



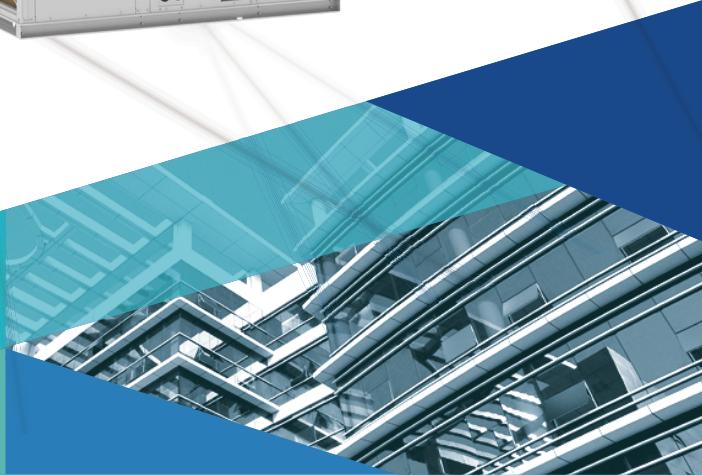
Technical Sales Guide

ROOFTOP PACKAGED AIR CONDITIONERS

CAPACITY RANGE: 10.5~69.0kW(35800~235500Btu/h)

OPERATION RANGE: COOLING: 18~48°C

HEATING: -10~24°C



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Technical Sales Guide

1 MODELS LIST

Model	Nominal Capacity (Ton)	Refrigerant	Power Supply (V, Ph, Hz)	Appearance
GRIT03A	3	R410A	220~240V, 1Ph, 50/60Hz	
GRIT05A	5.5	R410A	220~240V, 1Ph, 50/60Hz	
GRIT05B	5.5	R410A	220~240V, 3Ph, 60Hz	
GRIT10B	10	R410A	220~240V, 3Ph, 60Hz	
GRIT15B	15	R410A	220~240V, 3Ph, 60Hz	

Model	Nominal Capacity (Ton)	Refrigerant	Power Supply (V, Ph, Hz)	Appearance
GRIT20B	20	R410A	220~240V, 3Ph, 60Hz	

ROOFTOP PACKAGED AIR CONDITIONERS

3 FUNCTION

3.1 Description

TGM R410A rooftop packaged units provide a wide capacity range from 3 to 20 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. TGM 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, offices, restaurants, residences or similar places. 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 powder-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.
- ◆ Anti-high temperature protection
Once the heat exchanger temperature of indoor unit is too high ,the speed of outdoor fan motor 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 protect 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 protect 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.

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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 compressor frequency will slow down 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 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.

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			GRIT03A	GRIT05A	GRIT05B		
Total Capacity	Cooling		Btu/h	35800 (13650-42660)	66500 (20500-66500)		
			kW	10.5 (4.0-12.5)	19.5 (6.0-19.5)		
	Heating		Btu/h	39250 (17070-46100)	70000 (27300-73400)		
			kW	11.5 (5.0-13.5)	20.5 (8.0-21.5)		
Electrical Data	Power supply		V-Hz-Ph	220-240V-50/60Hz-1Ph	220-240V-50/60Hz-1Ph		
	Power input	Cooling	kW	3.1	6.8		
		Heating	kW	3.2	5.8		
	Current input	Cooling	A	13.5	30.0		
		Heating	A	14.0	25.5		
	SEER		Btu/(W.h)	20	16		
Sound Pressure Level			dB(A)	61	63		
Refrigerant	Type/weight		—	R410A/3.5kg	R410A/5.0kg		
Air Flow Volume			CFM	1177	1942		
			m³/h	2000	3300		
External Static Pressure		Rated/Range	Pa	50(0-150)	60(0-180)		
			InWg	0.20(0-0.6)	0.24(0-0.72)		
Dehumidifying Volume			l/h	2.63	7.2		
Evaporator Side	Fan motor	Drive Type	-	Direct Drive	Direct Drive		
		Power Output	HP	4/15	1		
	Fan	Type	-	Centrifugal	Centrifugal		
		Quantity	-	2	2		
	Evaporator	Motor Speed	rpm	1100	1080		
		Material	-	Copper tube-	Copper tube-		
				Aluminum fin	Aluminum fin		
		Face Area	sq.ft	4.31	4.31		
			m²	0.4	0.4		
		Fins per Inch(FPI)	-	16	16		
				0.80*0.047	0.80*0.047		
	Drain Connection Size		Inch	0.80*0.047	0.80*0.047		

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Model				GRIT03A	GRIT05A	GRIT05B	
Condenser Side	Compressor	Type	-	Inverter Rotary	Inverter Rotary	Inverter Rotary	
		Quantity	-	1	1	1	
	Fan motor	Drive Type	-	Direct Drive	Direct Drive	Direct Drive	
		Power Output	HP	1	1	1	
	Fan	Type	-	Axial-flow	Axial-flow	Axial-flow	
		Quantity	-	1	1	1	
	Condenser	Material	-	Copper tube	Copper tube	Copper tube	
				-Aluminum fin	-Aluminum fin	-Aluminum fin	
		Face Area	sq.ft	13.89	13.89	13.89	
			m ²	1.29	1.29	1.29	
		Fins per	-	16	16	16	
		Inch(FPI)					
Permissible Excessive Operating		Mpa		4.4	4.4	4.4	
Pressure for the Discharge Side							
Permissible Excessive Operating		Mpa		2.5	2.5	2.5	
Pressure for the Suction Side							
Operation	Cooling	°C		18-48	18-48	18-48	
temp	Heating	°C		-10-24	-10-24	-10-24	
Filter		-		PP	PP	PP	
Dimension	Outline dimension (W×D×H)	mm	1450×1120×815	1450×1120×815	1450×1120×815		
	Package dimension (W×D×H)	mm	1463×1133×860	1463×1133×860	1463×1133×860		
Weight	Net weight	kg		206	268	268	
	Gross weight	kg		227	289	289	
Loading quantity			20'GP	16	16	16	
			40'GP	32	32	32	
			40'HQ	48	48	48	

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Model		GRIT10B		GRIT15B			
Total Capacity	Cooling		Btu/h	116000(34100-119400)	174000(44400-180800)		
			kW	34.0(10.0-35.0)	51.0(13.0-53.0)		
	Heating		Btu/h	119400(37500-122800)	182500(47800-191100)		
			kW	35.0(11.0-36.0)	53.5(14.0-56.0)		
Electrical Data	Power supply		V-Hz-Ph	220-240V-60Hz-3Ph	220-240V-60Hz-3Ph		
	Power input	Cooling	kW	13.7	22.0		
		Heating	kW	11.5	16.0		
	Current input	Cooling	A	36.0	63.0		
		Heating	A	30.0	46.0		
	SEER		Btu/(W.h)	16	16		
Sound Pressure Level			dB(A)	72	74		
Refrigerant	Type/weight		—	R410A/10.0kg	R410A/12.0kg		
Air Flow Volume			CFM	3413	5591		
			m³/h	5800	9500		
External Static Pressure		Rated/Range	Pa	90(0-210)	120(0-320)		
			InWg	0.36(0-0.84)	0.48(0-1.28)		
Dehumidifying Volume			l/h	11.08	14.31		
Evaporator Side	Fan motor	Drive Type	-	Direct Drive	Belt		
		Power Output	HP	2	5.5		
	Fan	Type	-	Centrifugal	Centrifugal		
		Quantity	-	2	2		
	Evaporator	Motor Speed	rpm	1400	916		
		Material	-	Copper tube-Aluminum fin	Copper tube-Aluminum fin		
	Condenser	Face Area	sq.ft	7.00	10.12		
			m²	0.65	0.94		
	Compressor	Fins per	-	16	18		
		Inch(FPI)	-		16		
	Drain Connection Size		Inch	0.80*0.047	0.80*0.047		
	Fan motor	Type	-	Inverter Rotary	Inverter Rotary		
		Quantity	-	1	2		
Condenser Side	Fan	Drive Type	-	Direct Drive	Direct Drive		
		Power Output	HP	2	2		
	Condenser	Type	-	Axial-flow	Axial-flow		
		Quantity	-	1	2		
	Compressor	Material	-	Copper tube-Aluminum fin	Copper tube-Aluminum fin		
		Face Area	sq.ft	25.19	26.16		
			m²	2.34	2.43		
	Fan	Fins per	-	16	16		
		Inch(FPI)	-		16		
Permissible Excessive Operating Pressure for the Discharge Side			Mpa	4.4	4.4		
Permissible Excessive Operating Pressure for the Suction Side			Mpa	2.5	2.5		
Operation		Cooling	°C	18-48	18-48		

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Model			GRIT10B	GRIT15B	GRIT20B
temp	Heating	°C	-10-24	-10-24	-10-24
Filter		-	PP	PP	PP
Dimension	Outline dimension (W×D×H)	mm	1450×1120×1215	2260×1140×1245	2240×1880×1250
	Package dimension (W×D×H)				
	Net weight	kg	339	572	790
	Gross weight	kg	360	600	835
Loading quantity		20'GP	7	4	3
		40'GP	16	10	6
		40'HQ	32	20	12

