



# SERVICE MANUAL

## [ PULAR SERIES ]

-----

GWH09AGB-K6DNA1B set  
(GWH09AGB-K6DNA1B/I + GWH09AGB-K6DNA1B/O)

CB385002300 set  
(CB385N02300 + CB385W02300)

GWH12AGC-K6DNA1A set  
(GWH12AGC-K6DNA1A/I + GWH12AGC-K6DNA1A/O)

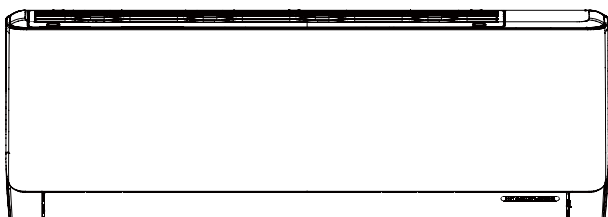
CB385002400 set  
(CB385N02400 + CB385W02400)

# Part I : Technical Information

## 1. Summary

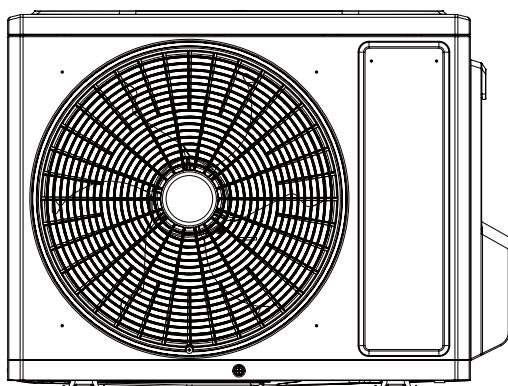
### Indoor Unit

A1 Panel

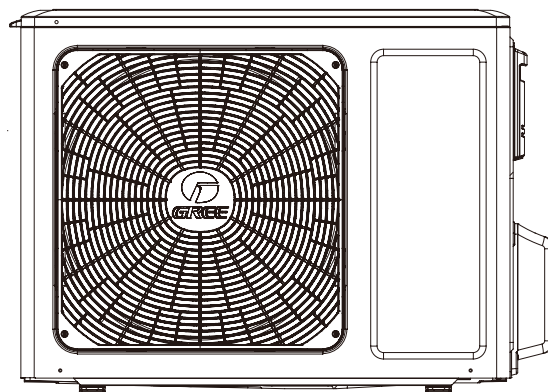


### Outdoor Unit

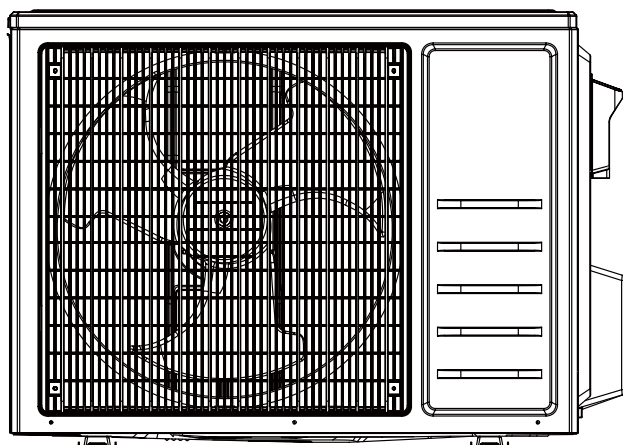
GWH09AGA-K6DNA1A/O GWH12AGB-K6DNA1A/O  
**GWH09AGB-K6DNA1B/O** GWH12AGC-K6DNA1A/O  
 GWH18AGD-K6DNA1D/O



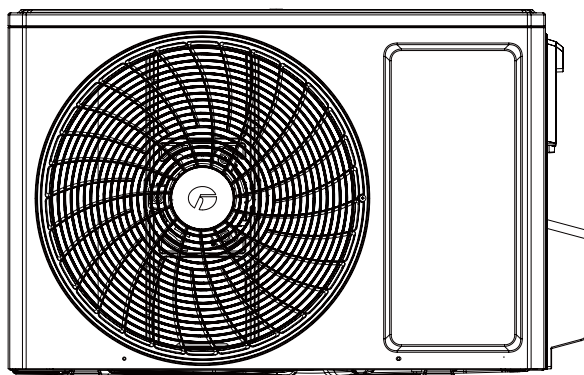
GWH18AGD-K6DNA1A/O



GWH24AGD-K6DNA1A/O



GWH24AGD-K6DNA1C/O



## Remote Controller

YAP1F7(WiFi)



## Model list:

No.	Model	Product Code	Indoor Unit Model	Indoor Unit Product Code	Outdoor Unit Model	Outdoor Unit Product Code	Remote Controller
1	GWH09AGA-K6DNA1A	CB385001000	GWH09AGA-K6DNA1A/I	CB385N01000	GWH09AGA-K6DNA1A/O	CB385W01000	YAP1F7 (WiFi)
2		CB385001002		CB385N01002			
3	GWH09AGB-K6DNA1B	CB385002300	GWH09AGB-K6DNA1B/I	CB385N02300	GWH09AGB-K6DNA1B/O	CB385W02300	
4	GWH12AGC-K6DNA1A	CB385002400	GWH12AGC-K6DNA1A/I	CB385N02400	GWH12AGC-K6DNA1A/O	CB385W02400	
5	GWH12AGB-K6DNA1A	CB385001700	GWH12AGB-K6DNA1A/I	CB385N01700	GWH12AGB-K6DNA1A/O	CB385W01700	
6		CB385001702		CB385N01702			
7	GWH18AGD-K6DNA1A	CB385001900	GWH18AGD-K6DNA1A/I	CB385N01900	GWH18AGD-K6DNA1A/O	CB385W01900	
8	GWH18AGD-K6DNA1D	CB385008300	GWH18AGD-K6DNA1D/I	CB385N08300	GWH18AGD-K6DNA1D/O	CB385W08300	
9		CB385008301		CB385N08301			
10		CB385008302		CB385N08302			
11	GWH24AGD-K6DNA1A	CB385001500	GWH24AGD-K6DNA1A/I	CB385N01500	GWH24AGD-K6DNA1A/O	CB385W01500	
12	GWH24AGD-K6DNA1C	CB385008601	GWH24AGD-K6DNA1C/I	CB385N08601	GWH24AGD-K6DNA1C/O	CB385W08600	
13		CB385008602		CB385N08602			
14		CB385008600		CB385N08600			

## 2.1 Specification Sheet

Technical Information ●●●●●●● 3



Outdoor Unit	Model of Outdoor Unit		GWH09AGA-K6DNA1A/O	GWH12AGB-K6DNA1A/O
	Product Code of Outdoor Unit		CB385W01000	CB385W01700
	Compressor Manufacturer/Trademark		ZHUHAI LANDA COMPRESSOR CO.,LTD	ZHUHAI LANDA COMPRESSOR CO., LTD
	Compressor Model		FTz-AN075ACBF-A	FTz-AN088ACBF-A
	Compressor Oil		FW68DA	FW68DA
	Compressor Type		Rotary	Rotary
	L.R.A.	A	20.00	/
	Compressor RLA	A	3.00	3.60
	Compressor Power Input	W	633	758
	Overload Protector		/	/
	Throttling Method		Capillary	Capillary
	Operation Temp	°C	16~30	16~30
	Ambient Temp (Cooling)	°C	-15~43	18~43
	Ambient Temp (Heating)	°C	-15~24	-15~24
	Condenser Form		Aluminum Fin-copper Tube	Aluminum Fin-copper Tube
	Pipe Diameter	mm	Φ7	Φ7
	Rows-fin Gap	mm	1-1.4	1-1.4
	Coil Length (LXDXW)	mm	700X19.05X528	700X19.05X528
	Fan Motor Speed	rpm	900	900
	Output of Fan Motor	W	30	30
	Fan Motor RLA	A	0.40	0.40
	Fan Motor Capacitor	μF	/	/
	Air Flow Volume of Outdoor Unit	m³/h	2200	2200
	Fan Type		Axial-flow	Axial-flow
	Fan Diameter	mm	Φ400	Φ400
	Defrosting Method		Automatic Defrosting	Automatic Defrosting
	Climate Type		T1	T1
	Isolation		I	I
	Moisture Protection		IPX4	IPX4
	Permissible Excessive Operating Pressure for the Discharge Side	MPa	4.3	4.3
	Permissible Excessive Operating Pressure for the Suction Side	MPa	2.5	2.5
	Sound Pressure Level (H/M/L)	dB (A)	51/-/-	51/-/-
	Sound Power Level (H/M/L)	dB (A)	62/-/-	64/-/-
	Dimension (WXHDXD)	mm	732X550X330	732X550X330
	Dimension of Carton Box (LXWXH)	mm	789X390X600	789X390X600
	Dimension of Package (LXWXH)	mm	792X393X615	792X393X615
	Net Weight	kg	25	25
	Gross Weight	kg	27.5	27.5
	Refrigerant		R32	R32
	Refrigerant Charge	kg	0.5	0.55
Connection Pipe	Length	m	5	5
	Gas Additional Charge	g/m	16	16
	Outer Diameter Liquid Pipe	inch	1/4	1/4
	Outer Diameter Gas Pipe	inch	3/8	3/8
	Max Distance Height	m	10	10
	Max Distance Length	m	15	15
Note: The connection pipe applies metric diameter.				

The above data is subject to change without notice; please refer to the nameplate of the unit.



