Airwell

Service Manual

Fixed Speed Light Commercial Series

CBF Indoor Units	DBF Indoor Units	FCF Indoor Units	Outdoor Units
AWSI-CBF012-N11	AWSI-DBF012-N11	AWSI-FCF012-N11	AWAU-YOF012-H11
AWSI-CBF018-N11	AWSI-DBF018-N11	AWSI-FCF018-N11	AWAU-YOF018-H11
AWSI-CBF024-N11	AWSI-DBF024-N11	AWSI-FCF024-N11	AWAU-YOF024-H11
	AWSI-DBF030-N11	AWSI-FCF030-N11	AWAU-YOF030-H11
AWSI-CBF036-N11	AWSI-DBF036-N11	AWSI-FCF036-N11	AWAU-YOF036-H11
			AWAU-YOF036-H13
AWSI-CBF048-N11	AWSI-DBF048-N11	AWSI-FCF048-N11	AWAU-YOF048-H13
AWSI-CBF060-N11	AWSI-DBF060-N11	AWSI-FCF060-N11	AWAU-YOF060-H13

REFRIGERANT

R410A

HEATPUMP

SM YOF 1-A.1 GB

Feb, 2014

※The specifications, designs, and information in this book are subject to change without notice for product improvement.

Part 1
General Information

1. Model Lists

1.1 Indoor Units

R410A (capacity multiplied by 1000Btu/h)

Type	Function	12	18	24	30	36	48	60
Four-way cassette(compact)	Cooling and heating	●	●					
Super slim cassette	Cooling and heating			●		●	●	●
Duct	Cooling and heating	●	●	●	●	●	●	●
Ceiling-floor	Cooling and heating	●	●	●	●	●	●	●

1.2 Outdoor Units

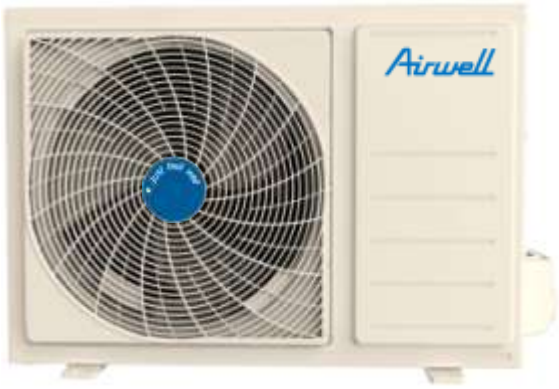
Universal Outdoor unit Model	Compressor type	Compressor Brand	Matched indoor units
AWAU-YOF012-H11	Rotary	GMCC	AWSI-CBF012-N11 AWSI-DBF012-N11 AWSI-FCF012-N11
AWAU-YOF018-H11	Rotary	GMCC	AWSI-CBF018-N11 AWSI-DBF018-N11 AWSI-FCF018-N11
AWAU-YOF024-H11	Rotary	GMCC	AWSI-CBF024-N11 AWSI-DBF024-N11 AWSI-FCF024-N11
AWAU-YOF030-H11	Rotary	GMCC	AWSI-DBF030-N11 AWSI-FCF030-N11
AWAU-YOF036-H11	Scroll	Sanyo	AWSI-CBF036-N11 AWSI-DBF036-N11 AWSI-FCF036-N11
AWAU-YOF036-H13	Scroll	Sanyo	
AWAU-YOF048-H13	Scroll	Sanyo	AWSI-CBF048-N11 AWSI-DBF048-N11 AWSI-FCF048-N11
AWAU-YOF060-H13	Scroll	Sanyo	AWSI-CBF060-N11 AWSI-DBF060-N11 AWSI-FCF060-N11

2. External Appearance

2.1 Indoor Units

Compact Four-way cassette 	Super slim cassette 
Ceiling-Floor 	Duct 

2.2 Outdoor Units

 Single fan outdoor unit	 Double fan outdoor unit

3. Product specification

Model Indoor Unit				AWSI-CBF012-N11	
Model Outdoor Unit				AWAU-YOF012-H11	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
Rated Capacity			kW	3,4	3,6
Input power			kW	1,15	1,15
EER/Energy Label			W/W	2,96 / C	3,13 / D
Power supply			V/Ph/Hz	220~240-1-50	
Circuit breaker rating			A	16	
INDOOR	Fan type & quantity			Centrifugal fan x1	
	Fan speeds	H/M/L	RPM	780/540/430	
	Air flow (3)	H/M/L	m3/hr	800/710/560	
	External static pressure	Min-Max	Pa	/	
	Sound power level (4)	H/M/L	dB(A)	56	
	Sound pressure level(5)	H/M/L	dB(A)	46/43/40	
	Moisture removal		l/hr	1,1	
	Condensate drain tube I.D		mm	ODΦ25	
	Dimensions	WxHxD	mm	570x260x570	
	Weight		kg	15	
	Package dimensions	LxWxH	mm	655x655x290	
	Packaged weight		kg	18	
	Frame outline dimensions	WxHxD	mm	647x50x647	
	Frame Weight		kg	2.5	
	Frame package dimensions	LxWxH	mm	715x715x123	
	Frame Packaged weight		kg	4.5	
	Stacking height		units	8	
OUTDOOR	Refrigerant control			Capillary	
	Compressor type. model			Rotary	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	800	
	Air flow	H/L	m3/hr	1800	
	Sound power level(4)	H/L	dB(A)	65	
	Sound pressure level(5)	H/L	dB(A)	55	
	Dimensions	WxHxD	mm	780x540x250	
	Weight		kg	28	
	Package dimensions	LxWxH	mm	910x335x585	
	Packaged weight		kg	30	
	Stacking height		units	4	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	0.96	
	Additional charge per 1 meter		gr / 1m	20	
	Connections between units	Liquid line	In.(mm)	1/4"(Φ6.35)	
		Suction line	In.(mm)	1/2"(Φ12.7)	
		Max.tubing length	m.	20	
		Max.height difference	m.	10	
Operation control type				Remote control	

Model Indoor Unit				**AWSI-DBF012-N11**	
Model Outdoor Unit				**AWAU-YOF012-H11**	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
Rated Capacity			kW	3.5	3.6
Input power			kW	1.18	1.10
EER/Energy Label			W/W	2.96 / C	3.25 / C
Power supply			V/Ph/Hz	220~240-1-50	
Circuit breaker rating			A	16	
INDOOR	Fan type & quantity			Centrifugal fan x2	
	Fan speeds	H/M/L	RPM	1270/960/860	
	Air flow (3)	H/M/L	m3/hr	800/610/520	
	External static pressure	Min-Max	Pa	30(0~40)	
	Sound power level (4)	H/M/L	dB(A)	53	
	Sound pressure level(5)	H/M/L	dB(A)	43/37/31	
	Moisture removal		l/hr	1,1	
	Condensate drain tube I.D		mm	ODΦ25	
	Dimensions	WxHxD	mm	700x210x635	
	Weight		kg	20	
	Package dimensions	LxWxH	mm	915x655x290	
	Packaged weight		kg	25	
	Stacking height		units	6	
OUTDOOR	Refrigerant control			Capillary	
	Compressor type. model			Rotary	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	800	
	Air flow	H/L	m3/hr	1800	
	Sound power level(4)	H/L	dB(A)	65	
	Sound pressure level(5)	H/L	dB(A)	55	
	Dimensions	WxHxD	mm	780x540x250	
	Weight		kg	28	
	Package dimensions	LxWxH	mm	910x335x585	
	Packaged weight		kg	30	
	Stacking height		units	4	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	0.96	
	Additional charge per 1 meter		gr / 1m	20	
	Connections between units	Liquid line	In.(mm)	1/4"(Φ6.35)	
		Suction line	In.(mm)	1/2"(Φ12.7)	
		Max.tubing length	m.	20	
		Max.height difference	m.	10	
Operation control type				Wired remote control	

Model Indoor Unit				**AWSI-FCF012-N11**	
Model Outdoor Unit				**AWAU-YOF012-H11**	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
Rated Capacity			kW	3,5	3,6
Input power			kW	1,20	1,10
EER/Energy Label			W/W	2,9 / C	3,28 / C
Power supply			V/Ph/Hz	220~240-1-50	
Circuit breaker rating			A	16	
INDOOR	Fan type & quantity			Centrifugal fan x2	
	Fan speeds	H/M/L	RPM	756/666/592	
	Air flow (3)	H/M/L	m3/hr	700/630/550	
	External static pressure	Min-Max	Pa	/	
	Sound power level (4)	H/M/L	dB(A)	62	
	Sound pressure level(5)	H/M/L	dB(A)	52/46/41	
	Moisture removal		l/hr	1,2	
	Condensate drain tube I.D		mm	ODΦ25	
	Dimensions	WxHxD	mm	1068x235x675	
	Weight		kg	23	
	Package dimensions	LxWxH	mm	1145x755x313	
	Packaged weight		kg	28	
	Stacking height		units	6	
OUTDOOR	Refrigerant control			Capillary	
	Compressor type. model			Rotary	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	800	
	Air flow	H/L	m3/hr	1800	
	Sound power level(4)	H/L	dB(A)	65	
	Sound pressure level(5)	H/L	dB(A)	55	
	Dimensions	WxHxD	mm	780x540x250	
	Weight		kg	28	
	Package dimensions	LxWxH	mm	910x335x585	
	Packaged weight		kg	30	
	Stacking height		units	4	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	0.96	
	Additional charge per 1 meter		gr / 1m	20	
	Connections between units	Liquid line	In.(mm)	1/4"(Φ6.35)	
		Suction line	In.(mm)	1/2"(Φ12.7)	
		Max.tubing length	m.	20	
		Max.height difference	m.	10	
Operation control type				Remote control	

Model Indoor Unit				AWSI-CBF018-N11	
Model Outdoor Unit				AWAU-YOF018-H11	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
Rated Capacity			kW	5,2	5,6
Input power			kW	1,99	1,79
EER/Energy Label			W/W	2,61 / D	3,13 / D
Power supply			V/Ph/Hz	220~240-1-50	
Circuit breaker rating			A	16	
INDOOR	Fan type & quantity			Centrifugal fan x1	
	Fan speeds	H/M/L	RPM	1000/875/710	
	Air flow (3)	H/M/L	m3/hr	800/710/560	
	External static pressure	Min-Max	Pa	/	
	Sound power level (4)	H/M/L	dB(A)	56	
	Sound pressure level(5)	H/M/L	dB(A)	46/43/40	
	Moisture removal		l/hr	1,9	
	Condensate drain tube I.D		mm	ODΦ25	
	Dimensions	WxHxD	mm	570x260x570	
	Weight		kg	17.5	
	Package dimensions	LxWxH	mm	655x655x290	
	Packaged weight		kg	20	
	Frame outline dimensions	WxHxD	mm	647x50x647	
	Frame Weight		kg	2.5	
	Frame package dimensions	LxWxH	mm	715x715x123	
	Frame Packaged weight		kg	4.5	
	Stacking height		units	8	
OUTDOOR	Refrigerant control			Capillary	
	Compressor type. model			Rotary	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	890	
	Air flow	H/L	m3/hr	2400	
	Sound power level(4)	H/L	dB(A)	68	
	Sound pressure level(5)	H/L	dB(A)	58	
	Dimensions	WxHxD	mm	760x590x285	
	Weight		kg	37	
	Package dimensions	LxWxH	mm	887x355x645	
	Packaged weight		kg	39	
	Stacking height		units	4	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	1.4	
	Additional charge per 1 meter		gr / 1m	20	
	Connections between units	Liquid line	In.(mm)	1/4"(Φ6.35)	
		Suction line	In.(mm)	1/2"(Φ12.7)	
		Max.tubing length	m.	25	
		Max.height difference	m.	15	
Operation control type				Remote control	

Model Indoor Unit				**AWSI-DBF018-N11**	
Model Outdoor Unit				**AWAU-YOF018-H11**	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
Rated Capacity			kW	5.1	5.5
Input power			kW	2.11	1.87
EER/Energy Label			W/W	2.41 / E	2.94 / D
Power supply			V/Ph/Hz	220~240-1-50	
Circuit breaker rating			A	16	
INDOOR	Fan type & quantity			Centrifugal fan x2	
	Fan speeds	H/M/L	RPM	1150/800/700	
	Air flow [3]	H/M/L	m3/hr	1170/770/650	
	External static pressure	Min-Max	Pa	30(0~70)	
	Sound power level [4]	H/M/L	dB(A)	54	
	Sound pressure level[5]	H/M/L	dB(A)	44/37/33	
	Moisture removal		l/hr	1,9	
	Condensate drain tube I.D		mm	ODΦ25	
	Dimensions	WxHxD	mm	920x210x635	
	Weight		kg	24	
	Package dimensions	LxWxH	mm	1135x655x290	
	Packaged weight		kg	28	
	Stacking height		units	6	
OUTDOOR	Refrigerant control			Capillary	
	Compressor type. model			Rotary	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	890	
	Air flow	H/L	m3/hr	2400	
	Sound power level[4]	H/L	dB(A)	68	
	Sound pressure level[5]	H/L	dB(A)	58	
	Dimensions	WxHxD	mm	760x590x285	
	Weight		kg	37	
	Package dimensions	LxWxH	mm	887x355x645	
	Packaged weight		kg	39	
	Stacking height		units	4	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	1.4	
	Additional charge per 1 meter		gr / 1m	20	
	Connections between units	Liquid line	In.(mm)	1/4"(Φ6.35)	
		Suction line	In.(mm)	1/2"(Φ12.7)	
		Max.tubing length	m.	25	
		Max.height difference	m.	15	
Operation control type				Wired remote control	

Model Indoor Unit				**AWSI-FCF018-N11**	
Model Outdoor Unit				**AWAU-YOF018-H11**	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
Rated Capacity			kW	5,6	5,8
Input power			kW	2,14	1,8
EER/Energy Label			W/W	2,61 / D	3,22 / C
Power supply			V/Ph/Hz	220~240-1-50	
Circuit breaker rating			A	16	
INDOOR	Fan type & quantity			Centrifugal fan x2	
	Fan speeds	H/M/L	RPM	1310/1190/1040	
	Air flow (3)	H/M/L	m3/hr	1300/1050/900	
	External static pressure	Min-Max	Pa	/	
	Sound power level (4)	H/M/L	dB(A)	62	
	Sound pressure level(5)	H/M/L	dB(A)	52/46/41	
	Moisture removal		l/hr	1,9	
	Condensate drain tube I.D		mm	ODΦ25	
	Dimensions	WxHxD	mm	1068x235x675	
	Weight		kg	24	
	Package dimensions	LxWxH	mm	1145x755x313	
	Packaged weight		kg	29	
	Stacking height		units	6	
OUTDOOR	Refrigerant control			Capillary	
	Compressor type. model			Rotary	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	890	
	Air flow	H/L	m3/hr	2400	
	Sound power level(4)	H/L	dB(A)	68	
	Sound pressure level(5)	H/L	dB(A)	58	
	Dimensions	WxHxD	mm	760x590x285	
	Weight		kg	37	
	Package dimensions	LxWxH	mm	887x355x645	
	Packaged weight		kg	39	
	Stacking height		units	4	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	1.4	
	Additional charge per 1 meter		gr / 1m	20	
	Connections between units	Liquid line	In.(mm)	1/4"(Φ6.35)	
		Suction line	In.(mm)	1/2"(Φ12.7)	
		Max.tubing length	m.	25	
		Max.height difference	m.	15	
Operation control type				Remote control	

Model Indoor Unit				AWSI-CBF024-N11	
Model Outdoor Unit				AWAU-YOF024-H11	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
Rated Capacity			kW	6,8	7,4
Input power			kW	2,61	2,49
EER/Energy Label			W/W	2,61 / D	2,97 / D
Power supply			V/Ph/Hz	220~240-1-50	
Circuit breaker rating			A	25	
INDOOR	Fan type & quantity			Centrifugal fan x1	
	Fan speeds	H/M/L	RPM	580/510/430	
	Air flow (3)	H/M/L	m3/hr	1200/1050/900	
	External static pressure	Min-Max	Pa	/	
	Sound power level (4)	H/M/L	dB(A)	58	
	Sound pressure level(5)	H/M/L	dB(A)	48/45/42	
	Moisture removal		l/hr	2,4	
	Condensate drain tube I.D		mm	ODΦ32	
	Dimensions	WxHxD	mm	840x205x840	
	Weight		kg	23	
	Package dimensions	LxWxH	mm	900x900x225	
	Packaged weight		kg	27	
	Frame outline dimensions	WxHxD	mm	950x55x950	
	Frame Weight		kg	5	
	Frame package dimensions	LxWxH	mm	1035x1035x90	
	Frame Packaged weight		kg	8	
	Stacking height		units	9	
OUTDOOR	Refrigerant control			Capillary	
	Compressor type. model			Rotary	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	900	
	Air flow	H/L	m3/hr	2700	
	Sound power level(4)	H/L	dB(A)	69	
	Sound pressure level(5)	H/L	dB(A)	59	
	Dimensions	WxHxD	mm	845x700x320	
	Weight		kg	48	
	Package dimensions	LxWxH	mm	965x395x755	
	Packaged weight		kg	54.5	
	Stacking height		units	3	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	1.8	
	Additional charge per 1 meter		gr / 1m	40	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	5/8"(Φ15.9)	
		Max.tubing length	m.	25	
		Max.height difference	m.	15	
Operation control type				Remote control	

Model Indoor Unit				**AWSI-DBF024-N11**	
Model Outdoor Unit				**AWAU-YOF024-H11**	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
Rated Capacity			kW	7.2	7.4
Input power			kW	2.62	2.52
EER/Energy Label			W/W	2.75 / D	2.93 / D
Power supply			V/Ph/Hz	220~240-1-50	
Circuit breaker rating			A	25	
INDOOR	Fan type & quantity			Centrifugal fan x2	
	Fan speeds	H/M/L	RPM	1000/750/680	
	Air flow [3]	H/M/L	m3/hr	1400/1100/1000	
	External static pressure	Min-Max	Pa	40(0~70)	
	Sound power level [4]	H/M/L	dB(A)	54	
	Sound pressure level[5]	H/M/L	dB(A)	44/37/34	
	Moisture removal		l/hr	2,4	
	Condensate drain tube I.D		mm	ODΦ25	
	Dimensions	WxHxD	mm	920x270x635	
	Weight		kg	26.5	
	Package dimensions	LxWxH	mm	1135x655x350	
	Packaged weight		kg	32	
	Stacking height		units	6	
OUTDOOR	Refrigerant control			Capillary	
	Compressor type. model			Rotary	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	900	
	Air flow	H/L	m3/hr	2700	
	Sound power level[4]	H/L	dB(A)	69	
	Sound pressure level[5]	H/L	dB(A)	59	
	Dimensions	WxHxD	mm	845x700x320	
	Weight		kg	48	
	Package dimensions	LxWxH	mm	965x395x755	
	Packaged weight		kg	54.5	
	Stacking height		units	3	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	1.8	
	Additional charge per 1 meter		gr / 1m	40	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	5/8"(Φ15.9)	
		Max.tubing length	m.	25	
		Max.height difference	m.	15	
Operation control type				Wired remote control	

Model Indoor Unit				**AWSI-FCF024-N11**	
Model Outdoor Unit				**AWAU-YOF024-H11**	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
Rated Capacity			kW	7,1	7,5
Input power			kW	2,68	2,46
EER/Energy Label			W/W	2,65 / D	3,05 / D
Power supply			V/Ph/Hz	220~240-1-50	
Circuit breaker rating			A	25	
INDOOR	Fan type & quantity			Centrifugal fan x2	
	Fan speeds	H/M/L	RPM	1310/1190/1040	
	Air flow (3)	H/M/L	m3/hr	1400/1200/1000	
	External static pressure	Min-Max	Pa	/	
	Sound power level (4)	H/M/L	dB(A)	63	
	Sound pressure level(5)	H/M/L	dB(A)	53/48/42	
	Moisture removal		l/hr	2,3	
	Condensate drain tube I.D		mm	ODΦ25	
	Dimensions	WxHxD	mm	1068x235x675	
	Weight		kg	24	
	Package dimensions	LxWxH	mm	1145x755x313	
	Packaged weight		kg	29	
	Stacking height		units	6	
OUTDOOR	Refrigerant control			Capillary	
	Compressor type. model			Rotary	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	900	
	Air flow	H/L	m3/hr	2700	
	Sound power level(4)	H/L	dB(A)	69	
	Sound pressure level(5)	H/L	dB(A)	59	
	Dimensions	WxHxD	mm	845x700x320	
	Weight		kg	48	
	Package dimensions	LxWxH	mm	965x395x755	
	Packaged weight		kg	54.5	
	Stacking height		units	3	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	1.8	
	Additional charge per 1 meter		gr / 1m	40	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	5/8"(Φ15.9)	
		Max.tubing length	m.	25	
		Max.height difference	m.	15	
Operation control type				Remote control	

Model Indoor Unit				**AWSI-DBF030-N11**	
Model Outdoor Unit				**AWAU-YOF030-H11**	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
Rated Capacity			kW	8.7	9.1
Input power			kW	3.24	2.79
EER/Energy Label			W/W	2.68 / D	3.26 / C
Power supply			V/Ph/Hz	220~240-1-50	
Circuit breaker rating			A	30	
INDOOR	Fan type & quantity			Centrifugal fan x2	
	Fan speeds	H/M/L	RPM	935/700/620	
	Air flow (3)	H/M/L	m3/hr	2250/1940/1720	
	External static pressure	Min-Max	Pa	50(0~80)	
	Sound power level (4)	H/M/L	dB(A)	58	
	Sound pressure level(5)	H/M/L	dB(A)	48/42/40	
	Moisture removal		l/hr	2,5	
	Condensate drain tube I.D		mm	ODΦ25	
	Dimensions	WxHxD	mm	1140x270x775	
	Weight		kg	37	
	Package dimensions	LxWxH	mm	1355x795x350	
	Packaged weight		kg	43	
	Stacking height		units	6	
OUTDOOR	Refrigerant control			Capillary	
	Compressor type. model			Rotary	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	830	
	Air flow	H/L	m3/hr	5200	
	Sound power level(4)	H/L	dB(A)	71	
	Sound pressure level(5)	H/L	dB(A)	61	
	Dimensions	WxHxD	mm	990x965x345	
	Weight		kg	67.1/77.2	
	Package dimensions	LxWxH	mm	1120x435x1100	
	Packaged weight		kg	77.2	
	Stacking height		units	2	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	2.3	
	Additional charge per 1 meter		gr / 1m	40	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	3/4"(Φ19)	
		Max.tubing length	m.	25	
		Max.height difference	m.	15	
Operation control type				Wired remote control	

Model Indoor Unit				**AWSI-FCF030-N11**	
Model Outdoor Unit				**AWAU-YOF030-H11**	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
Rated Capacity			kW	8,9	9,4
Input power			kW	3,07	2,92
EER/Energy Label			W/W	2,9 / C	3,22/ C
Power supply			V/Ph/Hz	220~240-1-50	
Circuit breaker rating			A	30	
INDOOR	Fan type & quantity			Centrifugal fan x3	
	Fan speeds	H/M/L	RPM	1370/1300/1225	
	Air flow (3)	H/M/L	m3/hr	1750/1400/1250	
	External static pressure	Min-Max	Pa	/	
	Sound power level (4)	H/M/L	dB(A)	64	
	Sound pressure level(5)	H/M/L	dB(A)	54/49/45	
	Moisture removal		l/hr	2,5	
	Condensate drain tube I.D		mm	ODΦ25	
	Dimensions	WxHxD	mm	1285x235x675	
	Weight		kg	29	
	Package dimensions	LxWxH	mm	1360x755x313	
	Packaged weight		kg	36	
	Stacking height		units	6	
OUTDOOR	Refrigerant control			Capillary	
	Compressor type. model			Rotary	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	830	
	Air flow	H/L	m3/hr	5200	
	Sound power level(4)	H/L	dB(A)	71	
	Sound pressure level(5)	H/L	dB(A)	61	
	Dimensions	WxHxD	mm	990x965x345	
	Weight		kg	67.1/77.2	
	Package dimensions	LxWxH	mm	1120x435x1100	
	Packaged weight		kg	77.2	
	Stacking height		units	2	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	2.3	
	Additional charge per 1 meter		gr / 1m	40	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	3/4"(Φ19)	
		Max.tubing length	m.	25	
		Max.height difference	m.	15	
Operation control type				Remote control	

Model Indoor Unit				AWSI-CBF036-N11	
Model Outdoor Unit				AWAU-YOF036-H11	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
Rated Capacity			kW	10	11
Input power			kW	3,97	3,57
EER/Energy Label			W/W	2,52 / E	3,08 / D
Power supply			V/Ph/Hz	220~240-1-50	
Circuit breaker rating			A	30	
INDOOR	Fan type & quantity			Centrifugal fan x1	
	Fan speeds	H/M/L	RPM	690/610/540	
	Air flow (3)	H/M/L	m3/hr	1800/1600/1400	
	External static pressure	Min-Max	Pa	/	
	Sound power level (4)	H/M/L	dB(A)	61	
	Sound pressure level(5)	H/M/L	dB(A)	51/47/43	
	Moisture removal		l/hr	2,9	
	Condensate drain tube I.D		mm	ODΦ32	
	Dimensions	WxHxD	mm	840x245x840	
	Weight		kg	25	
	Package dimensions	LxWxH	mm	900x900x265	
	Packaged weight		kg	28.5	
	Frame outline dimensions	WxHxD	mm	950x55x950	
	Frame Weight		kg	5	
	Frame package dimensions	LxWxH	mm	1035x1035x90	
	Frame Packaged weight		kg	8	
	Stacking height		units	7	
OUTDOOR	Refrigerant control			Capillary	
	Compressor type. model			Scroll	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	830	
	Air flow	H/L	m3/hr	5500	
	Sound power level(4)	H/L	dB(A)	71	
	Sound pressure level(5)	H/L	dB(A)	61	
	Dimensions	WxHxD	mm	990x965x345	
	Weight		kg	84.5	
	Package dimensions	LxWxH	mm	1120x435x1100	
	Packaged weight		kg	94.5	
	Stacking height		units	2	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	2.6	
	Additional charge per 1 meter		gr / 1m	40	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	3/4"(Φ19)	
		Max.tubing length	m.	30	
		Max.height difference	m.	20	
Operation control type				Remote control	

Model Indoor Unit				**AWSI-DBF036-N11**	
Model Outdoor Unit				**AWAU-YOF036-H11**	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
Rated Capacity			kW	10.4	11.6
Input power			kW	4.31	3.60
EER/Energy Label			W/W	2.41 / E	3.22 / C
Power supply			V/Ph/Hz	220~240-1-50	
Circuit breaker rating			A	30	
INDOOR	Fan type & quantity			Centrifugal fan x2	
	Fan speeds	H/M/L	RPM	1070/790/710	
	Air flow (3)	H/M/L	m3/hr	2270/1890/1650	
	External static pressure	Min-Max	Pa	50(0~80)	
	Sound power level (4)	H/M/L	dB(A)	59	
	Sound pressure level(5)	H/M/L	dB(A)	49/43/40	
	Moisture removal		l/hr	2,9	
	Condensate drain tube I.D		mm	ODΦ25	
	Dimensions	WxHxD	mm	1140x270x775	
	Weight		kg	36	
	Package dimensions	LxWxH	mm	1355x795x350	
	Packaged weight		kg	43	
	Stacking height		units	6	
OUTDOOR	Refrigerant control			Capillary	
	Compressor type. model			Scroll	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	830	
	Air flow	H/L	m3/hr	5500	
	Sound power level(4)	H/L	dB(A)	71	
	Sound pressure level(5)	H/L	dB(A)	61	
	Dimensions	WxHxD	mm	990x965x345	
	Weight		kg	84.5	
	Package dimensions	LxWxH	mm	1120x435x1100	
	Packaged weight		kg	94.5	
	Stacking height		units	2	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	2.6	
	Additional charge per 1 meter		gr / 1m	40	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	3/4"(Φ19)	
		Max.tubing length	m.	30	
		Max.height difference	m.	20	
Operation control type				Wired remote control	

Model Indoor Unit				**AWSI-FCF036-N11**	
Model Outdoor Unit				**AWAU-YOF036-H11**	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
Rated Capacity			kW	9,4	11,2
Input power			kW	3,88	3,97
EER/Energy Label			W/W	2,42 / E	2,82 / D
Power supply			V/Ph/Hz	220~240-1-50	
Circuit breaker rating			A	30	
INDOOR	Fan type & quantity			Centrifugal fan x3	
	Fan speeds	H/M/L	RPM	1370/1300/1225	
	Air flow [3]	H/M/L	m3/hr	1750/1400/1250	
	External static pressure	Min-Max	Pa	/	
	Sound power level [4]	H/M/L	dB(A)	64	
	Sound pressure level[5]	H/M/L	dB(A)	54/49/45	
	Moisture removal		l/hr	2,9	
	Condensate drain tube I.D		mm	ODΦ25	
	Dimensions	WxHxD	mm	1285x235x675	
	Weight		kg	29	
	Package dimensions	LxWxH	mm	1360x755x313	
	Packaged weight		kg	36	
	Stacking height		units	6	
OUTDOOR	Refrigerant control			Capillary	
	Compressor type. model			Scroll	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	830	
	Air flow	H/L	m3/hr	5500	
	Sound power level[4]	H/L	dB(A)	71	
	Sound pressure level[5]	H/L	dB(A)	61	
	Dimensions	WxHxD	mm	990x965x345	
	Weight		kg	84.5	
	Package dimensions	LxWxH	mm	1120x435x1100	
	Packaged weight		kg	94.5	
	Stacking height		units	2	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	2.6	
	Additional charge per 1 meter		gr / 1m	40	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	3/4"(Φ19)	
		Max.tubing length	m.	30	
		Max.height difference	m.	20	
Operation control type				Remote control	

Model Indoor Unit				AWSI-CBF036-N11	
Model Outdoor Unit				AWAU-YOF036-H13	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
Rated Capacity			kW	10	11
Input power			kW	3,97	3,57
EER/Energy Label			W/W	2,52 / E	3,08 / D
Power supply			V/Ph/Hz	380~415-3-50	
Circuit breaker rating			A	0	
INDOOR	Fan type & quantity			Centrifugal fan x1	
	Fan speeds	H/M/L	RPM	690/610/540	
	Air flow (3)	H/M/L	m3/hr	1800/1600/1400	
	External static pressure	Min-Max	Pa	/	
	Sound power level (4)	H/M/L	dB(A)	61	
	Sound pressure level(5)	H/M/L	dB(A)	51/47/43	
	Moisture removal		l/hr	2,9	
	Condensate drain tube I.D		mm	ODΦ32	
	Dimensions	WxHxD	mm	840x245x840	
	Weight		kg	25	
	Package dimensions	LxWxH	mm	900x900x265	
	Packaged weight		kg	28.5	
	Frame outline dimensions	WxHxD	mm	950x55x950	
	Frame Weight		kg	5	
	Frame package dimensions	LxWxH	mm	1035x1035x90	
	Frame Packaged weight		kg	8	
	Stacking height		units	7	
OUTDOOR	Refrigerant control			Capillary	
	Compressor type. model			Scroll	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	830	
	Air flow	H/L	m3/hr	5500	
	Sound power level(4)	H/L	dB(A)	71	
	Sound pressure level(5)	H/L	dB(A)	61	
	Dimensions	WxHxD	mm	990x965x345	
	Weight		kg	81	
	Package dimensions	LxWxH	mm	1120x435x1100	
	Packaged weight		kg	92	
	Stacking height		units	2	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	2.4	
	Additional charge per 1 meter		gr / 1m	40	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	3/4"(Φ19)	
		Max.tubing length	m.	30	
		Max.height difference	m.	20	
Operation control type				Remote control	

Model Indoor Unit				**AWSI-DBF036-N11**	
Model Outdoor Unit				**AWAU-YOF036-H13**	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
Rated Capacity			kW	10.4	11.2
Input power			kW	4.06	3.40
EER/Energy Label			W/W	2.56 / E	3.29 / C
Power supply			V/Ph/Hz	380~415-3-50	
Circuit breaker rating			A	20	
INDOOR	Fan type & quantity			Centrifugal fan x2	
	Fan speeds	H/M/L	RPM	1070/790/710	
	Air flow [3]	H/M/L	m3/hr	2270/1890/1650	
	External static pressure	Min-Max	Pa	50(0~80)	
	Sound power level [4]	H/M/L	dB(A)	59	
	Sound pressure level[5]	H/M/L	dB(A)	49/43/40	
	Moisture removal		l/hr	2,9	
	Condensate drain tube I.D		mm	ODΦ25	
	Dimensions	WxHxD	mm	1140x270x775	
	Weight		kg	36	
	Package dimensions	LxWxH	mm	1355x795x350	
	Packaged weight		kg	43	
	Stacking height		units	6	
OUTDOOR	Refrigerant control			Capillary	
	Compressor type. model			Scroll	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	830	
	Air flow	H/L	m3/hr	5500	
	Sound power level[4]	H/L	dB(A)	71	
	Sound pressure level[5]	H/L	dB(A)	61	
	Dimensions	WxHxD	mm	990x965x345	
	Weight		kg	81	
	Package dimensions	LxWxH	mm	1120x435x1100	
	Packaged weight		kg	92	
	Stacking height		units	2	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	2.4	
	Additional charge per 1 meter		gr / 1m	40	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	3/4"(Φ19)	
		Max.tubing length	m.	30	
		Max.height difference	m.	20	
Operation control type				Wired remote control	

Model Indoor Unit				**AWSI-FCF036-N11**	
Model Outdoor Unit				**AWAU-YOF036-H13**	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
Rated Capacity			kW	9,8	10,6
Input power			kW	3,74	3,58
EER/Energy Label			W/W	2,62 / D	2,96 / D
Power supply			V/Ph/Hz	380~415-3-50	
Circuit breaker rating			A	20	
INDOOR	Fan type & quantity			Centrifugal fan x3	
	Fan speeds	H/M/L	RPM	1370/1300/1225	
	Air flow (3)	H/M/L	m3/hr	1750/1400/1250	
	External static pressure	Min-Max	Pa	/	
	Sound power level (4)	H/M/L	dB(A)	64	
	Sound pressure level(5)	H/M/L	dB(A)	54/49/45	
	Moisture removal		l/hr	2,9	
	Condensate drain tube I.D		mm	ODΦ25	
	Dimensions	WxHxD	mm	1285x235x675	
	Weight		kg	29	
	Package dimensions	LxWxH	mm	1360x755x313	
	Packaged weight		kg	36	
	Stacking height		units	6	
OUTDOOR	Refrigerant control			Capillary	
	Compressor type. model			Scroll	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	830	
	Air flow	H/L	m3/hr	5500	
	Sound power level(4)	H/L	dB(A)	71	
	Sound pressure level(5)	H/L	dB(A)	61	
	Dimensions	WxHxD	mm	990x965x345	
	Weight		kg	81	
	Package dimensions	LxWxH	mm	1120x435x1100	
	Packaged weight		kg	92	
	Stacking height		units	2	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	2.4	
	Additional charge per 1 meter		gr / 1m	40	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	3/4"(Φ19)	
		Max.tubing length	m.	30	
		Max.height difference	m.	20	
Operation control type				Remote control	