- ◆ 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

4.2.1 GRIT03A

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	
°C	°F	m³/hr	cfm	°C	°F	kW	Mbh	kW	Mbh	kW	kW	kW	Mbh	kW	Mbh	kW	kW	Mbh	kW	Mbh	kW
25	77	2000	1177	24	75.2	9.56	32.60	7.67	26.15	2.67	10.57	36.05	7.71	26.32	2.73	10.88	37.13	6.41	21.85	2.76	
				27	80.6	9.66	32.96	7.88	26.87	2.73	10.71	36.54	7.77	26.51	2.76	11.03	37.62	7.25	24.72	2.79	
				29	84.2	9.77	33.32	7.98	27.23	2.76	10.82	36.90	7.88	26.87	2.79	11.13	37.98	7.67	26.15	2.82	
				31	87.8	9.87	33.68	8.19	27.94	2.79	10.92	37.26	7.98	27.23	2.82	11.24	38.33	7.77	26.51	2.85	
		1800	1059	24	75.2	9.03	30.81	7.46	25.44	2.64	10.29	35.11	7.25	24.72	2.70	10.61	36.18	6.09	20.78	2.73	
				27	80.6	9.14	31.17	7.56	25.79	2.70	10.40	35.47	7.35	25.08	2.73	10.71	36.54	6.62	22.57	2.76	
				29	84.2	9.24	31.53	7.67	26.15	2.73	10.50	35.83	7.46	25.44	2.76	10.82	36.90	7.25	24.72	2.79	
				31	87.8	9.45	32.24	7.88	26.87	2.76	10.61	36.18	7.67	26.15	2.79	10.92	37.26	7.35	25.08	2.82	
		1600	942	24	75.2	8.61	29.38	6.93	23.65	2.57	9.77	33.32	6.51	22.21	2.67	10.08	34.39	5.78	19.70	2.70	
				27	80.6	8.72	29.74	7.14	24.36	2.64	9.98	34.03	6.72	22.93	2.70	10.19	34.75	6.20	21.14	2.73	
				29	84.2	8.82	30.09	7.25	24.72	2.67	10.19	34.75	7.04	24.00	2.73	10.29	35.11	6.83	23.29	2.76	
				31	87.8	8.93	30.45	7.46	25.44	2.70	10.29	35.11	7.25	24.72	2.76	10.40	35.47	7.04	24.00	2.79	
35	95	2000	1177	24	75.2	9.14	31.17	7.46	25.44	2.95	10.40	35.47	7.01	23.92	3.07	10.71	36.54	6.51	22.21	3.13	
				27	80.6	9.24	31.53	7.67	26.15	2.98	10.50	35.83	7.35	25.08	3.10	10.82	36.90	6.93	23.65	3.19	
				29	84.2	9.35	31.89	7.77	26.51	3.01	10.61	36.18	7.56	25.79	3.16	10.92	37.26	7.35	25.08	3.22	
				31	87.8	9.56	32.60	7.98	27.23	3.04	10.71	36.54	7.74	26.41	3.22	11.03	37.62	7.67	26.15	3.26	
		1800	1059	24	75.2	7.88	26.87	7.14	20.16	2.91	9.56	32.60	6.41	21.85	3.04	9.66	32.96	5.88	20.06	3.04	
				27	80.6	7.98	27.23	7.35	20.90	2.95	9.66	32.96	6.83	23.29	3.07	9.98	34.03	6.30	21.50	3.07	
				29	84.2	8.09	27.59	7.67	21.63	2.98	9.98	34.03	7.25	24.72	3.10	10.19	34.75	6.83	23.29	3.10	
				31	87.8	8.30	28.30	7.88	24.57	3.01	10.19	34.75	7.56	25.79	3.13	10.29	35.11	7.25	24.72	3.13	
		1600	942	24	75.2	7.68	26.22	6.62	22.57	2.85	8.73	29.79	6.09	20.78	2.98	8.99	30.69	5.31	18.11	3.01	
				27	80.6	7.76	26.48	6.83	23.29	2.88	8.82	30.09	6.30	21.50	3.01	9.08	31.00	5.90	20.15	3.04	
				29	84.2	7.88	26.87	7.14	24.36	2.91	8.93	30.45	6.72	22.93	3.04	9.24	31.53	6.09	20.78	3.07	
				31	87.8	7.98	27.23	7.35	25.08	2.95	9.03	30.81	7.04	24.01	3.07	9.35	31.89	6.42	21.91	3.10	
46	115	2000	1177	24	75.2	7.67	26.15	7.14	24.36	3.50	8.93	30.45	6.62	22.57	3.57	9.14	31.17	5.99	20.42	3.60	
				27	80.6	7.77	26.51	7.35	25.08	3.57	9.03	30.81	6.93	23.65	3.63	9.24	31.53	6.41	21.85	3.63	
				29	84.2	7.88	26.87	7.67	26.15	3.60	9.14	31.17	7.14	24.36	3.66	9.87	33.68	6.83	23.29	3.66	
				31	87.8	7.98	27.23	7.98	27.23	3.66	9.24	31.53	7.46	25.44	3.69	10.19	34.75	7.25	24.72	3.69	
		1800	1059	24	75.2	7.35	25.08	6.83	23.29	3.47	8.73	29.79	6.20	21.14	3.50	8.99	30.69	5.31	18.11	3.53	
				27	80.6	7.46	25.44	7.14	24.36	3.53	8.82	30.09	6.51	22.21	3.53	9.08	31.00	5.78	19.70	3.57	
				29	84.2	7.56	25.79	7.46	25.44	3.60	8.93	30.45	6.83	23.29	3.60	9.24	31.53	6.09	20.78	3.63	
				31	87.8	7.67	26.15	7.67	26.15	3.63	9.03	30.81	7.04	24.01	3.66	9.35	31.89	6.42	21.91	3.66	
		1600	942	24	75.2	6.83	23.29	6.09	20.78	3.44	8.09	27.59	5.67	19.35	3.47	8.30	28.30	4.94	16.84	3.50	
				27	80.6	7.04	24.00	6.51	22.21	3.47	8.19	27.94	5.99	20.42	3.50	8.51	29.02	5.36	18.27	3.53	
				29	84.2	7.14	24.36	6.93	23.65	3.50	8.30	28.30	6.30	21.50	3.53	8.93	30.45	5.67	19.35	3.57	
				31	87.8	7.25	24.72	7.35	25.08	3.53	8.51	29.02	6.62	22.57	3.57	9.14	31.17	6.09	20.78	3.60	

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4.2.2 GRIT05A

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	
°C	°F	m³/hr	cfm	°C	°F	kW	Mbh	kW	Mbh	kW	kW	kW	Mbh	kW	Mbh	kW	kW	Mbh	kW	Mbh	kW
25	77	3300	1942	24	75.2	17.75	60.55	14.24	48.57	5.85	19.62	66.95	14.32	48.87	5.98	20.21	68.96	11.90	40.59	6.05	
				27	80.6	17.94	61.21	14.63	49.90	5.98	19.89	67.86	14.43	49.24	6.05	20.48	69.86	13.46	45.91	6.12	
				29	84.2	18.14	61.88	14.82	50.57	6.05	20.09	68.53	14.63	49.90	6.12	20.67	70.53	14.24	48.57	6.19	
				31	87.8	18.33	62.54	15.21	51.90	6.12	20.28	69.20	14.82	50.57	6.19	20.87	71.19	14.43	49.24	6.26	
		3100	1824	24	75.2	16.77	57.22	13.85	47.24	5.78	19.11	65.20	13.46	45.91	5.92	19.70	67.20	11.31	38.59	5.98	
				27	80.6	16.97	57.88	14.04	47.90	5.92	19.31	65.87	13.65	46.57	5.98	19.89	67.86	12.29	41.92	6.05	
				29	84.2	17.16	58.55	14.24	48.57	5.98	19.50	66.53	13.85	47.24	6.05	20.09	68.53	13.46	45.91	6.12	
				31	87.8	17.55	59.88	14.63	49.90	6.05	19.70	67.20	14.24	48.57	6.12	20.28	69.20	13.65	46.57	6.19	
		2800	1648	24	75.2	15.99	54.56	12.87	43.91	5.64	18.14	61.88	12.09	41.25	5.85	18.72	63.87	10.73	36.59	5.92	
				27	80.6	16.19	55.22	13.26	45.24	5.78	18.53	63.21	12.48	42.58	5.92	18.92	64.54	11.51	39.26	5.98	
				29	84.2	16.38	55.89	13.46	45.91	5.85	18.92	64.54	13.07	44.58	5.98	19.11	65.20	12.68	43.25	6.05	
				31	87.8	16.58	56.55	13.85	47.24	5.92	19.11	65.20	13.46	45.91	6.05	19.31	65.87	13.07	44.58	6.12	
35	95	3300	1942	24	75.2	16.97	57.88	13.85	47.24	6.46	19.31	65.87	13.02	44.43	6.73	19.89	67.86	12.09	41.25	6.87	
				27	80.6	17.16	58.55	14.24	48.57	6.53	19.50	66.53	13.65	46.57	6.80	20.09	68.53	12.87	43.91	7.00	
				29	84.2	17.36	59.22	14.43	49.24	6.60	19.70	67.20	14.04	47.90	6.94	20.28	69.20	13.65	46.57	7.07	
				31	87.8	17.75	60.55	14.82	50.57	6.66	19.89	67.86	14.38	49.05	7.07	20.48	69.86	14.24	48.57	7.14	
		3100	1824	24	75.2	14.63	49.90	13.26	37.44	6.39	17.75	60.55	11.90	40.59	6.66	17.94	61.21	10.92	37.26	6.66	
				27	80.6	14.82	50.57	13.65	38.81	6.46	17.94	61.21	12.68	43.25	6.73	18.53	63.21	11.70	39.92	6.73	
				29	84.2	15.02	51.23	14.24	40.17	6.53	18.53	63.21	13.46	45.91	6.80	18.92	64.54	12.68	43.25	6.80	
				31	87.8	15.41	52.56	14.63	45.63	6.60	18.92	64.54	14.04	47.90	6.87	19.11	65.20	13.46	45.91	6.87	
		2800	1648	24	75.2	14.27	48.69	12.29	41.92	6.26	16.22	55.33	11.31	38.59	6.53	16.70	56.99	9.85	33.62	6.60	
				27	80.6	14.41	49.18	12.68	43.25	6.32	16.38	55.89	11.70	39.92	6.60	16.87	57.57	10.97	37.42	6.66	
				29	84.2	14.63	49.90	13.26	45.24	6.39	16.58	56.55	12.48	42.58	6.66	17.16	58.55	11.31	38.59	6.73	
				31	87.8	14.82	50.57	13.65	46.57	6.46	16.77	57.22	13.07	44.59	6.73	17.36	59.22	11.93	40.70	6.80	
46	115	3300	1942	24	75.2	14.24	48.57	13.26	45.24	7.68	16.58	56.55	12.29	41.92	7.82	16.97	57.88	11.12	37.92	7.89	
				27	80.6	14.43	49.24	13.65	46.57	7.82	16.77	57.22	12.87	43.91	7.96	17.16	58.55	11.90	40.59	7.96	
				29	84.2	14.63	49.90	14.24	48.57	7.89	16.97	57.88	13.26	45.24	8.02	18.33	62.54	12.68	43.25	8.02	
				31	87.8	14.82	50.57	14.82	50.57	8.02	17.16	58.55	13.85	47.24	8.09	18.92	64.54	13.46	45.91	8.09	
		3100	1824	24	75.2	13.65	46.57	12.68	43.25	7.62	16.22	55.33	11.51	39.26	7.68	16.70	56.99	9.85	33.62	7.75	
				27	80.6	13.85	47.24	13.26	45.24	7.75	16.38	55.89	12.09	41.25	7.75	16.87	57.57	10.73	36.59	7.82	
				29	84.2	14.04	47.90	13.85	47.24	7.89	16.58	56.55	12.68	43.25	7.89	17.16	58.55	11.31	38.59	7.96	
				31	87.8	14.24	48.57	14.24	48.57	7.96	16.77	57.22	13.07	44.59	8.02	17.36	59.22	11.93	40.70	8.02	
		2800	1648	24	75.2	12.68	43.25	11.31	38.59	7.55	15.02	51.23	10.53	35.93	7.62	15.41	52.56	9.17	31.27	7.68	
				27	80.6	13.07	44.58	12.09	41.25	7.62	15.21	51.90	11.12	37.92	7.68	15.80	53.89	9.95	33.93	7.75	
				29	84.2	13.26	45.24	12.87	43.91	7.68	15.41	52.56	11.70	39.92	7.75	16.58	56.55	10.53	35.93	7.82	
				31	87.8	13.46	45.91	13.65	46.57	7.75	15.80	53.89	12.29	41.92	7.82	16.97	57.88	11.31	38.59	7.89	