Outdoor Unit	Model of Outdoor Unit		GWH18AGD-K6DNA1A/O	<b>GWH09AGB-K6DNA1B/O</b>
	Product Code of Outdoor Unit		CB385W01900	<b>CB385W02300</b>
	Compressor Manufacturer/Trademark		ZHUHAI LANDA COMPRESSOR CO., LTD	ZHUHAI LANDA COMPRESSOR CO.,LTD
	Compressor Model		QXF-A120zH190A	FTz-AN075ACBF-A
	Compressor Oil		RB68EP	FW68DA
	Compressor Type		Rotary	Rotary
	L.R.A.	A	18.00	20.00
	Compressor RLA	A	5.00	3.00
	Compressor Power Input	W	1096	633
	Overload Protector		1NT11L-6233 or HPC115/95U1 or KSD115℃	/
	Throttling Method		Capillary	Capillary
	Operation Temp	℃	16~30	16~30
	Ambient Temp (Cooling)	℃	18~43	18~43
	Ambient Temp (Heating)	℃	-15~24	-15~24
	Condenser Form		Aluminum Fin-copper Tube	Aluminum Fin-copper Tube
	Pipe Diameter	mm	Φ7	Φ7
	Rows-fin Gap	mm	2-1.4	1-1.4
	Coil Length (LXD <sub>XW</sub> )	mm	742X38.1X550	700X19.05X528
	Fan Motor Speed	rpm	900	900
	Output of Fan Motor	W	30	30
	Fan Motor RLA	A	0.40	0.40
	Fan Motor Capacitor	μF	/	/
	Air Flow Volume of Outdoor Unit	m <sup>3</sup> /h	2200	1950
	Fan Type		Axial-flow	Axial-flow
	Fan Diameter	mm	Φ438	Φ400
	Defrosting Method		Automatic Defrosting	Automatic Defrosting
	Climate Type		T1	T1
	Isolation		I	I
	Moisture Protection		IPX4	IPX4
	Permissible Excessive Operating Pressure for the Discharge Side	MPa	4.3	4.3
	Permissible Excessive Operating Pressure for the Suction Side	MPa	2.5	2.5
	Sound Pressure Level (H/M/L)	dB (A)	52/-/-	51/-/-
	Sound Power Level (H/M/L)	dB (A)	64/-/-	62/-/-
	Dimension (WXHXD)	mm	848X596X320	732X550X330
	Dimension of Carton Box (LXWXH)	mm	878X360X630	789X390X600
	Dimension of Package (LXWXH)	mm	881X363X645	792X393X615
	Net Weight	kg	33	25
	Gross Weight	kg	36	27.5
	Refrigerant		R32	R32
	Refrigerant Charge	kg	0.75	0.53
Connection Pipe	Length	m	5	5
	Gas Additional Charge	g/m	16	16
	Outer Diameter Liquid Pipe	inch	1/4	1/4
	Outer Diameter Gas Pipe	inch	3/8	3/8
	Max Distance Height	m	10	10
	Max Distance Length	m	25	15
	Note: The connection pipe applies metric diameter.			

The above data is subject to change without notice; please refer to the nameplate of the unit.

Model			<b>GWH12AGC-K6DNA1A</b>	GWH24AGD-K6DNA1A
Product Code			<b>CB385002400</b>	CB385001500
Power Supply	Rated Voltage	V~	220-240	220-240
	Rated Frequency	Hz	50	50
	Phases		1	1
Power Supply Mode			Outdoor	Outdoor
Cooling Capacity		W	3200	6200
Heating Capacity		W	3400	6500
Cooling Power Input		W	933	1631
Heating Power Input		W	872	1645
Cooling Power Current		A	4.15	7.5
Heating Power Current		A	3.86	7.6
Rated Input		W	1500	2200
Rated Current		A	6	9.3
Rated Heating Current		A	7.5	9.7
Air Flow Volume(SS/H/MH/M/ML/L/SL)		m <sup>3</sup> /h	680/620/560/490/450/420/390	1050/950/800/750/700/650/600
Dehumidifying Volume		L/h	1.4	1.8
EER		W/W	3.43	3.80
COP		W/W	3.90	3.95
SEER		W/W	6.5	/
SCOP(Average/Warmer/Colder)			4.1/5.1/-	4.3/5.3/-
HSPF			/	/
Application Area		m <sup>2</sup>	15-22	23-34
Indoor Unit	Indoor Unit Model		<b>GWH12AGC-K6DNA1A/I</b>	GWH24AGD-K6DNA1A/I
	Indoor Unit Product Code		<b>CB385N02400</b>	CB385N01500
	Fan Type		Cross-flow	Cross-flow
	Diameter Length(DXL)	mm	Φ98X630	Φ106X739
	Fan Motor Cooling Speed(SS/H/MH/M/ML/L/SL)	r/min	1300/1150/1100/1000/950/850/750	1370/1200/1100/1000/920/850/750
	Fan Motor Heating Speed(SS/H/MH/M/ML/L/SL)	r/min	1250/1100/1050/1000/950/850/800	1370/1200/1120/1050/980/900/850
	Output of Fan Motor	W	20	50
	Fan Motor RLA	A	0.30	0.24
	Fan Motor Capacitor	μF	1.5	/
	Input of Heater	W	/	/
	Evaporator Form		Aluminum Fin-copper Tube	Aluminum Fin-copper Tube
	Pipe Diameter	mm	Φ5	Φ7
	Row-fin Gap	mm	2-1.4	2-1.4
	Coil Length (LXDXW)	mm	634X22.8X304.8	745X22.8X342.9
	Swing Motor Model		MP24BA/MP24AK/MP24HF	MP24BA/MP24AK/MP24HF
	Output of Swing Motor	W	1.5/1.5/1.5	1.5/1.5/1.5
	Fuse	A	3.15	3.15
	Sound Pressure Level(SS/H/MH/M/ML/L/SL)	dB (A)	Cooling:41/37/35/33/31/27/22 Heating:41/36/34/32/30/27/25	Cooling:46/42/40/38/36/32/25 Heating:49/44/42/40/36/32/29
	Sound Power Level(SS/H/MH/M/ML/L/SL)	dB (A)	Cooling:57/50/48/46/43/39/36 Heating:55/49/47/45/43/40/37	Cooling:63/59/57/55/53/49/42 Heating:63/58/56/54/50/46/43
	Dimension (WXHDX)	mm	825X293X196	982X311X221
	Dimension of Carton Box (LXWXH)	mm	870X349X257	1039X377X287
	Dimension of Package (LXWXH)	mm	875X365X268	1044X385X297
	Net Weight	kg	10	13.5
	Gross Weight	kg	12	16

Outdoor Unit	Model of Outdoor Unit		GWH12AGC-K6DNA1A/O	GWH24AGD-K6DNA1A/O
	Product Code of Outdoor Unit		CB385W02400	CB385W01500
	Compressor Manufacturer/Trademark		ZHUHAI LANDA COMPRESSOR CO., LTD	ZHUHAI LANDA COMPRESSOR CO., LTD
	Compressor Model		FTz-AN088ACBF-A	GTD141UKRF8JT6G
	Compressor Oil		FW68DA	ACS-68R
	Compressor Type		Rotary	Rotary
	L.R.A.	A	/	20.00
	Compressor RLA	A	3.60	3.65
	Compressor Power Input	W	758	1150
	Overload Protector		/	KSD1-115/95 HPC-115/95-UI
	Throttling Method		Capillary	Capillary
	Operation Temp	°C	16~30	16~30
	Ambient Temp (Cooling)	°C	18~43	18~48
	Ambient Temp (Heating)	°C	-15~24	-15~24
	Condenser Form		Aluminum Fin-copper Tube	Aluminum Fin-copper Tube
	Pipe Diameter	mm	Φ7	Φ7
	Rows-fin Gap	mm	1-1.4	2-1.4
	Coil Length (LXDXW)	mm	700X19.05X528	804X38.1X616
	Fan Motor Speed	rpm	900	800
	Output of Fan Motor	W	30	60
	Fan Motor RLA	A	0.40	0.49
	Fan Motor Capacitor	μF	/	/
	Air Flow Volume of Outdoor Unit	m³/h	1950	3000
	Fan Type		Axial-flow	Axial-flow
	Fan Diameter	mm	Φ400	Φ480
	Defrosting Method		Automatic Defrosting	Automatic Defrosting
	Climate Type		T1	T1
	Isolation		I	I
	Moisture Protection		IPX4	IPX4
	Permissible Excessive Operating Pressure for the Discharge Side	MPa	4.3	4.3
	Permissible Excessive Operating Pressure for the Suction Side	MPa	2.5	2.5
	Sound Pressure Level (H/M/L)	dB (A)	52/-/-	57/-/-
	Sound Power Level (H/M/L)	dB (A)	64/-/-	65/-/-
	Dimension (WXHDXD)	mm	732X550X330	912X646X373
	Dimension of Carton Box (LXWXH)	mm	789X390X600	960X408X680
	Dimension of Package (LXWXH)	mm	792X393X615	963X411X695
	Net Weight	kg	25	41
	Gross Weight	kg	27.5	44
	Refrigerant		R32	R32
	Refrigerant Charge	kg	0.57	1.15
Connection Pipe	Length	m	5	5
	Gas Additional Charge	g/m	16	16
	Outer Diameter Liquid Pipe	inch	1/4	1/4
	Outer Diameter Gas Pipe	inch	3/8	1/2
	Max Distance Height	m	10	10
	Max Distance Length	m	15	25
	Note: The connection pipe applies metric diameter.			

The above data is subject to change without notice; please refer to the nameplate of the unit.