Model Indoor Unit				AWSI-CBF048-N11	
Model Outdoor Unit				AWAU-YOF048-H13	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
Rated Capacity			kW	12,8	13,6
Input power			kW	4,77	4,65
EER/Energy Label			W/W	2,68 / D	2,92 / D
Power supply			V/Ph/Hz	380~415-3-50	
Circuit breaker rating			A	0	
INDOOR	Fan type & quantity			Centrifugal fan x1	
	Fan speeds	H/M/L	RPM	780/630/550	
	Air flow (3)	H/M/L	m3/hr	1900/1600/1400	
	External static pressure	Min-Max	Pa	/	
	Sound power level (4)	H/M/L	dB(A)	64	
	Sound pressure level(5)	H/M/L	dB(A)	54/49/46	
	Moisture removal		l/hr	4,3	
	Condensate drain tube I.D		mm	ODΦ32	
	Dimensions	WxHxD	mm	840x245x840	
	Weight		kg	26,5	
	Package dimensions	LxWxH	mm	900x900x265	
	Packaged weight		kg	30.2	
	Frame outline dimensions	WxHxD	mm	950x55x950	
	Frame Weight		kg	5	
	Frame package dimensions	LxWxH	mm	1035x1035x90	
	Frame Packaged weight		kg	8	
	Stacking height		units	6	
OUTDOOR	Refrigerant control			Capillary	
	Compressor type. model			Scroll	
	Fan type & quantity			Axial x 2	
	Fan speeds	H/L	RPM	880	
	Air flow	H/L	m3/hr	7200	
	Sound power level(4)	H/L	dB(A)	72	
	Sound pressure level(5)	H/L	dB(A)	62	
	Dimensions	WxHxD	mm	938x1369x392	
	Weight		kg	110	
	Package dimensions	LxWxH	mm	1095x495x1505	
	Packaged weight		kg	124	
	Stacking height		units	2	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	3.3	
	Additional charge per 1 meter		gr / 1m	40	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	3/4"(Φ19)	
		Max.tubing length	m.	50	
		Max.height difference	m.	25	
Operation control type				Remote control	

Model Indoor Unit				**AWSI-DBF048-N11**	
Model Outdoor Unit				**AWAU-YOF048-H13**	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
Rated Capacity			kW	14.0	15.6
Input power			kW	4.96	4.31
EER/Energy Label			W/W	2.82 /C	3.62 / A
Power supply			V/Ph/Hz	380~415-3-50	
Circuit breaker rating			A	16+20	
INDOOR	Fan type & quantity			Centrifugal fan x3	
	Fan speeds	H/M/L	RPM	1000/880/750	
	Air flow [3]	H/M/L	m3/hr	2500/2100/1700	
	External static pressure	Min-Max	Pa	70(0~100)	
	Sound power level [4]	H/M/L	dB(A)	59	
	Sound pressure level[5]	H/M/L	dB(A)	49/45/40	
	Moisture removal		l/hr	4,3	
	Condensate drain tube I.D		mm	ODΦ25	
	Dimensions	WxHxD	mm	1200x300x865	
	Weight		kg	45	
	Package dimensions	LxWxH	mm	1385x920x373	
	Packaged weight		kg	53	
	Stacking height		units	6	
OUTDOOR	Refrigerant control			Capillary	
	Compressor type. model			Scroll	
	Fan type & quantity			Axial x 2	
	Fan speeds	H/L	RPM	880	
	Air flow	H/L	m3/hr	7200	
	Sound power level[4]	H/L	dB(A)	72	
	Sound pressure level[5]	H/L	dB(A)	62	
	Dimensions	WxHxD	mm	938x1369x392	
	Weight		kg	110	
	Package dimensions	LxWxH	mm	1095x495x1505	
	Packaged weight		kg	124	
	Stacking height		units	2	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	3.3	
	Additional charge per 1 meter		gr / 1m	40	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	3/4"(Φ19)	
		Max.tubing length	m.	50	
		Max.height difference	m.	25	
Operation control type				Wired remote control	

Model Indoor Unit				**AWSI-FCF048-N11**	
Model Outdoor Unit				**AWAU-YOF048-H13**	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
Rated Capacity			kW	12,8	14,2
Input power			kW	4,7	4,89
EER/Energy Label			W/W	2,72 / D	2,90 / D
Power supply			V/Ph/Hz	380~415-3-50	
Circuit breaker rating			A	16+20	
INDOOR	Fan type & quantity			Centrifugal fan x3	
	Fan speeds	H/M/L	RPM	1360/1280/1200	
	Air flow [3]	H/M/L	m3/hr	1950/1800/1650	
	External static pressure	Min-Max	Pa	/	
	Sound power level [4]	H/M/L	dB(A)	66	
	Sound pressure level[5]	H/M/L	dB(A)	56/53/50	
	Moisture removal		l/hr	4,3	
	Condensate drain tube I.D		mm	ODΦ25	
	Dimensions	WxHxD	mm	1285x235x675	
	Weight		kg	30	
	Package dimensions	LxWxH	mm	1360x755x313	
	Packaged weight		kg	35	
	Stacking height		units	6	
OUTDOOR	Refrigerant control			Capillary	
	Compressor type. model			Scroll	
	Fan type & quantity			Axial x 2	
	Fan speeds	H/L	RPM	880	
	Air flow	H/L	m3/hr	7200	
	Sound power level[4]	H/L	dB(A)	72	
	Sound pressure level[5]	H/L	dB(A)	62	
	Dimensions	WxHxD	mm	938x1369x392	
	Weight		kg	110	
	Package dimensions	LxWxH	mm	1095x495x1505	
	Packaged weight		kg	124	
	Stacking height		units	2	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	3.3	
	Additional charge per 1 meter		gr / 1m	40	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	3/4"(Φ19)	
		Max.tubing length	m.	50	
		Max.height difference	m.	25	
Operation control type				Remote control	

Model Indoor Unit				AWSI-CBF060-N11	
Model Outdoor Unit				AWAU-YOF060-H13	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
Rated Capacity			kW	14	16
Input power			kW	5,57	6,1
EER/Energy Label			W/W	2,51 / E	2,62 / E
Power supply			V/Ph/Hz	380~415-3-50	
Circuit breaker rating			A	0	
INDOOR	Fan type & quantity			Centrifugal fan x1	
	Fan speeds	H/M/L	RPM	780/630/550	
	Air flow (3)	H/M/L	m3/hr	2000/1700/1500	
	External static pressure	Min-Max	Pa	/	
	Sound power level (4)	H/M/L	dB(A)	65	
	Sound pressure level(5)	H/M/L	dB(A)	55/50/47	
	Moisture removal		l/hr	5,0	
	Condensate drain tube I.D		mm	ODΦ32	
	Dimensions	WxHxD	mm	840x287x840	
	Weight		kg	28,3	
	Package dimensions	LxWxH	mm	900x900x292	
	Packaged weight		kg	32.5	
	Frame outline dimensions	WxHxD	mm	950x55x950	
	Frame Weight		kg	5	
	Frame package dimensions	LxWxH	mm	1035x1035x90	
	Frame Packaged weight		kg	8	
	Stacking height		units	6	
OUTDOOR	Refrigerant control			Capillary	
	Compressor type. model			Scroll	
	Fan type & quantity			Axial x 2	
	Fan speeds	H/L	RPM	880	
	Air flow	H/L	m3/hr	7500	
	Sound power level(4)	H/L	dB(A)	73	
	Sound pressure level(5)	H/L	dB(A)	63	
	Dimensions	WxHxD	mm	938x1369x392	
	Weight		kg	111,1	
	Package dimensions	LxWxH	mm	1095x495x1505	
	Packaged weight		kg	125.4	
	Stacking height		units	2	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	3.5	
	Additional charge per 1 meter		gr / 1m	40	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	3/4"(Φ19)	
		Max.tubing length	m.	50	
		Max.height difference	m.	25	
Operation control type				Remote control	

Model Indoor Unit				**AWSI-DBF060-N11**	
Model Outdoor Unit				**AWAU-YOF060-H13**	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
Rated Capacity			kW	15.5	17.0
Input power			kW	5.93	5.29
EER/Energy Label			W/W	2.61 / D	3.21 / C
Power supply			V/Ph/Hz	380~415-3-50	
Circuit breaker rating			A	16+20	
INDOOR	Fan type & quantity			Centrifugal fan x3	
	Fan speeds	H/M/L	RPM	1000/880/750	
	Air flow (3)	H/M/L	m3/hr	2500/2100/1700	
	External static pressure	Min-Max	Pa	70(0~100)	
	Sound power level (4)	H/M/L	dB(A)	59	
	Sound pressure level(5)	H/M/L	dB(A)	49/45/40	
	Moisture removal		l/hr	5,0	
	Condensate drain tube I.D		mm	ODΦ25	
	Dimensions	WxHxD	mm	1200x300x865	
	Weight		kg	45	
	Package dimensions	LxWxH	mm	1385x920x373	
	Packaged weight		kg	53	
	Stacking height		units	6	
OUTDOOR	Refrigerant control			Capillary	
	Compressor type. model			Scroll	
	Fan type & quantity			Axial x 2	
	Fan speeds	H/L	RPM	880	
	Air flow	H/L	m3/hr	7500	
	Sound power level(4)	H/L	dB(A)	73	
	Sound pressure level(5)	H/L	dB(A)	63	
	Dimensions	WxHxD	mm	938x1369x392	
	Weight		kg	111,1	
	Package dimensions	LxWxH	mm	1095x495x1505	
	Packaged weight		kg	125.4	
	Stacking height		units	2	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	3.5	
	Additional charge per 1 meter		gr / 1m	40	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	3/4"(Φ19)	
		Max.tubing length	m.	50	
		Max.height difference	m.	25	
Operation control type				Remote control	

Model Indoor Unit				**AWSI-FCF060-N11**	
Model Outdoor Unit				**AWAU-YOF060-H13**	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
Rated Capacity			kW	15,6	17.0
Input power			kW	5,51	5,52
EER/Energy Label			W/W	2,83 / C	3,08 / D
Power supply			V/Ph/Hz	380~415-3-50	
Circuit breaker rating			A	16+20	
INDOOR	Fan type & quantity			Centrifugal fan x4	
	Fan speeds	H/M/L	RPM	1320/1200/1120	
	Air flow (3)	H/M/L	m3/hr	2300/1900/1700	
	External static pressure	Min-Max	Pa	/	
	Sound power level (4)	H/M/L	dB(A)	67	
	Sound pressure level(5)	H/M/L	dB(A)	57/54/51	
	Moisture removal		l/hr	5.0	
	Condensate drain tube I.D		mm	ODΦ25	
	Dimensions	WxHxD	mm	1650x235x675	
	Weight		kg	40	
	Package dimensions	LxWxH	mm	1725x755x313	
	Packaged weight		kg	46	
	Stacking height		units	6	
OUTDOOR	Refrigerant control			Capillary	
	Compressor type. model			Scroll	
	Fan type & quantity			Axial x 2	
	Fan speeds	H/L	RPM	880	
	Air flow	H/L	m3/hr	7500	
	Sound power level(4)	H/L	dB(A)	73	
	Sound pressure level(5)	H/L	dB(A)	63	
	Dimensions	WxHxD	mm	938x1369x392	
	Weight		kg	111,1	
	Package dimensions	LxWxH	mm	1095x495x1505	
	Packaged weight		kg	125.4	
	Stacking height		units	2	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	3.5	
	Additional charge per 1 meter		gr / 1m	40	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	3/4"(Φ19)	
		Max.tubing length	m.	50	
		Max.height difference	m.	25	
Operation control type				Remote control	

4. Features

4.1 High quality coils:

The coil is constructed of advanced inner grooved copper tube and aluminum fins.

4.2 Anti-rust, 500 hours salt spray test.

4.3 Low operation sound level: Well-known stable and quiet running fan motor.

4.4 Well-known compressor.

4.5 Compact design: Smaller dimension and larger stuffing capacity.

4.6 Universal outdoor unit design.

4.7 Optional air outlet grille: plastic type and wire type.

Wire type

Plastic type

Plastic type

4.8 Optional low temperature cooling module.

4.9 R410A environment friendly refrigerant.

Part 2
Indoor Units

Four-way Cassette Type (Compact)

1. Features

1.1 New panel

- 360°surrounding air outlet design, affords comfortable feeling

1.2 Compact design

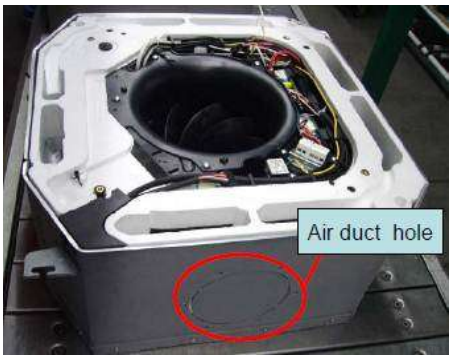
- The body size is 570×260×570mm, it's just smaller than the ceiling board, so it's very easy for installation and will not damage the decoration. The panel size is 647×50×647mm.
- The hooks are designed in the four corners of the body, which can save installation space.

1.3 Electric control box built-in design

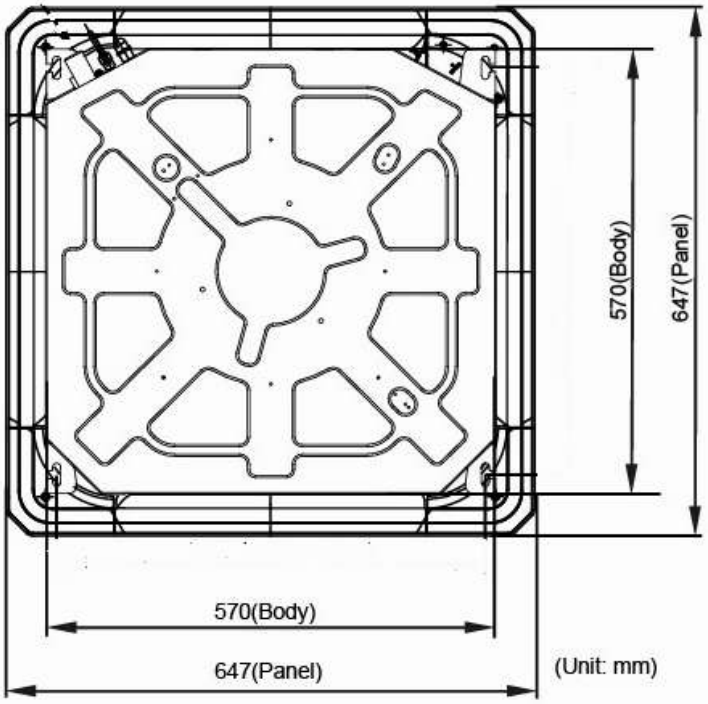
- The E-box is simply and safely built inside the indoor unit. It's convenient for installation and maintenance. Can check the control part easily, you only need to open the air return grille.

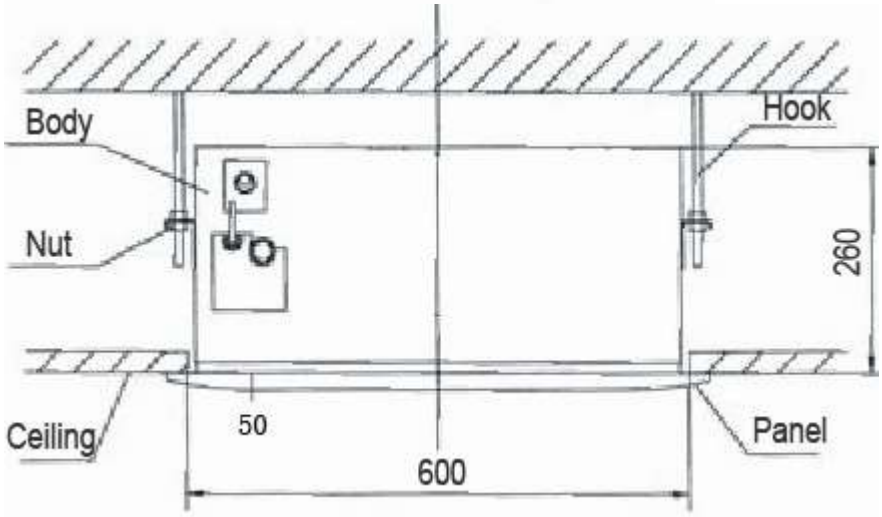
1.4 Air passage function

- Reserves the space for air outlet from the side of indoor unit; It's availed to connect air duct from the two sides to the nearby small rooms.

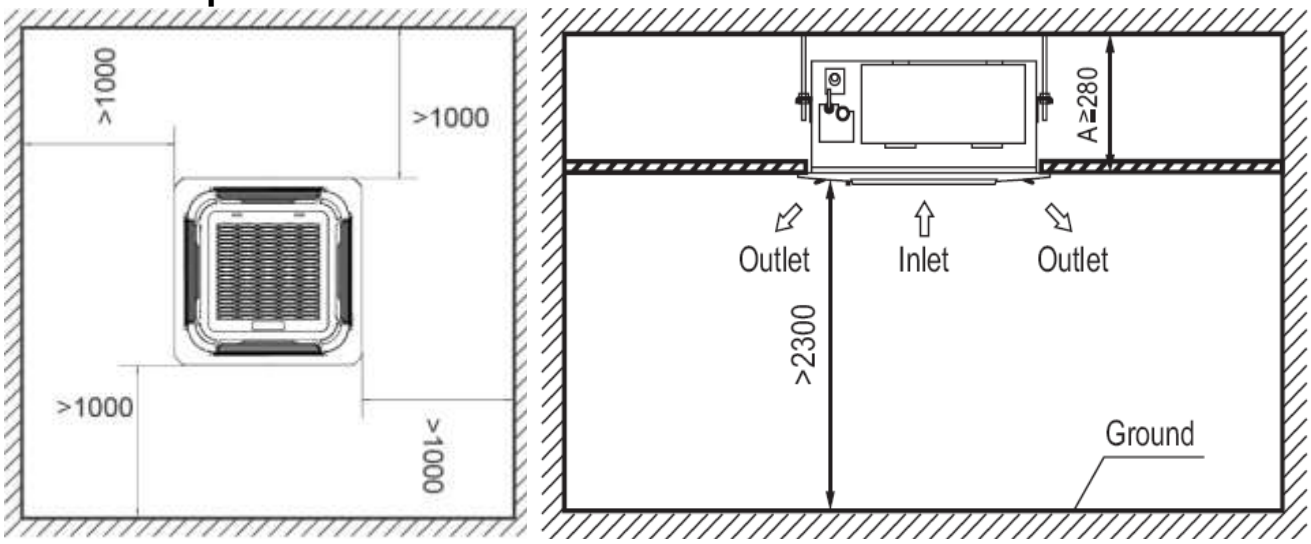


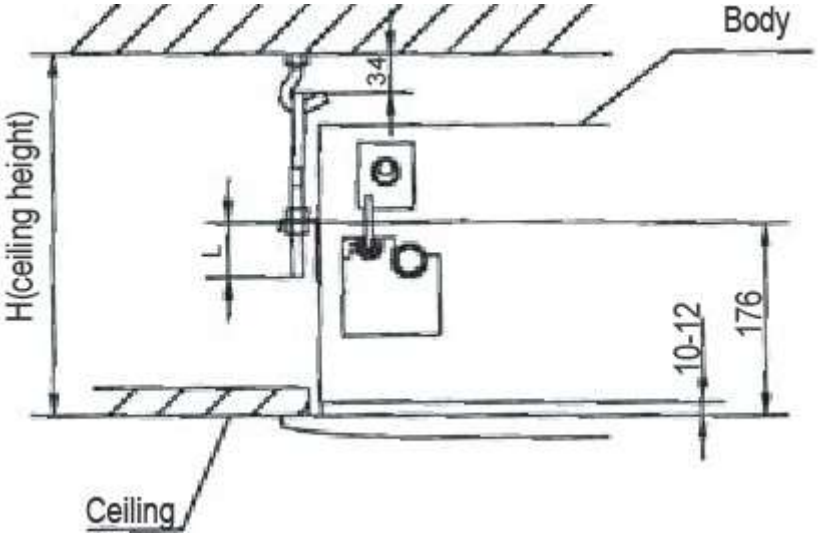
2. Dimensions





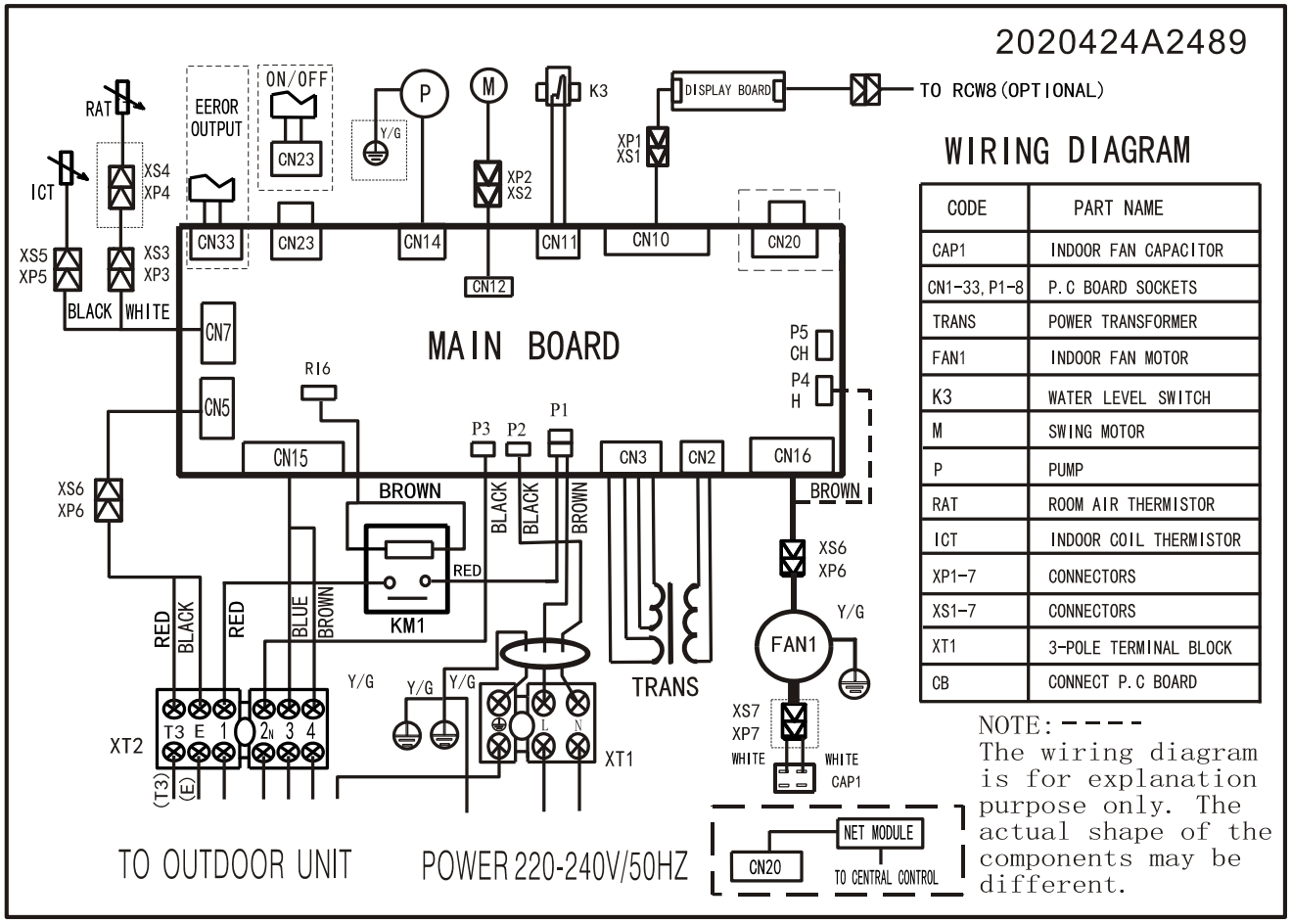
3. Service Space





4. Wiring Diagrams

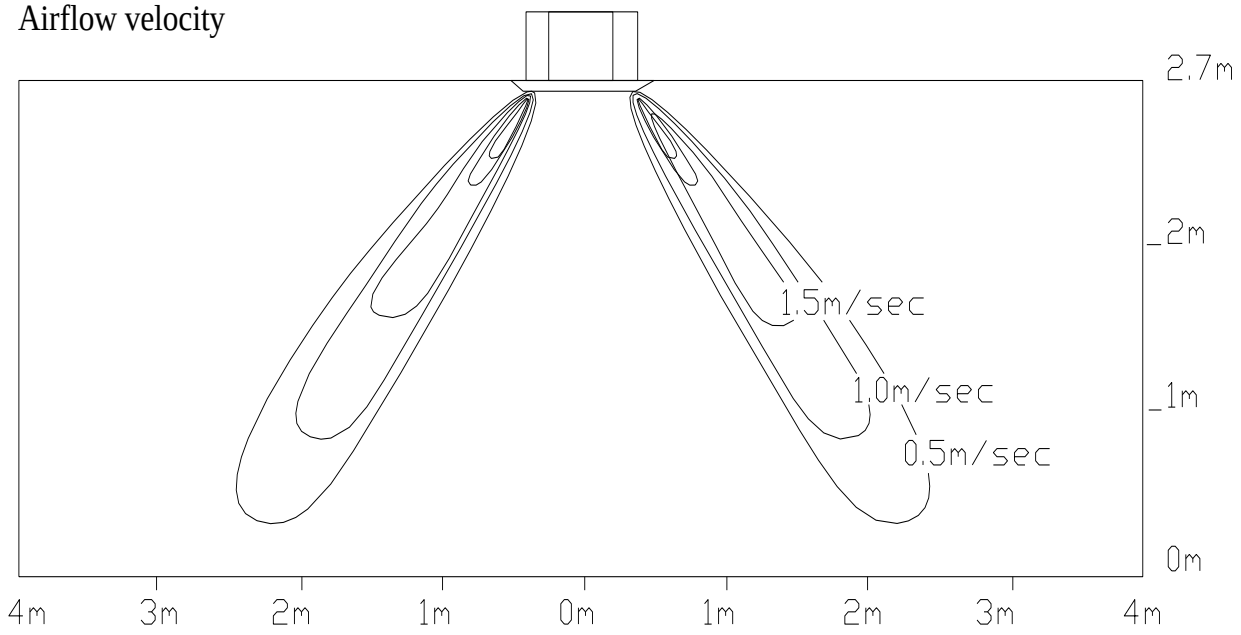
AWSI-CBF012-N11 AWSI-CBF018-N11



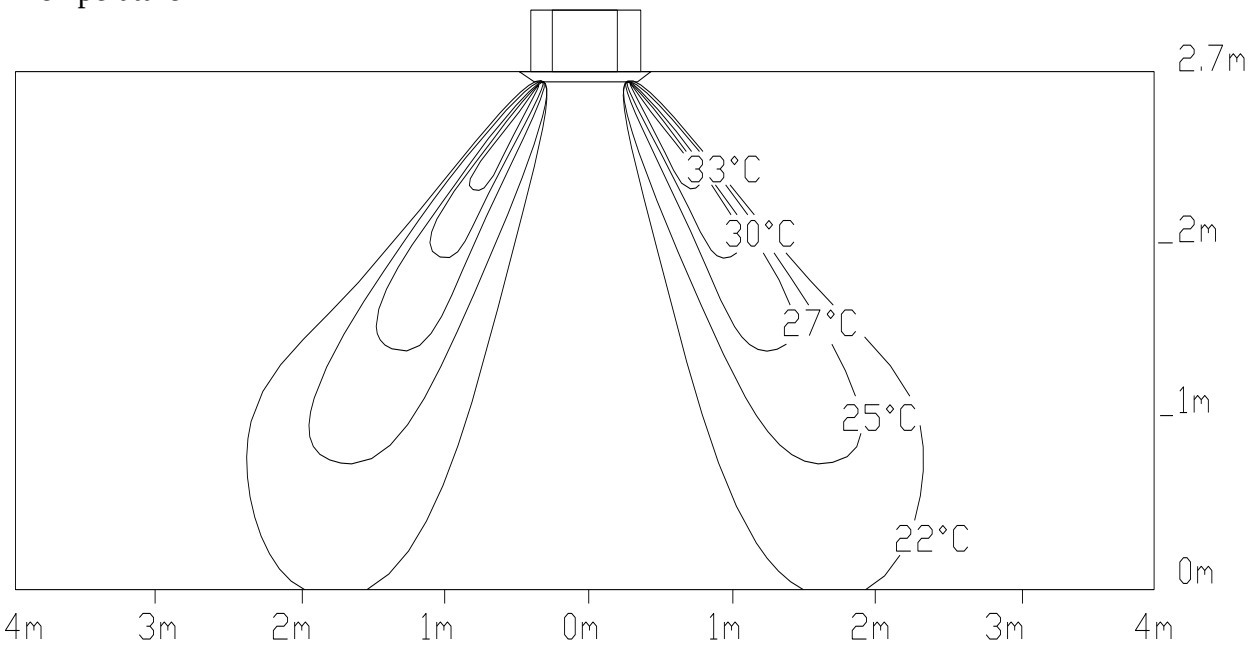
CODE	PART NAME
CAP1	INDOOR FAN CAPACITOR
CN1-33, P1-8	P.C BOARD SOCKETS
TRANS	POWER TRANSFORMER
FAN1	INDOOR FAN MOTOR
K3	WATER LEVEL SWITCH
M	SWING MOTOR
P	PUMP
RAT	ROOM AIR THERMISTOR
ICT	INDOOR COIL THERMISTOR
XP1-7	CONNECTORS
XS1-7	CONNECTORS
XT1	3-POLE TERMINAL BLOCK
CB	CONNECT P.C BOARD

5. Air Velocity and Temperature Distributions(Reference Data)

Airflow velocity



Temperature

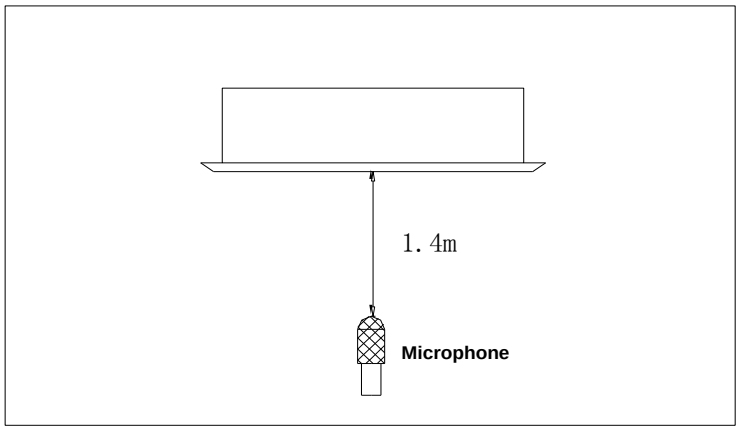


6. Electric Characteristics

Model	Indoor Units				Power Supply
	Hz	Voltage	Min.	Max.	MFA
AWSI-CBF012-N11	50	220-240	198	254	16
AWSI-CBF018-N11	50	220-240	198	254	16

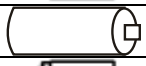
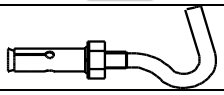
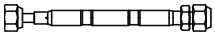
Note :
MFA: Max. Fuse Amps. (A)

7. Sound Levels



Model	Noise Power dB(A)	Noise level dB(A)		
		H	M	L
AWSI-CBF012-N11	56	46	43	40
AWSI-CBF018-N11	56	46	43	40

8. Accessories

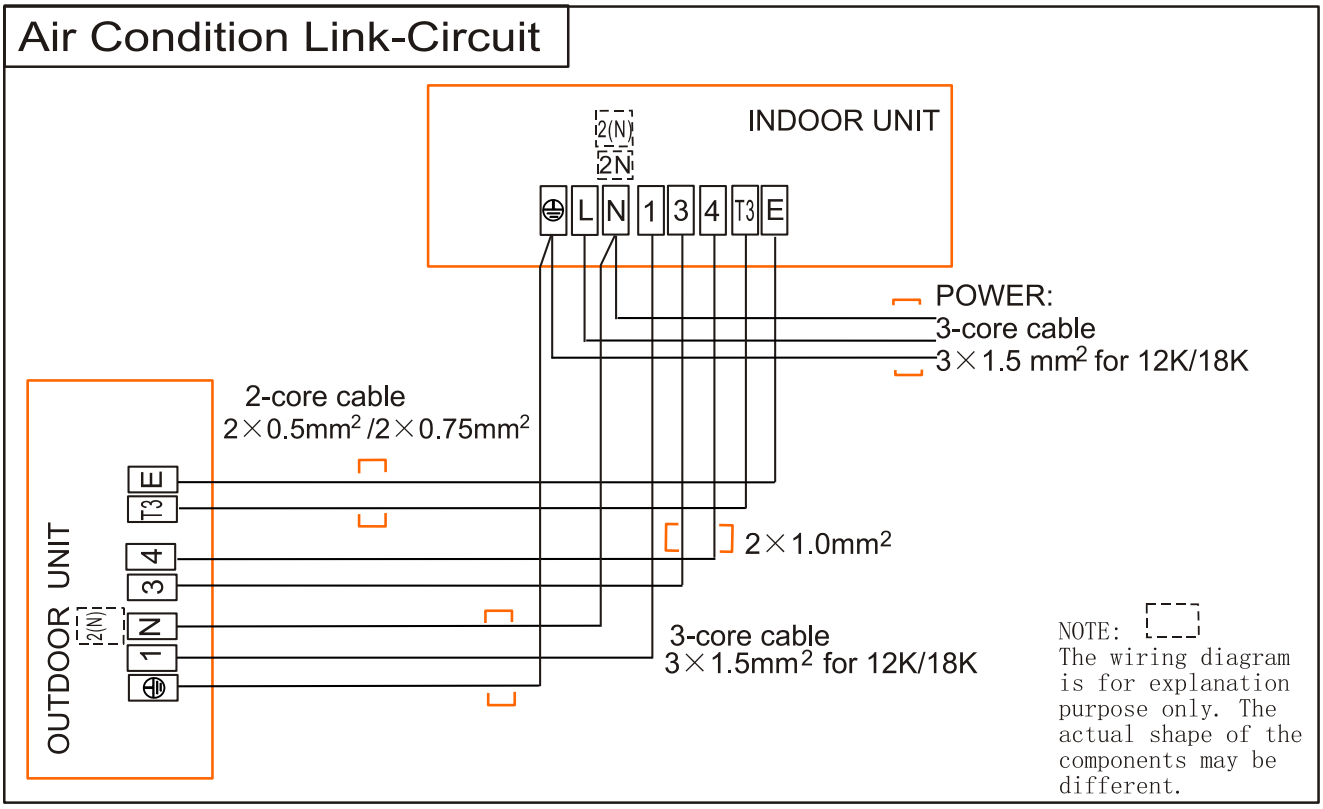
	Name	Shape	Quantity
Installation Fittings	Installation paper board		1
Tubing & Fittings	Soundproof / insulation sheath		1
Drainpipe Fittings	Out-let pipe sheath		1
	Out-let pipe clasp		1
	Drain joint		1
	Seal ring		1
Remote controller & Its Frame(The product you have might not be provided the following accessories)	Remote controller & Its Frame		1
	Remote controller holder		1
	Mounting screw(ST2.9×10-C-H)		2
	Remote controller manual		1
	Alkaline dry batteries (AM4)		2
Others	Owner's manual		1
	Installation manual		1
Installation accessory (The product you have might not be provided the following accessories	Expansible hook		4
	Installation hook		4
	Orifice		1