4.2.3 GRIT05B

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	kW	Mbh	kW	Mbh	kW	kW	kW	Mbh	kW	Mbh	kW
25	77	3300	1942	24	75.2	19.11	65.20	15.33	52.31	6.79	21.13	72.10	15.43	52.63	6.95	21.76	74.26	12.81	43.71	7.03		
				27	80.6	19.32	65.92	15.75	53.74	6.95	21.42	73.09	15.54	53.02	7.03	22.05	75.23	14.49	49.44	7.11		
				29	84.2	19.53	66.64	15.96	54.46	7.03	21.63	73.80	15.75	53.74	7.11	22.26	75.95	15.33	52.31	7.19		
				31	87.8	19.74	67.35	16.38	55.89	7.11	21.84	74.52	15.96	54.46	7.19	22.47	76.67	15.54	53.02	7.27		
		3100	1824	24	75.2	18.06	61.62	14.91	50.87	6.72	20.58	70.22	14.49	49.44	6.87	21.21	72.37	12.18	41.56	6.95		
				27	80.6	18.27	62.34	15.12	51.59	6.87	20.79	70.94	14.70	50.16	6.95	21.42	73.09	13.23	45.14	7.03		
				29	84.2	18.48	63.05	15.33	52.31	6.95	21.00	71.65	14.91	50.87	7.03	21.63	73.80	14.49	49.44	7.11		
				31	87.8	18.90	64.49	15.75	53.74	7.03	21.21	72.37	15.33	52.31	7.11	21.84	74.52	14.70	50.16	7.19		
		2800	1648	24	75.2	17.22	58.75	13.86	47.29	6.56	19.53	66.64	13.02	44.42	6.79	20.16	68.79	11.55	39.41	6.87		
				27	80.6	17.43	59.47	14.28	48.72	6.72	19.95	68.07	13.44	45.86	6.87	20.37	69.50	12.39	42.27	6.95		
				29	84.2	17.64	60.19	14.49	49.44	6.79	20.37	69.50	14.07	48.01	6.95	20.58	70.22	13.65	46.57	7.03		
				31	87.8	17.85	60.90	14.91	50.87	6.87	20.58	70.22	14.49	49.44	7.03	20.79	70.94	14.07	48.01	7.11		
35	95	3300	1942	24	75.2	18.27	62.34	14.91	50.87	7.51	20.79	70.94	14.02	47.85	7.82	21.42	73.09	13.02	44.42	7.98		
				27	80.6	18.48	63.05	15.33	52.31	7.58	21.00	71.65	14.70	50.16	7.90	21.63	73.80	13.86	47.29	8.14		
				29	84.2	18.69	63.77	15.54	53.02	7.66	21.21	72.37	15.12	51.59	8.06	21.84	74.52	14.70	50.16	8.22		
				31	87.8	19.11	65.20	15.96	54.46	7.74	21.42	73.09	15.48	52.83	8.22	22.05	75.23	15.33	52.31	8.30		
		3100	1824	24	75.2	15.75	53.74	14.28	40.32	7.43	19.11	65.20	12.81	43.71	7.74	19.32	65.92	11.76	40.13	7.74		
				27	80.6	15.96	54.46	14.70	41.79	7.51	19.32	65.92	13.65	46.57	7.82	19.95	68.07	12.60	42.99	7.82		
				29	84.2	16.17	55.17	15.33	43.26	7.58	19.95	68.07	14.49	49.44	7.90	20.37	69.50	13.65	46.57	7.90		
				31	87.8	16.59	56.61	15.75	49.14	7.66	20.37	69.50	15.12	51.59	7.98	20.58	70.22	14.49	49.44	7.98		
		2800	1648	24	75.2	15.37	52.44	13.23	45.14	7.27	17.46	59.59	12.18	41.56	7.58	17.99	61.37	10.61	36.21	7.66		
				27	80.6	15.52	52.97	13.65	46.57	7.35	17.64	60.19	12.60	42.99	7.66	18.17	61.99	11.81	40.30	7.74		
				29	84.2	15.75	53.74	14.28	48.72	7.43	17.85	60.90	13.44	45.86	7.74	18.48	63.05	12.18	41.56	7.82		
				31	87.8	15.96	54.46	14.70	50.16	7.51	18.06	61.62	14.07	48.02	7.82	18.69	63.77	12.85	43.83	7.90		
46	115	3300	1942	24	75.2	15.33	52.31	14.28	48.72	8.93	17.85	60.90	13.23	45.14	9.09	18.27	62.34	11.97	40.84	9.16		
				27	80.6	15.54	53.02	14.70	50.16	9.09	18.06	61.62	13.86	47.29	9.24	18.48	63.05	12.81	43.71	9.24		
				29	84.2	15.75	53.74	15.33	52.31	9.16	18.27	62.34	14.28	48.72	9.32	19.74	67.35	13.65	46.57	9.32		
				31	87.8	15.96	54.46	15.96	54.46	9.32	18.48	63.05	14.91	50.87	9.40	20.37	69.50	14.49	49.44	9.40		
		3100	1824	24	75.2	14.70	50.16	13.65	46.57	8.85	17.46	59.59	12.39	42.27	8.93	17.99	61.37	10.61	36.21	9.01		
				27	80.6	14.91	50.87	14.28	48.72	9.01	17.64	60.19	13.02	44.42	9.01	18.17	61.99	11.55	39.41	9.09		
				29	84.2	15.12	51.59	14.91	50.87	9.16	17.85	60.90	13.65	46.57	9.16	18.48	63.05	12.18	41.56	9.24		
				31	87.8	15.33	52.31	15.33	52.31	9.24	18.06	61.62	14.07	48.02	9.32	18.69	63.77	12.85	43.83	9.32		
		2800	1648	24	75.2	13.65	46.57	12.18	41.56	8.77	16.17	55.17	11.34	38.69	8.85	16.59	56.61	9.87	33.68	8.93		
				27	80.6	14.07	48.01	13.02	44.42	8.85	16.38	55.89	11.97	40.84	8.93	17.01	58.04	10.71	36.54	9.01		
				29	84.2	14.28	48.72	13.86	47.29	8.93	16.59	56.61	12.60	42.99	9.01	17.85	60.90	11.34	38.69	9.09		
				31	87.8	14.49	49.44	14.70	50.16	9.01	17.01	58.04	13.23	45.14	9.09	18.27	62.34	12.18	41.56	9.16		

ROOFTOP PACKAGED AIR CONDITIONERS

4.2.4 GRIT10B

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	
°C	°F	m³/hr	cfm	°C	°F	kW	Mbh	kW	Mbh	kW	kW	kW	Mbh	kW	Mbh	kW	kW	Mbh	kW	Mbh	kW
25	77	5800	3413	24	75.2	30.94	105.57	24.82	84.69	11.78	34.21	116.73	24.97	85.21	12.06	35.24	120.23	20.74	70.76	12.19	
				27	80.6	31.28	106.73	25.50	87.01	12.06	34.68	118.33	25.16	85.85	12.19	35.70	121.81	23.46	80.05	12.33	
				29	84.2	31.62	107.89	25.84	88.17	12.19	35.02	119.49	25.50	87.01	12.33	36.04	122.97	24.82	84.69	12.47	
				31	87.8	31.96	109.05	26.52	90.49	12.33	35.36	120.65	25.84	88.17	12.47	36.38	124.13	25.16	85.85	12.60	
		5300	3119	24	75.2	29.24	99.77	24.14	82.37	11.65	33.32	113.69	23.46	80.05	11.92	34.34	117.17	19.72	67.28	12.06	
				27	80.6	29.58	100.93	24.48	83.53	11.92	33.66	114.85	23.80	81.21	12.06	34.68	118.33	21.42	73.09	12.19	
				29	84.2	29.92	102.09	24.82	84.69	12.06	34.00	116.01	24.14	82.37	12.19	35.02	119.49	23.46	80.05	12.33	
				31	87.8	30.60	104.41	25.50	87.01	12.19	34.34	117.17	24.82	84.69	12.33	35.36	120.65	23.80	81.21	12.47	
		4800	2825	24	75.2	27.88	95.13	22.44	76.57	11.37	31.62	107.89	21.08	71.92	11.78	32.64	111.37	18.70	63.80	11.92	
				27	80.6	28.22	96.29	23.12	78.89	11.65	32.30	110.21	21.76	74.25	11.92	32.98	112.53	20.06	68.44	12.06	
				29	84.2	28.56	97.45	23.46	80.05	11.78	32.98	112.53	22.78	77.73	12.06	33.32	113.69	22.10	75.41	12.19	
				31	87.8	28.90	98.61	24.14	82.37	11.92	33.32	113.69	23.46	80.05	12.19	33.66	114.85	22.78	77.73	12.33	
35	95	5800	3413	24	75.2	29.58	100.93	24.14	82.37	13.02	33.66	114.85	22.70	77.47	13.56	34.68	118.33	21.08	71.92	13.84	
				27	80.6	29.92	102.09	24.82	84.69	13.15	34.00	116.01	23.80	81.21	13.70	35.02	119.49	22.44	76.57	14.11	
				29	84.2	30.26	103.25	25.16	85.85	13.29	34.34	117.17	24.48	83.53	13.97	35.36	120.65	23.80	81.21	14.25	
				31	87.8	30.94	105.57	25.84	88.17	13.43	34.68	118.33	25.07	85.53	14.25	35.70	121.81	24.82	84.69	14.39	
		5300	3119	24	75.2	25.50	87.01	23.12	65.28	12.88	30.94	105.57	20.74	70.76	13.43	31.28	106.73	19.04	64.96	13.43	
				27	80.6	25.84	88.17	23.80	67.66	13.02	31.28	106.73	22.10	75.41	13.56	32.30	110.21	20.40	69.60	13.56	
				29	84.2	26.18	89.33	24.82	70.04	13.15	32.30	110.21	23.46	80.05	13.70	32.98	112.53	22.10	75.41	13.70	
				31	87.8	26.86	91.65	25.50	79.56	13.29	32.98	112.53	24.48	83.53	13.84	33.32	113.69	23.46	80.05	13.84	
		4800	2825	24	75.2	24.88	84.90	21.42	73.09	12.60	28.27	96.47	19.72	67.28	13.15	29.12	99.37	17.18	58.63	13.29	
				27	80.6	25.13	85.75	22.10	75.41	12.74	28.56	97.45	20.40	69.60	13.29	29.42	100.37	19.12	65.24	13.43	
				29	84.2	25.50	87.01	23.12	78.89	12.88	28.90	98.61	21.76	74.25	13.43	29.92	102.09	19.72	67.28	13.56	
				31	87.8	25.84	88.17	23.80	81.21	13.02	29.24	99.77	22.79	77.75	13.56	30.26	103.25	20.80	70.96	13.70	
46	115	5800	3413	24	75.2	24.82	84.69	23.12	78.89	15.48	28.90	98.61	21.42	73.09	15.76	29.58	100.93	19.38	66.12	15.89	
				27	80.6	25.16	85.85	23.80	81.21	15.76	29.24	99.77	22.44	76.57	16.03	29.92	102.09	20.74	70.76	16.03	
				29	84.2	25.50	87.01	24.82	84.69	15.89	29.58	100.93	23.12	78.89	16.17	31.96	109.05	22.10	75.41	16.17	
				31	87.8	25.84	88.17	25.84	88.17	16.17	29.92	102.09	24.14	82.37	16.30	32.98	112.53	23.46	80.05	16.30	
		5300	3119	24	75.2	23.80	81.21	22.10	75.41	15.34	28.27	96.47	20.06	68.44	15.48	29.12	99.37	17.18	58.63	15.62	
				27	80.6	24.14	82.37	23.12	78.89	15.62	28.56	97.45	21.08	71.92	15.62	29.42	100.37	18.70	63.80	15.76	
				29	84.2	24.48	83.53	24.14	82.37	15.89	28.90	98.61	22.10	75.41	15.89	29.92	102.09	19.72	67.28	16.03	
				31	87.8	24.82	84.69	24.82	84.69	16.03	29.24	99.77	22.79	77.75	16.17	30.26	103.25	20.80	70.96	16.17	
		4800	2825	24	75.2	22.10	75.41	19.72	67.28	15.21	26.18	89.33	18.36	62.64	15.34	26.86	91.65	15.98	54.52	15.48	
				27	80.6	22.78	77.73	21.08	71.92	15.34	26.52	90.49	19.38	66.12	15.48	27.54	93.97	17.34	59.16	15.62	
				29	84.2	23.12	78.89	22.44	76.57	15.48	26.86	91.65	20.40	69.60	15.62	28.90	98.61	18.36	62.64	15.76	
				31	87.8	23.46	80.05	23.80	81.21	15.62	27.54	93.97	21.42	73.09	15.76	29.58	100.93	19.72	67.28	15.89	

