

1 Summary and features



Models		Remarks
KF-20GW/A20	KFR-20GW/A20	1Ph 220~230V 50Hz R22
KF-25GW/A20	KFR-25GW/A20	
KF-20GW/NA20	KFR-20GW/NA20S1	
KF-25GW/NA20	KFR-25GW/NA20S1	1Ph 220~230V 50Hz R407C
KFR-20GW/NA21	KFR-25GW/NA21	
KFR-25GW/NaA12-ES1		1Ph 220~230V 50Hz R410A



Models		Remarks
KF-20GW/A12	KFR-20GW/A12	1Ph 220~230V 50Hz R22
KF-25GW/A12	KFR-25GW/A12	
KF-32GW/A12	KFR-32GW/A12	
GSW12-22L/A	GSW12-22R/A	1Ph 220V 60Hz R22
GSW9-22L/A	GSW9-22R/A	
KFR-25GW/A12-J	KFR-32GW/A12-J	1Ph 240V 50Hz R22
KF-25GW/NaA12-E	KFR-25GW/NaA12-ES1	1Ph 220~230V 50Hz R410A
KF-32GW/NaA12-E	KFR-32GW/NaA12-E	

Bird Single-Split Type



Models			Remarks
KF-20GW/NA12	KFR-20GW/NA12S1	KFR-20GW/NA12S2	1Ph 220~230V 50Hz R407C
KF-25GW/NA12	KFR-25GW/NA12S1	KFR-25GW/NA12S2	
KF-32GW/NA12	KFR-32GW/NA12S1	KFR-32GW/NA12S2	
KFR-32GW/NA21	KF-20GW/NA23	KFR-20GW/NA23	
KF-25GW/NA23	KFR-25GW/NA23	KF-32GW/NA23	
KFR-32GW/NA23			



Models		Remarks
KF-20GW/NA51	KFR-20GW/NA51	1PH 220~230V 50HZ R410A
KF-25GW/NA51	KFR-25GW/NA51	
KF-32GW/NA51	KFR-32GW/NA51	

2 Technical and specifications

Model		KF-20GW/A12	KFR-20GW/A12	KF-25GW/A12	KFR-25GW/A12
Function		Cooling		Cooling/heating	Cooling/heating
Power supply(Phase-Voltage-Frequency)		1-220V~230V-50Hz			1-220V~230V-50Hz
Capacity	(W)	2000	2400	2500	3100
Rated input power	(W)	750	760	970	1000 1050
Rated current	(A)	4.4	4.7	5.6	5.8
Dehumidify volume	(L/h)	1.2	1.2	1.2	/
C.O.P/EER	(W/W)	2.67	3.15	2.57	2.5 2.95
Indoor unit	Model	KF-20G/A12	KFR-20G/A12	KF-25G/A12	KFR-25G/A12
	Fan speed (r/min) (H/M/L)	960/900/850		1060/990/910	960/900/850
	Output power (W)	8		13	8
	Working capacity (uF)	1			
	Fan type-piece	Cross flow fan -1			
	Diameter-length (mm)	Φ97-583			
	Evaporator	Aluminum fin-copper tube			
	Row- fin distance (mm)	2-1.6		2-1.4	2-1.8
	Working area (m ²)	0.14			
	Stepping motor	MP24GA			
	Motor power (W)	2			
	Fuse (A)	PCB3. 15A Transformer 0.2A			
	Noise dB (A)	35/33/32		37/35/33	40
	Outline dimension (W/H/D) (mm)	770/180/250			
	Package dimension (W/H/D) (mm)	855/272/336			
Net weight/Gross weight(kg)	8.5/12.5				
Outdoor unit	Model	KF-20W/A12	KFR-20W/A12	KF-25W/A12	KFR-25W/A12
	Compressor type	Rotary			
	L.R.A. (A)	16		17	/
	Overload protection	6.3C67A2		Built-in	
	Throttling method	Capillary			
	Starting method	Capacitor			
	Working temperature (°C)	-7°C ≤ T ≤ 43°C			
	Condensor	Aluminum fin-copper tube			
	Pipe diameter	Φ7	Φ9.52	Φ7	Φ9.52
	Row- fin distance(mm)	1-1.5	1-1.6	1-1.5	1-1.6
	Working area (m ²)	0.4			
	Fan motor power (W)/ speed (rpm)	30/850		30/795	25/750
	Working capacity (uF)	2.5			
	Fan type-piece	Axial flow fan -1			
	Fan blade diameter (mm)	Φ400			
	Defrost method	Auto defrost			
	Noise dB (A)	52	56	53	52
	Outline dimension (W/H/D) (mm)	848/540/320			
Package dimension (W/H/D) (mm)	878/610/360				
Net weight/Gross weight(kg)	38/42				
Refrigerant/refrigerant charge(kg)	R22/0.65	R22/0.75	R22/0.85	R22/0.8	
Connection pipe	Outer diameter	Liquid pipe (mm)	Φ6 (1/4")		
		Gas pipe (mm)	Φ9.52 (3/8")		
	Max. distance	Height (m)	10		
		Length (m)	20		

Model				KF-32GW/A12	KFR-32GW/A12	KFR-25GW/A12-J	KFR-32GW/A12-J	
Function				Cooling	Cooling/heating	Cooling	Cooling/heating	
Power supply(Phase-Voltage-Frequency)				1-220V~230V-50Hz		1-240V-50Hz		
Capacity	(W)	3200		3800	2500	3100	3200	
Rated input power	(W)	1280	1350	1500	950	1050	1290	
Rated current	(A)	6.4	/		4.3	4.6	7.6	
Dehumidify volume	(L/h)	/			1.2		/	
C.O.P/EER	(W/W)	2.5	2.37	2.53	2.5	2.8	2.48	
Indoor unit	Model			KF-32G/A12	KFR-32G/A12	KFR-25G/A12-J	KFR-32G/A12-J	
	Fan speed (r/min) (H/M/L)			1160/1010/890		960/870/780		1160/1010/890
	Output power (W)			14		8		14
	Working capacity (uF)			1				
	Fan type-piece			Cross flow fan-1				
	Diameter-length(mm)			Φ97-583				
	Evaporator			Aluminum fin-copper tube				
	Pipe diameter			Φ7				
	Row- fin distance(mm)			2-1.8		2-1.6		2-1.8
	Working area (m ²)			/				
	Stepping motor			MP24GA				
	Motor power (W)			2				
	Fuse (A)			PCB3.15A		Transformer 0.2A		
	Noise dB(A)			40		34/32/31		36
	Outline dimension (W/H/D) (mm)			770/180/250				
	Package dimension (W/H/D) (mm)			855/272/336				
	Net weight/Gross weight(kg)			8.5		8.5/12.5		8.5
Outdoor unit	Model			KF-32W/A12	KFR-32W/A12	KFR-25W/A12-J	KFR-32W/A12-J	
	Compressor type			Rotary				
	Overload protection			Built-in				
	Throttling method			Capillary				
	Starting method			Capacitor				
	Working temperature (°C)			-7°C ≤ T ≤ 43°C				
	Condensor			Aluminum fin-copper tube				
	Pipe diameter			Φ9.52				
	Row- fin distance (mm)			1-1.6				
	Working area (m ²)			0.4				
	Fan motor power (W)/ speed (rpm)			48/885		30/850		48/885
	Working capacity (uF)			3		2		3
	Outdoor unit air volume			/				
	Fan type-piece			Axial flow fan -1				
	Fan blade diameter (mm)			Φ400				
	Defrost method			Auto defrost				
	Noise dB(A)			56		55		56
Outline dimension (W/H/D) (mm)			848/540/320					
Package dimension (W/H/D) (mm)			878/610/360					
Net weight/Gross weight(kg)			32		38/42		32	
Refrigerant/refrigerant charge(kg)			R22/0.8	R22/0.87	R22/0.8	R22/0.87		
Connection pipe	Outer diameter	Liquid pipe (mm)	Φ6(1/4")					
		Gas pipe (mm)	Φ12(1/2")					
	Max. distance	Height (m)	10					
		Length (m)	20					

Bird Single-Split Type

Model		GSW9-22L/A	GSW9-22R/A	GSW12-22L/A	GSW12-22R/A
Function		Cooling		Cooling/heating	Cooling
Power supply(Phase-Voltage-Frequency)		1-220V-60Hz			
Capacity	(W)	2600	2600	3076	3500
Rated input power	(W)	938	848	876	1240
Rated current	(A)	4.32	3.8	3.9	5.62
Dehumidify volume	(L/h)	/	/	/	/
C.O.P/EER	(W/W)	2.77	3.07	3.51	2.82
Indoor unit	Model	GSW9-22L/A (I)	GSW9-22R/A (I)	GSW12-22L/A (I)	GSW12-22R/A (I)
	Fan speed(r/min) (H/M/L)	1250			
	Output power (W)	20			
	Working capacity(uF)	1			
	Fan type-piece	Cross flow fan ⁻¹			
	Diameter-length(mm)	Φ97-583			
	Evaporator	Aluminum fin-copper tube			
	Pipe diameter	Φ7			
	Row- fin distance(mm)	2-1.4			
	Working area (m ²)	0.14			
	Stepping motor	MP24GA			
	Motor power (W)	2			
	Fuse (A)	PCB3.15A Transformer 0.2A			
	Noise dB(A)	36		45	
	Outline dimension (W/H/D) (mm)	770/180/250			
	Package dimension (W/H/D) (mm)	855/272/336			
Net weight/Gross weight(kg)	8.5				
Outdoor unit	Model	GSW9-22L/A (O)	GSW9-22R/A (O)	GSW12-22L/A (O)	GSW12-22R/A (O)
	Compressor type	Rotary			
	L.R.A. (A)	/		/	
	Overload protection	Built-in		Built-in	
	Throttling method				
	Starting method	Capacitor			
	Working temperature (°C)	-7°C ≤ T ≤ 43°C			
	Condenser	Aluminum fin-copper tube			
	Pipe diameter	Φ9.52		Φ9.52	
	Row- fin distance(mm)	1-2.0			
	Working area (m ²)	0.4			
	Fan motor power (W)/ speed (rpm)	25/730		48/885	
	Working capacity (uF)	2.5		3	
	Fan type-piece	Axial flow fan ⁻¹			
	Fan blade diameter (mm)	Φ400			
	Defrost method	Auto defrost			
	Noise dB(A)	54		56	
	Outline dimension (W/H/D) (mm)	848/540/320			
Package dimension (W/H/D) (mm)	878/610/360				
Net weight/Gross weight(kg)	32		33		
Refrigerant/refrigerant charge(kg)	R22/0.8		R22/0.85		
Connection pipe	Outer diameter	Liquid pipe (mm)	Φ6(1/4")		
		Gas pipe (mm)	Φ9.52(3/8")		
	Max. distance	Height (m)	10		
		Length (m)	20		

Model				KF-20GW/NA12	KFR-20GW/NA12S1	KFR-20GW/NA12S2	KFR-20GW/NA12S1			
Function				Cooling		Cooling/heating	Cooling	Cooling/heating	Cooling	Cooling/heating
Power supply(Phase-Voltage-Frequency)				1-220V~230V-50Hz						
Capacity		(W)		2000	2000	2400	2000	2400	2000	2400
Rated input power		(W)		800	830	850	790	820	830	850
Rated current		(A)		4.77	3.61	3.62	3.6	3.5	3.61	3.62
Dehumidify volume		(L/h)		1.2						
C.O.P/EER		(W/W)		2.5	2.6	2.83	2.8	3.0	2.6	2.83
Indoor unit	Model			KF-20G/NA12	KFR-20G/NA12	KFR-20G/NA12	KFR-20G/NA12	KFR-20G/NA12		
	Fan speed (r/min) (H/M/L)			1160/1010/890	960/900/850	1190/1090/990	1160/1010/890			
	Output power (W)			14	8	14				
	Working capacity (uF)			1						
	Fan type-piece			Cross flow fan -1						
	Diameter-length(mm)			Φ97-583						
	Evaporator			Aluminum fin-copper tube						
	Pipe diameter			Φ7						
	Row- fin distance(mm)			2-1.6	2-1.8	2-1.4				
	Working area (m ²)			0.14						
	Stepping motor			MP24GA						
	Motor power (W)			2						
	Fuse (A)			PCB3.15A		Transformer 0.2A				
	Noise dB(A)			38/36/34	36	40/36/34	38/36/34			
	Outline dimension (W/H/D) (mm)			770/180/250						
	Package dimension (W/H/D) (mm)			855/272/336						
Net weight/Gross weight(kg)			8.5/12.5							
Outdoor unit	Model			KF-20W/NA12	KFR-20W/NA12	KFR-20W/NA12	KFR-20W/NA12			
	Compressor type			Rotary						
	L.R.A. (A)			20	19.5	15				
	Overload protection			B145-140-141E	MRA99170-9201	/				
	Throttling method			Capillary						
	Starting method			Capacitor						
	Working temperature (°C)			-7°C ≤ T ≤ 43°C						
	Condenser			Aluminum fin-copper tube						
	Pipe diameter			Φ7	Φ9.52					
	Row- fin distance (mm)			1-1.5	1-1.6	2-1.4	1-1.6			
	Working area (m ²)			0.4						
	Fan motor power (W)/ speed (rpm)			30/795	25/730	30/795				
	Working capacity (uF)			2.5						
	Outdoor unit air volume			/						
	Fan type-piece			Axial flow fan -1						
	Fan blade diameter(mm)			Φ400						
	Defrost method			Auto defrost						
	Noise dB(A)			56	52	56				
	Outline dimension (W/H/D) (mm)			848/540/320						
Package dimension(W/H/D) (mm)			878/610/360							
Net weight/Gross weight(kg)			38/42	32	38/42					
Refrigerant/refrigerant charge(kg)			R407C/0.78	R407C/0.85	R407C/1.1	R407C/0.78				
Connection pipe	Outer diameter	Liquid pipe	(mm)	Φ6 (1/4")						
		Gas pipe	(mm)	Φ9.52 (3/8")						
	Max. distance	Height	(m)	10						
		Length	(m)	20						

Bird Single-Split Type

Model				KFR-20GW/NA12S1	KF-25GW/NA12	KF-25GW/NA12	KF-25GW/NA12
Function				Cooling	Cooling/heating	Cooling	
Power supply(Phase-Voltage-Frequency)				1-220V~230V-50Hz			
Capacity		(W)	2000	2400	2500		
Rated input power		(W)	800	830	1000		
Rated current		(A)	4.5	4.7	6.21		
Dehumidify volume		(L/h)	1.2				
C.O.P/EER		(W/W)	2.5	2.9	2.5		
Indoor unit	Model			KFR-20G/NA12	KF-25G/NA12	KF-25G/NA12	KF-25G/NA12
	Fan speed (r/min) (H/M/L)			1160/1010/890		1060/990/910	
	Output power(W)			14		13	
	Working capacity (uF)			1			
	Fan type-piece			Cross flow fan -1			
	Diameter-length (mm)			Φ97-583			
	Evaporator			Aluminum fin-copper tube			
	Pipe diameter			Φ7			
	Row- fin distance (mm)			2-1.6		2-1.8	2-1.4
	Working area (m ²)			0.14			
	Stepping motor			MP24GA			
	Motor power (W)			2			
	Fuse (A)			PCB3. 15A		Transformer (0.2A)	
	Noise dB(A)			38/36/34		36	37/35/33
	Outline dimension(W/H/D) (mm)			770/180/250			
	Package dimension (W/H/D) (mm)			855/272/336			
Net weight/Gross weight(kg)			8.5/12.5				
Outdoor unit	Model			KFR-20W/NA12	KF-25W/NA12	KF-25W/NA12	KF-25W/NA12
	Compressor type			Rotary			
	L.R.A. (A)			20		23	18
	Overload protection			B145-140-141E	MST20ALU-9201	B165-145-241E	Built-in
	Throttling method			Capillary			
	Starting method			Capacitor			
	Working temperature (°C)			-7°C ≤ T ≤ 43°C			
	Condenser			Aluminum fin-copper tube			
	Pipe diameter			Φ9.52		Φ7	
	Row- fin distance (mm)			1-1.6		1-1.4	1-1.5
	Working area (m ²)			0.4			
	Fan motor power (W)/ speed (rpm)			25/730		30/795	
	Working capacity (uF)			2.5			
	Outdoor unit air volume			/			
	Fan type-piece			Axial flow fan -1			
	Fan blade diameter (mm)			Φ400			
	Defrost method			Auto defrost			
	Noise dB(A)			56		52	53
	Outline dimension (W/H/D) (mm)			848/540/320			
Package dimension (W/H/D) (mm)			878/610/360				
Net weight/Gross weight(kg)(kg)			38/42		32	38/42	
Refrigerant/refrigerant charge(kg)(kg)			R407C/0.85				
Connection pipe	Outer diameter	Liquid pipe (mm)	Φ6(1/4")				
		Gas pipe (mm)	Φ9.52(3/8")				
	Max. distance	Height (m)	10				
		Length (m)	20				

Model				KF-25GW/NA12	KFR-25GW/NA12S1	KFR-25GW/NA12S2	KFR-25GW/NA12S1
Function				Cooling	Cooling/heating	Cooling	Cooling/heating
Power supply(Phase-Voltage-Frequency)				1-220V~230V-50Hz			
Capacity	(W)	2500	2500	2800	2500	2800	2500
Rated input power	(W)	1000	950	900	930	905	930
Rated current	(A)	6.21	4.4	4.6	/	/	/
Dehumidify volume	(L/h)	/	/	/	/	/	/
C.O.P/EER	(W/W)	2.5	2.63	3.01	2.69	3.09	2.69
Indoor unit	Model		KF-25G/NA12	KFR-25G/NA12	KFR-25G/NA12	KFR-25G/NA12	KFR-25G/NA12
	Fan speed	(r/min) (H/M/L)	1060/990/910	1190/1090/990	1160/1010/890	1060/990/910	1060/990/910
	Output power (W)		13	14	13	13	13
	Working capacity (uF)		1				
	Fan type-piece		Cross flow fan -1				
	Diameter-length (mm)		Φ97-583				
	Evaporator		Aluminum fin-copper tube				
	Pipe diameter		Φ7				
	Row- fin distance(mm)		2-1.8	2-1.4	2-1.8	2-1.8	2-1.8
	Working area (m ²)		0.14				
	Stepping motor		MP24GA				
	Motor power (W)		2				
	Fuse (A)		PCB3.15A		Transformer 0.2A		
	Noise dB(A)		37/35/33	40/36/34	40	36	36
	Outline dimension (W/H/D) (mm)		770/180/250				
	Package dimension (W/H/D) (mm)		855/272/336				
Net weight/Gross weight(kg)		8.5/12.5					
Outdoor unit	Model		KF-25W/NA12	KFR-25W/NA12	KFR-25W/NA12	KFR-25W/NA12	KFR-25W/NA12
	Compressor type		Rotary				
	L.R.A. (A)		23	17	23	23	23
	Overload protection		B220-135-241E	MST20ALU-9201	B165-145-241E	B165-145-241E	B165-145-241E
	Throttling method		Capillary				
	Starting method		Capacitor				
	Working temperature (°C)		-7°C ≤ T ≤ 43°C				
	Condenser		Aluminum fin-copper tube				
	Pipe diameter		Φ7	Φ9.52	Φ7	Φ7	Φ7
	Row- fin distance (mm)		1-1.5	1-1.4	2-1.4	1-1.4	1-1.4
	Working area (m ²)		0.4				
	Fan motor power (W)/ speed (rpm)		30/795	25/730	30/795	30/795	30/795
	Working capacity (uF)		2.5				
	Outdoor unit air volume		/				
	Fan type-piece		Axial flow fan -1				
	Fan blade diameter (mm)		Φ400				
	Defrost method		Auto defrost				
	Noise dB(A)		53	56	53	52	52
	Outline dimension (W/H/D) (mm)		848/540/320				
Package dimension(W/H/D) (mm)		878/610/360					
Net weight/Gross weight(kg)		38/42				32	
Refrigerant/refrigerant charge(kg)		R407C/0.85	R407C/1.2	R407C/0.85	R407C/0.85	R407C/0.85	
Connection pipe	Outer diameter	Liquid pipe	(mm)	Φ6(1/4")			
		Gas pipe	(mm)	Φ9.52(3/8")			
	Max. distance	Height	(m)	10			
		Length	(m)	20			

Bird Single-Split Type

Model		KFR-25GW/NA12S1	KFR-25GW/NA12S1	KF-32GW/NA12	KF-32GW/NA12	
Function		Cooling	Cooling/heating	Cooling/heating	Cooling	
Power supply(Phase-Voltage-Frequency)		1-220V~230V-50Hz				
Capacity	(W)	2500	2800	2500	2800	
Rated input power	(W)	1000	1.5	1000	1050	
Rated current	(A)	5.86	6.11	5.86	6.11	
Dehumidify volume	(L/h)	1.2				
C.O.P/EER	(W/W)	2.5	2.67	2.5	2.67	
Indoor unit	Model	KFR-25G/NA12	KFR-25G/NA12	KF-32G/NA12	KF-32G/NA12	
	Fan speed (r/min) (H/M/L)	1060/990/910			1160/1010/890	
	Output power (W)	13			14	
	Working capacity (uF)	1				
	Fan type-piece	Cross flow fan -1				
	Diameter-length(mm)	Φ97-583				
	Evaporator	Aluminum fin-copper tube				
	Pipe diameter	Φ7				
	Row- fin distance(mm)	2-1.8			2-1.4	
	Working area (m ²)	0.14				
	Stepping motor	MP24GA				
	Motor power (W)	2				
	Fuse (A)	PCB3.15A		Transformer 0.2A		
	Noise dB(A)	40/37/35	37/35/33		40/37/35	
	Outline dimension (W/H/D) (mm)	770/180/250				
	Package dimension (W/H/D) (mm)	855/272/336				
	Net weight/Gross weight(kg)	8.5/12.5				
Outdoor unit	Model	KFR-25W/NA12	KFR-25W/NA12	KF-32W/NA12	KF-32W/NA12	
	Compressor type	Rotary				
	L.R.A. (A)	18	23	31	30	
	Overload protection	Built-in	B220-135-241E	MRA98619-9200	B260-150A-141E	
	Throttling method	Capillary				
	Starting method	Capacitor				
	Working temperature (°C)	-7°C ≤ T ≤ 43°C				
	Condenser	Aluminum fin-copper tube				
	Pipe diameter	Φ9.52			Φ7	
	Row- fin distance (mm)	1-1.6			1-1.4	
	Working area (m ²)	0.4				
	Fan motor power (W)/ speed (rpm)	30/795			48/885	
	Working capacity(uF)	2.5			3	
	Outdoor unit air volume	/				
	Fan type-piece	Axial flow fan -1				
	Fan blade diameter (mm)	Φ320			Φ400	
	Defrost method	Auto defrost				
Noise dB(A)	55			56		
Outline dimension (W/H/D) (mm)	848/540/320					
Package dimension (W/H/D) (mm)	878/610/360					
Net weight/Gross weight(kg)	38/42					
Refrigerant/refrigerant charge(kg)	R407C/0.85		R407C/0.75	R407C/0.8		
Connection pipe	Outer diameter	Liquid pipe (mm)	Φ6(1/4")			
		Gas pipe (mm)	Φ9.52(3/8")			
	Max. distance	Height (m)	10			
		Length (m)	20			

Model		KFR-32GW/NA12S1		KFR-32GW/NA12S2		KFR-32GW/NA12S1		KFR-32GW/NA21		
Function		Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	
Power supply(Phase-Voltage-Frequency)		1-220V~230V-50Hz								
Capacity	(W)	3200	3500	3200	3600	3200	3600	3200	3800	
Rated input power	(W)	1110	1210	1330	1430	1330	1430	1150	1300	
Rated current	(A)	5.9	6.1	5.87	6.52	5.9	6.1			
Dehumidify volume	(L/h)	1.2								
C.O.P/EER	(W/W)	2.8	3.0	2.4	2.7	2.4	2.7	2.78	2.92	
Indoor unit	Model		KFR-32G/NA12		KFR-32G/NA12		KFR-32G/NA12		KFR-32G/NA21	
	Fan speed (r/min)(H/M/L)		1190/1090/990		1160/1010/890					
	Output power (W)		14							
	Working capacity(uF)		1							
	Fan type-piece		Cross flow fan -1							
	Diameter-length(mm)		Φ97-583							
	Evaporator		Aluminum fin-copper tube							
	Pipe diameter		Φ7							
	Row- fin distance(mm)		2-1.4		2-1.8		2-1.4			
	Working area (m ²)		0.14							
	Stepping motor		MP24GA							
	Motor power (W)		2							
	Fuse (A)		PCB3.15A				Transformer 0.2A			
	Noise dB(A)		40/37/35		40		40/37/35		40	
	Outline dimension (W/H/D) (mm)		770/180/250							
	Package dimension (W/H/D) (mm)		855/272/336							
Net weight/Gross weight(kg)		8.5/12.5								
Outdoor unit	Model		KFR-32W/NA12		KFR-32W/NA12		KFR-32W/NA12		KFR-32W/NA21	
	Compressor type		Rotary							
	L.R.A. (A)		24		30		33.5			
	Overload protection		B260-150-241E		/		B260-150A-141E		MRA98619-9200	
	Throttling method		Capillary							
	Starting method		Capacitor							
	Working temperature(°C)		-7°C ≤ T ≤ 43°C							
	Condenser		Aluminum fin-copper tube							
	Pipe diameter		Φ9.52							
	Row- fin distance (mm)		1-1.4		2-1.4		1-1.6			
	Working area (m ²)		0.4							
	Fan motor power (W)/ speed (rpm)		25/730		48/885		50/900			
	Working capacity (uF)		2.5		3					
	Outdoor unit air volume		/							
	Fan type-piece		Axial flow fan-1							
	Fan blade diameter (mm)		Φ400							
	Defrost method		Auto defrost							
	Noise dBA)		56							
	Outline dimension (W/H/D) (mm)		848/540/320							
Package dimension (W/H/D) (mm)		878/610/360								
Net weight/Gross weight(kg)		38/42		40		38/42		40		
Refrigerant/refrigerant charge(kg)		R407C/1.33		R407C/0.9		R407C/0.87				
Connection pipe	Outer diameter	Liquid pipe	Φ6(1/4")							
		Gas pipe	Φ12(1/2")							
	Max. distance	Height	10							
		Length	20							

Bird Single-Split Type

Model		KF-20GW/A20		KF-20GW/A20		
Function		C ooling				
Power supply(Phase-Voltage-Frequency)		1-220V~230V-50Hz				
Capacity	(W)	2200		2200		
Rated input power	(W)	810		800		
Rated current	(A)	3.58		3.58		
Dehumidify volume	(L/h)	1.2		1.2		
C.O.P/EER	(W/W)	2.71		2.71		
Indoor unit	Model		KF-20G/A20		KF-20G/A20	
	Fan speed (r/min) (H/M/L)		960/900/850			
	Output power (W)		8			
	Fan type-piece		Cross flow fan -1			
	Diameter-length(mm)		Φ97-583			
	Evaporator		Aluminum fin-copper tube			
	Pipe diameter		Φ7			
	Row- fin distance(mm)		2-1.6			
	Working area (m ²)		579X146			
	Stepping motor		MP24GA			
	Motor power (W)		2			
	Fuse (A)		PCB3.15A		Transformer 0.2A	
	Noise dB(A)		36/34.5/32.5			
	Outline dimension (W/H/D) (mm)		770/180/250			
	Package dimension(W/H/D) (mm)		855/272/336			
Net weight/Gross weight(kg)		8.5/13				
Outdoor unit	Model		KF-20W/A20		KF-20W/A20	
	Compressor type		Rotary			
	L.R.A. (A)		19.5			
	Overload protection		Built-outside			
	Throttling method		Capillary			
	Starting method		Capacitor			
	Working temperature (°C)		-7°C ≤ T ≤ 43°C			
	Condenser		Aluminum fin-copper tube			
	Pipe diameter		Φ9.52		Φ7	
	Row- fin distance (mm)		1-1.4			
	Working area (m ²)		/			
	Fan motor power (W)/ speed (rpm)		20/950			
	Rated current (A)		1.5			
	Outdoor unit air volume		/			
	Fan type-piece		Axial flow fan -1			
	Fan blade diameter (mm)		Φ320			
	Defrost method		Auto defrost			
	Noise dB(A)		52			
	Outline dimension (W/H/D) (mm)		718/406/220			
	Package dimension (W/H/D) (mm)		765/500/350			
Net weight/Gross weight(kg)		25/29				
Refrigerant/refrigerant charge(kg)		R22/0.5				
Connection pipe	Outer diameter	Liquid pipe	(mm)	Φ6 (1/4")		
		Gas pipe	(mm)	Φ12 (1/2")		
	Max. distance	Height	(m)	10		
		Length	(m)	20		

Model				KFR-20GW/A20	KF-25GW/A20	KF-25GW/A20	KFR-25GW/A20
Function				Cooling	Cooling/heating	Cooling	Cooling/heating
Power supply(Phase-Voltage-Frequency)				1-220V~230V-50Hz			
Capacity		(W)	2200	2400	2500	2600	3000
Rated input power		(W)	810	800	1000	1000	980
Rated current		(A)	3.58		4.14		
Dehumidify volume		(L/h)			1.2		
C.O.P/EER		(W/W)	2.71	3	2.5	2.6	3.06
Indoor unit	Model		KFR-20G/A20	KF-25G/A20	KF-25G/A20	KFR-25G/A20	
	Fan speed (r/min) (H/M/L)		960/900/850		1060/990/910		
	Output power (W)		8		13		
	Working capacity (uF)		1				
	Fan type-piece		Cross flow fan -1				
	Diameter-length(mm)		Φ97-583				
	Evaporator		Aluminum fin-copper tube				
	Pipe diameter		Φ7				
	Row- fin distance(mm)		2-1.8		2-1.6		2-1.8
	Working area (m ²)		/		579X146		/
	Stepping motor		MP24GA				
	Motor power (W)		2				
	Fuse (A)		PCB3.15A Transformer 0.2A				
	Noise dB(A)		36		35/33.2/31.7		37
	Outline dimension (W/H/D) (mm)		770/180/250				
Package dimension (mm)		855/272/336					
Net weight/Gross weight(kg)		8.5/13				7	
Outdoor unit	Model		KFR-20W/A20	KF-25W/A20	KF-25W/A20	KFR-25W/A20	
	Compressor type		Rotary				
	L.R.A. (A)		19.5		18		22
	Overload protection		Built-outside		MRA98776		/
	Throttling method		Capillary				
	Starting method		Capacitor				
	Working temperature (°C)		-7°C ≤ T ≤ 43°C				
	Condenser		Aluminum fin-copper tube				
	Pipe diameter		Φ9.52		Φ7	Φ9.52	
	Row- fin distance (mm)		1-1.4				
	Working area (m ²)		/		407X406		/
	Fan motor power (W)/ speed (rpm)		20/950				
	Working capacity (uF)		1.5				
	Outdoor unit air volume		/				
	Fan type-piece		Axial flow fan -1				
	Fan blade diameter (mm)		Φ320				
	Defrost method		Auto defrost				
Noise dB(A)		52					
Outline dimension (W/H/D) (mm)		718/406/220					
Package dimension (W/H/D) (mm)		765/500/350					
Net weight/Gross weight(kg)		32		25/29		32	
Refrigerant/refrigerant charge(kg)		R22/0.65		R22/0.6		R22/0.73	
Connection pipe	Outer diameter	Liquid pipe	(mm)	Φ6(1/4")			
		Gas pipe	(mm)	Φ9.52(3/8")	Φ12(1/2")	Φ9.52(3/8")	
	Max. distance	Height	(m)	10			
		Length	(m)	20			

Bird Single-Split Type

Model		KF-20GW/NA20	KFR-20GW/NA20S1	KFR-20GW/NA20S1	
Function		Cooling	Cooling/heating	Cooling	Cooling/heating
Power supply(Phase-Voltage-Frequency)		1-220V~230V-50Hz			
Capacity	(W)	2100	2100	2250	2100
Rated input power	(W)	830	850	850	850
Rated current	(A)	3.15	/	/	/
Dehumidify volume	(L/h)	1.2		/	
C.O.P/EER	(W/W)	2.56	2.47	2.65	2.47
Indoor unit	Model	KF-20G/NA20	KFR-20G/NA20	KFR-20G/NA20	
	Fan speed (r/min) (H/M/L)	960/900/850			
	Output power (W)	8			
	Working capacity(μF)	1			
	Fan type-piece	Cross flow fan-1			
	Diameter-length(mm)	Φ97-583			
	Evaporator	Aluminum fin-copper tube			
	Pipe diameter	Φ7			
	Row- fin distance(mm)	2-1.6			
	Working area (m ²)	0.18			
	Stepping motor	MP24GA			
	Motor power (W)	2			
	Fuse (A)	PCB3.15A		Transformer 0.2A	
	Noise dB(A)	34/32.4/31.3	36		
	Outline dimension (W/H/D) (mm)	770/180/250			
	Package dimension (W/H/D) (mm)	855/272/336			
	Net weight/Gross weight(kg)	8.5/13			
Outdoor unit	Model	KF-20W/NA20	KFR-20W/NA20	KFR-20W/NA20	
	Compressor type	Rotary			
	L.R.A. (A)	19.5		15	
	Overload protection	Built-outside	MRA99170-9201		/
	Throttling method	Capillary			
	Starting method	Capacitor			
	Working temperature (°C)	-7°C ≤ T ≤ 43°C			
	Condenser	Aluminum fin-copper tube			
	Pipe diameter	Φ9.52			
	Row- fin distance (mm)	1-1.4			
	Working capacity(m ²)	0.3			
	Fan motor power (W)/ speed (rpm)	20/950			
	Working capacity (μF)	1.5			
	Outdoor unit air volume	/			
	Fan type-piece	Axial flow fan -1			
	Fan blade diameter (mm)	Φ320			
	Defrost method	Auto defrost			
Noise dB(A)	52				
Outline dimension (W/H/D) (mm)	660/430/260				
Package dimension (W/H/D) (mm)	765/500/350				
Net weight/Gross weight(kg)	25/29	32			
Refrigerant/refrigerant charge(kg)	R407C/0.55	R407C/0.65			
Connection pipe	Outer diameter	Liquid pipe (mm)	Φ6(1/4")		
		Gas pipe (mm)	Φ9.52(3/8")		
	Max. distance	Height (m)	10		
		Length (m)	20		

Model		KF-25GW/NA20	KF-25GW/NA20	KFR-25GW/NA20S1	
Function		Cooling			
Power supply(Phase-Voltage-Frequency)		1-220V~230V-50Hz			
Capacity	(W)	2500	2500	2500 2850	
Rated input power	(W)	980	980	950 1050	
Rated current	(A)	3.15	3.15	4.47 4.9	
Dehumidify volume	(L/h)	1.2		0.7	
C.O.P/EER	(W/W)	2.44	2.44	2.63 2.71	
Indoor unit	Model		KF-25G/NA20	KF-25G/NA20	KFR-25G/NA20
	Fan speed (r/min) (H/M/L)		1060/990/910		1050/945/860
	Output power (W)		13		14
	Working capacity (uF)		1		
	Fan type-piece		Cross flow fan -1		
	Diameter-length(mm)		Φ97-583		
	Evaporator		Aluminum fin-copper tube		
	Pipe diameter		Φ7		
	Row- fin distance (mm)		2-1.8		
	Working area (m ²)		0.18		0.14
	Stepping motor		MP24GA		
	Motor power (W)		2		
	Fuse (A)		PCB3.15A	Transformer 0.2A	
	Noise dB(A)		37		
	Outline dimension (W/H/D) (mm)		770/180/250		
	Package dimension (W/H/D) (mm)		855/272/336		
Net weight/Gross weight(kg)		8.5			
Outdoor unit	Model		KF-25W/NA20	KF-25W/NA20	KFR-25W/NA20
	Compressor type		Rotary		
	L.R.A. (A)		24		
	Overload protection		Built-outside		
	Throttling method		Capillary		
	Starting method		Capacitor		
	Working temperature (°C)		-7°C≤T≤43°C		
	Condenser		Aluminum fin-copper tube		
	Pipe diameter		Φ9.52		
	Row- fin distance (mm)		1-1.4		2-1.6
	Working area (m ²)		0.3		0.4
	Fan motor power (W)/ speed (rpm)		20/950		
	Working capacity (uF)		1.5		
	Outdoor unit air volume		/		
	Fan type-piece		Axial flow fan-1		
	Fan blade diameter (mm)		Φ320		
	Defrost method		Auto defrost		
	Noise dB(A)		52	52	51.6
	Outline dimension(W/H/D) (mm)		660/430/260		
Package dimension(W/H/D) (mm)		765/500/350			
Net weight/Gross weight(kg)		25		32	
Refrigerant/refrigerant charge(kg)		R407C/0.65		R407C/0.98	
Connection pipe	Outer diameter	Liquid pipe	Φ6(1/4")		
		Gas pipe	Φ9.52(3/8")		
	Max. distance	Height	10		
		Length	20		

Bird Single-Split Type

Model		KFR-25GW/NA20S1		KFR-25GW/NA20S1		KFR-25GW/NA21	
Function		Cooling	Cooling/heating	Cooling	Cooling/heating	Cooling	Cooling/heating
Power supply(Phase-Voltage-Frequency)		1-220V~230V-50Hz					
Capacity	(W)	2500	2850	2500	2800	2100	2250
Rated input power	(W)	950	1050	955	1050	850	850
Rated current	(A)	4.1	4.6	4.1	4.6	3.7	
Dehumidify volume	(L/h)	0.7				1.6	
C.O.P/EER	(W/W)	2.63	2.71	2.61	2.67	2.47	2.65
Indoor unit	Model	KFR-25G/NA20		KFR-25G/NA20		KFR-25G/NA21	
	Fan speed (r/min) (H/M/L)	1050/945/860				960/900/850	
	Output power (W)	14				8	
	Working capacity(uF)	1					
	Fan type-piece	Cross flow fan-1					
	Diameter-length (mm)	Φ97-583					
	Evaporator	Aluminum fin-copper tube					
	Pipe diameter	Φ7					
	Row- fin distance(mm)	2-1.8				2-1.5	
	Working area (m ²)	0.14				0.13	
	Stepping motor	MP24GA					
	Motor power (W)	2					
	Fuse (A)	PCB3.15A		Transformer 0.2A			
	Noise dB(A)	37				≤36	
	Outline dimension(W/H/D) (mm)	770/180/250					
Package dimension (W/H/D) (mm)	855/272/336						
Net weight/Gross weight(kg)	8.5				7/11		
Outdoor unit	Model	KFR-25W/NA20		KFR-25W/NA20		KFR-25W/NA21	
	Compressor type	Rotary					
	L.R.A. (A)	24		18		24	
	Overload protection	B165-145-241E		Built-in		Built-outside	
	Throttling method	Capillary					
	Starting method	Capacitor					
	Working temperature (°C)	-7°C≤T≤43°C					
	Condenser	Aluminum fin-copper tube					
	Pipe diameter	Φ9.52					
	Row- fin distance (mm)	2-1.6				2-1.4	
	Working area (m ²)	0.4				0.3	
	Fan motor power (W)/ speed (rpm)	20/950				30/950	
	Outdoor unit air volume	/					
	Fan type-piece	Axial flow fan -1					
	Fan blade diameter (mm)	Φ320					
	Defrost method	Auto defrost					
	Noise dB(A)	52		53		52	
	Outline dimension (W/H/D) (mm)	660/430/260					
Package dimension (W/H/D) (mm)	765/500/350						
Net weight/Gross weight(kg)	32				25/29		
Refrigerant/refrigerant charge(kg)	R407C/0.98				R407C/0.65		
Connection pipe	Outer diameter	Liquid pipe	Φ6(1/4")				
		Gas pipe	Φ9.52(3/8")				
	Max. distance	Height	10				
		Length	20				

Model		KFR-25GW/NA21		KFR-20GW/NaA12-ES1		KF-25GW/NaA12-E	
Function		Cooling	Cooling/heating	Cooling	Cooling/heating	Cooling	
Power supply(Phase-Voltage-Frequency)		1-220V~230V-50Hz					
Capacity	(W)	2500	2850	2000	2400	2500	
Rated input power	(W)	950	1050	680	710	760	
Rated current	(A)	4.13	4.57	2.95	3.05	3.52	
Dehumidify volume	(L/h)				1.2		
C.O.P/EER	(W/W)	2.63	2.71	3.0	3.2	3.2	
Indoor unit	Model		KFR-25G/NA21		KFR-20G/NaA12-E		KF-25G/NaA12-E
	Fan speed (r/min) (H/M/L)		1160/1010/890		1000/940/880		1160/1010/890
	Output power (W)		14		8		14
	Working capacity (uF)		1				
	Fan type-piece		Cross flow fan -1				
	Diameter-length (mm)		Φ97-583				
	Evaporator		Aluminum fin-copper tube				
	Pipe diameter		Φ7				
	Row- fin distance(mm)		2-1.5		2-1.4		
	Working area (m ²)		0.13		0.14		
	Stepping motor		MP24GA				
	Motor power (W)		2				
	Fuse (A)		PCB3.15A		Transformer 0.2A		
	Noise dB(A)		≤37		37/36/35		38/36/34
	Outline dimension (W/H/D) (mm)		770/180/250				
Package dimension (W/H/D) (mm)		855/272/336					
Net weight/Gross weight(kg)		7/11		8.5/12.5			
Outdoor unit	Model		KFR-25W/NA21		KFR-20W/NaA12-E		KF-25W/NaA12-E
	Compressor type		Rotary				
	L.R.A. (A)		24		17		
	Overload protection		Built-outside		MRA12009-12026		/
	Throttling method		Capillary				
	Starting method		Capacitor				
	Working temperature (°C)		-7°C ≤ T ≤ 43°C				
	Condenser		Aluminum fin-copper tube				
	Pipe diameter		Φ9.52				
	Row- fin distance (mm)		2-1.6		2-1.4		
	Working area m ²		0.3		0.4		
	Fan motor power (W)/ speed (rpm)		30/950		20/950		25/730
	Outdoor unit air volume		/				
	Fan type-piece		Axial flow fan -1				
	Fan type-piece (mm)		Φ320				
	Defrost method		Auto defrost				
	Noise dB(A)		52			54	
	Outline dimension (W/H/D) (mm)		660/430/260			848/540/320	
Package dimension (W/H/D) (mm)		765/500/350			878/610/360		
Net weight/Gross weight(kg)		25/29		38/42			
Refrigerant/refrigerant charge(kg)		R407C/0.98		R410A/0.88		R410A/1.3	
Connection pipe	Outer diameter	Liquid pipe	(mm)	Φ6(1/4")			
		Gas pipe	(mm)	Φ9.52(3/8")			
	Max. distance	Height	(m)	10			
		Length	(m)	20			

Bird Single-Split Type

Model				KFR-25GW/NaA12-ES1	KF-32GW/NaA12-E	KFR-32GW/NaA12-E	
Function				Cooling	Cooling/heating	Cooling/heating	
Power supply(Phase-Voltage-Frequency)				1-220V~230V-50Hz			
Capacity	(W)	2500	2800	3200	3500		
Rated input power	(W)	760	810	1075	1270		
Rated current	(A)	3.74	4.22	4.74	5.52		
Dehumidify volume	(L/h)	1.2		1.4	1.2		
C.O.P/EER	(W/W)	3.2	3.4	3.0	3.2		
Indoor unit	Model		KFR-25G/NaA12-E	KF-32G/NaA12-E	KFR-32G/NaA12-E		
	Fan speed (r/min) (H/M/L)		1190/1090/990				
	Output power (W)		14				
	Working capacity (uF)		1				
	Fan type-piece		Cross flow fan -1				
	Diameter-length (mm)		Φ97-583			Φ97-580	
	Evaporator		Aluminum fin-copper tube				
	Pipe diameter		Φ7				
	Row- fin distance (mm)		2-1.8		2-1.4		
	Working area (m²)		0.14				
	Stepping motor		MP24GA				
	Motor power (W)		2				
	Fuse (A)		PCB3.15A Transformer 0.2A				
	Noise dB(A)		38		39/36/34		
	Outline dimension (W/H/D) (mm)		770/180/250				
Package dimension (W/H/D) (mm)		855/272/336					
Net weight/Gross weight(kg)		8.5/12.5					
Outdoor unit	Model		KFR-25W/NaA12-E	KF-32W/NaA12-E	KFR-32W/NaA12-E		
	Compressor type		Rotary				
	L.R.A. (A)		17		24		
	Overload protection		MEA98635-9201		B210-145-241E		
	Throttling method		Capillary				
	Starting method		Capacitor				
	Working temperature (°C)		-7°C ≤ T ≤ 43°C				
	Condenser		Aluminum fin-copper tube				
	Pipe diameter		Φ9.52				
	Row- fin distance (mm)		2-1.4				
	Working area (m²)		0.4				
	Fan motor power (W)/ speed (rpm)		25/730		30/850		
	Working capacity (uF)		2.5				
	Outdoor unit air volume		/				
	Fan type-piece		Axial flow fan -1				
	Fan blade diameter (mm)		Φ320		Φ400		
	Defrost method		Auto defrost				
Noise dB(A)		57		55			
Outline dimension (W/H/D) (mm)		848/540/320					
Package dimension (W/H/D) (mm)		878/610/360					
Net weight/Gross weight(kg)		38/42					
Refrigerant/refrigerant charge(kg)		R410A/1.16	R410A/1.35	R410A/1.3			
Connection pipe	Outer diameter	Liquid pipe (mm)	Φ6 (1/4")				
		Gas pipe (mm)	Φ9.52 (3/8")		Φ12 (1/2")		
	Max. distance	Height (m)	10				
		Length (m)	20				