Model			GWH18AGD-K6DNA1D	GWH18AGD-K6DNA1D
Product Code			CB385008300 CB385008301	CB385008302
Power Supply	Rated Voltage	V~	220-240	220-240
	Rated Frequency	Hz	50	50
	Phases		1	1
Power Supply Mode			Outdoor	Outdoor
Cooling Capacity		W	4600	4600
Heating Capacity		W	5200	5200
Cooling Power Input		W	1355	1355
Heating Power Input		W	1340	1340
Cooling Power Current		A	5.9	5.9
Heating Power Current		A	5.8	5.8
Rated Input		W	1900	1900
Rated Current		A	8	8
Rated Heating Current		A	9	9
Air Flow Volume(SS/H/MH/M/ML/L/SL)		m <sup>3</sup> /h	910/850/780/740/700/650/610	910/850/780/740/700/650/610
Dehumidifying Volume		L/h	1.8	1.8
EER		W/W	3.39	3.39
COP		W/W	3.88	3.88
SEER		W/W	6.4	6.4
SCOP(Average/Warmer/Colder)			4.0/5.1/-	4.0/5.1/-
HSPF			/	/
Application Area		m <sup>2</sup>	21-31	21-31
Indoor Unit	Indoor Unit Model		GWH18AGD-K6DNA1D/I	GWH18AGD-K6DNA1D/I
	Indoor Unit Product Code		CB385N08300 CB385N08301	CB385N08302
	Fan Type		Cross-flow	Cross-flow
	Diameter Length(DXL)	mm	Φ106X739	Φ106X739
	Fan Motor Cooling Speed(SS/H/MH/M/ML/L/SL)	r/min	1230/1050/980/900/850/800/750	1230/1050/980/900/850/800/750
	Fan Motor Heating Speed(SS/H/MH/M/ML/L/SL)	r/min	1200/1050/980/900/850/800/750	1200/1050/980/900/850/800/750
	Output of Fan Motor	W	35	35
	Fan Motor RLA	A	0.45	0.45
	Fan Motor Capacitor	μF	2.5	2.5
	Input of Heater	W	/	/
	Evaporator Form		Aluminum Fin-copper Tube	Aluminum Fin-copper Tube
	Pipe Diameter	mm	Φ5	Φ5
	Row-fin Gap	mm	2-1.3	2-1.3
	Coil Length (LXDXW)	mm	745X22.8X342.9	745X22.8X342.9
	Swing Motor Model		MP24BA/MP24AK/MP24HF	MP24BA/MP24AK
	Output of Swing Motor	W	1.5/1.5 /1.5	1.5/1.5
	Fuse	A	3.15	3.15
	Sound Pressure Level(SS/H/MH/M/ML/L/SL)	dB (A)	Cooling:43/39/37/34/32/30/29 Heating:44/40/37/34/32/30/29	Cooling:43/39/37/34/32/30/29 Heating:44/40/37/34/32/30/29
	Sound Power Level(SS/H/MH/M/ML/L/SL)	dB (A)	Cooling:56/52/50/47/45/43/42 Heating:57/53/50/47/45/43/42	Cooling:56/52/50/47/45/43/42 Heating:57/53/50/47/45/43/42
	Dimension (WXHXD)	mm	982X311X221	982X311X221
	Dimension of Carton Box (LXWXH)	mm	1039X377X287	1039X377X287
	Dimension of Package (LXWXH)	mm	1044X385X297	1044X385X297
	Net Weight	kg	13.5	13.5
	Gross Weight	kg	16	16

Outdoor Unit	Model of Outdoor Unit		GWH18AGD-K6DNA1D/O
	Product Code of Outdoor Unit		CB385W08300
	Compressor Manufacturer/Trademark		ZHUHAI LANDA COMPRESSOR CO., LTD
	Compressor Model		FTz-AN108ACBD
	Compressor Oil		FW68DA or equivalent
	Compressor Type		Rotary
	L.R.A.	A	19
	Compressor RLA	A	4.4
	Compressor Power Input	W	952
	Overload Protector		/
	Throttling Method		Capillary
	Operation Temp	°C	16~30
	Ambient Temp (Cooling)	°C	-15~43
	Ambient Temp (Heating)	°C	-15~24
	Condenser Form		Aluminum Fin-copper Tube
	Pipe Diameter	mm	Φ7
	Rows-fin Gap	mm	2-1.4
	Coil Length (LXDXW)	mm	700X38.1X528
	Fan Motor Speed	rpm	900
	Output of Fan Motor	W	30
	Fan Motor RLA	A	0.40
	Fan Motor Capacitor	μF	/
	Air Flow Volume of Outdoor Unit	m³/h	1950
	Fan Type		Axial-flow
	Fan Diameter	mm	Φ400
	Defrosting Method		Automatic Defrosting
	Climate Type		T1
	Isolation		I
	Moisture Protection		IPX4
	Permissible Excessive Operating Pressure for the Discharge Side	MPa	4.3
	Permissible Excessive Operating Pressure for the Suction Side	MPa	2.5
	Sound Pressure Level (H/M/L)	dB (A)	55/-/-
	Sound Power Level (H/M/L)	dB (A)	65/-/-
	Dimension (WXHXD)	mm	732X550X330
	Dimension of Carton Box (LXWXH)	mm	789X390X600
	Dimension of Package (LXWXH)	mm	792X393X615
	Net Weight	kg	26.5
	Gross Weight	kg	29
	Refrigerant		R32
	Refrigerant Charge	kg	0.75
Connection Pipe	Length	m	5
	Gas Additional Charge	g/m	16
	Outer Diameter Liquid Pipe	inch	1/4
	Outer Diameter Gas Pipe	inch	1/2
	Max Distance Height	m	10
	Max Distance Length	m	25
	Note: The connection pipe applies metric diameter.		

The above data is subject to change without notice; please refer to the nameplate of the unit.

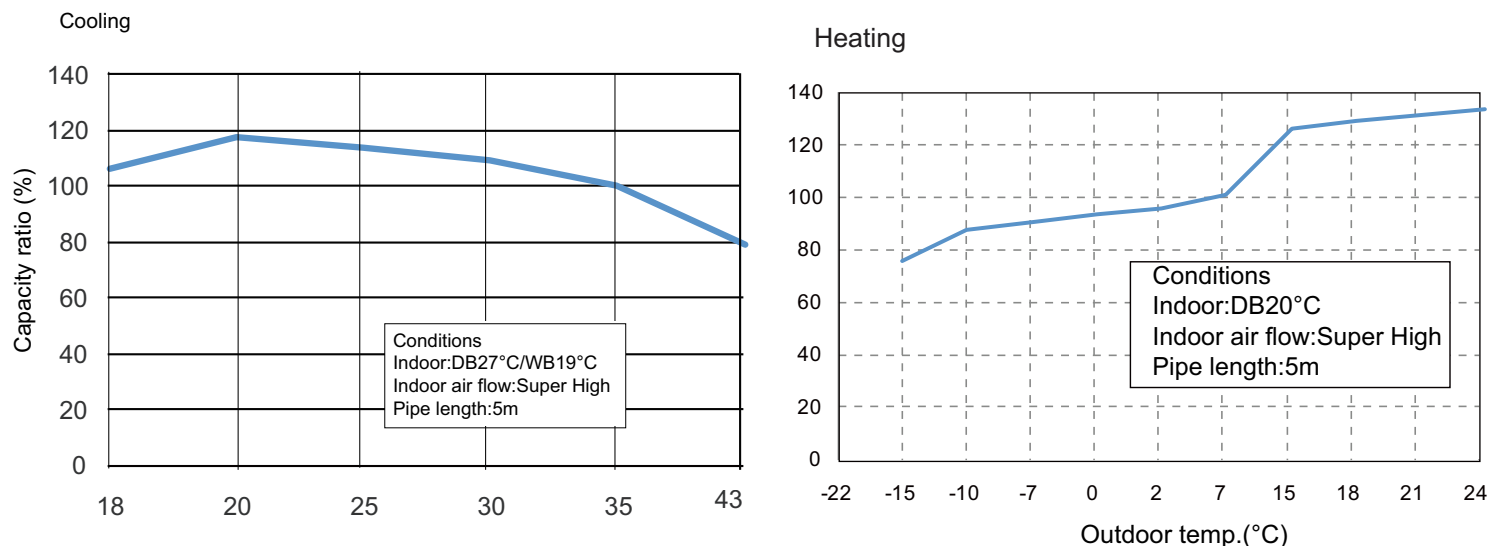


Indoor Unit	Indoor Unit Model		GWH24AGD-K6DNA1C/I	GWH24AGD-K6DNA1C/I
	Indoor Unit Product Code		CB385N08600 CB385N08601	CB385N08602
	Fan Type		Cross-flow	Cross-flow
	Diameter Length(DXL)	mm	Φ106X739	Φ106X739
	Fan Motor Cooling Speed(SS/H/MH/M/ML/L/SL)	r/min	1350/1200/1100/1000/900/850/800	1350/1200/1100/1000/900/850/800
	Fan Motor Heating Speed(SS/H/MH/M/ML/L/SL)	r/min	1350/1200/1100/1000/900/850/800	1350/1200/1100/1000/900/850/800
	Output of Fan Motor	W	50	50
	Fan Motor RLA	A	0.24	0.24
	Fan Motor Capacitor	μF	3	3
	Input of Heater	W	/	/
	Evaporator Form		Aluminum Fin-copper Tube	Aluminum Fin-copper Tube
	Pipe Diameter	mm	Φ7	Φ7
	Row-fin Gap	mm	2-1.4	2-1.4
	Coil Length (LXDXW)	mm	745X22.8X342.9	745X22.8X342.9
	Swing Motor Model		MP24BA/MP24AK/MP24HF	MP24BA/MP24AK
	Output of Swing Motor	W	1.5/1.5/1.5	1.5/1.5
	Fuse	A	3.15	3.15
	Sound Pressure Level(SS/H/MH/M/ML/L/SL)	dB (A)	Cooling:46/42/40/37/35/32/30 Heating:48/44/40/37/34/32/30	Cooling:46/42/40/37/35/32/30 Heating:48/44/40/37/34/32/30
	Sound Power Level(SS/H/MH/M/ML/L/SL)	dB (A)	Cooling:63/59/57/54/53/49/47 Heating:63/59/55/52/49/47/45	Cooling:63/59/57/54/53/49/47 Heating:63/59/55/52/49/47/45
	Dimension (WXHXD)	mm	982X311X221	982X311X221
	Dimension of Carton Box (LXWXH)	mm	1039X377X287	1039X377X287
	Dimension of Package (LXWXH)	mm	1044X385X297	1044X385X297
	Net Weight	kg	14	14
Gross Weight	kg	16.5	16.5	