4.2.5 GRIT15B

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	
°C	°F	m³/hr	cfm	°C	°F	kW	Mbh	kW	Mbh	kW	kW	kW	Mbh	kW	Mbh	kW	kW	Mbh	kW	Mbh	kW
25	77	9500	5591	24	75.2	47.73	162.84	41.04	140.04	18.92	51.32	175.10	39.51	134.82	19.36	53.37	182.10	37.36	127.47	19.58	
				27	80.6	48.38	165.07	41.61	141.96	19.36	52.02	177.49	40.06	136.67	19.58	54.10	184.59	37.87	129.21	19.80	
				29	84.2	48.85	166.69	42.26	144.18	19.58	52.53	179.23	40.97	139.80	19.80	54.63	186.40	38.24	130.48	20.02	
				31	87.8	49.33	168.30	42.91	146.42	19.80	53.04	180.97	41.37	141.16	20.02	55.16	188.21	38.61	131.75	20.24	
		10400	6121	24	75.2	49.27	168.11	42.37	144.57	19.36	52.98	180.76	40.79	139.19	19.75	55.10	187.99	38.57	131.60	19.94	
				27	80.6	49.77	169.83	42.80	146.05	19.58	53.52	182.61	41.21	140.61	19.97	55.66	189.91	39.52	134.84	20.17	
				29	84.2	50.28	171.54	43.24	147.53	19.80	54.06	184.45	41.63	142.03	20.20	56.22	191.83	39.92	136.20	20.40	
				31	87.8	50.78	173.26	43.67	149.00	20.02	54.60	186.30	42.59	145.31	20.42	56.78	193.75	40.32	137.56	20.62	
		11300	6651	24	75.2	50.35	171.80	43.30	147.75	20.24	54.14	184.73	41.69	142.24	20.91	56.31	192.12	39.41	134.48	21.12	
				27	80.6	51.04	174.15	43.89	149.77	20.46	54.88	187.25	42.26	144.19	21.15	57.08	194.74	39.95	136.32	21.34	
				29	84.2	51.54	175.85	44.32	151.23	20.68	55.42	189.09	42.67	145.60	21.38	57.64	196.65	40.35	137.66	21.56	
				31	87.8	52.04	177.56	44.75	152.70	20.90	55.96	190.93	43.65	148.92	21.62	58.20	198.56	40.74	138.99	21.78	
35	95	9500	5591	24	75.2	46.96	160.21	40.38	137.78	20.90	50.49	172.27	38.88	132.65	22.00	52.51	179.16	36.76	125.41	22.22	
				27	80.6	47.43	161.83	40.79	139.17	21.12	51.00	174.01	39.27	133.99	22.00	53.04	180.97	37.13	126.68	22.66	
				29	84.2	47.90	163.45	41.20	140.57	21.34	51.51	175.75	39.66	135.33	22.44	53.57	182.78	37.50	127.95	22.88	
				31	87.8	48.38	165.07	41.61	141.96	21.56	52.02	177.49	40.06	136.67	22.88	54.10	184.59	38.41	131.06	23.10	
		10400	6121	24	75.2	48.77	166.41	41.94	143.11	22.22	52.44	178.94	40.38	137.78	22.85	54.54	186.09	38.18	130.27	23.10	
				27	80.6	49.31	168.24	42.41	144.69	22.44	53.02	180.90	40.83	139.30	23.09	55.14	188.14	38.60	131.70	23.32	
				29	84.2	50.44	172.11	43.38	148.01	22.66	54.24	185.06	41.76	142.50	23.32	56.41	192.46	39.49	134.72	23.54	
				31	87.8	51.04	174.15	43.89	149.77	22.88	54.88	187.25	42.26	144.19	23.54	57.08	194.74	39.95	136.32	23.76	
		11300	6651	24	75.2	49.70	169.57	42.74	145.83	23.10	53.44	182.33	41.15	140.40	23.99	55.58	189.63	38.90	132.74	24.20	
				27	80.6	50.20	171.28	43.17	147.30	23.32	53.98	184.17	42.10	143.66	24.24	56.14	191.54	39.30	134.08	24.42	
				29	84.2	50.67	172.90	43.83	149.56	23.54	54.49	185.91	43.05	146.87	24.49	56.67	193.35	39.67	135.35	24.64	
				31	87.8	51.65	176.23	44.42	151.56	23.76	55.54	189.50	43.88	149.70	24.74	57.76	197.08	40.43	137.95	25.08	
46	115	9500	5591	24	75.2	38.89	132.70	33.45	114.12	24.86	41.82	142.69	32.20	109.87	25.30	43.49	148.40	30.44	103.88	25.52	
				27	80.6	39.37	134.32	34.05	116.19	25.30	42.33	144.43	32.59	111.21	25.74	44.02	150.21	31.26	106.65	25.74	
				29	84.2	39.84	135.94	34.66	118.27	25.52	42.84	146.17	32.99	112.55	25.96	44.55	152.02	31.63	107.93	25.96	
				31	87.8	40.32	137.56	35.07	119.67	25.96	43.35	147.91	33.81	115.37	26.18	45.08	153.83	32.01	109.22	26.18	
		10400	6121	24	75.2	39.37	134.32	33.86	115.52	25.08	42.33	144.43	32.59	111.21	25.93	44.02	150.21	31.26	106.65	26.18	
				27	80.6	39.84	135.94	34.26	116.91	25.52	42.84	146.17	32.99	112.55	26.38	44.55	152.02	31.63	107.93	26.62	
				29	84.2	40.32	137.56	34.67	118.30	25.74	43.35	147.91	33.81	115.37	26.61	45.08	153.83	32.01	109.22	26.84	
				31	87.8	40.79	139.17	35.08	119.69	25.96	43.86	149.65	34.21	116.73	26.83	45.61	155.64	32.39	110.50	27.06	
		11300	6651	24	75.2	40.32	137.56	34.67	118.30	26.40	43.35	147.91	33.88	113.89	27.45	45.08	153.83	31.56	107.68	27.94	
				27	80.6	40.79	139.17	35.08	119.69	26.84	43.86	149.65	33.77	115.23	27.93	45.61	155.64	31.93	108.95	28.38	
				29	84.2	41.26	140.79	35.49	121.08	27.06	44.37	151.39	34.16	116.57	28.17	46.14	157.45	32.76	111.79	28.60	
				31	87.8	41.74	142.41	36.31	123.90	27.28	44.88	153.13	34.56	117.91	28.41	46.68	159.26	33.14	113.07	28.82	

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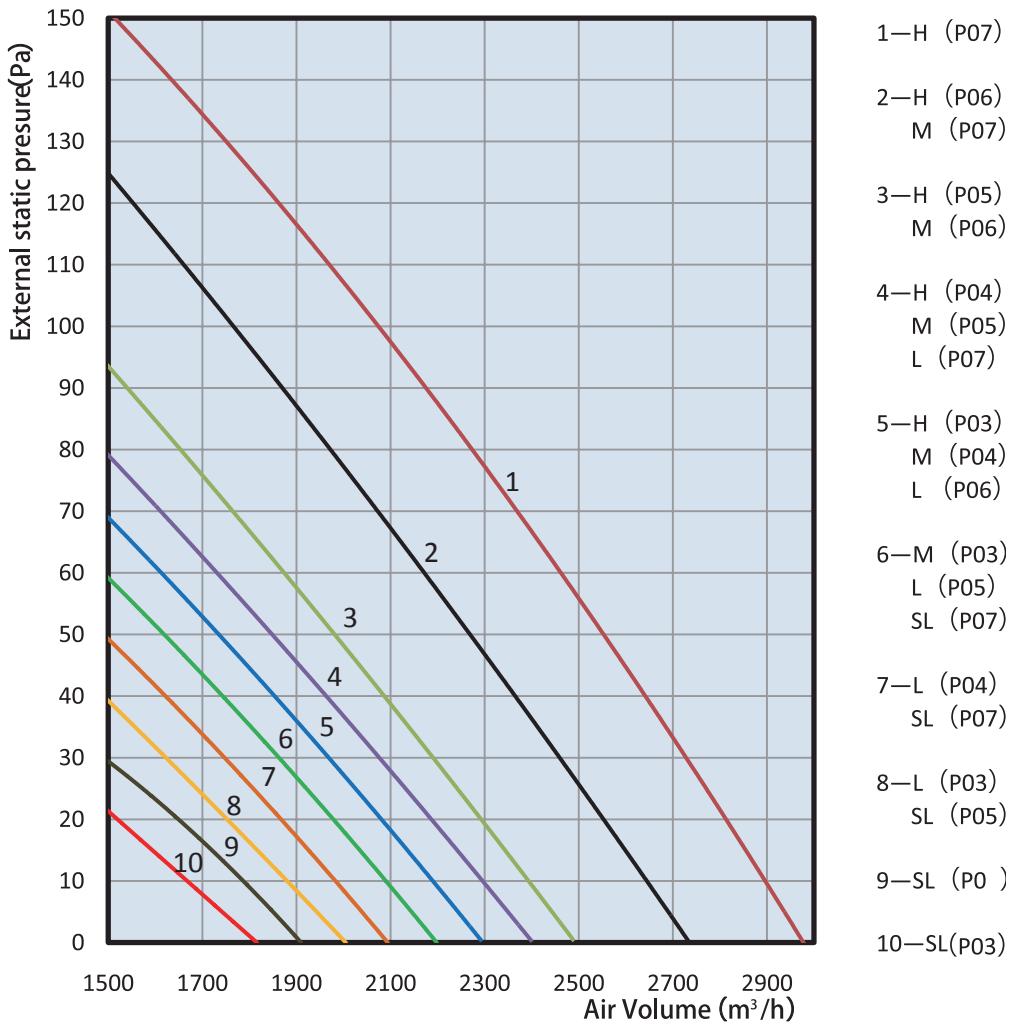
4.2.6 GRIT20B