Model		KF-20GW/NA51		KFR-20GW/NA51		
Function		Cooling		Cooling/heating		
Power supply(Phase-Voltage-Frequency)		1-220V~230V-50Hz				
Capacity	(W)	2000		2400		
Rated input power	(W)	790		750		
Rated current	(A)	3.6		3.5		
Dehumidify volume	(L/h)	/		/		
C.O.P/EER	(W/W)	2.53		2.67		
Indoor unit	Model		KF-20G/NA51		KFR-20G/NA51	
	Fan speed (r/min) (H/M/L)		1190/1090/990			
	Output power (W)		14			
	Fan type-piece		Cross flow fan -1			
	Diameter-length (mm)		Φ97-583			
	Evaporator		Aluminum fin-copper tube			
	Pipe diameter		Φ7			
	Row- fin distance (mm)		2-1.8			
	Working area (m ²)		0.14			
	Stepping motor		MP24GA			
	Motor power (W)		2			
	Fuse (A)		PCB3.15A		Transformer 0.2A	
	Noise dB (A)		40			
	Outline dimension(W/H/D) (mm)		770/180/250			
	Package dimension(W/H/D) (mm)		855/272/336			
	Net weight/Gross weight(kg)		8.5/12.5			
Outdoor unit	Model		KF-20W/NA51		KFR-20W/NA51	
	Compressor type		Rotary			
	L.R.A. (A)		18.5			
	Overload protection		MRA99170-9201			
	Throttling method		Capillary			
	Starting method		Capacitor			
	Working temperature (°C)		-7°C ≤ T ≤ 43°C			
	Condenser		Aluminum fin-copper tube			
	Pipe diameter		Φ9.52			
	Row- fin distance (mm)		2-1.4			
	Working area (m ²)		/			
	Fan motor power (W)/ speed (rpm)		25/730			
	Rated current (A)		3.6			
	Outdoor unit air volume		/			
	Fan type-piece		Axial flow fan -1			
	Fan blade diameter (mm)		Φ400			
	Defrost method		Auto defrost			
	Noise dB (A)		56			
	Outline dimension (W/H/D) (mm)		848/540/320			
	Package dimension (W/H/D) (mm)		878/610/360			
Net weight/Gross weight(kg)		32/36				
Refrigerant/refrigerant charge(kg)		R407C/1.1				
Connection pipe	Outer diameter	Liquid pipe (mm)	Φ6(1/4")			
		Gas pipe (mm)	Φ9.52(3/8")			
	Max. distance	Height (m)	10			
		Length (m)	20			

Bird Single-Split Type

Model		KF-25GW/NA51	KFR-25GW/NA51	KF-32GW/NA51	KFR-32GW/NA51	
Function		Cooling	Cooling/heating	Cooling	Cooling/heating	
Power supply(Phase-Voltage-Frequency)		1-220V~230V-50Hz				
Capacity	(W)	2500	2800	3200	3500	
Rated input power	(W)	950	900	1110	1210	
Rated current	(A)	4.4	4.6	5.9	6.1	
Dehumidify volume	(L/h)					
C.O.P/EER	(W/W)	2.63	3.1	2.88	2.89	
Indoor unit	Model		KF-25G/NA51	KFR-25G/NA51	KF-32G/NA51	KFR-32G/NA51
	Fan speed (r/min) (H/M/L)		1190/1090/990			
	Output power (W)		14			
	Working capacity (uF)		1			
	Fan type-piece		Cross flow fan -1			
	Diameter-length(mm)		Φ97-583			
	Evaporator		Aluminum fin-copper tube			
	Pipe diameter		Φ7			
	Row- fin distance (mm)		2-1.8			
	Working area (m ²)		0.14			
	Stepping motor		MP24GA			
	Motor power (W)		2			
	Fuse (A)		PCB3.15A Transformer 0.2A			
	Noise dB(A)		40			
	Outline dimension (W/H/D) (mm)		770/180/250			
	Package dimension (W/H/D) (mm)		855/272/336			
Net weight/Gross weight(kg)		8.5/12.5				
Outdoor unit	Model		KF-25W/NA51	KFR-25W/NA51	KF-32W/NA51	KFR-32W/NA51
	Compressor type		Rotary			
	L.R.A. (A)		23		24	
	Overload protection		MST20ALU-9201		B230-150-241E	
	Throttling method		Capillary			
	Starting method		Capacitor			
	Working temperature (°C)		-7°C ≤ T ≤ 43°C			
	Condenser		Aluminum fin-copper tube			
	Pipe diameter		Φ9.52			
	Row- fin distance (mm)		2-1.4			
	Working area (m ²)		0.35			
	Fan motor power (W)/ speed (rpm)		25/730			
	Outdoor unit air volume		/			
	Fan type-piece		Axial flow fan -1			
	Fan blade diameter (mm)		Φ400			
	Defrost method		Auto defrost			
	Noise dB(A)		53	56		
	Outline dimension (W/H/D) (mm)		835/545/320			
	Package dimension (W/H/D) (mm)		990/600/405			
	Net weight/Gross weight(kg)		/		/	
Refrigerant/refrigerant charge(kg)		R407C/1.2		R407C/1.33		
Connection pipe	Outer diameter	Liquid pipe	(mm)			Φ6(1/4")
		Gas pipe	(mm)			Φ9.52(3/8")
	Max. distance	Height	(m)			10
		Length	(m)			20

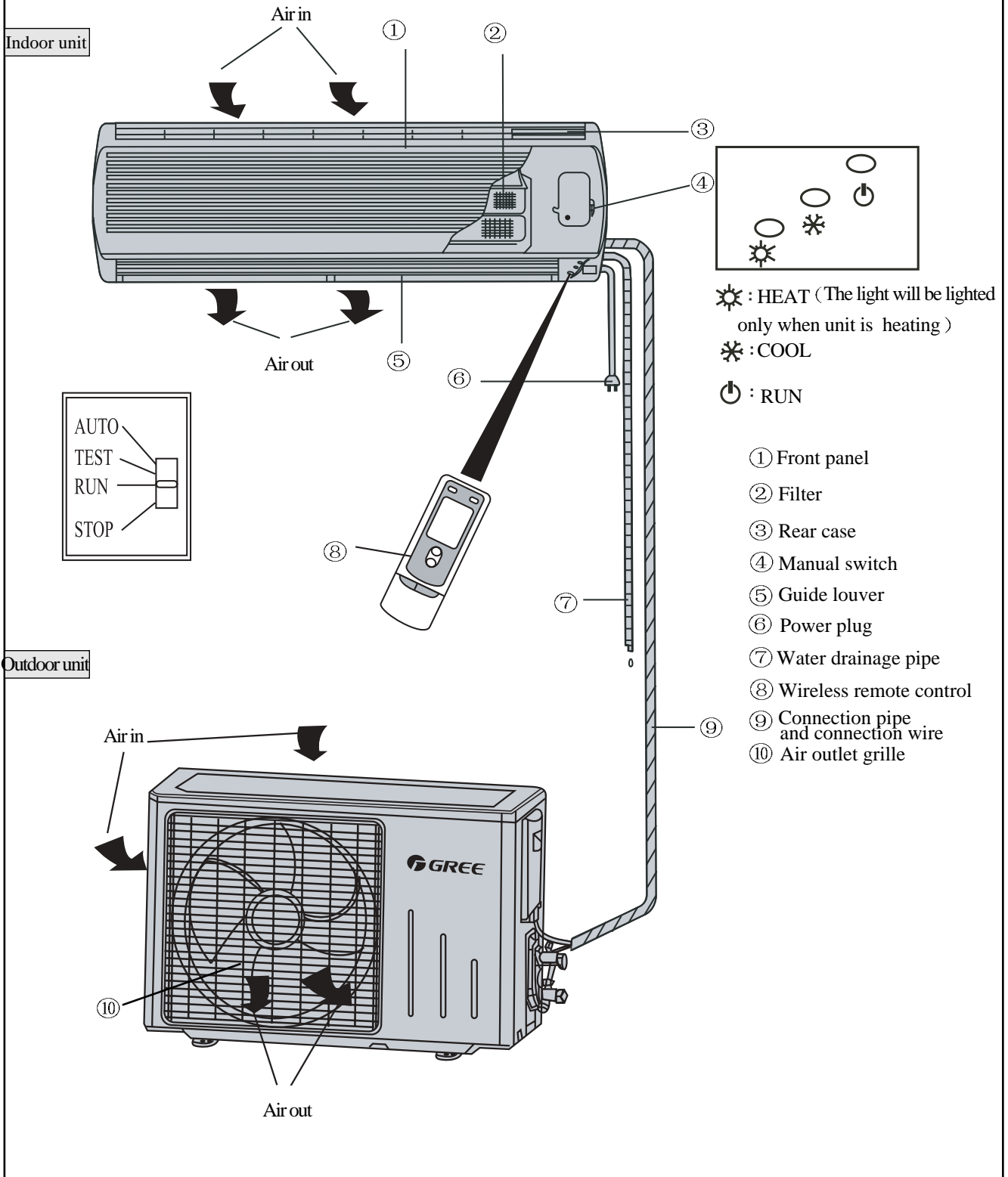
Model				KF-20GW/NA23		KFR-20GW/NA23	
Function				C ooling		Cooling/heating	
Power supply(Phase-Voltage-Frequency)				1-220V~230V-50Hz			
Capacity		(W)		2000		2300	
Rated input power		(W)		870		930	
Rated current		(A)		3.6		3.6	
Dehumidify volume		(L/h)		1.6			
C.O.P/EER		(W/W)		2.30		2.47	
Indoor unit	Model			KF-20G/NA23		KFR-20G/NA23	
	Fan speed (r/min) (H/M/L)			960/900/850		1160/1010/890	
	Output power (W)			8		14	
	Output power			Cross flow fan -1			
	Diameter-length (mm)			Φ97-583			
	Evaporator			Cross flow fan			
	Pipe diameter			Φ7			
	Row- fin distance (mm)			2-1.8			
	Working area (m ²)			0.14			
	Stepping motor			MP24GA			
	Motor power (W)			2			
	Fuse (A)			PCB3.15A		Transformer 0.2A	
	Noise dB(A)			≤36			
	Outline dimension (W/H/D) (mm)			770/180/250			
	Package dimension (W/H/D) (mm)			855/272/336			
	Net weight/Gross weight(kg)			8.5/12.5			
Outdoor unit	Model			KF-20W/NA23		KFR-20W/NA23	
	Compressor type			Rotary			
	L.R.A. (A)			20			
	Overload protection			B145-140-141E			
	Throttling method			Capillary			
	Starting method			Capacitor			
	Working temperature (°C)			-7°C ≤ T ≤ 43°C			
	Condenser			Aluminum fin-copper tube			
	Pipe diameter			Φ7			
	Row- fin distance (mm)			1-1.5		1-1.6	
	Working area (m ²)			0.35			
	Fan motor power (W)/ speed (rpm)			25/730			
	Rated current (A)			3.78		4.04	
	Outdoor unit air volume			/			
	Fan type-piece			Axial flow fan-1			
	Fan blade diameter (mm)			Φ400			
	Defrost method			Auto defrost			
	Noise dB(A)			52			
	Outline dimension (W/H/D) (mm)			848/540/320			
	Package dimension (W/H/D) (mm)			878/610/360			
Net weight/Gross weight(kg)			32/36				
Refrigerant/refrigerant charge(kg)			R407C/0.85				
Connection pipe	Outer diameter	Liquid pipe	(mm)	Φ6 (1/4")			
		Gas pipe	(mm)	Φ9.52 (3/8")			
	Max. distance	Height	(m)	10			
		Length	(m)	20			

Bird Single-Split Type

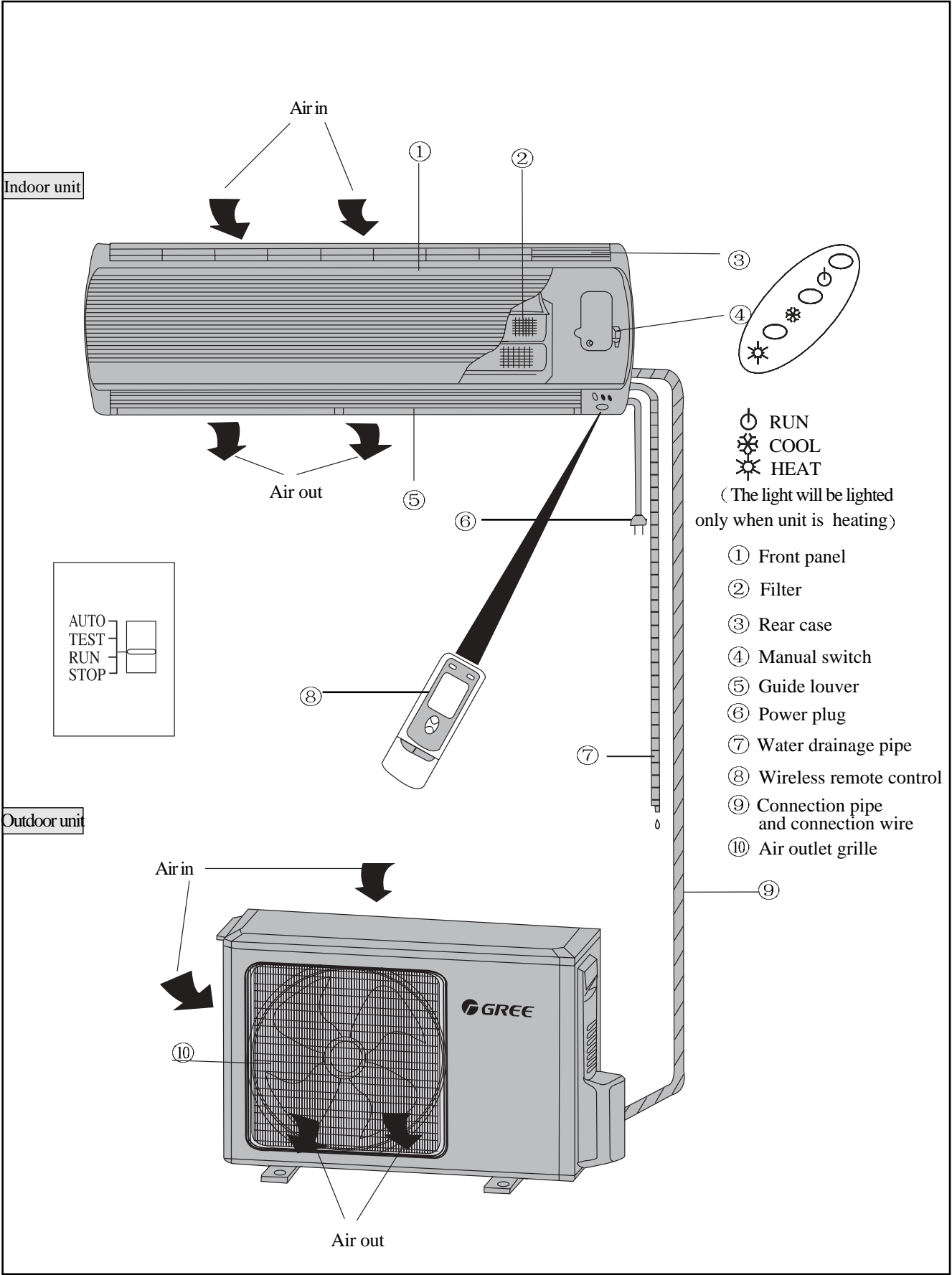
Model		KF-25GW/NA23	KFR-25GW/NA23	KF-32GW/NA23	KFR-32GW/NA23	
Function		C ooling		Cooling/heating	C ooling	
Power supply(Phase-Voltage-Frequency)		1-220V~230V-50Hz				
Capacity	(W)	2500	2800	3200	3600	
Rated input power	(W)	1100	1100	1440	1430	
Rated current	(A)	4.6	4.5	5.9	5.7	
Dehumidify volume	(L/h)	1.6	/	1.6	/	
C.O.P/EER	(W/W)	2.25	2.54	2.22	2.52	
Indoor unit	Model	KF-25G/NA23	KFR-25G/NA23	KF-32G/NA23	KFR-32G/NA23	
	Fan speed (r/min) (H/M/L)	1060/990/910			1160/1010/890	
	Output power (W)	13			14	
	Working capacity (uF)	1				
	Fan type-piece	Cross flow fan ⁻¹				
	Diameter-length (mm)	Φ97-583				
	Evaporator	Aluminum fin-copper tube				
	Pipe diameter	Φ7				
	Row- fin distance(mm)	2-1.8	2-1.4	2-1.8	2-1.6	
	Working area (m ²)	0.14				
	Stepping motor	MP24GA				
	Motor power (W)	2				
	Fuse (A)	PCB3.15A		Transformer 0.2A		
	Noise dB (A)	≤38		≤40		
	Outline dimension(W/H/D) (mm)	770/180/250				
	Package dimension (W/H/D) (mm)	855/272/336				
Net weight/Gross weight(kg)	8.5/12.5					
Outdoor unit	Model	KF-25W/NA23	KFR-25W/NA23	KF-32W/NA23	KFR-32W/NA23	
	Compressor type	Rotary				
	L.R.A. (A)	23			/	
	Overload protection	220-135-241E			Built-in	
	Throttling method	Capillary				
	Starting method	Capacitor				
	Working temperature (°C)	-7°C ≤ T ≤ 43°C				
	Condenser	Aluminum fin-copper tube				
	Pipe diameter	Φ7		Φ9.52		
	Row- fin distance (mm)	1-1.5			1-1.6	
	Working area (m ²)	0.35				
	Fan motor power (W)/ speed (rpm)	30/850			48/885	
	Rated current (A)	4.83	4.78	6.26	6.26	
	Outdoor unit air volume	/				
	Fan type-piece	Axial flow fan ⁻¹				
	Fan blade diameter (mm)	Φ400				
	Defrost method	Auto defrost				
	Noise dB (A)	54		56		
	Outline dimension (W/H/D) (mm)	848/540/320				
Package dimension (W/H/D) (mm)	878/610/360					
Net weight/Gross weight(kg)	32/36		40/44			
Refrigerant/refrigerant charge(kg)	R407C/0.85					
Connection pipe	Outer diameter	Liquid pipe (mm)	Φ6 (1/4")			
		Gas pipe (mm)	Φ9.52 (3/8")			
	Max. distance	Height (m)	10			
		Length (m)	20			

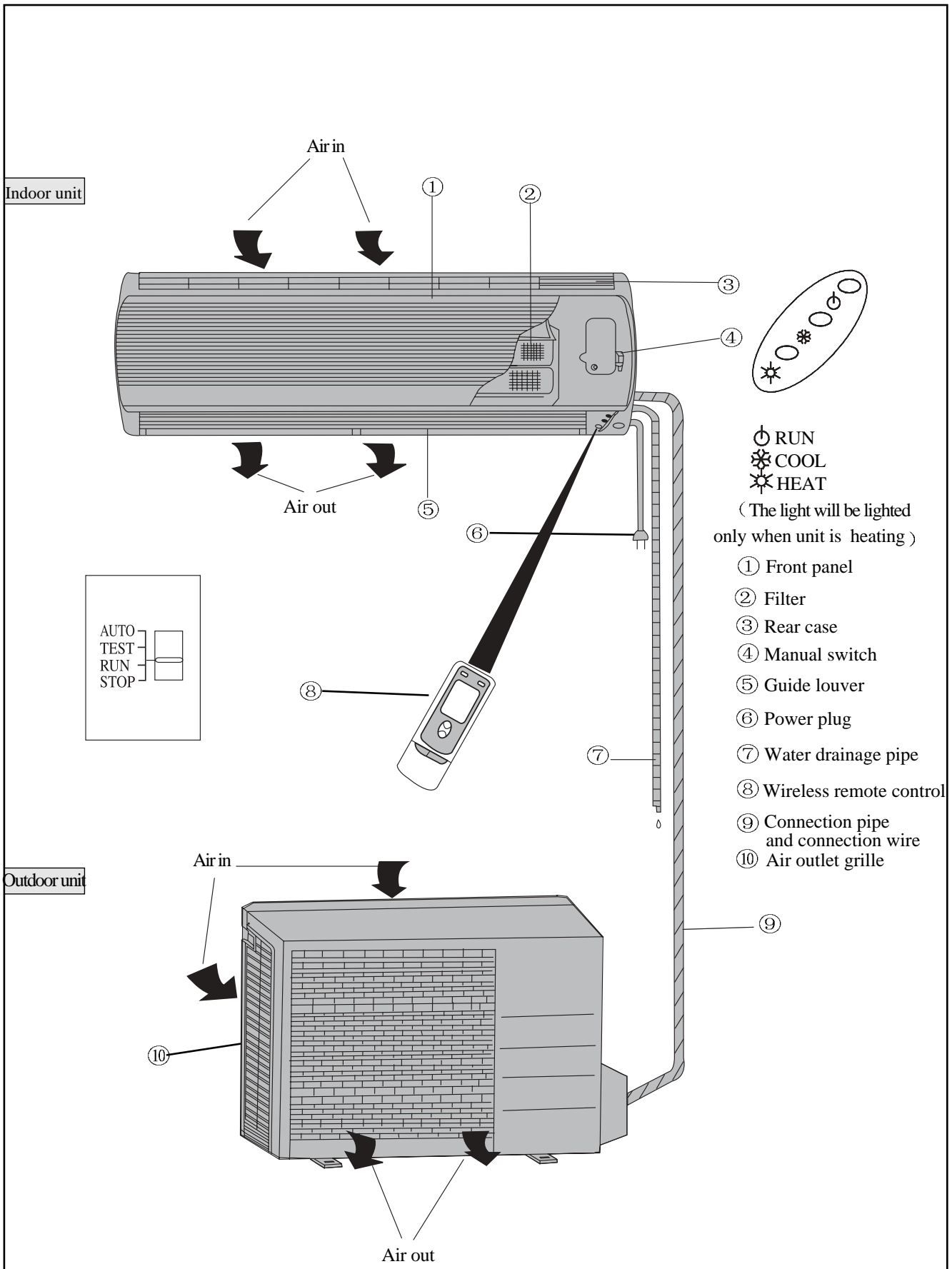
The technical data are subject to change without notice. Please refer to the nameplate of the unit.

3 Spare part name

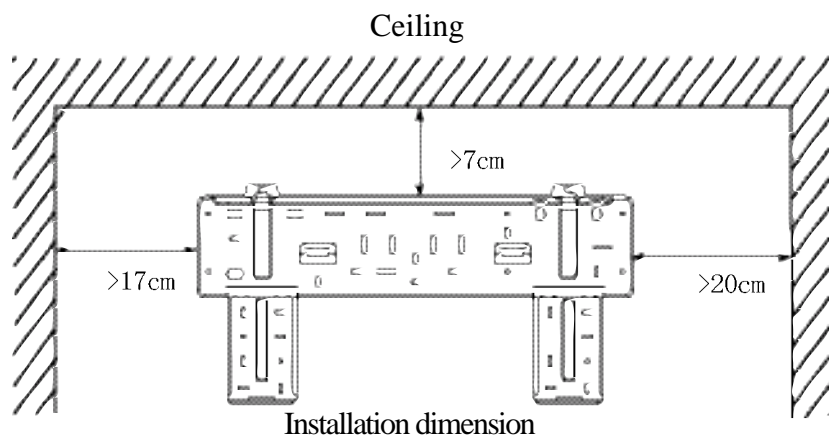
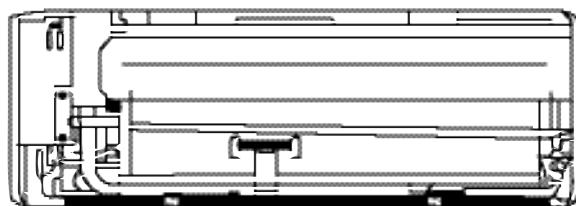
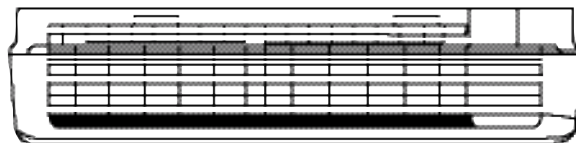
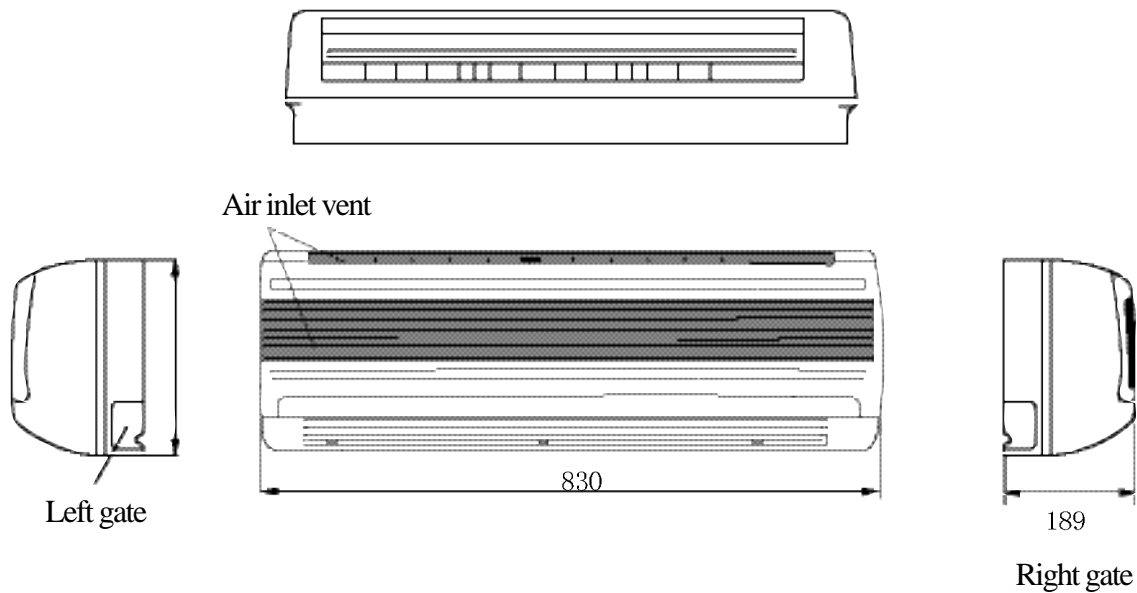


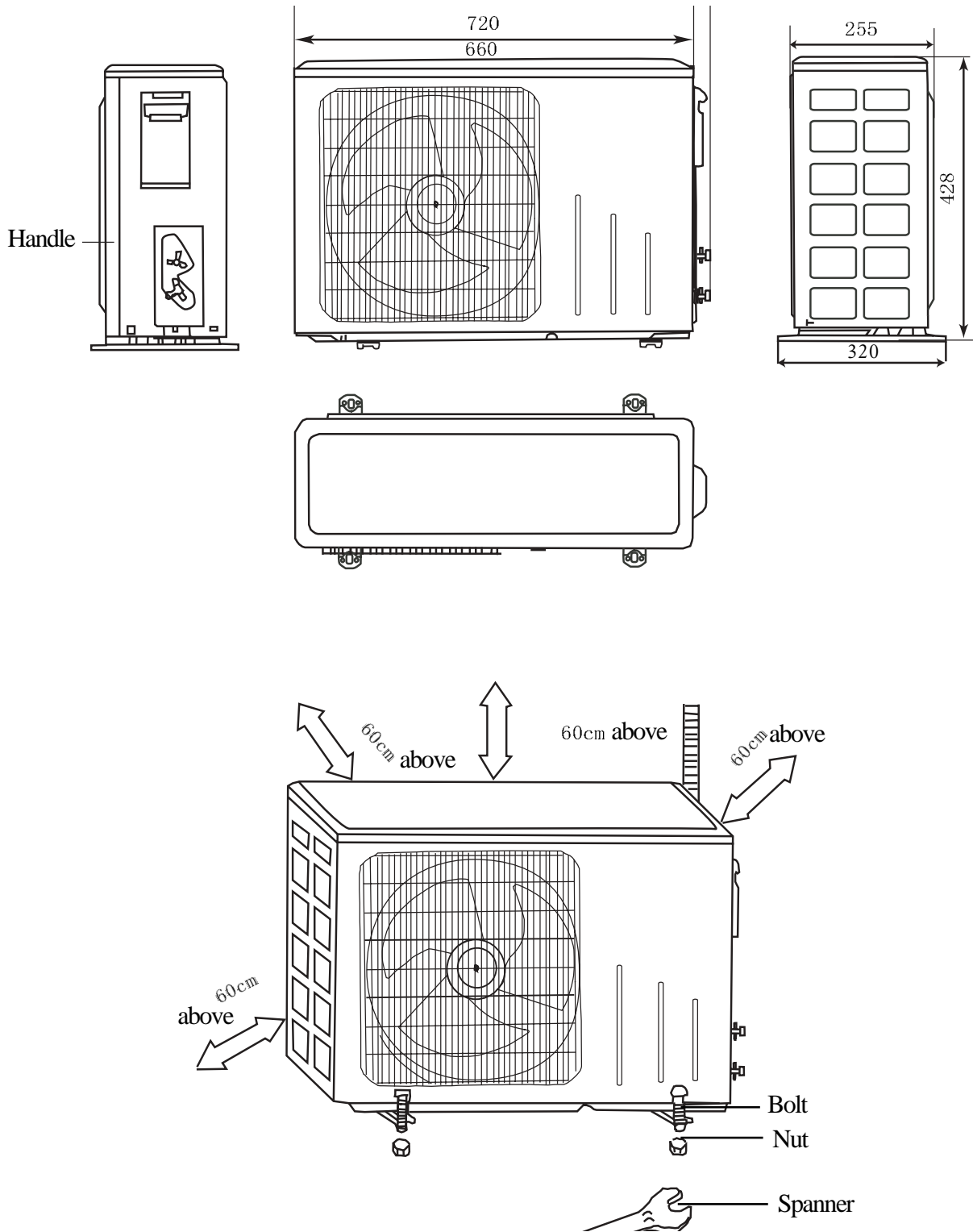
Bird Single-Split Type



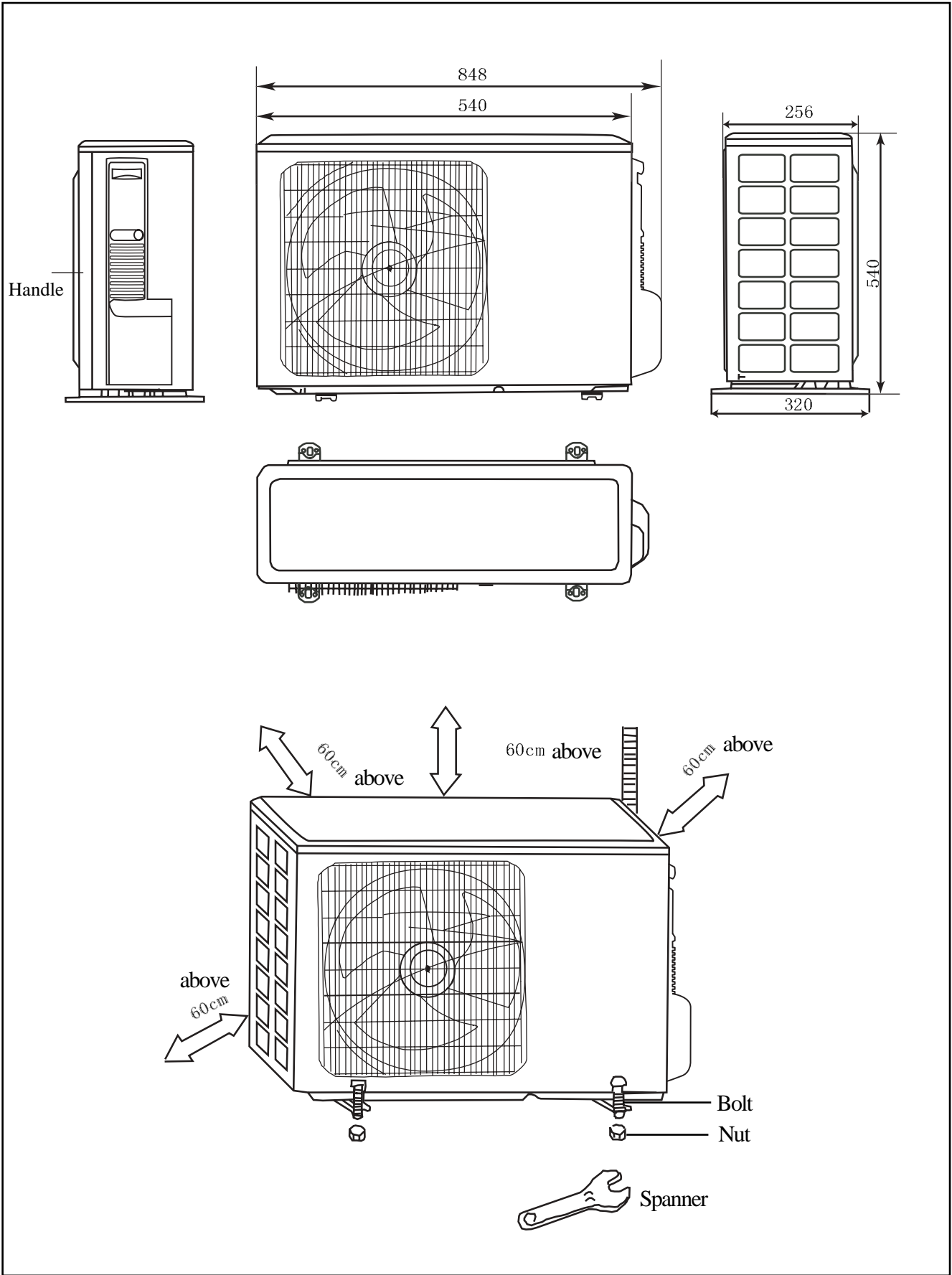


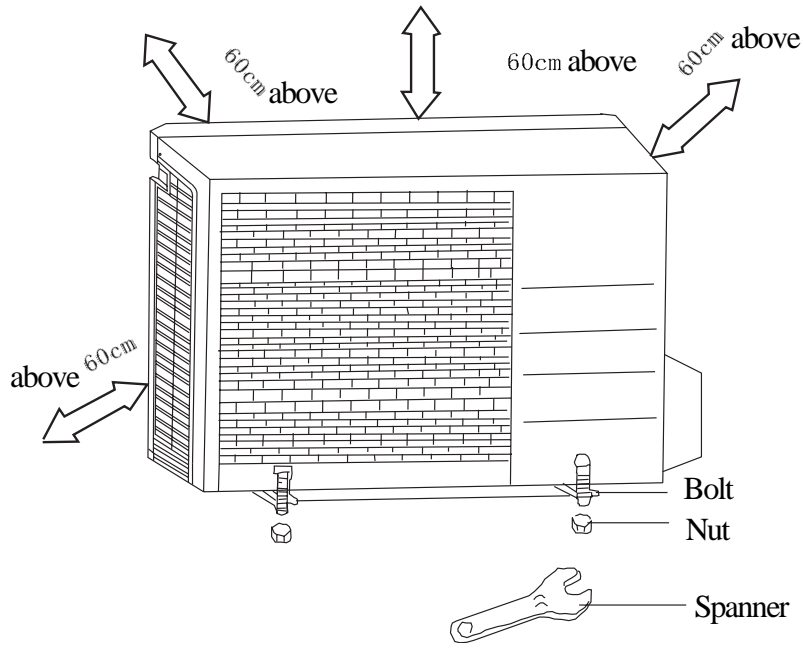
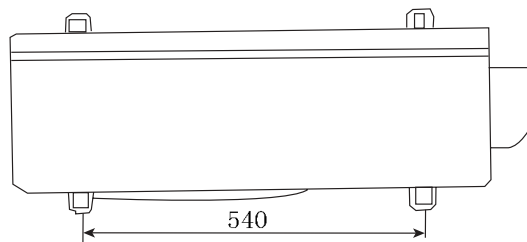
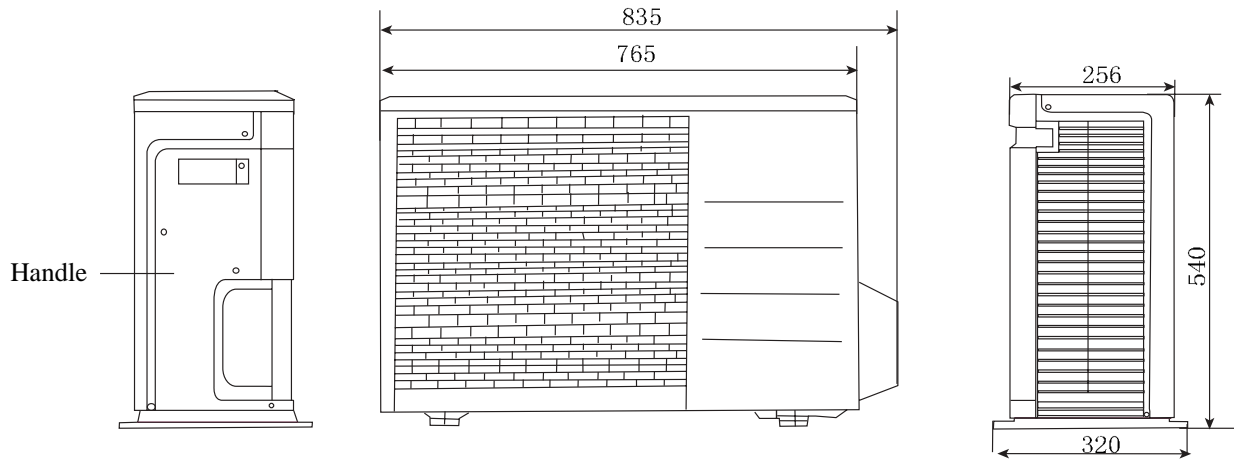
4 Outline and installation dimension





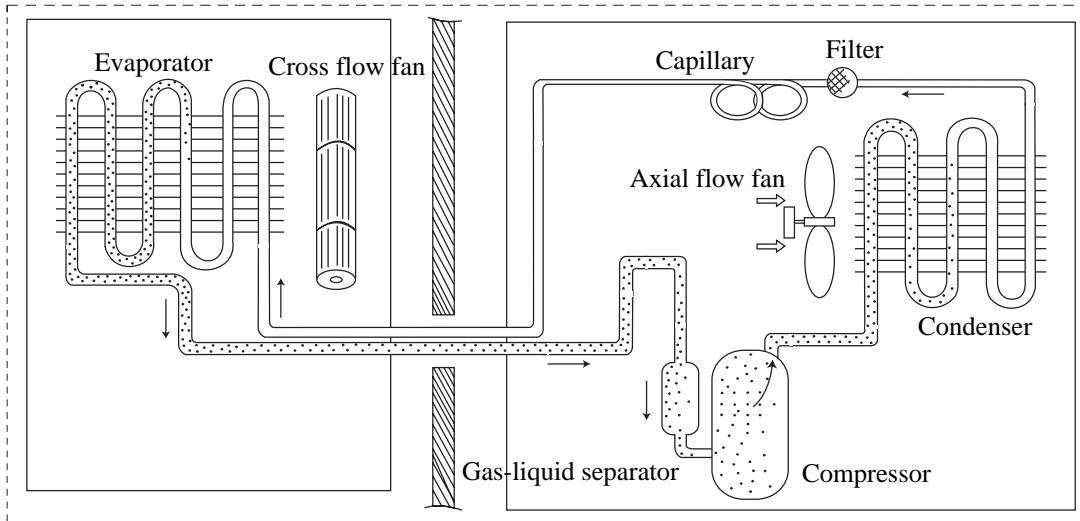
Bird Single-Split Type





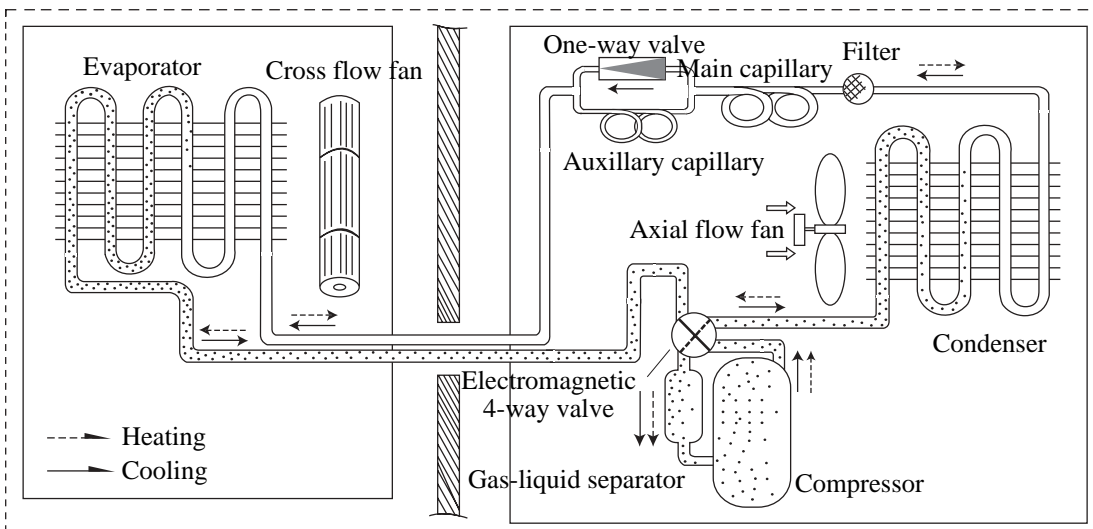
5 System diagram

5.1 System diagram for cooling only type



When the power is on, indoor and outdoor units will start to run. The compressor sucks low-pressure refrigerant gas from the evaporator of indoor unit and then discharges high-temperature, high-pressure refrigerant gas into outdoor condenser. Then air exchanges the heat with outdoor air and becomes refrigerant liquid. The liquid is throttled by the capillary and changes into low-temperature and low-pressure liquid and then flows into indoor evaporator. Then liquid exchanges the heat with the required air and changes into low-temperature and low-pressure refrigerant gas. The cycle introduced above goes on and on, and the demanded low temperature environment is maintained.

5.2 System diagram for cooling/heating type

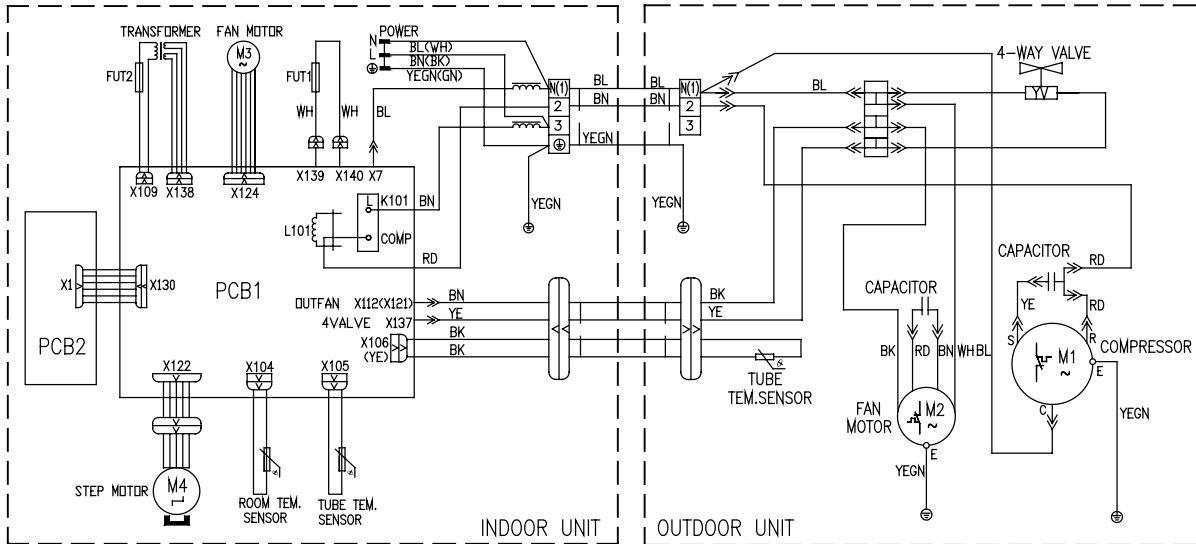


When the power is on, indoor and outdoor units will start to run. When the system operates in cool mode, the compressor sucks low-temperature, low-pressure refrigerant gas from indoor evaporator and then discharges high-temperature, high-pressure refrigerant gas into outdoor heat exchanger. With the help of axial flow fan, the gas transfers its latent heat into outdoor air and becomes high-pressure refrigerant liquid. The liquid is throttled by the capillary and changes into low-temperature and low-pressure liquid and then flows into indoor heat exchanger. With the help of centrifugal fan, the liquid evaporates into low-temperature refrigerant gas and indoor air is cooled down. The refrigerant gas is sucked into the compressor and the cycle introduced above goes on and on, and the demanded low temperature environment is maintained.

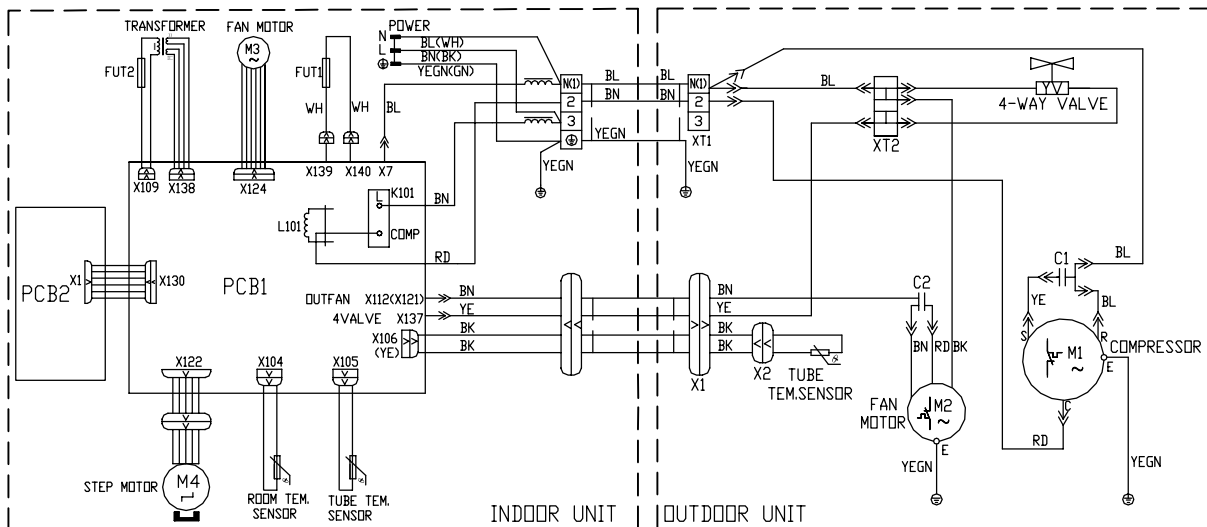
When the system operates in heat mode, 4-way valve changes its way and the refrigerant flows into the reversible cycle as the cool mode. The refrigerant discharges its latent heat in the indoor heat exchanger, and sucks heat from outdoor heat exchanger and forms the heat pump cycle. This cycle goes on and on, and the demanded high temperature environment is maintained.