9. The Specification of Power

Model		AWSI-CBF012-N11 AWSI-CBF018-N11
Indoor Unit Power	Phase	1-phase
	Frequency and Voltage	220-240V, 50Hz
	Power Wiring(mm^2)	3×1.5
	Circuit Breaker/Fuse (A)	20/16
Outdoor Unit Power	Phase	——
	Frequency and Voltage	——
	Power Wiring(mm^2)	——
	Circuit Breaker/Fuse (A)	——
Indoor/Outdoor Connecting Wiring(Weak Electric Signal) (mm^2)		2-core shield wire 2×0.75/2×0.5
Indoor/Outdoor Connecting Wiring(Strong Electric Signal) (mm^2)		2×1.0

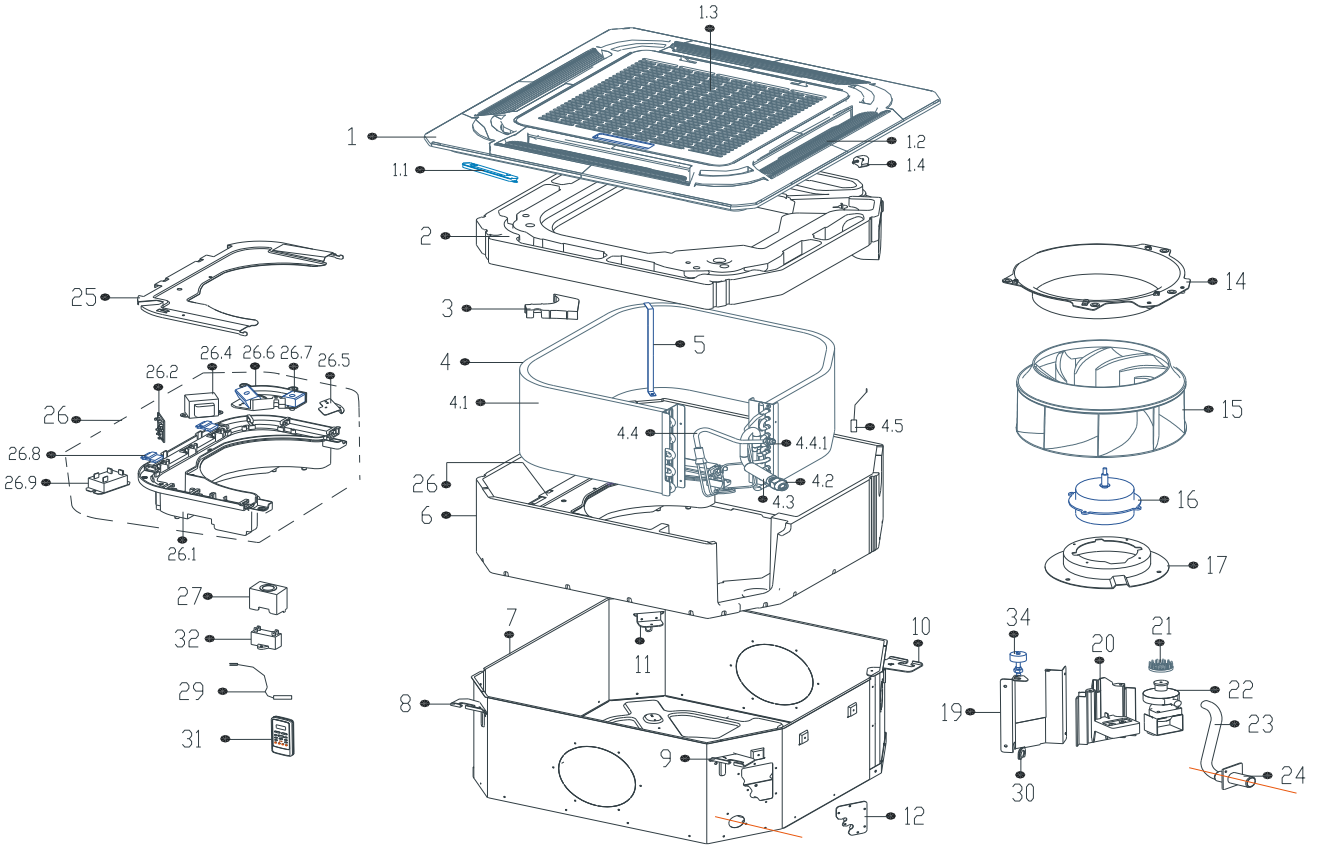
10. Field Wiring

AWSI-CBF012-N11 AWSI-CBF018-N11



11. Exploded View and Spare Part list

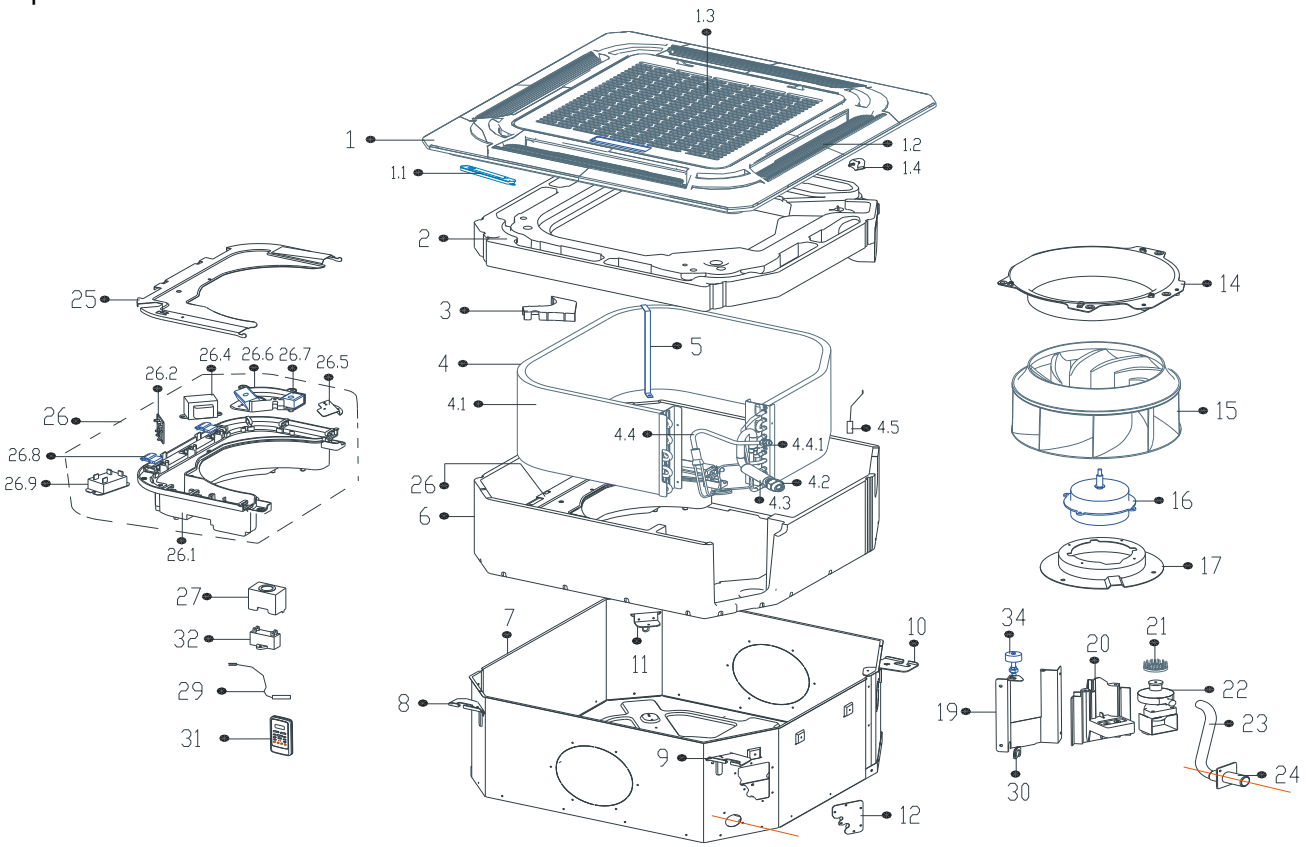
Exploded View of indoor unit: AWSI-CBF012-N11



Spare part list of indoor unit: AWSI-CBF012-N11

No.	Part Name	Qty	BOM Code	No.	Part Name	Qty	BOM Code
1	Panel	1	2011099A2582	17	Fan motor fixing base	1	201280490338
1.1	Display box assembly	1	2033424A0091	19	Evaporator fixing board	1	201280490337
1.2	Horizontal louver	4	201109991797	20	Drain pump installation base	1	201180490049
1.3	Air filter	1	P0000453127	21	Guard against block up net	1	201180490041
1.4	Louver motor	1	202400280001	22	Drain pump	1	202400600005
2	Water collector	1	202280490006	23	Drain pipe	1	202742390002
3	Wire box	1	201180490047	24	Drain connecting pipe	1	201101030002
4	Evaporator assembly	1	201542390001	25	Cover of electronic control box	1	201280490491
4.1	Evaporator	1	201542390002	26	Electronic control box assembly	1	203342490041
4.2	Copper nut	1	201600320002	26.1	Electronic control box	1	201180490043
4.3	Output pipe assembly	1	201642390004	26.2	Main control board assembly	1	201342490036
4.4	Input pipe assembly	1	201642390001	26.4	Transformer	1	202300900205
4.4.1	Copper nut	1	201600320000	26.5	Insulation plate	1	201280490471
4.5	Pipe temperature sensor assembly	1	202301300445	26.6	Installation base of terminal	1	201180490044
5	Evaporator hang board	1	201280490336	26.7	Wire joint	1	202301450125
6	Base foam assembly	1	202280490005	26.7	Wire joint	1	202301450121
7	Chassis assembly	1	201242390003	26.8	Clip	3	201180490045
8	Hook II	1	201280490483	26.9	Relay	1	202300800071
9	Hook I	1	201280490482	27	Capacitor box	1	201280490335
10	Hook Ⅳ	1	201280490485	29	Ambient temperature sensor assembly	1	202301310075
11	Hook III	1	201280490484	30	Rubber guard bush	1	202780490007
12	Pipe fixing board assembly	1	201142390001	31	Remote controller	1	203355091552
14	Ventilation ring	1	201142390003	32	Fan motor capacitor	1	202401190047
15	Centrifugal fan	1	201100100804	34	Water level sensor assembly	1	202301310051
16	Asynchronous motor	1	202400400195				

Exploded View of indoor unit: AWSI-CBF018-N11



Spare part list of indoor unit: AWSI-CBF018-N11

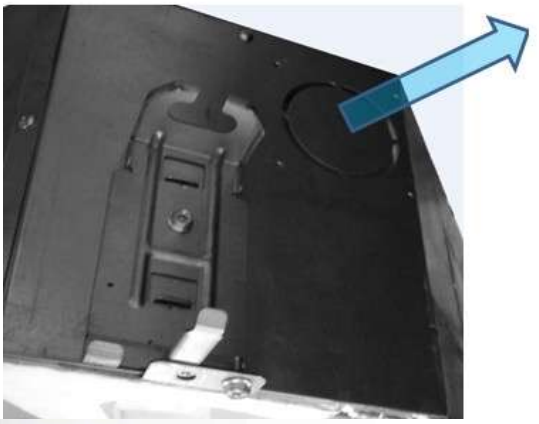
No.	Part Name	Qty	BOM Code	No.	Part Name	Qty	BOM Code
1	Panel	1	2011099A2582	17	Fan motor fixing base	1	201280490338
1.1	Display box assembly	1	2033424A0091	19	Evaporator fixing board	1	201280490337
1.2	Horizontal louver	4	201109991797	20	Drain pump installation base	1	201180490049
1.3	Air filter	1	P0000453127	21	Guard against block up net	1	201180490041
1.4	Louver motor	1	202400280001	22	Drain pump	1	202400600005
2	Water collector	1	202280490006	23	Drain pipe	1	202742390002
3	Wire box	1	201180490047	24	Drain connecting pipe	1	201101030002
4	Evaporator assembly	1	201542490006	25	Cover of electronic control box	1	201280490491
4.1	Evaporator	1	201542490007	26	Electronic control box assembly	1	203342490041
4.2	Copper nut	1	201600320002	26.1	Electronic control box	1	201180490043
4.3	Output pipe assembly	1	201642490022	26.2	Main control board assembly	1	201342490036
4.4	Input pipe assembly	1	201642490024	26.4	Transformer	1	202300900205
4.4.1	Copper nut	1	201600320000	26.5	Insulation plate	1	201280490471
4.5	Pipe temperature sensor assembly	1	202301300445	26.6	Installation base of terminal	1	201180490044
5	Evaporator hang board	1	201280490336	26.7	Wire joint	1	202301450125
6	Base foam assembly	1	202280490005	26.7	Wire joint	1	202301450121
7	Chassis assembly	1	201242390003	26.8	Clip	3	201180490045
8	Hook II	1	201280490483	26.9	Relay	1	202300800071
9	Hook I	1	201280490482	27	Capacitor box	1	201280490335
10	Hook Ⅳ	1	201280490485	29	Ambient temperature sensor assembly	1	202301310075
11	Hook III	1	201280490484	30	Rubber guard bush	1	202780490007
12	Pipe fixing board assembly	1	201142390001	31	Remote controller	1	203355091552
14	Ventilation ring	1	201142390003	32	Fan motor capacitor	1	202401190033
15	Centrifugal fan	1	201100100804	34	Water level sensor assembly	1	202301310051
16	Asynchronous motor	1	202400400196				

Super Slim Cassette Type

1. Features

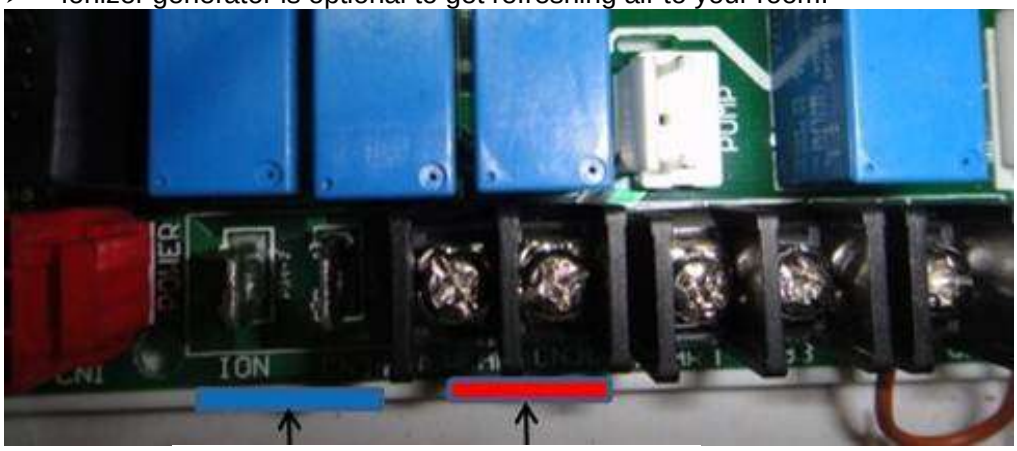
1.1 Fresh air intake function

- Fresh air fulfills air quality more healthy and comfortable.
- Ventilation motor is optional to increase the effect of fresh air.



1.2 Optional ionizer generator

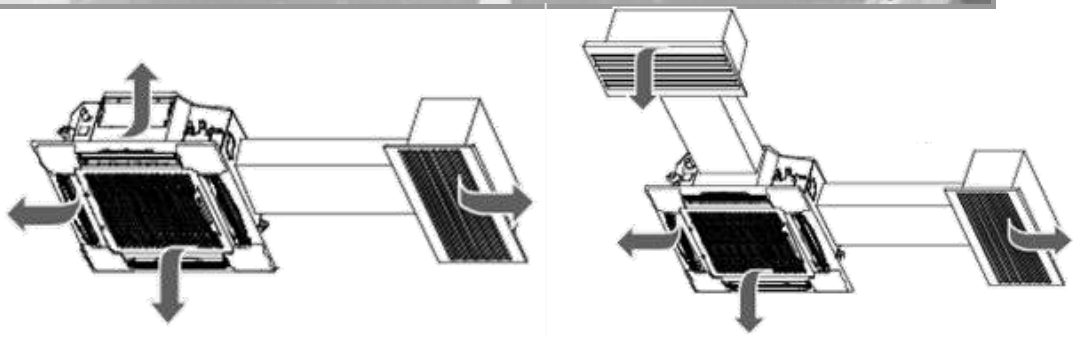
- Ionizer generator is optional to get refreshing air to your room.



- Ionizer can be switched on or off by remote controller.
  When pressing the Clean Air button on the remote controller, Ionizer will work and the indicator light on display board will shine.

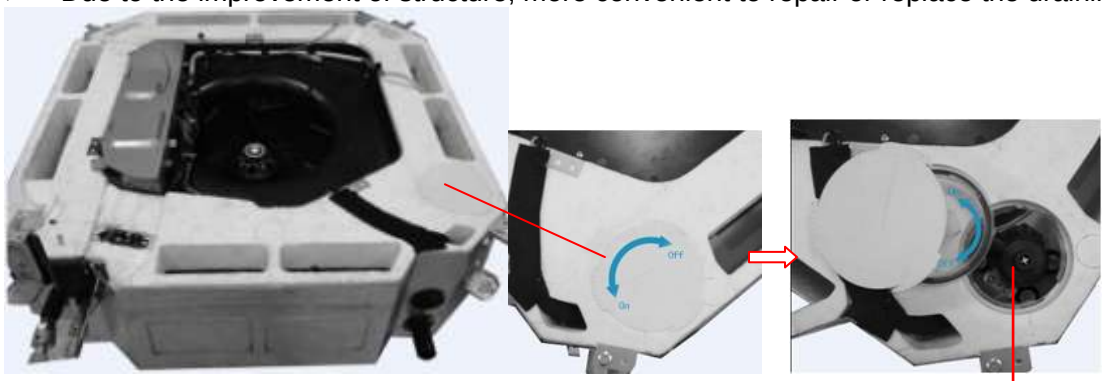
1.3 External air duct design

➢ Reserve external air duct, more flexible for the air supply.

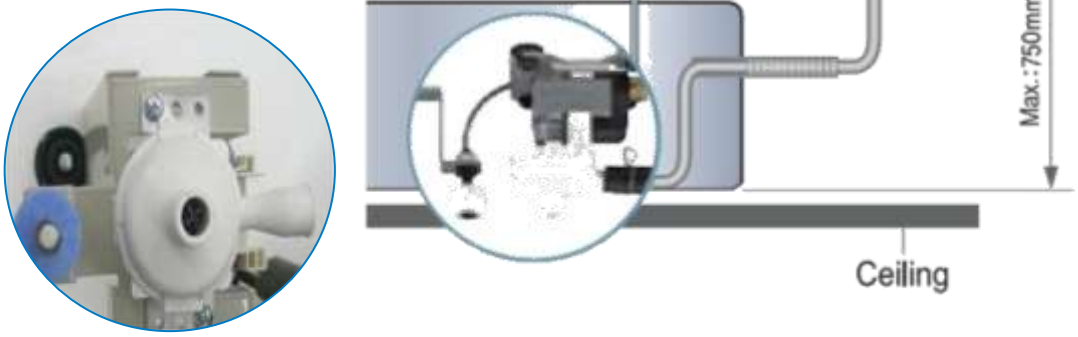


1.4 Built-in draining pump

➢ Due to the improvement of structure, more convenient to repair or replace the draining pump.

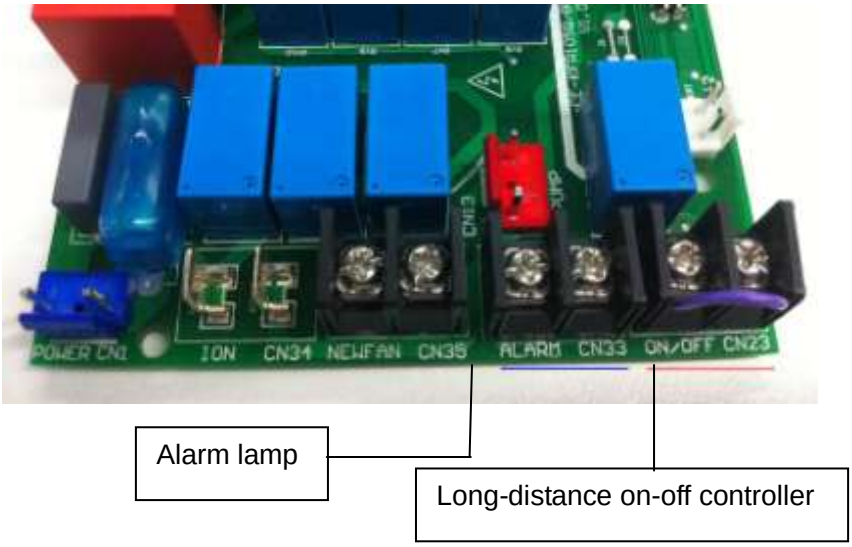


➢ Built-in draining pump to make sure condensed water drain out reliably.

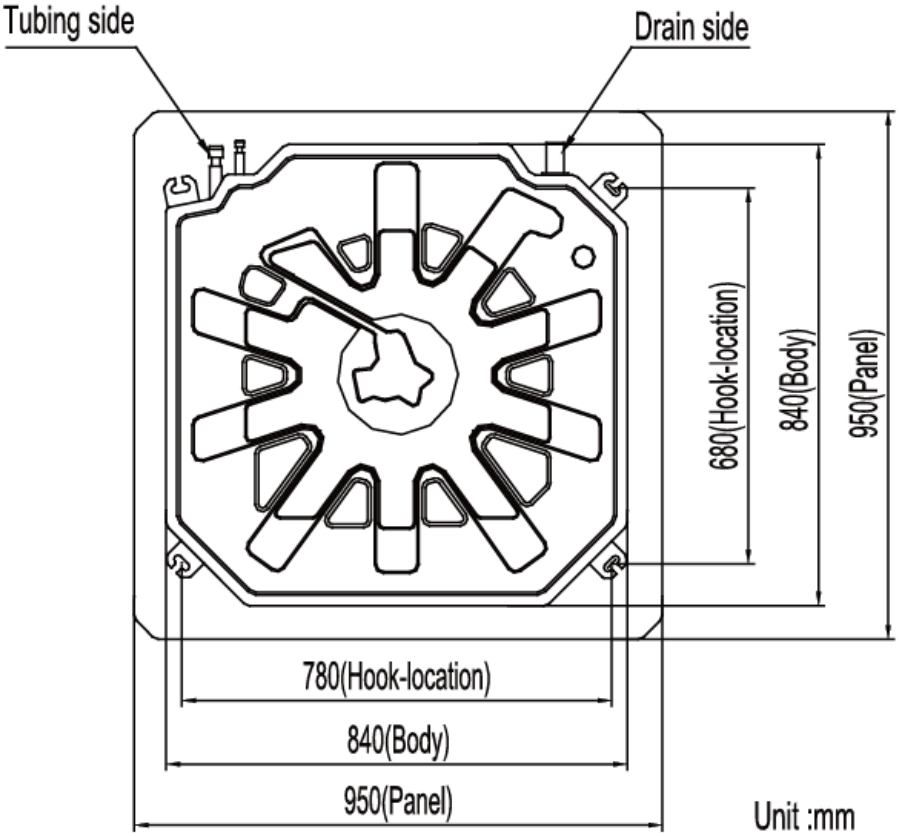


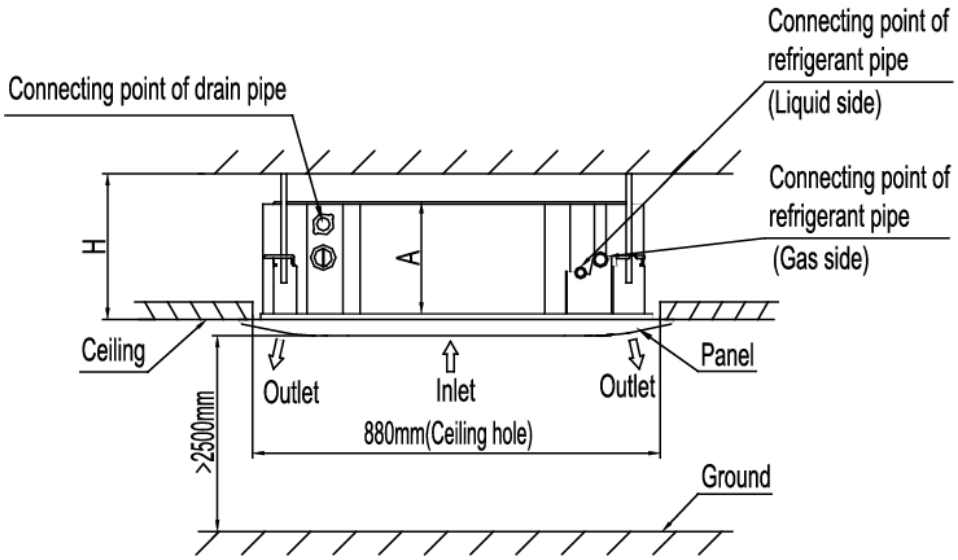
1.5 Terminals for alarm lamp and long-distance on-off controller connection are standard

- Reserve terminals for the connection of alarm lamp and long-distance on-off controller, more human control.



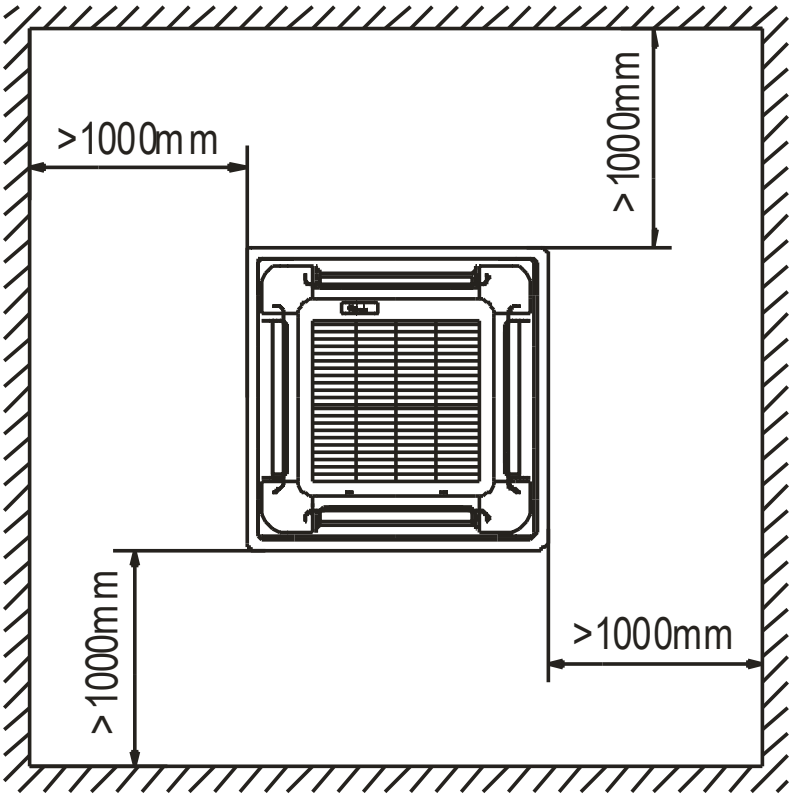
2. Dimensions





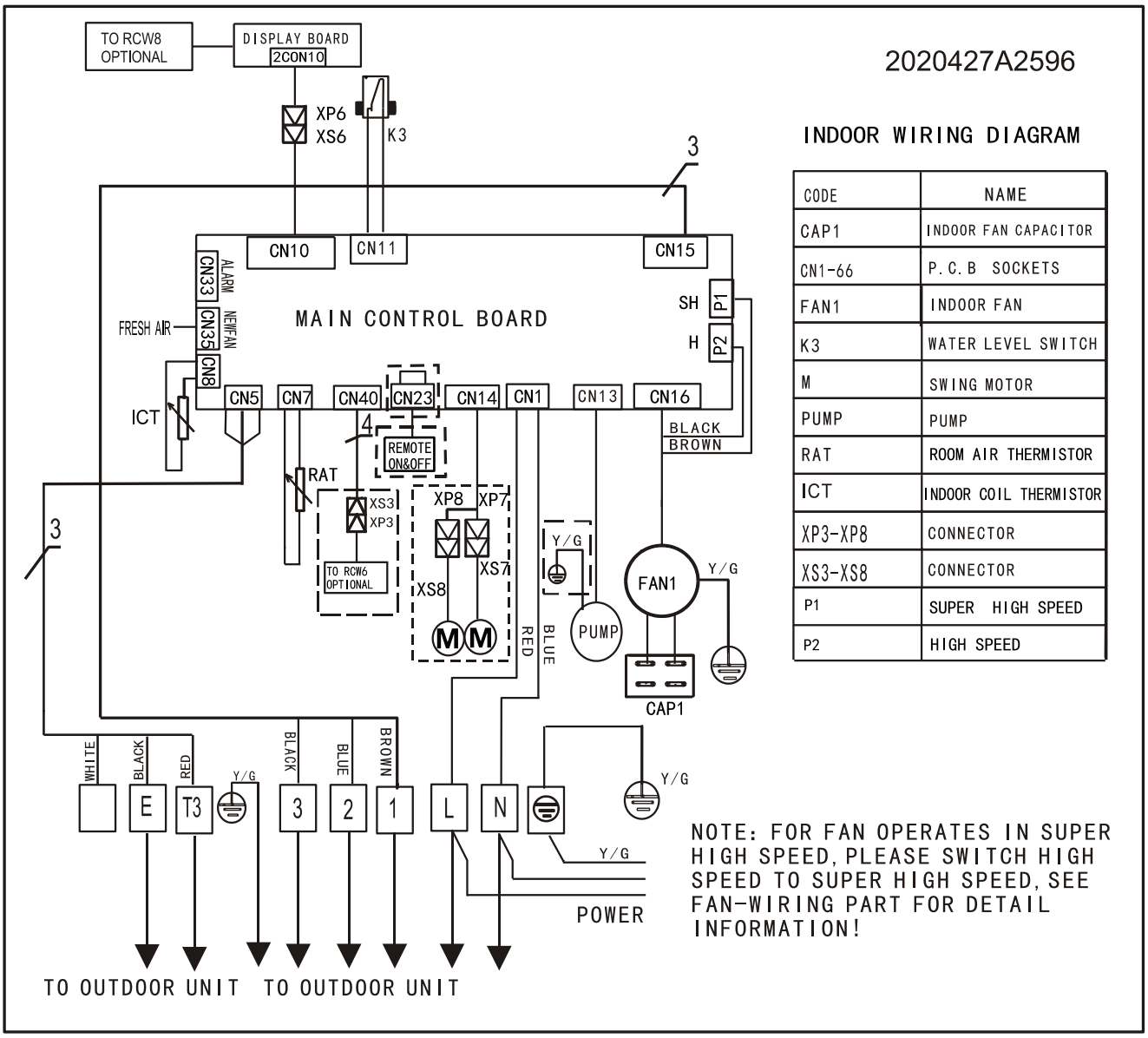
Model	A	H
AWSI-CBF024-N11	205	>235
AWSI-CBF036-N11	245	>275
AWSI-CBF048-N11	245	>275
AWSI-CBF060-N11	287	>317