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	kW	Mbh	kW	Mbh	kW	kW	kW	Mbh	kW	Mbh	kW	
25	77	13200	7768	24	75.2	64.57	220.31	55.53	189.47	25.37	69.43	236.90	53.46	182.41	25.96	72.21	246.37	50.55	172.46	26.26			
				27	80.6	65.45	223.33	56.29	192.06	25.96	70.38	240.14	54.19	184.91	26.26	73.20	249.74	51.24	174.82	26.55			
				29	84.2	66.10	225.52	57.17	195.07	26.26	71.07	242.49	55.43	189.14	26.55	73.91	252.19	51.74	176.53	26.85			
				31	87.8	66.74	227.71	58.06	198.10	26.55	71.76	244.85	55.97	190.98	26.85	74.63	254.64	52.24	178.25	27.14			
		14300	8416	24	75.2	66.66	227.44	57.33	195.60	25.96	71.68	244.56	55.19	188.31	26.48	74.54	254.35	52.18	178.04	26.74			
				27	80.6	67.34	229.76	57.91	197.60	26.26	72.41	247.06	55.75	190.23	26.78	75.30	256.94	53.47	182.43	27.05			
				29	84.2	68.02	232.08	58.50	199.59	26.55	73.14	249.55	56.32	192.16	27.08	76.07	259.54	54.01	184.27	27.35			
				31	87.8	68.70	234.41	59.08	201.59	26.85	73.87	252.05	57.62	196.60	27.38	76.83	262.13	54.55	186.11	27.66			
		15400	9063	24	75.2	68.12	232.43	58.58	199.89	27.14	73.25	249.93	56.40	192.44	28.04	76.18	259.92	53.33	181.95	28.32			
				27	80.6	69.05	235.61	59.39	202.62	27.44	74.25	253.34	57.17	195.07	28.36	77.22	263.48	54.05	184.43	28.62			
				29	84.2	69.73	237.92	59.97	204.61	27.73	74.98	255.83	57.73	196.99	28.67	77.98	266.06	54.58	186.24	28.91			
				31	87.8	70.41	240.23	60.55	206.60	28.03	75.71	258.31	59.05	201.48	28.99	78.74	268.64	55.11	188.05	29.21			
35	95	13200	7768	24	75.2	63.53	216.76	54.63	186.41	28.03	68.31	233.07	52.60	179.47	29.50	71.04	242.40	49.73	169.68	29.80			
				27	80.6	64.17	218.95	55.19	188.30	28.32	69.00	235.43	53.13	181.28	29.50	71.76	244.85	50.23	171.39	30.39			
				29	84.2	64.81	221.14	55.74	190.18	28.62	69.69	237.78	53.66	183.09	30.09	72.48	247.29	50.73	173.11	30.68			
				31	87.8	65.45	223.33	56.29	192.06	28.91	70.38	240.14	54.19	184.91	30.68	73.20	249.74	51.97	177.32	30.98			
		14300	8416	24	75.2	65.99	225.14	56.75	193.62	29.80	70.95	242.09	54.63	186.41	30.64	73.79	251.77	51.65	176.24	30.98			
				27	80.6	66.71	227.62	57.37	195.75	30.09	71.73	244.75	55.23	188.46	30.96	74.60	254.54	52.22	178.18	31.27			
				29	84.2	68.24	232.85	58.69	200.25	30.39	73.38	250.38	56.50	192.79	31.27	76.32	260.39	53.42	182.27	31.57			
				31	87.8	69.05	235.61	59.39	202.62	30.68	74.25	253.34	57.17	195.07	31.57	77.22	263.48	54.05	184.43	31.86			
		15400	9063	24	75.2	67.24	229.42	57.82	197.30	30.98	72.30	246.69	55.67	189.95	32.17	75.19	256.55	52.63	179.59	32.45			
				27	80.6	67.92	231.73	58.41	199.29	31.27	73.03	249.18	56.96	194.36	32.51	75.95	259.14	53.17	181.40	32.75			
				29	84.2	68.56	233.92	59.30	202.34	31.57	73.72	251.53	58.24	198.71	32.84	76.67	261.59	53.67	183.11	33.04			
				31	87.8	69.88	238.43	60.10	205.05	31.86	75.14	256.38	59.36	202.54	33.18	78.15	266.63	54.70	186.64	33.63			
46	115	13200	7768	24	75.2	52.62	179.54	45.25	154.40	33.34	56.58	193.05	43.57	148.65	33.93	58.84	200.77	41.19	140.54	34.22			
				27	80.6	53.26	181.73	46.07	157.19	33.93	57.27	195.41	44.10	150.46	34.52	59.56	203.22	42.29	144.29	34.52			
				29	84.2	53.90	183.92	46.90	160.01	34.22	57.96	197.76	44.63	152.27	34.81	60.28	205.67	42.80	146.03	34.81			
				31	87.8	54.54	186.11	47.45	161.91	34.81	58.65	200.11	45.75	156.09	35.11	61.00	208.12	43.31	147.76	35.11			
		14300	8416	24	75.2	53.26	181.73	45.80	156.29	33.63	57.27	195.41	44.10	150.46	34.77	59.56	203.22	42.29	144.29	35.11			
				27	80.6	53.90	183.92	46.36	158.17	34.22	57.96	197.76	44.63	152.27	35.38	60.28	205.67	42.80	146.03	35.70			
				29	84.2	54.54	186.11	46.91	160.05	34.52	58.65	200.11	45.75	156.09	35.68	61.00	208.12	43.31	147.76	35.99			
				31	87.8	55.19	188.30	47.46	161.93	34.81	59.34	202.47	46.29	157.93	35.98	61.71	210.57	43.82	149.50	36.29			
		15400	9063	24	75.2	54.54	186.11	46.91	160.05	35.40	58.65	200.11	45.16	154.09	36.81	61.00	208.12	42.70	145.68	37.47			
				27	80.6	55.19	188.30	47.46	161.93	35.99	59.34	202.47	45.69	155.90	37.45	61.71	210.57	43.20	147.40	38.06			
				29	84.2	55.83	190.48	48.01	163.82	36.29	60.03	204.82	46.22	157.71	37.77	62.43	213.02	44.33	151.24	38.35			
				31	87.8	56.47	192.67	49.13	167.63	36.58	60.72	207.18	46.75	159.53	38.09	63.15	215.46	44.84	152.98	38.65			

5 FAN CHARACTERISTICS

Some units fan motor speed is adjustable, there are multiple static pressure mode, namely P03, P04, P05, P06, P07. Unit default static pressure mode is P05. The user can choose the suitable static pressure mode according to the actual air volume demand.

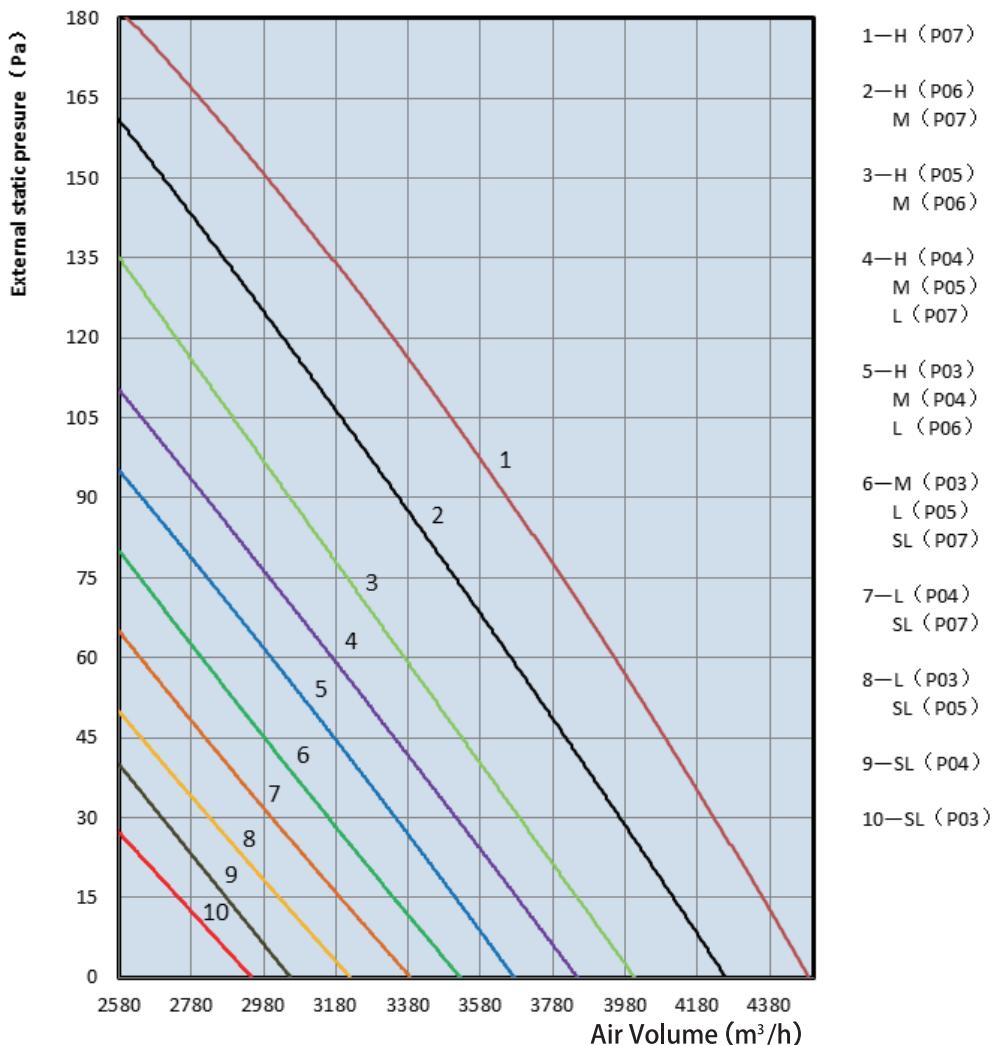
5.1 Model:GRIT03A



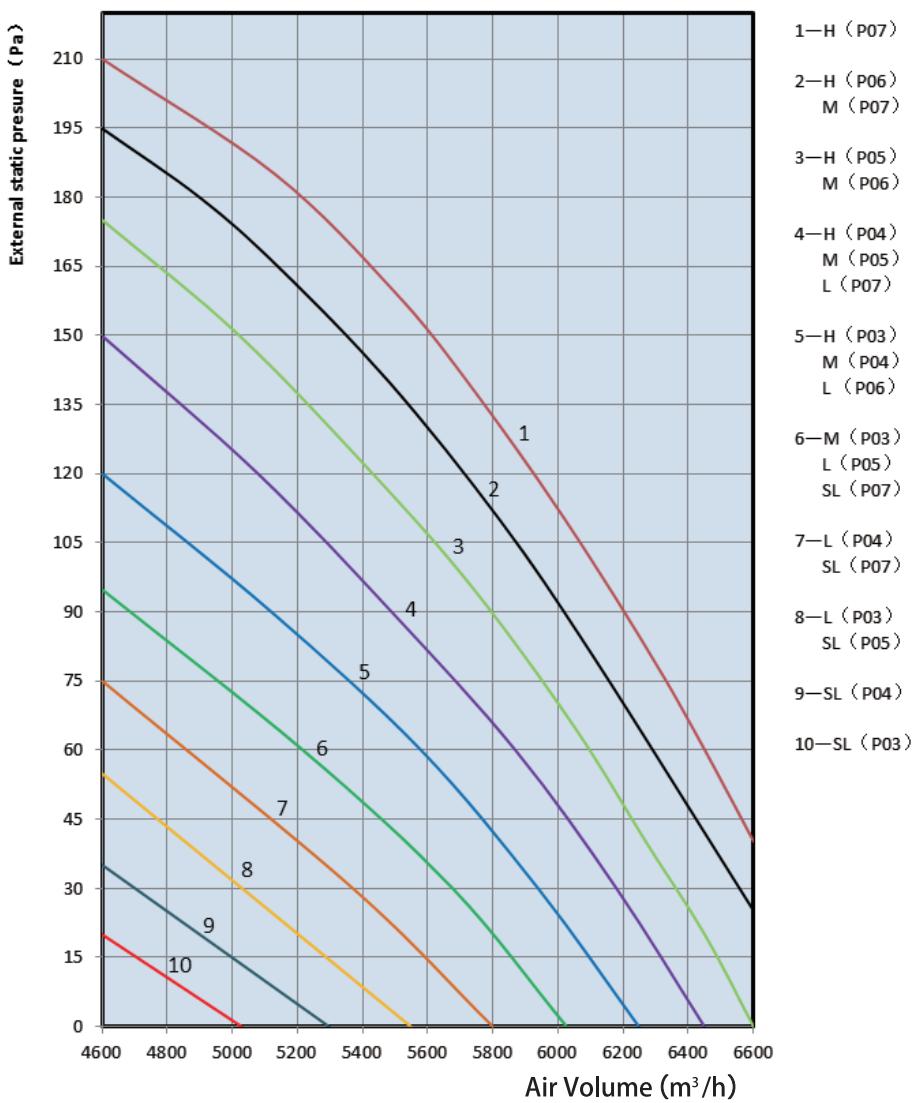
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5.2 Model:GK-H5.5NH3AS,GRIT05B