Outdoor Unit	Model of Outdoor Unit		GWH24AGD-K6DNA1C/O
	Product Code of Outdoor Unit		CB385W08600
	Compressor Manufacturer/Trademark		ZHUHAI LINDA COMPRESSOR CO., LTD
	Compressor Model		FTz-SM151AXBBD
	Compressor Oil		FW68DA
	Compressor Type		Rotary
	L.R.A.	A	/
	Compressor RLA	A	6.06
	Compressor Power Input	W	1330
	Overload Protector		/
	Throttling Method		Capillary
	Operation Temp	°C	16~30
	Ambient Temp (Cooling)	°C	-15~43
	Ambient Temp (Heating)	°C	-15~24
	Condenser Form		Aluminum Fin-copper Tube
	Pipe Diameter	mm	Φ7.94
	Rows-fin Gap	mm	2-1.4
	Coil Length (LXD <sub>XW</sub> )	mm	848X38.1X528
	Fan Motor Speed	rpm	900
	Output of Fan Motor	W	40
	Fan Motor RLA	A	0.70
	Fan Motor Capacitor	μF	/
	Air Flow Volume of Outdoor Unit	m <sup>3</sup> /h	2800
	Fan Type		Axial-flow
	Fan Diameter	mm	Φ445
	Defrosting Method		Automatic Defrosting
	Climate Type		T1
	Isolation		I
	Moisture Protection		IPX4
	Permissible Excessive Operating Pressure for the Discharge Side	MPa	4.3
	Permissible Excessive Operating Pressure for the Suction Side	MPa	2.5
	Sound Pressure Level (H/M/L)	dB (A)	57/-/-
	Sound Power Level (H/M/L)	dB (A)	65/-/-
	Dimension (WXH <sub>XD</sub> )	mm	873X555X376
	Dimension of Carton Box (LXWXH)	mm	948X428X591
	Dimension of Package (LXWXH)	mm	951X431X620
	Net Weight	kg	36.5
	Gross Weight	kg	39.5
	Refrigerant		R32
	Refrigerant Charge	kg	1.18
Connection Pipe	Length	m	5
	Gas Additional Charge	g/m	16
	Outer Diameter Liquid Pipe	inch	1/4
	Outer Diameter Gas Pipe	inch	1/2
	Max Distance Height	m	10
	Max Distance Length	m	25
Note: The connection pipe applies metric diameter.			

The above data is subject to change without notice; please refer to the nameplate of the unit.

## 2.2 Capacity Variation Ratio According to Temperature



## 2.3 Cooling and Heating Data Sheet in Rated Frequency

Cooling:

Rated cooling condition (°C) (DB/WB)		Model	Pressure of gas pipe connecting indoor and outdoor unit	Inlet and outlet pipe temperature of heat exchanger		Fan speed of indoor unit	Fan speed of outdoor unit
Indoor	Outdoor			T1 (°C)	T2 (°C)		
27/19	35/24	09K	0.8~1.1	12 to 15	65 to 38	TURBO	High
		12K		11 to 14	64 to 37		
		18K	0.9~1.1	12 to 14	75 to 37		
		24K	0.8 ~ 1.0	10 to 12	72 to 40		

Heating:

Rated cooling condition (°C) (DB/WB)		Model	Pressure of gas pipe connecting indoor and outdoor unit	Inlet and outlet pipe temperature of heat exchanger		Fan speed of indoor unit	Fan speed of outdoor unit
Indoor	Outdoor			T1 (°C)	T2 (°C)		
20/-	7/6	09K	2.8~3.2	35 to 63	2 to 5	TURBO	High
		12K		35 to 65	2 to 5		
		18K	2.2~2.4	70 to 40	1 to 5		
		24K	2.2 to 2.4	70 to 40	1 to 5		

### Instruction:

T1: Inlet and outlet pipe temperature of evaporator

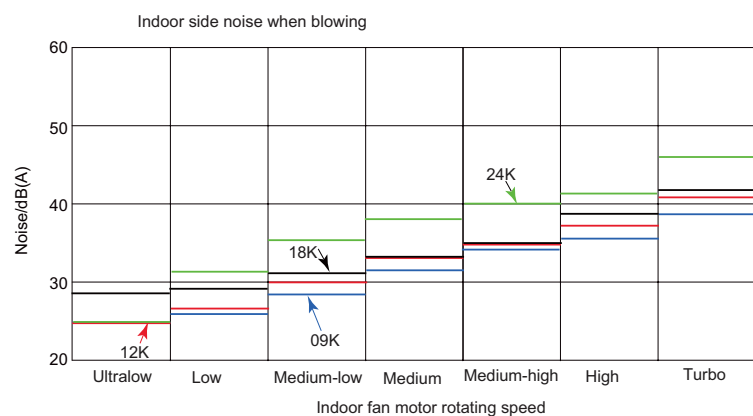
T2: Inlet and outlet pipe temperature of condenser

P: Pressure at the side of big valve

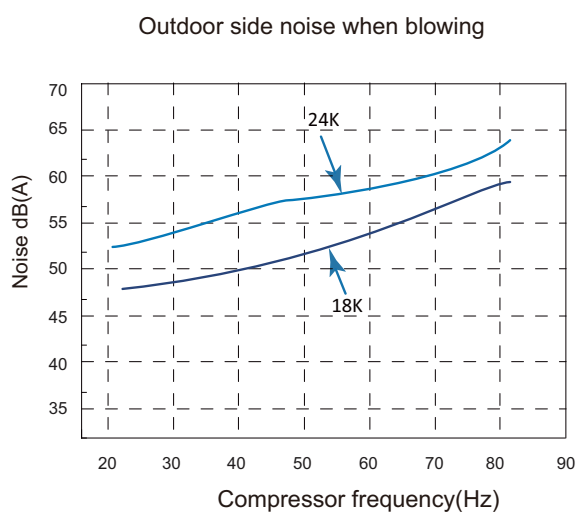
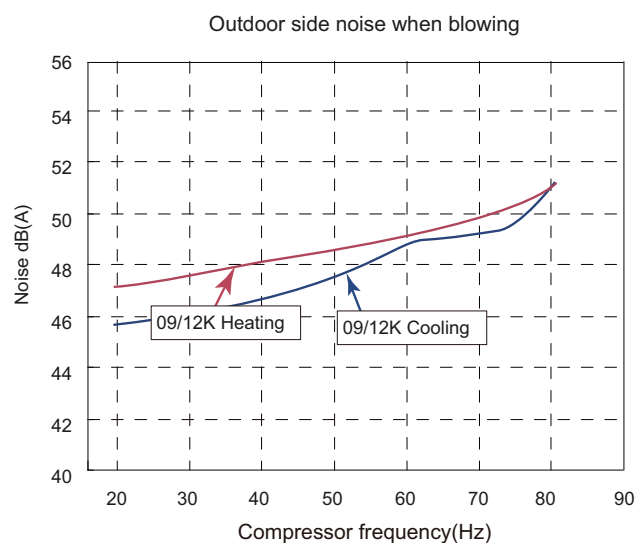
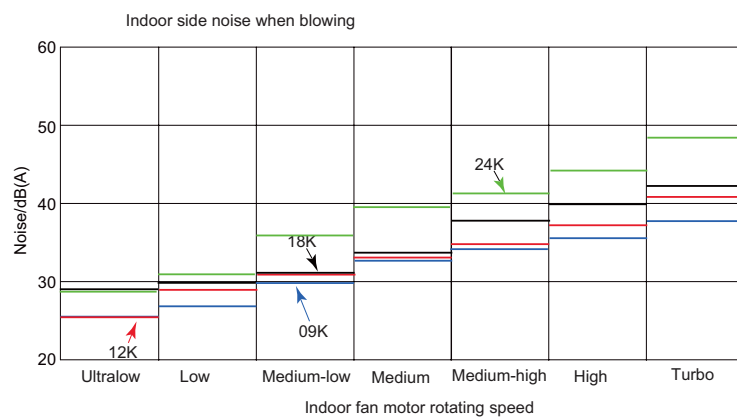
Connection pipe length: 5 m.