3. Service Space



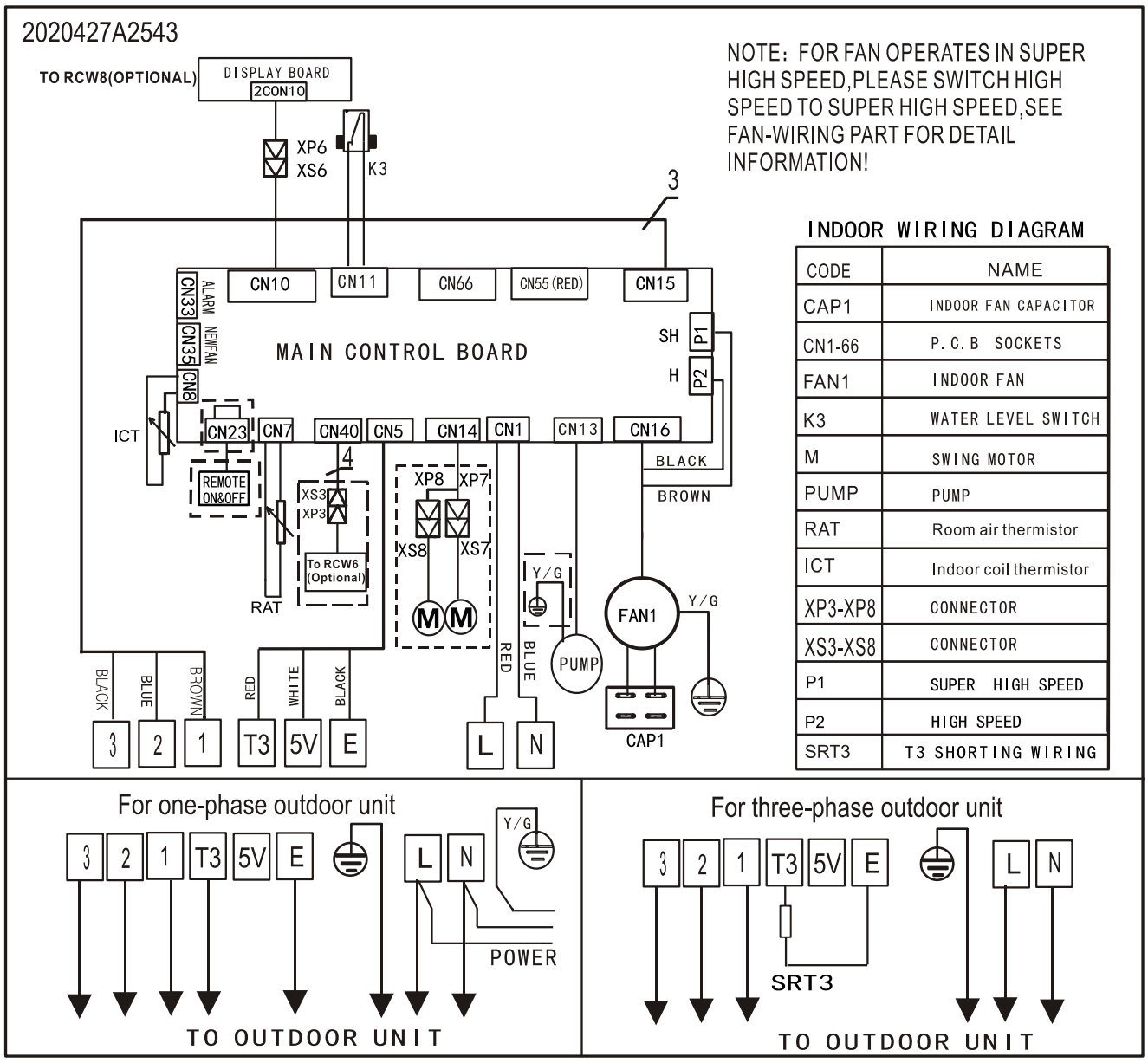
4. Wiring Diagrams

AWSI-CBF024-N11

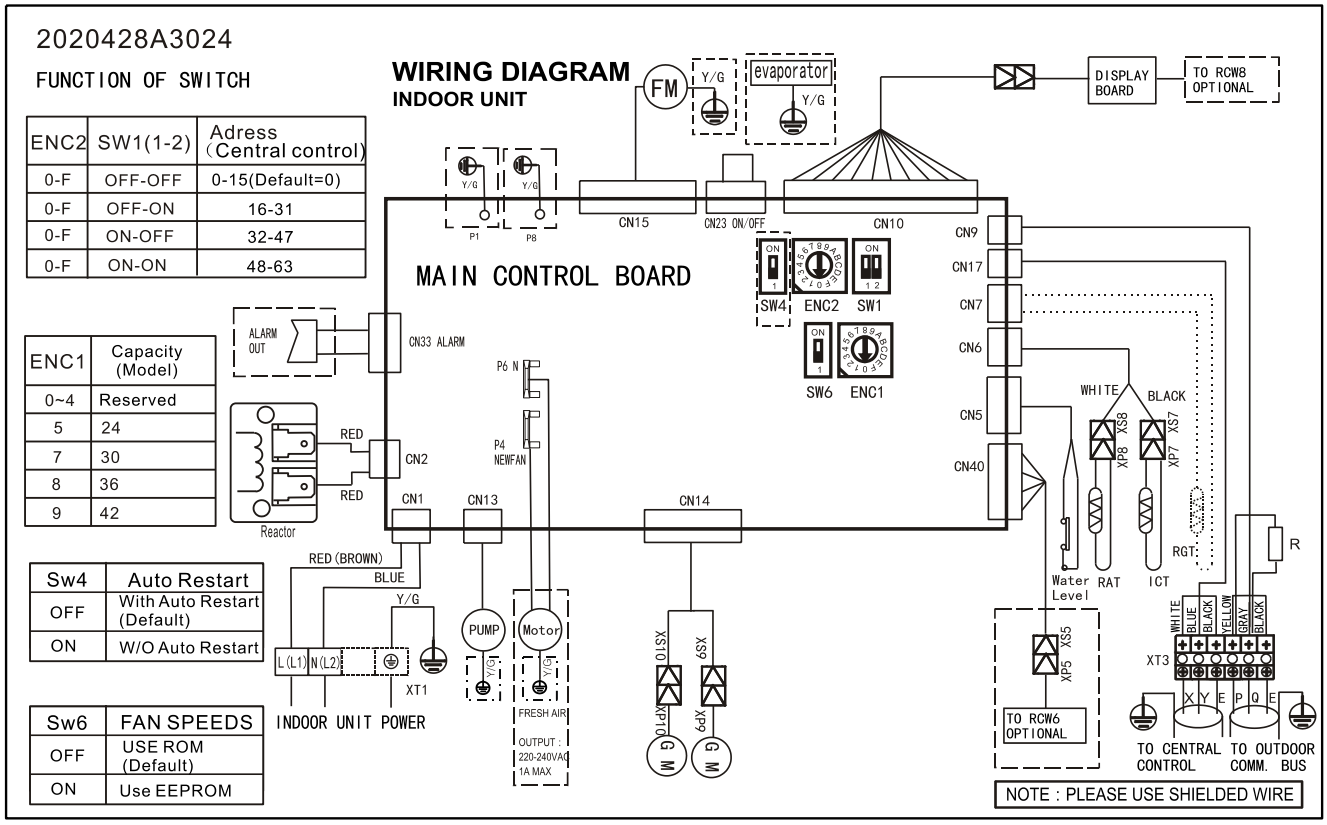


CODE	NAME
CAP1	INDOOR FAN CAPACITOR
CN1-66	P.C.B SOCKETS
FAN1	INDOOR FAN
K3	WATER LEVEL SWITCH
M	SWING MOTOR
PUMP	PUMP
RAT	ROOM AIR THERMISTOR
ICT	INDOOR COIL THERMISTOR
XP3-XP8	CONNECTOR
XS3-XS8	CONNECTOR
P1	SUPER HIGH SPEED
P2	HIGH SPEED

AWSI-CBF036-N11



AWSI-CBF048-N11 AWSI-CBF060-N11

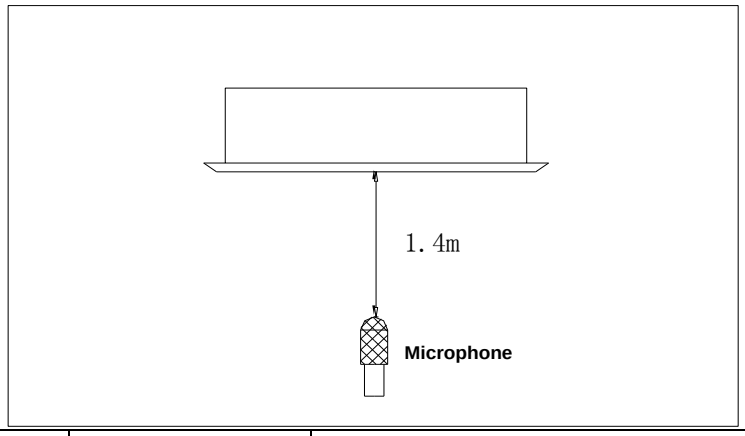


5. Electric Characteristics

Model	Indoor Unit				Power Supply
	Hz	Voltage	Min	Max	MFA
AWSI-CBF024-N11	50	220-240	198	254	25
AWSI-CBF036-N11(match with 1-phase outdoor unit)	50	220-240	198	254	30
AWSI-CBF036-N11(match with 3-phase outdoor unit)	50	220-240	198	254	/
AWSI-CBF048-N11	50	220-240	198	254	16
AWSI-CBF060-N11	50	220-240	198	254	16

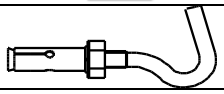
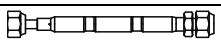
Note:
MFA: Max. Fuse Amps. (A)

6. Sound Levels



Model	Noise Power dB(A)	Noise level dB(A)		
		H	M	L
AWSI-CBF024-N11	58	48	45	42
AWSI-CBF036-N11	61	51	47	43
AWSI-CBF048-N11	64	54	49	46
AWSI-CBF060-N11	65	55	50	47

7. Accessories

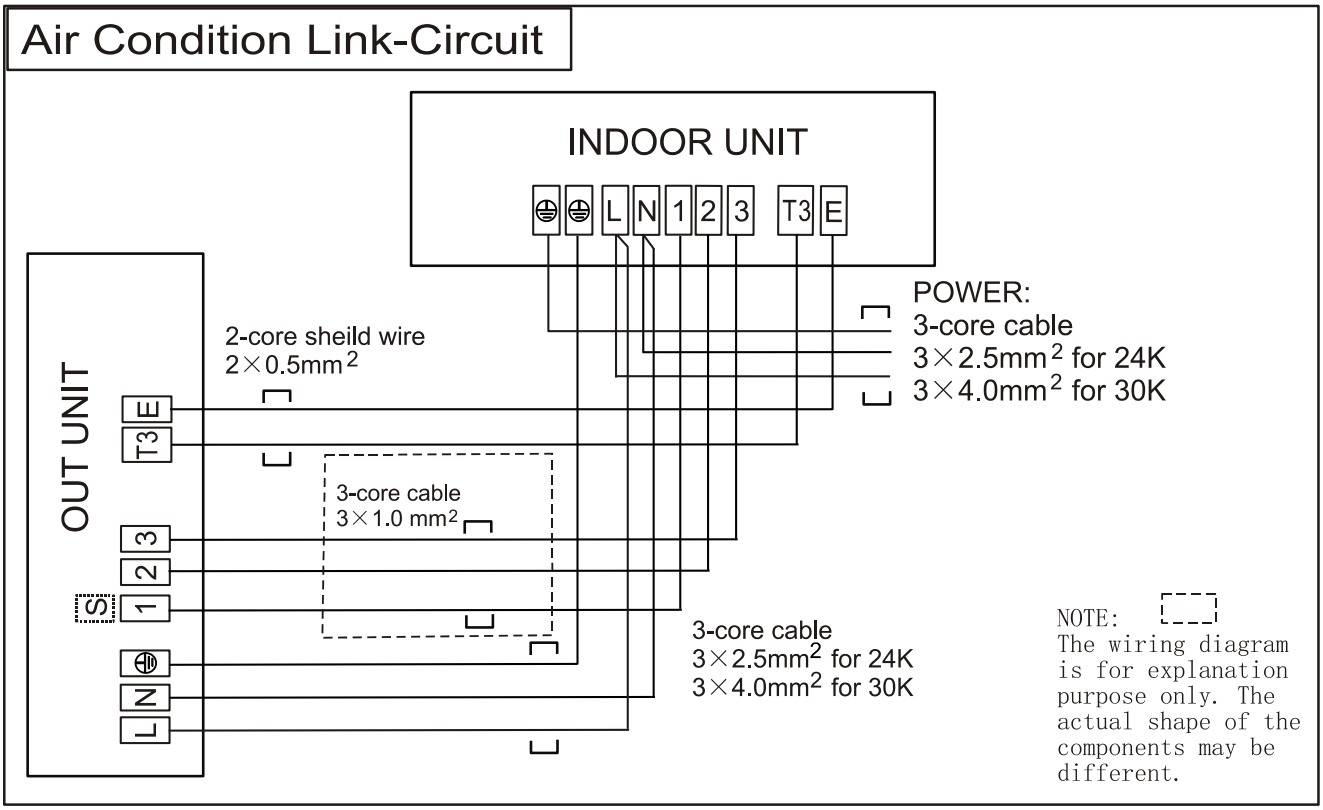
	Name	Shape	Quantity
Installation Fittings	Installation paper board		1
Tubing & Fittings	Soundproof / insulation sheath		1
Drainpipe Fittings	Out-let pipe sheath		1
	Out-let pipe clasp		1
	Drain joint		1
	Seal ring		1
Remote controller & Its Frame(The product you have might not be provided the following accessories)	Remote controller & Its Frame		1
	Remote controller holder		1
	Mounting screw(ST2.9×10-C-H)		2
	Remote controller manual		1
	Alkaline dry batteries (AM4)		2
Others	Owner's manual		1
	Installation manual		1
Installation accessory (The product you have might not be provided the following accessories	Expansible hook		4
	Installation hook		4
	Orifice		1

8. The Specification of Power

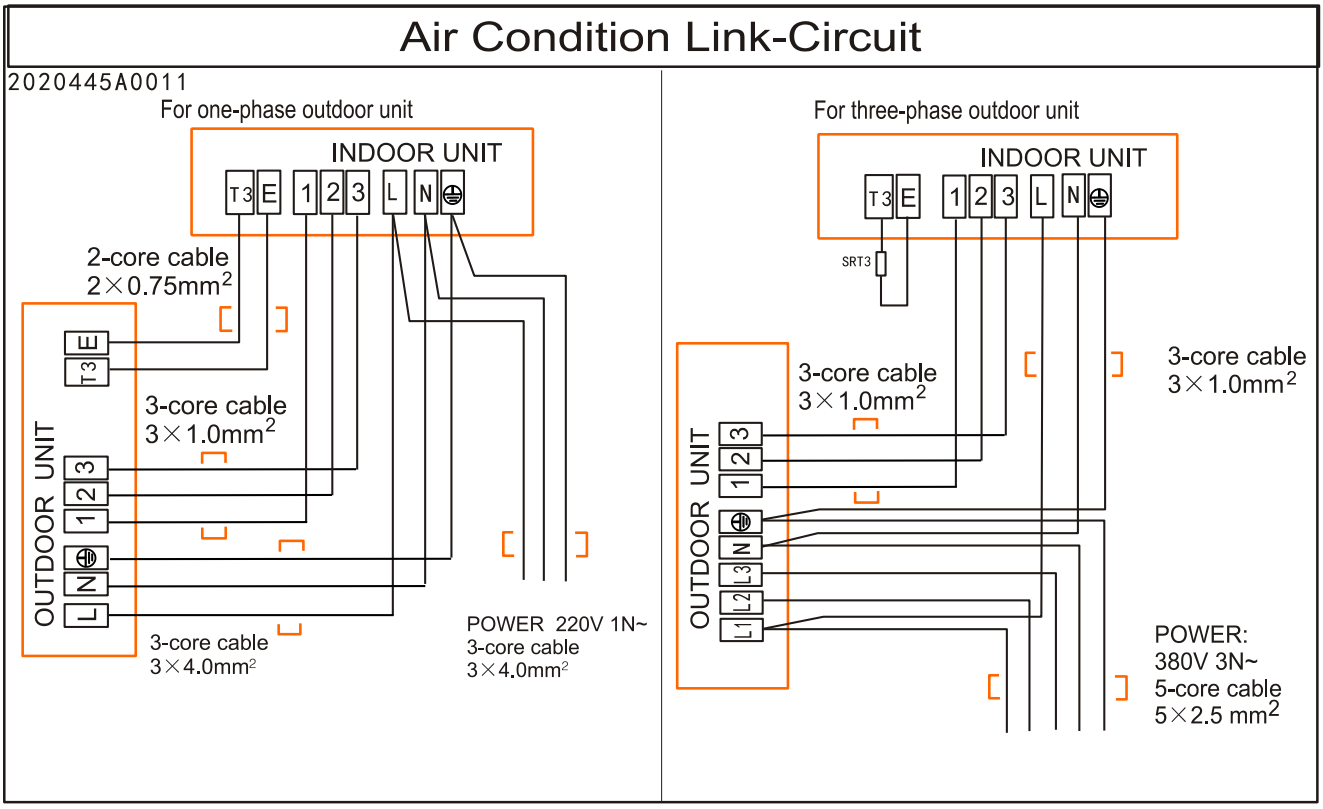
Capacity(Btu/h)		24000	36000	36000	48000-60000
Indoor Unit Power	Phase	1-phase	1-phase	———	1-phase
	Frequency and Voltage	220-240V, 50Hz	220-240V, 50Hz	———	220-240V, 50Hz
	Power Wiring(mm^2)	3×2.5	3×4.0	———	3×1.0
	Circuit Breaker/Fuse(A)	40/25	50/30	———	20/16
Outdoor Unit Power	Phase	———	———	3-phase	3-phase
	Frequency and Voltage	———	———	380-415V, 50Hz	380-415V, 50Hz
	Power Wiring(mm^2)	———	———	5×2.5	5×2.5
	Circuit Breaker/ Fuse (A)	———	———	25/20	25/20
Indoor/Outdoor Connecting Wiring(Weak Electric Signal)(mm^2)		2×0.5	2×0.75	———	3×0.5
Indoor/Outdoor Connecting Wiring(Strong Electric Signal)(mm^2)		3×1.0	3×1.0	3×1.0	———

9. Field Wiring

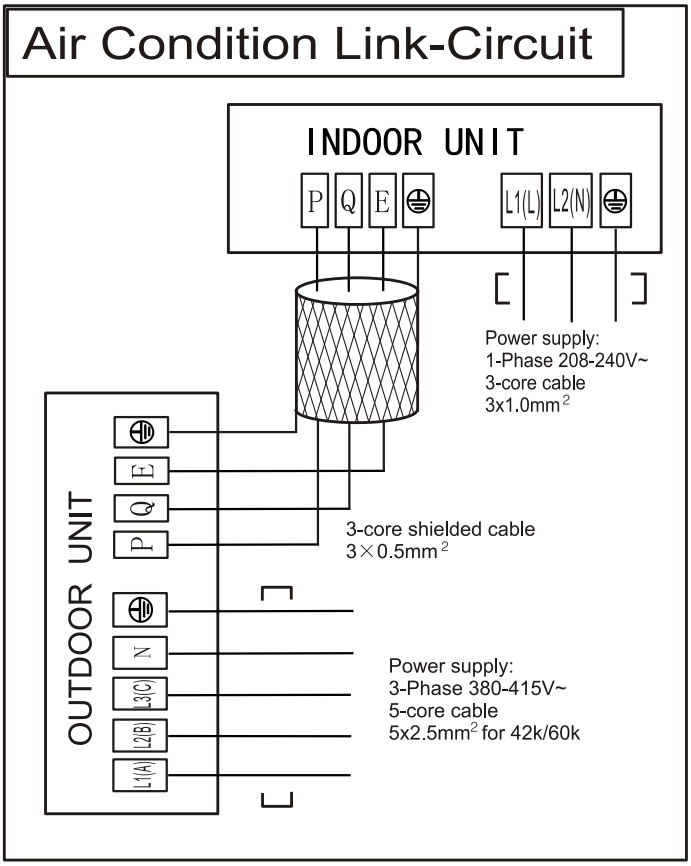
AWSI-CBF024-N11



AWSI-CBF036-N11

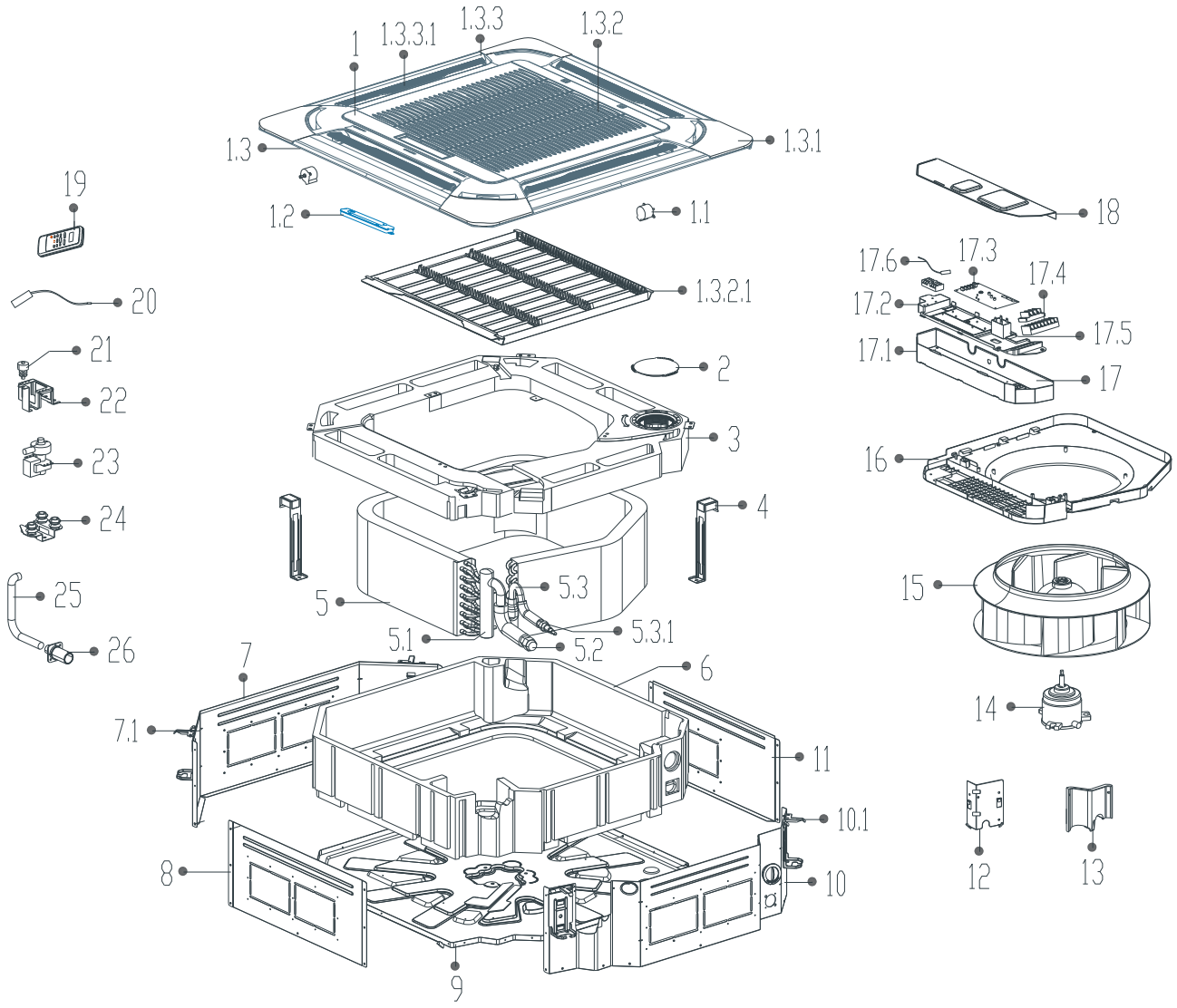


AWSI-CBF048-N11 AWSI-CBF060-N11



10. Exploded View and Spare Part list

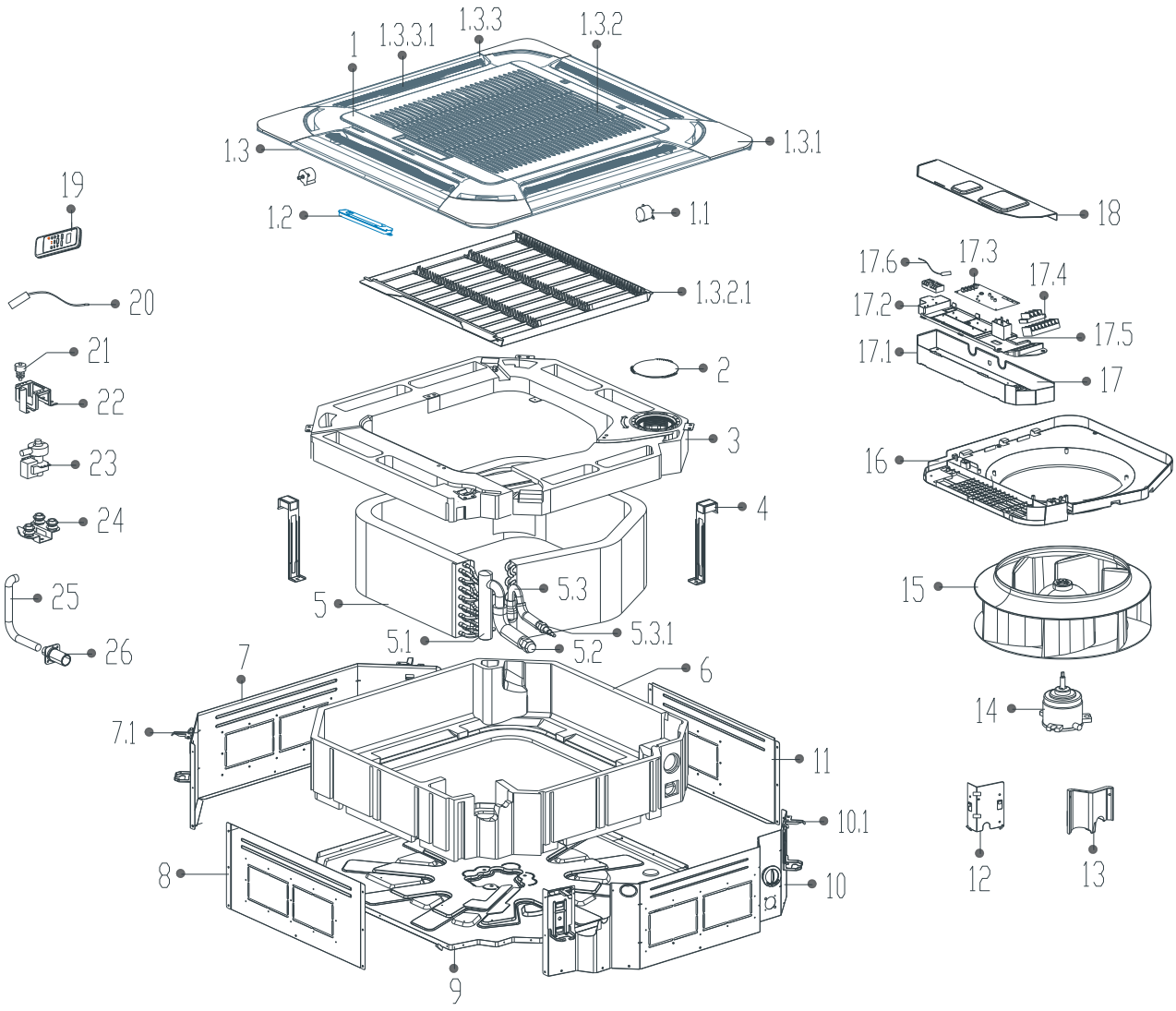
Exploded View of indoor unit: AWSI-CBF024-N11



Spare part list of indoor unit: AWSI-CBF024-N11

No.	Part Name	Qty	BOM Code	No.	Part Name	Qty	BOM Code
1	Panel assembly	1	2011099A2548	11	Board assembly Ⅳ	1	201242590013
1.1	Louver motor	2	202400100007	12	Evaporator fixing board	1	201242590011
1.2	Display box assembly	1	203342890005	13	Pipe fixing board assembly	1	201142790002
1.3	Panel assembly	1	P0000449603	14	Asynchronous motor	1	202400401236
1.3.1	Cover assembly of installation plate	4	P0000449698	15	Fan assembly	1	201100100858
1.3.2	Air inlet grille assembly	1	P0000449689	16	Ventilation assembly	1	201142590003
1.3.2.1	Air filter	1	201109901903	17	Electronic control box assembly	1	203342590048
1.3.3	Transmission framework	2	P0000449696	17.1	Electronic control box	1	201242590004
1.3.3.1	Louver	2	P0000449731	17.2	Insulation plate	1	201142590002
2	Cover	1	201142790001	17.3	Main control board assembly	1	201342790036
3	Foam tray assembly for condenser water	1	202242590001	17.4	Wire joint	1	202301400223
4	Evaporator fixing hanger	2	201242590019	17.4	Wire joint	1	202301450121
5	Evaporator assembly	1	201542590027	17.5	Capacitor	1	202401100354
5.1	Output pipe assembly	1	201642590066	17.6	Ambient temperature sensor assembly	1	202432390005
5.2	Copper nut	1	201600320003	18	Cover of electronic control box I	1	201242590023
5.3	Input pipe assembly	1	201642590052	19	Remote controller	1	203355091552
5.3.1	Copper nut	1	201600320001	20	Pipe temperature sensor	1	202301300303
6	Base foam assembly	1	202242590002	21	Water level sensor assembly	1	202301310095
7	Board assembly III	1	201242590015	22	Water Pump installation bracket assembly	1	201242990003
7.1	Hook	2	P0001115013	23	Drain pump	1	202400600203
8	Board assembly I	1	201242590016	24	Pump rubber washer	3	202742000002
9	Chassis assembly	1	201242590018	25	Drain pipe	1	202856001093
10	Board assembly II	1	201242590014	25	Drain pipe	1	202742590002
10.1	Hook	2	P0001115013	26	Water pipe	1	201142500032

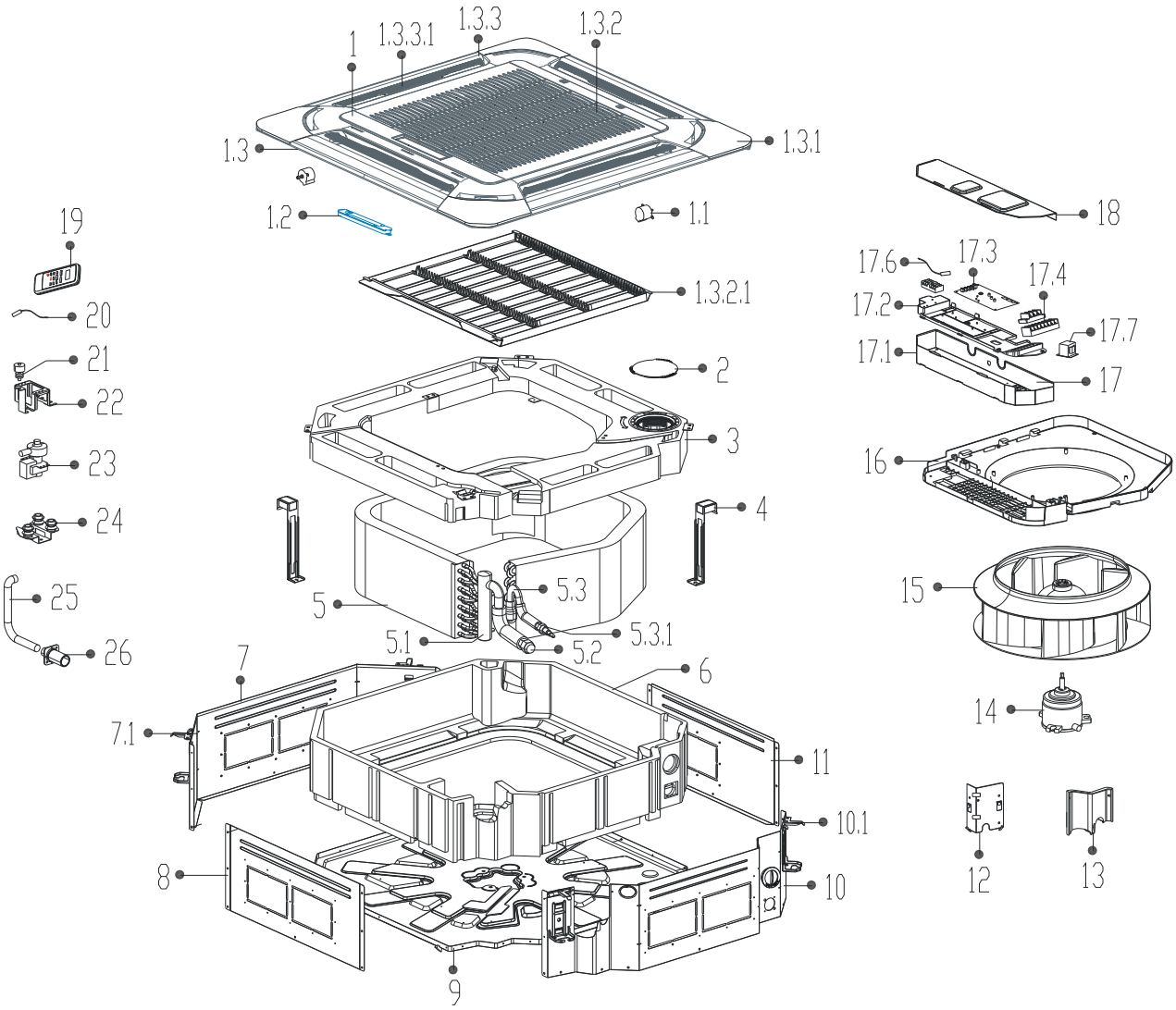
Exploded View of indoor unit: AWSI-CBF036-N11



Spare part list of indoor unit: AWSI-CBF036-N11

No.	Part Name	Qty	BOM Code	No.	Part Name	Qty	BOM Code
1	Panel assembly	1	2011099A2548	11	Board assembly Ⅳ	1	201242790003
1.1	Louver motor	2	202400100007	12	Evaporator fixing board	1	201242790011
1.2	Display box assembly	1	203342890005	13	Pipe fixing board assembly	1	201142790002
1.3	Panel assembly	1	P0000449603	14	Asynchronous motor	1	202400401545
1.3.1	Cover assembly of installation plate	4	P0000449698	15	Fan assembly	1	201100100846
1.3.2	Air inlet grille assembly	1	P0000449689	16	Ventilation assembly	1	201142790004
1.3.2.1	Air filter	1	201109901903	17	Electronic control box assembly	1	2033427A0102
1.3.3	Transmission framework	2	P0000449696	17.1	Electronic control box	1	201242590004
1.3.3.1	Louver	2	P0000449731	17.2	Insulation plate	1	201142590002
2	Cover	1	201142790001	17.3	Main control board assembly	1	2013427A0070
3	Foam tray assembly for condenser water	1	202242790002	17.4	Wire joint	1	202301450127
4	Evaporator fixing hanger	2	201242790008		Wire joint	1	202301450121
5	Evaporator assembly	1	201542790045	17.5	Capacitor	1	202401100505
5.1	Output pipe assembly	1	201642790058	17.6	Ambient temperature sensor assembly	1	202433190000
5.2	Copper nut	1	201600320004	18	Cover of electronic control box I	1	201242590023
5.3	Input pipe assembly	1	201642790043	19	Remote controller	1	203355091552
5.3.1	Copper nut	1	201600320001	20	Pipe temperature sensor	1	202301300303
6	Base foam assembly	1	202242790001	21	Water level sensor assembly	1	202301310095
7	Board assembly III	1	201242790007	22	Water Pump installation bracket assembly	1	201242990003
7.1	Hook	2	P0001115013	23	Drain pump	1	202400600203
8	Board assembly I	1	201242790004	24	Pump rubber washer	3	202742000002
9	Chassis assembly	1	201242790002	25	Drain pipe	1	202856001093
10	Board assembly II	1	201242790009	25	Drain pipe	1	202742590002
10.1	Hook	2	P0001115013	26	Water pipe	1	201142500032