5.3 Model:GRIT10B

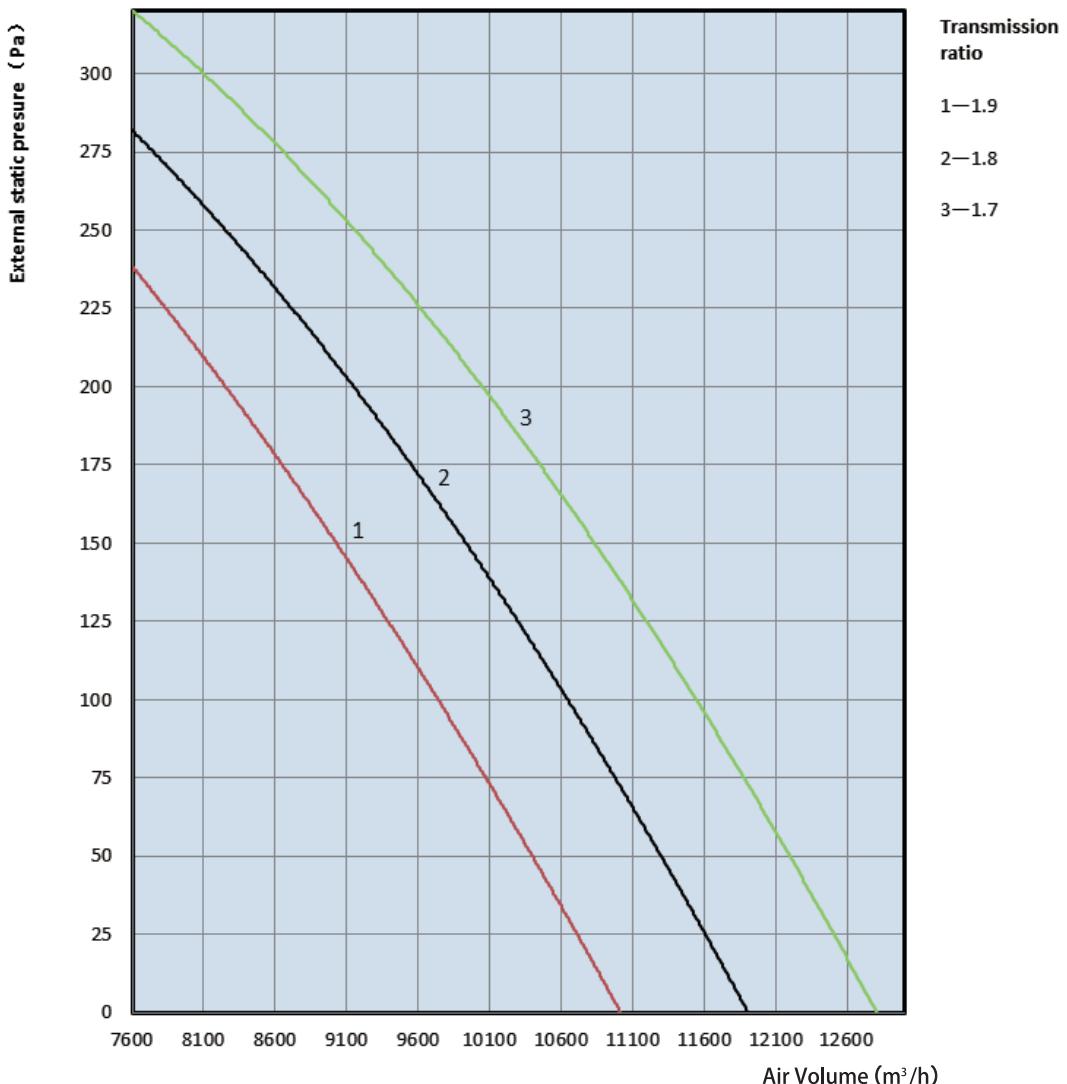


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5.4 Model: GRIT15B

The unit can change the belt, there are three transmission ratios, corresponding to different speeds, unit default transmission ratio is 1.9. The belts are matched as follows.

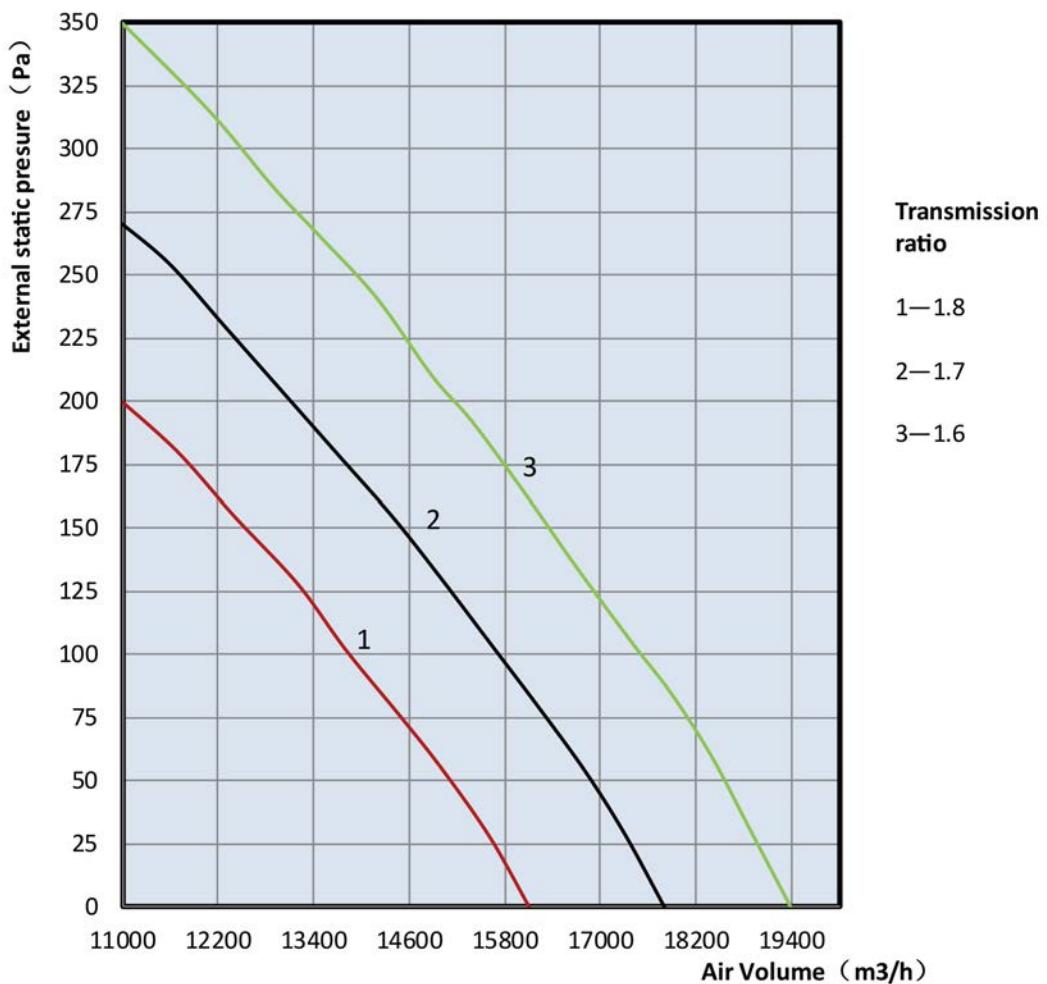
Section area of the belt	Diameter of the small wheel(mm)	Diameter of the big wheel(mm)	The total length of the belt(mm)	Transmission ratio
SPA	100	190	1700	1.9
	100	180	1682	1.8
	106	190	1700	1.8
	100	170	1657	1.7
	106	180	1682	1.7
	112	190	1732	1.7



5.5 Model: GRIT20B

The unit can change the belt, there are three transmission ratios, corresponding to different speeds, unit default transmission ratio is 1.7. The belts are matched as follows.

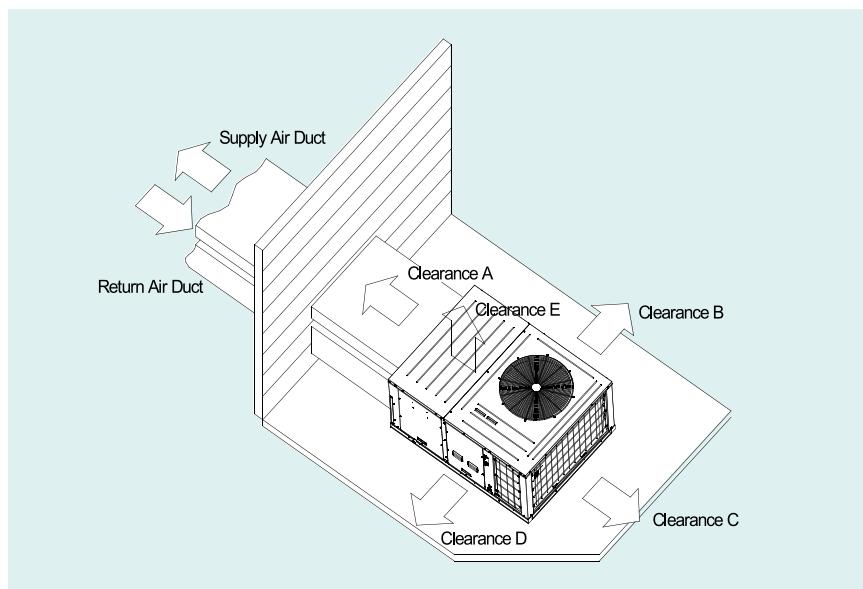
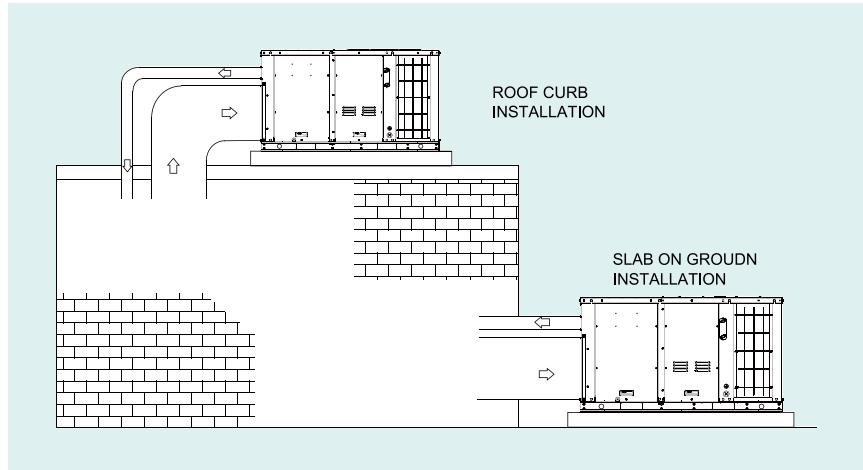
Section area of the belt	Diameter of the small wheel(mm)	Diameter of the big wheel(mm)	The total length of the belt(mm)	Transmission ratio
SPA	100	180	1482	1.8
	100	170	1457	1.7
	106	180	1482	1.7
	100	160	1432	1.6
	106	170	1457	1.6
	112	180	1500	1.6