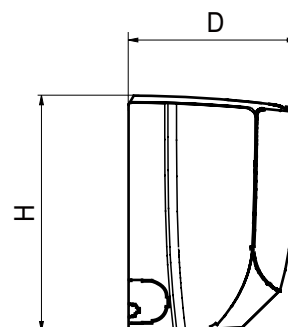
## 2.4 Noise Curve

Cooling:



Heating:





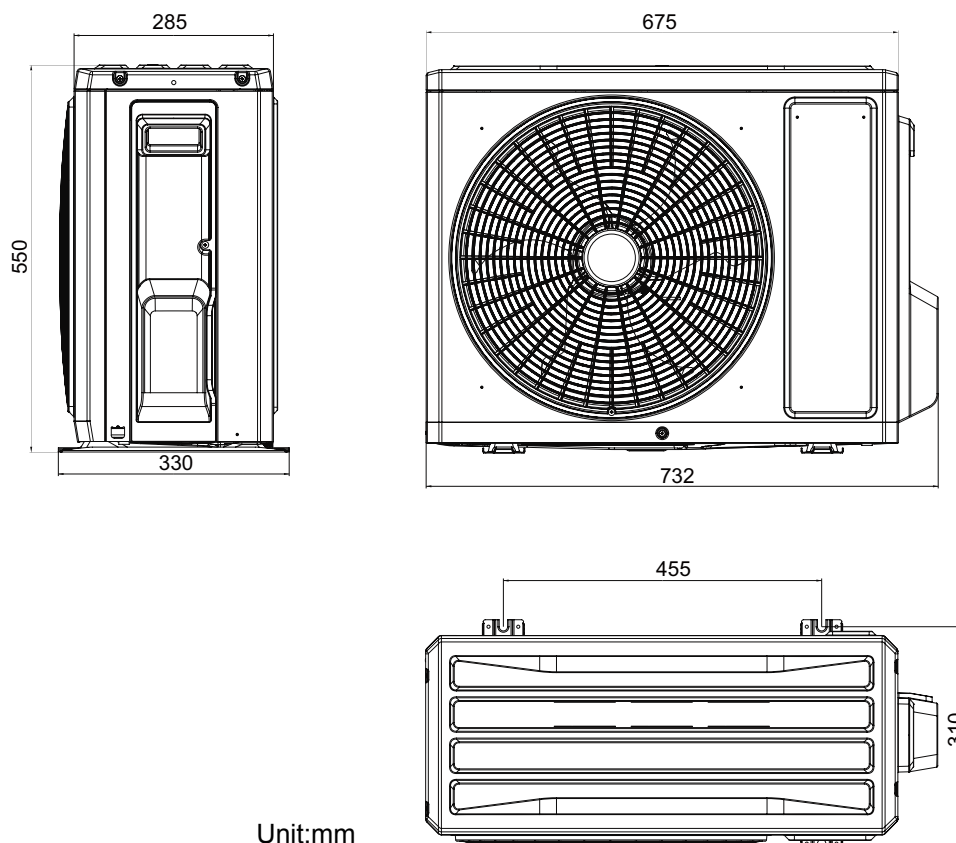
Unit:mm

Model	W	H	D	W1	W2	W3
AGA	704	260	185	93	462	149
AGB	779	260	185	133.5	462	183.5
AGC	825	293	196	113	542	170
AGD	982	311	221	122.5	707.5	152

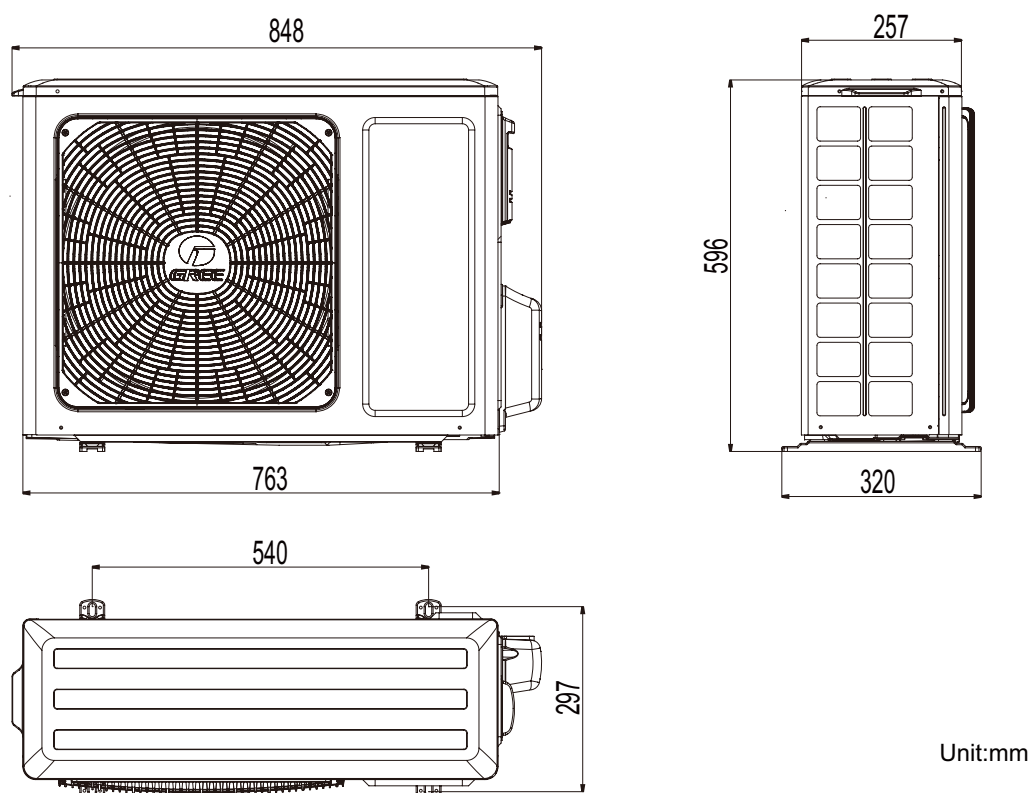
## 3.2 Outdoor Unit

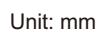
**09/12K**

GWH18AGD-K6DNA1D/O



GWH18AGD-K6DNA1A/O





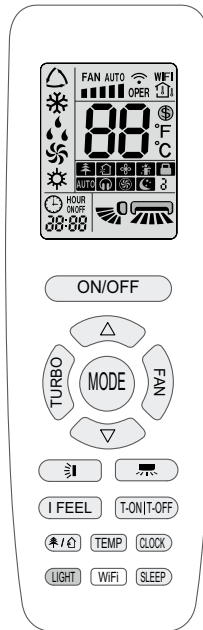


## 6. Function and Control

### 6.1 Remote Controller Introduction

#### Notice:

- This is a general use remote controller. It could be used for the air conditioner with multifunction. For the functions which the model doesn't have, if press the corresponding button on the remote controller, the unit will keep the original running status.
- After putting through the power, the air conditioner will give out a sound. Operation indicator "⏻" is ON. After that, you can operate the air conditioner by using remote controller.
- Under on status, pressing the button on the remote controller, the signal icon "📶" on the display of remote controller will blink once and the air conditioner will give out a "di" sound, which means the signal has been sent to the air conditioner.

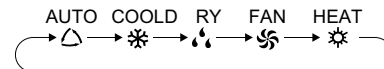


#### ON/OFF

Press this button to turn on the unit. Press this button again to turn off the unit.

#### MODE

Press this button to select your required operation mode.



### Introduction for icons on display screen

	I feel
	Set fan speed
	Turbo mode
	Send signal
	Auto mode
	Cool mode
	Dry mode
	Fan mode
	Heat mode
	Sleep mode
	8°C heating function
	Health mode
	Scavenging function
	Quiet
	X-FAN function
	Set temp.
	Indoor ambient temp.
	Outdoor ambient temp.
	Clock
	Set temperature
	WiFi function
	Set time
	TIMER ON / TIMER OFF
	Left & right swing
	Up & down swing
	Child lock

- When selecting auto mode, air conditioner will operate automatically according to ex-factory setting. Press "FAN" button can adjust fan speed. Press "🌀" / "🌀" button can adjust fan blowing angle.

- After selecting cool mode, air conditioner will operate under cool mode. Cool indicator "❄" on indoor unit is ON. (This indicator is not available for some models.) Press "▲" or "▼" button to adjust set temperature. Press "FAN" button to adjust fan speed. Press "🌀" / "🌀" button to adjust fan blowing angle.

- When selecting dry mode, the air conditioner operates at low speed under dry mode. Dry indicator "💧" on indoor unit is ON. (This indicator is not available for some models.) Under dry mode, fan speed can't be adjusted. Press "🌀" / "🌀" button to adjust fan blowing angle.

- When selecting fan mode, the air conditioner will only blow fan, no cooling and no heating. All indicators are OFF. Press "FAN" button to adjust fan speed. Press "🌀" / "🌀" button to adjust fan blowing angle.

- When selecting heating mode, the air conditioner operates under heat mode. Heat indicator "☀" on indoor unit is ON. (This indicator is not available for some models.) Press "▲" or "▼" button to adjust set temperature. Press "FAN" button to adjust fan speed. Press "🌀" / "🌀" button to adjust fan blowing angle. (Cooling only unit won't receive heating mode signal. If setting heat mode with remote controller, press ON/OFF button can't start up the unit).

#### Notice:

- For preventing cold air, after starting up heat mode, indoor unit will delay 1~5 minutes to blow air (actual delay time depends on indoor ambient temperature).

- Set temperature range from remote controller: 16~30°C (61-86 °C ). Fan speed: auto, quiet, low speed, low-medium speed, medium speed, medium-high speed, high speed.
- This mode indicator is not available for some models.



This button is used for setting Fan Speed in the sequence that goes from AUTO, , , , , to , then back to Auto.

#### Notice:

- Under AUTO speed, air conditioner will select proper fan speed automatically according to factory default setting.
- It's low fan speed under dry mode.
- X-FAN function: Holding fan speed button for 2s in cool or dry mode, the icon " " is displayed and the indoor fan will continue operation for a few minutes in order to dry the indoor unit even though you have turned off the unit. After energization, X-FAN OFF is defaulted. X-FAN is not available in auto, fan or heat mode.

This function indicates that moisture on evaporator of indoor unit will be blown after the unit is stopped to avoid mould.

- Having set X-FAN function on: After turning off the unit by pressing ON/OFF button, indoor fan will continue running for a few minutes at low speed. In this period, hold fan speed button for 2s to stop indoor fan directly.

Having set X-FAN function off: After turning off the unit by pressing ON/OFF button, the complete unit will be off directly.