Exploded View of indoor unit: AWSI-CBF048-N11

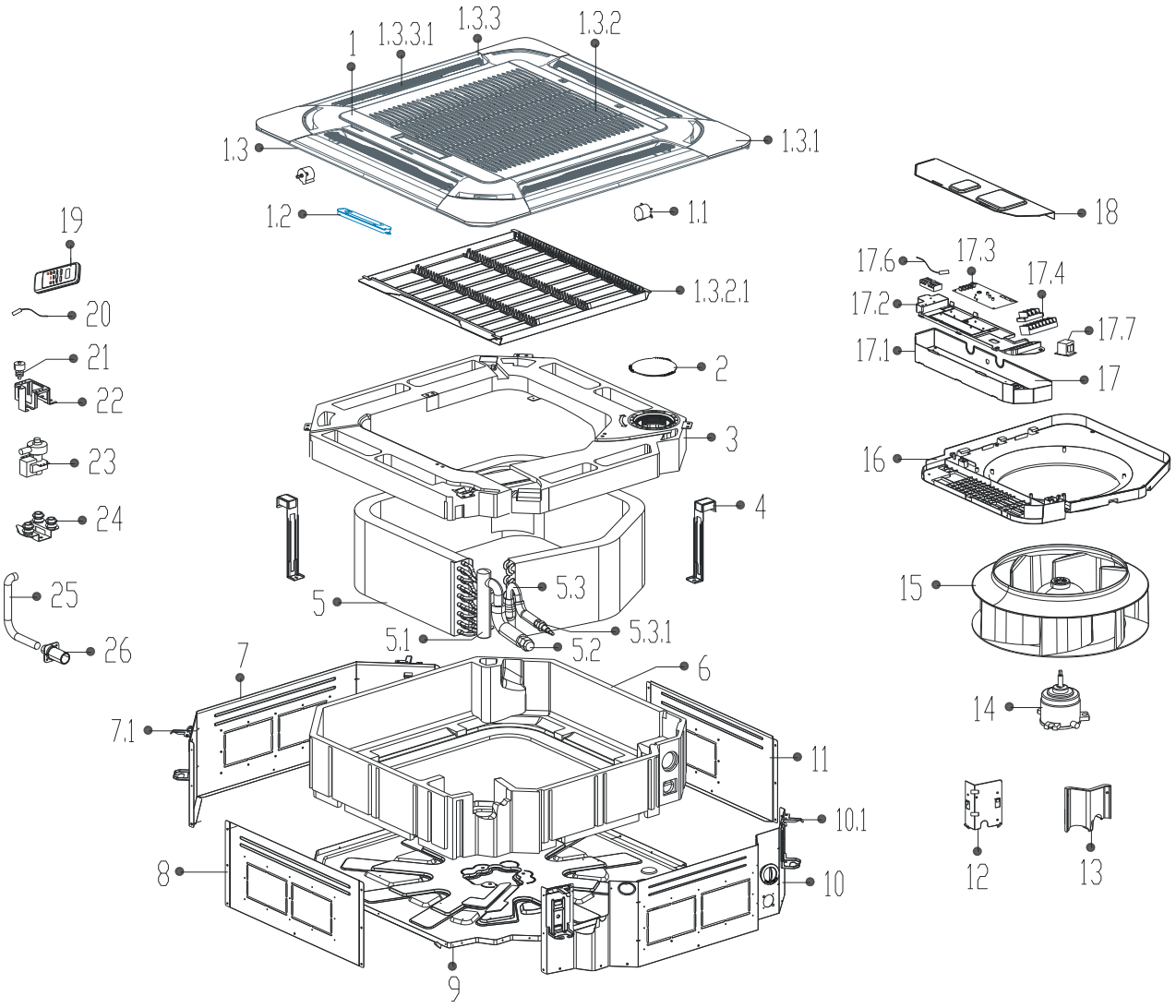


3

Spare part list of indoor unit: AWSI-CBF048-N11

No.	Part Name	Qty	BOM Code	No.	Part Name	Qty	BOM Code
1	Panel assembly	1	2011099A2548	11	Board assembly Ⅳ	1	201242790003
1.1	Louver motor	2	202400100007	12	Evaporator fixing board	1	201242790011
1.2	Display box assembly	1	203342890005	13	Pipe fixing board assembly	1	201142790002
1.3	Panel assembly	1	P0000449603	14	Asynchronous motor	1	202400300529
1.3.1	Cover assembly of installation plate	4	P0000449698	15	Fan assembly	1	201100100846
1.3.2	Air inlet grille assembly	1	P0000449689	16	Ventilation assembly	1	201142790004
1.3.2.1	Air filter	1	201109901903	17	Electronic control box assembly	1	203342990018
1.3.3	Transmission framework	2	P0000449696	17.1	Electronic control box	1	201242590004
1.3.3.1	Louver	2	P0000449731	17.2	Insulation plate	1	201142590002
2	Cover	1	201142790001	17.3	Main control board assembly	1	201342990005
3	Foam tray assembly for condenser water	1	202242790002	17.4	Wire joint	1	202301450125
4	Evaporator fixing hanger	2	201242890006	17.4	Wire joint	1	202301450116
5	Evaporator assembly	1	201542890048	17.6	Ambient temperature sensor assembly	1	202440120100
5.1	Output pipe assembly	1	201642890067	17.7	Reactance	1	202301000950
5.2	Copper nut	1	201600320004	18	Cover of electronic control box I	1	201242590023
5.3	Input pipe assembly	1	201642890048	19	Remote controller	1	203355091552
5.3.1	Copper nut	1	201600320001	20	Pipe temperature sensor	1	202440500004
6	Base foam assembly	1	202242790001	21	Water level sensor assembly	1	202301310095
7	Board assembly III	1	201242790007	22	Water Pump installation bracket assembly	1	201242990003
7.1	Hook	2	P0001115013	23	Drain pump	1	202400600203
8	Board assembly I	1	201242790004	24	Pump rubber washer	3	202742000002
9	Chassis assembly	1	201242590012	25	Drain pipe	1	202856001093
10	Board assembly II	1	201242790009	25	Drain pipe	1	202742590002
10.1	Hook	2	P0001115013	26	Water pipe	1	201142500032

Exploded View of indoor unit: AWSI-CBF060-N11



Spare part list of indoor unit: AWSI-CBF060-N11

No.	Part Name	Qty	BOM Code	No.	Part Name	Qty	BOM Code
1	Panel assembly	1	2011099A2548	11	Board assembly Ⅳ	1	201242990036
1.1	Louver motor	2	202400100007	12	Evaporator fixing board	1	201242790011
1.2	Display box assembly	1	203342890005	13	Pipe fixing board assembly	1	201142790002
1.3	Panel assembly	1	P0000449603	14	Asynchronous motor	1	202400300529
1.3.1	Cover assembly of installation plate	4	P0000449698	15	Fan assembly	1	201100100846
1.3.2	Air inlet grille assembly	1	P0000449689	16	Ventilation assembly	1	201142990003
1.3.2.1	Air filter	1	201109901903	17	Electronic control box assembly	1	203342990019
1.3.3	Transmission framework	2	P0000449696	17.1	Electronic control box	1	201242590004
1.3.3.1	Louver	2	P0000449731	17.2	Insulation plate	1	201142590002
2	Cover	1	201142790001	17.3	Main control board assembly	1	201342990007
3	Foam tray assembly for condenser water	1	202242790002	17.4	Wire joint	1	202301450125
4	Evaporator fixing hanger	2	201242990039	17.4	Wire joint	1	202301450116
5	Evaporator assembly	1	201542990027	17.6	Ambient temperature sensor assembly	1	202440120100
5.1	Output pipe assembly	1	201642990041	17.7	Reactance	1	202301000950
5.2	Copper nut	1	201600320004	18	Cover of electronic control box I	1	201242590023
5.3	Input pipe assembly	1	201642990006	19	Remote controller	1	203355091552
5.3.1	Copper nut	1	201600320001	20	Pipe temperature sensor	1	202440500004
6	Base foam assembly	1	202242990004	21	Water level sensor assembly	1	202301310095
7	Board assembly III	1	201242990035	22	Water Pump installation bracket assembly	1	201242990003
7.1	Hook	2	P0001115013	23	Drain pump	1	202400600203
8	Board assembly I	1	201242990034	24	Pump rubber washer	3	202742000002
9	Chassis assembly	1	201242590012	25	Drain pipe	1	202856001093
10	Board assembly II	1	201242990037	25	Drain pipe	1	202742590002
10.1	Hook	2	P0001115013	26	Water pipe	1	201142500032

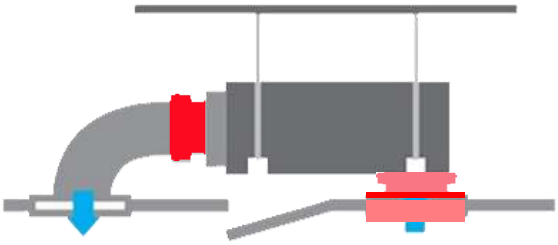
Duct Type

1. Features

1.1 Installation accessories: (Optional)

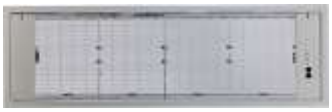
- Front Board, Canvas Air Passage, Filter, Panel, for easy installation

Front Board



Canvas Air Passage

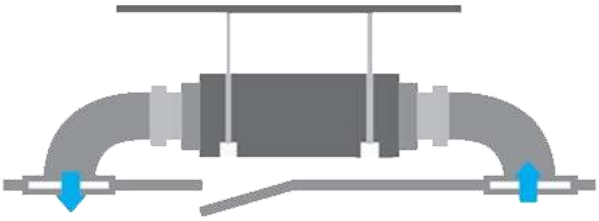
Filter



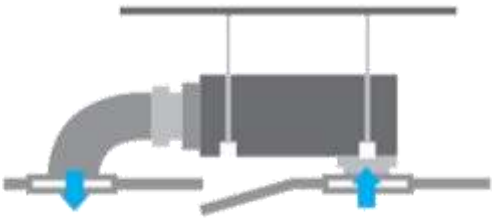
Panel

1.2 Easy Installation: Two air inlet styles (Bottom side or Rear side)

- Air inlet from rear is standard for all capacity; air inlet from bottom is optional.
- The size of air inlet frame from rear and bottom is same, it's very easy to move the cover from bottom to rear side, or from rear to the bottom, in order to matching the installation condition.



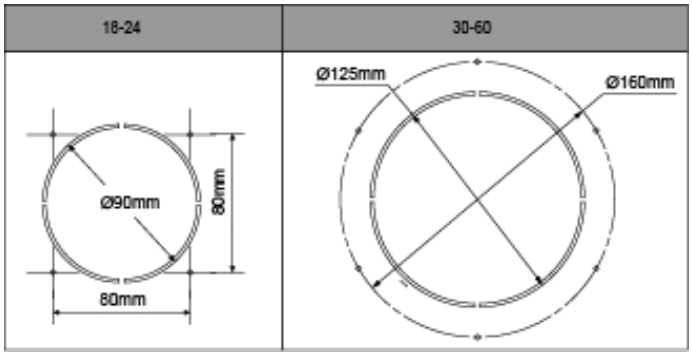
Air intake from rear (Standard)



Air intake from bottom (Optional)

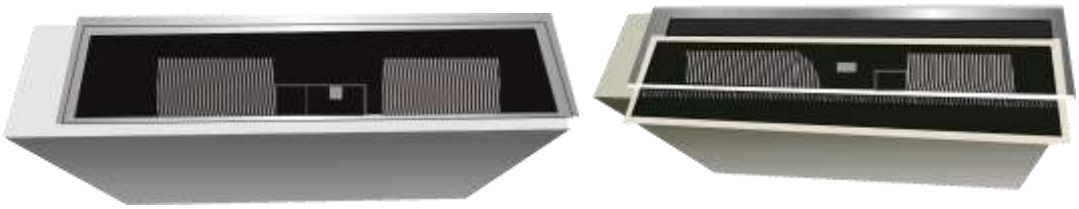
1.3 Fresh air intake function

- Install one duct from the reserved fresh-air intake to outdoor.
  Continually inhale the fresh air to improve the quality of the indoor air, fulfills air quality more healthy and comfortable.

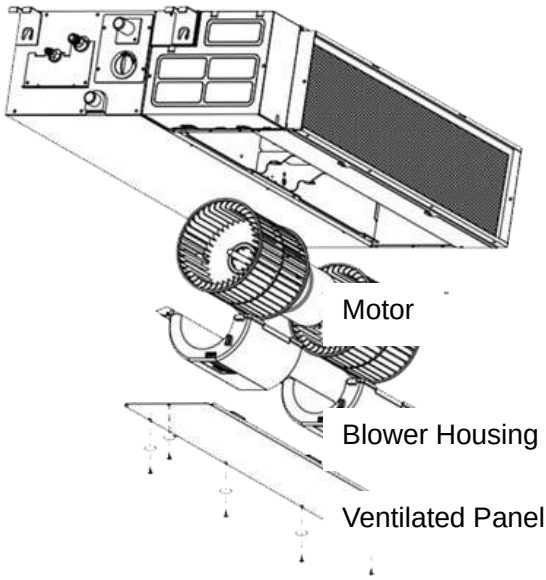


1.4 Easy maintenance

- Clean the filter (Optional, standard product without filter)
  It is easy to draw out the filter from the indoor unit for cleaning, even the filter is installed in rear side or bottom side.

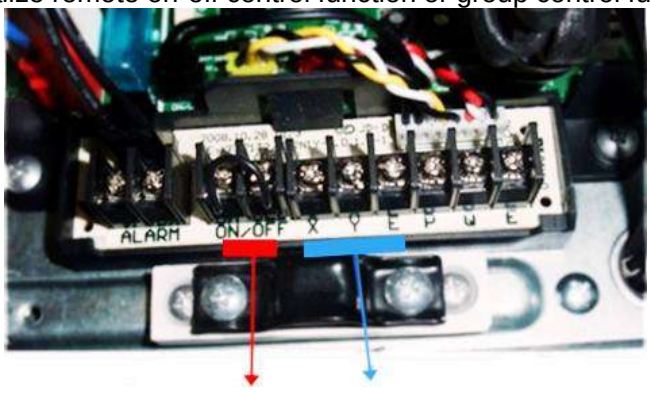


- Replace the motor or centrifugal fan
  Remove the ventilated panel firstly. Remove a half of blower housing and take out the motor with centrifugal fan. Directly remove two bolts, and then replace the motor or centrifugal fan easily.



1.5 Reserved remote on-off and central control ports

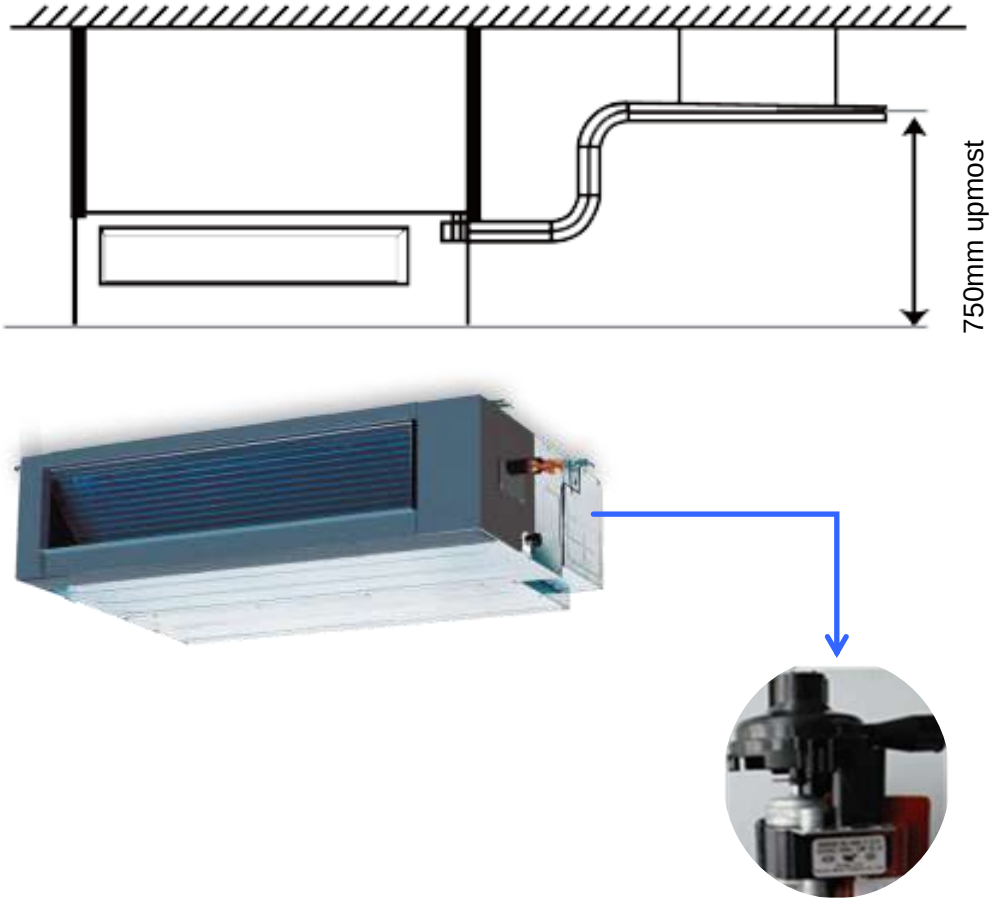
- Reserved remote on-off ports and central control ports, can connect the cable of an on-off controller or a central controller to realize remote on-off control function or group control function.



Remote on-off ports Central control ports

1.6 Built-in drain pump (Optional):

- Built-in drain pump can lift the water to 750mm upmost. It's convenient to install drainage piping under most space condition.



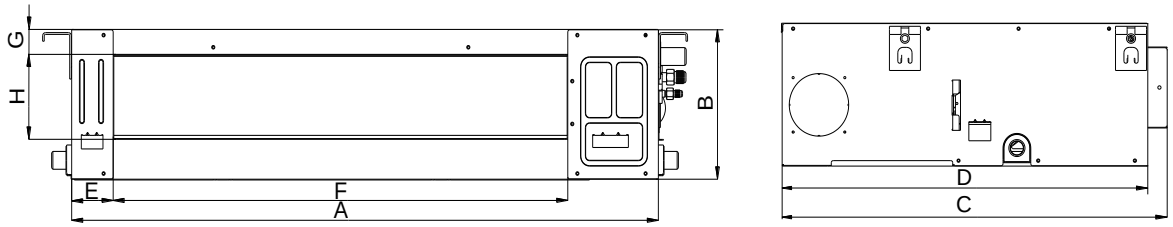
1.7 Built-in display board

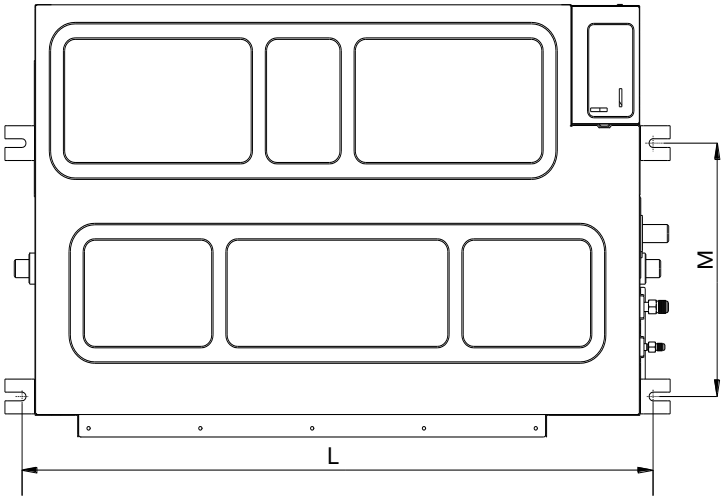
- The standard indoor unit can be controlled by wired controller.
- There is a display board with a receiver in the E-box. Move out the display, and fix it in other place, even in the distance of 10m. The unit will realized remoter control.
- The wired controller and the display board can display the error code or production code when the chips detect some failure.

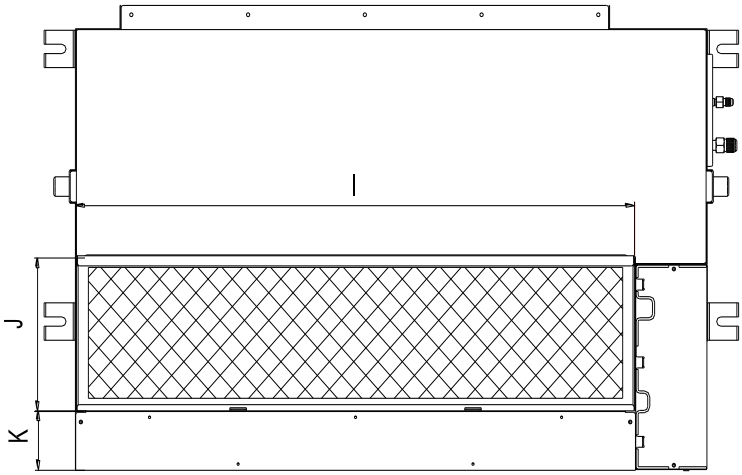
Wired Controller (Standard)

Remote Controller (Optional)

2. Dimensions



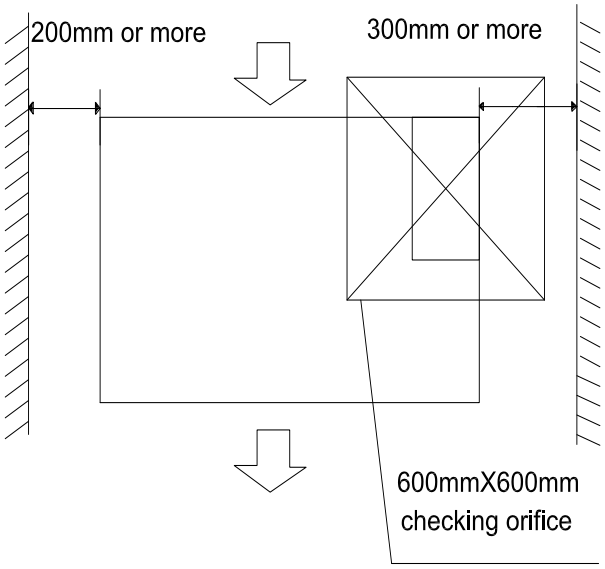




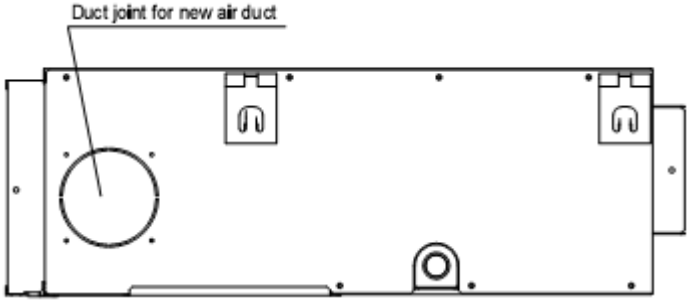
Model	Outline dimension(mm)				Air outlet opening size				Air return opening size			Size of outline dimension mounted plug	
	A	B	C	D	E	F	G	H	I	J	K	L	M
AWSI-DBF012-N11	700	210	635	570	65	493	35	119	595	200	80	740	350
AWSI-DBF018-N11	920	270	635	570	65	713	35	179	815	260	20	960	350
AWSI-DBF024-N11	920	270	635	570	65	713	35	179	815	260	20	960	350
AWSI-DBF030-N11	1140	270	775	710	65	933	35	179	1035	260	20	1180	490
AWSI-DBF036-N11	1140	270	775	710	65	933	35	179	1035	260	20	1180	490
AWSI-DBF048-N11	1200	300	865	800	80	968	40	204	1094	288	45	1240	500
AWSI-DBF060-N11	1200	300	865	800	80	968	40	204	1094	288	45	1240	500

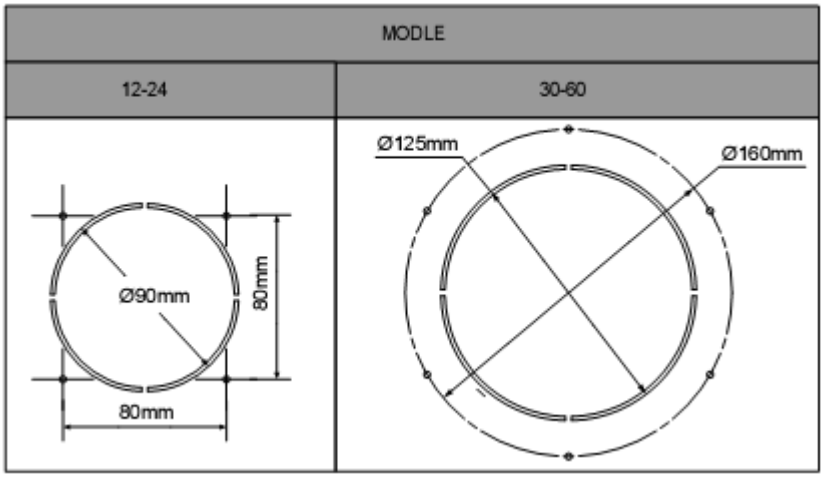
3. Service Space

Ensure enough space required for installation and maintenance.



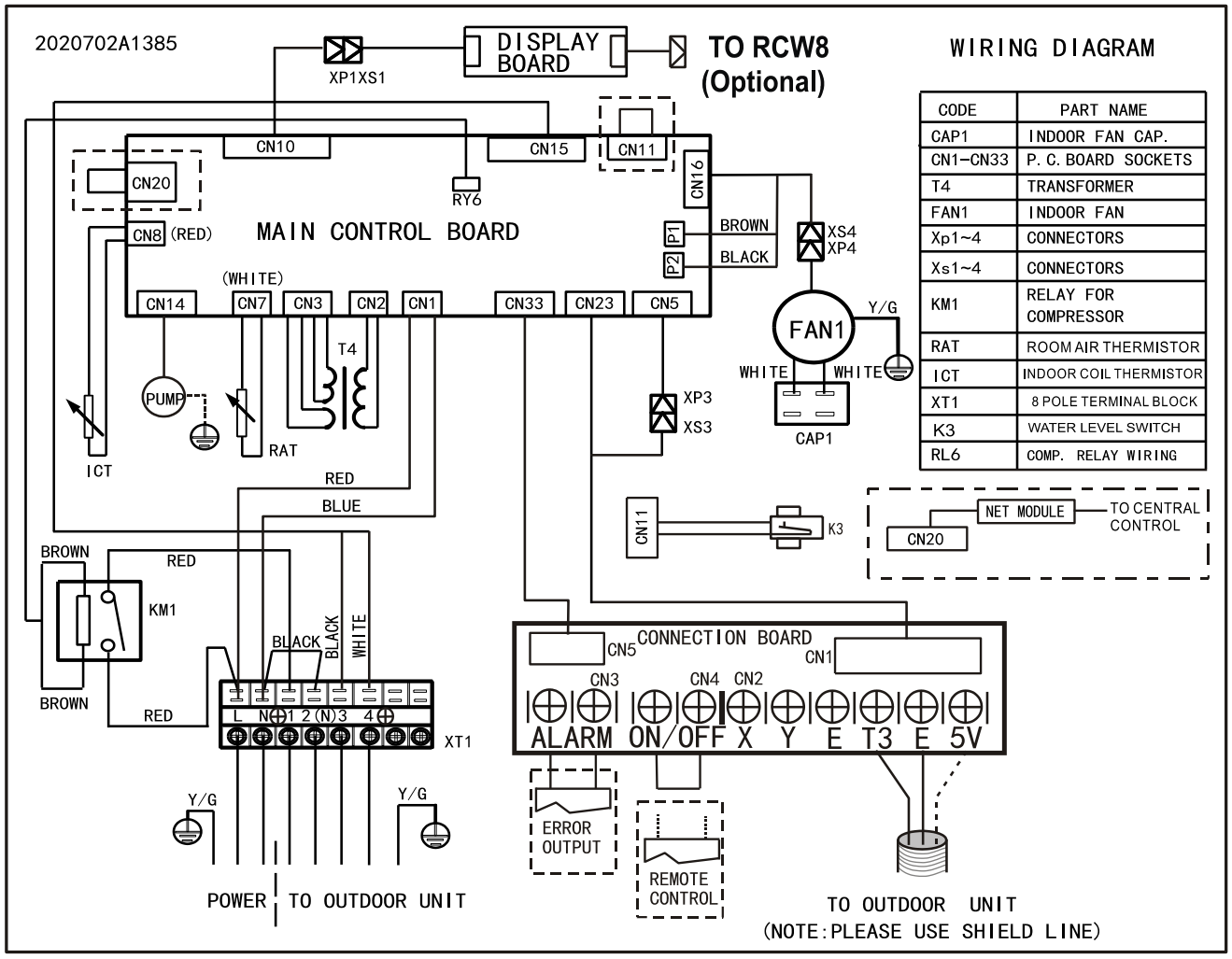
All the indoor units reserve the hole to joint the fresh air pipe. The hole size as following:





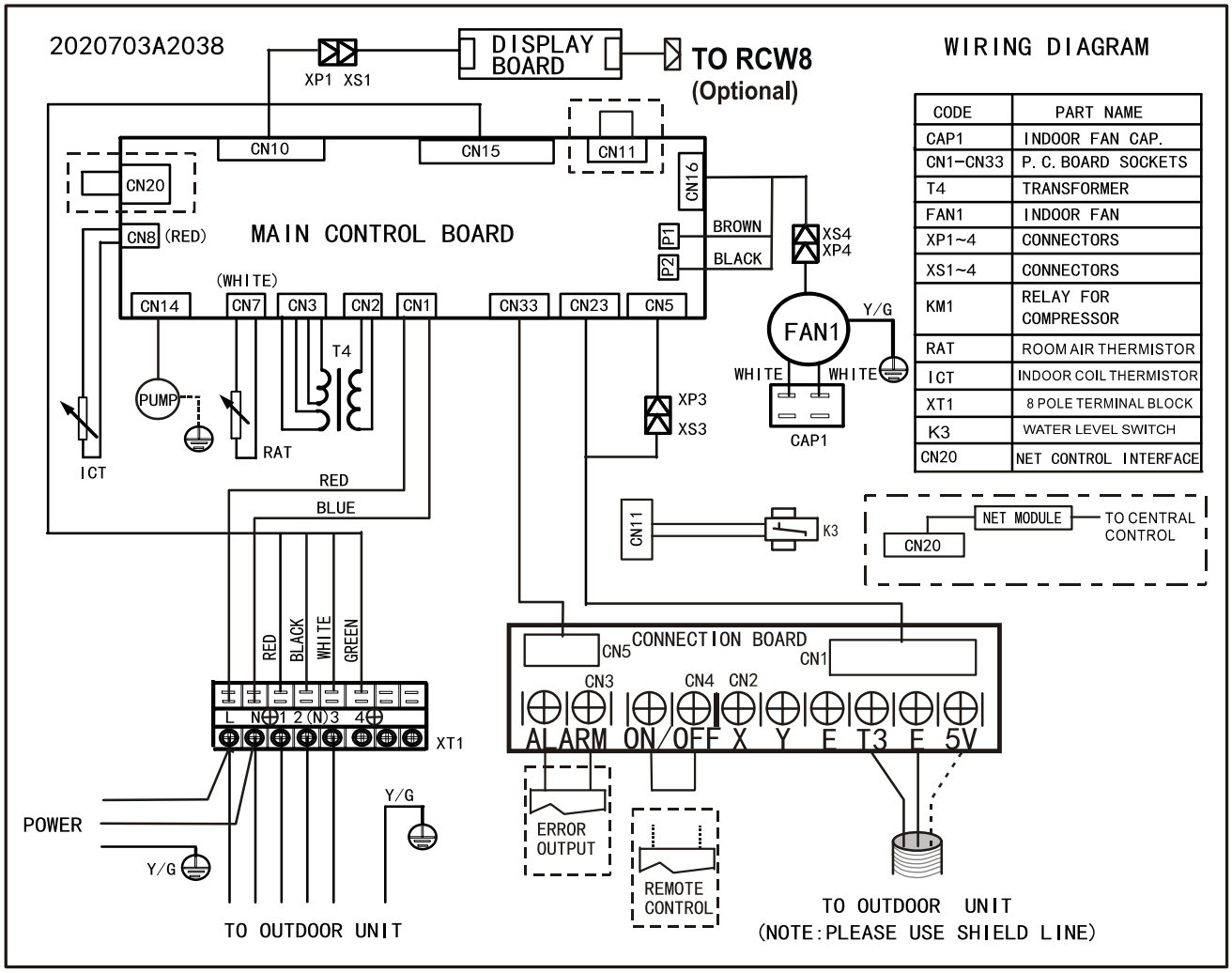
4. Wiring Diagrams

AWSI-DBF012-N11 AWSI-DBF018-N11



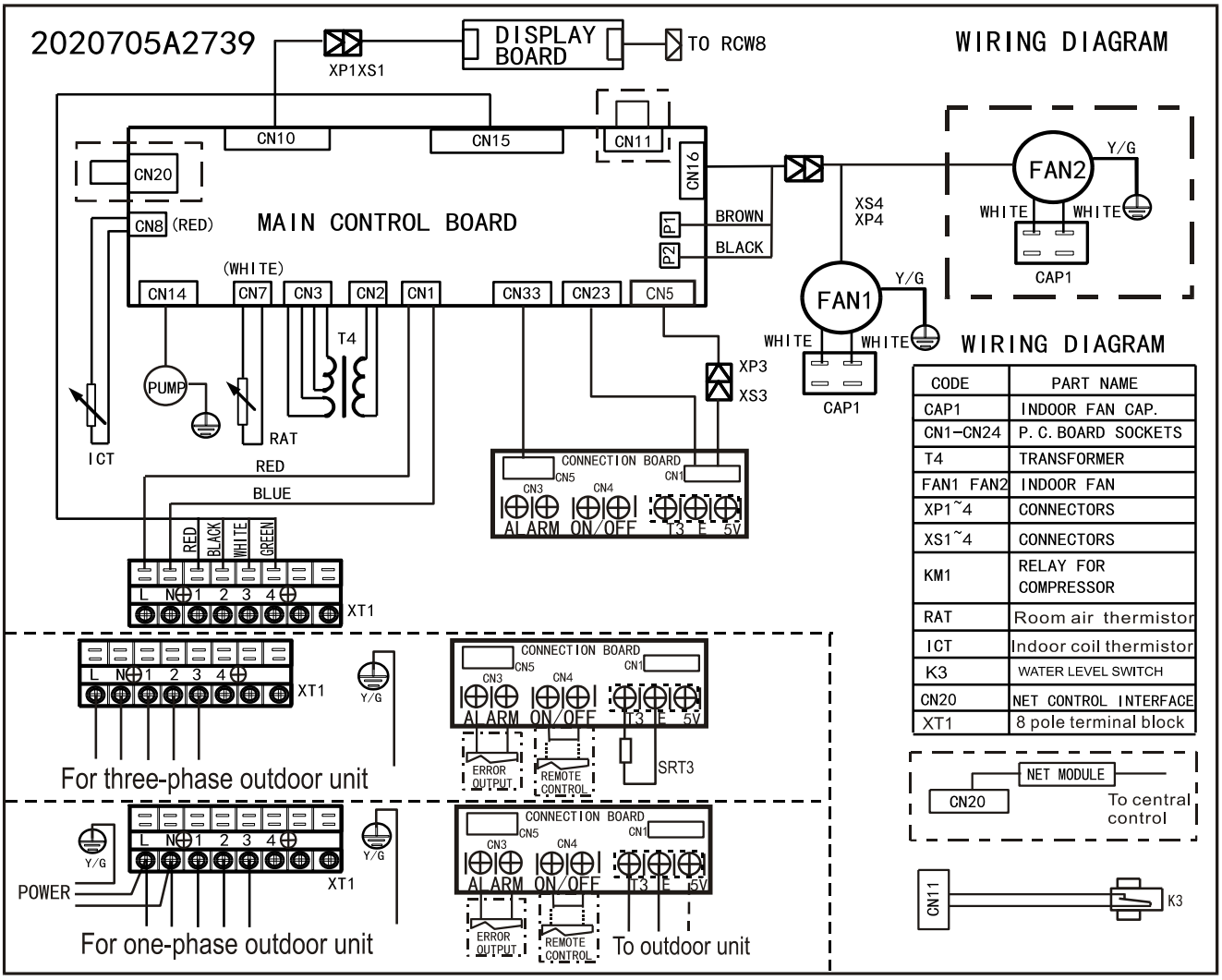
CODE	PART NAME
CAP1	INDOOR FAN CAP.
CN1-CN33	P. C. BOARD SOCKETS
T4	TRANSFORMER
FAN1	INDOOR FAN
Xp1~4	CONNECTORS
Xs1~4	CONNECTORS
KM1	RELAY FOR COMPRESSOR
RAT	ROOM AIR THERMISTOR
ICT	INDOOR COIL THERMISTOR
XT1	8 POLE TERMINAL BLOCK
K3	WATER LEVEL SWITCH
RL6	COMP. RELAY WIRING