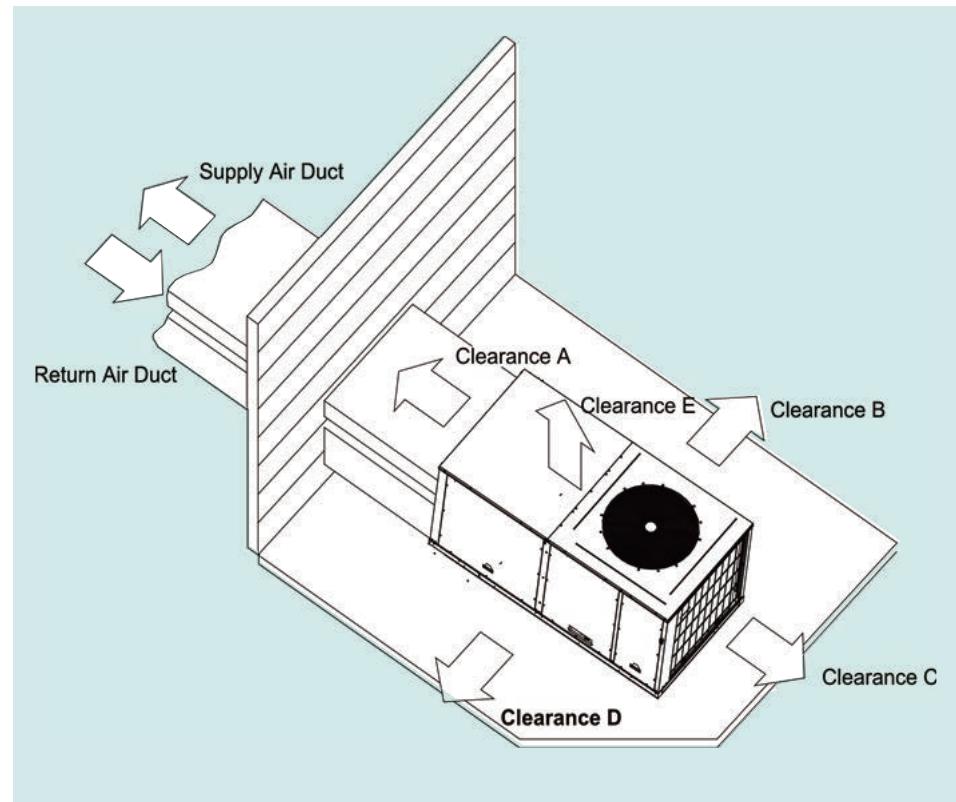
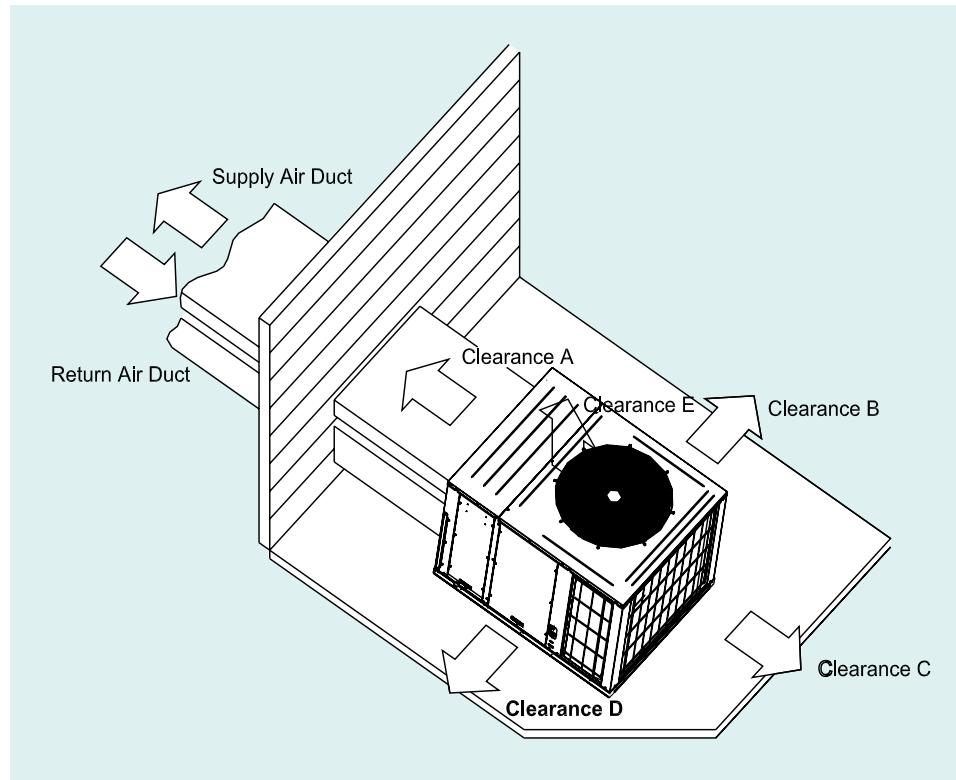


ROOFTOP PACKAGED AIR CONDITIONERS

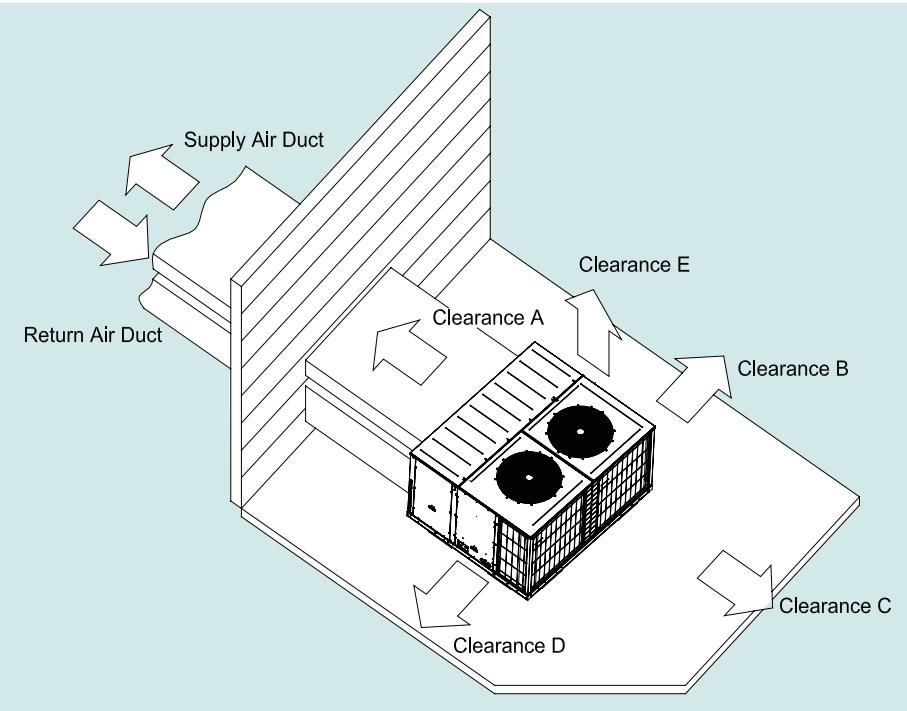
6 CLEARANCES DATA

6.1 Installation Positions and Clearances





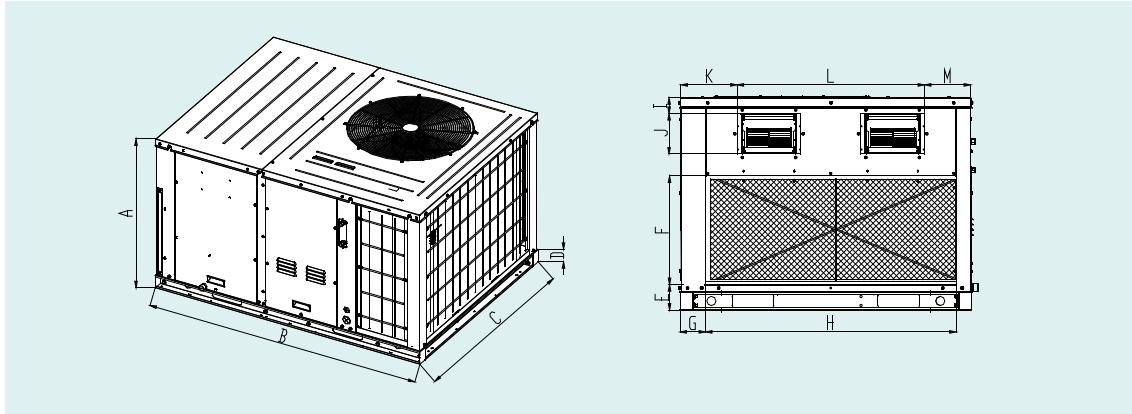
ROOFTOP PACKAGED AIR CONDITIONERS



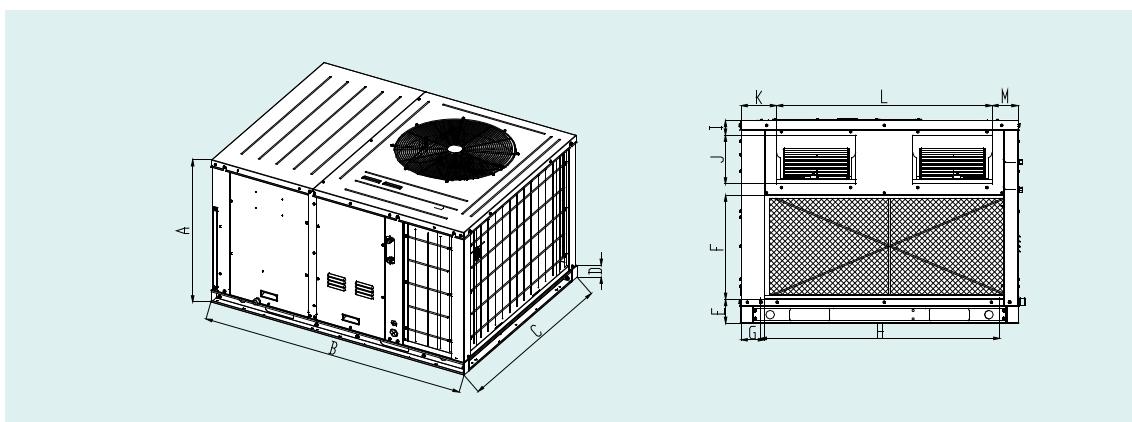
7 DIMENSION



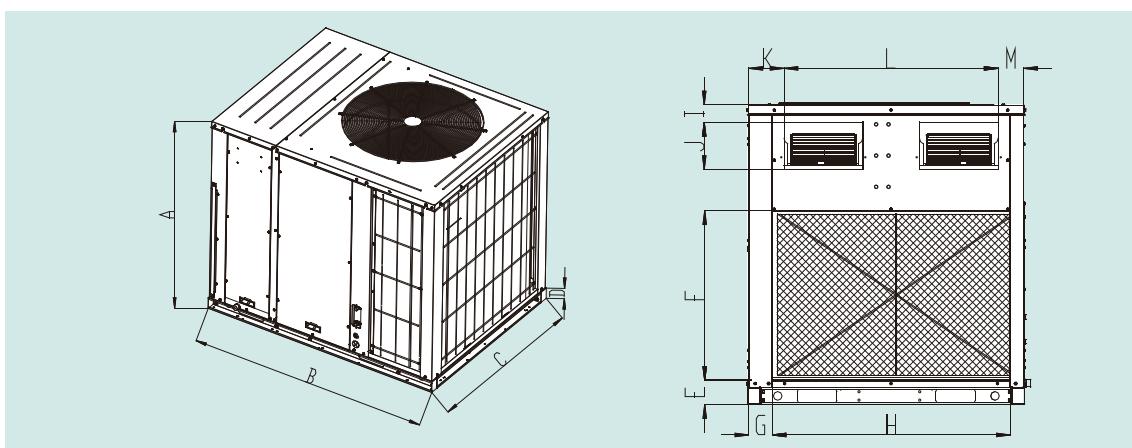
7.1 Outline Dimension



GRIT03A



GK-H5.5NH3AS, GRIT05B



GRIT10B

ROOFTOP PACKAGED AIR CONDITIONERS

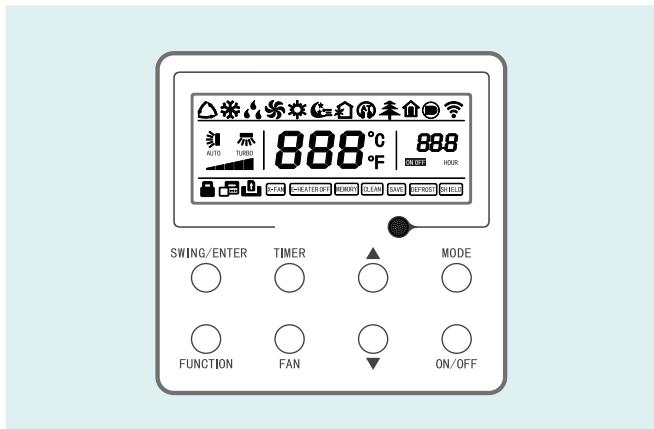
Dimension (mm)	A	B	C	D	E	F	G	H	I	J	K	L	M
GRIT03A	815	1450	1120	70	98	417	94	916	60	155	215	719	178
GRIT05A	815	1450	1120	70	98	417	94	916	65	190	144	866	105
GRIT05B	815	1450	1120	70	98	417	94	916	65	190	144	866	105
GRIT10B	1215	1450	1120	70	98	686	94	916	70	190	144	866	105
GRIT15B	1245	2260	1140	80	111	595	50	914	58	406	298	487	349
GRIT20B	1250	1880	2240	85	115	590	158	2021	45	412	311	1336	588

Note: Above diagrams may be different from actual model.