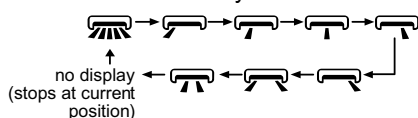
Under COOL or HEAT mode, press this button to turn to quick COOL or quick HEAT mode. " " icon is displayed on remote controller. Press this button again to exit turbo function and " " icon will disappear. If start this function, the unit will run at super-high fan speed to cool or heat quickly so that the ambient temp. approaches the preset temp. as soon as possible.



- Press "▲" or "▼" button once increase or decrease set temperature 1°C (°F). Holding "▲" or "▼" button, 2s later, set temperature on remote controller will change quickly. On releasing button after setting is finished, temperature indicator on indoor unit will change accordingly.
- When setting T-ON, T-OFF or CLOCK, press "▲" or "▼" button to adjust time. (Refer to CLOCK, TON, T-OFF buttons)



Press this button can select left & right swing angle. Fan blow angle can be selected circularly as below:

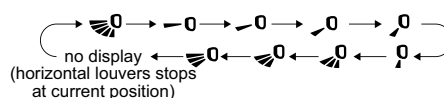


#### Notice:

- Press this button continuously more than 2s, the main unit will swing back and forth from left to right, and then loosen the button, the unit will stop swinging and present position of guide louver will be kept immediately.
- Under left and right swing mode, when the status is switched from off to , if press this button again 2s later, status will switch to off status directly; if press this button again within 2s, the change of swing status will also depend on the circulation sequence stated above.
- The function is only available for some models.



Press this button can select up & down swing angle. Fan blow angle can be selected circularly as below:



- When selecting " ", air conditioner is blowing fan automatically. Horizontal louver will automatically swing up & down at maximum angle.
- When selecting " , , , , ", air conditioner is blowing fan at fixed position. Horizontal louver will stop at the fixed position.
- When selecting " , , ", air conditioner is blowing fan at fixed angle. Horizontal louver will send air at the fixed angle.
- Hold " " button above 2s to set your required swing angle. When reaching your required angle, release the button.

#### Notice:

- " , , " may not be available. When air conditioner receives this signal, the air conditioner will blow fan automatically.
- Press this button continuously for more than 2s, the main unit will swing back and forth from up to down, and then loosen the button, the unit present position of guide louver will be kept immediately.
- Under up and down swing mode, when the status is switched from off to , if press this button again 2s later, status will switch to off status directly; if press this button again within 2s, the change of swing status will also depend on the circulation sequence stated above.



#### T-ON button

"T-ON" button can set the time for timer on. After pressing this button, " " icon disappears and the word "ON" on remote controller blinks. Press "▲" or "▼" button to adjust T-ON setting. After each pressing "▲" or "▼" button, T-ON setting will increase or decrease 1min. Hold "▲" or "▼" button, 2s later, the time will change quickly until reaching your required time. Press "T-ON" to confirm it. The word "ON" will stop

blinking. "☉" icon resumes displaying. Cancel T-ON: Under the condition that T-ON is started up, press "T-ON" button to cancel it.

- T-OFF button

"T-OFF" button can set the time for timer off. After pressing this button, "☉" icon disappears and the word "OFF" on remote controller blinks. Press "▲" or "▼" button to adjust T-OFF setting. After each pressing "▲" or "▼" button, T-OFF setting will increase or decrease 1min. Hold "▲" or "▼" button, 2s later, the time will change quickly until reaching your required time. Press "T-OFF" word "OFF" will stop blinking.

"☉" icon resumes displaying. Cancel T-OFF. Under the condition that T-OFF is started up, press "T-OFF" button to cancel it.

**Notice:**

- Under on and off status, you can set T-OFF or T-ON simultaneously.
- Before setting T-ON or T-OFF, please adjust the clock time.
- After starting up T-ON or T-OFF, set the constant circulating valid.

After that, air conditioner will be turned on or turned off according to setting time. ON/OFF button has no effect on setting. If you don't need this function, please use remote controller to cancel it.

**I FEEL**

Press this button to start I FEEL function and "🌡️" will be displayed on the remote controller. After this function is set, the remote controller will send the detected ambient temperature to the controller and the unit will automatically adjust the indoor temperature according to the detected temperature. Press this button again to cancel I FEEL function and "🌡️" will disappear.

- Please put the remote controller near user when this function is set. Do not put the remote controller near the object of high temperature or low temperature in order to avoid detecting inaccurate ambient temperature.

When I FEEL function is turned on, the remote controller should be put within the area where indoor unit can receive the signal sent by the remote controller.

**CLOCK**

Press this button to set clock time. "☉" icon on remote controller will blink. Press "▲" or "▼" button within 5s to set clock time. Each pressing of "▲" or "▼" button, clock time will increase or decrease 1 minute. If hold "▲" or "▼" button, 2s later, time will change quickly. Release this button when reaching your required time. Press "CLOCK" button to confirm the time. "☉" icon stops blinking.

**Notice:**

- Clock time adopts 24-hour mode.

- The interval between two operations can't exceed 5s. Otherwise, remote controller will quit setting status. Operation for TIMER ON/TIMER OFF is the same.

**SLEEP**

- Press this button, can select Sleep 1 (☾ 1), Sleep 2 (☾ 2), Sleep 3 (☾ 3) and cancel the Sleep, circulate between these, after electrified, Sleep Cancel is defaulted.

- Sleep 1 is Sleep mode 1, in Cool modes; sleep status after run for one hour, the main unit setting temperature will increase 1, two hours, setting temperature increased 2℃, then the unit will run at this setting temperature; In Heat mode: sleep status after run for one hour, the setting temperature will decrease 1, two hours, setting temperature will decrease 2, then the unit will run at this setting temperature.

- Sleep 2 is sleep mode 2, that is air conditioner will run according to the presetting a group of sleep temperature curve.

- Sleep 3-the sleep curve setting under Sleep mode by DIY;

(1) Under Sleep 3 mode, press "Turbo" button for a long time, remote controller enters into user individuation sleep setting status, at this time, the time of remote controller will display "1hour", the setting temperature "88" will display the corresponding temperature of last setting sleep curve and blink (The first entering will display according to the initial curve setting value of original factory);

(2) Adjust "+" and "-" button, could change the corresponding setting temperature, after adjusted, press "Turbo" button for confirmation;

(3) At this time, 1hour will be automatically increased at the timer position on the remote control, (that are "2hours" or "3hours" or "8hours"), the place of setting temperature "88" will display the corresponding temperature of last setting sleep curve and blink;

(4) Repeat the above step (2)~(3) operation, until 8 hours temperature setting finished, sleep curve setting finished, at this time, the remote controller will resume the original timer display; temperature display will resume to original setting temperature.

- Sleep3- the sleep curve setting under Sleep mode by DIY could be inquired:

The user could accord to sleep curve setting method to inquire the presetting sleep curve, enter into user individuation sleep setting status, but do not change the temperature, press "Turbo" button directly for confirmation. Note: In the above presetting or enquiry procedure, if continuously within 10s, there is no button pressed, the sleep curve setting within 10s, there is no button pressed, the sleep curve setting status will be automatically quit and resume to display the original displaying. In the presetting or enquiry procedure, press "ON/OFF" button, "Mode" button, "Sleep" button, the sleep curve setting or enquiry status will quit similarly.

## WiFi

When WiFi function is turned on, "WiFi" icon will be displayed on the remote controller; when WiFi function is turned off, "WiFi" icon will disappear.

How to turn on WiFi: Press "WiFi" button to turn on WiFi function.

How to turn off WiFi: Hold "WiFi" button for 5s to turn off WiFi function.

Under off status, press "MODE" and "WiFi" buttons simultaneously for 1s, WiFi module will restore factory settings.

- This function is only available for some models.



Press this button to achieve the on and off of health and scavenging functions in operation station. Press this button for the first time to start scavenging function; LCD displays

"🏠". Press the button for the second time to start health and scavenging functions simultaneously; LCD displays

"🏠" and "🌿". Press this button for the third time to quit health and scavenging functions simultaneously. Press the button for the fourth time to start health function; LCD display "🌿". Press this button again to repeat the operation above.

- This function is applicable to partial of models.

## LIGHT

Press this button to turn off display light on indoor unit. "💡" icon on remote controller disappears.

Press this button again to turn on display light. "💡" icon is displayed.

## TEMP

Press this button, you can see indoor set temperature, indoor ambient temperature on indoor unit's display. The setting on remote controller is selected circularly as below:



## Function introduction for combination buttons

### Energy-saving function

Under cooling mode, press "TEMP" and "CLOCK" buttons simultaneously to start up or turn off energy-saving function. When energy-saving function is started up, "SE" will be shown on remote controller, and air conditioner will adjust the set temperature automatically according to ex-factory setting to reach to the best energy-saving effect.

Press "TEMP" and "CLOCK" buttons simultaneously again to exit energy-saving function.

### Notice:

- Under energy-saving function, fan speed is defaulted at auto speed and it can't be adjusted.
- Under energy-saving function, set temperature can't be adjusted. Press "TURBO" button and the remote controller won't send signal.
- Sleep function and energy-saving function can't operate at the same time. If energy-saving function has been set under cool mode, press sleep button will cancel energy-saving function. If sleep function has been set under cool mode, start up the energy-saving function will cancel sleep function.

### 8°C heating function(This function is not available for cool only models.)

Under heat mode, press "TEMP" and "CLOCK" buttons simultaneously to start up or turn off 8°C heating function. When this function is started up, "8°C" and "🔥" will be shown on remote controller, and the air conditioner keep the heating status at 8°C. Press "TEMP" and "CLOCK" buttons simultaneously again to exit 8°C heating function.