6 Circuit diagram

KFR-25GW/A12

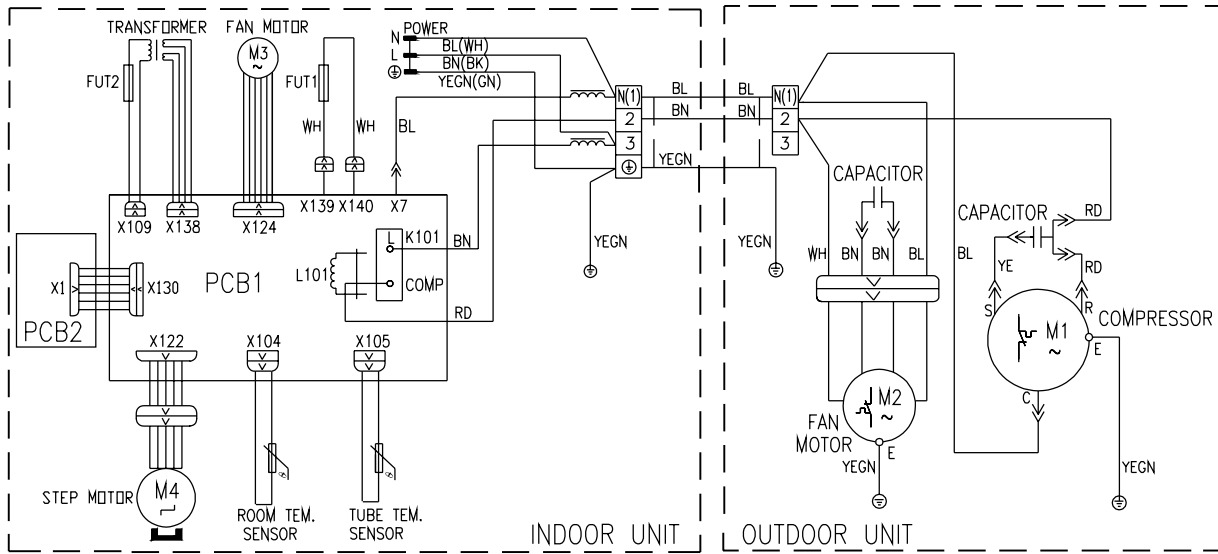


KFR-25GW/A12-J KFR-32GW/A12-J

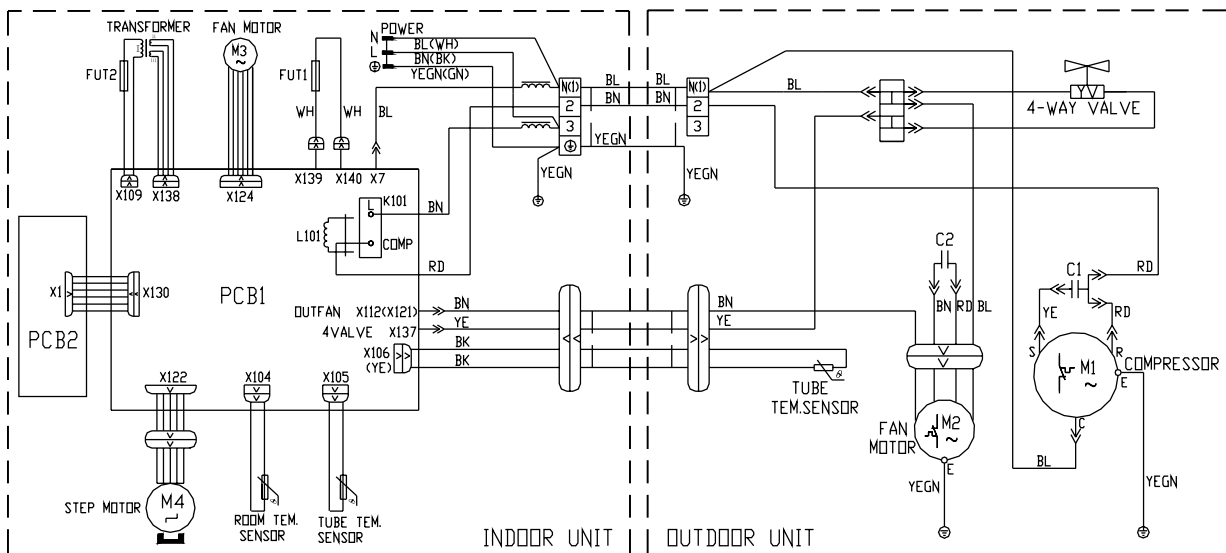


Bird Single-Split Type

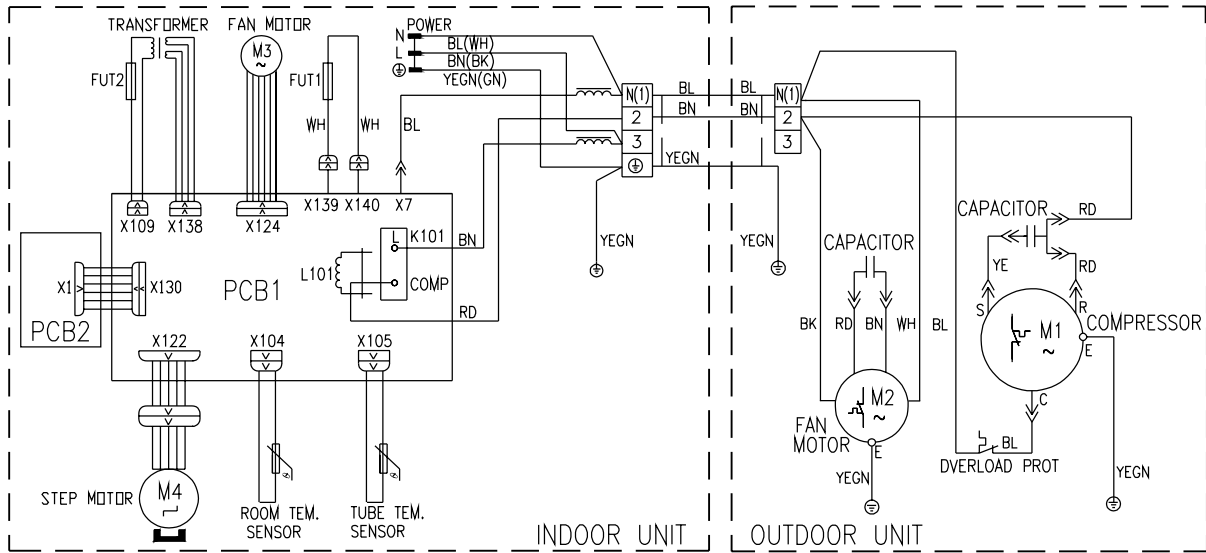
KF-32GW/A12



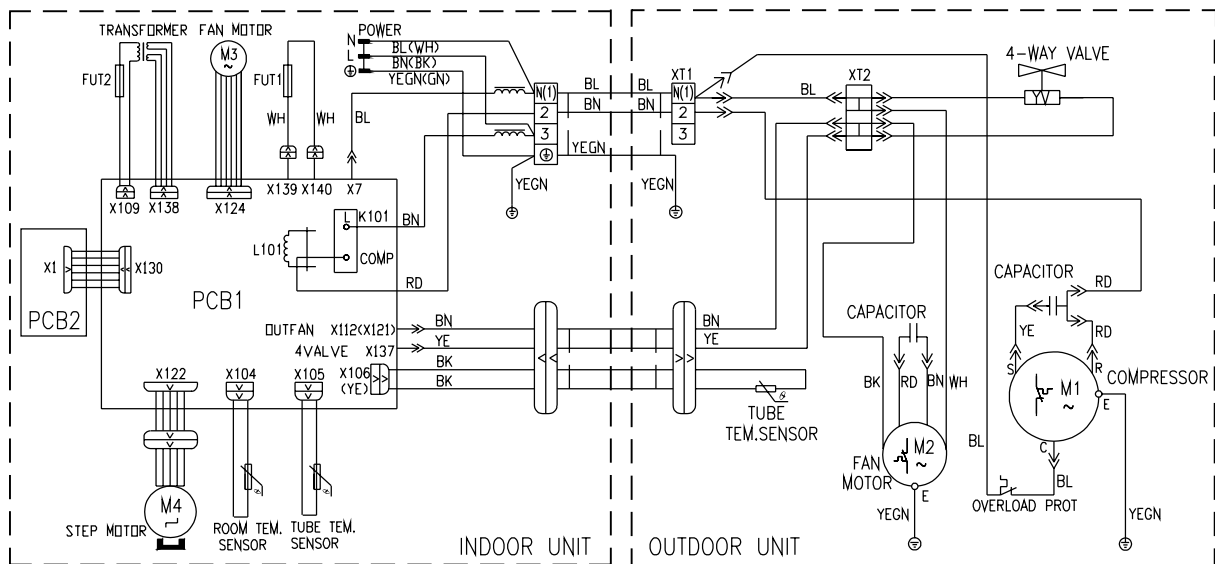
KFR-32GW/A12



KF-20GW/NA12 KF-25GW/NA12 KF-20GW/A12 KF-20GW/NA51 KF-25GW/NA51
 KF-32GW/NA51

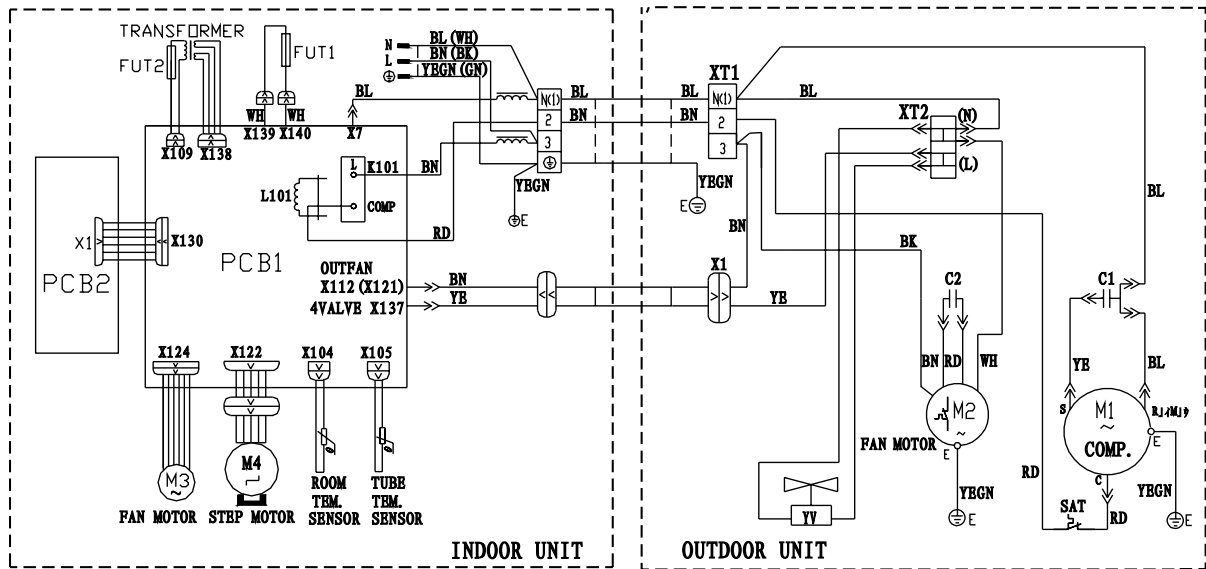


KFR-20GW/NA12S1 KFR-20GW/A12 KFR-25GW/NA12S1

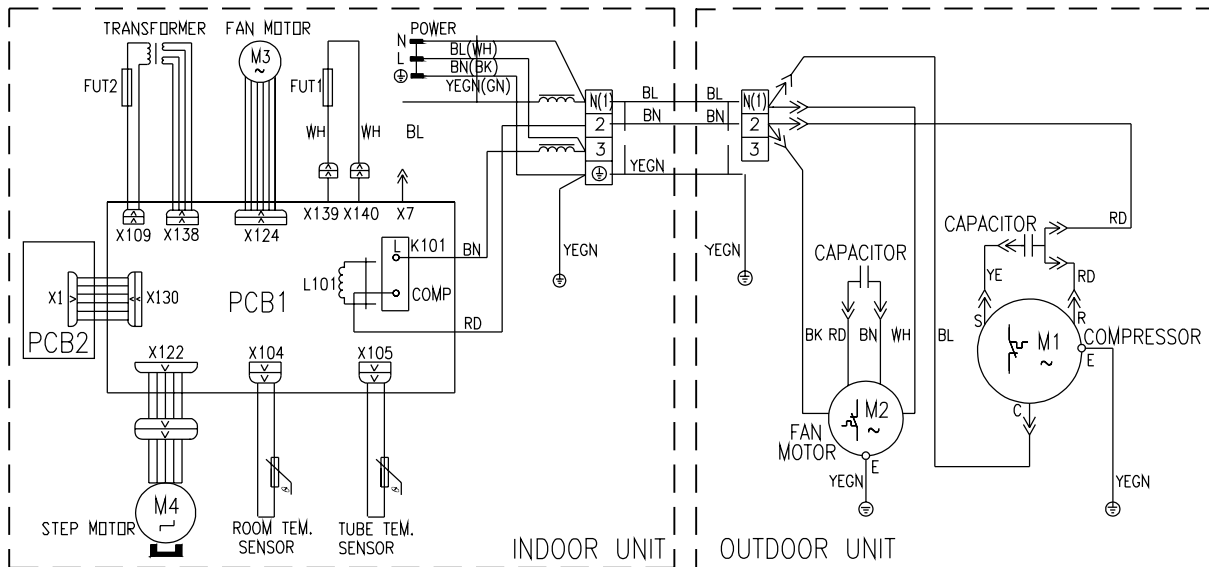


Bird Single-Split Type

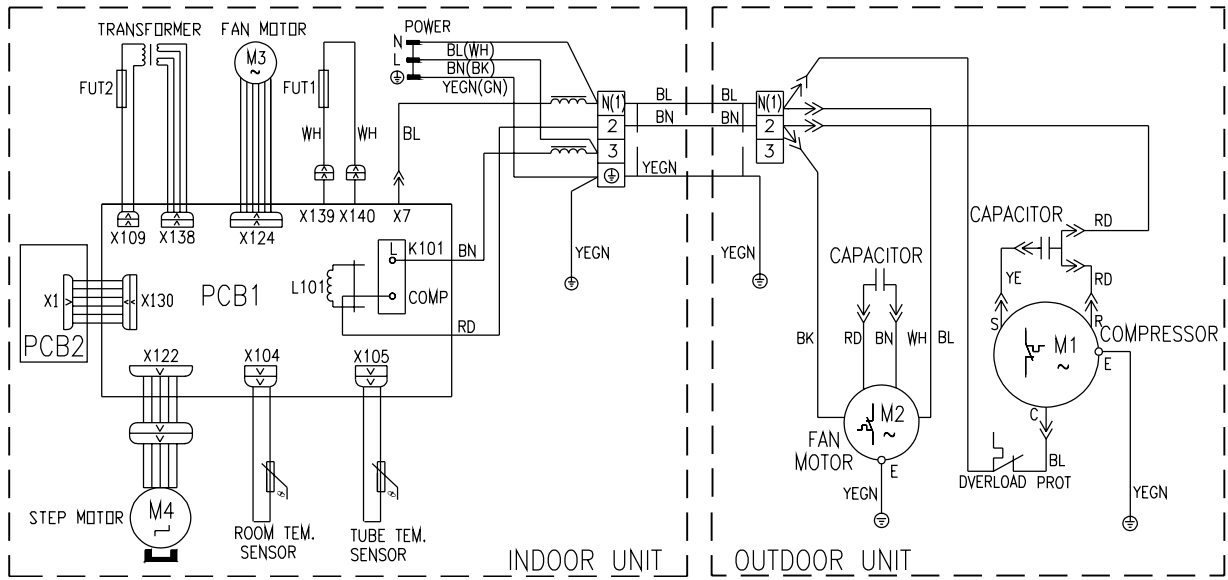
KFR-20GW/NA12S2 KFR-25GW/NA12S2 (S1) KFR-32GW/NA12S2 KFR-20GW/NaA12-ES1
 KFR-25GW/NaA12-ES1 KFR-20GW/NA51 KFR-25GW/NA51 KFR-32GW/NA51



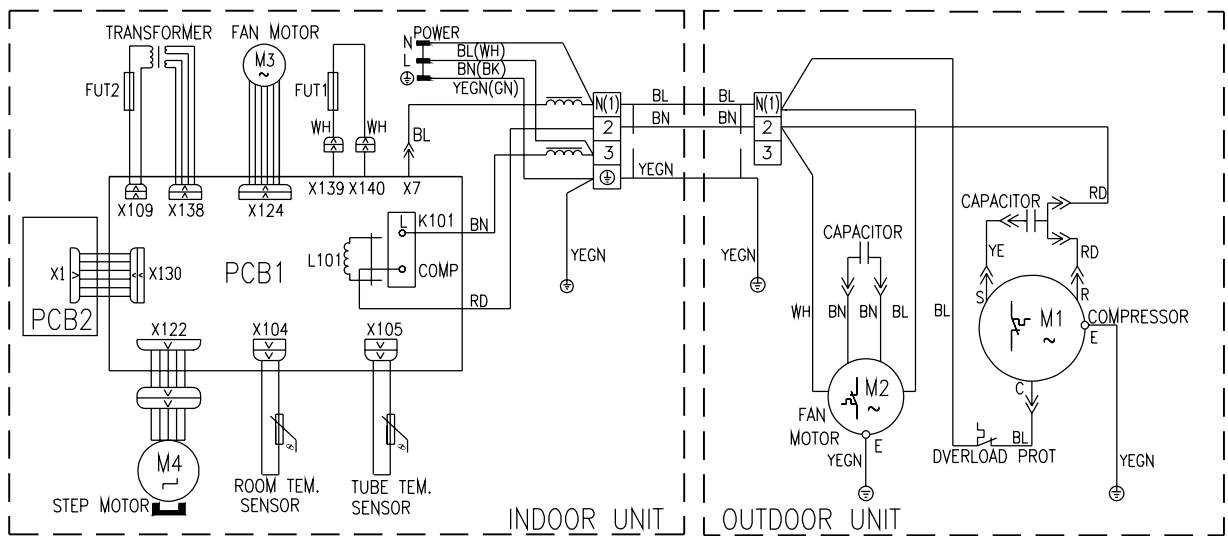
KF-25GW/A12



KF-20GW/A20 KF-25GW/A20 KF-20GW/NA20 KF-25GW/NA20

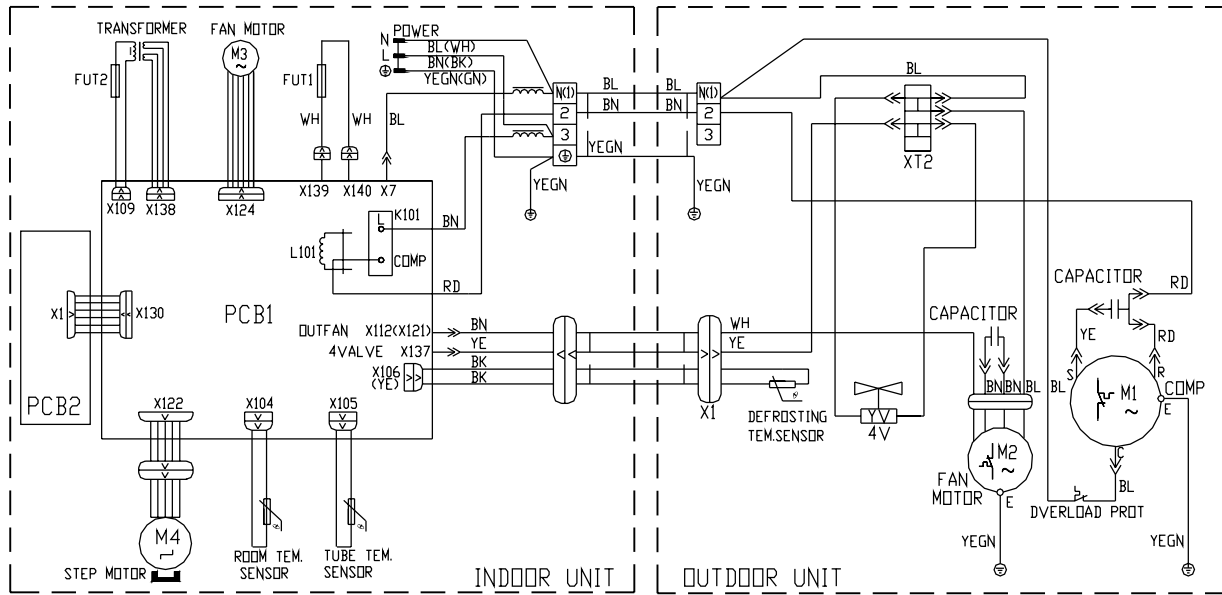


KF-32GW/NA12



Bird Single-Split Type

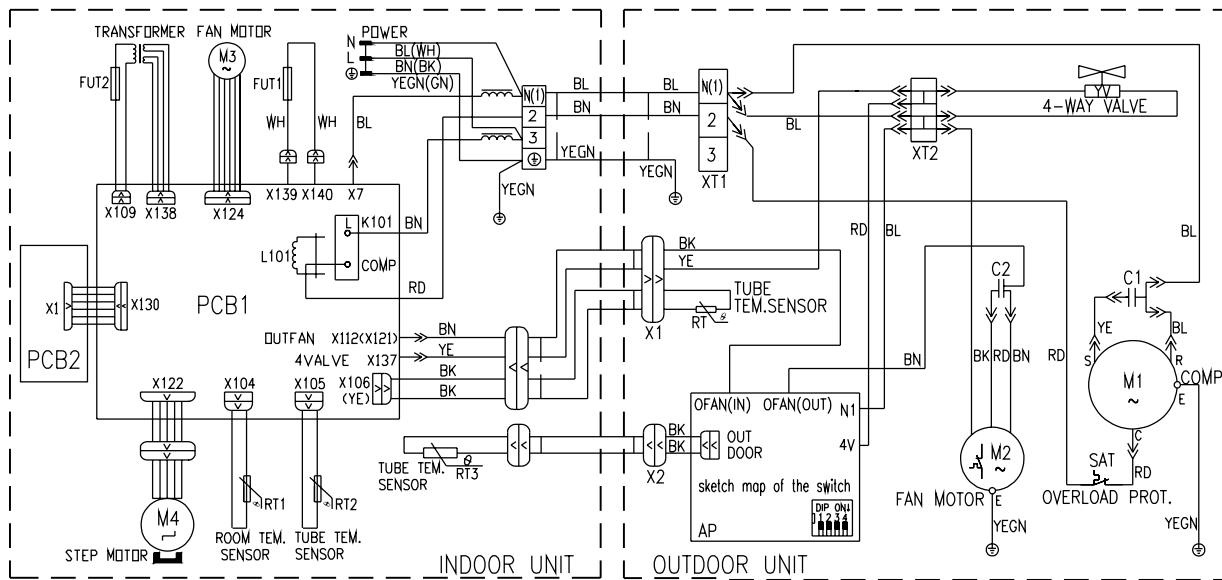
KFR-32GW/NA12S1



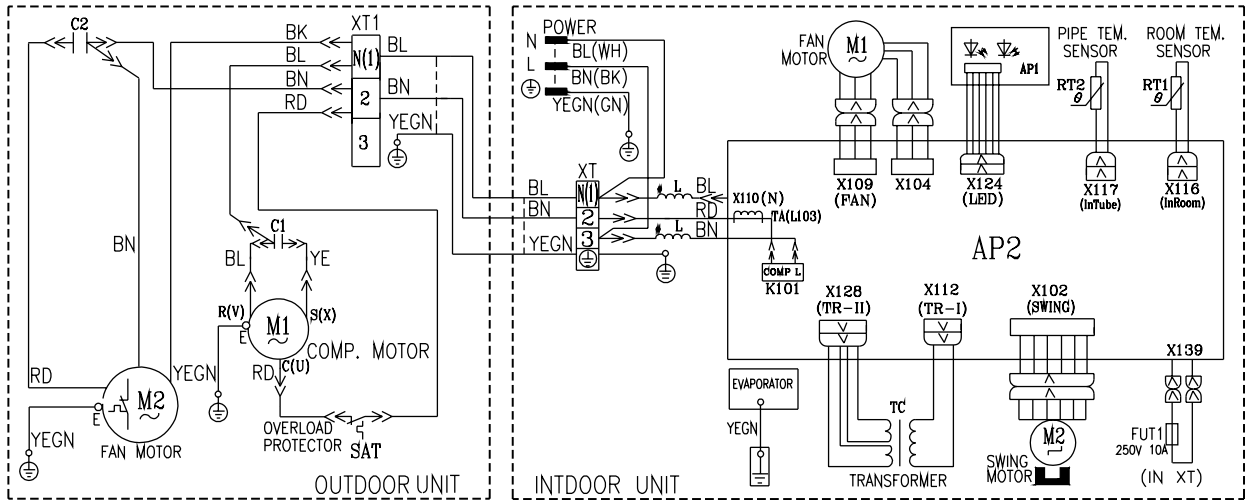
KFR-32GW/NA21

KFR-20GW/NA21

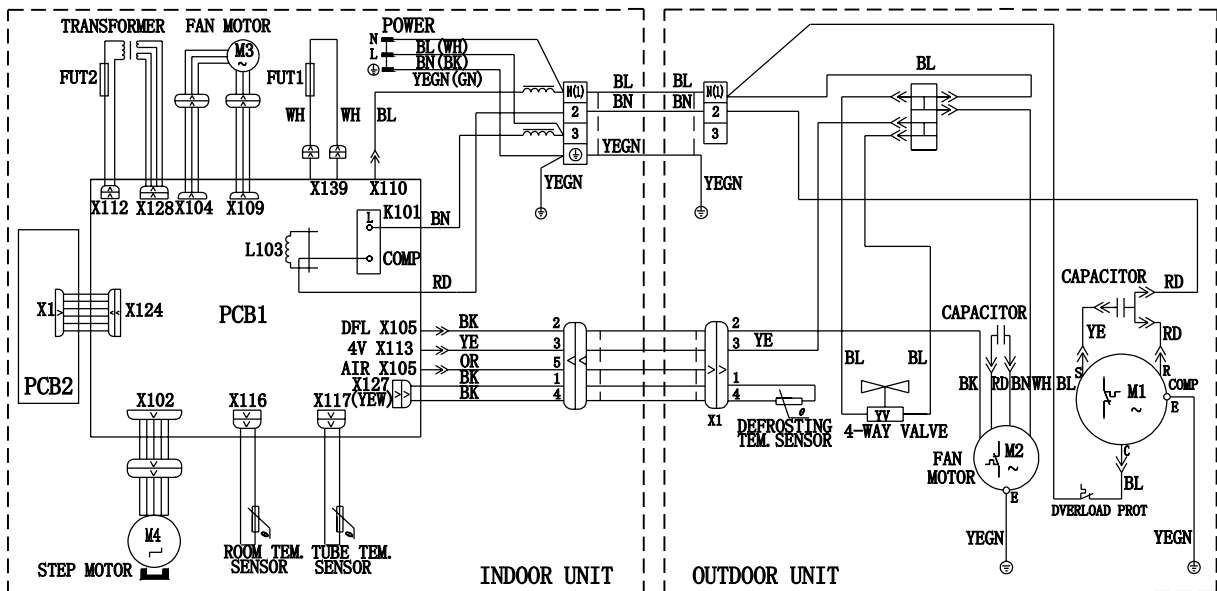
KFR-25GW/NA21



GSW9-22L/A GSW12-22L/A

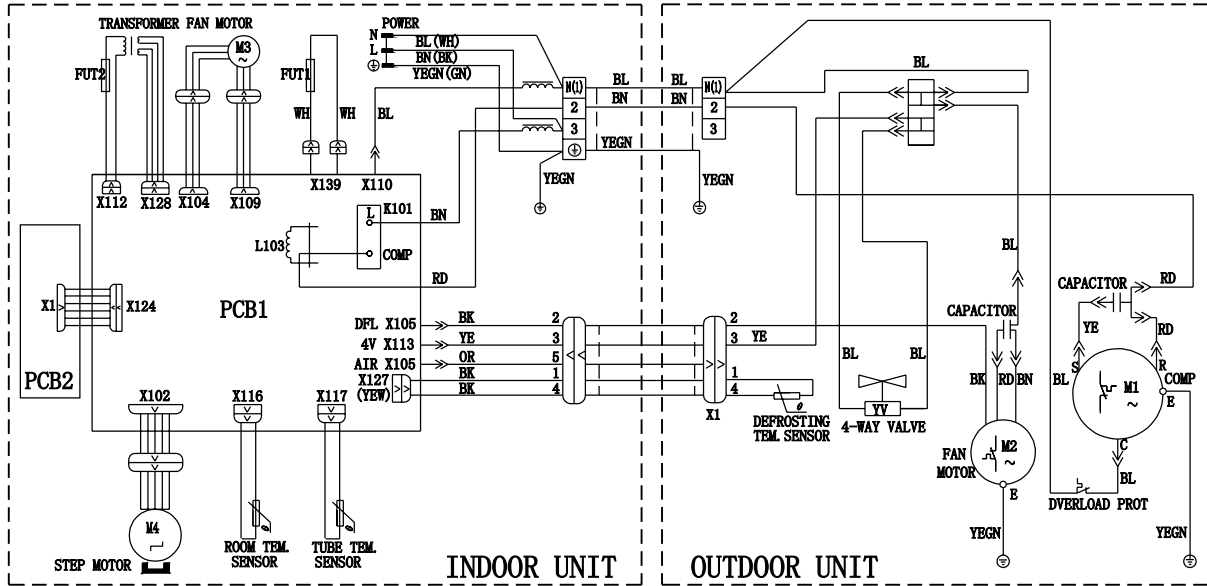


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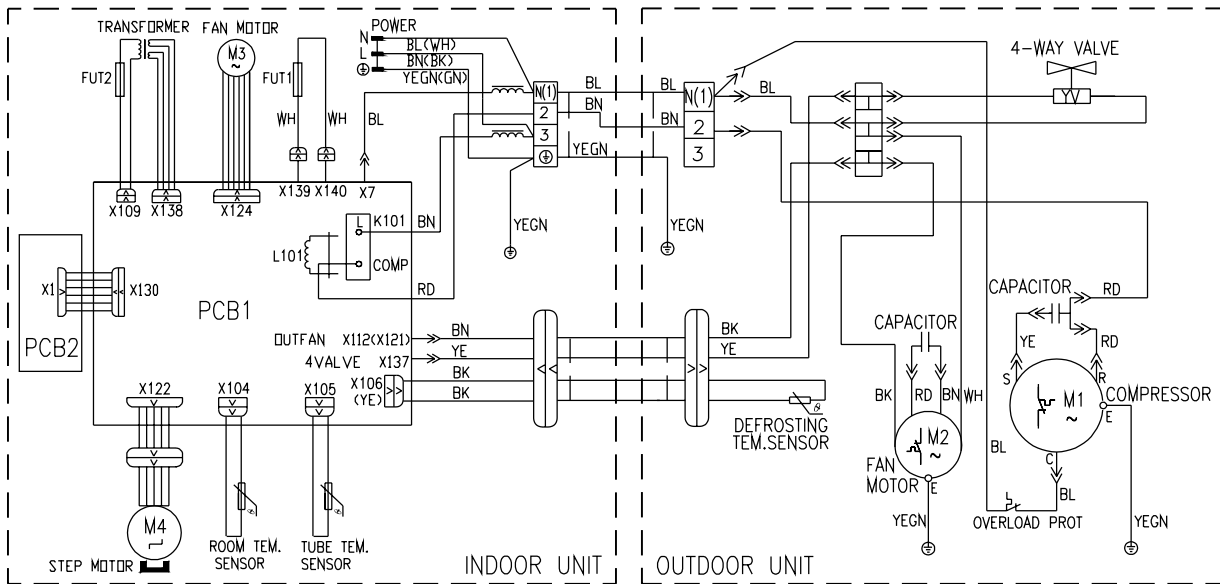


Bird Single-Split Type

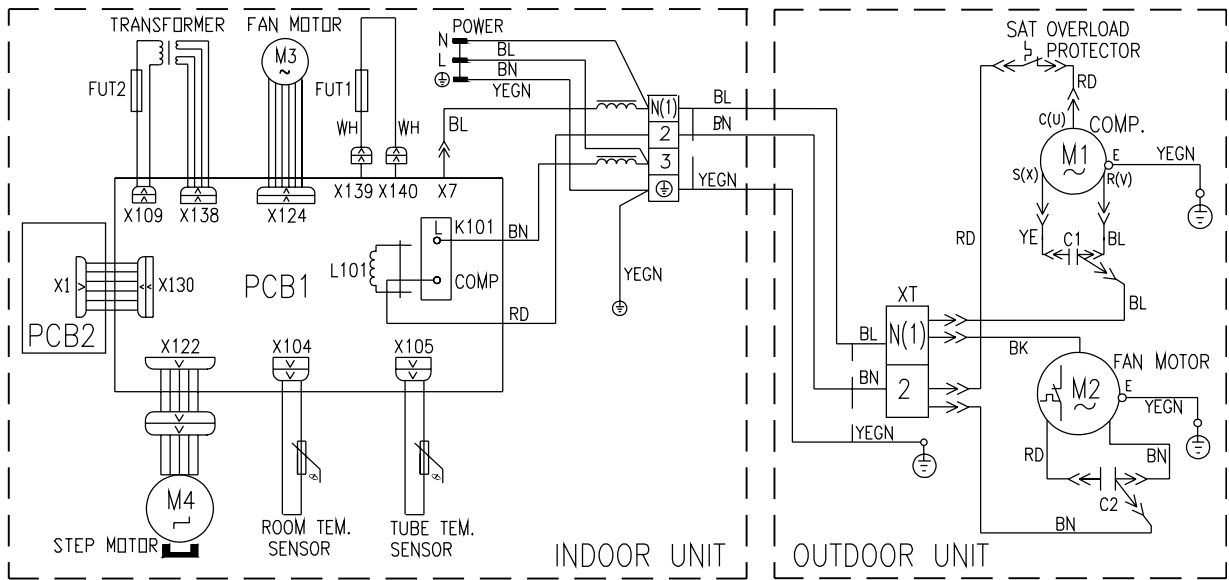
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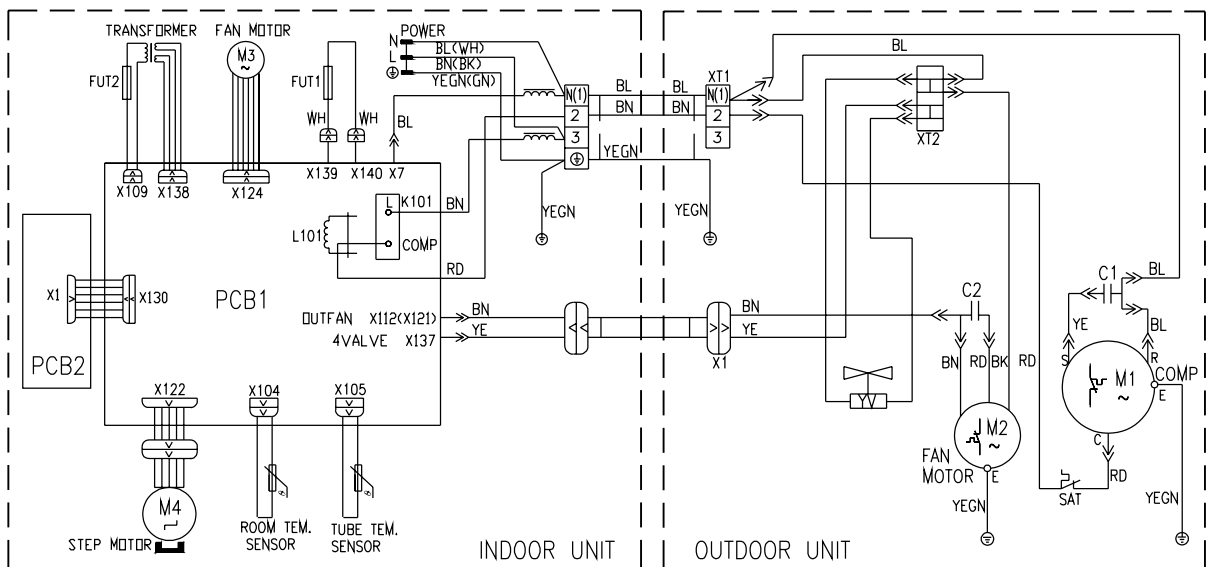
KFR-20GW/A20 KFR-20GW/NA20S1 KFR-25GW/NA20S1



KF-25GW/NaA12-E KF-32GW/NaA12-E

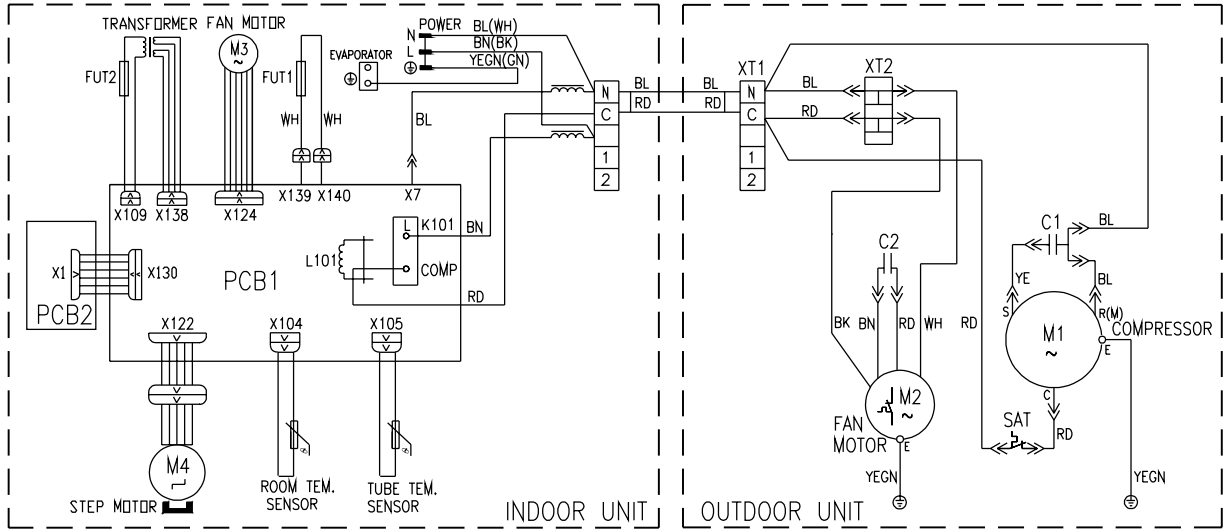


KFR-32GW/NaA12-E

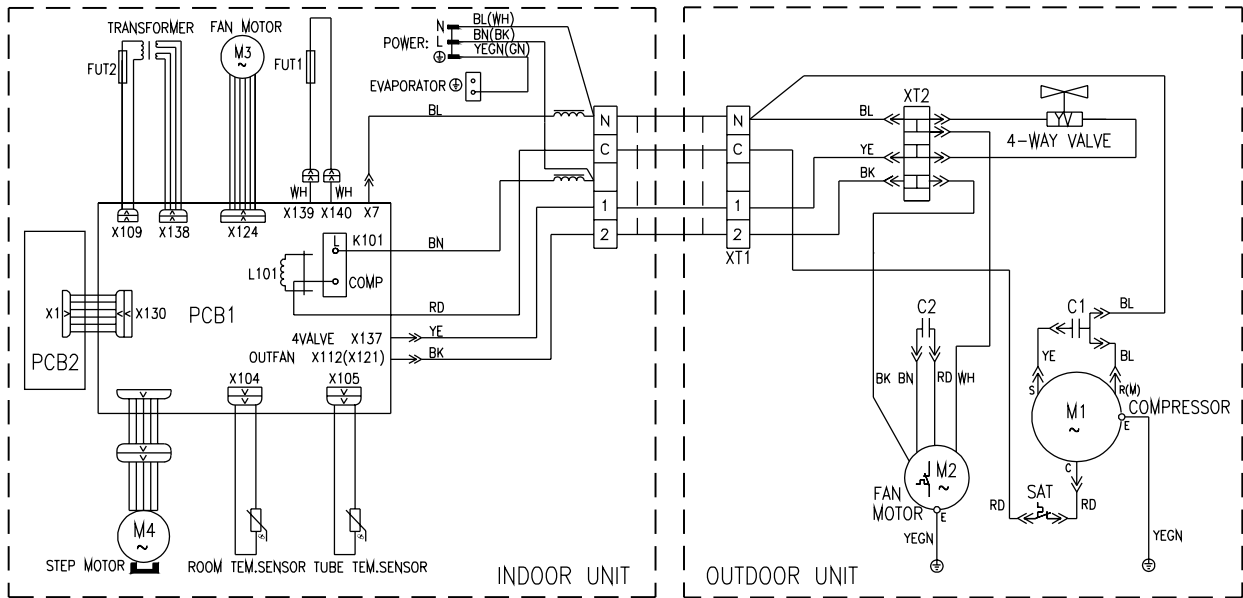


Bird Single-Split Type

KF-20GW/NA23

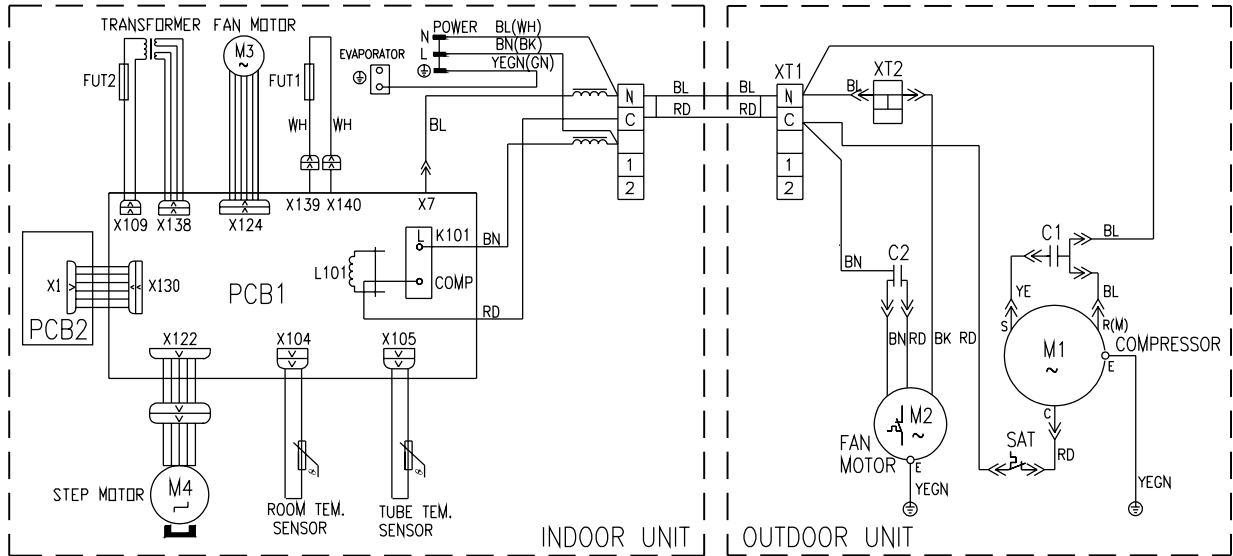


KFR-20GW/NA23



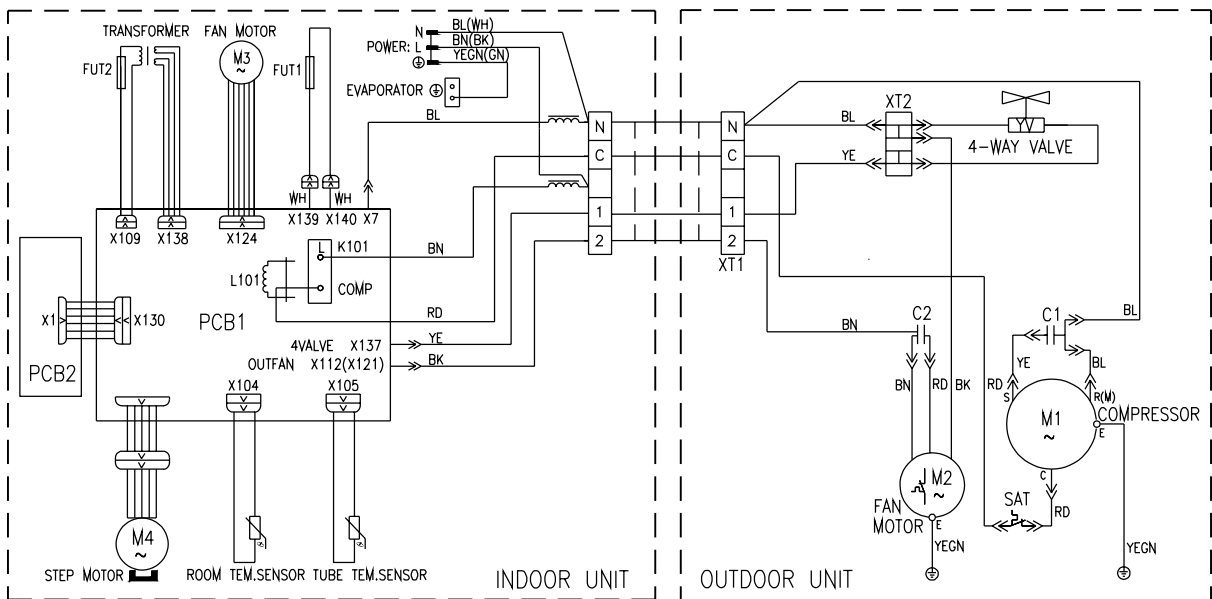
KF-25GW/NA23

KF-32GW/NA23



KFR-25GW/NA23

KFR-32GW/NA23



These circuit diagrams are subject to change without notice. Please refer to the ones stuck on the machines.

