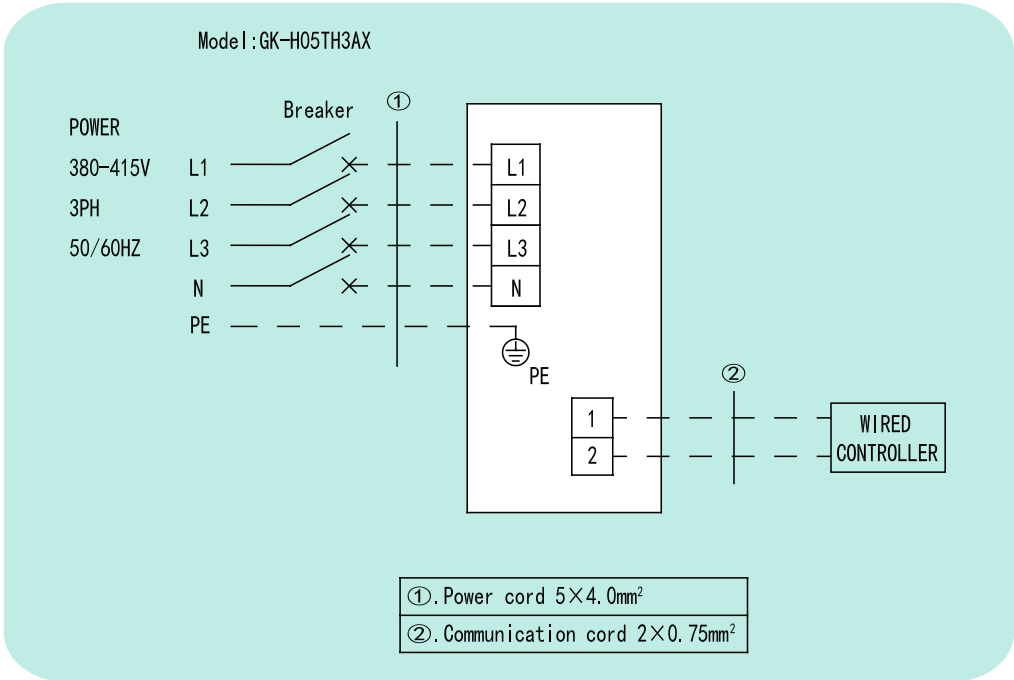


Wireless Remote Controller

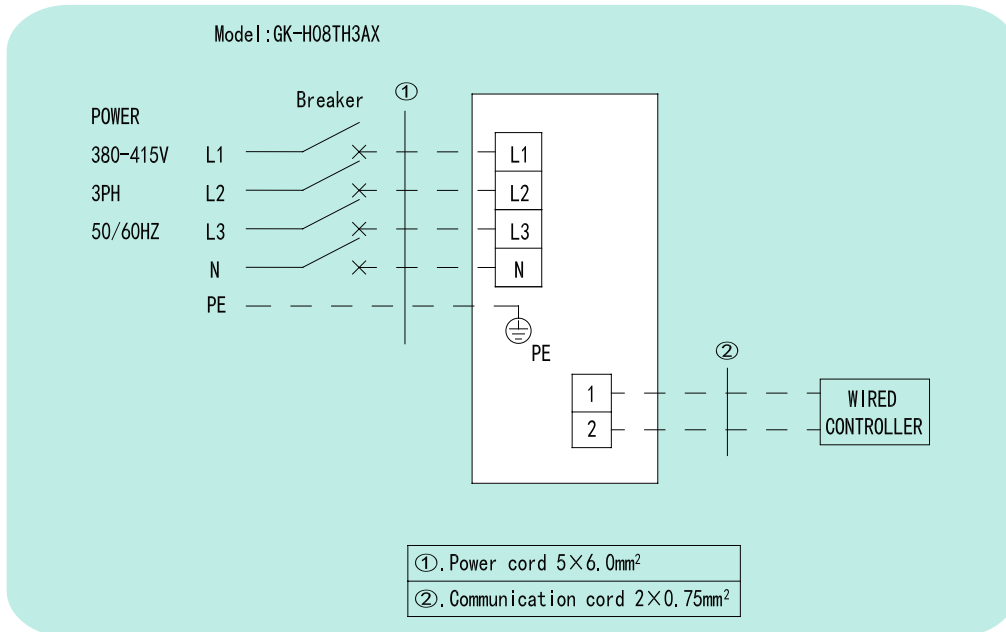


➔ 8.2 Field Wiring Diagrams

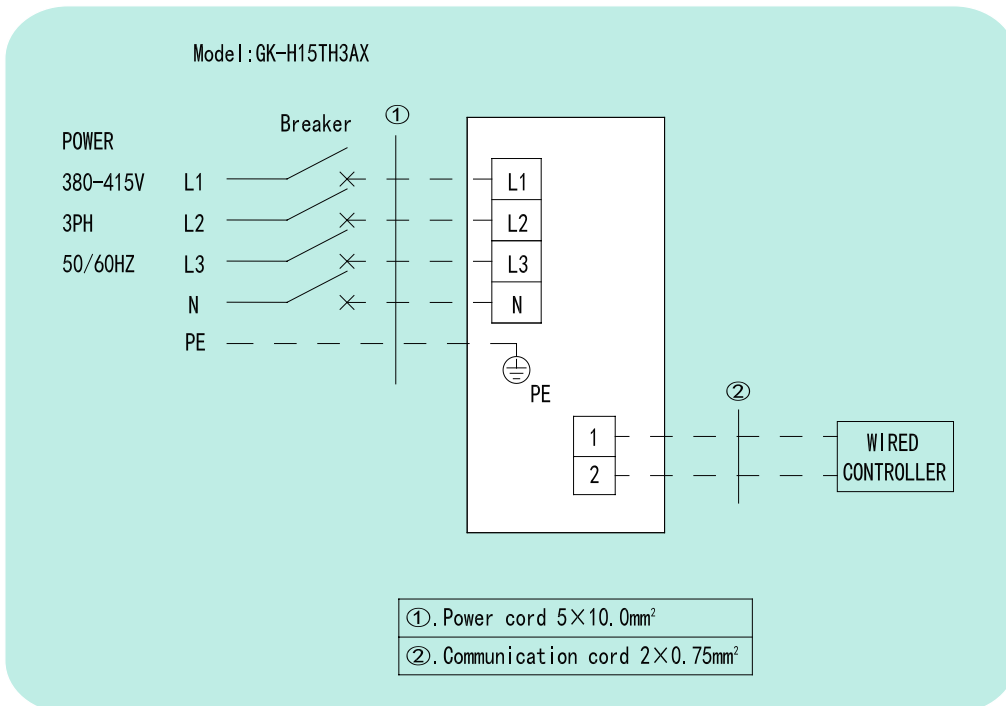
GK-H05TH3AX



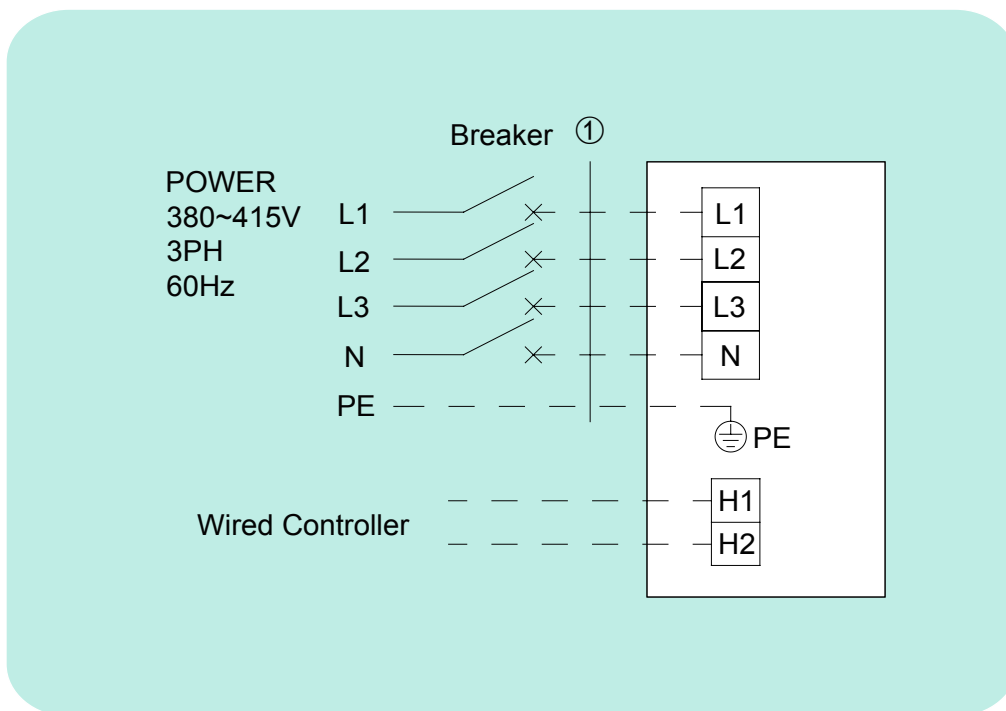
GK-H08TH3AX



GK-H15TH3AX



GK-H25TH3AX



➔ 8.3 Specification of Power Supply Wire and Air Switch

Model	Power Supply (V,Ph,HZ)	Capability of Air Swith	Min. Sectional Area of Earth Wire(mm ²)	Min. Sectional Area of Power Cord(mm ²)	Communication Cord (mm ²)
GK-H05TH3AX	380~415V, 3Ph, 50/60Hz	25A	4.0	4.0	0.75
GK-H08TH3AX		32A	6.0	6.0	0.75
GK-H15TH3AX		50A	10.0	10.0	0.75
GK-H25TH3AX	380~415V, 3Ph, 60Hz	80A	16.0	25.0	0.75

9 ACCESSORIES

Class Model Name	Wired controller (XK117)	Central controller with weekly timer (CE52-24/F(C))	Wireless remote Controller (YB1FA)
GK-H05TH3AX	●	○	○
GK-H08TH3AX	●	○	○
GK-H15TH3AX	●	○	○
GK-H25TH3AX	●	○	○

Note: “●” is standard part ; “○” is optional; “/” is unavailable.



GREE ELECTRIC APPLIANCES, INC. OF ZHUHAI 519070

Add: West Jinji Rd, Qianshan Zhuhai, Guangdong, China

Tel: (+86-756)8522218

Fax: (+86-756)8669426

E-mail: gree@gree.com.cn www.gree.com

SJ00464688