### Notice:

- Under 8°C heating function, fan speed is defaulted at auto speed and it can't be adjusted.
- Under 8°C heating function, set temperature can't be adjusted. Press "TURBO" button and the remote controller won't send signal.
- Sleep function and 8°C heating function can't operate at the same time. If 8°C heating function has been set under heat mode, press sleep button will cancel 8°C heating function. If sleep function has been set under heat mode, start up the 8°C heating function will cancel sleep function.
- Under °F temperature display, the remote controller will display 46°F heating.

### Child lock function

Press "▲" and "▼" simultaneously to turn on or turn off child lock function. When child lock function is on, "🔒" icon is displayed on remote controller. If you operate the remote controller, the "🔒" icon will blink three times without sending signal to the unit.

### Temperature display switchover function

Under OFF status, press "▼" and "MODE" buttons simultaneously to switch temperature display between °C and °F.

### Auto clean function

Under unit off status, hold "MODE" and "FAN" buttons simultaneously for 5s to turn on or turn off the internal clean function. When the internal clean function is turned on, indoor unit displays "CL". During the self-cleaning process of evaporator, the unit will perform fast cooling or fast heating. There may be some noise, which is the sound of flowing liquid or thermal expansion or cold shrinkage. The air conditioner may blow cool or warm air, which is a normal phenomenon.

During cleaning, please make sure the room is well ventilated to avoid affecting the degree of comfort.

**Notice:**

The self-cleaning function can only work under normal ambient temperature. If the room is dusty, clean once a month; if not, clean once every three months. After the self-cleaning function is turned on, you may leave the room. When self-cleaning is finished, the air conditioner will enter standby mode.

This function is applicable for some models.

## Replacement of batteries in remote controller

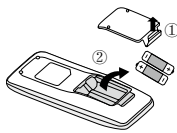


Fig.1

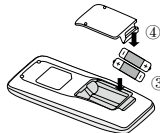


Fig.2

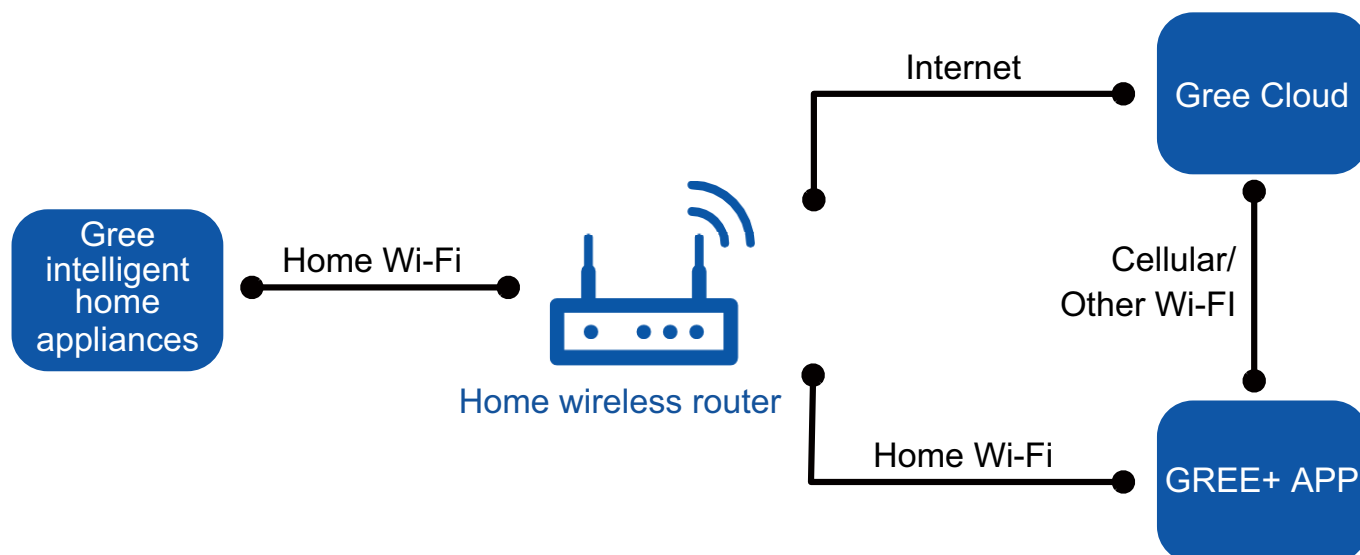
1. Lift the cover along the direction of arrow (as shown in Fig 1 ①).
2. Take out the original batteries (as shown in Fig 1 ②).
3. Place two 7# (AAA 1.5V) dry batteries, and make sure the position of “+” polar and “-” polar is correct (as shown in Fig 2 ③).
4. Reinstall the cover (as shown in Fig 2 ④).

**Notice:**

- During operation, point the remote control signal sender at the receiving window on indoor unit.
- The distance between signal sender and receiving window should be no more than 8m, and there should be no obstacles between them.
- Signal may be interfered easily in the room where there is fluorescent lamp or wireless telephone; remote controller should be close to indoor unit during operation.
- Replace new batteries of the same model when replacement is required.
- When you don't use remote controller for a long time, please take out the batteries.
- If the display on remote controller is fuzzy or there's no display, please replace batteries.

## 6.2 GREE+ App Operation Manual

### Control Flow Chart



### Operating Systems

Requirement for Users smart phone:



iOS system  
Support iOS7.0 and  
above version



Android system  
Support Android 4.4 and  
above version

### Download and installation

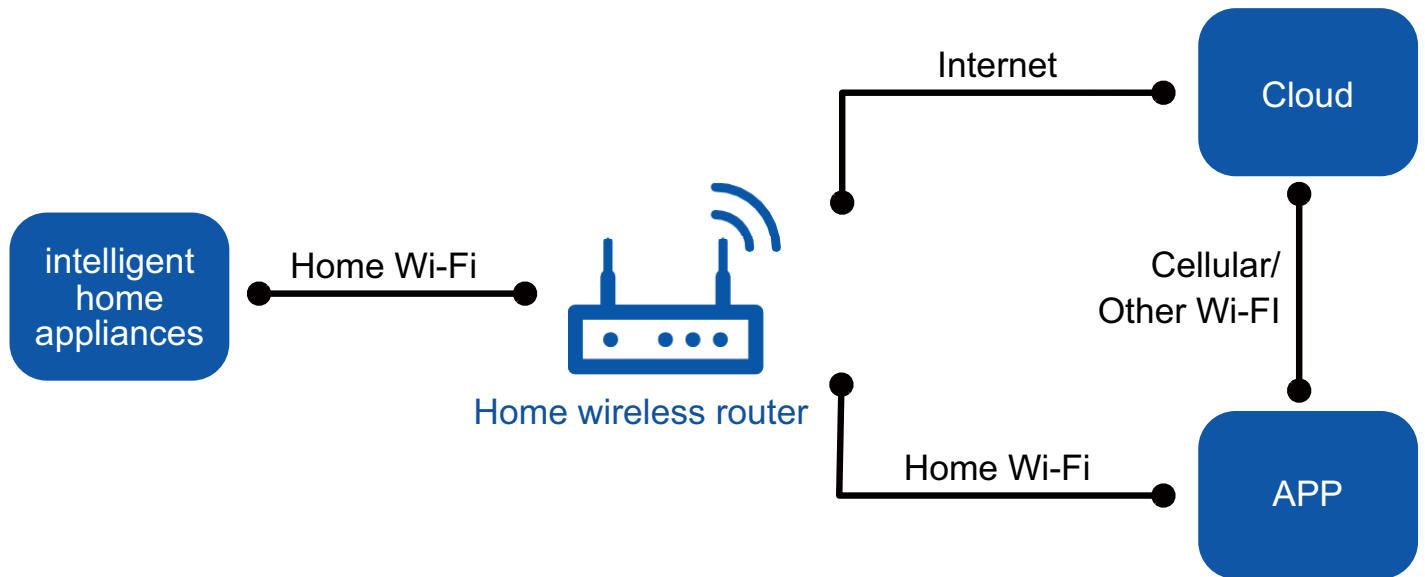


GREE+ App Download Linkage

Scan the QR code or search "GREE+" in the application market to download and install it. When "GREE+" App is installed, register the account and add the device to achieve long-distance control and LAN control of Gree smart home appliances. For more information, please refer to "Help" in App.

### 6.3 Ewpe Smart App Operation Manual

## Control Flow Chart



# Operating Systems

Requirement for Users smart phone:



iOS system  
Support iOS7.0 and  
above version



Android system  
Support Android 4.4 and  
above version

## Download and installation



### App Download Linkage

Scan the QR code or search "Ewpe Smart" in the application market to download and install it. When "Ewpe Smart" App is installed, register the account and add the device to achieve long-distance control and LAN control of smart home appliances.  
For more information, please refer to "Help" in App.



## 6.4 Brief Description of Modes and Functions

### ● Indoor Unit

#### 1. Basic function of system

##### (1) Cooling mode

- (1) Under this mode, fan and swing operates at setting status. Temperature setting range is 16~30°C.
- (2) During malfunction of outdoor unit or the unit is stopped because of protection, indoor unit keeps original operation status.

##### (2) Drying mode

- (1) Under this mode, fan operates at low speed and swing operates at setting status. Temperature setting range is 16~30°C.
- (2) During malfunction of outdoor unit or the unit is stopped because of protection, indoor unit keeps original operation status.
- (3) Protection status is same as that under cooling mode.
- (4) Sleep function is not available for drying mode.

##### (3) Heating mode

- (1) Under this mode, Temperature setting range is 16~30°C.
- (2) Working condition and process for heating mode:  
When turn on the unit under heating mode, indoor unit enters into cold air prevention status. When the unit is stopped or at OFF status, and indoor unit has been started up just now, the unit enters into residual heat-blowing status.