7 PCB function manual and operation method

7.1 PCB function manual 1

This function manual is first for the ordinary Bird and Plastic Case Single Split Type series

7.1.1 Temperature parameter

- ◆ The room set temperature: (Tset)
- ◆ The room ambient temperature:(Tamb)
- ◆ The evaporator tube temperature: (Ttube)
- ◆ The condenser tube temperature: (Tdefrost)

7.1.2 Fundamental functions

After power is on, no matter when compressor is started, the time span between the startups cannot be less than 3 minutes.

7.1.2.1 COOL mode

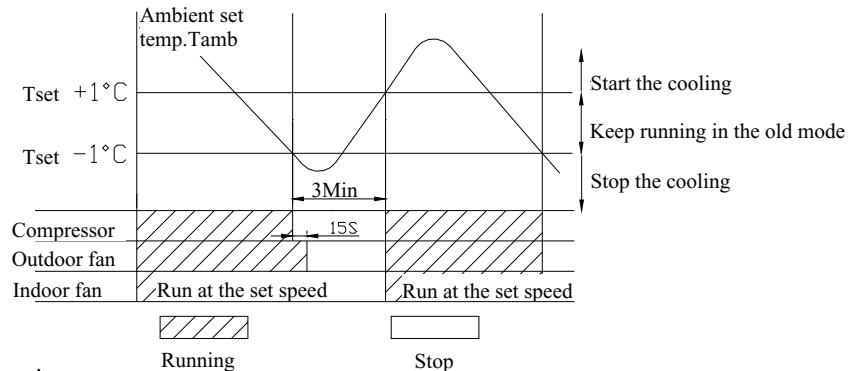
7.1.2.1.1 Cooling condition

If $T_{amb} \geq T_{set} + 1$, COOL mode will act, compressor and outdoor fan will run, indoor fan will run at the set speed.

If $T_{amb} \leq T_{set} - 1$, unit will stop, compressor will stop and then outdoor fan will delay 15sec and stop.

If $T_{set} - 1 < T_{amb} < T_{set} + 1$, the unit will keep running in the old mode.

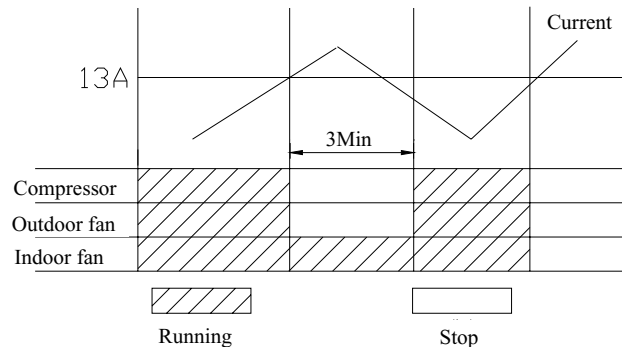
➤ In this mode, the reversal valve will not power on, the setting temp. range: 16 ~30



7.1.2.1.2 Protection Functions

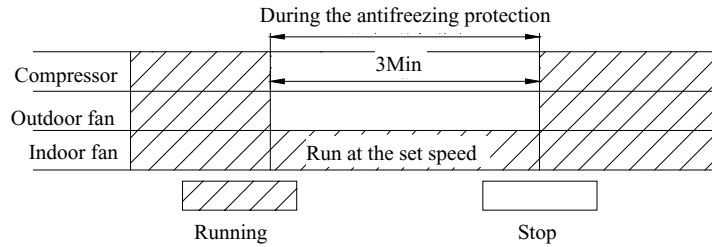
◆ Overcurrent Protection

When the system current is tested higher than 13A, only fan will run. After 3 minutes, the whole unit will run in the old mode, if the overcurrent cannot be eliminated, the whole unit will stop, and can be restarted by the wireless remote control.



◆ Antifreezing Protection

When the system is tested, the compressor and outdoor fan will stop, indoor fan will run at the set speed; when the antifreezing protection is and the compressor has stopped for 3min, the unit will return to the old mode.



7. 1. 2. 2 DRY Mode

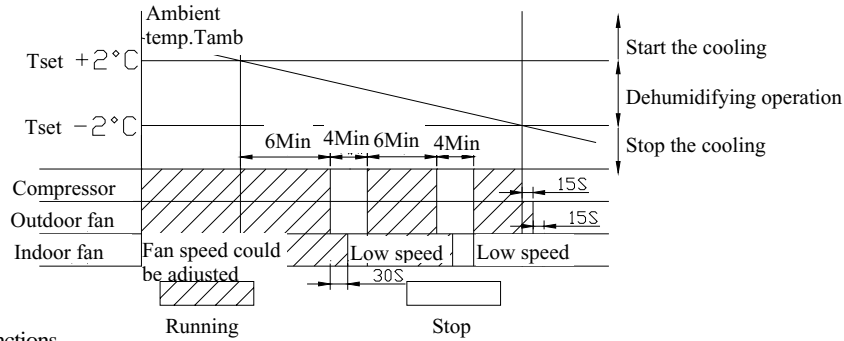
7. 1. 2. 2. 1 The conditions and processes of dehumidifying:

If $T_{amb} > T_{set} + 2$, the cooling mode will act, indoor fan speed could be adjusted, outdoor fan will run.

If $T_{set} - 2 < T_{amb} < T_{set} + 2$, DRY mode will act, the indoor fan will run at the low speed, after running for 6mins, outdoor fan and compressor will stop, but indoor fan will delay 30secs and stop, after 3.5mins, compressor and outdoor fan will run, and indoor fan will run at the low low speed. The processes of dehumidifying are shown as the above cycle.

If $T_{amb} < T_{set} - 2$, the unit will stop, the compressor will stop, after 15sec latter, outdoor fan will stop, after another 15sec, indoor fan will stop.

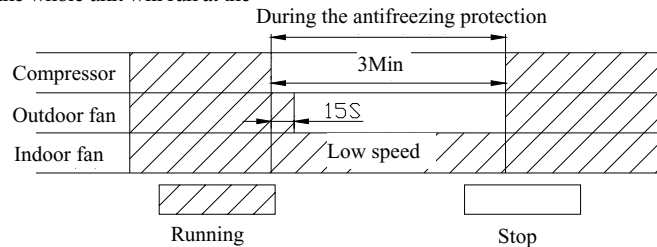
➤ In this mode, the reversal valve will not power on, the setting temp. range: 16 ~ 30 .



7. 1. 2. 2. 2 Protection Functions

◆ Antifreezing Protection

When running in COOL mode, antifreezing protection is the same as the cooling. The DRY mode act, when the antifreezing protection is detected, the compressor will stop, but outdoor fan will delay 15secs and stop, indoor fan will run at low speed; when antifreezing protection is eliminated and compressor has stopped for 3min, the whole unit will run at the original status



7. 1. 2. 3 HEAT Mode

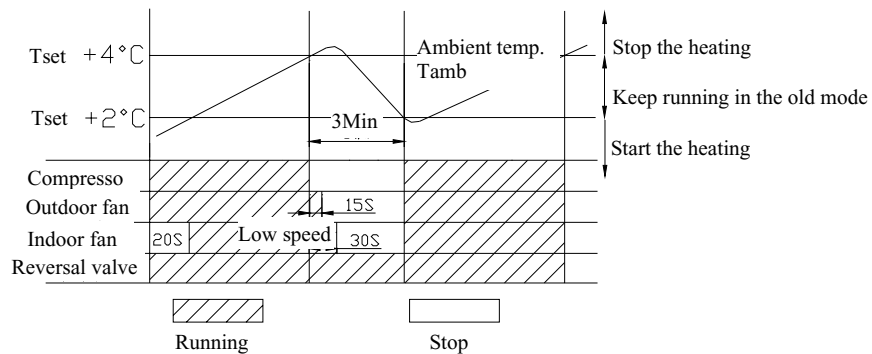
7. 1. 2. 3. 1 The conditions and processes of heating

If $T_{amb} < T_{set} - 2$, HEAT mode will act, compressor, outdoor fan and reversing valve will run, but indoor fan will after 20sec delayed and run.

If $T_{amb} < T_{set} - 4$, Compressor will stop first, outdoor fan will delay 15s and stop, reversing valve will keep working, after 30secs indoor fan will blow the surplus heat, after 30secs it will stop.

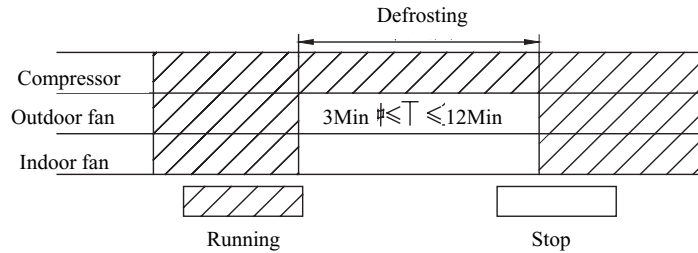
If $T_{set} + 2 < T_{amb} < T_{set} + 4$, the unit will keep running in the old mode.

➤ In this mode, the reversal valve will not power on, the setting temp. range: 16 ~ 30 .



7. 1. 2. 3. 2 The conditions and processes of defrosting

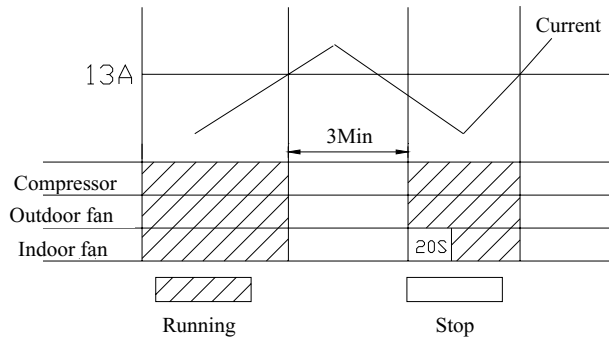
When detecting there is frost on the condenser, system enter into defrosting state, the outdoor fan, indoor fan will stop running. When detecting the frost on the condenser has been eliminated, the system will return back and keep running in the old mode, the first time of defrosting is 9Min. Since then, it will according to the frost then adjust the time of defrosting automatically, the max. time is 12Min, the Min. time is 3Min.



7. 1. 2. 3. 3 Protection function

◆ Overcurrent protection

When the system current is tested higher than 13A, the compressor, outdoor fan and indoor fan stop running; 3Min later, whole unit will run in old mode, indoor fan will delay 20sec and start to run.



◆ Avoiding high temp.

In HEAT mode, when detecting Ttube is very high, outdoor fan will stop running; when detecting Ttube is normal, outdoor fan will return to run.

◆ Noise cancellation protection

When using "RUN/STOP" to turn off the unit, the reversing valve will delay 2min to stop.

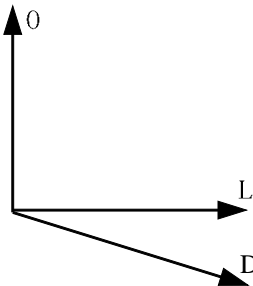
7. 1. 2. 4 AUTO mode

According to the ambient temperature to select COOL or HEAT mode automatically. The protection function as HEAT/COOL mode

7. 1. 3 Other control

7. 1. 3. 1 Swing motor

When it is powered on, the swing motor turn to position O, to turn off the air outlet vent; when the unit is turned on, turn to position D, then return to position L; in swing state, the louver swings between position L and D. When the unit is turned off, will return to position O.



7. 1. 3. 2 Buzzer

When PCB is power on or receives the signal from the wireless remote control, the buzzer will sound.

7. 1. 3. 3 Run indicator

Run indicator, it will light when starting the unit and extinguish when defrosting.

7. 1. 3. 4 Manual switch function (under indoor unit front panel)

7. 1. 3. 4. 1 Auto function

When setting the switch to "AUTO", it will run in AUTO mode. If receiving the signal, it will run according to the remote signal.

7. 1. 3. 4. 2 Test function

When setting the switch to "TEST", the unit will run in COOL mode, indoor fan will run at high speed, louver will run in SWING mode. If receiving remote signal, the unit will run according to remote signal. If the sensor is open-circuited or short-circuited, buzzer will alarm.

7. 1. 3. 4. 3 Run function

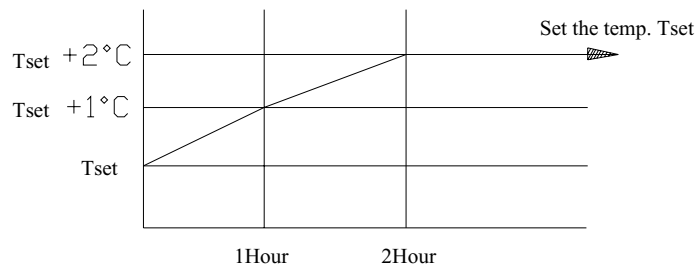
When setting the switch to "RUN", the unit will run according to remote signal.

7. 1. 3. 4. 4 Stop function

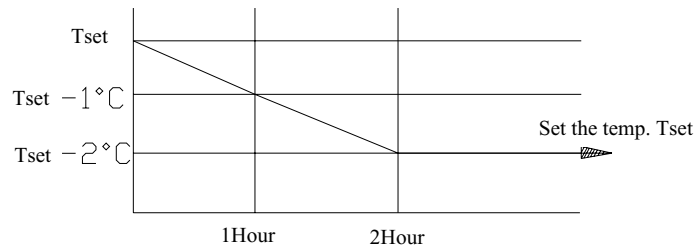
When setting the switch to "STOP", the unit will stop running.

7. 1. 3. 5 Sleep function

In COOL or DRY mode, when the set sleeping has run for 1 hour, T_{set} will rise 1°C ; 2 hours later, T_{set} will rise 2°C . Indoor fan will run at low speed



In HEAT mode, when the set sleeping has run for 1 hour, T_{set} will fall 1°C ; 2 hours later, T_{set} will fall 2°C . Indoor fan will run at low speed



7. 1. 3. 6 Auto FAN

In this mode, according to ambient temperature, indoor fan will select High, Middle, Low fan speed.

7. 1. 3. 7 Timing Function

7. 1. 3. 7. 1 Time on

The unit is stopped when the timer for turning on acts. When it is time to turn on, the PCB will act in the set mode.

The distance of setting twice is 0.5hour and time range is 0.5-24hours.

7. 1. 3. 7. 2 Time off

Set the timer for turning off function when the unit is turned on, when it is time to turn off, the unit will be switched off. The distance of setting twice is 0.5 hour and time range is 0.5-24hours.

7. 1. 3. 8 Memory Function

The unit will restart in the old mode with memory function after power is turned off.

7. 2 PCB function manual 2

KF-20GW/NA23 KF-25GW/NA23 KF-32GW/NA23
 KFR-20GW/NA23 KFR-25GW/NA23 KFR-32GW/NA23

7. 2. 1 Temperature parameter

- ◆ The room set temperature: (Tset)
- ◆ The room ambient temperature:(Tamb)

7. 2. 2 Fundamental functions

After power is on, no matter when compressor is started, the time span between the startups cannot be less than 3 minutes.

When the first time powered on, there is no 3Min delayed; once the compressor started up, it will not stop with the indoor room temperature changes within 5minutes.

7. 2. 2. 1 COOL mode

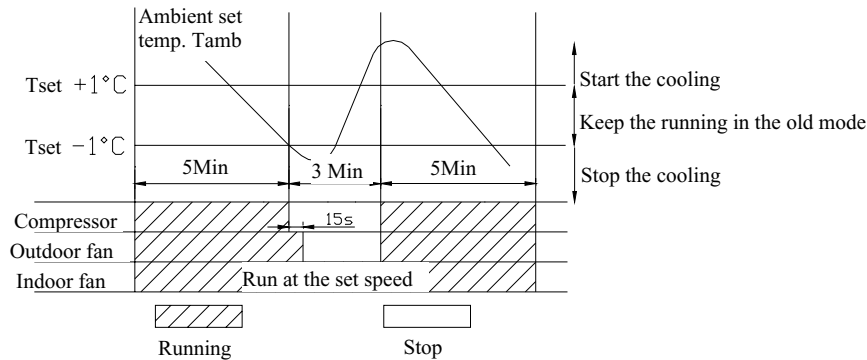
7. 2. 2. 1. 1 Cooling condition

If $T_{amb} > T_{set} + 1$, COOL mode will act, compressor and outdoor fan will run at low speed, indoor fan will run at the set speed.

If $T_{amb} < T_{set} - 1$, unit will stop, compressor will stop and then outdoor fan will delay 15sec and stop. Indoor fan will run at set speed.

If $T_{set} - 1 < T_{amb} < T_{set} + 1$, the unit will keep running in the old mode.

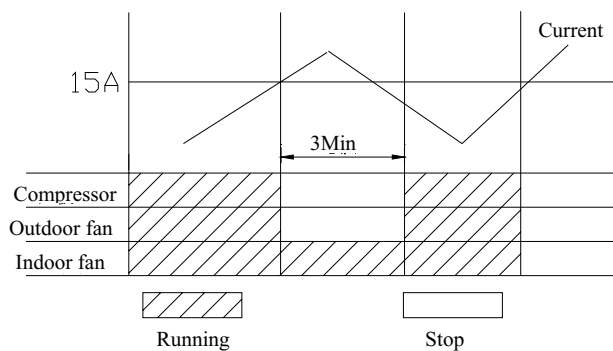
➤ In this mode, the reversal valve will not power on, the setting temp. range:16 ~30



7. 2. 2. 1. 2 Protection Functions

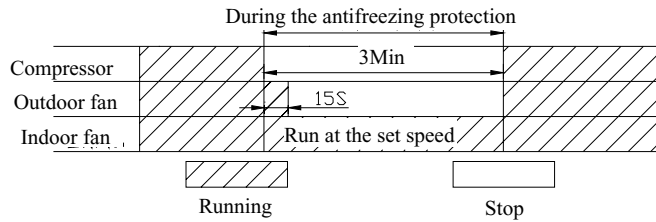
◆ Overcurrent Protection

When the system current is tested higher than 15A, only fan will run. After 3 minutes, the whole unit will run in the old mode, if the overcurrent cannot be eliminated, the whole unit will stop, and can be restarted by the wireless remote control.



◆ Antifreezing Protection

When the system is tested, the compressor will stop, after 15sec delayed, outdoor fan will stop running, indoor fan will run at set speed; When the antifreezing protection is finished, the compressor stopped for 3Min, the unit will return to the old mode.



7. 2. 2. 2 DRY Mode

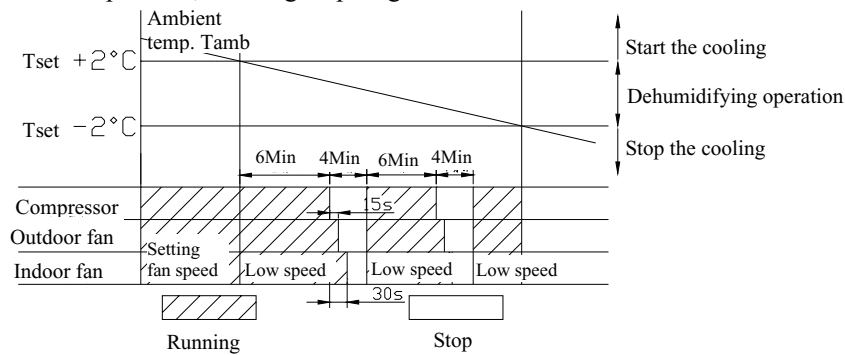
7. 2. 2. 2. 1 The conditions and processes of dehumidifying:

If $T_{amb} > T_{set} + 2$, the cooling mode will act, indoor fan runs at the set speed.

If $T_{set} - 2 < T_{room} < T_{amb} < T_{set} + 2$, DRY mode will act, the indoor fan will run at the low speed. After running for 6mins, compressor will stop, 15sec later, outdoor fan will stop, 30sec later, the indoor fan will stop, after 3.5Min, the compressor and outdoor fan will start to run, indoor fan will run at low speed, the processes of dehumidifying are running as the above cycle, and outdoor fan runs at the low speed.

If $T_{amb} < T_{set} - 2$, compressor, outdoor fan and indoor fan stop running.

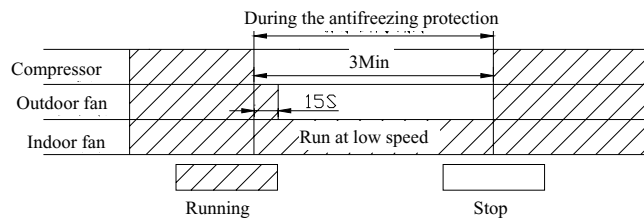
- In this mode, the reversal valve will not power on, the setting temp. range: 16 ~ 30.



7. 2. 2. 2. 2 Protection Functions

◆ Antifreezing Protection

When running in COOL mode, antifreezing protection is the same as the cooling, the DRY mode act (compressor starts running for 6 Min and stops running for 4Min), when the antifreezing protection is detected, the compressor will stop, but outdoor fan will delay 15secs and stop, indoor fan will run at low speed; when antifreezing protection is eliminated and compressor has stopped for 3min, the whole unit will run at the original status.



7. 2. 2. 3 HEAT Mode

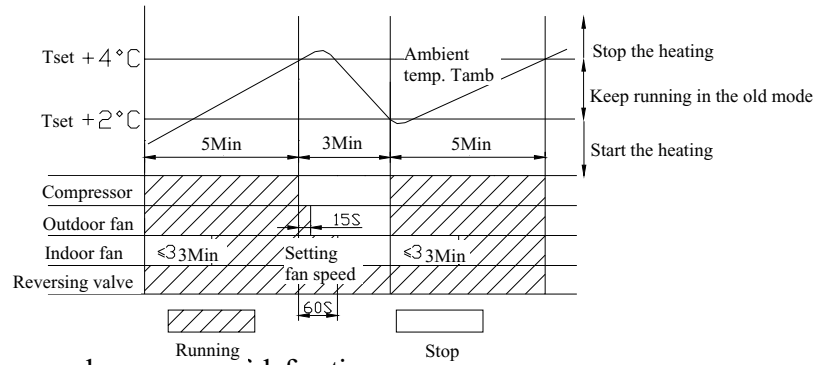
7. 2. 2. 3. 1 The conditions and processes of heating

If $T_{amb} < T_{set} + 2$, HEAT mode will act, compressor, outdoor fan and reversing valve will run, but indoor fan will after 3Min delayed and run.

If $T_{amb} < T_{set} + 4$, Compressor will stop first, outdoor fan will delay 15s and stop, reversing valve will keep working, after 60secs indoor fan will blow the surplus heat, after 60secs it will stop.

If $T_{set} + 2 < T_{set} < T_{set} + 4$, the unit will keep running in the old mode.

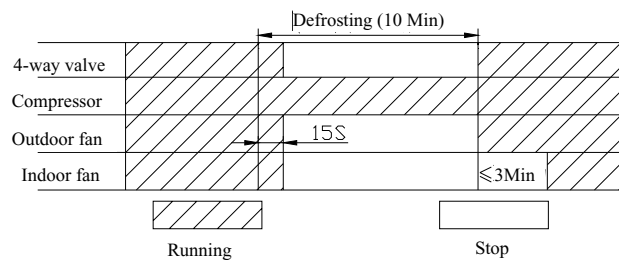
- In this mode, the reversal valve will not power on, the setting temp. range: 16 ~ 30.



7. 2. 2. 3. 2 The conditions and processes of defrosting

When detecting there is frost on the condenser, 15sec delayed, indoor fan, reversing valve, outdoor fan will stop; when the defrosting has been completed or after the unit is defrosting for 10Min, outdoor fan, reversing valve will power on; And run in HEAT mode again, there is at least 3Min delayed, indoor fan starts running.

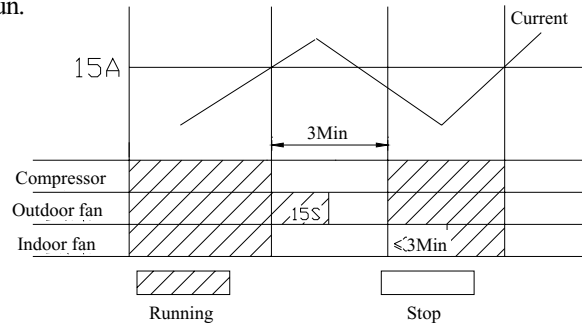
W



7. 2. 2. 3. 3 Protection function

◆ Overcurrent protection

When the system current is continuously tested for 3Min, higher than the specified value 15A, the compressor, indoor fan will stop running, 15sec delayed, the outdoor fan will stop. After 3Min, whole unit will run in the original mode, there is at least 3Min delayed, the indoor fan starts to run.



◆ Avoiding high temp.

In HEAT mode, when detecting T_{tube} is very high, outdoor fan will stop running; when detecting T_{tube} is normal, outdoor fan will return to run.

◆ Noise cancellation protection

When turning off the unit by "ON/OFF", the reversing valve will delay 2Min to stop running.

7. 2. 2. 4 AUTO mode

According to the ambient temperature to select COOL or HEAT mode automatically. The protection function as HEAT/COOL mode.

7. 2. 3 Other control

7. 2. 3. 1 Buzzer

When PCB is power on or receives the signal from the wireless remote control, the buzzer will sound.

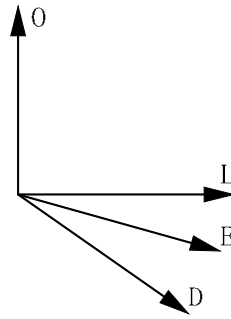
7. 2. 3. 2 Run indicator

When the unit is running in COOL, HEAT or DRY mode, the corresponding indicator lights will flash. When the indicator light is turned on the light will flash, when turned off, it will extinguish. When defrosting, the heating indicator light will flash.

7. 2. 3. 3 Swing motor

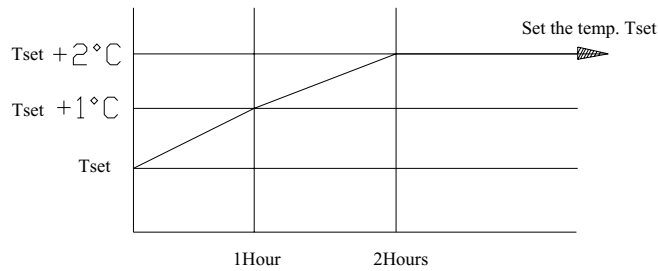
When it is powered on, the swing motor turn to position O, and turn off the air outlet vent; When the unit is turned on, firstly turn to position D; in swing state, the louver swings between position L and D. When the unit is turned off, will turn to position O. If it is

powered on to turn on the unit, but the swing hasn't been turned on, so it will stop to the position E.

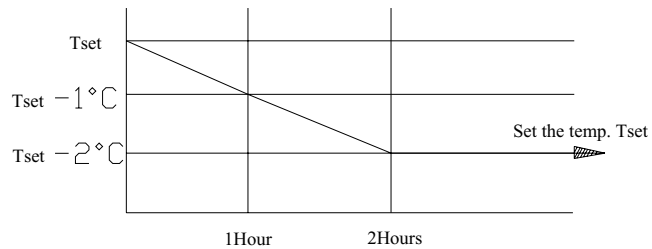


7. 2. 3. 4 Sleep function

In COOL or DRY mode, when the set sleeping has run for 1 hour, Tset will rise 1 ; 2 hours later, Tset will rise 2 . Indoor fan will run at low speed.



In HEAT mode, when the set sleeping has run for 1 hour, Tset will fall 1 ; 2 hours later, Tset will fall 2 , Indoor fan will run at low speed.



7. 2. 3. 5 Autokey (Under the indoor unit front panel)

When press this button, it will run in AUTO mode, indoor fan will run at low speed, when repressed, the unit will be turned off.

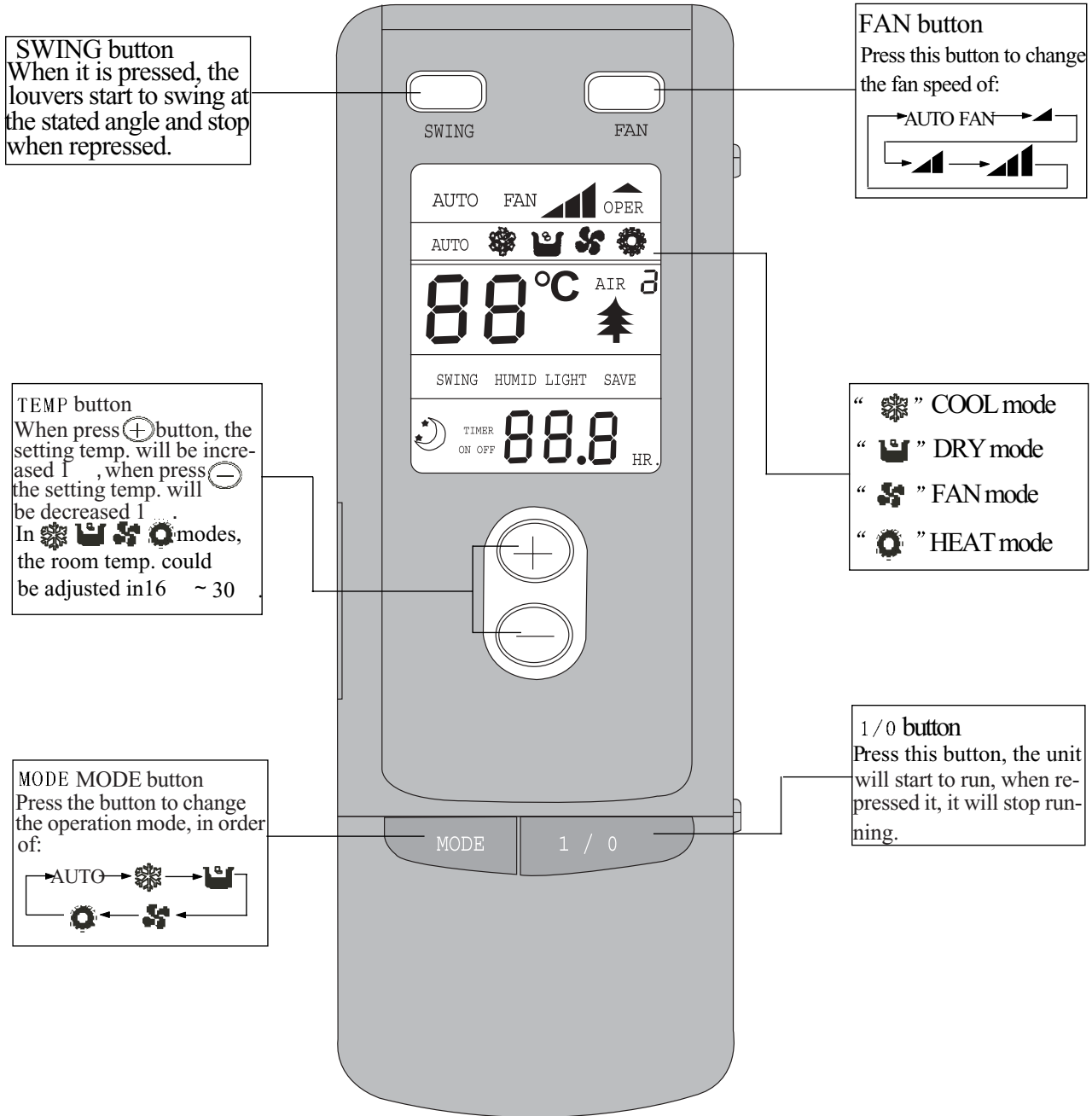
7. 2. 3. 6 Auto FAN

In this mode, according to ambient temperature, indoor fan will select High, Middle, Low fan speed.

7. 3 Names and functions of wireless remote control of each part

Note:

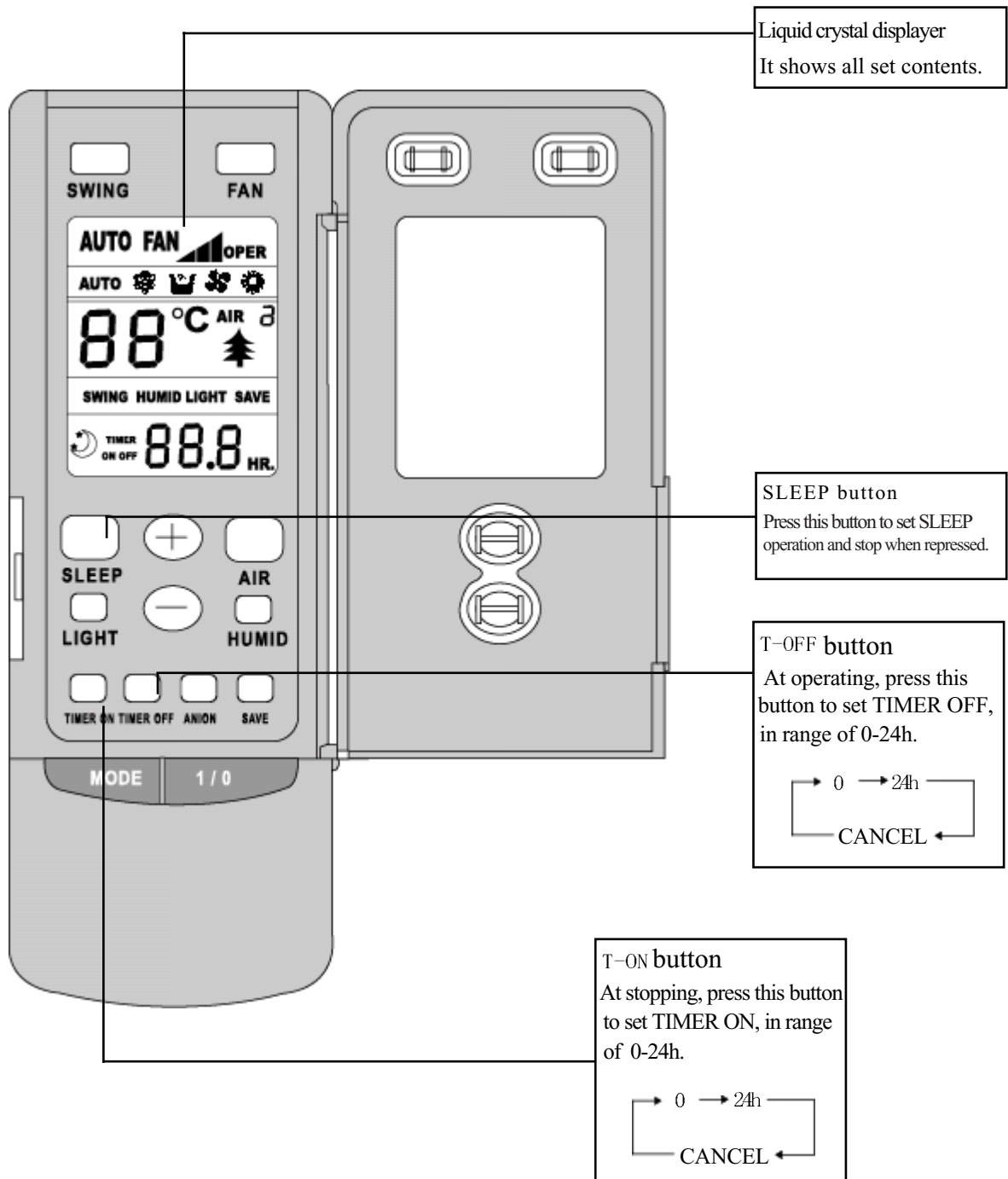
- Be sure that there are no obstructions between receiver and wireless remote control.
- The wireless remote control signal can be received at the distance of up to about 10m.
- Don't drop or throw the wireless remote control.
- Don't let any liquid in the wireless remote control and put it directly under the sunlight or any place where is very hot.



7. 4 Names and functions of wireless remote control(Remove the cover)

Note:

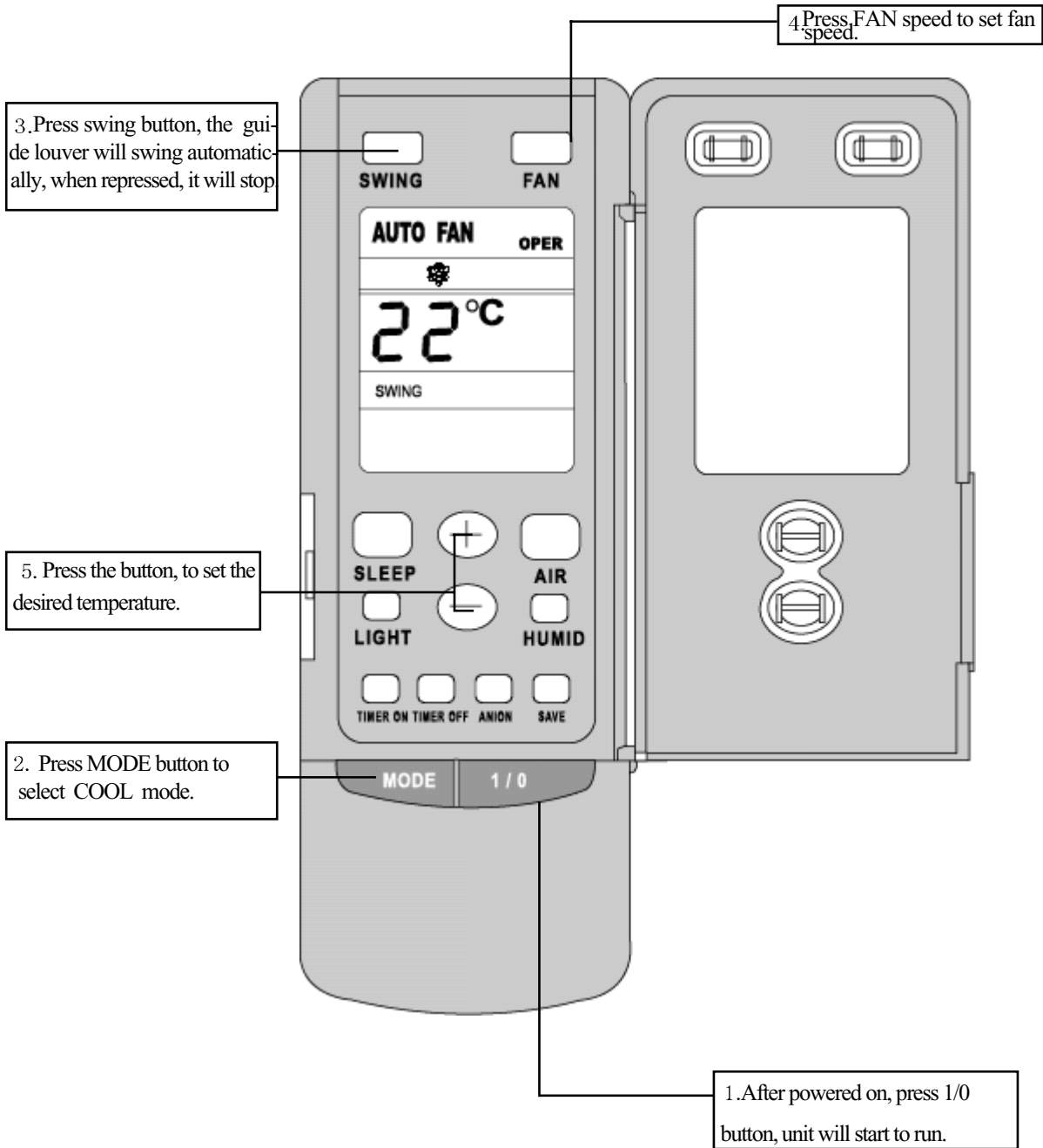
- This type of wireless remote control is a kind of new current control.
Some buttons of the control which are not available to this air conditioner will not be described below.
- The buttons which are not described will not affect the unit normal operation.



7.5 COOL mode operation

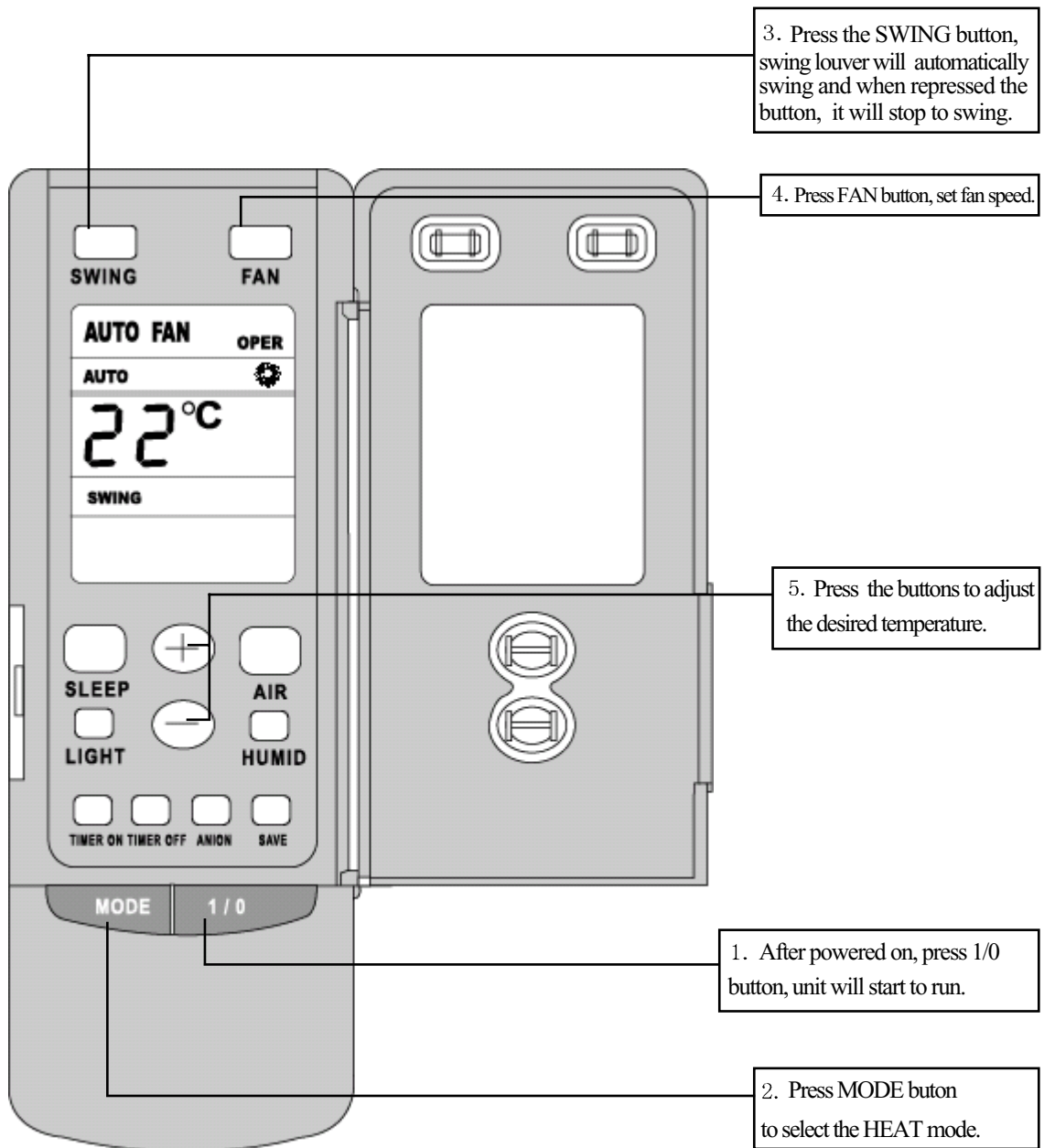
Note:

- Microcomputer will accord to the temp. differences which is between the detected temp. by the sensor and the setting temp. to decide to run in COOL mode or not.
- If the temp. which is detected by the room sensor is higher than the setting temp., compressor will run in COOL mode.
- If the temp. which is detected by the room sensor is lower than the setting temp., compressor will stop running, only the indoor fan run at the setting speed.
- Under this mode, the temp. setting range is 16 ~ 30 .