AWSI-DBF024-N11 AWSI-DBF030-N11



CODE	PART NAME
CAP1	INDOOR FAN CAP.
CN1–CN33	P. C. BOARD SOCKETS
T4	TRANSFORMER
FAN1	INDOOR FAN
XP1~4	CONNECTORS
XS1~4	CONNECTORS
KM1	RELAY FOR COMPRESSOR
RAT	ROOM AIR THERMISTOR
ICT	INDOOR COIL THERMISTOR
XT1	8 POLE TERMINAL BLOCK
K3	WATER LEVEL SWITCH
CN20	NET CONTROL INTERFACE

AWSI-DBF036-N11



CODE	PART NAME
CAP1	INDOOR FAN CAP.
CN1–CN24	P. C. BOARD SOCKETS
T4	TRANSFORMER
FAN1 FAN2	INDOOR FAN
XP1~4	CONNECTORS
XS1~4	CONNECTORS
KM1	RELAY FOR COMPRESSOR
RAT	Room air thermistor
ICT	Indoor coil thermistor
K3	WATER LEVEL SWITCH
CN20	NET CONTROL INTERFACE
XT1	8 pole terminal block

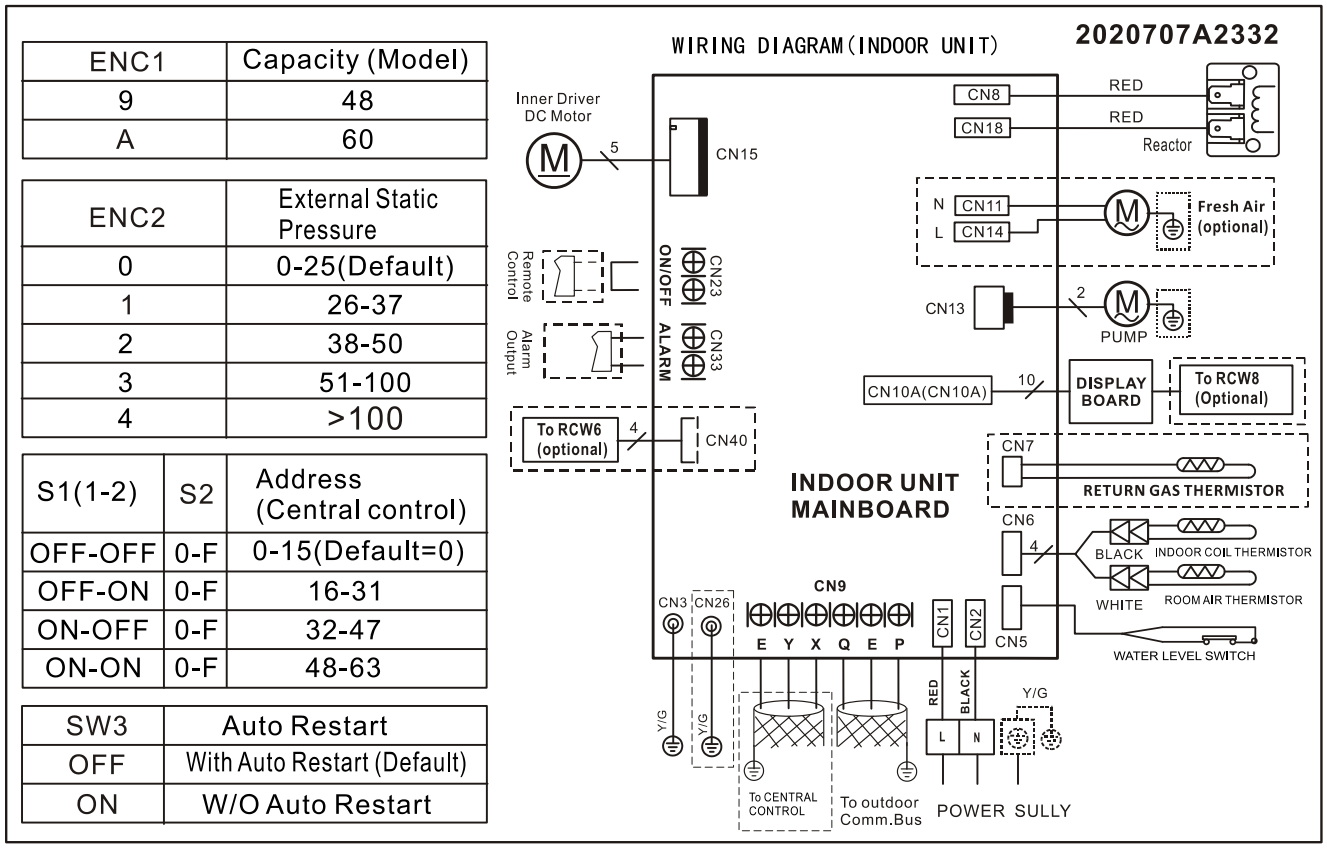
AWSI-DBF048-N11 AWSI-DBF060-N11

ENC1	Capacity (Model)
9	48
A	60

ENC2	External Static Pressure
0	0-25(Default)
1	26-37
2	38-50
3	51-100
4	>100

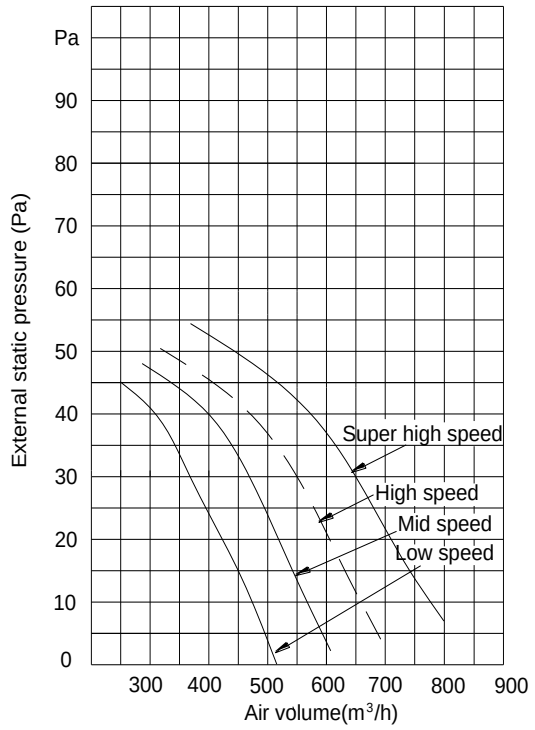
S1(1-2)	S2	Address (Central control)
OFF-OFF	0-F	0-15(Default=0)
OFF-ON	0-F	16-31
ON-OFF	0-F	32-47
ON-ON	0-F	48-63

SW3	Auto Restart
OFF	With Auto Restart (Default)
ON	W/O Auto Restart

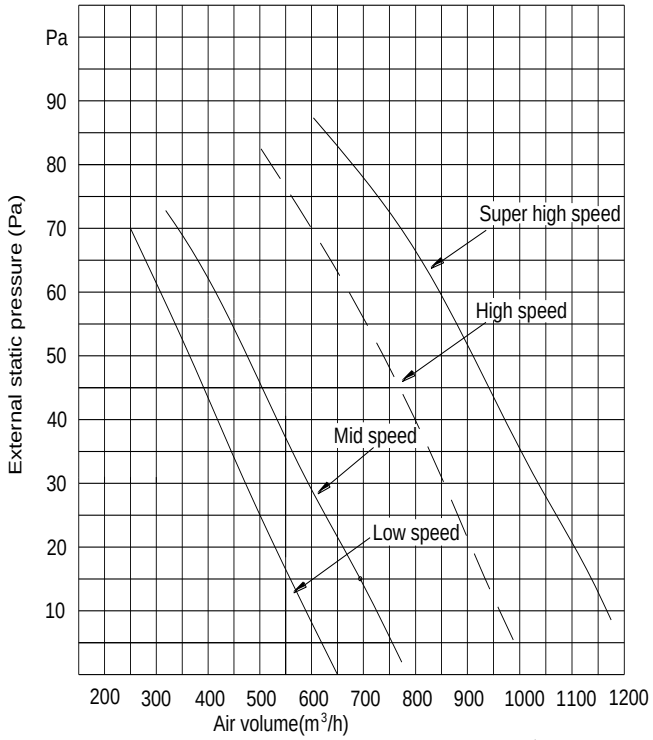


5. Static Pressure

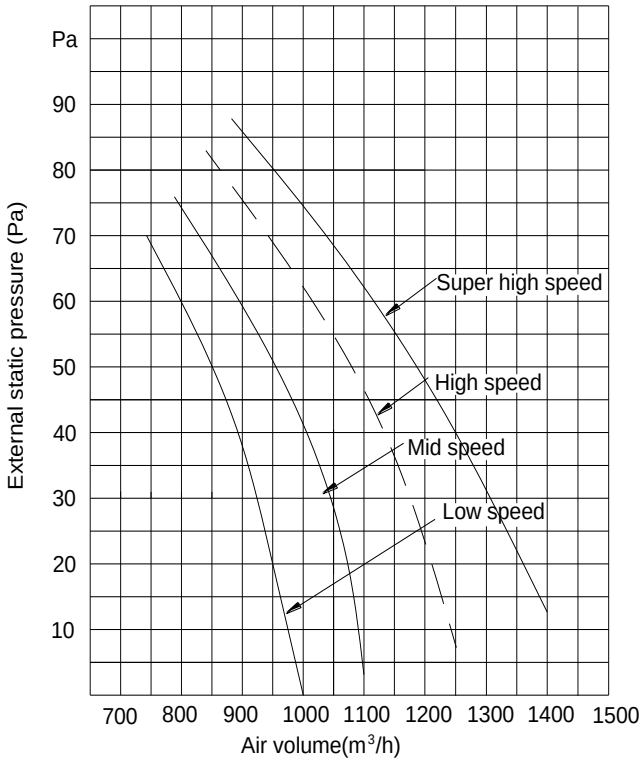
12,000Btu/h



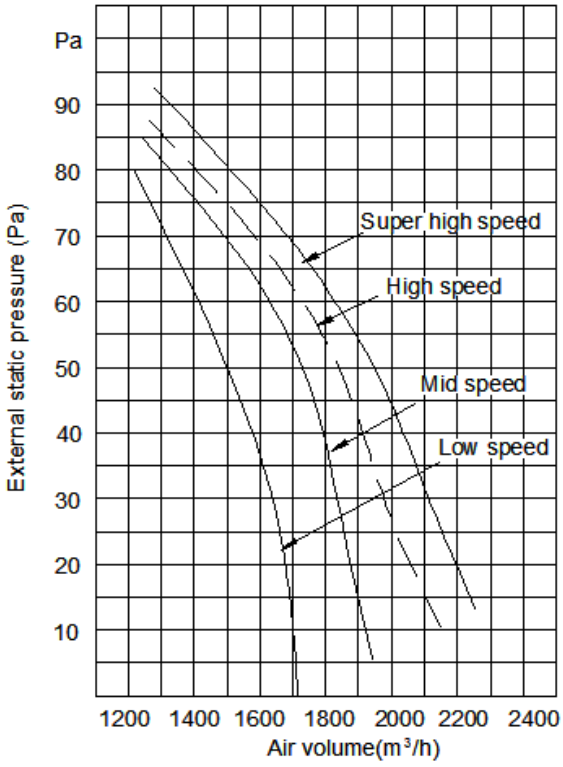
18,000Btu/h



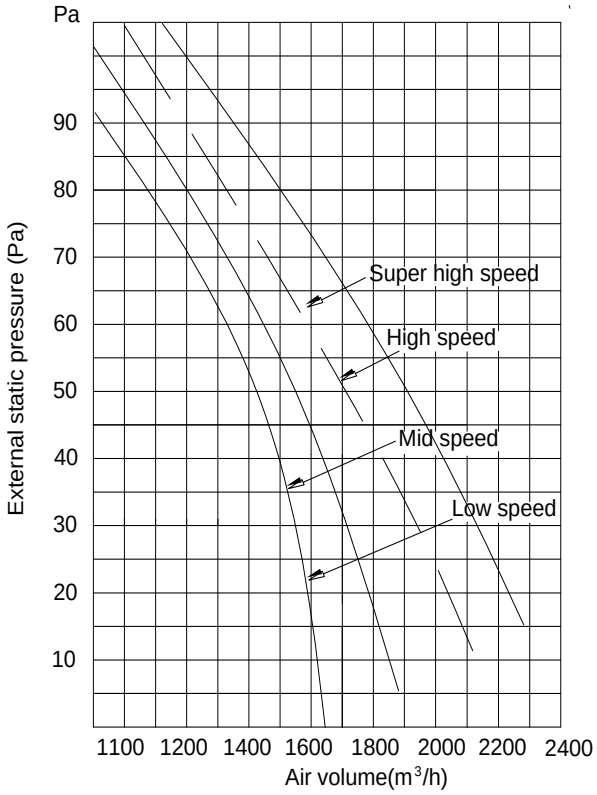
24,000Btu/h



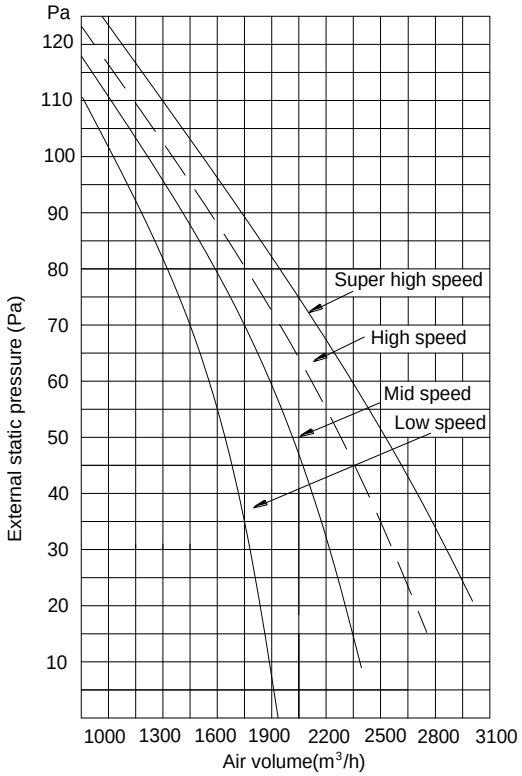
30,000Btu/h



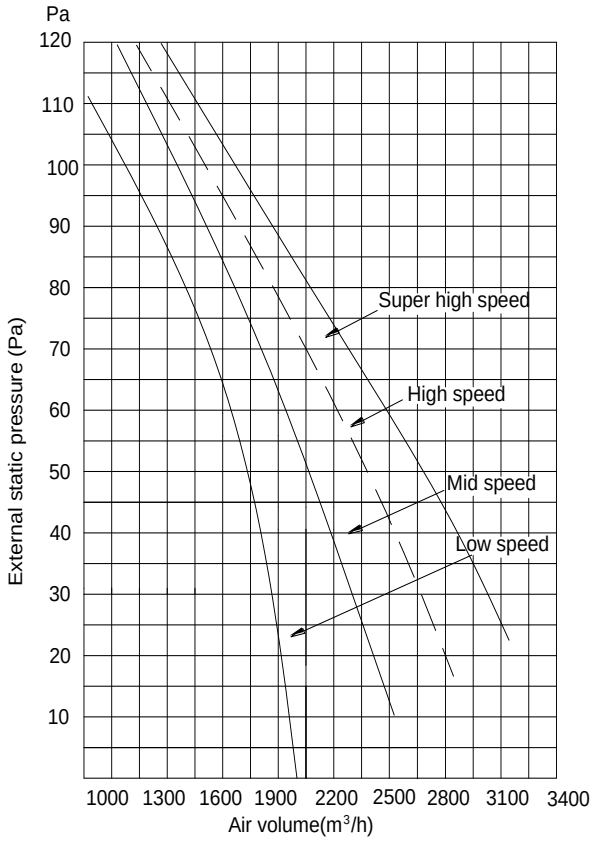
36,000Btu/h



48,000Btu/h



60,000Btu/h

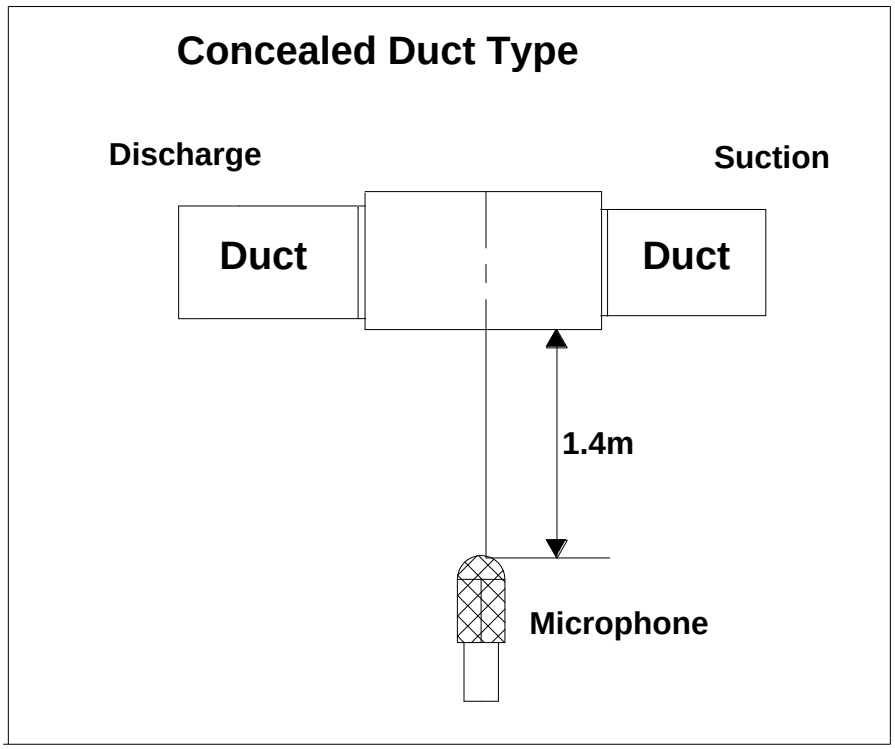


6. Electric Characteristics

Model	Indoor Unit				Power Supply
	Hz	Voltage	Min.	Max.	MFA
AWSI-DBF012-N11	50	220-240	198	254	16
AWSI-DBF018-N11	50	220-240	198	254	16
AWSI-DBF024-N11	50	220-240	198	254	25
AWSI-DBF030-N11	50	220-240	198	254	30
AWSI-DBF036-N11(match with 1-phase outdoor unit)	50	220-240	198	254	30
AWSI-DBF036-N11(match with 3-phase outdoor unit)	50	220-240	198	254	/
AWSI-DBF048-N11	50	220-240	198	254	16
AWSI-DBF060-N11	50	220-240	198	254	16

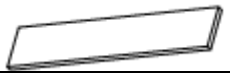
Note:
MFA: Max. Fuse Amps. (A)

7. Sound Levels



Model	Sound Power dB(A)	Noise level dB(A)		
		H	M	L
AWSI-DBF012-N11	53	43	37	31
AWSI-DBF018-N11	54	44	37	33
AWSI-DBF024-N11	54	44	37	34
AWSI-DBF030-N11	58	48	42	40
AWSI-DBF036-N11	59	49	43	40
AWSI-DBF048-N11	59	49	45	40
AWSI-DBF060-N11	59	49	45	40

8. Accessories

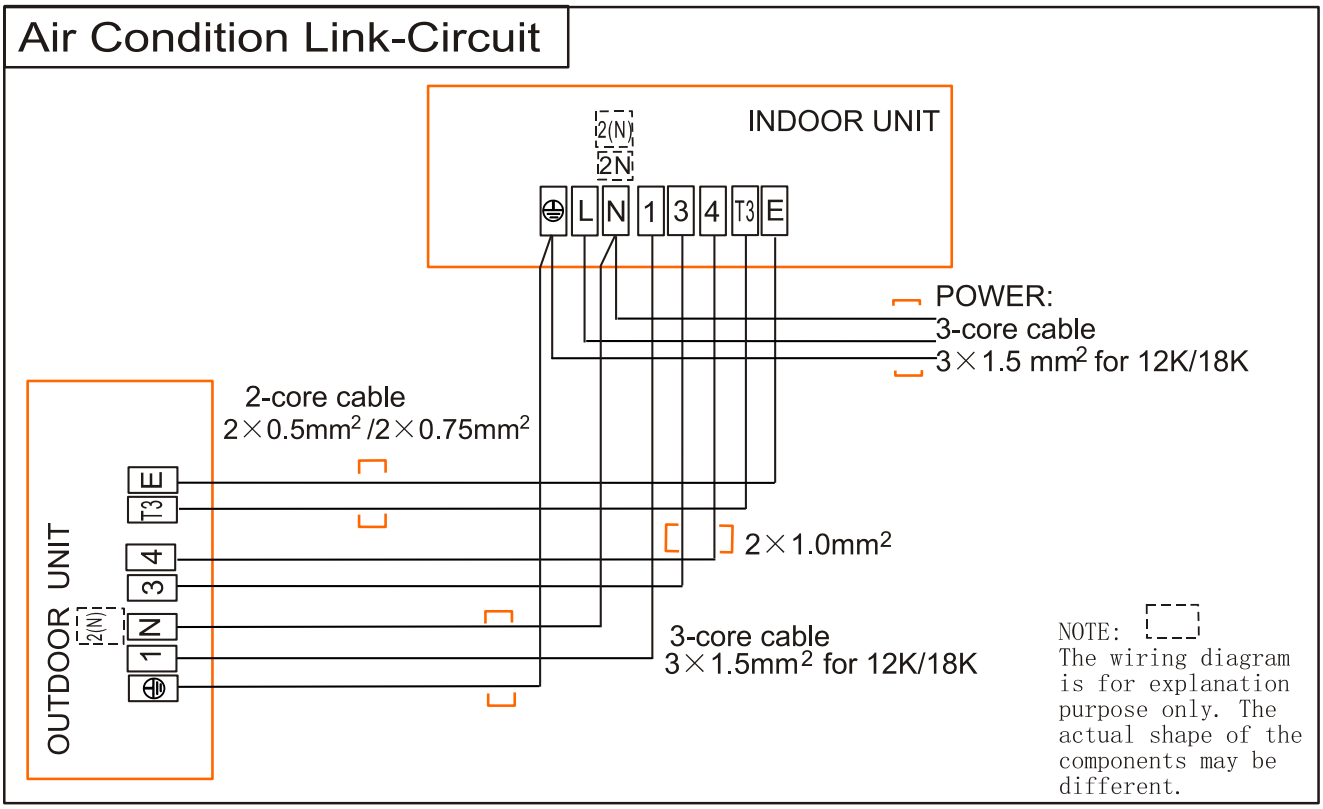
	Name	Shape	Quantity
Tubing & Fittings	Soundproof / insulation sheath		2
	Binding tape		1
	Seal sponge		1
Drainpipe Fittings (for cooling & heating)	Drain joint		1
	Seal ring		1
Wired controller & Its Frame	Wired controller		1
Others	Owner' s manual		1
	Installation manual		1

9. The Specification of Power

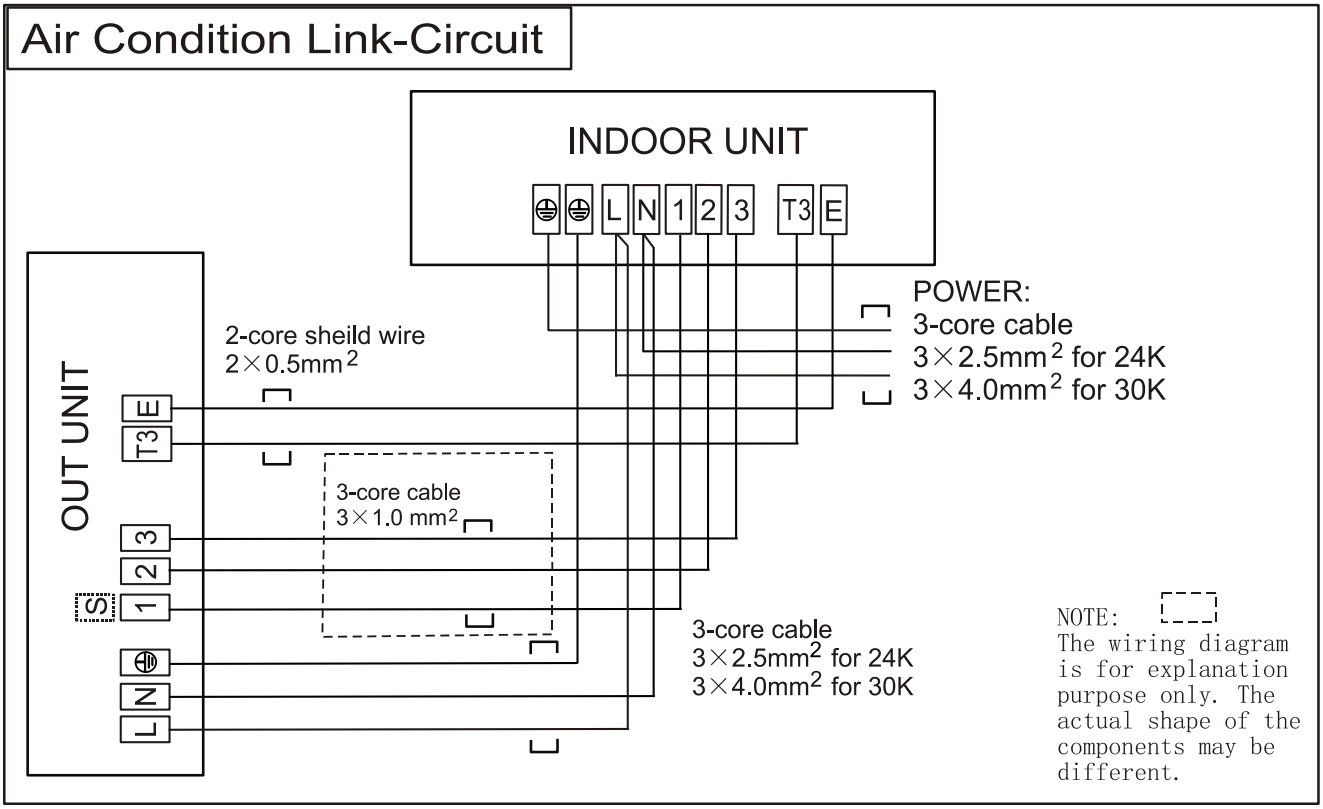
Capacity(Btu/h)		12000-18000	24000	30000-36000	36000	48000-60000
Indoor Unit Power	Phase	1-phase	1-phase	1-phase	——	1-phase
	Frequency and Voltage	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz	——	220-240V, 50Hz
	Power Wiring(mm^2)	3×1.5	3×2.5	3×4.0	——	3×1.0
	Circuit Breaker/Fuse(A)	20/16	40/25	50/30	——	20/16
Outdoor Unit Power	Phase	——	——	——	3-phase	3-phase
	Frequency and Voltage	——	——	——	380-415V, 50Hz	380-415V, 50Hz
	Power Wiring(mm^2)	——	——	——	5×2.5	5×2.5
	Circuit Breaker/ Fuse (A)	——	——	——	25/20	25/20
Indoor/Outdoor Connecting Wiring(Weak Electric Signal)(mm^2)		2-core shield wire 2×0.75/2×0.5	2×0.5	2×0.75	——	3×0.5
Indoor/Outdoor Connecting Wiring(Strong Electric Signal)(mm^2)		2×1.0	3×1.0	3×1.0	3×1.0	——