8 CONTROLLER AND WIRING DIAGRAM



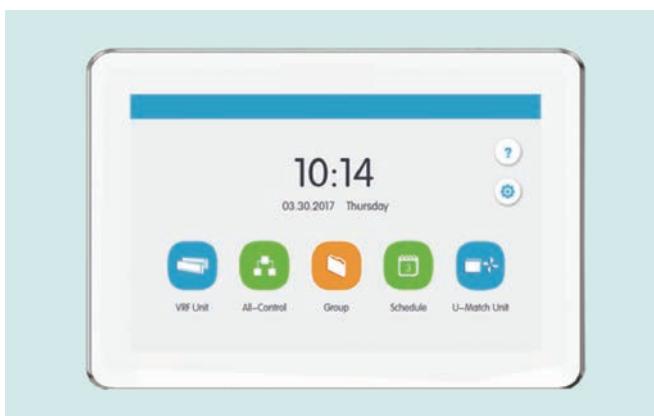
8.1 Controller



Wired Controller (Standard)



Wireless Remote Controller



Central Controller

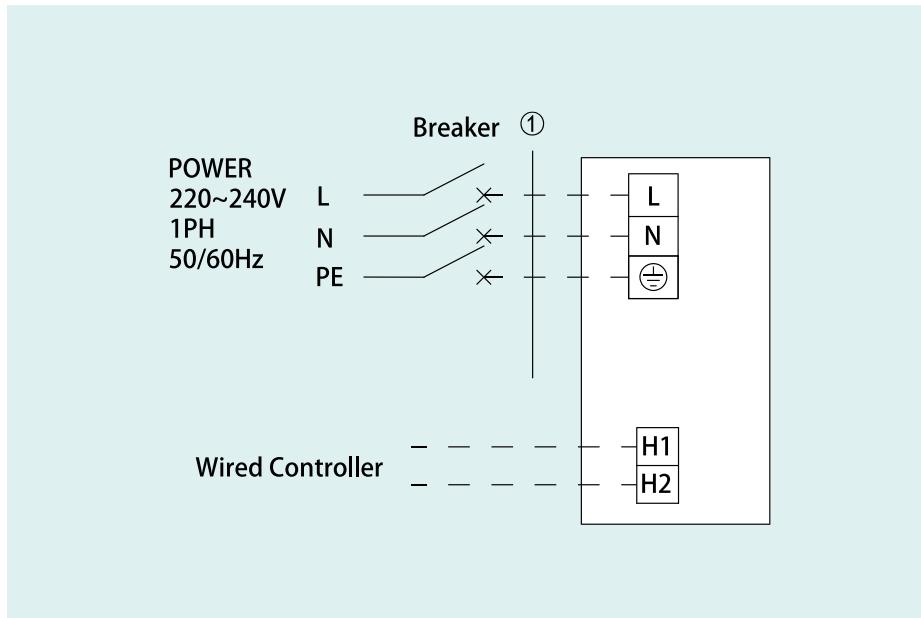
ROOFTOP PACKAGED AIR CONDITIONERS

Technical Sales Guide

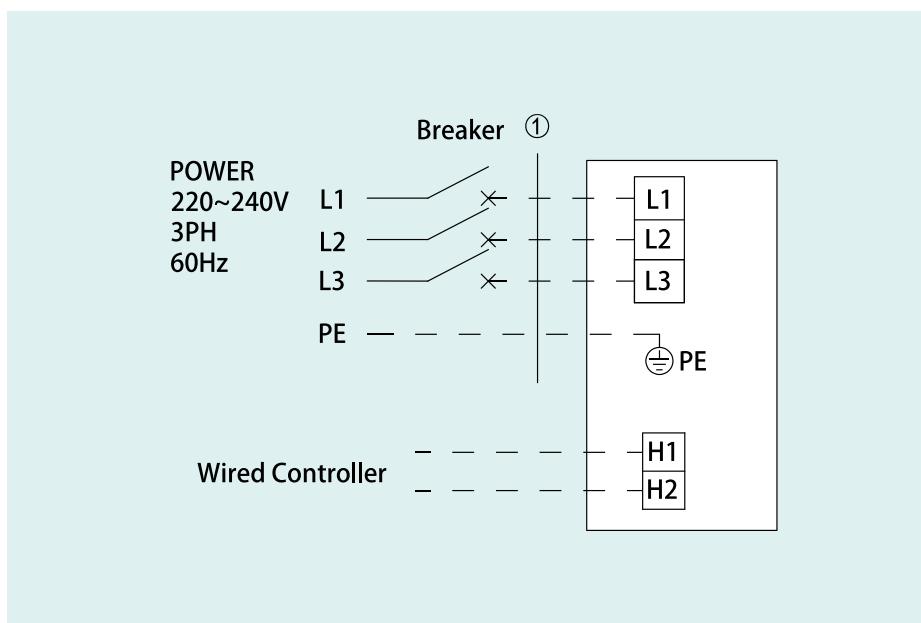


8.2 Field Wiring Diagrams

8.2.1 GRIT03A,GRIT05A



8.2.2 GRIT10, GRIT15B, GRIT20B





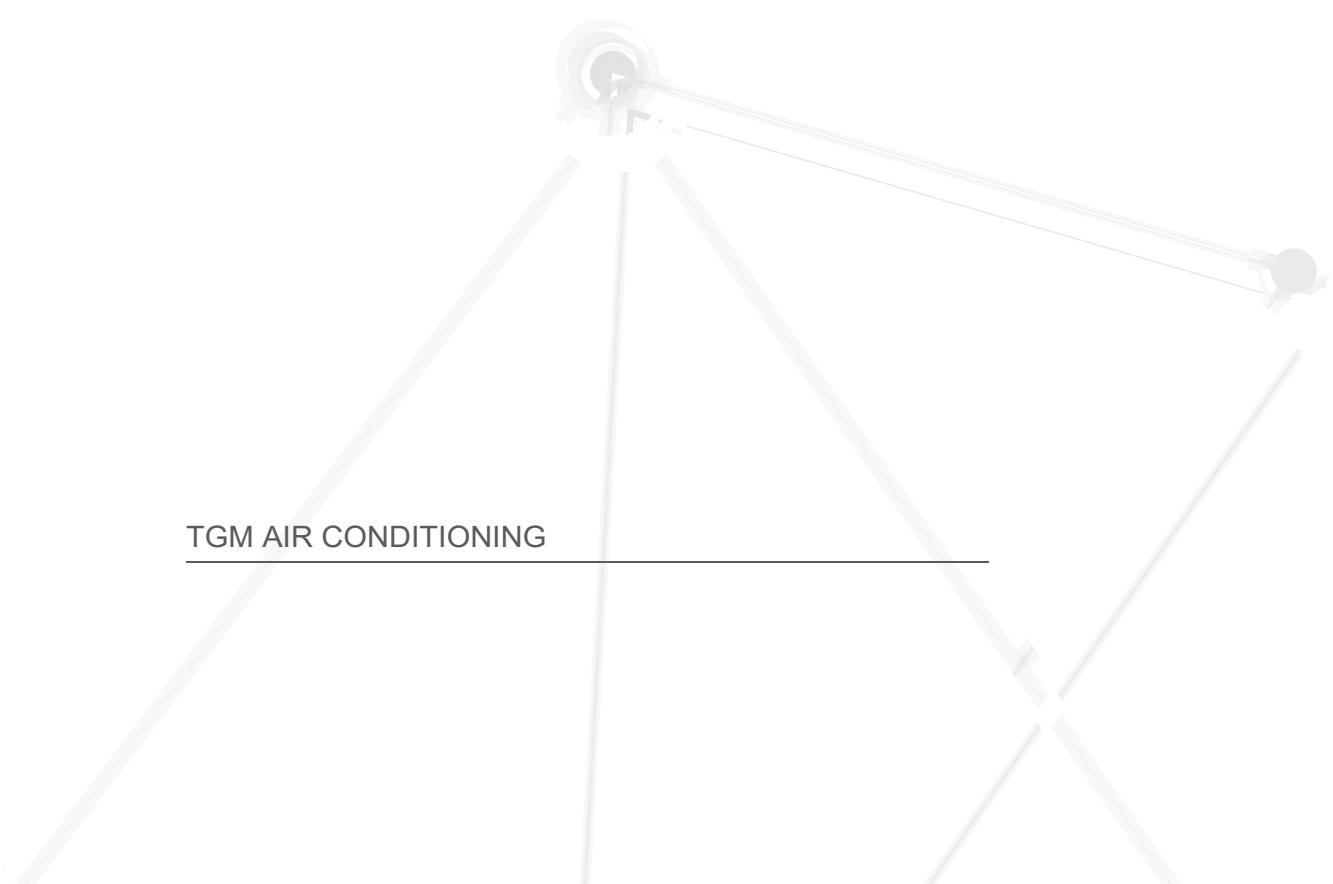
8.3 Specification of Power Supply Wire and Air Switch

Model	Power Supply (V,Ph,Hz)	Capability of Air Swith	Minimum Sectional Area of Power Supply Wire(mm ²)	Communication Cord(mm ²)
GRIT03A	220~240V, 1Ph, 50/60Hz	25A	4.0	0.75
GRIT05A	220~240V, 1Ph, 50/60Hz	40A	10.0	0.75
GRIT05B	220~240V, 3Ph, 60Hz	40A	10.0	0.75
GRIT10B	220~240V, 3Ph, 60Hz	50A	10.0	0.75
GRIT15B	220~240V, 3Ph, 60Hz	80A	25.0	0.75
GRIT20B	220~240V, 3Ph, 60Hz	100A	25.0	0.75

9 ACCESSORIES

Model Name \ Class	Wired Controller (XK117)	Central controller with weekly timer (CE52-24/F(C))	Wireless Remote Controller (YB1FA)
GRIT03A	●	○	○
GRIT05A	●	○	○
GRIT05B	●	○	○
GRIT10B	●	○	○
GRIT15B	●	○	○
GRIT20B	●	○	○

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



TGM AIR CONDITIONING