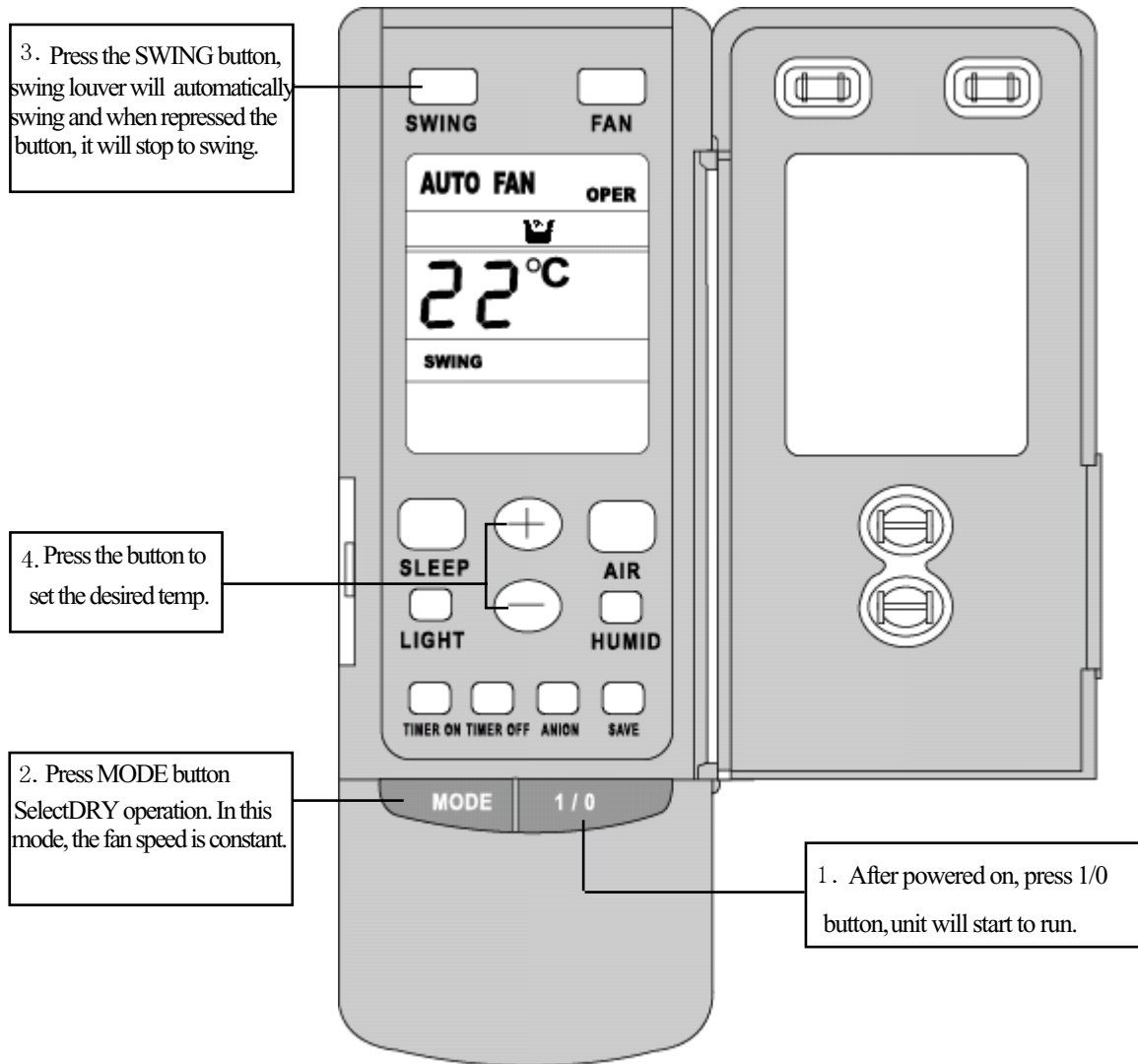
7. 6 HEAT mode operation

- If indoor temp. is lower than setting temp., compressor will run in HEAT mode.
- If indoor temp. is higher than setting temp., compressor and outdoor fan will stop, only indoor fan will run, guide louver will swing horizontally, one minute later, indoor fan will stop running.
- The setting range is 16 ~ 30 .



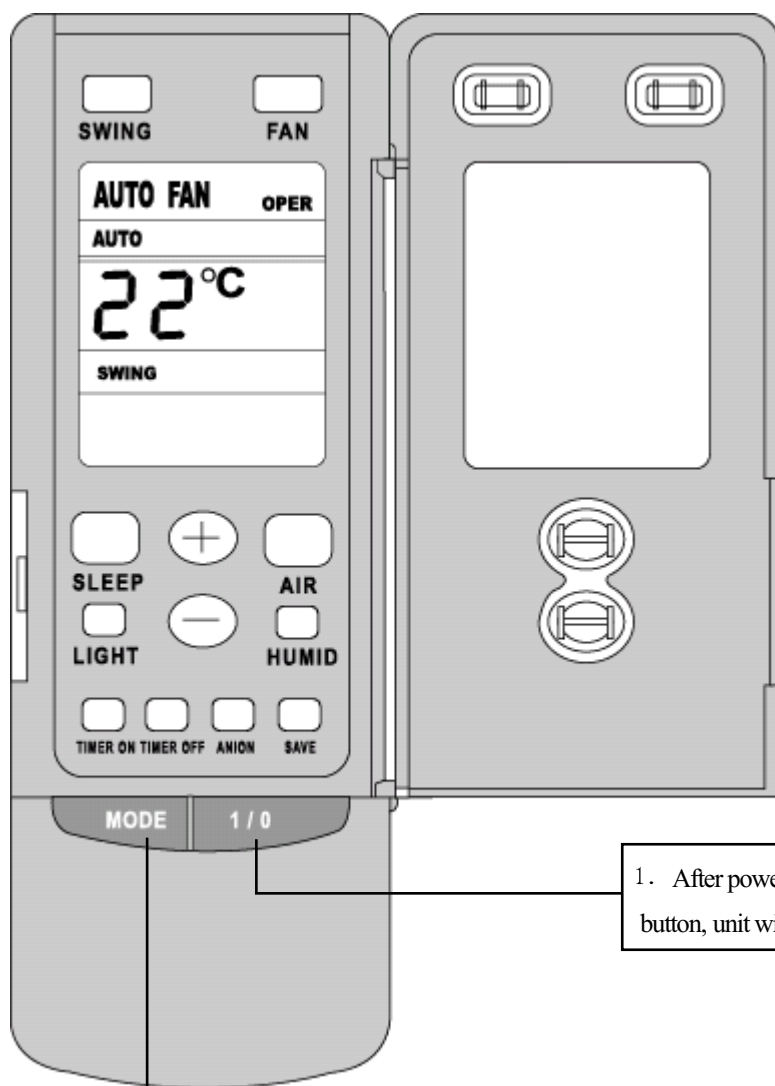
7.7 DRY mode operation

- If ambient temp. is 2 ° lower than setting temp., compressor, indoor and outdoor fan will stop running. If the ambient temp. is ± 2 ° of the setting temp., unit will run in COOL mode. If room temp. is 2 ° higher than setting temp., unit will run in COOL mode.
- The setting range is 16 ~ 30 °C.



7.8 AUTO mode operation

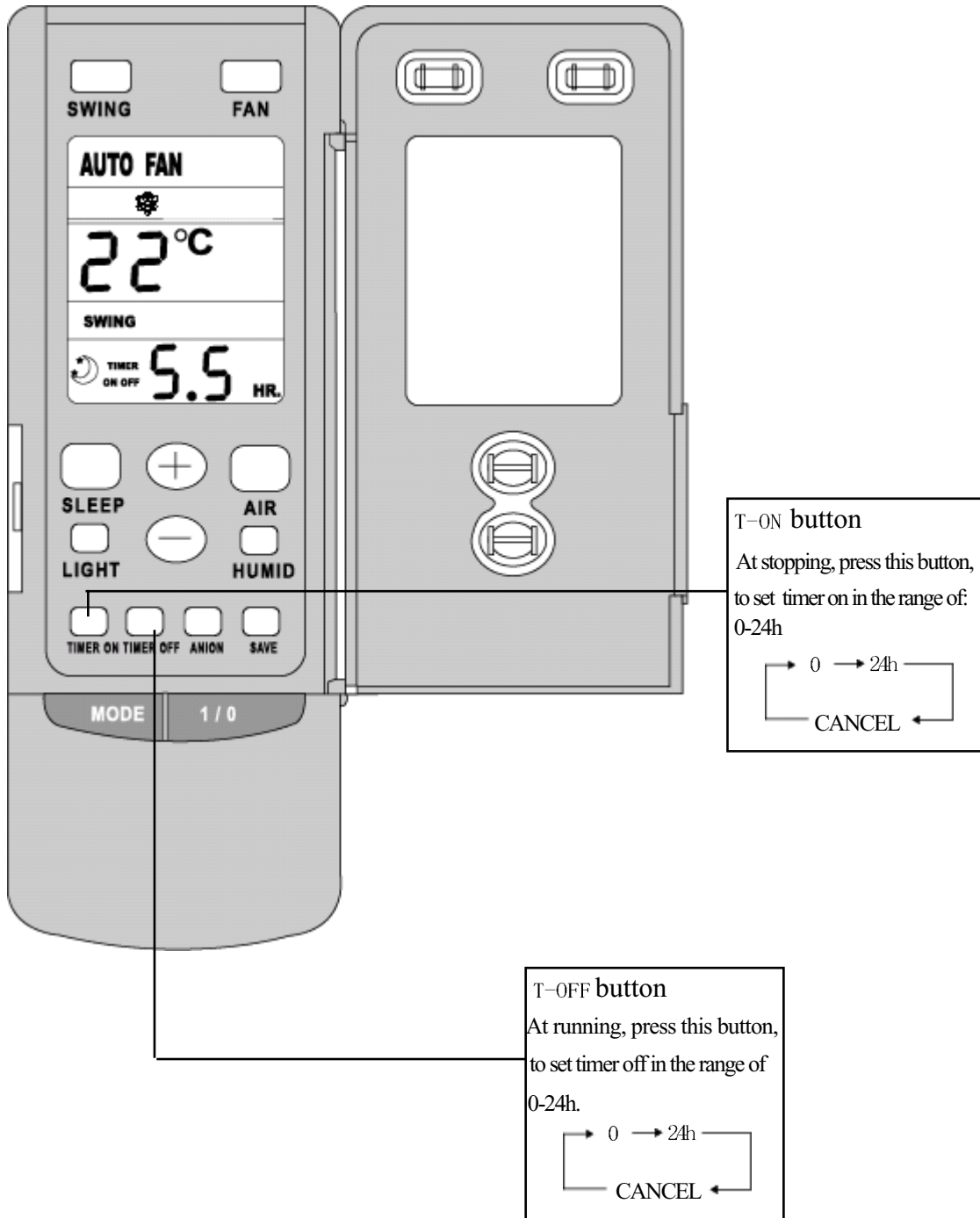
●In AUTO mode, the standard setting temp. range of COOL mode is 25 , the standard setting temp.range of HEAT is 20 .



1. After powered on, press 1/0 button, unit will start to run.

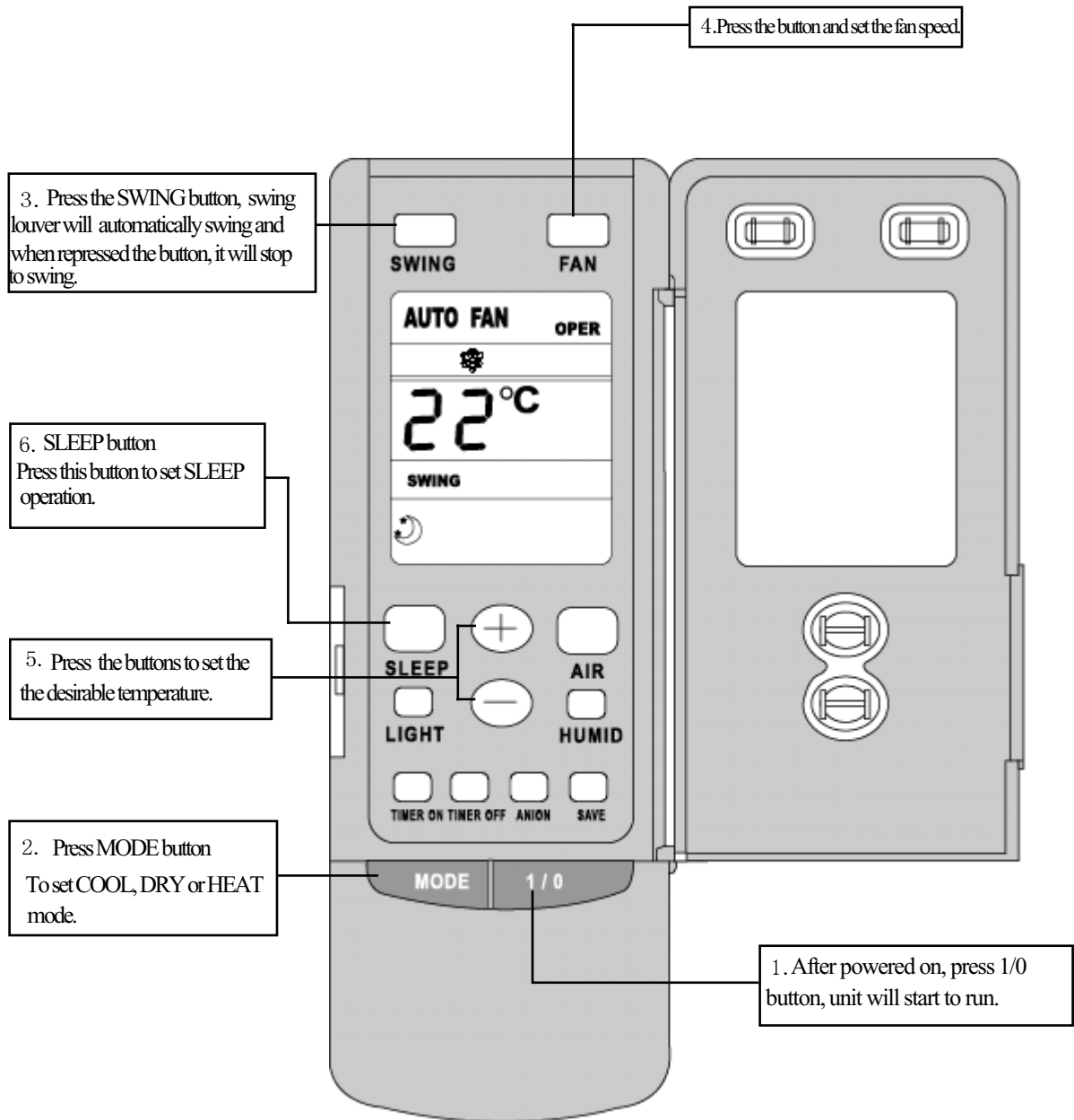
2. According to indoor temp. microcomputer will set the HEAT,COOL,DRY modes , to achieve the best effect .

7.9 TIMER operation mode



7. 10 SLEEP mode operation

- In COOL and DRY mode, setting the SLEEP mode, the setting temp. will be increased 1 in the first hour, and it will be increased 2 in the second hour.
- In HEAT mode, setting the SLEEP mode, the setting temp. will be decreased 1 in the first hour, it will be decreased 2 in the second hour.



7. 11 How to insert batteries

- Guide for operation procedure

The general procedure:

1. Plug to power supply and press ON/OFF button to start the unit.
2. Press MODE button to select the suitable operation mode.
3. Press SWING button, swing louver will swing automatically, repressed it , it will stop swing.
4. Press FAN button to set fan speed.
5. Press +/- button, to set the desired temperature.

The selected procedure:

6. Press SLEEP button on the wireless remote control to set the sleep.
7. Press TIMER button, then press +/- button, to set scheduled time.

NOTE: When elected the AUTO mode, unit will accord to the indoor temp. to select the suitable running mode, to make a comfortable ambient.

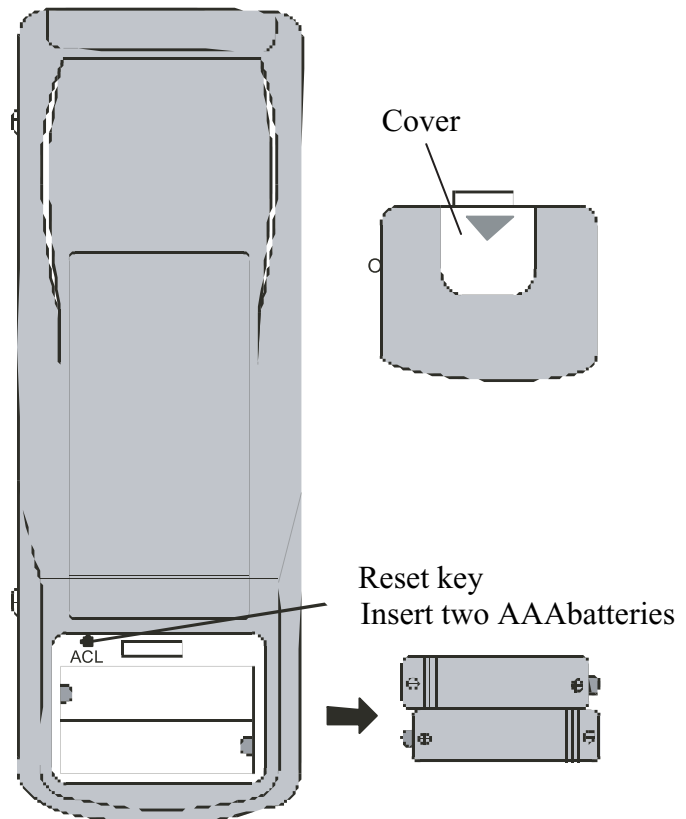
- Inserting batteries

Insert two AAA dry alkaline cell

1. Remove the cover from the back, take out of the old batteries, insert two new batteries(Pay attention to the polarity)
2. Re-attach the cover.

NOTE:

- Don't mix new and used or different types of two batteries to insert.
- Remove batteries away when wireless remote control is not in use.
- When operating the wireless remote control should be in its' receiving range.
- The wireless remote controller should be placed about 1m or more away from the TV or any other electric appliances.



8 Dissassembly Procedures

8.1 Disassembly procedures for indoor unit

Operation procedures/pictures

8.1.1 Remove the front panel

Push the bulge of panel left and right sides with fingers, Raise up the panel, along the groove of front case to take out of the panel forcibly.(As shown in Fig.8-1)



Fig. 8-1

8.1.2 Disassemble filter and wire-pressed clamp

Butt the middle part of filter, take off two clasps of both sides, pull them frontward, and disassemble the filter.
To screw off 1pc bolt from wire-pressed clamp with screwdriver then could disassemble the wire-pressed clamp.(As shown in Fig. 8-2)



Fig. 8-2

8.1.3 Disassemble guide louver

Take off the middle part of guide louver from the holders, then bend the guide louver slightly, could disassemble it.(As shown in Fig.8-3)



Fig. 8-3

Operation procedures/pictures

8.1.4 ||||| Disassemble the front case

Take out 3pcs tapping screw from front case with screwdriver, press the clasps of the front case middle part, then turn over the front case, could disassemble the front case. (As shown in Fig.8-4)

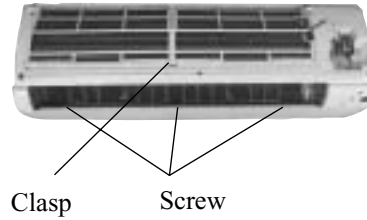


Fig. 8-4

8.1.5 ||||| Disassemble water-tray

Firstly disassemble the electric box cover, take off the terminal of swing motor, use screwdriver to open the clasp in the rear right of water tray, then rotate it, to let it depart from the left clasp, then disassemble the water tray. (As shown in Fig.8-5)



Fig. 8-5

8.1.6 ||||| Disassemble the water-tray assy

Firstly screw off 2pcs screw from indicator light board, to disassemble the indicator light board. Then take off the terminal of the motor, to screw off the earth screw and 2pcs screw of electric box, finally to open one clasp of the electric box, can take out the electric box. (As shown in Fig.8-6,8-7)

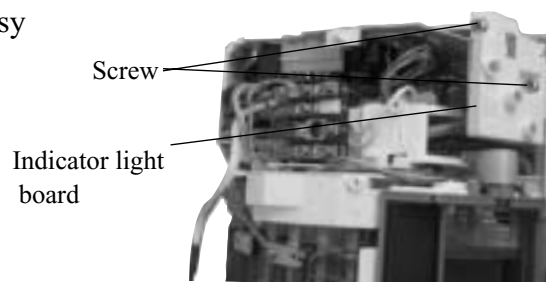


Fig. 8-6

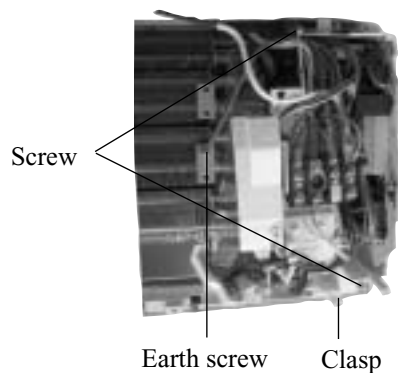


Fig. 8-7

8.1.7 ||||| Disassemble evaporator assy

Screw off the screws from rear pipe clamp with screwdriver, disassemble the rear pipe clamp. (As shown in Fig.8-8)



Fig.8-8

To screw off 2pcs screw from the right of evaporator. (As shown in Fig.8-9)

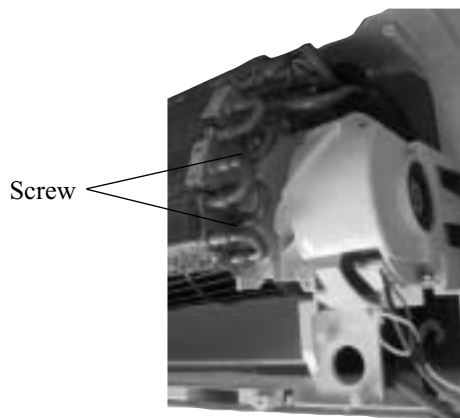


Fig.8-9

Operation procedures/pictures

Screw off 1pc screw from the left of the evaporator, and loose the clasp. Rotate the evaporator in a certain angle, could disassemble the evaporator.(As shown in Fig.8- 10)

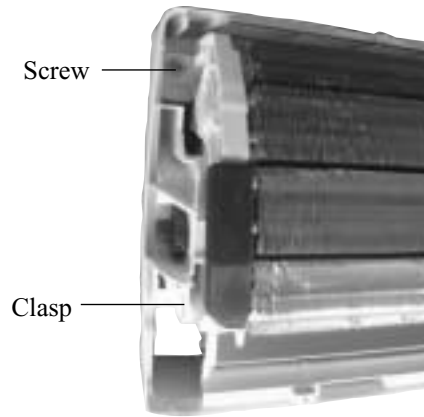
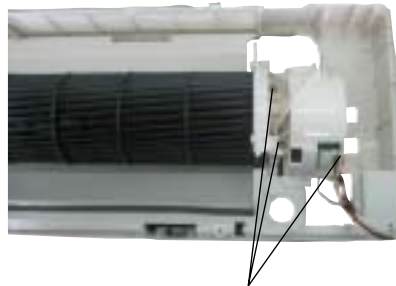


Fig. 8 – 10

8.1.8 ||||| Disassemble the motor and cross flow fan

Screw off 3pcs screw from the motor clamp with screwdriver. And then screw off the screws which connect with the motor and cross flow fan, could disassemble the motor and cross flow fan. (As shown in Fig.8-11, 8-12)



Screw

Fig. 8 – 11



Screw

Fig. 8 – 12

8. 2 Disassembly procedures for the smaller outdoor unit

Operation procedures/pictures

8. 2. 1 ||||| Disassemble the top cover and handle

Screw off 1pc screw from the handle, then can take off the handle. To screw off 3pcs screw around the top cover, then can disassemble the top cover.
(As shown in Fig. 8-13)



Fig.8 - 13

8. 2. 2 ||||| Disassemble the rear grill

Screw off 4pcs screw from the rear grill with screwdriver, can disassemble the rear grill.(As shown in Fig.8-14)

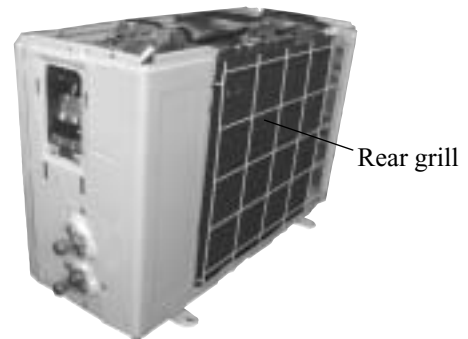


Fig.8 - 14

8. 2. 3 ||||| Disassemble the front grill

Screw off 6pcs screw which are used to fix the front grill, and can disassemble the front grill.
(As shown in Fig. 8-15)

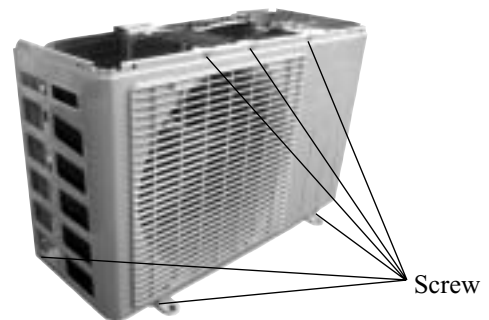


Fig. 8 - 15

Operation procedures/pictures

8. 2. 4 ||||| Disassemble the electric box

Screw off 1pc screw from the electric box with screwdriver, can disassemble the electric box.
(As shown in Fig.8-16)

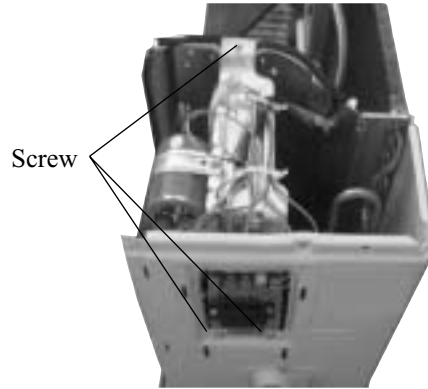


Fig.8 - 16

8. 2. 5 ||||| Disassemble the right side plate

Screw off 5pcs screw from the right side plate with screwdriver, can disassemble the right side plat.
(As shown in Fig.8-17)

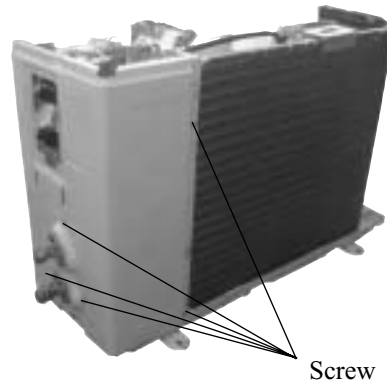


Fig. 8 - 17

8. 2. 6 ||||| Disassemble the axial flow fan

Screw off the nuts which used to fix the axial flow fan, can pull out of the axial flow fan forcibly.
(As shown in Fig. 8-18)

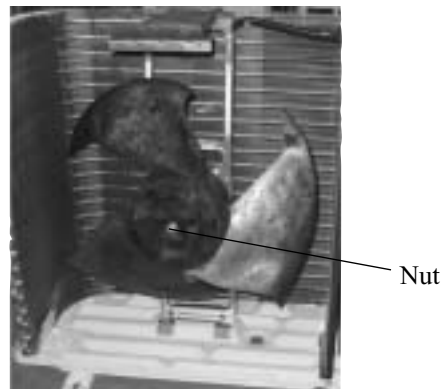


Fig. 8 - 18

8. 2. 7 ||||| Disassemble the motor and motor support

Use screwdriver to screw off the screws which fix the motor and motor support, can take off the motor and motor support.

(As shown in Fig.8-19)

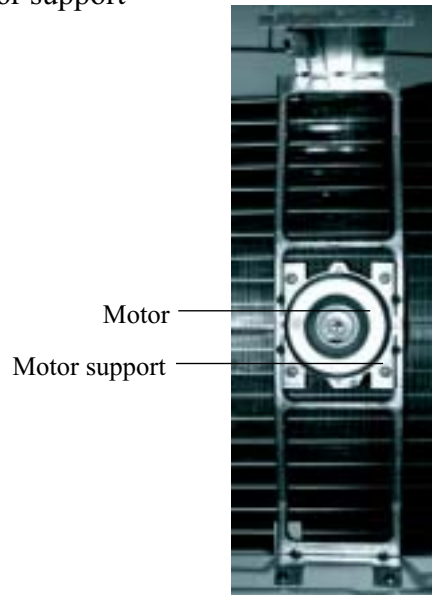


Fig. 8 – 19

8. 2. 8 ||||| Disassemble the 4-way valve

(Only for condenser)

To unsolder 4 pcs solder joint of the 4-way valve, then use spanner to screw off 1pc nut of the loop from the 4-way valve, can disassemble the 4-way valve. (As shown in Fig. 8-20)

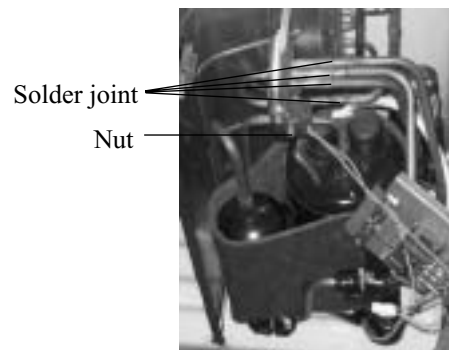


Fig.8 – 20

Operation procedures/pictures

8. 2. 9 ||||| Disassemble the capillary

Unsolder the double end of the capillary, could disassemble the capillary, do not let the dregs block the capillary.(As shown in Fig.8-21)

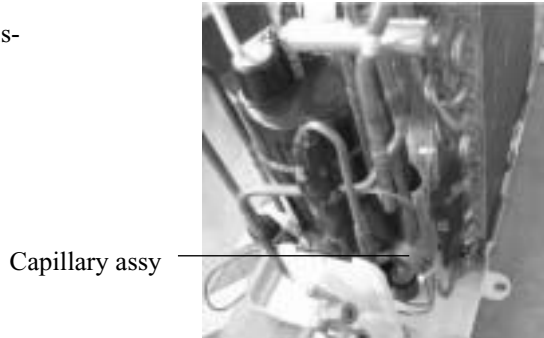


Fig.8 - 21

8. 2. 10 ||||| Disassemble the valve

Using the screwdriver to screw off the screws which fix the valve, then unsolder the connection pipe which connect with the valve. Then can disassemble the valve.(As shown in Fig.8-22)

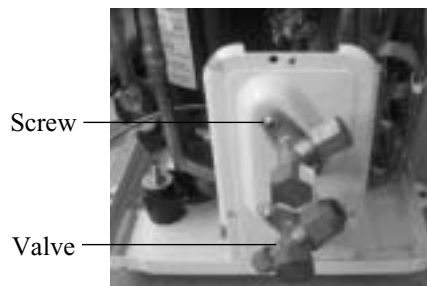


Fig.8 - 22

8. 2. 11 ||||| Disassemble the compressor

Unsolder 2pcs solder joint from the compressor, and use the spanner loose 3pcs base screw, can disassemble the compressor.(As shown in Fig.8-23)

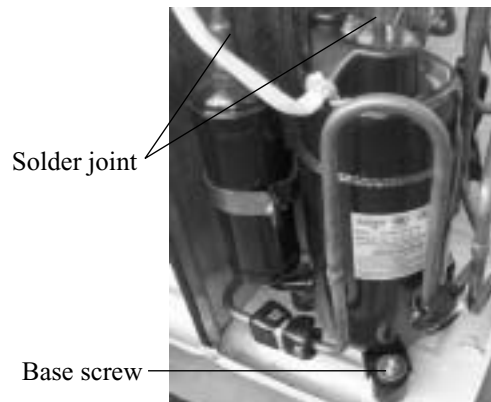


Fig.8 - 23

8.3 Disassembly procedures for the big outdoor unit

Operation procedures/pictures

8.3.1 Disassemble the top cover and handle

Using the screwdriver to screw off 1 screw from the handle, then can disassemble the handle. Screw off 3 pcs screw around the top cover, could disassemble the top cover.(As shown in Fig.8-24)



Fig. 8 - 24

8.3.2 Disassemble the rear grill

Using the screwdriver to screw off 4 pcs screw around the rear grill, could disassemble the rear grill. (As shown in Fig.8-25)

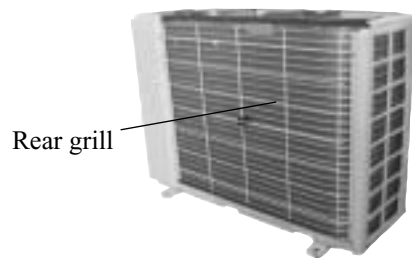


Fig. 8 - 25

8.3.3 Disassemble front grill

To screw off 6 pcs screw from the front grill with screwdriver, could disassemble the front grill. (As shown in Fig.8-26)

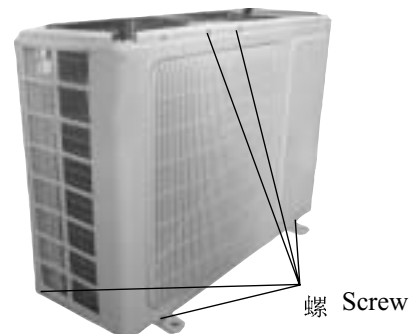


Fig.8 - 26

Operation procedures/pictures

8.3.4 ||||| Disassemble the electric box

To screw off 3pcs screw from the electric box, could disassemble the electric box.(As shown in Fig.8-27)



Fig.8 – 27

8.3.5 ||||| Disassemble the right side plate

To screw off 5pcs screw from the right side plate with screwdriver, could disassemble the right side plate.(As shown in Fig.8-28)

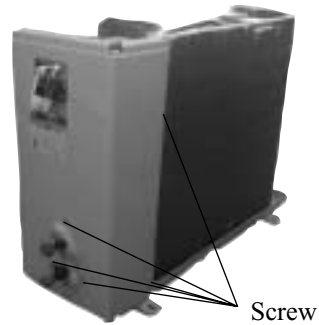


Fig.8 – 28

8.3.6 ||||| Disassemble the Axial flow fan

To screw off the nut which fixes the axial flow fan, pull it outward forcibly, can take out of the axial flow fan.(As shown in Fig.8-29)

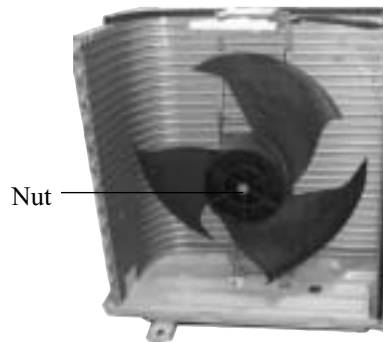


Fig.8 – 29

8.3.7 ||||| Disassemble the motor and motor support

Use screwdriver to screw off the screws which fix the motor, and pull out the connection wire of the motor and electric box, can disassemble the motor. And use screwdriver to screw off the screw under the motor support, can disassemble the motor support.(As shown in Fig.8-30)

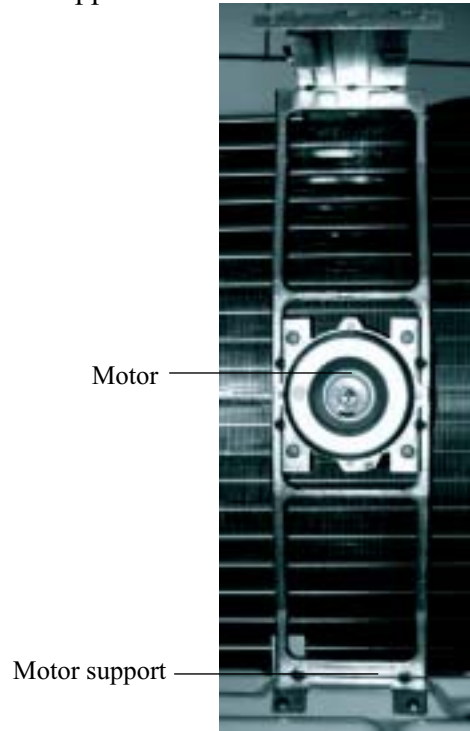


Fig.8 — 30

8.3.8 ||||| Disassemble the 4-way valve

(Only for cooling and heating type unit)
To unsolder 4pcs solder joint of the 4-way valve, then to screw off the loop nut from 4-way valve, can disassemble the 4-way valve.(As shown in Fig.8-31)

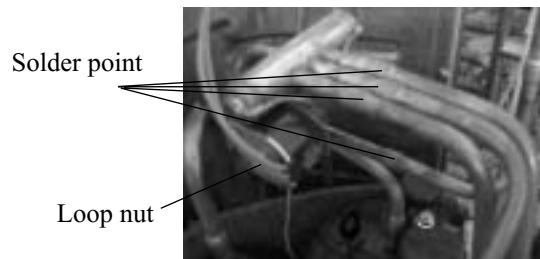


Fig.8 — 31

Operation procedures/pictures

8. 3. 9 ||||| Disassemble the capillary

Unsolder the double end of the capillary, can disassemble the capillary, do not let the dregs block the capillary. (As shown in Fig.8-32)

Capillary assy



Fig. 8 - 32

8. 3. 10 ||||| Disassemble the valve

Using the screwdriver to screw off 2pcs screw which fix the valve, then unsolder the copper pipe which connect with the valve. Then could disassemble the valve. (As shown in Fig.8-33)

Screw

Gas valve

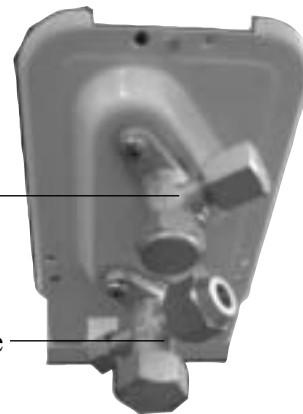


Fig. 8 - 33

8. 3. 11 ||||| Disassemble the compressor

Unsolder the copper pipe which connect with the compressor, and screw off 3pcs base screw, can disassemble the compressor.(As shown in Fig.8-34)

Solder joint

Base screw



Fig. 8 - 34

8.4 Disassembly procedures for the plastic case outdoor unit

Operation procedures/pictures

8.4.1 Disassemble the right handle

To screw off 4pcs screw from the right handle, then press the clasp of the right side at full tilt, can disassemble the right handle.(As shown in Fig.8-35)

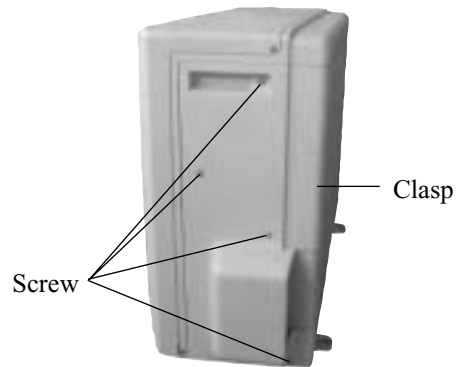


Fig. 8 – 35

8.4.2 Disassemble the front grill

To screw off 1pc screw from the right side of the front grill by using the screwdriver. (As shown in Fig.8-36)

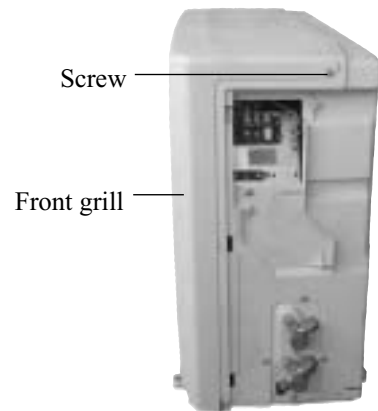


Fig. 8 – 36

Then screw off 1pc screw from the left side.(As shown in Fig.8-37)



Fig. 8 – 37

Operation procedures/pictures

Screw off 2pcs screw from the front side,
can disassemble the front grill.
(As shown in Fig.8-38)

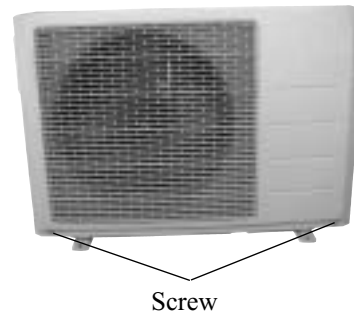


Fig.8 – 38

8. 4. 3 ||||| Disassemble the rear grill

Screw off the screws around the rear grill,
then can disassemble the rear grill.
(As shown in Fig.8-39,8-40)

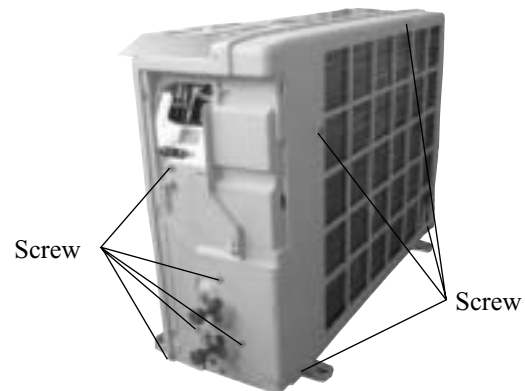


Fig.8 – 39

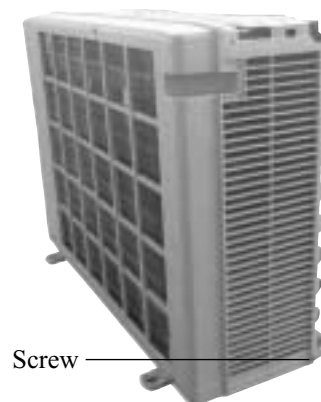


Fig. 8 – 40

Fig.