10. Field Wiring

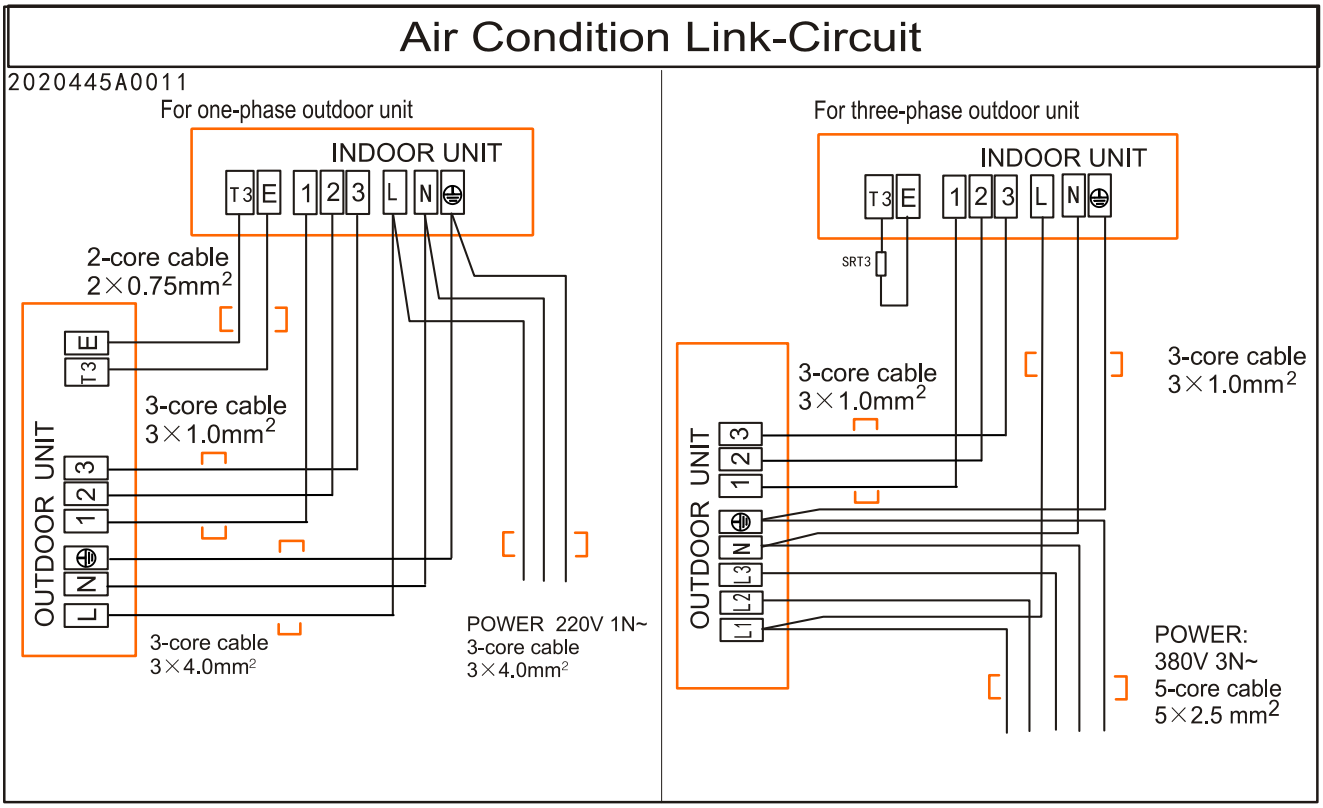
AWSI-DBF012-N11 AWSI-DBF018-N11



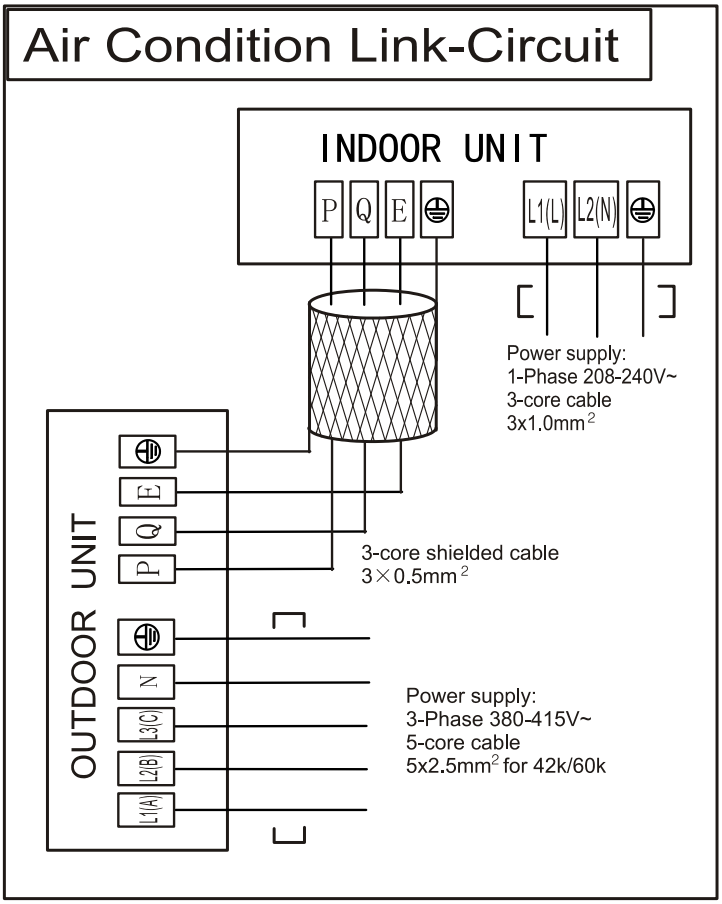
AWSI-DBF024-N11 AWSI-DBF030-N11



AWSI-DBF036-N11

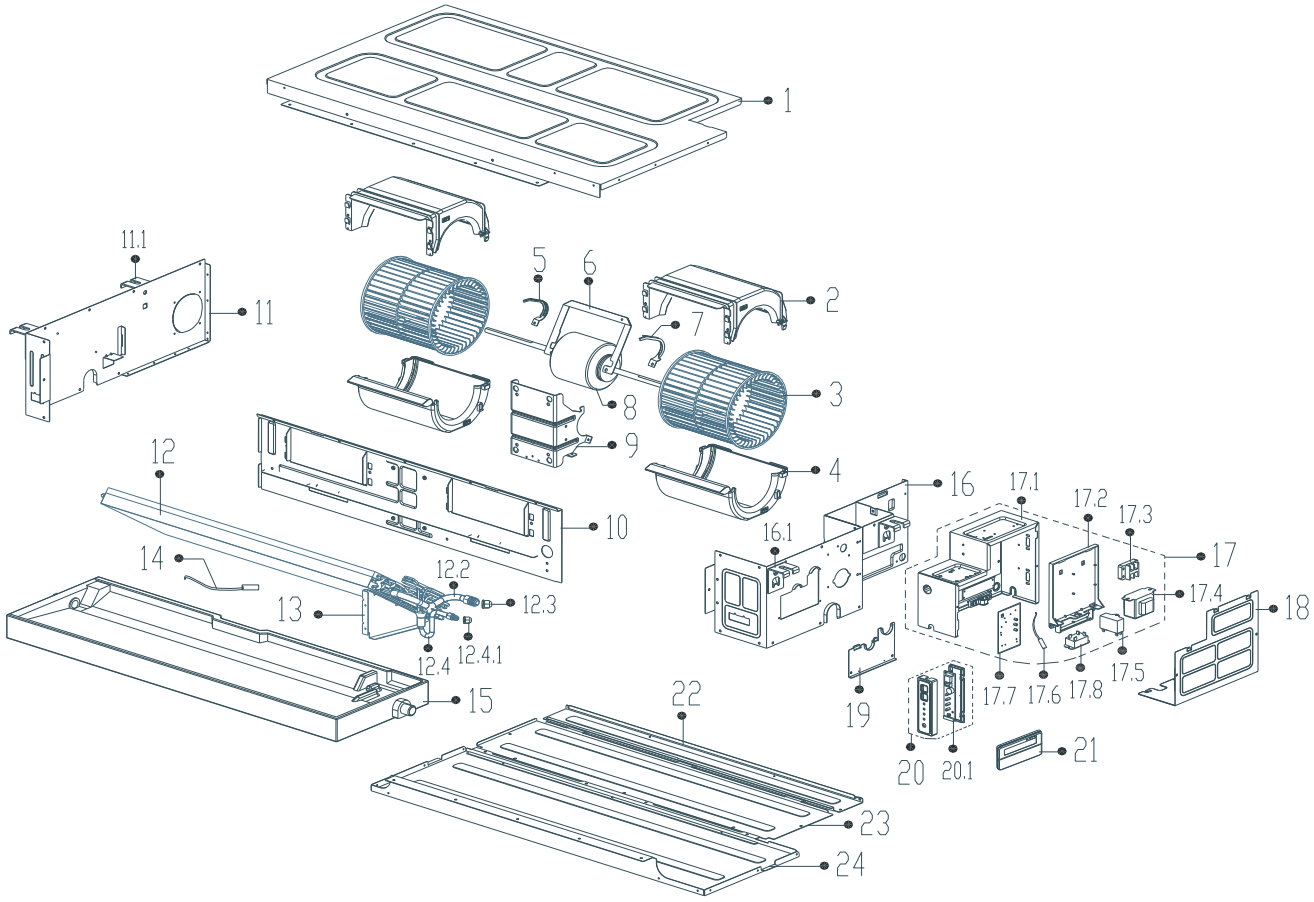


AWSI-DBF048-N11 AWSI-DBF060-N11



11. Exploded View and Spare Part list

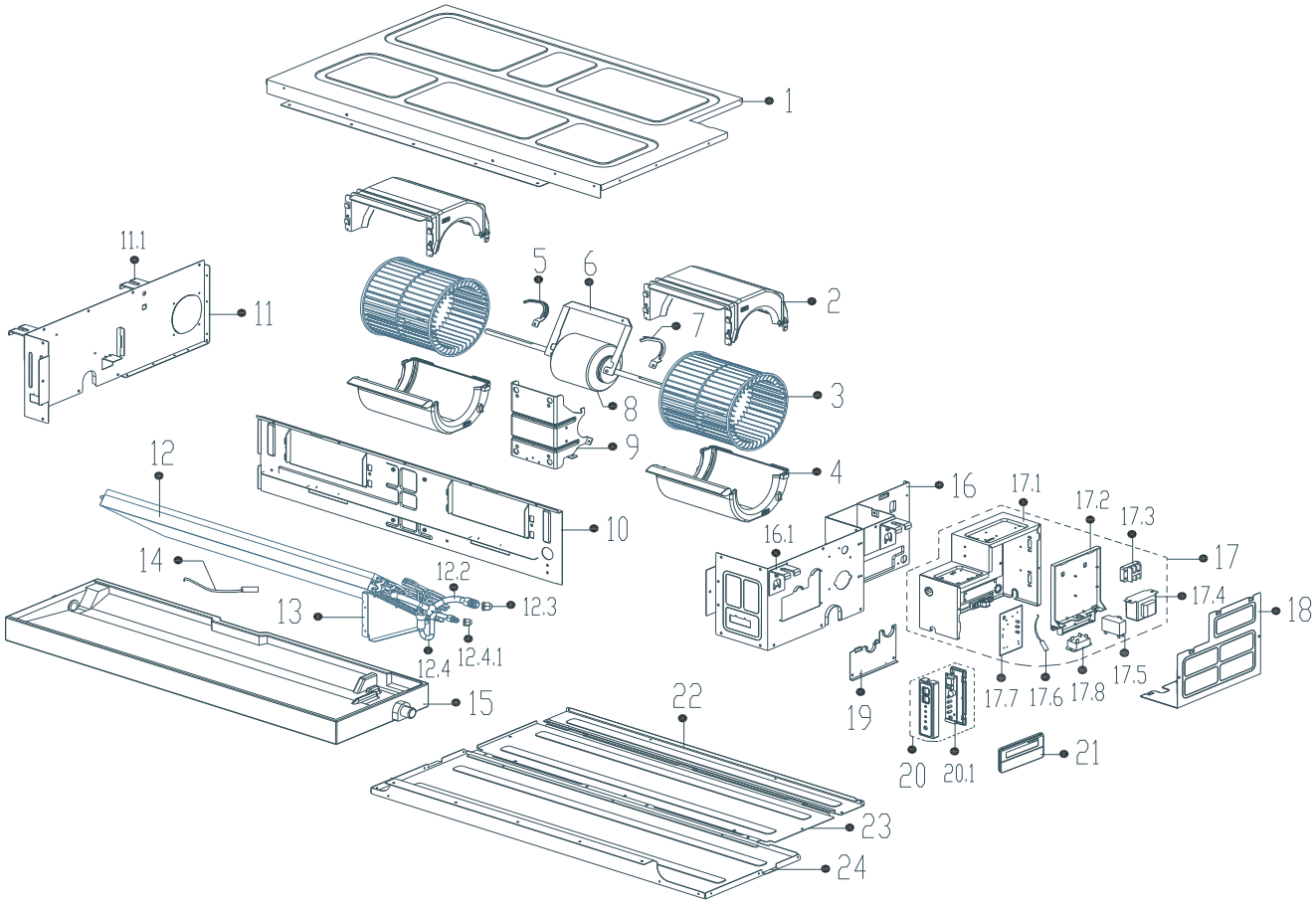
Exploded View of indoor unit: AWSI-DBF012-N11



Spare part list of indoor unit: AWSI-DBF012-N11

No.	Part Name	Qty	BOM Code	No.	Part Name	Qty	BOM Code
1	Chassis assembly	1	201285190007	17	Electronic control box assembly	1	203370190009
2	Up volute shell	2	201185190001	17.1	Electronic control box	1	201270290163
3	Centrifugal fan	2	201100100809	17.2	Connection board assembly	1	201370290016
4	Below volute shell	2	201185190002	17.3	Wire joint	1	202301450127
5	Fan motor axes clamp (left)	1	201280200005	17.4	Transformer	1	202300900581
6	Fan motor fixing board	1	201285090016	17.5	Capacitor	1	202401190048
7	Fan motor axes clamp (right)	1	201280200006	17.6	Ambient temperature sensor assembly	1	202433190000
8	Asynchronous motor	1	202400401550	17.7	Main control board assembly	1	201370290014
9	Supporter of fan motor	1	201270290028	17.8	Relay	1	202300800071
10	Middle beam assembly	1	201285190002	18	Cover of electronic control box	1	201270290081
11	Left clapboard assembly	1	201270290091	19	Pipe clamp board assembly	1	201270290082
11.1	Hook	2	201270890021	20	Display box assembly	1	2033702A0077
12	Evaporator assembly	1	201570190009	20.1	Display board assembly	1	201370290012
12.2	Output pipe assembly	1	201670190023	21	Wired controller	1	2033551A4281
12.3	Copper nut	1	201600320002	22	Rear beam	1	201285190003
12.4	Input pipe assembly	1	201670190020	23	Rear cover assembly	1	201285190004
12.4.1	Copper nut	1	201600320000	24	Top cover assembly	1	201285190008
13	Evaporator right support board assembly	1	201270290034		Drain pump	1	202400600005
14	Pipe temperature sensor assembly	1	202301300303		Holder of drain pump	1	201270290085
15	Water collector	1	202285190003		Liquid level sensor assembly	1	202301310051
16	Right clapboard assembly	1	201270290090		Flange	1	201285190005
16.1	Hook	2	201270890021		Air filter	1	201185190003

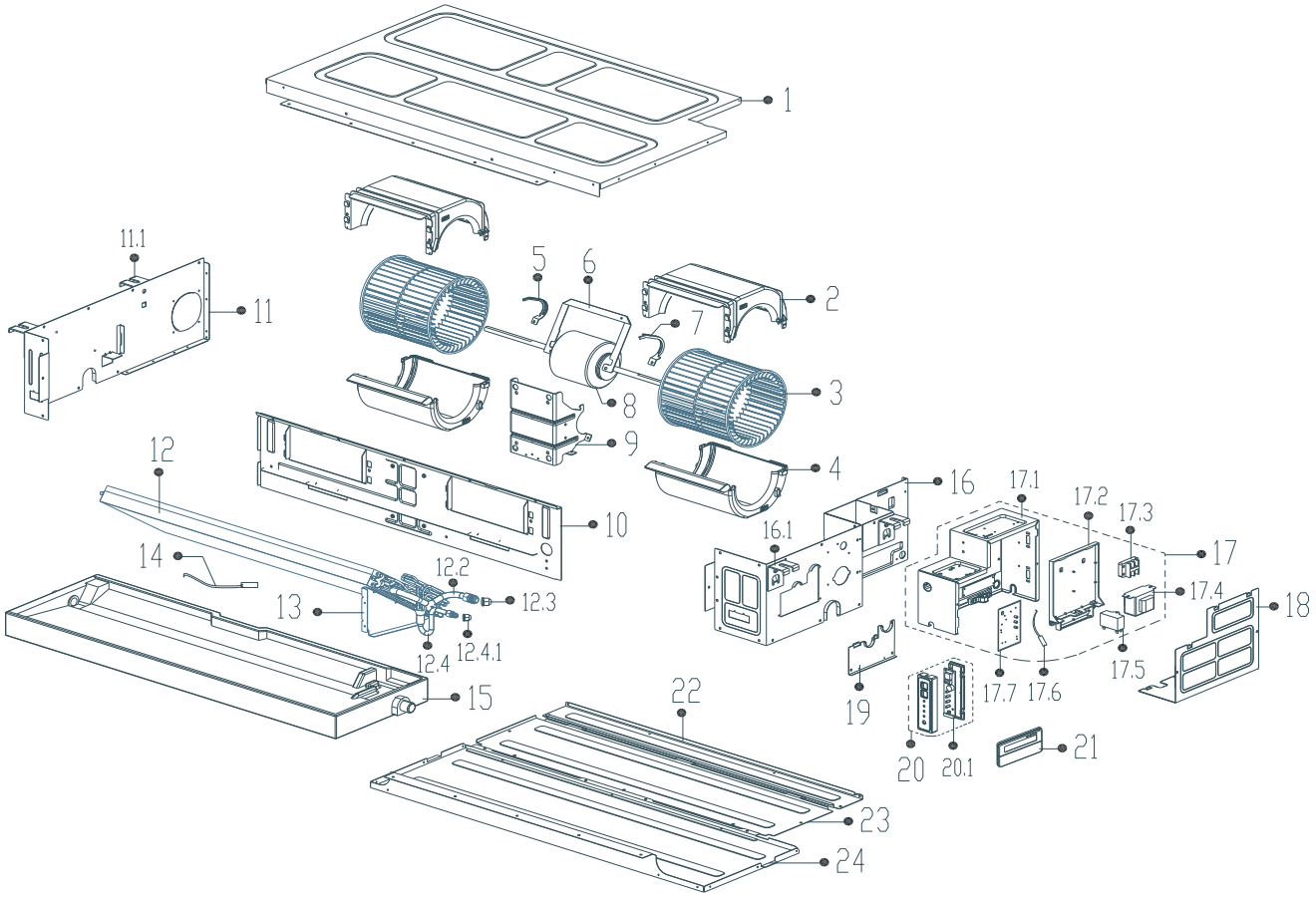
Exploded View of indoor unit: AWSI-DBF018-N11



Spare part list of indoor unit: AWSI-DBF018-N11

No.	Part Name	Qty	BOM Code	No.	Part Name	Qty	BOM Code
1	Chassis assembly	1	201270390381	17	Electronic control box assembly	1	203370290167
2	Up volute shell	2	201170290008	17.1	Electronic control box	1	201270290163
3	Centrifugal fan	2	201100100833	17.2	Connection board assembly	1	201370290016
4	Below volute shell	2	201170290007	17.3	Wire joint	1	202301450127
5	Fan motor axes clamp (left)	1	201280200005	17.4	Transformer	1	202300900581
6	Fan motor fixing board	1	201244590001	17.5	Capacitor	1	202401100996
7	Fan motor axes clamp (right)	1	201280200006	17.6	Ambient temperature sensor assembly	1	202432390005
8	Asynchronous motor	1	202400401553	17.7	Main control board assembly	1	201370290014
9	Supporter of fan motor	1	201270290028	17.8	Relay	1	202300800071
10	Middle beam assembly	1	201270290033	18	Cover of electronic control box	1	201270290081
11	Left clapboard assembly	1	201270290091	19	Pipe clamp board assembly	1	201270290082
11.1	Hook	2	201270890021	20	Display box assembly	1	2033702A0077
12	Evaporator assembly	1	201570290046	20.1	Display board assembly	1	201370290012
12.2	Output pipe assembly	1	201670290067	21	Wired controller	1	2033551A4281
12.3	Copper nut	1	201600320002	22	Rear beam	1	201270290086
12.4	Input pipe assembly	1	201670290133	23	Rear cover assembly	1	201270290037
12.4.1	Copper nut	1	201600320000	24	Top cover assembly	1	201270290078
13	Evaporator right support board assembly	1	201270290034		Drain pump	1	202400600005
14	Pipe temperature sensor assembly	1	202301300303		Holder of drain pump	1	201270290085
15	Water collector	1	202270290004		Liquid level sensor assembly	1	202301310051
16	Right clapboard assembly	1	201270290090		Flange	1	201270290038
16.1	Hook	2	201270890021		Air filter	1	201170290012

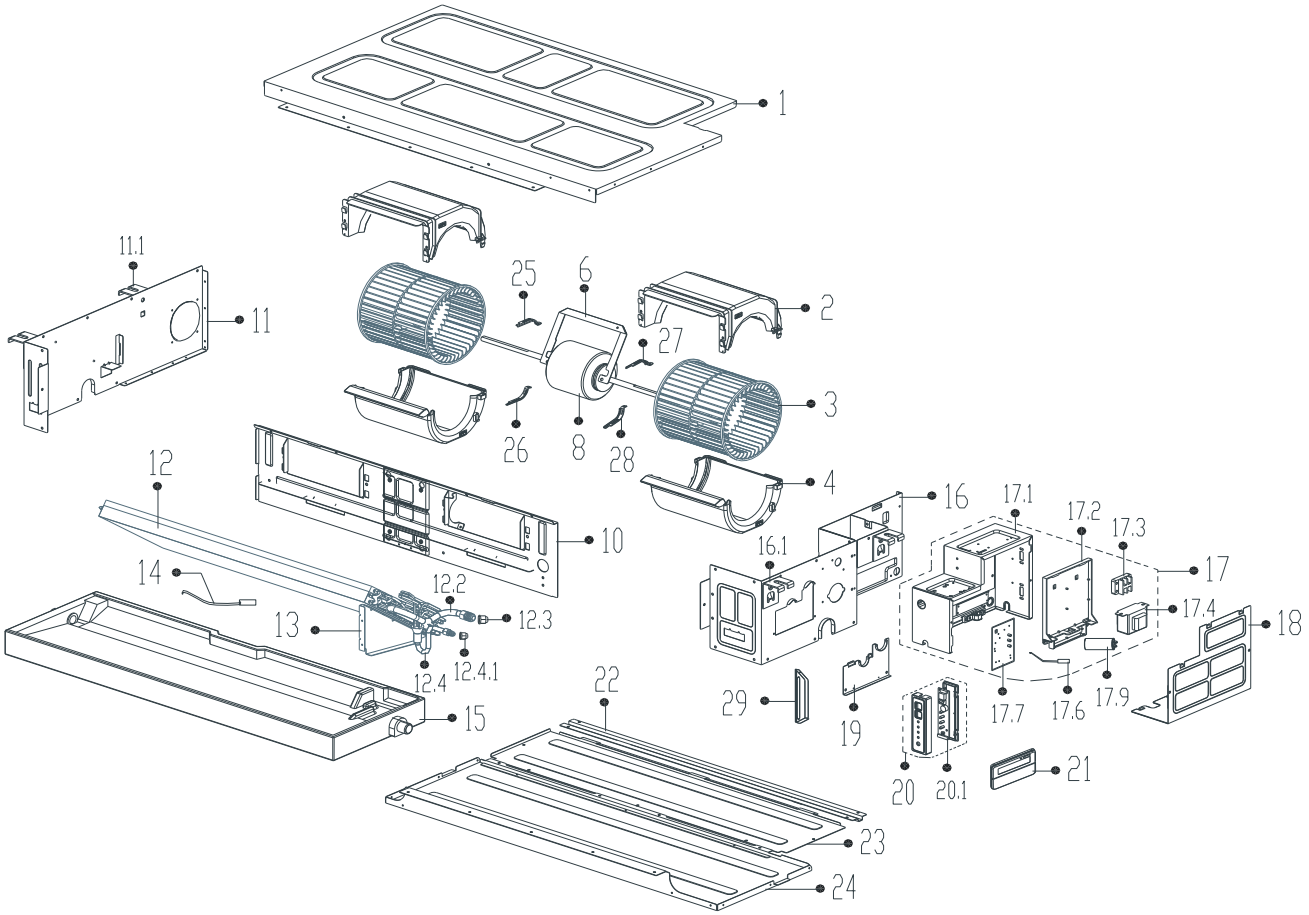
Exploded View of indoor unit: AWSI-DBF024-N11



Spare part list of indoor unit: AWSI-DBF024-N11

No.	Part Name	Qty	BOM Code	No.	Part Name	Qty	BOM Code
1	Chassis assembly	1	201270390381	17	Electronic control box assembly	1	203370390048
2	Up volute shell	2	201170590004	17.1	Electronic control box	1	201270590384
3	Centrifugal fan	2	201100100807	17.2	Connection board assembly	1	201370290016
4	Below volute shell	2	201170590003	17.3	Wire joint	1	202301450127
5	Fan motor axes clamp (left)	1	201280200005	17.4	Transformer	1	202300900581
6	Fan motor fixing board	1	201244590001	17.5	Capacitor	1	202401100996
7	Fan motor axes clamp (right)	1	201280200006	17.6	Ambient temperature sensor assembly	1	202432390005
8	Asynchronous motor	1	202400401451	17.7	Main control board assembly	1	201370390025
9	Supporter of fan motor	1	201270390306	18	Cover of electronic control box	1	201270590100
10	Middle beam assembly	1	201270390312	19	Pipe clamp board assembly	1	201270290082
11	Left clapboard assembly	1	201270390384	20	Display box assembly	1	2033702A0077
11.1	Hook	2	201270890021	20.1	Display board assembly	1	201370290012
12	Evaporator assembly	1	201570390057	21	Wired controller	1	2033551A4281
12.2	Output pipe assembly	1	201670390138	22	Rear beam	1	201270390314
12.3	Copper nut	1	201600320003	23	Rear cover assembly	1	201270390315
12.4	Input pipe assembly	1	201670390130	24	Top cover assembly	1	201270290078
12.4.1	Copper nut	1	201600320001		Drain pump	1	202400600005
13	Evaporator right support board assembly	1	201270390313		Holder of drain pump	1	201270290085
14	Pipe temperature sensor assembly	1	202301300303		Liquid level sensor assembly	1	202301310051
15	Water collector	1	202270290004		Flange	1	201270390316
16	Right clapboard assembly	1	201270390383		Air filter	1	201170290011
16.1	Hook	2	201270890021				

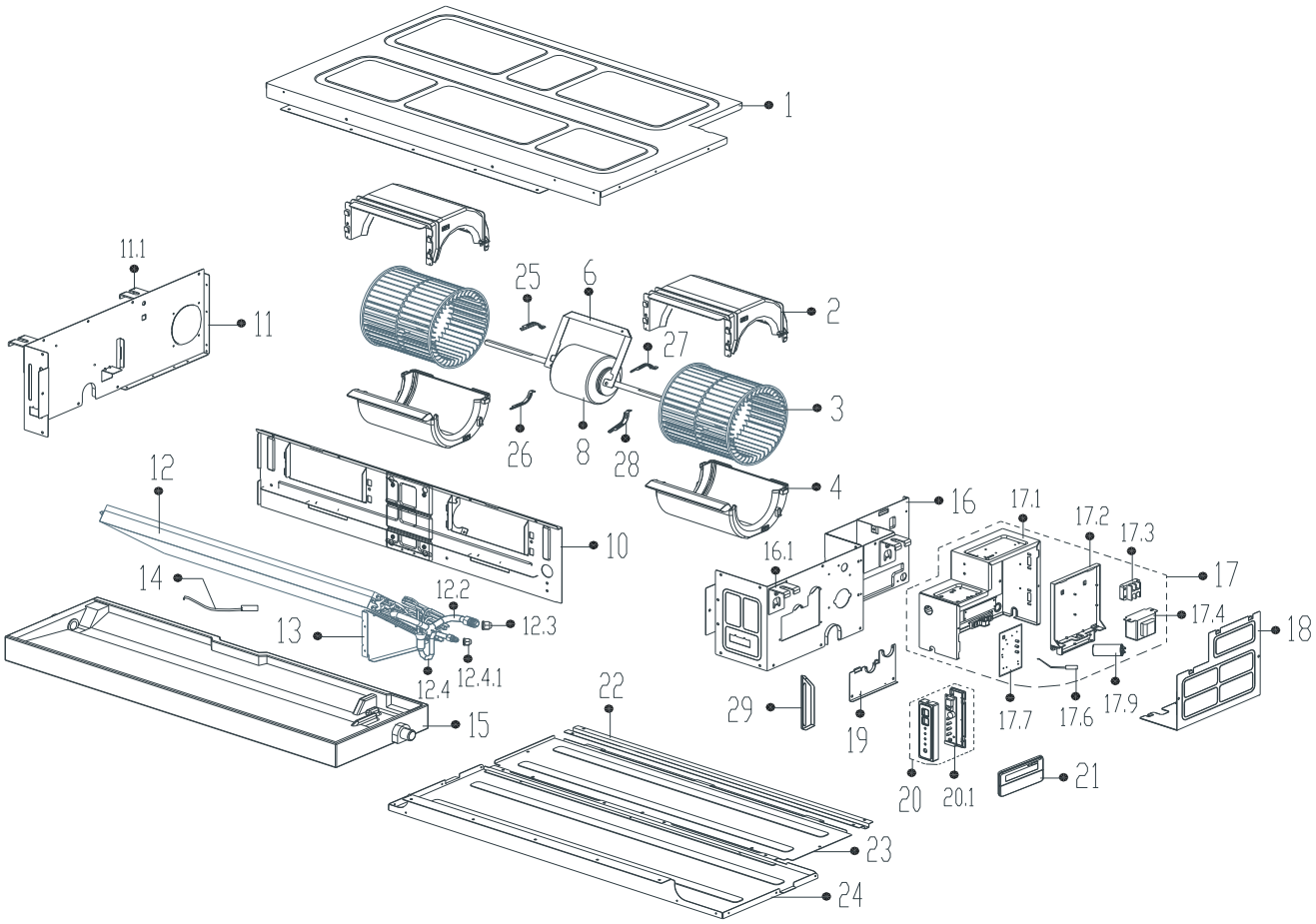
Exploded View of indoor unit: AWSI-DBF030-N11



Spare part list of indoor unit: AWSI-DBF030-N11

No.	Part Name	Qty	BOM Code	No.	Part Name	Qty	BOM Code
1	Chassis assembly	1	201270590299	17.4	Transformer	1	202300900581
2	Up volute shell	2	201170590004	17.6	Ambient temperature sensor assembly	1	202433190000
3	Centrifugal fan	2	201100100807	17.7	Main control board assembly	1	201370390025
4	Below volute shell	2	201170590003	17.9	Capacitor	1	202401000006
6	Fan motor fixing board	1	201270790169	18	Cover of electronic control box	1	201270590100
8	Asynchronous motor	1	202400401554	19	Pipe clamp board assembly	1	201270290082
10	Middle beam assembly	1	201270590271	20	Display box assembly	1	2033702A0077
11	Left clapboard assembly	1	201270590302	20.1	Display board assembly	1	201370290012
11.1	Hook	2	201270890021	21	Wired controller	1	2033551A4281
12	Evaporator assembly	1	201570590091	22	Rear beam	1	201270590183
12.2	Output pipe assembly	1	201670590168	23	Rear cover assembly	1	201270590184
12.3	Copper nut	1	201600320004	24	Top cover assembly	1	201270590272
12.4	Input pipe assembly	1	201670590208	25	Fan motor top fixing clamp (left)	1	201286000007
12.4.1	Copper nut	1	201600320001	26	Fan motor below fixing clamp (left)	1	201286000052
13	Evaporator right support board assembly	1	201270590181	27	Fan motor top fixing clamp (right)	1	201286000008
14	Pipe temperature sensor assembly	1	202301300133	28	Fan motor below fixing clamp (right)	1	201286000053
15	Water collector	1	202270590004	29	Right clapboard strengthen board	1	201270590176
16	Right clapboard assembly	1	201270590301		Drain pump	1	202400600005
16.1	Hook	2	201270890021		Holder of drain pump	1	201270290085
17	Electronic control box assembly	1	203370590065		Liquid level sensor assembly	1	202301310051
17.1	Electronic control box	1	201270590384		Flange	1	201270590185
17.2	Connection board assembly	1	201370290016		Air filter	1	201170590006
17.3	Wire joint	1	202301450127				

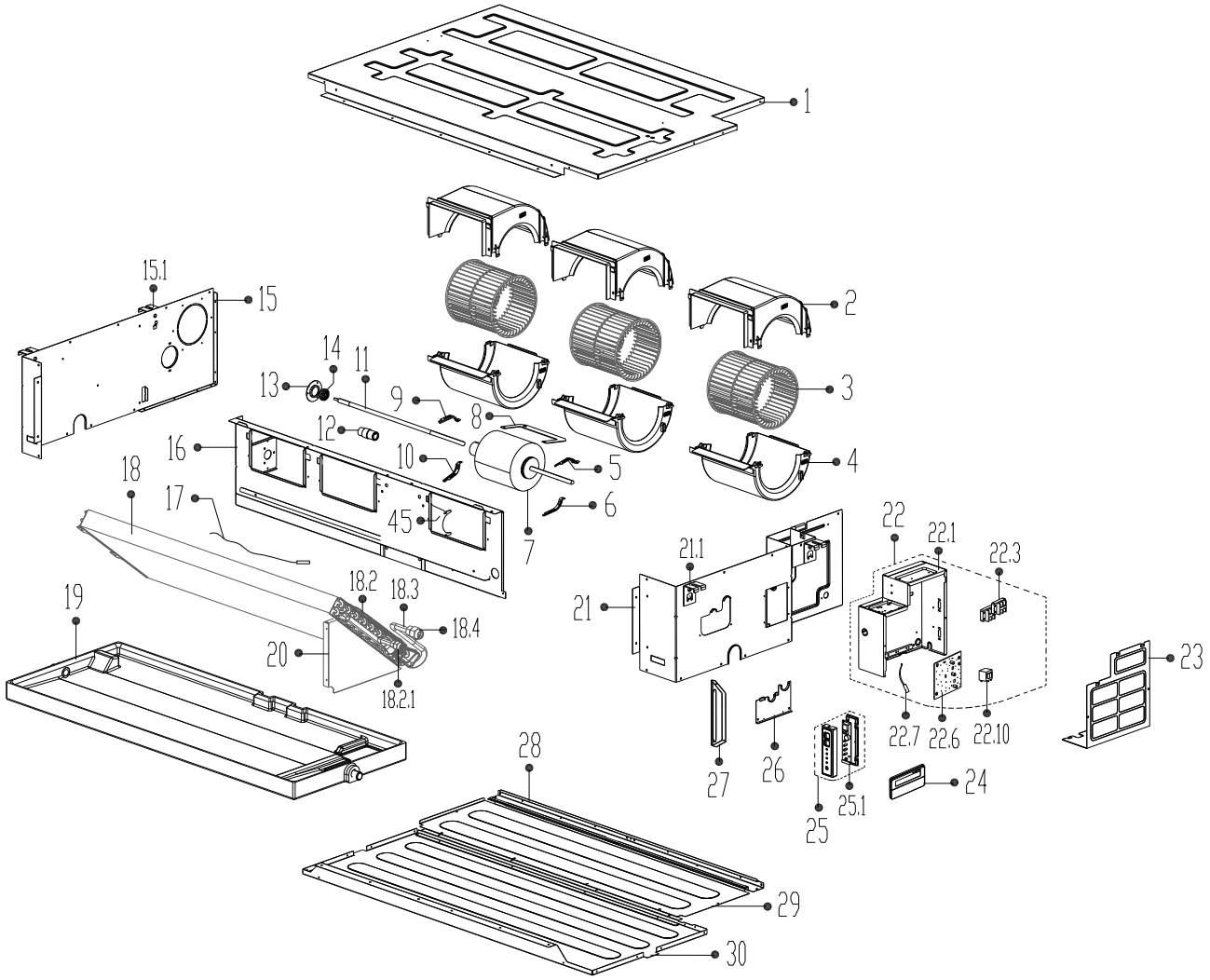
Exploded View of indoor unit: AWSI-DBF036-N11



Spare part list of indoor unit: AWSI-DBF036-N11

No.	Part Name	Qty	BOM Code	No.	Part Name	Qty	BOM Code
1	Chassis assembly	1	201270590299	17.4	Transformer	1	202300900581
2	Up volute shell	2	201170590004	17.6	Ambient temperature sensor assembly	1	202433190000
3	Centrifugal fan	2	201100100807	17.7	Main control board assembly	1	201370390025
4	Below volute shell	2	201170590003	17.9	Capacitor	1	202401000006
6	Fan motor fixing board	1	201270790169	18	Cover of electronic control box	1	201270590100
8	Asynchronous motor	1	202400401555	19	Pipe clamp board assembly	1	201270290082
10	Middle beam assembly	1	201270590271	20	Display box assembly	1	2033702A0077
11	Left clapboard assembly	1	201270590302	20.1	Display board assembly	1	201370290012
11.1	Hook	2	201270890021	21	Wired controller	1	2033551A4281
12	Evaporator assembly	1	201570590091	22	Rear beam	1	201270590183
12.2	Output pipe assembly	1	201670590168	23	Rear cover assembly	1	201270590184
12.3	Copper nut	1	201600320004	24	Top cover assembly	1	201270590272
12.4	Input pipe assembly	1	201670590208	25	Fan motor top fixing clamp (left)	1	201286000007
12.4.1	Copper nut	1	201600320001	26	Fan motor below fixing clamp (left)	1	201286000052
13	Evaporator right support board assembly	1	201270590181	27	Fan motor top fixing clamp (right)	1	201286000008
14	Pipe temperature sensor assembly	1	202301300303	28	Fan motor below fixing clamp (right)	1	201286000053
15	Water collector	1	202270590004	29	Right clapboard strengthen board	1	201270590176
16	Right clapboard assembly	1	201270590301		Drain pump	1	202400600005
16.1	Hook	2	201270890021		Holder of drain pump	1	201270290085
17	Electronic control box assembly	1	2033708A0079		Liquid level sensor assembly	1	202301310051
17.1	Electronic control box	1	201270590384		Flange	1	201270590185
17.2	Connection board assembly	1	201370290016		Air filter	1	201170590006
17.3	Wire joint	1	202301450127				