##### (4) Working method for AUTO mode:

1. Working condition and process for AUTO mode:
  - a. Under AUTO mode, standard heating  $T_{\text{preset}}=20^{\circ}\text{C}$  and standard cooling  $T_{\text{preset}}=25^{\circ}\text{C}$ . The unit will switch mode automatically according to ambient temperature.
2. Protection function
  - a. During cooling operation, protection function is same as that under cooling mode.
  - b. During heating operation, protection function is same as that under heating mode.
3. Display: Set temperature is the set value under each condition. Ambient temperature is ( $T_{\text{amb.}}-T_{\text{compensation}}$ ) for heat pump unit and  $T_{\text{amb.}}$  for cooling only unit.
4. If there's I feel function,  $T_{\text{compensation}}$  is 0. Others are same as above.

##### (5) Fan mode

Under this mode, indoor fan operates at set fan speed. Compressor, outdoor fan, 4-way valve and electric heating tube stop operation. Indoor fan can select to operate at high, medium, low or auto fan speed. Temperature setting range is 16~30°C.

### 2. Other control

#### (1) Buzzer

Upon energization or availablely operating the unit or remote controller, the buzzer will give out a beep.

#### (2) Auto button

If press this auto button when turning off the unit, the complete unit will operate at auto mode. Indoor fan operates at auto fan speed and swing function is turned on. Press this auto button at ON status to turn off the unit.

#### (3) Auto fan

Heating mode: During auto heating mode or normal heating mode, auto fan speed will adjust the fan speed automatically according to ambient temperature and set temperature.

#### (4) Sleep

After setting sleep function for a period of time, system will adjust set temperature automatically.

#### (5) Timer function:

General timer and clock timer functions are compatible by equipping remote controller with different functions.

#### (6) Memory function

memorize compensation temperature, off-peak energization value.

Memory content: mode, up&down swing, light, set temperature, set fan speed, general timer (clock timer can't be memorized).

After power recovery, the unit will be turned on automatically according to memory content.

#### (7) Health function

During operation of indoor fan, set health function by remote controller. Turn off the unit will also turn off health function.

Turn on the unit by pressing auto button, and the health is defaulted ON.

**(8) I feel control mode**

After controller received I feel control signal and ambient temperature sent by remote controller, controller will work according to the ambient temperature sent by remote controller.

**(9) Entry condition for compulsory defrosting function**

When turn on the unit under heating mode and set temperature is 16°C (or 16.5°C by remote controller), press “+, -, +, -, +, -” button successively within 5s and then indoor unit will enter into compulsory defrosting setting status:

- (1) If there's only indoor units controller, it enters into indoor normal defrosting mode.
- (2) If there's indoor units controller and outdoor units controller, indoor unit will send compulsory defrosting mode signal to outdoor unit and then outdoor unit will operate under normal defrosting mode. After indoor unit received the signal that outdoor unit has entered into defrosting status, indoor unit will cancel to send compulsory mode to outdoor unit. If outdoor unit hasn't received feedback signal from outdoor unit after 3min, indoor unit will also cancel to send compulsory defrosting signal.

**(10) Refrigerant recovery function:**

Enter into Freon recovery mode actively: Within 5min after energization, turn on the unit at 16°C under cooling mode, and press light button for 3 times within 3s to enter into Freon recovery mode. Fo is displayed and Freon recovery mode will be sent to outdoor unit.

**(11) Ambient temperature display control mode**

1. When user set the remote controller to display set temperature (corresponding remote control code: 01), current set temperature will be displayed.
2. Only when remote control signal is switched to indoor ambient temperature display status (corresponding remote control code: 10) from other display status (corresponding remote control code: 00, 01, 11), controller will display indoor ambient temperature for 3s and then turn back to display set temperature.

Under this mode, indoor fan operates at set fan speed. Compressor, outdoor fan, 4-way valve and electric heating tube stop operation. Indoor fan can select to operate at high, medium, low or auto fan speed. Temperature setting range is 16~30°C.

**(12) Off-peak energization function:**

Adjust compressors minimum stop time. The original minimum stop time is 180s and then we change to:

The time interval between two start-ups of compressor can't be less than  $180+T$  s ( $0 \leq T \leq 15$ ). T is the variable of controller. That's to say the minimum stop time of compressor is 180s~195s. Read-in T into memory chip when refurbish the memory chip each time. After power recovery, compressor can only be started up after  $180+T$  s at least.

**(13) SE control mode**

The unit operates at SE status.

**(14) X-fan mode**

When X-fan function is turned on, after turn off the unit, indoor fan will still operate at low speed for 2min and then the complete unit will be turned off. When x-fan function is turned off, after turn off the unit, the complete unit will be turned off directly.

**(15) 8°C heating function**

Under heating mode, you can set 8°C heating function by remote controller. The system will operate at 8°C set temperature.

**(16) Turbo function**

Turbo function can be set under cooling and heating modes. Press Fan Speed button to cancel turbo setting. Turbo function is not available under auto, drying and fan modes.

## ● Outdoor Unit

### 1. Cooling mode:

Working condition and process of cooling mode:

① When Tindoor ambient temperature  $\geq T_{\text{preset}}$ , unit enters into cooling mode. Indoor fan, outdoor fan and compressor start operation. Indoor fan operates according to set fan speed.

② When Tindoor ambient temperature  $\leq T_{\text{preset}} - 2^{\circ}\text{C}$ , compressor stops operation and outdoor fan will stop 30s later. Indoor fan operates according to set fan speed.

③ When  $T_{\text{preset}} - 2^{\circ}\text{C} < \text{Tindoor ambient temperature} < T_{\text{preset}}$ , unit operates according to the previous status.

Under cooling mode, 4-way valve is not energized. Temperature setting range is  $16 \sim 30^{\circ}\text{C}$ . If compressor stops because of malfunction in cooling mode, indoor fan and swing motor will work according to the original status.

### 2. Drying mode

(1) Working condition and process of drying mode

① When Tindoor ambient temperature  $> T_{\text{preset}}$ , unit will be in drying mode. Outdoor fan and compressor start operation while indoor fan will operate at low fan speed.

② When  $T_{\text{preset}} - 2^{\circ}\text{C} \leq \text{Tindoor ambient temperature} \leq T_{\text{preset}}$ , unit operates according to the previous status.

③ When Tindoor ambient temperature  $< T_{\text{preset}} - 2^{\circ}\text{C}$ , compressor stops operation and outdoor fan will stop 30s later.

(2) Under drying mode, 4-way valve is not energized. Temperature setting range is  $16 \sim 30^{\circ}\text{C}$ .

(3) Protection function: same as in cooling mode.

### 3. Fan mode

(1) Under this mode, indoor fan can select different fan speed (except Turbo) or auto fan speed. Compressor, outdoor fan and 4-way valve all stop operation.

(2) In fan mode, temperature setting range is  $16 \sim 30^{\circ}\text{C}$ .

### 4. Heating mode

Working condition and process of heating mode:

① When  $T_{\text{preset}} - (\text{Tindoor ambient temperature} - T_{\text{compensation}}) \geq 1^{\circ}\text{C}$ , unit enters into heating mode. Compressor, outdoor fan and 4-way valve start operation.

② When  $-2^{\circ}\text{C} < T_{\text{preset}} - (\text{Tindoor ambient temperature} - T_{\text{compensation}}) < 1^{\circ}\text{C}$ , unit operates according to the previous status.

③ When  $T_{\text{preset}} - (\text{Tindoor ambient temperature} - T_{\text{compensation}}) \leq -2^{\circ}\text{C}$ , compressor stops operation and outdoor fan will stop 30s later. Indoor fan will be in residual-heat blowing status.

④ When unit is turned off under heating mode or changed to other modes from heating mode, 4-way valve will be power-off 2min after compressor stops working (compressor is in operation status under heating mode).

⑤ When Toutdoor ambient temperature  $> 30^{\circ}\text{C}$ , compressor stops operation immediately. Outdoor fan will stop 30s later.

⑥ Under the condition that compressor is turned on, when unit is changed to heating mode from cooling or drying mode, 4-way valve will be energized in 2~3mins delay.

Note: Tcompensation is determined by IDU and ODU. If IDU controls the compensation temperature, then Tcompensation is determined according to the value sent by IDU to ODU; If IDU does not control the compensation temperature, then Tcompensation will default to  $3^{\circ}\text{C}$  by the ODU.

### 5. Freon recovery mode

After the Freon recovery signal from IDU is received, cooling at rated frequency will be forcibly turned on to recover Freon. Indoor unit will display Fo. If any signal from remote controller is received, unit will exit from Freon recovery mode and indoor unit stops displaying Fo.

### 6. Compulsory defrosting

If unit is turned on under heating mode and set temperature is  $16^{\circ}\text{C}$  (by remote controller), press "+, -, +, -, +, -" within 5s, unit will enter into compulsory defrosting mode and send the signal to ODU. When the compulsory defrosting signal from ODU is received, IDU will exit from the compulsory defrosting mode and stop sending the signal to ODU.

After ODU receives the compulsory defrosting code, it will start compulsory defrosting. Defrosting frequency and opening angle will be the same as in normal defrosting mode. When compulsory defrosting is finished, the complete unit resumes original status.

## 7. Auto mode

Auto mode is determined by controller of IDU. See IDU logic for details.

## 8. 8°C heating

Set temperature is 8°C. Display board of IDU displays 8°C. Under this mode, "Cold air prevention" function is shielded.

If compressor is operating under this mode, fan speed will adjust according to auto fan speed; if compressor stops operation under this mode, indoor fan will be in residual-heat blowing status.

**When power on, communication light will be blinking in a normal way (after receiving a group of correct signals, blinking stops for 0.2s~0.3s). If there's no communication, communication light will be always on. If other ODU has malfunction, communication light will be on for 1s and off for 1s in a circular way.**