Operation procedures/pictures

8. 4. 4 ||||| Disassemble the electric box cover

To screw off 1pc screw from the electric box cover, can take down the electric box cover.
(As shown in Fig.8-41)

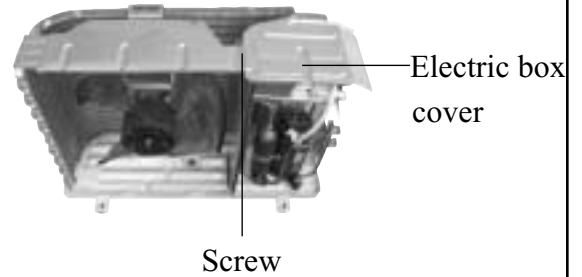


Fig. 8 - 41

8. 4. 5 ||||| Disassemble the supporting plate

To screw off 3pcs screw from the lower supporting plate, can disassemble the lower supporting plate.
(As shown in Fig.8-42)

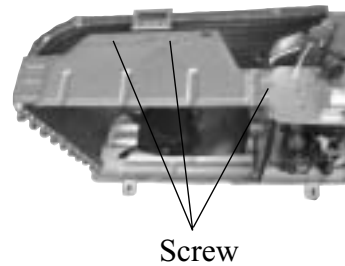


Fig. 8 - 42

8. 4. 6 ||||| Disassemble the electric box

To screw off 1pc screw from the electric box, can disassemble the electric box.(As shown in Fig.8-43)

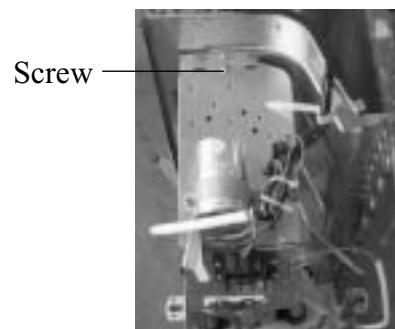


Fig. 8 - 43

Operation procedures/pictures

8.4.7 ||||| Disassemble the axial flow fan

Using the spanner to screw off 1pc left nut from the axial flow fan, and pull it outward at full tilt, could take down the axial flow fan.(As shown in Fig.8-44)

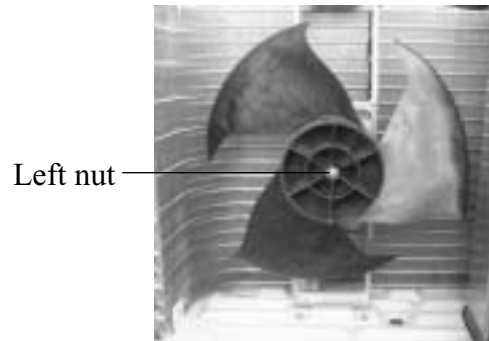


Fig. 8 - 44

8.4.8 ||||| Disassemble the motor and motor support

Using the screwdriver to screw off 4pcs screw from the motor, then take off the connection wire which connect with the motor and electric box, can take down the motor. Screw off the screw under the motor support, can disassemble the motor support. (As shown in Fig.8-45)

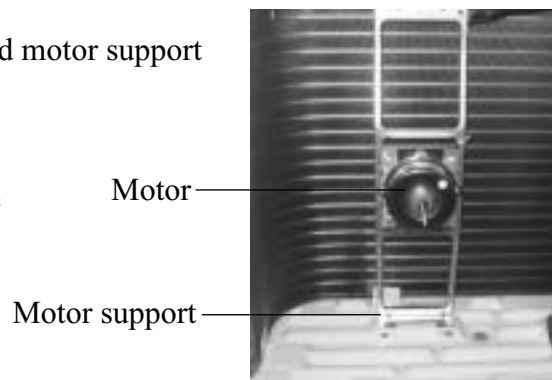


Fig. 8 - 45

8.4.9 ||||| Disassemble the 4-way valve

(Only for cooling and heating type unit)
To unsolder 4pcs solder joint of the 4-way valve, then to screw off the loop nut from 4-way valve, can disassemble the 4-way valve.(As shown in Fig.8-46)

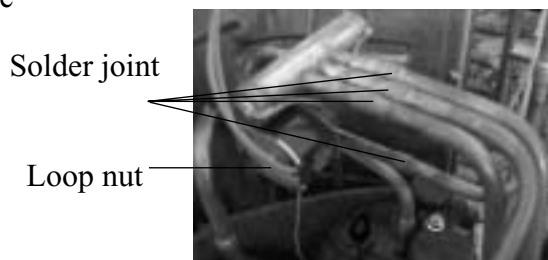


Fig. 8 - 46

8. 4. 10 ||||| Disassemble the capillary

Unsolder the double end of the capillary, can disassemble the capillary, do not let the dregs block the capillary. (As shown in Fig.8-47)

Capillary assy



Fig. 8 - 47

8. 4. 11 ||||| Disassemble the valve

Using the screwdriver to screw off 2pcs screw which fix the valve, then unsolder the copper pipe which connect with the valve. Then could disassemble the valve. (As shown in Fig.8-48)

Gas valve

Liquid valve

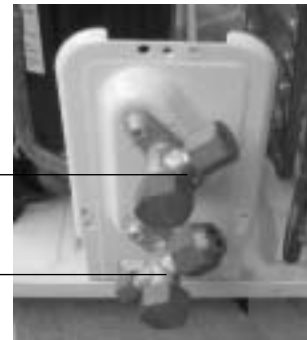


Fig. 8 - 48

8. 4. 12 ||||| Disassemble the compressor

Unsolder the copper pipe which connect with the compressor, and screw off 3pcs base nut with spanner, can disassemble the compressor.(As shown in Fig.8-49)

Solder joint

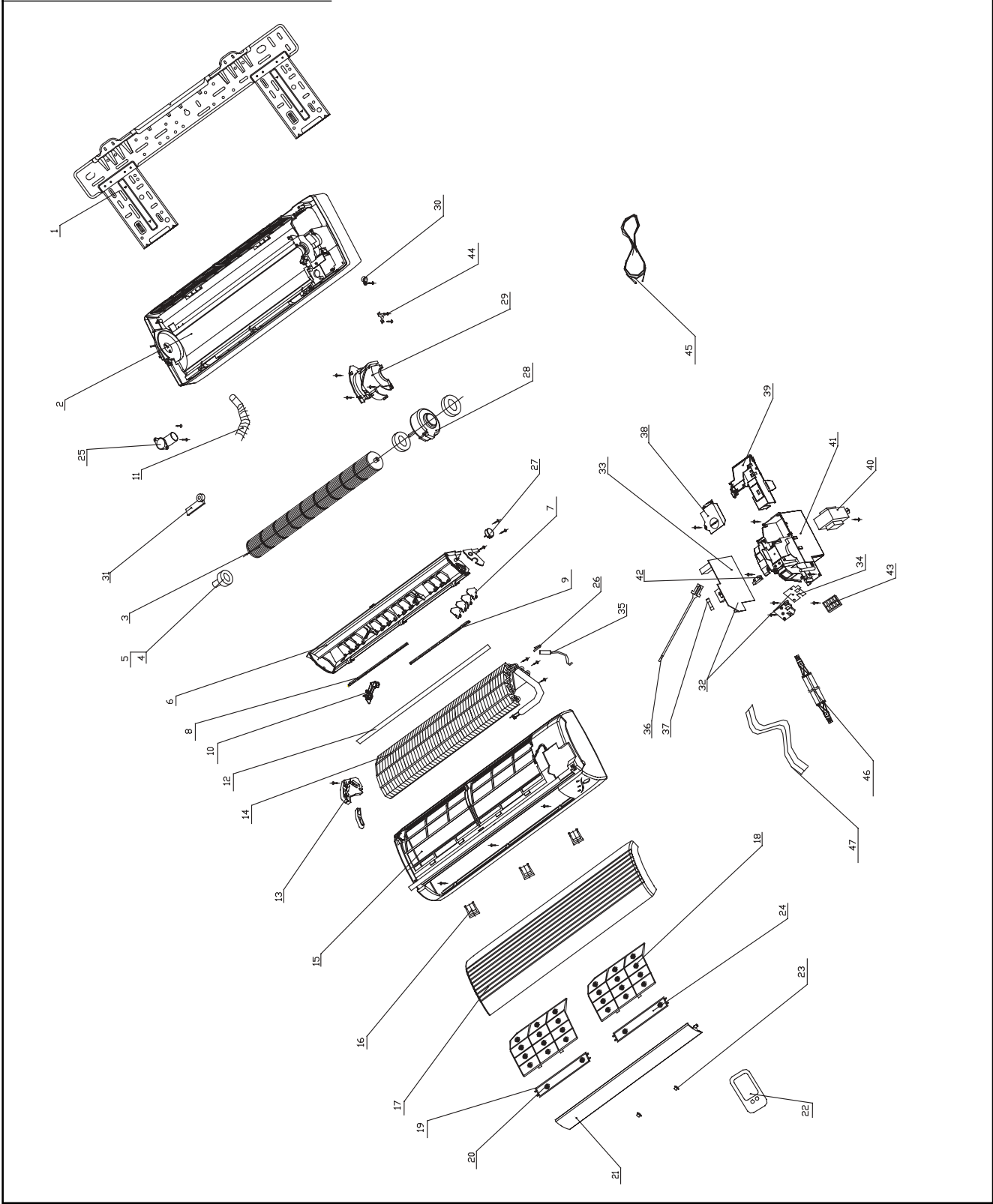
Base nut



Fig. 8 - 49

9 Explosive view and spare parts list

9.1 Explosive view of indoor unit



9.2 Spare parts list of indoor unit

No.	Description	Part No.				Qty.
		KF-20G/A12	KFR-20G/A12	KF-25G/A12	KFR-25G/A12	
1.	Wall mounting frame	01252438	01252220	01252220	01252220	1
2.	Rear case assy	22202002	22202001	22202001	22202001	1
3.	Cross flow fan	10352001	10352001	10352001	10352001	1
4.	Fan bearing	76512210	76512210	76512210	76512210	1
5.	Ring of cross flow fan bearing	76512203	76512203	76512203	76512203	1
6.	Water tray assy	20182012	20182012	20182012	20182012	1
7.	Swing louver	10512002	10512002	10512002	10512002	12
8.	Swing connecting rod 1	10582002	10582002	10582002	10582002	1
9.	Swing connecting rod 2	10582003	10582003	10582003	10582003	1
10.	Manual lever	10582001	10582001	10582001	10582001	2
11.	Water drainage pipe	05232411	05232411	05232411	05232411	1
12.	Evaporator gate	26112022	26112002	26112022	26112022	1
13.	Evaporator supporter	24212061	24212001	24212061	24212061	1
14.	Evaporator assy	01002048	01002042	01002042	01002042	1
15.	Front case assy	20002003	20002003	20002003	20002003	1
16.	Screw cover	24252001	24252001	24252001	24252001	3
17.	Front panel	20002001	20002001	20002001	20002001	1
18.	Filter	11122002	11122002	11122002	11122002	2
19.	Air cleaner holder	24222001	24222001	24222001	24222001	2
20.	Air cleaner screen A	11012002	11012002	11012002	11012002	1
21.	Guide louver	10512001	10512001	10512001	10512001	1
22.	Wireless remote control Y512	30512505	30512506	30512506	30512506	1
23.	Guide louver bearing	10542011	10542011	10542011	10542011	3
24.	Air cleaner screen B	11012003	11012003	11012003	11012003	1
25.	Evaporator pipe cover	06122001	06122001	06122001	06122001	1
26.	Sensor insert B	42020063	42020063	42020063	42020063	1
27.	Stepping motor MP24GA	15212102	15212102	15212102	15212102	1
28.	Motor FN8G	15012037	15012037	/	/	1
	Motor FN13B	/	/	15012038	15012038	1
29.	Motor clamp	26112014	26112014	26112014	26112014	1
30.	Wire clamp	/	71010103	71010103	71010103	1
31.	Connecting pipe clamp	24242001	24242001	24242001	24242001	1
32.	PCB 5K522J	/	30025508	/	30025508	1
	PCB 5K512J	/	/	300255691	/	1
33.	Mainboard 5K51	300557211	/	300557211	/	1
	Mainboard 5K52	/	300557201	/	300557201	1
34.	Receiving board JD	30046034	30046034	30046034	30046034	1
35.	Tube sensor	39000594	39000160	39000165	39000160	1
36.	Room sensor	39000453	39000043	39000043	39000043	1
37.	Fuse	46010014	46010014	46010014	46010014	1
38.	Top cover of electric box 2	01412007	01412007	01412007	01412007	1
39.	Top cover of electric box	20102114	20102114	20102114	20102114	1
40.	Transformer	43110170	43110170	43110170	43110170	1
41.	Electric box	20102001	20102001	20102001	20102001	1
42.	Cable groove	70482001	70482001	70482001	70482001	1
43.	Terminal board T4A3A7377	42010183	42010183	42010183	42010183	1
44.	Wire clip	42012415	42012401	42012415	42012415	1
45.	Power connecting cable	40020402	40020402	40020402	40020402	1
46.	Signal control cable	/	40032150	/	40032150	1
47.	Power cable sub-assy	40020202	40020202	40020202	40020202	1

Bird Single-Split Type

No.	Description	Part No.				Qty.
		KFR-25G/A12-J	KF-32G/A12	KFR-32G/A12	KFR-32G/A12-J	
1.	Wall mounting frame	01252220	01252220	01252220	01252220	1
2.	Rear case assy	22202305	22202304	22202304	22202304	1
3.	Cross flow fan	10352001	10352001	10352001	10352001	1
4.	Fan bearing	76512210	76512210	76512210	76512210	1
5.	Ring of cross flow fan bearing	76512203	76512203	76512203	76512203	1
6.	Water tray assy	20182012	20182012	20182012	20182012	1
7.	Swing louver	10512002	10512002	10512002	10512002	12
8.	Swing connecting rod 1	10582002	10582002	10582002	10582002	1
9.	Swing connecting rod 2	10582003	10582003	10582003	10582003	1
10.	Manual lever	10582001	10582001	10582001	10582001	2
11.	Water drainage pipe	05232411	05232411	05232411	05232411	1
12.	Evaporator gate	26112022	26112022	26112022	26112022	1
13.	Evaporator supporter	24212016	24212016	24212016	24212001	1
14.	Evaporator assy	01002042	01002022	01002022	01002022	1
15.	Front case assy	20002111	20002111	20002111	20002111	1
16.	Screw cover	24252001	24252001	24252001	24252001	3
17.	Front panel	20002001	20002001	20002001	20002001	1
18.	Filter	11122002	11122002	11122002	11122002	2
19.	Air cleaner holder	24222001	24222001	24222001	24222001	2
20.	Air cleaner screen A	11012002	11012002	11012002	11012002	1
21.	Guide louver	10512001	10512001	10512001	10512001	1
22.	Wireless remote control Y512	30512506	30512506	30512506	30512505	1
23.	Guide louver bearing	10542011	10542011	10542011	10542011	3
24.	Air cleaner screen B	11012003	11012003	11012003	11012003	1
25.	Evaporator pipe cover	06122001	06122001	06122001	06122001	1
26.	Sensor insert B	42020063	42020063	42020063	42020063	1
27.	Stepping motor MP24GA	15212102	15212102	15212102	15212102	1
28.	Motor FN13H	15012064	/	/	/	1
	Motor FN14A	/	150120108	150120108	150120108	1
29.	Motor clamp	26112014	26112014	26112014	26112014	1
30.	Wire clamp	71010103	71010103	71010103	71010103	1
31.	Connecting pipe clamp	24242001	24242001	24242001	24242001	1
32.	PCB 5K522J	30025570	30025570	30025570	30025570	1
33.	PCB 5K52	30055720	30055720	30055720	30055720	1
34.	Receiving board JD	30046034	30046034	30046034	30046034	1
35.	Tube sensor	390000591	390000591	390000591	390000591	1
36.	Room sensor	390000451	390000451	390000451	390000451	1
37.	Fuse	46010014	46010014	46010014	46010014	1
38.	Top cover of electric box 2	01412007	01412007	01412007	01412007	1
39.	Top cover of electric box	20102114	20102114	20102114	20102114	1
40.	Transformer SC28B5	43110204	/	/	/	1
	Transformer SC28B1	/	43110170	43110170	43110170	1
41.	Electric box	20102001	20102001	20102001	20102001	1
42.	Cable groove	70482001	70482001	70482001	70482001	1
43.	Terminal board T4A3A7377	42010183	42010183	42010183	42010183	1
44.	Wire clip	42012415	42012415	42012415	42012415	1
45.	Power connecting cable	40020402	40020403	40020403	40020403	1
46.	Signal control cable	40032150	40032150	40032150	40032150	1
47.	Power cable sub-assy	40020206	40020207	40020207	40020207	1

No.	Description	Part No.		Qty.
		KF-20G/NA12	KF-20G/NA12	
1.	Wall mounting frame	01252220	01252220	1
2.	Rear case assy	22202001	01252220	1
3.	Cross flow fan	10352001	10352001	1
4.	Fan bearing	76512210	76512210	1
5.	Ring of cross flow fan bearing	76512203	76512203	1
6.	Water tray assy	20182012	20182012	1
7.	Swing louver	10512002	10512002	12
8.	Swing connecting rod 1	10582002	10582002	1
9.	Swing connecting rod 2	10582003	10582003	1
10.	Manual lever	10582001	10582001	2
11.	Water drainage pipe	05232411	05232411	1
12.	Evaporator gate	26112022	26112022	1
13.	Evaporator supporter	24212016	24212016	1
14.	Evaporator assy	01002093	01002093	1
15.	Front case assy	20002608	20002608	1
16.	Screw cover	24252001	24252001	3
17.	Front panel	20002001	20002001	1
18.	Filter	11122002	11122002	2
19.	Air cleaner holder	24222001	24222001	2
20.	Air cleaner screen A	11012002	11012002	1
21.	Guide louver	10512001	10512001	1
22.	Wireless remote control Y512	30512506	30512506	1
23.	Guide louver bearing	10542011	10542011	3
24.	Air cleaner screen B	11012003	11012003	1
25.	Evaporator pipe cover	06122001	06122001	1
26.	Sensor insert B	42020063	42020063	1
27.	Stepping motor MP24GA	15212102	15212102	1
28.	MotorFN8G	15012037	15012037	1
29.	Motor clamp	26112014	26112014	1
30.	Wire clamp	71010103	71010103	1
31.	Connecting pipe clamp	24242001	24242001	1
32.	PCB 5K512J	300255691	300255691	1
33.	Mainboard5K512J	300557211	300557211	1
34.	Receiving board JD	30046034	30046034	1
35.	Tube sensor	390000594	390000594	1
36.	Room sensor	390000453	390000453	1
37.	Fuse	46010014	46010014	1
38.	Top cover of electric box 2	01412007	01412007	1
39.	Top cover of electric box 1	20102114	20102114	1
40.	Transformer	43110170	43110170	1
41.	Electric box	20102001	20102001	1
42.	Cable groove	70482001	70482001	1
43.	Terminal board T4A3A7377	42010183	42010183	1
44.	Wire clip	42012415	42012415	1
45.	Power connecting cable	40020402	40020402	1
46.	Signal control cable	/	/	1
47.	Power cable sub-assy	40020202	40020202	1

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No.	Description	Part No.				Qty.
		KFR-20G/NA12S1	KFR- 20G/NA12S2	KFR- 20G/NA12S1	KFR- 20G/NA12S1	
1.	Wall mounting frame	01252220	01252220	01252220	01252220	1
2.	Rear case assy	22202001	22202001	22202001	22202001	1
3.	Cross flow fan	10352001	10352001	10352001	10352001	1
4.	Fan bearing	76512210	76512210	76512210	76512210	1
5.	Ring of cross flow fan bearing	76512203	76512203	76512203	76512203	1
6.	Water tray assy	20182012	20182012	20182012	20182012	1
7.	Swing louver	10512002	10512002	10512002	10512002	12
8.	Swing connecting rod 1	10582002	10582002	10582002	10582002	1
9.	Swing connecting rod 2	10582003	10582003	10582003	10582003	1
10.	Manual lever	10582001	10582001	10582001	10582001	2
11.	Water drainage pipe	05232411	05232411	05232411	05232411	1
12.	Evaporator gate	26112022	26112022	26112022	26112022	1
13.	Evaporator supporter	24212001	24212001	24212001	24212001	1
14.	Evaporator assy	01002093	01002093	01002093	01002093	1
15.	Front case assy	20002608	20002608	20002608	20002608	1
16.	Screw cover	24252001	24252001	24252001	24252001	3
17.	Front panel	20002001	20002001	20002001	20002001	1
18.	Filter	11122002	11122002	11122002	11122002	2
19.	Air cleaner holder	24222001	24222001	24222001	24222001	2
20.	Air cleaner screen A	11012002	11012002	11012002	11012002	1
21.	Guide louver	10512001	10512001	10512001	10512001	1
22.	Wireless remote control Y512	30512506	30512506	30512506	30512506	1
23.	Guide louver bearing	10542011	10542011	10542011	10542011	3
24.	Air cleaner screen B	11012003	11012003	11012003	11012003	1
25.	Evaporator pipe cover	06122001	06122001	06122001	06122001	1
26.	Sensor insert B	42020063	42020063	42020063	42020063	1
27.	Stepping motor MP24GA	15212102	15212102	15212102	15212102	1
28.	Motor FN8G	15012037	15012037	15012037	15012037	1
29.	Motor clamp	26112014	26112014	26112014	26112014	1
30.	Wire clamp	71010103	71010103	71010103	71010103	1
31.	Connecting pipe clamp	24242001	24242001	24242001	24242001	1
32.	PCB 5K522J	300255701	/	300255701	300255701	1
33.	Mainboard5K522J	300557201	300557201	300557201	300557201	1
34.	Receiving board JD	30046034	30046034	30046034	30046034	1
35.	Tube sensor	390000594	390000594	390000594	390000594	1
36.	Room sensor	390000453	390000453	390000453	390000453	1
37.	Fuse	46010014	46010014	46010014	46010014	1
38.	Top cover of electric box 2	01412007	01412007	01412007	01412007	1
39.	Top cover of electric box 1	20102114	20102114	20102114	20102114	1
40.	Transformer	43110170	43110170	43110170	43110170	1
41.	Electric box	20102001	20102001	20102001	20102001	1
42.	Cable groove	70482001	70482001	70482001	70482001	1
43.	Terminal board T4A3A7377	42010183	42010183	42010183	42010183	1
44.	Wire clip	42012415	42012415	42012415	42012415	1
45.	Power connecting cable	40020402	40020402	40020402	40020402	1
46.	Signal control cable	40032150	40032150	40032150	40032150	1
47.	Power cable sub-assy	40020202	40020202	40020202	40020202	1

No.	Description	Part No.				Qty.
		KF-25G/NA12	KF-25G/NA12	KF-25G/NA12	KF-25G/NA12	
1.	Wall mounting frame	01252220	01252220	01252220	01252220	1
2.	Rear case assy	22202001	22202001	22202001	22202001	1
3.	Cross flow fan	10352001	10352001	10352001	10352001	1
4.	Fan bearing	76512210	76512210	76512210	76512210	1
5.	Ring of cross flow fan bearing	76512203	76512203	76512203	76512203	1
6.	Water tray assy	20182001	20182001	20182001	20182001	1
7.	Swing louver	10512002	10512002	10512002	10512002	12
8.	Swing connecting rod 1	10582002	10582002	10582002	10582002	1
9.	Swing connecting rod 2	10582003	10582003	10582003	10582003	1
10.	Manual lever	10582001	10582001	10582001	10582001	2
11.	Water drainage pipe	05232411	05232411	05232411	05232411	1
12.	Evaporator gate	26112022	/	/	/	1
13.	Evaporator supporter	24212016	24212016	24212016	24212016	1
14.	Evaporator assy	01002093	01002093	01002093	01002093	1
15.	Front case assy	20002608	20002608	20002608	20002608	1
16.	Screw cover	24252001	24252001	24252001	24252001	3
17.	Front panel	20002001	20002001	20002001	20002001	1
18.	Filter	11122002	11122002	11122002	11122002	2
19.	Air cleaner holder	24222001	24222001	24222001	24222001	2
20.	Air cleaner screen A	11012002	11012002	11012002	11012002	1
21.	Guide louver	10512001	10512001	10512001	10512001	1
22.	Wireless remote control Y512	30512506	30512506	30512506	30512506	1
23.	Guide louver bearing	10542011	10542011	10542011	10542011	3
24.	Air cleaner screen B	11012003	11012003	11012003	11012003	1
25.	Evaporator pipe cover	06122001	06122001	06122001	06122001	1
26.	Sensor insert B	42020063	42020063	42020063	42020063	1
27.	Stepping motor MP24GA	15212102	15212102	15212102	15212102	1
28.	Motor FN13B	15012038	15012038	15012038	15012038	1
29.	Motor clamp	26112014	26112014	26112014	26112014	1
30.	Wire clamp	71010103	71010103	71010103	71010103	1
31.	Connecting pipe clamp	24242001	24242001	24242001	24242001	1
32.	PCB 5K512J	300255691	/	/	/	1
33.	Mainboard 5K512J	300557211	300557211	300557211	300557211	1
34.	Receiving board JD	30046034	30046034	30046034	30046034	1
35.	Tube sensor	390000594	390000594	390000594	390000594	1
36.	Room sensor					
37.	Fuse	46010014	46010014	46010014	46010014	1
38.	Top cover of electric box 1	20102114	20102114	20102114	20102114	1
39.	Top cover of electric box 2	01412007	01412007	01412007	01412007	1
40.	Transformer	43110170	43110170	43110170	43110170	1
41.	Electric box	20102001	20102001	20102001	20102001	1
42.	Cable groove	70482001	70482001	70482001	70482001	1
43.	Terminal board T4A3A7377	42010183	42010183	42010183	42010183	1
44.	Wire clip	42012415	42012415	42012415	42012415	1
45.	Power connecting cable	40020402	40020402	40020402	40020402	1
46.	Signal control cable	/	/	/	/	1
47.	Power cable sub-assy	40020202	40020202	40020202	40020202	1

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No.	Description	Part No.			Qty.
		KFR-25G/NA12S1	KFR-25G/NA12S2	KFR-25G/NA12S1	
1.	Wall mounting frame	01252220	01252220	01252220	1
2.	Rear case assy	22202001	22202001	22202001	1
3.	Cross flow fan	10352001	10352001	10352001	1
4.	Fan bearing	765122210	76512210	/	1
5.	Ring of cross flow fan bearing	76512203	76512203	76512203	1
6.	Water tray assy	20182001	20182001	20182001	1
7.	Swing louver	10512002	10512002	10512002	12
8.	Swing connecting rod 1	10582002	10582002	10582002	1
9.	Swing connecting rod 2	10582003	10582003	10582003	1
10.	Manual lever	10582001	10582001	10582001	2
11.	Water drainage pipe	05232411	05232411	05232411	1
12.	Evaporator gate	26112022	/	/	1
13.	Evaporator supporter	24212016	24212016	24212016	1
14.	Evaporator assy	01002093	010020935	01002093	1
15.	Front case assy	20002608	20002608	20002608	1
16.	Screw cover	24252001	24252001	24252001	3
17.	Front panel	20002001	20002001	20002001	1
18.	Filter	11122002	11122002	11122002	2
19.	Air cleaner holder	24222001	24222001	24222001	2
20.	Air cleaner screen A	11012002	11012002	11012002	1
21.	Guide louver	10512001	10512001	10512001	1
22.	Wireless remote control Y512	30512506	30512506	30512506	1
23.	Guide louver bearing	10542011	10542011	10542011	3
24.	Air cleaner screen B	11012003	11012003	11012003	1
25.	Evaporator pipe cover	06122001	06122001	06122001	1
26.	Sensor insert B	42020063	42020063	42020063	1
27.	Stepping motor MP24GA	15212102	15212102	15212102	1
28.	Motor FN14A	/	15012108	/	1
	Motor FN13B	15012038	/	15012038	1
29.	Motor clamp	26112014	26112014	26112014	1
30.	Wire clamp	71010103	71010103	71010103	1
31.	Connecting pipe clamp	24242001	24242001	24242001	1
32.	PCB 5K522J	300255701	300255701	/	1
33.	Mainboard5K522J	300557201	300557201	300557201	1
34.	Receiving board JD	30046034	30046034	30046034	1
35.	Tube sensor	390000594	390000594	390000594	1
36.	Room sensor	390000453	390000453	390000453	1
37.	Fuse	46010014	46010014	46010014	1
38.	Top cover of electric box 2	01412007	01412007	01412007	1
39.	Top cover of electric box 1	20102114	20102114	20102114	1
40.	Transformer	43110170	43110170	43110170	1
41.	Electric box	20102001	20102001	20102001	1
42.	Cable groove	70482001	70482001	70482001	1
43.	Terminal board T4A3A7377	42010183	42010183	42010183	1
44.	Wire clip	42012415	42012415	42012415	1
45.	Power connecting cable	40020402	40020402	40020402	1
46.	Signal control cable	40032150	40032150	4003213437	1
47.	Power cable sub-assy	40020202	40020202	40020202	1

No.	Description	Part No.		Qty.
		KFR-25G/NA12S1	KFR-25G/NA12S1	
1.	Wall mounting frame	01252220	01252220	1
2.	Rear case assy	22202001	22202001	1
3.	Cross flow fan	10352001	10352001	1
4.	Fan bearing	/	/	1
5.	Ring of cross flow fan bearing	76512203	76512203	1
6.	Water tray assy	20182001	20182001	1
7.	Swing louver	10512002	10512002	12
8.	Swing connecting rod 1	10582002	10582002	1
9.	Swing connecting rod 2	10582003	10582003	1
10.	Manual lever	10582001	10582001	2
11.	Water drainage pipe	05232411	05232411	1
12.	Evaporator gate	/	/	1
13.	Evaporator supporter	24212016	24212016	1
14.	Evaporator assy	01002093	01002093	1
15.	Front case assy	20002608	20002608	1
16.	Screw cover	24252001	24252001	3
17.	Front panel	20002001	20002001	1
18.	Filter	11122002	11122002	2
19.	Air cleaner holder	24222001	24222001	2
20.	Air cleaner screen A	11012002	11012002	1
21.	Guide louver	10512001	10512001	1
22.	Wireless remote control Y512	30512506	30512506	1
23.	Guide louver bearing	10542011	10542011	3
24.	Air cleaner screen B	11012003	11012003	1
25.	Evaporator pipe cover	06122001	06122001	1
26.	Sensor insert B	42020063	42020063	1
27.	Stepping motor MP24GA	15212102	15212102	1
28.	MotorFN14A	/	/	1
	MotorFN13B	15012038	15012038	1
29.	Motor clamp	26112014	26112014	1
30.	Wire clamp	71010103	71010103	1
31.	Connecting pipe clamp	24242001	24242001	1
32.	PCB 5K522J	/	/	1
33.	Mainboard5K522J	300557201	300557201	1
34.	Receiving board JD	30046034	30046034	1
35.	Tube sensor	390000594	390000594	1
36.	Room sensor	390000453	390000453	1
37.	Fuse	46010014	46010014	1
38.	Top cover of electric box 2	01412007	01412007	1
39.	Top cover of electric box 1	20102114	20102114	1
40.	Transformer	43110170	43110170	1
41.	Electric box	20102001	20102001	1
42.	Cable groove	70482001	70482001	1
43.	Terminal board T4A3A7377	42010183	42010183	1
44.	Wire clip	42012415	42012415	1
45.	Power connecting cable	40020402	40020402	1
46.	Signal control cable	4003213437	4003213437	1
47.	Power cable sub-assy	40020202	40020202	1

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No.	Description	Part No.		Qty.
		KF-32G/NA12	KF-32G/NA12	
1.	Wall mounting frame	01252220	01252220	1
2	Rear case assy	22202303	22202303	1
	Rear case	22202001	22202001	1
3.	Cross flow fan	10352001	10352001	1
4.	Fan bearing	76512210	76512210	1
5.	Ring of cross flow fan bearing	76512203	76512203	1
6	Water tray assy	20182012	20182012	1
	Water tray	20182001	20182001	1
7.	Swing louver	10512002	10512002	12
8.	Swing connecting rod 1	10582002	10582002	1
9.	Swing connecting rod 2	10582003	10582003	1
10.	Manual lever	10582001	10582001	2
11.	Water drainage pipe	05232411	05232411	1
12.	Evaporator gate	26112022	26112022	1
13.	Evaporator supporter	24212016	24212016	1
14.	Evaporator assy	01002070	01002070	1
15	Front case assy	20002018	20002018	1
	Front case	20002608	20002608	1
16.	Screw cover	24252001	24252001	3
17.	Front panel	20002001	20002001	1
18.	Filter	11122002	11122002	2
19.	Air cleaner holder	24222001	24222001	2
20.	Air cleaner screen A	11012002	11012002	1
21.	Guide louver	10512001	10512001	1
22.	Wireless remote control Y512	30512506	30512506	1
23.	Guide louver bearing	10542011	10542011	3
24.	Air cleaner screen B	11012003	11012003	1
25.	Evaporator pipe cover	06122001	06122001	1
26.	Sensor insert B	42020063	42020063	1
27.	Stepping motor MP24GA	15212102	15212102	1
28.	Motor FN14A	15012108	15012108	1
29.	Motor clamp	26112014	26112014	1
30.	Wire clamp	71010103	71010103	1
31.	Connecting pipe clamp	24242001	24242001	1
32.	PCB 5K512J	30025507	30025507	1
33.	Mainboard 5K51	30055706	30055706	1
34.	Receiving board JD	30046015	30046015	1
35.	Tube sensor	39000165	39000165	1
36.	Room sensor	39000043	39000043	1
37.	Fuse	46010014	46010014	1
38.	Top cover of electric box 2	01412007	01412007	1
39.	Top cover of electric box 1	20102114	20102114	1
40.	Transformer	43110170	43110170	1
41.	Electric box	20102001	20102001	1
42.	Cable groove	70482001	70482001	1
43.	Terminal board T4A3A7377	42010183	42010183	1
44.	Wire clip	42012415	42012415	1
45.	Power connecting cable	40020403	40020403	1
46.	Signal control cable	/	/	1
47.	Power cable sub-assy	40020203	40020203	1

No.	Description	Part No.				Qty.
		KFR-32G/NA12S1	KFR-32G/NA12S2	KFR-32G/NA12S1	KFR-32G/NA21	
1.	Wall mounting frame	01252220	01252220	01252220	01252220	1
2	Rear case assy	22202303	22202303	22202303	22202303	1
	Rear case	22202001	22202001	22202001	22202001	1
3.	Cross flow fan	10352001	10352001	10352001	10352001	1
4.	Fan bearing	76512210	76512210	76512210	76512210	1
5.	Ring of cross flow fan bearing	76512203	76512203	76512203	76512203	1
6	Water tray assy	20182012	/	20182012	20182012	1
	Water tray	20182001	20182001	20182001	20182001	1
7.	Swing louver	10512002	10512002	10512002	10512002	12
8.	Swing connecting rod 1	10582002	10582002	10582002	10582002	1
9.	Swing connecting rod 2	10582003	10582003	10582003	10582003	1
10.	Manual lever	10582001	10582001	10582001	10582001	2
11.	Water drainage pipe	05232411	05232411	05232411	05232411	1
12.	Evaporator gate	26112022	/	26112022	26112022	1
13.	Evaporator supporter	24212016	24212016	24212016	24212016	1
14.	Evaporator assy	01002070	010020936	01002070	01002070	1
15	Front case assy	20002018	20002018	20002018	20002018	1
	Front case	20002608	20002608	20002608	20002608	1
16.	Screw cover	24252001	24252001	24252001	24252001	3
17.	Front panel	20002001	20002001	20002001	20002001	1
18.	Filter	11122002	11122002	11122002	11122002	2
19.	Air cleaner holder	24222001	24222001	24222001	24222001	2
20.	Air cleaner screen A	11012002	11012002	11012002	11012002	1
21.	Guide louver	10512001	10512001	10512001	10512001	1
22.	Wireless remote control Y512	30512506	30512506	30512506	30512506	1
23.	Guide louver bearing	10542011	10542011	10542011	10542011	3
24.	Air cleaner screen B	11012003	11012003	11012003	11012003	1
25.	Evaporator pipe cover	06122001	06122001	06122001	06122001	1
26.	Sensor insert B	42020063	42020063	42020063	42020063	1
27.	Stepping motor MP24GA	15212102	15212102	15212102	15212102	1
28.	Motor FN14A	15012108	15012108	15012108	15012108	1
29.	Motor clamp	26112014	26112014	26112014	26112014	1
30.	Wire clamp	71010103	71010103	71010103	71010103	1
31.	Connecting pipe clamp	24242001	24242001	24242001	24242001	1
32.	PCB 5K522J	300255701	/	300255701	/	1
33.	Mainboard 5K522J	300557201	300557201	300557201	300557201	1
34.	Receiving board JD	30046034	30046034	30046034	30046034	1
35.	Tube sensor	390000594	390000594	390000594	390000594	1
36.	Room sensor	390000453	390000453	390000453	390000453	1
37.	Fuse	46010014	46010014	46010014	46010014	1
38.	Top cover of electric box 2	01412007	01412007	01412007	01412007	1
39.	Top cover of electric box 1	20102114	20102114	20102114	20102114	1
40.	Transformer	43110170	43110170	43110170	43110170	1
41.	Electric box	20102001	20102001	20102001	20102001	1
42.	Cable groove	70482001	70482001	70482001	70482001	1
43.	Terminal board T4A3A7377	42010183	42010183	42010183	42010183	1
44.	Wire clip	42012415	42012415	42012415	42012415	1
45.	Power connecting cable	40020403	40020403	40020403	40020403	1
46.	Signal control cable	40032150	40032150	40032150	40032150	1
47.	Power cable sub-assy	40020203	40020203	40020203	40020203	1

Bird Single-Split Type

No.	Description	Part No.				Qty.
		GSW9-22L/A	GSW9-22R/A	GSW12-22L/A	GSW12-22R/A	
1.	Wall mounting frame	01252220	01252220	01252220	01252220	1
2.	Rear case assy	75112047	75112042	75112047	01002022	1
3.	Cross flow fan	10352001	10352001	10352001	10352001	1
4.	Fan bearing	76512210	76512210	76512210	76512210	1
5.	Ring of cross flow fan bearing	76512203	76512203	76512203	76512203	1
6.	Water tray assy	20182012	20182012	20182012	20182012	1
7.	Swing louver	10512002	10512002	10512002	10512002	12
8.	Swing connecting rod 1	10582002	10582002	10582002	10582002	1
9.	Swing connecting rod 2	10582003	10582003	10582003	10582003	1
10.	Manual lever	10582001	10582001	10582001	10582001	2
11.	Water drainage pipe	05232411	05232411	05232411	05232411	1
12.	Evaporator gate	26112022	26112022	26112022	26112022	1
13.	Evaporator supporter	24212016	24212001	24212001	24212001	1
14.	Evaporator assy	01002015	01002027	01002008	01002042	1
15.	Front case assy	20002105	20002018	20002105	20002018	1
16.	Screw cover	24252001	24252001	24252001	24252001	3
17.	Front panel	20002001	20002001	20002001	20002001	1
18.	Filter	11122002	11122002	11122002	11122002	2
19.	Air cleaner holder	24222001	24222001	24222001	24222001	2
20.	Air cleaner screen A	11012002	11012002	11012002	11012002	1
21.	Guide louver	10512001	10512001	10512001	10512001	1
22.	Wireless remote control Y512	30512506	30062503	30512506	30062503	1
23.	Guide louver bearing	10542011	10542011	10542011	10542011	3
24.	Air cleaner screen B	11012003	11012003	11012003	11012003	1
25.	Evaporator pipe cover	06122001	06122001	06122001	06122001	1
26.	Sensor insert B	42020063	42020063	42020063	42020063	1
27.	Stepping motor MP24GA	15212102	15212102	15212102	15212102	1
28.	Motor FN20B-PG	15012035	15012038	15012035	15012038	1
29.	Motor clamp	26112023	26112014	26112023	26112014	1
30.	Wire clamp	71010103	71010103	71010103	71010103	1
31.	Connecting pipe clamp	24242001	24242001	24242001	24242001	1
32.	PCB 5C51 0A	30025133	30025570	30025133	30025570	1
33.	Mainboard 5C51	30055208	30055720	30055208	30055720	1
34.	Receiving board JD	30046019	30046034	30046019	30046034	1
35.	Tube sensor	390000594	390000594	390000594	390000594	1
36.	Room sensor	390000453	390000453	390000453	390000453	1
37.	Fuse 3.15A/250VAC	46010014	46010014	46010014	46010014	1
38.	Top cover of electric box 2	01412007	01412007	01412007	01412007	1
39.	Top cover of electric box 1	01402084	01402006	20102084	01402006	1
40.	Transformer	43110170	43110170	43110170	43110170	1
41.	Electric box	20102001	20102001	20102001	20102001	1
42.	Cable groove	70482001	70482001	70482001	70482001	1
43.	Terminal board T4A3A7377	42010183	42010183	42010183	42010183	1
44.	Wire clip	70482401	42012415	70482401	42012415	1
45.	Power connecting cable	40020411	40020312	40020312	40020312	1
46.	Signal control cable	/	40032119	/	40032119	1
47.	Power cable sub-assy	40020268	40020268	40020268	40020268	1

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No.	Description	Part No.			Qty.
		KF-20G/A20	KF-20G/A20	KFR-20G/A20	
1.	Wall mounting frame	01252220	01252220	01252220	1
2.	Rear case assy	22202306	22202306	22202306	1
3.	Cross flow fan	10352001	10352001	10352001	1
4.	Fan bearing	76512210	76512210	76512210	1
5.	Ring of cross flow fan bearing	76512203	76512203	76512203	1
6.	Water tray assy	20182012	20182012	20182012	1
7.	Swing louver	10512002	10512002	10512002	12
8.	Swing connecting rod 1	10582002	10582002	10582002	1
9.	Swing connecting rod 2	10582003	10582003	10582003	1
10.	Manual lever	10582001	10582001	10582001	2
11.	Water drainage pipe	05232411	05232411	05232411	1
12.	Evaporator gate	01094001	01094001	01094001	1
13.	Evaporator supporter	24212016	24212016	24212016	1
14.	Evaporator assy	01002048	01002048	01002042	1
15.	Front case assy	20002114	20002114	20002114	1
16.	Screw cover	24252001	24252001	24252001	3
17.	Front panel	20002001	20002001	20002001	1
18.	Filter	11122002	11122002	11122002	2
19.	Air cleaner holder	24222001	24222001	24222001	2
20.	Air cleaner screen A	11012002	11012002	11012002	1
21.	Guide louver	10512001	10512001	10512001	1
22.	Wireless remote control Y512	30512506	30512506	30512506	1
23.	Guide louver bearing	10542011	10542011	10542011	3
24.	Air cleaner screen B	11012003	11012003	11012003	1
25.	Evaporator pipe cover	06122001	06122001	06122001	1
26.	Sensor insert B	42020063	42020063	42020063	1
27.	Stepping motor MP24GA	15212102	15212102	15212102	1
28.	Motor FN8G	15012037	15012037	15012037	1
29.	Motor clamp	26112014	26112014	26112014	1
30.	Wire clamp	71010103	71010103	71010103	1
31.	Connecting pipe clamp	24242001	24242001	24242001	1
32.	PCB 5K512J	300255691	300255691	300255701	1
33.	Mainboard 5K52	/	/	30055720	1
34.	Receiving board JD	/	/	30046034	1
35.	Tube sensor	/	/	390000594	1
36.	Room sensor	/	/	390000453	1
37.	Fuse 3. 15A/250VAC	/	/	46010014	1
38.	Top cover of electric box 2	01412007	01412007	01412007	1
39.	Top cover of electric box 1	01412014	01412014	01412014	1
40.	Transformer	43110170	43110170	43110170	1
41.	Electric box	20102001	20102001	20102001	1
42.	Cable groove	70482001	70482001	70482001	1
43.	Terminal board T4A3A7377	42010183	42010183	42010183	1
44.	Wire clip	42012415	42012415	70482401	1
45.	Power connecting cable	/	/	40020402	1
46.	Signal control cable	/	/	40032150	1
47.	Power cable sub-assy	40020202	40020202	40020202	1

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No.	Description	Part No.			Qty.
		KFR-25G/A20	KF-25G/A20	KF-25G/A20	
1.	Wall mounting frame	01252220	01252220	01252220	1
2.	Rear case assy	22202305	22202305	22202305	1
3.	Cross flow fan	10352001	10352001	10352001	1
4.	Fan bearing	76512210	76512210	76512210	1
5.	Ring of cross flow fan bearing	76512203	76512203	76512203	1
6.	Water tray assy	20182012	20182012	20182012	1
7.	Swing louver	10512002	10512002	10512002	12
8.	Swing connecting rod 1	10582002	10582002	10582002	1
9.	Swing connecting rod 2	10582003	10582003	10582003	1
10.	Manual lever	10582001	10582001	10582001	2
11.	Water drainage pipe	05232411	05232411	05232411	1
12.	Evaporator gate	26112022	26112022	26112022	1
13.	Evaporator supporter	24212016	24212016	24212016	1
14.	Evaporator assy	01002042	01002042	01002042	1
15.	Front case assy	20002111	20002111	20002111	1
16.	Screw cover	24252001	24252001	24252001	3
17.	Front panel	20002001	20002001	20002001	1
18.	Filter	11122002	11122002	11122002	2
19.	Air cleaner holder	24222001	24222001	24222001	2
20.	Air cleaner screen A	11012002	11012002	11012002	1
21.	Guide louver	10512001	10512001	10512001	1
22.	Wireless remote control Y512	30512506	30512506	30512506	1
23.	Guide louver bearing	10542011	10542011	10542011	3
24.	Air cleaner screen B	11012003	11012003	11012003	1
25.	Evaporator pipe cover	06122001	06122001	06122001	1
26.	Sensor insert B	42020063	42020063	42020063	1
27.	Stepping motor MP24GA	15212102	15212102	15212102	1
28.	Motor FN13B	15012038	15012038	15012038	1
29.	Motor clamp	26112014	26112014	26112014	1
30.	Wire clamp	71010103	71010103	71010103	1
31.	Connecting pipe clamp	24242001	24242001	24242001	1
32.	PCB 5K522J	300255701	300255691	300255691	1
33.	Mainboard5K52	30055720	30055720	30055720	1
34.	Receiving board JD	30046034	30046034	30046034	1
35.	Tube sensor	390000594	390000594	390000594	1
36.	Room sensor	390000453	390000453	390000453	1
37.	Fuse 3.15A/250VAC	46010014	46010014	46010014	1
38.	Top cover of electric box 2	01412007	01412007	01412007	1
39.	Top cover of electric box 1	01412014	01412014	01412014	1
40.	Transformer	43110170	43110170	43110170	1
41.	Electric box	20102001	20102001	20102001	1
42.	Cable groove	70482001	70482001	70482001	1
43.	Terminal board T4A3A7377	42010183	42010183	42010183	1
44.	Wire clip	42012415	42012415	42012415	1
45.	Power connecting cable	40020402	40020402	40020402	1
46.	Signal control cable	40032150	/	/	1
47.	Power cable sub-assy	40020202	40020202	40020202	1

No.	Description	Part No.			Qty.
		KFR-20G/NA20S1	KFR-20G/NA20S1	KF-20G/NA20	
1.	Wall mounting frame	01252220	01252220	01252220	1
2.	Rear case assy	22202306	22202306	22202306	1
3.	Cross flow fan	10352001	10352001	10352001	1
4.	Fan bearing	76512210	76512210	76512210	1
5.	Ring of cross flow fan bearing	76512203	76512203	76512203	1
6.	Water tray assy	20182012	20182012	20182012	1
7.	Swing louver	10512002	10512002	10512002	12
8.	Swing connecting rod 1	10582002	10582002	10582002	1
9.	Swing connecting rod 2	10582003	10582003	10582003	1
10.	Manual lever	10582001	10582001	10582001	2
11.	Water drainage pipe	05232411	05232411	05232411	1
12.	Evaporator gate	26112022	26112022	26112022	1
13.	Evaporator supporter	24212016	24212016	24212016	1
14.	Evaporator assy	01002042	01002042	01002048	1
15.	Front case assy	20002114	20002114	20002114	1
16.	Screw cover	24252001	24252001	24252001	3
17.	Front panel	20002001	20002001	20002001	1
18.	Filter	11122002	11122002	11122002	2
19.	Air cleaner holder	24222001	24222001	24222001	2
20.	Air cleaner screen A	11012002	11012002	11012002	1
21.	Guide louver	10512001	10512001	10512001	1
22.	Wireless remote control Y512	30512506	30512506	30512506	1
23.	Guide louver bearing	10542011	10542011	10542011	3
24.	Air cleaner screen B	11012003	11012003	11012003	1
25.	Evaporator pipe cover	06122001	06122001	06122001	1
26.	Sensor insert B	42020063	42020063	42020063	1
27.	Stepping motor MP24GA	15212102	15212102	15212102	1
28.	Motor FN8G	15012037	15012037	15012037	1
29.	Motor clamp	26112014	26112014	26112014	1
30.	Wire clamp	71010103	71010103	71010103	1
31.	Connecting pipe clamp	24242001	24242001	24242001	1
32.	PCB 5K522J	300255701	30025570	300255691	1
33.	Mainboard5K52	30055720	30055720	/	1
34.	Receiving board JD	30046034	30046034	/	1
35.	Tube sensor	390000594	390000594	/	1
36.	Room sensor	390000453	390000453	/	1
37.	Fuse 3. 15A/250VAC	46010014	46010014	/	1
38.	Top cover of electric box 2	01412007	01412007	01412007	1
39.	Top cover of electric box 1	01412014	01412014	01412014	1
40.	Transformer	43110170	43110170	43110170	1
41.	Electric box	20102001	20102001	20102001	1
42.	Cable groove	70482001	70482001	70482001	1
43.	Terminal board T4A3A7377	42010183	42010183	42010183	1
44.	Wire clip	70482401	70482401	42012415	1
45.	Power connecting cable	40020402	40020402	/	1
46.	Signal control cable	40032150	40032150	/	1
47.	Power cable sub-assy	40020202	40020202	40020202	1

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No.	Description	Part No.			Qty.
		KFR-25G/NA20S1	KF-25G/NA20	KF-25G/NA20	
1.	Wall mounting frame	01252220	01252220	01252220	1
2.	Rear case assy	22202305	22202305	22202305	1
3.	Cross flow fan	10352001	10352001	10352001	1
4.	Fan bearing	76512210	76512210	76512210	1
5.	Ring of cross flow fan bearing	76512203	76512203	76512203	1
6.	Water tray assy	20182012	20182012	20182012	1
7.	Swing louver	10512002	10512002	10512002	12
8.	Swing connecting rod 1	10582002	10582002	10582002	1
9.	Swing connecting rod 2	10582003	10582003	10582003	1
10.	Manual lever	10582001	10582001	10582001	2
11.	Water drainage pipe	05232411	05232411	05232411	1
12.	Evaporator gate	26112022	26112022	26112022	1
13.	Evaporator supporter	24212001	24212016	24212016	1
14.	Evaporator assy	010020423	01002042	01002042	1
15.	Front case assy	20002111	20002111	20002111	1
16.	Screw cover	24252001	24252001	24252001	3
17.	Front panel	20002001	20002001	20002001	1
18.	Filter	11122002	11122002	11122002	2
19.	Air cleaner holder	24222001	24222001	24222001	2
20.	Air cleaner screen A	11012002	11012002	11012002	1
21.	Guide louver	10512001	10512001	10512001	1
22.	Wireless remote control Y512	30512506	30512506	30512506	1
23.	Guide louver bearing	10542011	10542011	10542011	3
24.	Air cleaner screen B	11012003	11012003	11012003	1
25.	Evaporator pipe cover	06122001	06122001	06122001	1
26.	Sensor insert B	/	42020063	42020063	1
	Sensor insert B	42020063	/	/	1
27.	Stepping motor MP24GA	15212102	15212102	15212102	1
28.	Motor FN13B	/	15012038	15012038	1
	Motor FN14C	15012501	/	/	
29.	Motor clamp	26112014	26112014	26112014	1
30.	Wire clamp	71010103	71010103	71010103	1
31.	Connecting pipe clamp	24242001	24242001	24242001	1
32.	PCB 5K512J	/	300255691	300255691	1
	PCB 5K522J	30025570	/	/	
33.	Mainboard5K52	30055720	/	/	1
34.	Receiving board JD	30046034	/	/	1
35.	Tube sensor	390000594	/	/	1
36.	Room sensor	390000453	/	/	1
37.	Fuse 3.15A/250VAC	46010014	/	/	1
38.	Top cover of electric box 2	01412007	01412007	01412007	1
39.	Top cover of electric box 1	20102114	01412014	01412014	1
40.	Transformer	43110170	43110170	43110170	1
41.	Electric box	20102001	20102001	20102001	1
42.	Cable groove	70482001	70482001	70482001	1
43.	Terminal board T4A3A7377	42010183	42010183	42010183	1
44.	Wire clip	70482401	42012415	42012415	1
45.	Power connecting cable	40020402	/	/	1
46.	Signal control cable	40032150	/	/	1
47.	Power cable sub-assy	40020202	40020202	40020202	1

No.	Description	Part No.		Qty.
		KFR-25G/NA20S1	KFR-25G/NA20S1	
1.	Wall mounting frame	01252220	01252220	1
2	Rear case	/	/	1
	Rear case assy	22202305	22202305	
3.	Cross flow fan	10352001	10352001	1
4.	Fan bearing	76512210	76512210	1
5.	Ring of cross flow fan bearing	76512203	76512203	1
6	Water tray	/	/	1
	Water tray assy	20182012	20182012	
7.	Swing louver	10512002	10512002	12
8.	Swing connecting rod 1	10582002	10582002	1
9.	Swing connecting rod 2	10582003	10582003	1
10.	Manual lever	10582001	10582001	2
11.	Water drainage pipe	05232411	05232411	1
12.	Evaporator gate	26112022	26112022	1
13.	Evaporator supporter	24212001	24212001	1
14.	Evaporator assy	010020423	010020423	1
15	Front case	/	/	1
	Front case assy	20002111	20002111	
16.	Screw cover	24252001	24252001	3
17.	Front panel	20002001	20002001	1
18.	Filter	11122002	11122002	2
19.	Air cleaner holder	24222001	24222001	2
20.	Air cleaner screen A	11012002	11012002	1
21.	Guide louver	10512001	10512001	1
22.	Wireless remote control Y512	30512506	30512506	1
23.	Guide louver bearing	10542011	10542011	3
24.	Air cleaner screen B	11012003	11012003	1
25.	Evaporator pipe cover	06122001	06122001	1
26.	Sensor insert B	42020063	42020063	1
27.	Stepping motor MP24GA	15212102	15212102	1
28.	Motor FN14C	15012501	15012501	1
29.	Motor clamp	26112014	26112014	1
30.	Wire clamp	71010103	71010103	1
31.	Connecting pipe clamp	24242001	24242001	1
32.	PCB 5K522J	30025570	30025570	1
33.	Mainboard5K52F	30055720	30055720	1
34.	Receiving board JD	30046034	30046034	1
35.	Tube sensor	390000594	390000594	1
36.	Room sensor	390000453	390000453	1
37.	Fuse 3.15A/250VAC	46010014	46010014	1
38.	Top cover of electric box 2	01412007	01412007	1
39.	Top cover of electric box 1	20102114	20102114	1
40.	Transformer	43110170	43110170	1
41.	Electric box	20102001	20102001	1
42.	Cable groove	70482001	70482001	1
43.	Terminal board T4A3A7377	42010183	42010183	1
44.	Wire clip	70482401	70482401	1
45.	Power connecting cable	40020402	40020402	1
47.	Signal control cable	40032150	40032150	1
48.	Power cable sub-assy	40020202	40020202	1

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No.	Description	Part No.		Qty.
		KFR-25G/NA21	KFR-20G/NA21	
1.	Wall mounting frame	01252220	01252220	1
2.	Rear case	22202001	22202001	1
3.	Cross flow fan	10352001	10352001	1
4.	Fan bearing	/	/	1
5.	Ring of cross flow fan bearing	76512203	76512203	1
6.	Water tray	20182001	20182001	1
7.	Swing louver	10512002	10512002	12
8.	Swing connecting rod 1	10582002	10582002	1
9.	Swing connecting rod 2	10582003	10582003	1
10.	Manual lever	10582001	10582001	2
11.	Water drainage pipe	05232411	05232411	1
12.	Evaporator gate	26112022	26112022	1
13.	Evaporator supporter	24212016	24212016	1
14.	Evaporator assy	01002053	01002053	1
15.	Front case assy	20002608	20002608	1
16.	Screw cover	24252001	24252001	3
17.	Front panel	20002001	20002001	1
18.	Filter	11122002	11122002	2
19.	Air cleaner holder	24222001	24222001	2
20.	Air cleaner screen A	11012002	11012002	1
21.	Air cleaner screen B	11012003	11012003	1
22.	Guide louver	10512001	10512001	1
23.	Wireless remote control Y512	30512506	30512506	1
24.	Guide louver bearing	10542011	10542011	3
25.	Evaporator pipe cover	06122001	06122001	1
26.	Sensor insert B	42020063	42020063	2
27.	Stepping motor MP24GA	15212102	15212102	1
28.	Motor FN14C	15012501	/	1
	Motor FN8G	/	15012037	
29.	Motor clamp	26112014	26112014	1
30.	Wire clamp	71010103	71010103	1
31.	Connecting pipe clamp	24242001	24242001	1
32.	Mainboard 5K522J	300557201	300557201	1
33.	Receiving board JD	30046034	30046034	1
34.	Tube sensor	390000594	390000594	1
35.	Sensor	3900012130	3900012130	1
36.	Room sensor	390000453	390000453	1
37.	Fuse	46010014	46010014	1
38.	Top cover of electric box 2	01412007	01412007	1
39.	Top cover of electric box 1	01412014	01412014	1
40.	Transformer	43110170	43110170	1
41.	Electric box	20102001	20102001	1
42.	Cable groove	70482001	70482001	1
43.	Terminal board T4A3A7377	42010183	42010183	1
44.	Wire clip	70482401	70482401	1
45.	Power connecting cable	40020402	40020402	1
46.	Signal control cable	40032156	40032150	1
47.	Power cable sub-assy	40020202	40020202	1

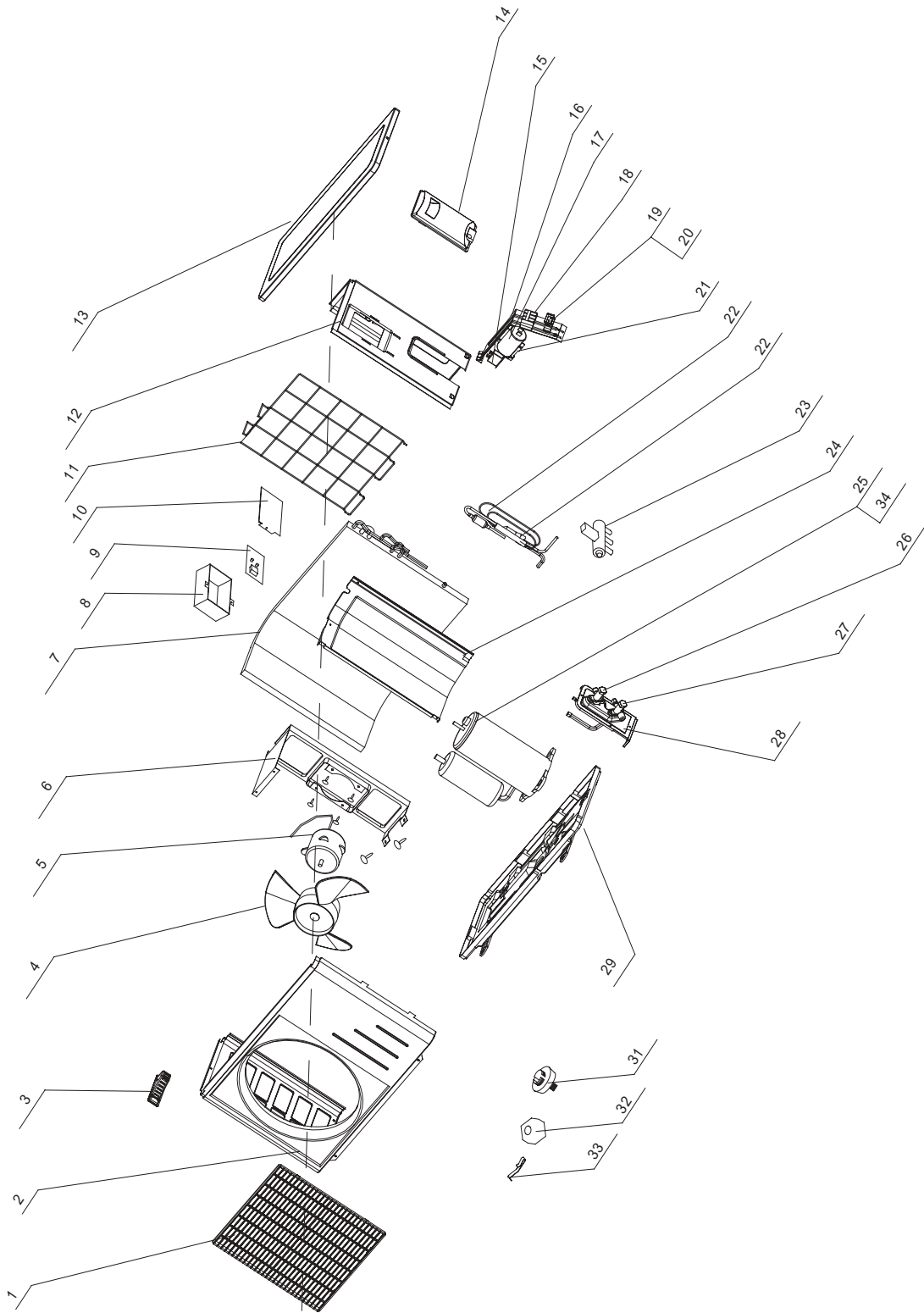
No.	Description	Part No.			Qty.
		KFR-20G/NaA12-ES1	KFR-32G/NaA12-E	KF-32G/NaA12-E	
1.	Wall mounting frame	01252220	01252220	01252220	1
2.	Rear case	22202001	22202001	22202001	1
3.	Cross flow fan	10352001	10352001	10352001	1
4.	Fan bearing	/	76512210	76512210	
5.	Ring of cross flow fan bearing	76512203	76512203	76512203	1
6.	Water tray	20182001	20182001	20182001	1
7.	Swing louver	10512002	10512002	10512002	12
8.	Swing connecting rod 1	10582002	10582002	10582002	1
9.	Swing connecting rod 2	10582003	10582003	10582003	1
10.	Manual lever	10582001	10582001	10582001	2
11.	Water drainage pipe	05232411	05232411	05232411	1
12.	Evaporator gate	/	/	/	1
13.	Evaporator supporter	24212016	24212016	24212016	1
14.	Evaporator assy	01002093	01002070	01002070	1
15.	Front case	20002608	20002608	20002608	1
16.	Screw cover	24252001	24252001	24252001	3
17.	Front panel	20002001	20002001	20002001	1
18.	Filter	11122002	11122002	11122002	2
19.	Air cleaner holder	24222001	24222001	24222001	2
20.	Air cleaner screen A	11012002	11012002	11012002	1
21.	Guide louver	10512001	10512001	10512001	1
22.	Wireless remote control Y512	30512506	30512506	30512506	1
23.	Guide louver bearing	10542011	10542011	10542011	1
24.	Air cleaner screen B	11012003	11012003	11012003	1
25.	Evaporator pipe cover	06122001	06122001	06122001	1
26.	Sensor insert B	42020063	42020063	42020063	2
27.	Stepping motor MP24GA	15212102	15212102	15212102	1
28.	Motor FN14A	/	15012108	15012108	1
	Motor FN8G	15012037	/	/	
29.	Motor clamp	26112014	26112014	26112014	1
30.	Wire clamp	71010103	71010103	71010103	1
31.	Connecting pipe clamp	24242001	24242001	24242001	1
32.	PCB	/	300255701	/	1
33.	Mainboard 5K512J	/	/	300557211	1
	Mainboard 5K522J	300557201	300557201	/	
34.	Receiving board JD	30046034	30046034	30046034	1
35.	Tube sensor	390000594	390000594	/	1
36.	Room sensor	390000453	390000453	/	1
37.	Fuse	/	46010014	/	1
38.	Top cover of electric box 2	01412007	01412007	01412007	1
39.	Top cover of electric box 1	20102114	20102114	20102114	1
40.	Transformer	43110170	43110170	43110170	1
41.	Electric box	20102001	20102001	20102001	1
42.	Cable groove	70482001	70482001	70482001	1
43.	Terminal board T4A3A7377	42010183	42010183	42010183	1
44.	Wire clip	42012415	42012415	42012415	1
45.	Power connecting cable	22432001	40020402	/	1
46.	Signal control cable	40032150	40032150	/	1
47.	Power cable sub-assy	40020202	40020203	40020203	1

Bird Single-Split Type

No.	Description	Part No.		Qty.
		KFR-25G/NaA12-ES1	KF-25G/NaA12-E	
1.	Wall mounting frame	01252220	01252220	1
2.	Rear case assy	22202001	22202001	1
3.	Cross flow fan	10352001	10352001	1
4.	Fan bearing	76512210	/	1
5.	Ring of cross flow fan bearing	76512203	76512203	1
6.	Water tray	20182001	20182001	1
7.	Swing louver	10512002	10512002	12
8.	Swing connecting rod 1	10582002	10582002	1
9.	Swing connecting rod 2	10582003	10582003	1
10.	Manual lever	10582001	10582001	2
11.	Water drainage pipe	05232411	05232411	1
12.	Evaporator gate	/	/	1
13.	Evaporator supporter	24212016	24212016	1
14.	Evaporator assy	01002093	01002093	1
15.	Front case	20002608	20002608	1
16.	Screw cover	24252001	24252001	3
17.	Front panel	20002001	20002001	1
18.	Filter	11122002	11122002	2
19.	Air cleaner holder	24222001	24222001	2
20.	Air cleaner screen A	11012002	11012002	1
21.	Guide louver	10512001	11012003	1
22.	Wireless remote control Y512	30512506	10512001	1
23.	Guide louver bearing	10542011	30512506	3
24.	Air cleaner screen B	11012003	10542011	1
25.	Evaporator pipe cover	06122001	06122001	1
26.	Sensor insert B	42020063	42020063	1
27.	Stepping motor MP24GA	15212102	15212102	1
28.	Motor FN14A	15012108	15012108	1
29.	Motor clamp	26112014	26112014	1
30.	Wire clamp	71010103	71010103	1
31.	Connecting pipe clamp	24242001	24242001	1
32.	PCB 5K522J	/	/	1
33	Mainboard 5K512J	/	300557211	1
	Mainboard 5K522J	300557201	/	
34.	Receiving board JD	30046034	30046034	1
35.	Tube sensor	39000058	/	1
36.	Room sensor	39000155	/	1
37.	Fuse	/	/	1
38.	Top cover of electric box 2	01412007	01412007	1
39.	Top cover of electric box 1	20102114	20102114	1
40.	Transformer	43110170	43110170	1
41.	Electric box	20102001	20102001	1
42.	Cable groove	70482001	70482001	1
43.	Terminal board T4A3A7377	42010183	42010183	1
44.	Wire clip	42012415	42012415	1
45.	Power connecting cable	40020402	/	1
46.	Signal control cable	40032150	/	1
47.	Power cable sub-assy	40020202	40020202	1

The technical data are subject to change without notice. Please refer to the nameplate of the unit.

9.3 The explosive view of the small outdoor unit



9.4 The spare parts list of the smaller outdoor unit

No.	Description	Part No.			Qty.
		KF-20W/A20	KF-20W/A20	KFR-20W/A20	
1.	Front grill	22263002	22263002	22263002	1
2.	Panel	01533014	01533014	20003100	1
3.	Small handle	26233100	26233100	/	1
4.	Axial-flow vane	10333002	10333002	10333002	1
5.	Motor ^{FW20B}	15013045	15013045	15013045	1
6.	Motor supporter	01703029	01703029	01703029	1
7.	Condenser component	01103603	01103603	01103220	1
8.	Control box cover	/	/	/	1
9.	Low-temp. start board	/	/	/	1
10.	Box cover assy	/	/	/	1
11.	Rear grill assy	11123201	11123301	11123301	1
12.	Right side plage assy	01303151	01303151	01303151	3
13	Top cover assy	01253263	01253263	01253263	1
	Top cover	01253027	01253026	/	1
14.	Big handle	26233101	26233101	26233101	1
15.	Capacitance CBB61. 5uF/450V	33010020	33010020	33010020	1
16	Electric box	01413002	01413002	01413002	1
	Electric box components	01403214	01403214	/	1
17.	Capacitance CBB63 7uF/450VAC	33010731	33000035	33010731	1
18.	Terminal board	42011241	42011241	42011241	1
19.	Wire clamp plate	24253002	24253002	24253001	1
20.	Wire clamp base	24253001	24253001	24253002	1
21.	Capacitor locator	02113002	02113002	02143014	1
22.	Capillary assy	03003230	03003804	03003233	1
23.	4-way valve	/	/	43000402	1
24.	Separate plate assy	01233101	01233101	43000400	1
25.	Compressor and its fittings	00100051	00100051	00100051	1
26.	Valve 3/8"	07100143	07100145	00100095	1
27.	Valve 1/4"	07100125	07100024	07100024	1
28.	Valve supporter	01713036	01713036	07100145	1
29.	Chassis assy	01203087	01203261	01713036	1
30.	4-way valve fittings	/	/	01203087	1
31.	Drainage joint of outdoor unit	/	/	06123401	1
32.	Compressor glue washer	/	/	/	1
33.	Sensor inserter B	/	/	42020063	1
34.	Overload	/	/	/	1

No.	Description	Part No.			Qty.
		KF-25W/A20	KF-25W/A20	KFR-25W/A20	
1.	Front grill	22263002	22263002	22263002	1
2.	Panel	01533014	20003100	20003100	1
3.	Small handle	26233100	/	/	1
4.	Axial-flow vane	10333002	10333002	10333002	1
5.	MotorFW20B	15013045	15013045	15013045	1
6.	Motor supporter	01703029	01703029	01703029	1
7.	Condenser component	01103213	01103603	01103201	1
8.	Control box cover	/	/	/	1
9.	Low-temp. start board	/	/	/	1
10.	Box cover assy	/	/	/	1
11.	Rear grill assy	11123301	11123301	11123301	1
12.	Right side plage assy	01303151	01303151	01303151	1
13.	Top cover assy	01253263	01253263	01253263	3
14.	Big handle	26233101	26233101	26233101	1
15.	Capacitance	33010020	33010020	33010020	1
16	Electric box	01413002	01413002	01413002	1
	Electric box components	01403128	/	/	1
17.	Capacitance	33000018	33000018	33000017	1
18.	3-phase terminal board	42011241	42011241	42011241	1
19.	Wire clamp base	24253001	24253001	24253001	1
20.	Wire clamp	24253002	24253002	24253002	1
21.	Capacitance clam	02143014	02143014	02143014	1
22.	Capillary assy	03003804	03003804	03003445	1
23.	4-way valve	/	/	43000402	1
24.	Separate plate	01233382	01233382	01233101	1
25.	Compressor and its fittings	00120110	00120110	00120078	1
26.	Valve 1/4"	07100024	07100149	07100024	1
27.	Valve 3/8"	07100143	07100135	07100145	1
28.	Valve supporter	01713424	01713036	01713036	1
29.	Chassis assy	01203070	01203221	01203149	1
30.	4-way valve fittings	/	/	43000400	1
31.	Drainage joint of outdoor unit	/	/	06123401	1
32.	Compressor glue washer	76710216	76710216	76710207	1
33.	Sensor inserter B	/	/	42020063	1
34.	Overload	00180017	00180017	00180013	1

Bird Single-Split Type

No.	Description	Part No.				Qty.
		KF-20WNA20	KFR-20W/NA20S1	KFR-20W/NA20S2	KFR-20W/NA20S1	
1.	Front grill	22263002	22263002	22263002	22263002	1
2.	Panel	01533014	01533014	01533014	01533014	1
3.	Small handle	26233100	26233100	26233100	26233100	1
4.	Axial-flow vane	10333002	10333002	10333002	10333002	1
5.	Motor FW20B	15013045	15013045	15013045	15013045	1
6.	Motor supporter	01703029	01703029	01703029	01703029	1
7.	Condenser component	01103398	01103217	01103217	01103385	1
8.	Control box cover	/	/	/	/	1
9.	Low-temp. start board	/	/	/	/	1
10.	Box cover assy	/	/	/	/	1
11.	Rear grill assy	11123301	11123301	11123301	11123301	1
12.	Right side plage assy	01303151	01303151	01303151	01303151	1
13.	Top cover assy	01253263	01253263	01253263	01253263	3
14.	Big handle	26233101	26233101	26233101	26233101	1
15.	Capacitance	33010020	33010020	33010020	33010020	1
16	Electric box	01413002	01413002	01413002	01413002	1
	Electric box components	/	01403221	01403221	01403161	1
17.	Capacitance	33000002	33000002	33000002	33000018	1
18.	3-phase terminal board	42011241	42011241	42011241	42011241	1
19.	Wire clamp base	24253001	24253001	24253001	24253001	1
20.	Wire clamp	24253002	24253002	24253002	24253002	1
21.	Capacitance clam	02143014	02143014	02143014	02143014	1
22.	Capillary assy	03003695	03003252	03003252	03003691	1
23.	4-way valve	/	430004021	03623097	430004021	1
24	Separate plate	01233382	01233382	01233382	01233382	1
	Separate plate assy	/	01233103	01233103	01233103	1
25.	Compressor and its fittings	00100354	00100354	00100354	00100354	1
26.	Valve 1/4"	07100149	07100149	07100149	07100149	1
27.	Valve 3/8"	07100135	07100135	07100135	07100135	1
28.	Valve supporter	01713424	01713424	01713003	01713424	1
29.	Chassis assy	01203215	01203115	01203115	01203247	1
30.	4-way valve fittings	/	43000400	43000400	43000400	1
31.	Drainage joint of outdoor unit	/	06123401	06123401	06123401	1
32.	Compressor glue washer	76710212	76710212	76710212	76710212	1
33.	Sensor inserter B	/	42020063	42020063	42020063	1
34.	Compressor overload	00180007	00180007	00180007	00180007	1

No.	Description	Part No.				Qty.
		KF-25W/NA20	KF-25W/NA20	KFR-25W/NA20S1	KFR-25W/NA20S2	
1.	Front grill	22263002	22263002	22263010	22263010	1
2.	Panel	01533014	01533014	01533014	01533014	1
3.	Small handle	26233100	26233100	26233100	26233100	1
4.	Axial-flow vane	10333002	10333002	10333002	10333002	1
5.	Motor FW20B	15013045	15013045	15013045	15013045	1
6.	Motor supporter	01703029	01703029	01703029	01703029	1
7.	Condenser component	01103196	01103196	01103214	01103214	1
8.	Control box cover	/	/	/	/	1
9.	Low-temp. start board	/	/	/	/	1
10.	Box cover assy	/	/	/	/	1
11.	Rear grill assy	11123301	11123301	11123301	11123301	1
12.	Right side plage assy	01303151	01303151	01303151	01303151	1
13.	Top cover assy	01253263	01253263	01253263	01253263	3
14.	Big handle	26233101	26233101	26233101	26233101	1
15.	Capacitance	33010020	33010020	33010020	33010020	1
16.	Electric box	01413002	01413002	01413002	01413002	1
	Electric box components	01403219	01403219	01403219	01403219	1
17.	Capacitance	33000002	33000002	33000002	33000002	1
18.	3-phase terminal board	42011241	42011241	42011241	42011241	1
19.	Wire clamp base	24253001	24253001	24253001	24253001	1
20.	Wire clamp	24253002	24253002	24253002	24253002	1
21.	Capacitance clam	02143014	02143014	02143014	02143014	1
22.	Capillary assy	03003234	03003234	03003250	03003250	1
23.	4-way valve	/	/	430004021	430004021	1
24.	Separate plate	01233382	01233382	01233382	01233382	1
	Separate plate assy	01233101	01233101	01233103	01233103	1
25.	Compressor and its fittings	00100355	00100292	00100355	00100355	1
26.	Valve 1/4"	07100149	07100149	07100149	07100149	1
27.	Valve 3/8"	07100135	07100135	07100135	07100135	1
28.	Valve supporter	01713424	01713424	01713424	01713424	1
29.	Chassis assy	01203113	01203115	01203117	01203117	1
30.	4-way valve fittings	/	/	43000400	43000400	1
31.	Drainage joint of outdoor unit	/	/	06123401	06123401	1
32.	Compressor glue washer	76710212	76710224	76710212	76710212	1
33.	Sensor inserter B	/	/	42020063	42020063	1
34.	Compressor overload	00180009	/	00180009	00180009	1

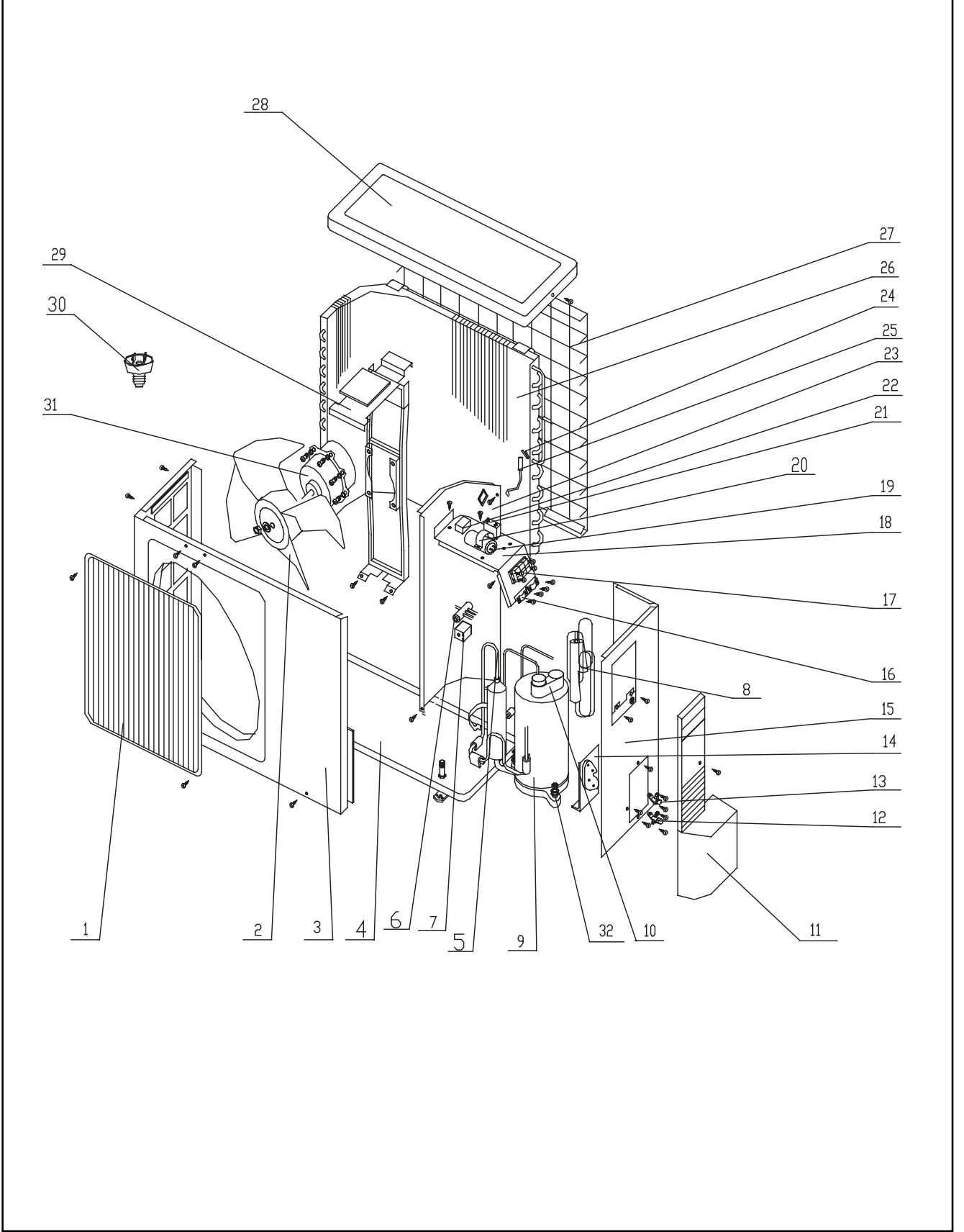
Bird Single-Split Type

No.	Names of Materials	Codes of Materials			Amount
		KFR-25W/NA20S1	KFR-25W/NA20S1	KFR-25W/NA20S2	
1	Front grill	22263002	22263010	22263010	1
2	Panel	20003100	01533014	01533014	1
3	Small handle	26233100	26233100	26233100	1
4	Axial-flow vane	10333002	10333002	10333002	1
5	Motor FW20B	15013045	15013045	15013045	1
6	Motor supporter	01703029	01703029	01703029	1
7	Condenser component	01103214	011032141	011032142	1
8	Control box cover	/	/	/	1
9	Low-temp. start board	/	/	/	1
10	Box cover assy	/	/	/	1
11	Rear grill assy	11123301	11123301	11123301	1
12	Right side plage assy	01303151	01303151	01303151	1
13	Top cover assy	01253263	01253263	01253263	3
14	Big handle	26233101	26233101	26233101	1
15	Capacitance	33010020	33010020	33010020	1
16	Electric box	01413002	01413002	01413002	1
	Electric box components	014030561	014032195	014032196	1
17	Capacitance	33000017	33010743	33000017	1
18	3-phase terminal board	42011241	42011241	42011241	1
19	Wire clamp base	24253001	24253001	24253001	1
20	Wire clamp	24253002	24253002	24253002	1
21	Capacitance clam p	02143014	02143014	02143014	1
22	Capillary assy	03003250	030032501	030032502	1
23	4-way valve	430004021	430004021	430004021	1
24	Separate plate	01233382	01233382	01233382	1
	Separate plate assy	01233103	01233103	01233103	1
25	Compressor and its fittings	00100292	00100387	00100179	1
26	Valve 1/4"	07100149	07100149	07100149	1
27	Valve 3/8"	07100135	07100135	07100135	1
28	Valve supporter	01713424	01713424	01713424	1
29	Chassis assy	01203237	01203239	01203276	1
30	4-way valve fittings	43000400	43000400	43000400	1
31	Drainage joint of outdoor unit	06123401	06123401	06123401	1
32	Compressor glue washer	76710224	76710205	76710256	1
33	Sensor inserter B	42020063	42020063	42020063	1
34	Compressor overload	/	00180030	00180055	1

No.	Names of Materials	Codes of Materials				Amount
		KFR-25W/NA21	KFR-20W/NA21	KFR-20W/NaA12-ES1	KFR-20W/NaA12-ES2	
1	Front grill	22263002	22263002	22263002	22263002	1
2	Panel	20003100	20003100	01533014	01533014	1
3	Small handle	26233100	26233100	/	/	1
4	Axial-flow vane	10333002	10333002	10333002	10333002	1
5	Motor FW20F	15013156	15013156	/	/	1
	Motor FW20B	/	/	15013045	15013045	1
6	Motor supporter	01703054	01703054	01703029	01703029	1
7	Condenser	011330391	01133051	011330391	011330391	1
8	Control box cover	01413064	01413064	/	/	1
9	Low-temp. start board	30116030	30116030	/	/	1
10	Box cover assy	01413066	01413066	/	/	1
11	Rear grill	11123301	11123301	11123301	11123301	1
12	Right side plate assy	01303151	01303151	01303151	01303151	3
13	Top cover assy	01253263	01253263	/	/	1
	Top cover plate	/	/	01253027	01253027	1
14	Big handle	26233101	26233101	26233101	26233101	1
15	Fan capacitance	33010020	33010020	33010020	33010020	1
16	Electric box	01413034	01413034	/	/	1
	Electric box components	/	/	01403083	01403083	1
17	Compressor capacitance	33010732	33000002	33000017	33000017	1
18	Terminal board	42011241	42011241	42011241	42011241	1
19	Wire clamp	24253002	24253002	24253002	24253002	1
20	Wire clamp base	24253001	24253001	24253001	24253001	1
21	Capacitance limiter	02113002	02113002	02143014	02143014	1
22	Capillary assy	03003250	03003252	030033581	030033581	1
23	4-way valve	430004021	430004021	430004022	430004022	1
24	Separator assy	01233103	01233103	01233101	01233101	1
25	Compressor and its fittings	00100355	00100354	00100086	00100086	1
26	Valve 3/8"	07100135	07100135	07100005	07100005	1
27	Valve 1/4"	07100149	07100149	07100003	07100003	1
28	Valve supporter	01713036	01713036	01713424	01713424	1
29	Chassis assy	01203117	01203115	01203171	01203171	1
30	4-way valve fittings	43000400	43000400	43000400	43000400	1
31	Drainage joint of outdoor unit	06123401	06123401	06123401	06123401	1
32	Compressor gasket	76710212	76710212	76710229	76710229	1
33	Sensor inserter B	42020063	42020063	42020063	42020063	1
34	Compressor overload	00180009	00180007	00180047	00180047	1

The above data are subject to be changed without notice.

9. 5 Disassembly of Components of Big Outdoor Unit



9. 6 Detail List of Components of big Outdoor Unit

No.	Names of Materials	Codes of Materials				Amount
		KF-20W/A12	KFR-20W/A12	KF-25W/A12	KFR-25W/A12	
1	Front grill	22413431	22413431	22413431	22413431	1
2	Axial-flow vane	103333412	10333412	103333412	10333412	1
3	Panel	01533428	01533428	01533428	01533428	1
4	Chassis assy	01203005	01203146	01203336	01203324	1
5	4-way valve assy	/	43003049	/	03023048	1
6	4-way valve	/	43000402	/	43000402	1
7	4-way valve fittings	/	43000400	/	43000400	1
8	Capillary assy	03003074	03003047	03001003	03003014	1
9	Compressor SG333DB1	00100121	/	/	/	1
	Compressor SG433EB2	/	00100123	/	/	1
	Compressor SG633GA1UA	/	/	00100143	/	1
	Compressor RH174VHAC	/	/	/	00120078	1
10	Compressor overload	00180001	00180001	00180001	00180001	1
11	Big handle	26233433	26233433	26233433	26233433	1
12	Gas valve	07100143	07100143	07100143	07100143	1
13	Liquid valve	07100125	07100125	07100125	07100125	1
14	Valve supporter	01713041	01713041	01713041	01713041	1
15	Right side plate assy	01302004	01302004	01302004	01302004	1
16	Wire clamp	71010103	71010103	71010103	71010103	2
17	3-phase terminal board T386A	42011241	42011241	42011241	42011241	1
18	Electric box	01413425	01413425	01413425	01413425	1
19	Compressor capacitance	33000018	33000018	33010743	33010743	1
20	Capacitance	02143401	02143401	02143401	02140001	1
21	Fan capacitance	33010026	33010026	33010026	33010026	1
22	Terminal board 3-12	/	42011251	/	42011251	1
23	Separator assy	01233417	01233417	01233417	01233417	1
24	Sensor insertor B	/	42020063	/	42020063	1
25	Pipe temp. sensor	/	39000115	/	39000115	1
26	Condenser assy	01103014	01103006	01103102	01103407	1
27	Rear grill assy	11123402	11123402	11123402	11123402	1
28	Top cover assy	012532611	01253261	012532611	01253261	1
29	Motor supporter	01703068	01703068	01703068	01703068	1
30	Drainage joint	06123401	06123401	06123401	06123401	1
31	Motor FW25E	15013151	15013151	/	/	1
	Motor FW30E	/	/	15013153	15013153	1
32	Compressor gasket	76710204	76710205	76710203	76710207	3

Bird Single-Split Type

No.	Names of Materials	Codes of Materials				Amount
		KFR-25W/A12-J	KF-32W/A12	KFR-32W/A12	KFR-32W/A12-J	
1	Front grill	22413431	22413431	22413431	22413431	1
2	Axial-flow vane	10333413	10333412	10333412	10333413	1
3	Panel	01533428	01533428	01533428	01533428	1
4	Chassis assy	01203324	01203121	01203045	01203045	1
5	4-way valve assy	03023048	/	03023053	03023053	1
6	4-way valve	43000402	/	43000402	43000402	1
7	4-way valve fittings	43000400	/	43000400	43000400	1
8	Capillary assy	03003014	03003633	03003425	03003425	1
9	Compressor RH174VHAC	00120078	/	/	/	1
	Compressor RH207VHKC	/	00120082	/	/	1
	Compressor RH220VHLC	/	/	00120079	00120079	1
10	Compressor overload	/	/	/	00180006	1
11	Big handle	26233433	26233433	26233433	26233433	1
12	Gas valve	07100143	07100142	07100142	07100142	1
13	Liquid valve	07100025	07100024	07100125	07100125	1
14	Valve supporter	01712041	01712041	01712041	01712041	1
15	Right side plate assy	01303016	01302004	01303016	01303016	1
16	Wire clamp	71010103	71010103	71010103	71010103	2
17	3-phase terminal board T386A	42011241	42011241	42011241	42011241	1
18	Electric box	01413425	01413425	01413425	01413425	1
19	Compressor capacitance	33000017	33000018	33000018	33000018	1
20	Capacitance	02140001	02143401	02143401	02143401	1
21	Fan capacitance	33010026	33010027	33010026	33010026	1
22	Terminal board 2-8	42011103	42011103	42011103	42011103	1
23	Separator assy	01233417	01233417	01233417	01233417	1
24	Sensor insertor B	42020063	42020063	42020063	42020063	1
25	Pipe temp. sensor	39000115	39000115	39000115	39000115	1
26	Condenser assy	011034075	011330181	01103406	011034065	1
27	Rear grill assy	11123402	11123402	11123402	11123402	1
28	Top cover assy	01253261	01253261	01253261	01253261	1
29	Motor supporter	01703068		01703068	01703068	1
30	Drainage joint	06123401	06123401	06123401	06123401	1
31	Motor FW30K	15013067	/	/	/	1
	Motor FW48A	/	15013036	15013036	/	1
	Motor FW48G	/	/	/	15013066	1
32	Compressor gasket	76710207	76710207	76710207	76710207	3

No.	Names of Materials	Codes of Materials		Amount
		KF-20W/NA12	KF-20W/NA12	
1	Front grill	22413431	22413431	1
2	Axial-flow vane	10333412	10333412	1
3	Panel	20002041	20002041	1
4	Chassis components	/	01203009	1
	Chassis assy	012033343	/	1
5	4-way valve assy	/	/	1
6	4-way valve	/	/	1
7	4-way valve fittings	/	/	1
8	Capillary assy	03003685	03003625	1
9	Compressor and its fitting C-1RN70H5C	00100354	/	1
	Compressor and its fitting YZG-22RY1T1	/	00100182	1
10	Compressor overload B145-140-141E	00180007	00180029	1
11	Big handle	26233433	26233433	1
12	Gas valve 3/8	07100135	07100135	1
13	Liquid valve 1/4	07100134	07100149	1
14	Valve supporter	01713041	01713041	1
15	Right side plate assy	01302004	01302004	1
16	Wire clamp	71010103	71010103	2
17	3-phase terminal board T386A	42011241	/	1
	5-phase terminal board	/	420111565	1
18	Electric box	01413425	01413425	1
19	Capacitance 25uF/450V(440V)	33000002	33000017	1
20	Capacitance clamp	02143401	/	1
	Capacitance clamp A	/	02140001	1
21	Capacitance 2.5uF/450V	33010026	33010026	1
22	Terminal board	/	/	1
23	Separator assy	01233417	012334171	1
24	Sensor insertor B	/	/	1
25	Pipe temp. sensor	/	/	1
26	Dondenser component	011033861	011031511	1
27	Rear grill	11123203	01473030	1
28	Top cover plate	01253443	01253448	1
29	Motor supporter	01703002	01703002	1
30	Drainage joint	06123401	06123401	1
31	Motor FW25E	15013151	15013151	1
32	Compressor gasket	76710212	76710233	3

Bird Single-Split Type

No.	Names of Materials	Codes of materials				Amount
		KFR-20W/NA12S1	KFR- 20W/NA12S2	KFR- 20W/NA12S1	KFR- 20W/NA12S1	
1	Front grill	22413431	22413431	22413431	22413431	1
2	Axial-flow vane	10333412	10333412	10333412	10333412	1
3	Panel	20002041	20002041	20002041	20002041	1
4	Chassis assy	012033342	01203209	01203251	01203289	1
5	Suck in pipe	03613313	03613315	03623382	03623397	1
6	4-way valve	430004021	430004021	430004021	430004021	1
7	4-way valve fittings	43000400	43000400	43000400	43000400	1
8	Capillary assy	03003109	030033793	03003699	03003109	1
9	Compressor and its fittings C-1RN70H5C	00100354	00100354	/	00100354	1
	Compressor and its fittings CG433EB1-C	/	/	00100388	/	1
	Compressor and its fittings YZG-22RY1T	/	/	/	00100182	1
10	Compressor overload	00180007	00180007	/	00180029	1
11	Big handle	26233433	26233433	26233433	26233433	1
12	Gas valve 3/8"	07100135	07100135	07100135	07100135	1
13	Liquid valve 1/4"	07100134	07100149	07100134	07100134	1
14	Valve supporter	01713041	01713043	01713043	01713041	1
15	Right side plate assy	01302004	01302004	01302004	01302004	1
16	Wire clamp	71010103	71010103	71010103	71010103	2
17	3-phase terminal board T386A	42011241	42011241	42011241	42011241	1
18	Electric box assy	01403040	01403117	0140304020	0140304020	1
19	Capacitance 22.5uF/450V	33000002	33000002	/	/	1
	Capacitance CBB65 30uF/450V(440V)	/	/	33000018	/	1
	Capacitance CBB65 25uF/450V(440V)	/	/	/	33000017	1
20	Capacitance clamp	02143401	02140001	02143401	02143401	1
21	Capacitance 2.5uF/450V	33010026	33010026	33010026	33010026	1
22	Terminal board 2-8	42011103	42011103	42011103	42011103	1
	Terminal board 3-12	/	/	42011251	/	1
23	Separator assy	01233417	01233417	01233417	01233417	1
24	Sensor inserter B	/	/	/	/	1
25	Pipe temp. sensor	/	/	/	/	1
26	Condenser components	/	011031571	01103387	/	1
	Condenser assy	01103074	/	/	01103074	1
27	Rear grill	01473030	01473030	11123401	01473030	1
28	Top cover plate	01253443	01253448	01253443	01253443	1
29	Motor supporter	01703068	01703391	01703068	01703068	1
30	Drainage joint	06123401	06123401	06123401	06123401	1
31	Motor FW25E	15013151	15013151	15013151	15013151	1
32	Compressor gasket YZG/AZ-00-01	76710212	76710212	76710205	76710233	3

No.	Names of Materials	Codes of Materials				Amount
		KF-25W/NA12	KF-25W/NA12	KF-25W/NA12	KF-25W/NA12	
1	Front grill	22413431	22413431	22413431	22413431	1
2	Axial-flow vane	10333412	10333412	10333412	10333412	1
3	Panel	20002041	20002041	01533011	01533428	1
4	Chassis assy	01203042	012033343	012032511	012032611	1
5	4-way valve assy	/	/	/	/	1
6	4-way valve	/	/	/	/	1
7	4-way valve fittings	/	/	/	/	1
8	Capillary fittings	03003430	03003666	03003698	03003698	1
9	Compressor and its fittings C-RV167H01AA	00100355	/	/	/	1
	Compressor and its fittings C-IRV167H01AA	/	00100292	/	/	1
	Compressor and its fittings CG633GB1-C	/	/	00100387	/	1
	Compressor and its fittings YZG-27RY1	/	/	/	00100179	1
10	Compressor overload	00180009	/	/	00180030	1
11	Big handle	26233433	26233433	26233433	26233433	1
12	Valve 3/8"	07100135	07100135	07100135	07100135	1
13	Valve 1/4"	07100134	07100149	07100149	07100149	1
14	Valve supporter	01713041	01713041	01713041	01713041	1
15	Right side plate assy	01302004	01302004	01302004	01302004	1
16	Wire clamp	71010103	71010103	71010103	71010103	1
17	3-phase terminal board T386A	42011241	42011241	42011241	42011241	1
18	Electric box assy	014030283	01403117	01403117	01403117	1
19	Capacitance CBB65 35uF/450V(440V)	33010743	/	/	/	1
	Capacitance CBB65 25uF/450V(440V)	/	33000017	33000017	33000017	1
20	Capacitance clamp A	02140001	02140001	02140001	02140001	1
21	Capacitance 2.5uF/450V(UL/VDE/TUV)	33010026	33010026	33010026	33010026	1
22	Terminal board	/	/	/	/	1
23	Separator assy	012334171	012334171	012334171	012334171	1
24	Sensor inserter B	/	/	/	/	1
25	pipe temp. sensor	/	/	/	/	1
26	Condenser assy	01103059	011330183	011330183	011330183	1
27	Rear grill	11123401	11123401	01473030	01473030	1
28	Top cover assy	01253261	01253261	012532611	012532611	1
29	Motor supporter	01703068	01703002	01703002	01703002	1
30	Drainage joint	/	/	/	/	1
31	Motor FW30E	15013153	15013153	15013153	15013153	1
32	Compressor gasket	76710212	76710224	76710205	76710256	3

Bird Single-Split Type

No.	Names of Materials	Codes of Materials			Amount
		KFR-25W/NA12S1	KFR-25W/NA12S2	KFR-25W/NA12S1	
1	Front grill	22413431	22413431	22413431	1
2	Axial-flow vane	10333412	10333412	10333412	1
3	Panel	20002041	20002041	20002041	1
4	Chassis assy	01203324	01203179	01203343	1
5	4-way valve assy	03023069	/	/	1
	4-way valve components		03023209	03023286	1
6	4-way valve	43000402	430004021	430004021	1
7	4-way valve fittings	43000400	43000400	43000400	1
8	Capillary assy	03003155	030033792	03003665	1
9	Compressor C-RV167H01AA	00100355	00100355	/	1
	Compressor and its fittings C-IRV167H01AA	/	/	00100292	1
10	Compressor overload	00180009	00180009	/	1
11	Big handle	26233433	26233433	26233433	1
12	Gas valve	07100135	07100135	07100135	1
13	Liquid valve	07100134	07100149	07100149	1
14	Valve supporter	01713041	01713041	01713041	1
15	Right side plate assy	01302004	01302004	01302004	1
16	Wire clamp	71010103	71010103	71010103	2
17	3-phase terminal board T386A	42011241	42011241	42011241	1
18	Electric box	01413425	01413425	01413425	1
19	Compressor capacitance	33000002	33000002	33000017	1
20	capacitance clamp	02140001	02140001	02140001	1
21	Fan capacitance	33010026	33010026	33010026	1
22	Terminal board 3-12	42011251	42011251	/	1
	Terminal board 2-8	/	/	42011103	1
23	Separator assy	01233417	01233417	012334171	1
24	Sensor inserter B	/	/	/	1
25	Pipe temp. sensor	/	/	/	1
26	Condenser assy	01103056	/	01173404	1
	Condenser components	/	01103157	01103348	1
27	Rear grill	01473030	01473030	01473030	1
28	Top cover assy	012532611	012532611	/	1
	Top cover plate	/	/	01253448	1
29	Motor supporter	01703068	017033811	01703075	1
30	Drainage joint	06123401	06123401	06123401	1
31	Motor FW30E	15013153	/	15013153	1
	Motor FW25E	/	15013151	/	1
32	Compressor gasket	76710212	76710212	76710224	3

No.	Names of Materials	Codes of Materials		Amount
		KFR-25W/NA12S1	KFR-25W/NA12S1	
1	Front grill	22413431	22413431	1
2	Axial-flow vane	10333412	10333412	1
3	Panel	20002041	20002041	1
4	Chassis assy	01203251	01203265	1
	4-way valve components	03023605	03023616	1
6	4-way valve	430004021	430004021	1
7	4-way valve fittings	43000400	43000400	1
8	Capillary assy	03003155	03003155	1
9	Compressor and its fittings CG633GB1-C	00100387	/	1
	Compressor and its fittings YZG-27RY1	/	00100179	1
10	Compressor overload	/	/	1
11	Big handle	26233433	26233433	1
12	Gas valve	07100135	07100135	1
13	Liquid valve	07100149	07100149	1
14	Valve supporter	01713041	01713041	1
15	Right side plate assy	01302004	01302004	1
16	Wire clamp	71010103	71010103	2
17	3-phase terminal board T386A	42011241	42011241	1
18	Electric box	01413425	01413425	1
19	Compressor capacitance	33000002	33000017	1
20	Capitance clamp	02140001	02140001	1
21	Fan capacitance	33010026	33010026	1
22	Terminal board 3-12	42011251	42011251	1
23	Separator assy	01233417	01233417	1
24	Sensor insertor B	/	/	1
25	Pipe temp. sensor	/	/	1
26	Condenser assy	01103056	01103056	1
27	Rear grill	01473030	01473030	1
28	Top cover assy	012532611	012532611	1
29	Motor supporter	01703068	01703068	1
30	Drainage joint	06123401	06123401	1
31	Motor FW30E	15013153	15013153	1
32	Compressor gasket	/	/	3

Bird Single-Split Type

No.	Names of Materials	Codes of Materials		Amount
		KF-32W/NA12	KF-32W/NA12	
1	Front grill	22413431	22413431	1
2	Axial-flow vane	10333412	10333412	1
3	Panel	01533428	01533012	1
4	Chassis assy	012030421	012032451	1
5	4-way valve assy	/	/	1
6	4-way valve	/	/	1
7	4-way valve fittings	/	/	1
8	Capillary assy	03003812	03003694	1
9	Compressor C-RV227H01AA	00100352	/	1
	Compressor and its fittings QXC-21uB030g	/	00100192	1
10	Compressor overload	00180003	00180046	1
11	Big handle	26233433	26233433	1
12	Gas valve	07100133	07100133	1
13	Liquid valve	07100134	07100134	1
14	Valve supporter	01713041	01713041	1
15	Right side plater assy	01302004	01302004	1
16	Wire clamp	71010103	71010103	1
17	3-phase terminal board T386A	42011241	42011241	1
18	Electric box	01413425	01413425	1
19	Compressor capacitance	33000017	33000018	1
20	Capacitance clamp	02140001	02140001	1
21	Fan capacitance	33010027	33010027	1
22	Terminal board	/	/	1
23	Separator assy	01233417	01233417	1
24	Sensor insertor B	/	/	1
25	Pipe temp. sensor	/	/	1
26	Condenser assy	011033862	011330183	1
27	Rear grill	01473030	01473030	1
28	Top cover assy	01253261	012532611	1
29	Motor supporter	01703068	01703002	1
30	Drainage joint	/	/	1
31	Motor FW48A	15013036	15013036	1
32	Compressor gasket	76710212	76710247	3

No.	Names of Materials	Codes of Materials				Amount
		KFR-32W/NA12S1	KFR-32W/NA12S2	KFR-32W/NA12S1	KFR-32W/NA21	
1	Front grill	22413431	22413431	22413431	22413431	1
2	Axial-flow vane	10333412	10333412	10333412	10333413	1
3	Panel	01533012	01533012	01533012	01533012	1
4	Chassis assy	01203042	01203179	01203245	01203042	1
5	4-way valve assy	22413431	/	22413431	22413431	1
	4-way valve components	/	03023259	030231451	030231451	1
6	4-way valve	10333412	430004021	430004021	430004021	1
7	4-way valve fittings	01533012	01533012	01533012	01533012	1
8	Capillary	03003161	03003161	03003688	03003394	1
9	Compressor and its fittings C-RV227H01AA	00100352	/	/	00100352	1
	Compressor and its fittings C-RV197H01AA	/	00100285	/	/	1
	Compressor and its fittings QXC-2luB030g	/	/	00100192	/	1
10	Compressor overload	00180003	00180036	00180046	00180046	1
11	Big handle	26233433	26233433	26233433	26233433	1
12	Gas valve	07100133	07100133	07100133	07100133	1
13	Liquid valve	07100134	07100149	07100149	07100149	1
14	Valve supporter	01713041	01713041	01713041	01713041	1
15	Right side plate assy	01302004	01302004	01302004	01302004	1
16	Wire clamp	71010103	71010103	71010103	71010103	2
17	3-phase terminal board T386A	42011241	42011241	42011241	42011241	1
18	Electric box	01413425	01413425	01413425	01413425	1
19	Compressor capacitance	33000017	33000017	33000018	33000017	1
20	Capitance clamp	02140001	02143401	02140001	02140001	1
21	Fan capacitance	33010027	33010026	33010027	33010027	1
22	Terminal 2-8	42011103	42011103	42011103	42011103	1
23	Separator assy	01233417	01233417	01233417	01233417	1
24	Sensor inserter B	42020063	42020063	42020063	42020063	1
25	Pipe temp. sensor	/	/	/	/	1
26	Condenser assy	01103073	/	011030564	011030562	1
	Condenser components	/	011031574	/	/	1
27	Rear grill	01473030	01473030	01473030	11123401	1
28	Top cover assy	01253261	012532611	012532611	01253261	1
29	Motor supporter	01703068	01703391	01703068	01703068	1
30	Drainage joint	06123401	06123401	06123401	06123401	1
31	Motor FW48A	15013036	/	/	/	1
	Motor FW25E	/	15013151	/	/	1
	Motor FW48C	/	/	15013039	/	1
	Motor FW48G	/	/	/	15013066	1
32	Compressor gasket	76710212	76710224	76710247	76710247	3

Bird Single-Split Type

No.	Names of Materials	Codes of Materials				Amount
		GSW9-22L/A	GSW9-22R/A	GSW12-22L/A	GSW12-22R/A	
1	Front grill	22413431	22413431	22413431	22413431	1
2	Axial-flow vane	103333412	10333412	103333412	10333412	1
3	Panel	01533428	01533428	20002041	01533428	1
4	Chassis assy	01213429	01203035	01203035	01203035	1
5	4-way valve assy	/	03023151	/	03023183	1
6	4-way valve	/	43000402	/	43000402	1
7	4-way valve fittings	/	43000400	/	43000400	1
8	Capillary assy	03003018	03003047	03001003	03003014	1
9	Compressor 2P14S236A1J	00100253	00100253	/	/	1
	Compressor 2P19S236A1J	/	/	00100260	00100260	1
10	Compressor overload	00180052	00180052	00180052	00180052	1
11	Big handle	26233433	26233433	26233433	26233433	1
12	Gas valve	07100143	07100143	07100142	07100142	1
13	Liquid valve	07100115	07100125	07100115	07100125	1
14	Valve supporter	01713041	01713041	01713041	01713041	1
15	Right side plate assy	01302004	01302004	01302004	01302004	1
16	Wire clamp	71010103	71010103	71010103	71010103	2
17	3-phase terminal board T386A	42011241	42011241	42011241	42011241	1
18	Electric box	01413425	01413425	01413425	01413425	1
19	Compressor capacitance	33000018	33000018	33000018	33000018	1
20	Capacitance clamp	02141375	02143401	02143401	02140001	1
21	Fan capacitance	33010026	33010026	33010026	33010026	1
22	Terminal board 3-12	/	42011251	/	42011251	1
23	Separator assy	01233417	01233417	01233417	01233417	1
24	Sensor insertor B	/	42020063	/	42020063	1
25	Pipe temp. sensor	/	39000115	/	39000115	1
26	Condenser assy	01103005	01103204	01103204	01103406	1
27	Rear grill assy	11123402	11123402	11123402	11123402	1
28	Top cover assy	012532611	01253261	012532611	01253261	1
29	Motor supporter	01703391	01703391	01703391	01703391	1
30	Drainage joint	06123401	06123401	06123401	06123401	1
31	Motor FW25P	15013152	15013152	/	/	1
	Motor FW48B	/	/	15013305	15013305	1
32	Compressor gasket	76710222	76710222	76710222	76710222	3

No.	Names of Materials	Codes of Materials			Amount
		KF-25W/NaA12-E	KFR-25W/NaA12-ES1	KFR-25W/NaA12-ES2	
1	Front grill	22413431	22413009	22413009	1
2	Axial-flow vane	10333413	10333412	10333412	1
3	Panel	01533012	01533012	01533433	1
4	Chassis assy	01203169	01203169	01203169	1
5	4-way valve assy	/	030231081	030231991	1
6	4-way valve	/	430004022	430004022	1
7	4-way valve fittings	/	43000400	43000400	1
8	Capillary	030033542	30033791	30033791	1
9	Compressor and its fittings C-1RV096H1A	00100368	00100368	00100368	1
10	Compressor overload	00110101	00110101	00110101	1
11	Big handle	26233433	26233433	26233433	1
12	Valve 3/8"	07100005	07100005	07100005	1
13	Valve 1/4"	07100003	07100003	07100003	1
14	Valve supporter	01713041	01713041	01713041	1
15	Right side plate assy	01302004	01302004	01302004	1
16	Wire clamp	71010103	71010103	71010103	1
17	3-phase terminal board T386A	42011241	42011241	42011241	1
18	Electric box	01413425	01413425	01413425	1
19	Compressor capacitance	33000017	33000017	33000017	2
20	Capacitance clamp	02143401	02143401	02143401	1
21	Fan capacitance	33010025	33010025	33010025	1
22	Terminal board 3-12	/	42011103	42011251	1
23	Separator assy	01233417	01233417	01233417	1
24	Sensor inserter B	/	42020063	42020063	1
25	Pipe temp. sensor	/	/	/	1
26	Condenser components	011032821	011032812	011032814	1
27	Rear grill assy	/	11123402	11123402	1
28	Top cover assy	012532611	12532611	12532611	1
29	Motor supporter	01703391	01703391	01703391	1
30	Drainage joint	06123401	06123401	06123401	1
31	Motor FW30K	15013067	/	/	1
	Motor FW25E	/	15013151	15013151	1
32	Absorb gasket	76710224	76710224	76710224	1

Bird Single-Split Type

No.	Names of Materials	Codes of Materials		Amount
		KF-32W/NaA12-E	KFR-32W/NaA12-E	
1	Front grill	22413431	22413009	1
2	Axial-flow vane	10333413	10333413	1
3	Panel	01533012	01533428	1
4	Chassis assy	01203179	01203169	1
5	4-way valve assy	/	03023116	1
6	4-way valve	/	430004022	1
7	4-way valve fittings	/	43000400	1
8	Capillary assy	030033531	030033531	1
9	Compressor and its fittings C-RV133H1A	00100378	00100378	1
10	Compressor overload	00180043	00180043	1
11	Big handle	26233433	26233433	1
12	Valve 1/2"	07100006	07100006	1
13	Valve 1/4"	07100003	07100003	1
14	Valve supporter	01713041	01713041	1
15	Right side plate assy	01302004	01302004	1
16	Wire clamp	71010103	71010103	1
17	3-phase terminal board T386A	42011241	42011241	1
18	Electric box	/	01413425	1
	Electric box assy	0140304031	/	1
19	Compressor capacitance	33000017	33000017	2
20	Capacitance clamp	02143401	02143401	1
21	Fan capacitance	33010026	33010026	1
22	Terminal board 3-12	/	42011251	1
23	Separator assy	01233417	01233417	1
24	Sensor insertor B	/	/	1
25	Pipe temp. sensor	/	/	1
26	Condenser components	011032813	011032813	1
27	Rear grill assy	11123402	11123402	1
28	Top cover assy	12532611	12532611	1
29	Motor supporter	01703391	01703391	1
30	Drainage joint	06123401	06123401	1
31	Motor FW30K	15013067	15013067	1
32	Absorb gasket	76710224	76710224	1

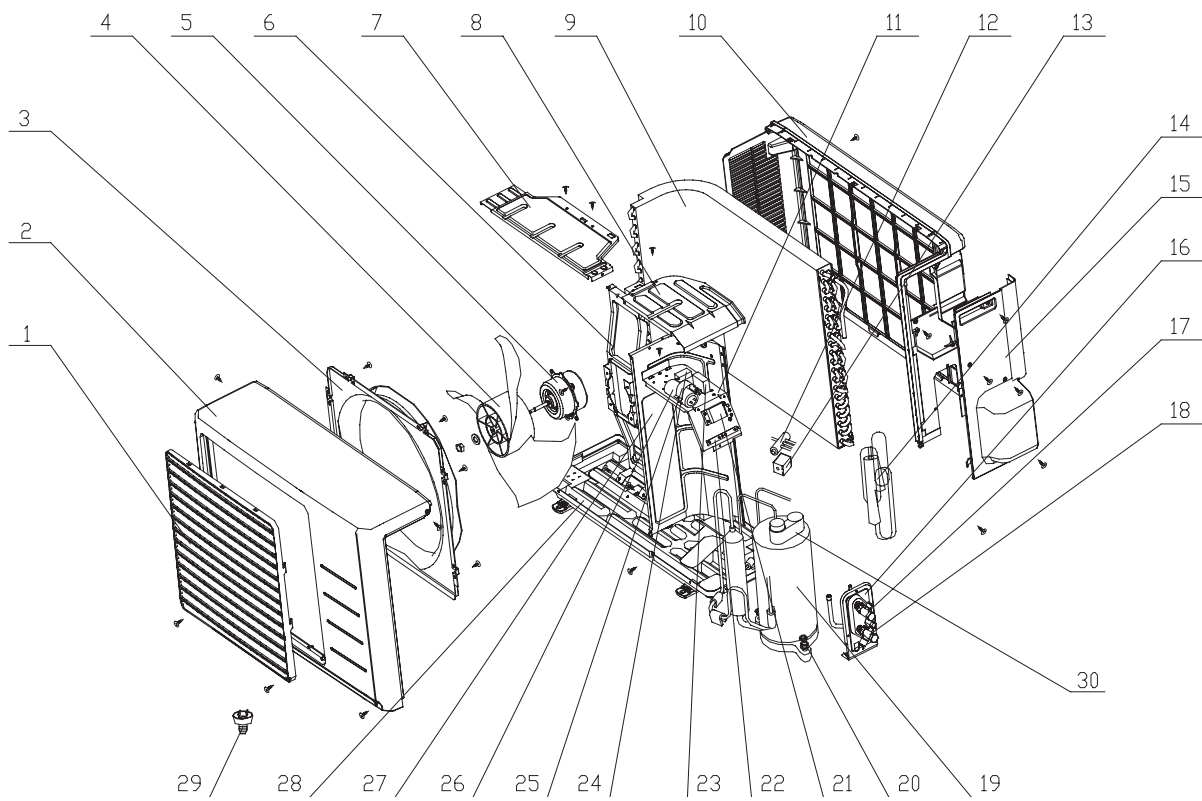
No.	Names of Materials	Codes of Materials		Amount
		KFR-20W/NA23	KF-20W/NA23	
1	Front grill	22413431	22413431	1
2	Axial-flow vane	10333412	10333412	1
3	Panel	20002041	20002041	1
4	Chassis components	01203009	01203009	1
5	4-way valve assy	/	/	1
6	4-way valve	430004021	/	1
7	4-way valve fittings	43000400	/	1
8	Capillary assy	030034871	03003625	1
9	Compressor and its fittings	00100182	00100182	1
10	Compressor overload	00180029	00180029	1
11	Big handle	26233433	26233433	1
12	Gas valve 3/8"	07100135	07100149	1
13	Liquid valve 1/4"	07100149	07100135	1
14	Valve supporter	01713041	01713041	1
15	Right side plate assy	01302004	01302004	1
16	Wire clamp	71010103	71010103	2
17	5-phase terminal board	420111565	420111565	1
18	Electric box	01413425	01413425	1
19	Compressor capacitance	33000017	33000017	1
20	Capacitance clamp	02140001	02140001	1
21	Fan capacitance	33013326	33013326	1
22	Terminal board 3-12	42011251	42011103	1
23	Separator assy	012334171	012334171	1
24	Sensor inserter B	/	/	1
25	Pipe temp. sensor	/	/	1
26	Condenser assy	01133071	01133071	1
27	Rear grill assy	/	/	1
28	Top cover assy	01253448	01253448	1
29	Motor supporter	01703002	01703002	1
30	Drainage joint	06123401	06123401	1
31	Motor FW25E	15013151	15013151	1
32	Compressor gasket	76710233	76710233	3

Bird Single-Split Type

No.	Names of Materials	Codes of Materials				Amount
		KFR-32W/NA23	KF-32W/NA23	KFR-25W/NA23	KF-25W/NA23	
1	Front grill	22413431	22413431	22413431	22413431	1
2	Axial-flow vane	10333412	10333412	10333413	10333413	1
3	Panel	20002041	20002041	20002041	20002041	1
4	Chassis components	/	/	01203197	01203197	1
	Chassis assy	01203042	01203042	/	/	1
5	4-way valve assy	/	/	/	/	1
6	4-way valve	430004021	/	430004021	/	1
7	4-way valve fittings	43000400	/	43000400	/	1
8	Capillary assy	03003161	03003160	03003487	030036251	1
9	Compressor C-RV227H01AA	00100352	00100352	/	/	1
	Compressor YZG-22RY1T1	/	/	00100179	00100179	
10	Compressor overload	00180003	00180003	00180029	00180029	1
11	Big handle	26233433	26233433	26233433	26233433	1
12	Liquid valve 1/4"	07100149	07100134	07100149	07100149	1
13	Gas valve 3/8"	/	/	07100135	07100135	1
	Liquid valve 1/2"	07100133	07100133	/	/	1
14	Valve supporter	01713041	01713041	01713041	01713041	1
15	Right side plate assy	01302004	01302004	01302004	01302004	1
16	Wire clamp	71010103	71010103	71010103	71010103	2
17	5-phase terminal board	420111565	420111565	420111564	420111565	1
18	Electric box	01413425	01413425	01413425	01413425	1
19	Compressor capacitance	33000017	33000017	33000017	33000017	1
20	Capacitance clamp	02140001	02140001	02140001	02140001	1
21	Fan capacitance CBB61 2.5uF/450V	/	/	33010026	33010026	1
	Capacitance CBB61 3uF/450V	33010027	33010027	/	/	1
22	Terminal board 2-8	42011103	/	42011103	/	1
	Terminal board (1)	/	42011147	/	42011103	
23	Separator assy	01233417	01233417	012334171	012334171	1
24	Sensor inserter B	/	/	/	/	1
25	Pipe temp. sensor	/	/	/	/	1
26	Condenser assy	011030563	01103075	01133071	01133071	1
27	Rear grill assy	/	/	/	/	1
28	Top cover assy	01253448	01253448	01253448	01253448	1
29	Motor supporter	01703068	01703068	01703002	01703002	1
30	Drainage joint of outdoor unit	06123401	06123401	06123401	06123401	1
31	Motor FW30K	/	/	15013067	15013067	1
	Motor FW48C	15013039	15013039	/	/	
32	Compressor gasket	76710212	76710212	76710233	76710233	3

The above data are subject to be changed without notice.

9.7 Disassembly of Components of Plastic Case Outdoor Unit



9. 8 **Detail of Components of Plastic Case Outdoor Unit**

No.	Names of Materials	Codes of Materials		Amount
		KFR-20W/NA51	KF-20W/NA51	
1	Front grill	22413010	22413010	1
2	Front plate	22263005	22263005	1
3	Guide collar	10373001	10373001	1
4	Axial-flow vane	10333412	10333412	1
5	Motor FW25E	15013151	15013151	1
6	Motor supporter	01703074	01703074	1
7	Support plate	01793003	01793003	1
8	Electric box cover	01413012	01413012	1
9	Condenser components	011031572	011033651	1
10	Rear plate	22263006	22263006	1
11	Electric box assy	014030278	0140304034	1
12	4-way valve	430004021	/	1
13	4-way valve fittings	43000400	/	1
14	Capillary assy	030033793	030033543	1
15	Right handle	26233001	26233001	1
16	Valve supporter	01713058	01713058	1
17	Valve 1/4"	07100149	07100149	1
18	Valve 3/8"	07100135	07100135	1
19	Compressor C-1RN70H5C	00100354	00100354	1
20	Compressor absorb collar	76710212	76710212	3
21	3-phase terminal board T386A	42011241	42011241	1
22	Wire clamp	71010103	71010103	1
23	Fan capacitance	33010026	33010026	1
24	Terminal board 2-8	42011103	/	1
25	Capacitance clamp	02140001	02141375	1
26	Compressor capacitance	33000002	33000002	1
27	Separator assy	012334173	012334173	1
28	Chassis assy	012032091	012032091	1
29	Drainage joint of outdoor unit	06123401	06123401	1
30	Compressor overload	00180007	00180007	1

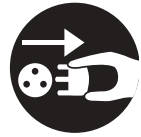
No.	Names of Materials	Codes of Materials				Amount
		KFR-32W/NA51	KF-32W/NA51	KFR-25W/NA51	KF-25W/NA51	
1	Front grill	22413010	22413010	22413010	22413010	1
2	Front plate	22263005	22263005	22263005	22263005	1
3	Guide collar	10373001	10373001	10373001	10373001	1
4	Axial-flow vane	10333412	10333412	10333412	10333412	1
5	Motor FW25E	15013151	15013151	15013151	15013151	1
6	Motor supporter	01703074	01703074	01703074	01703074	1
7	Support plate	01793003	01793003	01793003	01793003	1
8	Electric box cover	01413012	01413012	01413012	01413012	1
9	Condenser component	011031576	011033651	011031575	01103365	1
10	Rear plate	22263006	22263006	22263006	22263006	1
11	Electric box	01413011	01413011	01413011	01413011	1
12	4-way valve	430004021	/	430004021	/	1
13	4-way valve fittings	43000400	/	43000400	/	1
14	Capillary assy	030033794	030036281	030033792	03003628	1
15	Right handle	26233001	26233001	26233001	26233001	1
16	Valve supporter	01713058	01713058	01713058	01713058	1
17	Valve 1/4"	07100149	07100149	07100149	07100149	1
18	Valve 3/8"	/	/	07100135	07100135	1
	Valve 1/2"	07100133	07100133	/	/	1
19	Compressor C-RV167H01AA	/	/	00100355	00100355	1
	Compressor C-RV197H01AA	00100285	00100285	/	/	1
20	Compressor absorb collar	76710224	76710224	76710224	76710224	3
21	3-phase terminal board T386A	42011241	42011241	42011241	42011241	1
22	Wire clamp	71010103	71010103	71010103	71010103	1
23	Fan capacitance	33010026	33010026	33010026	33010026	1
24	Terminal board 2-8	42011103	42011103	42011103	/	1
25	Capacitance clamp	02143401	02143401	02143401	02143401	1
26	Compressor capacitance	33000017	33000017	33000002	33000002	1
27	Separator assy	012334173	012334173	012334173	012334173	1
28	Chassis assy	012031791	012031791	012031791	012031791	1
29	Drainage joint of outdoor unit	06123401	06123401	06123401	06123401	1
30	Compressor overload	00180036	00180036	/	/	1

Above data are subject to be changed without notice.

10 Maintenance and Repair

Warning

- Do stop the unit and plug out power plug before cleaning the unit, otherwise electric shock may occur.
- Don't get the unit wet for it would cause electric shock. Ensure that the unit would not be rinsed by water under any circumstance.
- Volatile liquid like thinner or gasoline would damage the appearance of air conditioner (only adopt soft dry cloth and wet cloth with neutral scour when cleaning air conditioner appearance).



10.1 Clean Panel

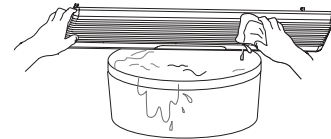
① Take off Panel

Pull the grooves on both side of panel at the same time to the place shown on figure by arrow direction then take off panel.



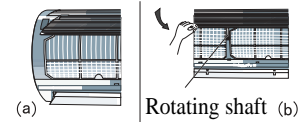
② Clean Panel

Clean it by moist soft brush and neutral scour, then wipe it with water and dry it.



③ Install Panel

Put the props on both ends of panel into fulcrum groove and put middle rotating shaft into groove, then cover the panel cover well by arrow direction



10.2 Clean Air Filter

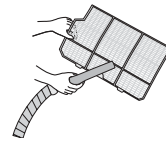
① Take off air filter

Pull an angle to the panel forcibly at grooves at both ends of panel contemporarily by the arrow direction, then take off air filter by pulling it downward. As shown in right figure.



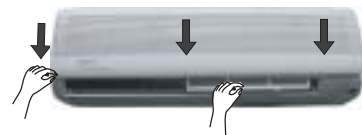
② Clean air filter

Adopt duct cleaner or water to wash filter. If the filter is very dirty (like oil spots on) wash it by warm water (lower than 45 °C) that dissolved with neutral cleanser, then dry the filter on shade, as shown in right filter.



③ Install air filter

Install air filter well by arrow direction, let its side that marked "Front" faces you then cover and buckle the panel well.



Note :

Don't dry the panel or air filter directly under sun burn; don't wash them by hot water which is hotter than 45 °C or burn it on fire (For these would cause fade, fire or deformation).

11 Installation Guide

11.1 Select of Install Location

1 Indoor Unit

- The air inlet and outlet vent should far away from obstruction so that air can be blown to the entire room;
- Select the place where is easy to drain condensate or easy to connect with outdoor unit;
- Be far away from heat resource, steam and flammable gas;
- Select the place where it is possible to stand the weight of indoor unit without increasing the running noise and vibrations.
- Ensure the install of indoor unit fits requirements on install dimension diagram;
- Ensure there should be enough space for maintenance or repair, distance between indoor unit and floor should be over 200cm;
- Place the units to where should be 1m or more away from TV, Hi-fi and other appliances;
- Place the unit to where air filter will be taken out easily.

2 Outdoor Unit

- Outdoor unit should be installed on a firm stand to prevent increase of noise and shake.
- Don't have the air outlet vents blocked.
- When installing the unit on seashore or high altitude where there is strong wind, in order to maintain normal run of fan, the unit should be installed against wall and baffle should be adopted.
- In the area where there is strong wind, it is necessary to prevent wind from blowing into the air conditioner.
- Don't install the outdoor unit in sealed space, it should be installed in where has good ventilation.

Notes :

Installation of the following places may cause malfunction; if it is unavoidable to install there, please contact Gree Authorized Service Center.

- Place where there is machine oil.
- Saline and alkaline place where is near sea.
- Place where there is sulfureted gas (such as sulfureted spring).
- Place where there is high-frequency equipments such as radio, welders and medical equipment.
- Place in special ambient.



11.2 Install Indoor Unit

1) Install of rear panel

- Measure horizon position by hanging line; since drainage pipe hold is on left side, thus it is better to let the left side a little bit lower when adjusting rear plate.
- Fix rear plate on wall by bolts.
- Pull the rear panel after installation to see if it is firm enough. the rear panel after installed should be able to stand the weight of an adult (60kg), and the weight should be evenly shared by each screw.

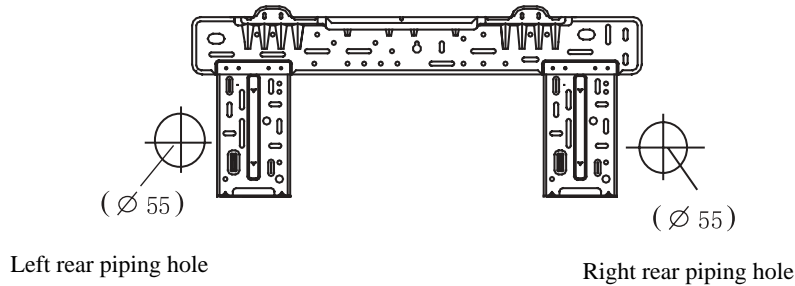


Fig. 11-1

2) Make piping hole

- As shown in fig.11-2, pipe can go out from 6 directions one of which can be selected according to need.
- As shown in fig. 11-1, after deciding the location of piping hole, drill a hole with downward slant ($\phi 55$).
- In order to protect pipe and cable from damaging when going through wall, install piping hole sleeve.

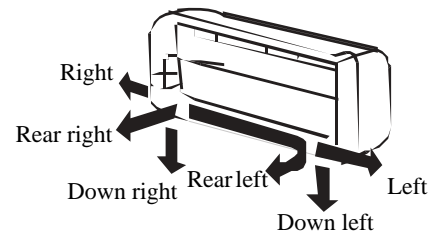


Fig. 11-2

3) Install drainage hose

- Drainage hose must be placed at a downward slant for smooth drainage.
- Do not wrench, bend or heave the drain hose or flood its end into water (As shown in fig. 11-3).
- The prolonged drainage hose must be wrapped by heat insulation material when going through indoor unit.

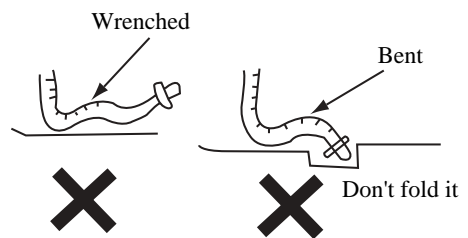


Fig. 11-3

4) Install connecting pipe

Connect the connecting pipe with the 2 leading pipe from indoor unit correspondently, tighten joint nuts on connect pipe (Refer to the following Install Connecting Pipe).

Note :

- Connect the connecting pipe with indoor unit first and then outdoor unit.
- Be careful when bending connecting pipe and prevent damaging it.
- Don't tighten the joint nut too much, or leakage would occur.

⑤ Electric wiring

1. Open the panel upwardly;
2. Take off wiring cover;
3. Lead power connecting wire goes through bottom case and wire hole at bottom of electric box from below to up;
4. Connect blue wire in power connecting wire to terminal N (1) on connect board and brown wire on "2" terminal, then yellow-green wire (earth wire) to terminal \oplus
5. To heat pump unit, signal connect wire (4×0.75) should be connected to indoor unit through connector (as shown in fig. 11-4), and have the control wire clamped by wire clamp that placed under case.
6. Install cover plate of connecting wire to its previous place.
7. Cover panel back.

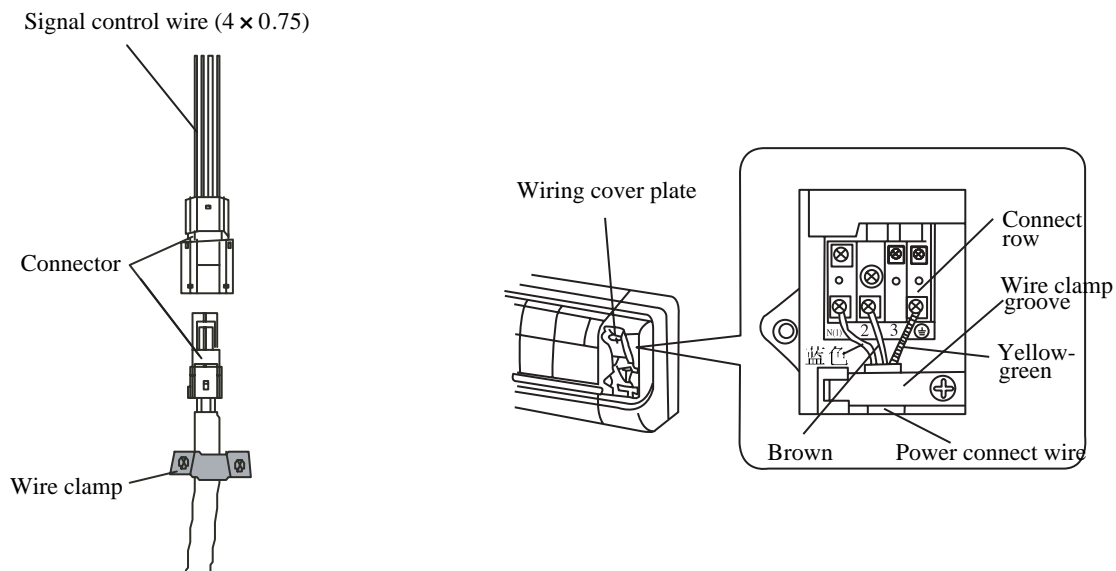


Fig.11-4

Warning:

- Since one end of power connect wire had been connected into unit, when testing single unit by electrifying the other end of power connect wire may carry electricity. Please conduct well insulation to prevent circuit-short or electric shock

Note:

- All electric installation must be done by professional personnel by following local law, regulation and this instruction.
- Power must adopt rated voltage and special circuit for air conditioner.
- Creepage protector must be installed.
- If power wire is damaged, in order to prevent danger, do have it changed by manufacturer, after-sales agency or relative professional personnel.
- Diameter of power hose should be wide enough; do exchange power hose and connect wire by special hose when they are damaged.
- Install it by following national wiring regulation.

6) Install indoor unit

(1) Refer fig. 11-5 and 11-6 for piping type of indoor unit. When routing the piping and wiring from left or right side of indoor unit, cut off tailings left from pipe from base of main unit in necessary (as shown in fig.11-7).

- Go through wire hole when only power wire is led;
- Cut off tailing 1 when connect pipe and wire are led;

(2) After wrapping pipe and wire, pull them though the piping hole (As shown in fig.11-8).

(3) Hang the mounting slots that behind indoor unit onto the upper tabs of the rear panel and check if it is firm enough

(4) Ensure that the install height of indoor unit is 2.3 m or more from floor.

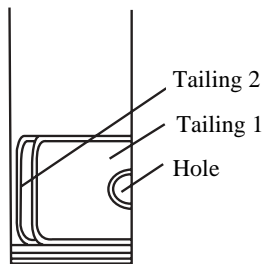


Fig. 11-7

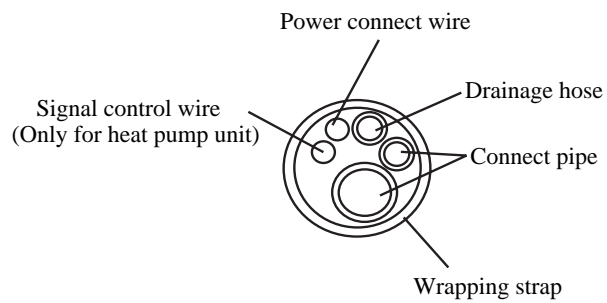


Fig. 11-8

11.3 Install Outdoor Unit

① Install connect pipe

- Align the flare of connection pipe to the joint flare of relative valve.
- Tighten nuts on connecting pipe forcibly then tighten it by spanner (As shown in right figure).

Note : Too great of torque would damage nuts.

Refer the following list for tightening torque

Hex nut (mm)	Tighten torque (N.m)
φ 6	15~20
φ 9.5	31~35
φ 12	50~55

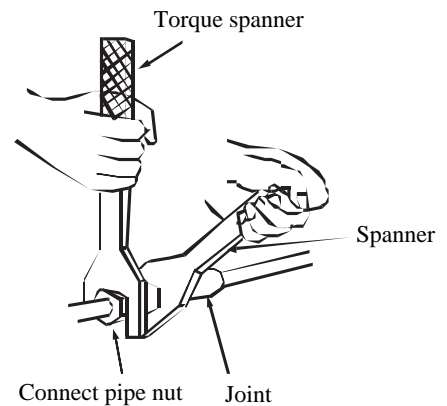


Fig. 11-9

② Wiring connection

- Take off right side plate of outdoor unit .
- Take off clamp, connect and fix the power connect wire to wiring terminal board. The wiring allocation should in accordance with that of indoor unit.
- Fix power connect wire by wire clamp, to cooling and heating unit, fix signal control wire, and then connect relative connector well.
- Ensure that wire had been fixed firmly.
- Install components of handle.
- If power wire is not fitted with plug, the distance between poles of tripped touch switch should be at least 3mm.

Note:

- Wrong wire connection would cause malfunction of some electric components.
- Don't pull the fixed wire
- Wire of outdoor unit should not be too loose.

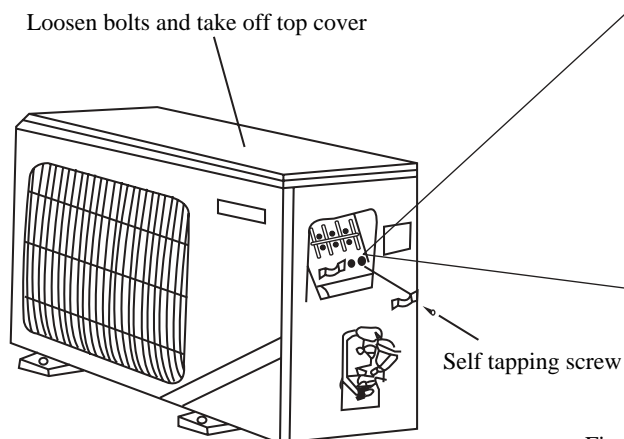
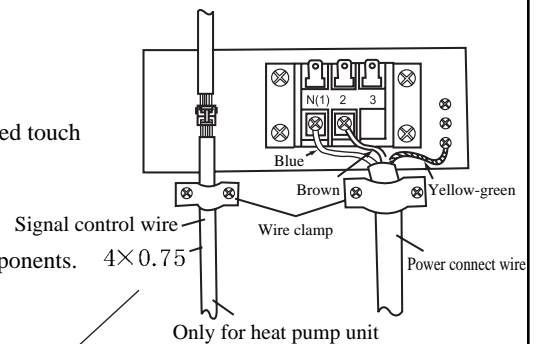
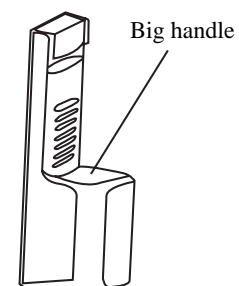


Fig.11-10



3 Vaccumize and Leakage Detect

- Take off the nut cover on cut-off valve on outdoor unit.
- Align the center of piping, tighten enough the flare nut by hand.
- Tighten taper nut by spanner.
- Take off valve cover and freon nozzle nut on liquid valve and gas valve.
- Screw out core of liquid valve by inner hex angle spanner, and prize gas door core on gas valve by screwdriver. At that time there should be gas exhausted.
- After gas exhaust for about 15s continuously and refrigerant gas appeared, close core of air door tighten nut of freon charge nozzle.
- Turn on core valve of both liquid and gas valve completely (as shown in fig. 11-11).
- Tighten valve cover, then check if leakage happens in connecting part between pipeline and both indoor and outdoor unit by soupauds or detector.
- If possible, exhaust air in unit from core of air door from vacuum pump (As shown in fig.11-9).

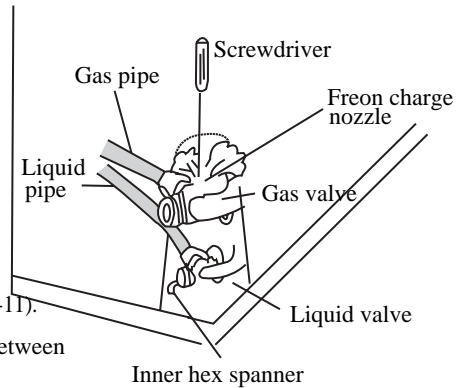


Fig. 11-11

4 Drainage of condensate of outdoor unit

(Not for cooling only unit)

- When heating, condensate water and defrost water produced when defrosting by outdoor unit can be drained to proper place through drainage hose.

Install Method:

- Insert outdoor drainage joint into $\phi 25$ hole on chassis. Then connect drainage hose onto drainage nozzle to lead condensate and defrost water to be drained to proper place.

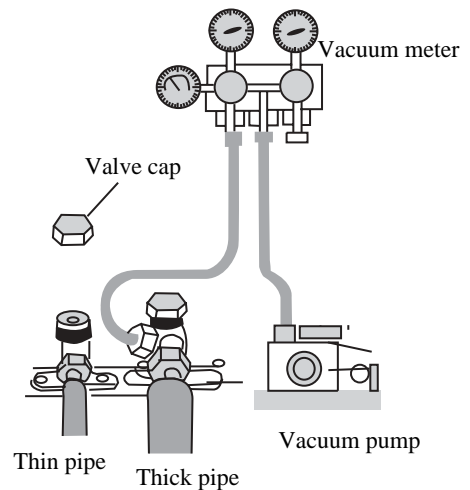


Fig. 11-12

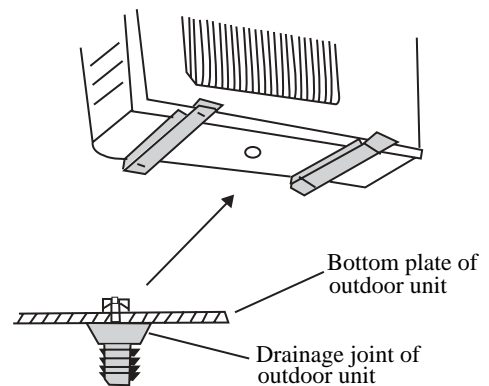


Fig. 11-13

11.4 Check Items for Trial Run and after Installation

① Trial Run

1. Preparation for trial run

- Before complete of entire installation, power cannot be turned on.
- Control circuit should be connected correctly, all wire be connected firmly.
- Open cut-off valve of both thick and thin pipe.
- All scattered things, especially scrap and wire etc., should be taken out from the unit.
- Open panel and set manual switch to RUN mode.

2. Trial run method

- (1) Connect with power supply.
- (2) Press ON/OFF button on wireless remote control then press MODE to select working method such as COOL, DEHUMIDIFY, HEAT and FAN etc. to see if operations are normal.
- (3) Emergency run.

Following operations can be conducted under the circumstance of emergent operation or loss of wireless remote control:

- Under stop state set switch to AUTO mode, then unit enters auto run state. Microcomputer select COOL, HEAT, FAN according to indoor temp. to offer comfort effect.
- Set switch to STOP when unit is running, then unit stop working.

② Check Items after Installation

Items to be checked	Possible malfunction
Is the installation firm enough?	Unit may drop, shake or emit noise
Is leakage test done?	It may cause insufficient of refrigerating (heating) capacity
Is heat insulation sufficient?	Condensation or drop may occur
Is drainage smooth?	Condensation or drop may occur
Is power voltage the same with that listed in nameplate?	Malfunction or burn out of parts may occur.
Is installation of circuit and pipeline correct?	Malfunction or burn out of parts may occur.
Is unit earthed safely?	Creepage may occur
Is wire model fits relative regulation?	Malfunction or burn out of parts may occur.
Are air inlet or outlet vent of indoor and outdoor unit blocked?	It may cause insufficient of refrigerating (heating) capacity
Are length of refrigerant pipe and charge amount of refrigerant recorded?	Cannot handle the charging amount of refrigerant

12 Malfunction Analysis