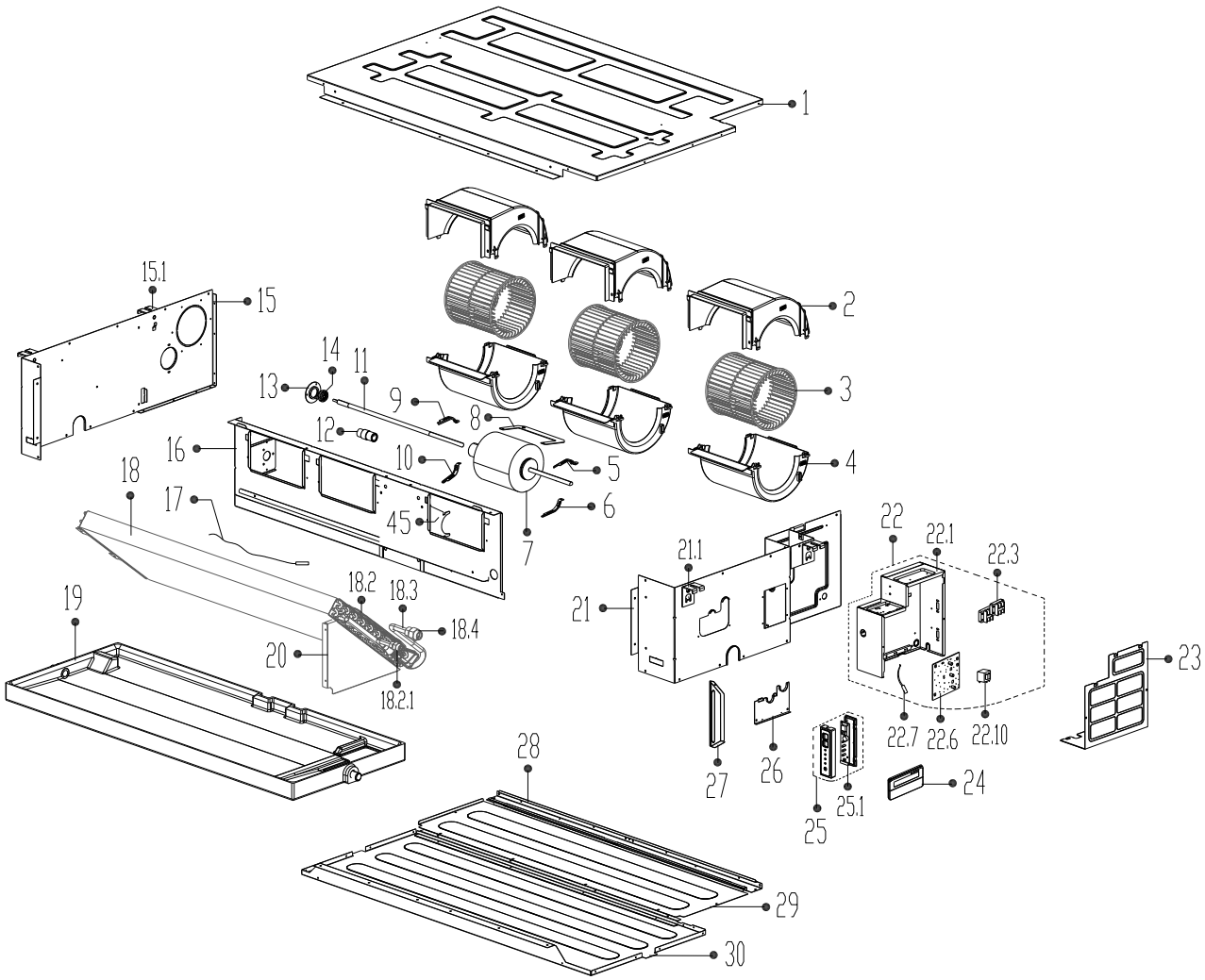
Exploded View of indoor unit: AWSI-DBF048-N11



Spare part list of indoor unit: AWSI-DBF048-N11

No.	Part Name	Qty	BOM Code	No.	Part Name	Qty	BOM Code
1	Chassis assembly	1	20127790180	20	Evaporator right support board assembly	1	201270790134
2	Up volute shell	3	201170590004	21	Right clapboard assembly	1	201270790182
3	Centrifugal fan	3	201100100807	21.1	Hook	2	201270890021
4	Below volute shell	3	201170590003	22	Electronic control box assembly	1	203370790053
5	Fan motor top fixing clamp (right)	1	201286000008	22.1	Electronic control box	1	201270590384
6	Fan motor below fixing clamp (right)	1	201286000053	22.3	Wire joint	1	202301450042
7	Asynchronous motor	1	202400300055	22.6	Main control board assembly	1	201370790023
8	Fan motor fixing board	1	201270790176	22.7	Ambient temperature sensor assembly	1	202301310072
9	Fan motor top fixing clamp (left)	1	201286000007	22.10	Reactor	1	202301000950
10	Fan motor below fixing clamp (left)	1	201286000052	23	Cover of electronic control box	1	201270590100
11	Connecting shaft	1	202501180006	24	Wired controller	1	2033551A4281
12	Coupling	1	202970790001	25	Display box assembly	1	2033702A0077
13	Bearing Fixing board	1	201287000011	25.1	Display board assembly	1	201370290012
14	Bearing base	1	202732400001	26	Pipe clamp board assembly	1	201270290082
15	Left clapboard assembly	1	201270790183	27	Right clapboard strengthen board	1	201270790042
15.1	Hook	2	201270890021	28	Rear beam assembly	1	201270790179
16	Middle beam assembly	1	201270790178	29	Rear cover assembly	1	201270790136
17	Pipe temperature sensor assembly	1	202440500004	30	Top cover assembly	1	201270790135
18	Evaporator assembly	1	201570790078	45	Supporter assembly of fan motor	1	201270790177
18.2	Input pipe assembly	1	201670790142		Drain pump	1	202400600005
18.2.1	Copper nut	1	201600320001		Holder of drain pump	1	201270290085
18.3	Output pipe assembly	1	201670790228		Liquid level sensor assembly	1	202301310051
18.4	Copper nut	1	201600320004		Flange	1	201270790137
19	Water collector	1	202270990001		Air filter	1	201170790007

Exploded View of indoor unit: AWSI-DBF060-N11



Spare part list of indoor unit: AWSI-DBF060-N11

No.	Part Name	Qty	BOM Code	No.	Part Name	Qty	BOM Code
1	Chassis assembly	1	201270790180	20	Evaporator right support board assembly	1	201270790134
2	Up volute shell	3	201170590004	21	Right clapboard assembly	1	201270790182
3	Centrifugal fan	3	201100100807	21.1	Hook	2	201270890021
4	Below volute shell	3	201170590003	22	Electronic control box assembly	1	203370790053
5	Fan motor top fixing clamp (right)	1	201286000008	22.1	Electronic control box	1	201270590384
6	Fan motor below fixing clamp (right)	1	201286000053	22.3	Wire joint	1	202301450042
7	Asynchronous motor	1	202400300055	22.6	Main control board assembly	1	201370790023
8	Fan motor fixing board	1	201270790176	22.7	Ambient temperature sensor assembly	1	202301310072
9	Fan motor top fixing clamp (left)	1	201286000007	22.10	Reactor	1	202301000950
10	Fan motor below fixing clamp (left)	1	201286000052	23	Cover of electronic control box	1	201270590100
11	Connecting shaft	1	202501180006	24	Wired controller	1	2033551A4281
12	Coupling	1	202970790001	25	Display box assembly	1	2033702A0077
13	Bearing Fixing board	1	201287000011	25.1	Display board assembly	1	201370290012
14	Bearing base	1	202732400001	26	Pipe clamp board assembly	1	201270290082
15	Left clapboard assembly	1	201270790183	27	Right clapboard strengthen board	1	201270790042
15.1	Hook	2	201270890021	28	Rear beam assembly	1	201270790179
16	Middle beam assembly	1	201270790178	29	Rear cover assembly	1	201270790136
17	Pipe temperature sensor assembly	1	202440500004	30	Top cover assembly	1	201270790135
18	Evaporator assembly	1	201570790078	45	Supporter assembly of fan motor	1	201270790177
18.2	Input pipe assembly	1	201670790142		Drain pump	1	202400600005
18.2.1	Copper nut	1	201600320001		Holder of drain pump	1	201270290085
18.3	Output pipe assembly	1	201670790228		Liquid level sensor assembly	1	202301310051
18.4	Copper nut	1	201600320004		Flange	1	201270790137
19	Water collector	1	202270990001		Air filter	1	201170790007

Ceiling & Floor Type

1. Features

1.1. New design, more modern and elegant appearance.

1.2. Convenient installation

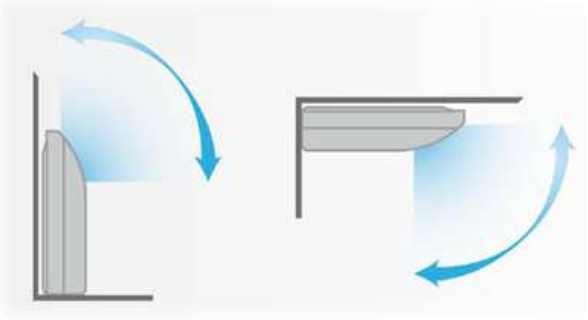
--The ceiling type can be easily installed into a corner of the ceiling even if the ceiling is very narrow

--It is especially useful when installation of an air conditioner in the center of the ceiling is impossible due to a structure such as one lighting.

1.3. Two direction auto swing (vertical & horizontal) and wide angle air flow,

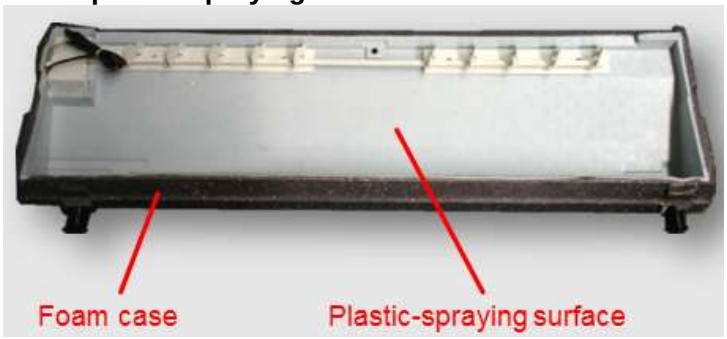
--Air flow directional control minimizes the air resistance and produces wilder air flow to vertical direction.

--The range of horizontal air discharge is widened which secures wider air flow distribution to provide more comfortable air circulation no matter where the unit is set up



1.4. Three level fan speed, more humanism design, meets different air-supply requirement.

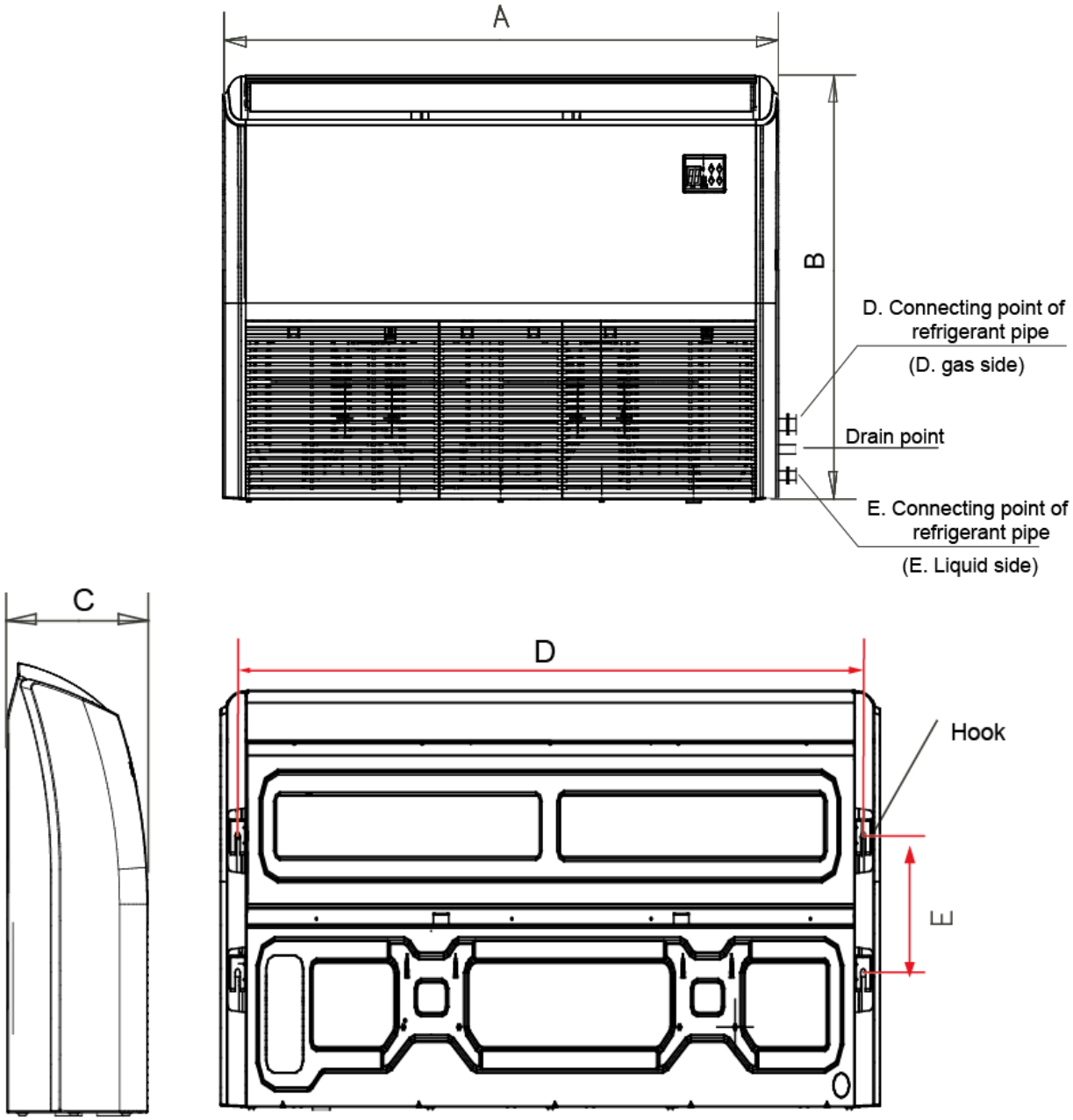
1.5. New foam drain pan with plastic-spraying inner surface



1.6. Easy operation.

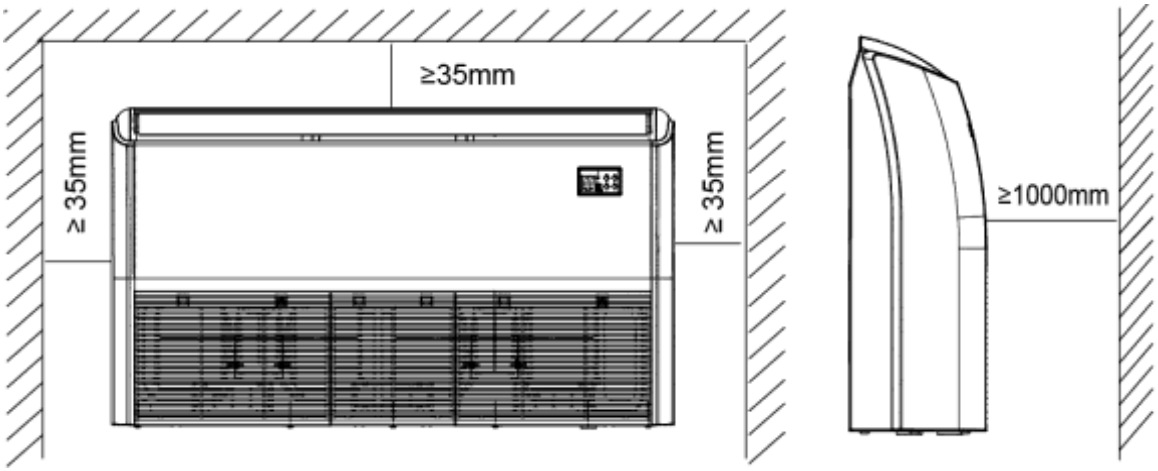
1.7. Remote control and optional wired control method.

2. Dimensions



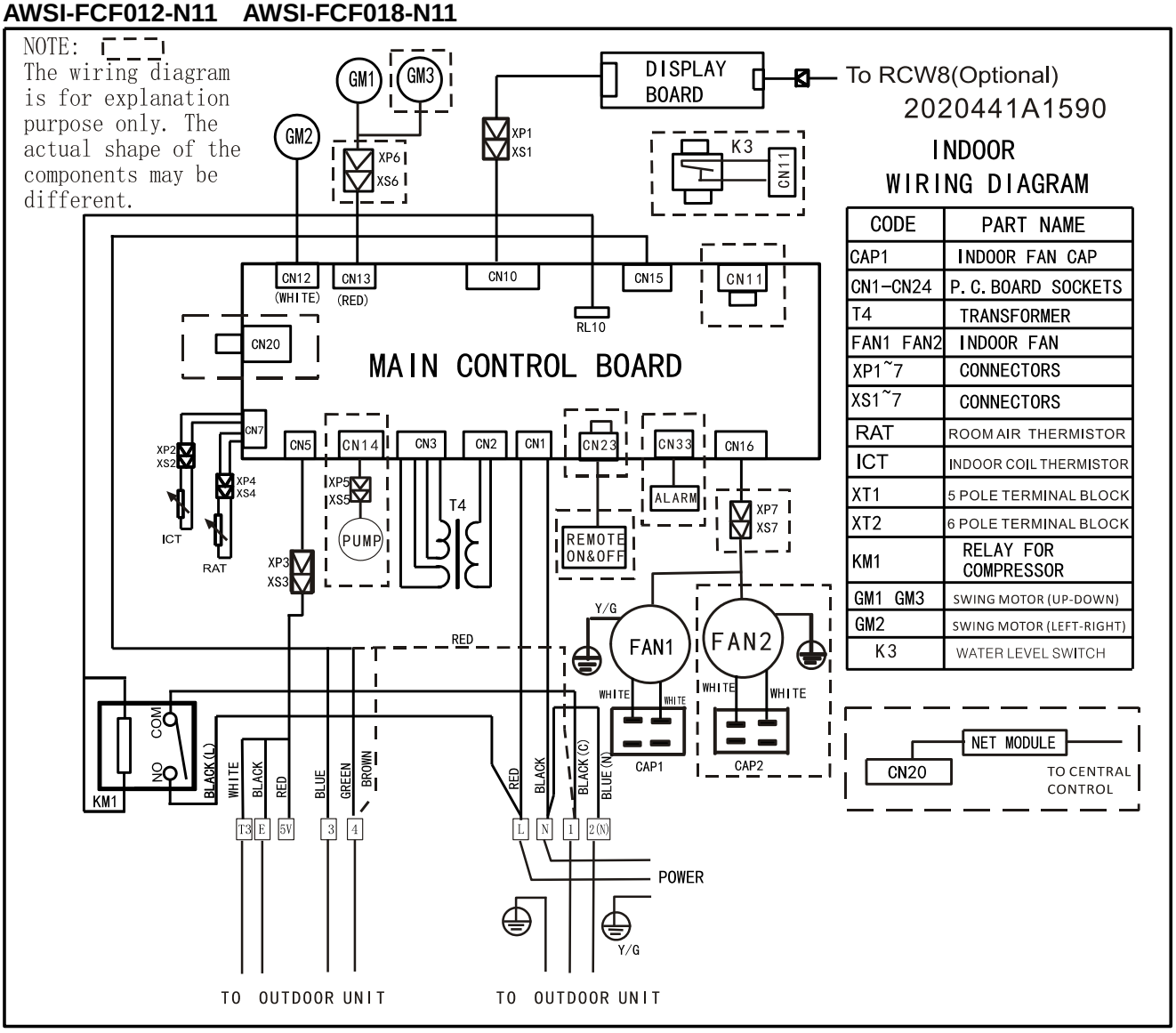
Model	A	B	C	D	E
AWSI-FCF012-N11	1068	675	235	983	220
AWSI-FCF018-N11	1068	675	235	983	220
AWSI-FCF024-N11	1068	675	235	983	220
AWSI-FCF030-N11	1285	675	235	1200	220
AWSI-FCF036-N11	1285	675	235	1200	220
AWSI-FCF048-N11	1285	675	235	1200	220
AWSI-FCF060-N11	1650	675	235	1565	220

3. Service Space



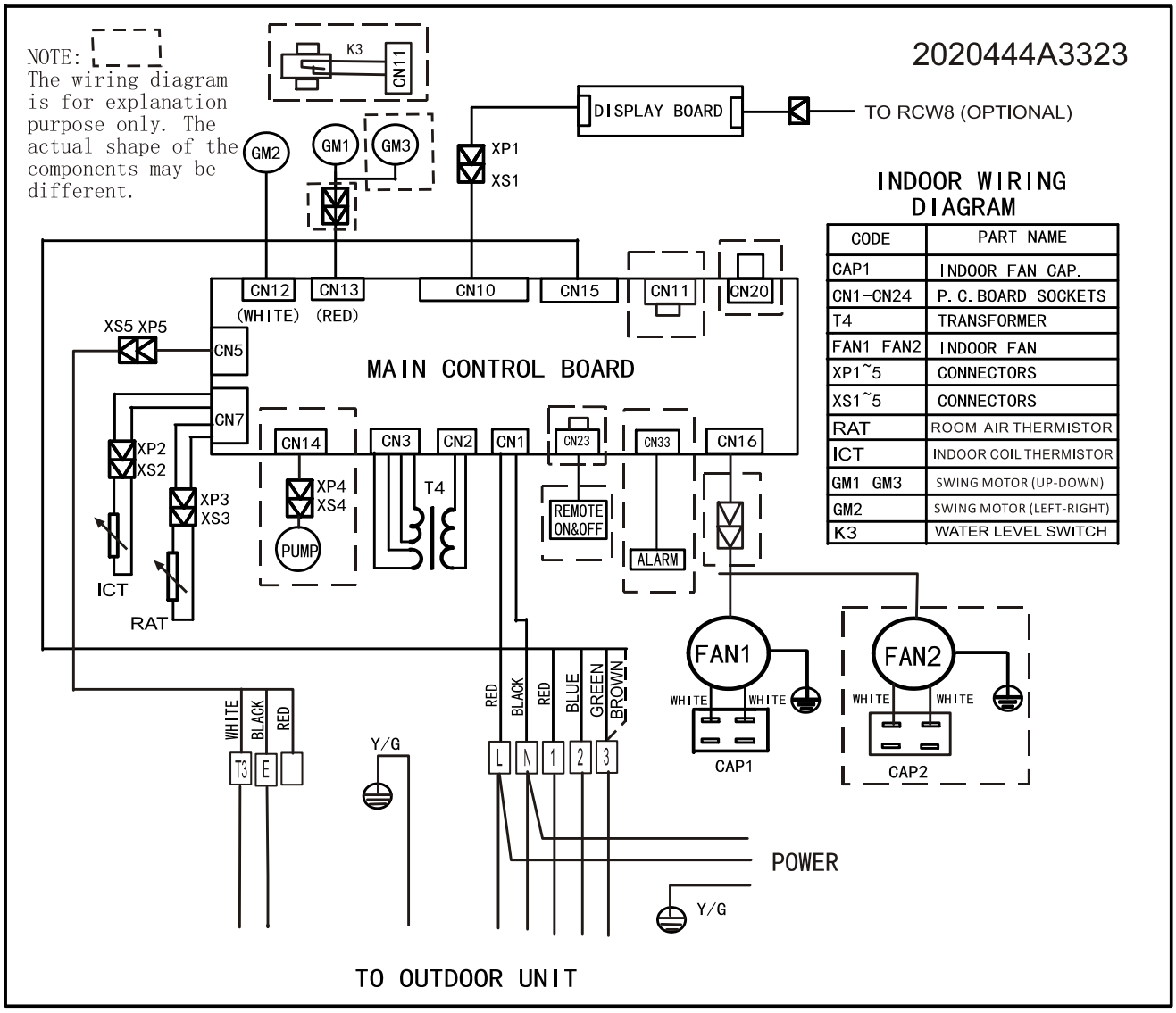
4. Wiring Diagrams

AWSI-FCF012-N11 AWSI-FCF018-N11



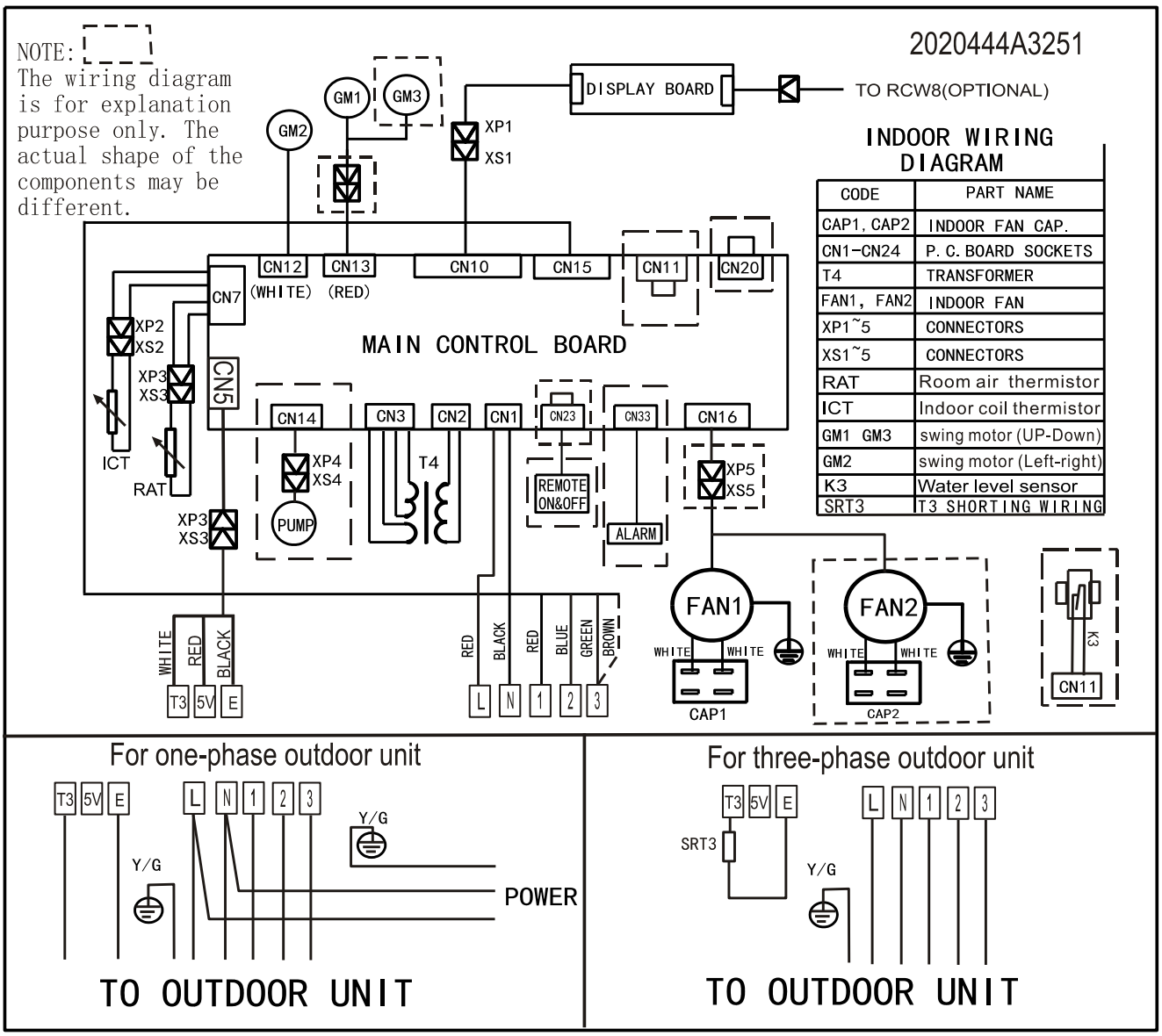
CODE	PART NAME
CAP1	INDOOR FAN CAP
CN1–CN24	P.C.BOARD SOCKETS
T4	TRANSFORMER
FAN1 FAN2	INDOOR FAN
XP1~7	CONNECTORS
XS1~7	CONNECTORS
RAT	ROOM AIR THERMISTOR
ICT	INDOOR COIL THERMISTOR
XT1	5 POLE TERMINAL BLOCK
XT2	6 POLE TERMINAL BLOCK
KM1	RELAY FOR COMPRESSOR
GM1 GM3	SWING MOTOR (UP-DOWN)
GM2	SWING MOTOR (LEFT-RIGHT)
K3	WATER LEVEL SWITCH

AWSI-FCF024-N11 AWSI-FCF030-N11



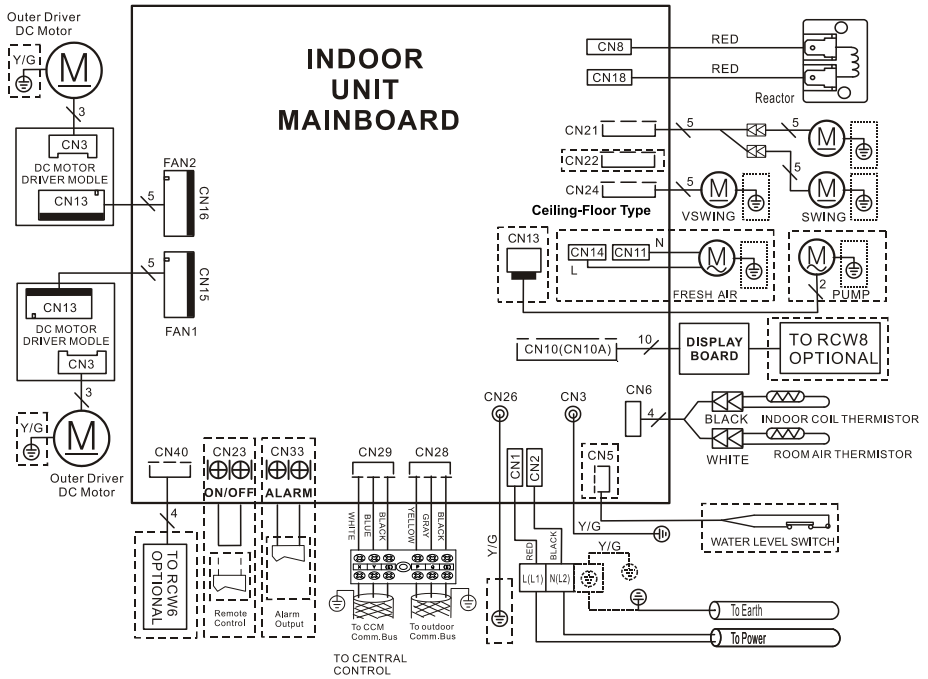
CODE	PART NAME
CAP1	INDOOR FAN CAP.
CN1-CN24	P. C. BOARD SOCKETS
T4	TRANSFORMER
FAN1 FAN2	INDOOR FAN
XP1~5	CONNECTORS
XS1~5	CONNECTORS
RAT	ROOM AIR THERMISTOR
ICT	INDOOR COIL THERMISTOR
GM1 GM3	SWING MOTOR (UP-DOWN)
GM2	SWING MOTOR (LEFT-RIGHT)
K3	WATER LEVEL SWITCH

AWSI-FCF036-N11



AWSI-FCF048-N11 AWSI-FCF060-N11

2020446A2410



ENC1	Capacity (Model)
9	42
A	60

S1	S2(1-2)	Address (Central control)
0-F	OFF-OFF	0-15(Default=0)
0-F	OFF-ON	16-31
0-F	ON-OFF	32-47
0-F	ON-ON	48-63

SW2	FAN SPEEDS
OFF	USE ROM(DeFault)
ON	USE EEPROM

SW3	AUTO RESTART
OFF	With Auto Restart(Default)
ON	Without Auto Restart

SW4	Fan Qty.
OFF	Single Fan
ON	Double Fan (Default)

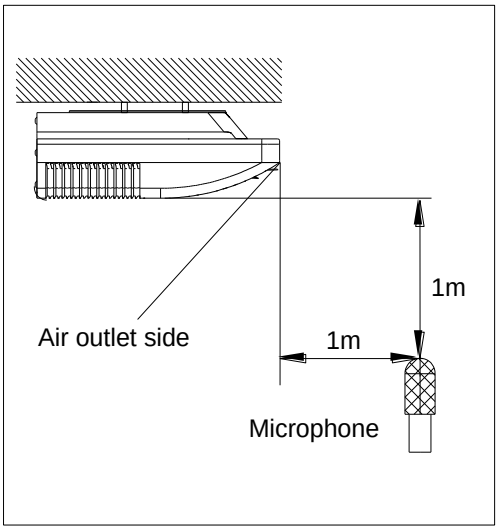
SW5	Temp. Compensation (Heating)
OFF	4 (default)
ON	1

5. Electric Characteristics

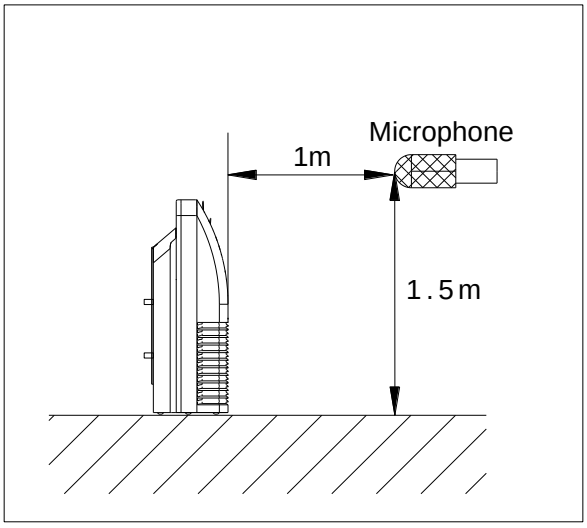
Model	Indoor Units				Power Supply
	Hz	Voltage	Min.	Max.	MFA
AWSI-FCF012-N11	50	220-240	198	254	16
AWSI-FCF018-N11	50	220-240	198	254	16
AWSI-FCF024-N11	50	220-240	198	254	25
AWSI-FCF030-N11	50	220-240	198	254	30
AWSI-FCF036-N11(match with 1-phase outdoor unit)	50	220-240	198	254	30
AWSI-FCF036-N11(match with 3-phase outdoor unit)	50	220-240	198	254	/
AWSI-FCF048-N11	50	220-240	198	254	16
AWSI-FCF060-N11	50	220-240	198	254	16

Note:
MFA: Max. Fuse Amps. (A)

6. Sound Levels



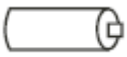
Ceiling



Floor

Model	Sound Power dB (A)	Noise level dB(A)		
		H	M	L
AWSI-FCF012-N11	62	52	46	41
AWSI-FCF018-N11	62	52	46	41
AWSI-FCF024-N11	63	53	48	42
AWSI-FCF030-N11	64	54	49	45
AWSI-FCF036-N11	64	54	49	45
AWSI-FCF048-N11	66	56	53	50
AWSI-FCF060-N11	67	57	54	51

7. Accessories

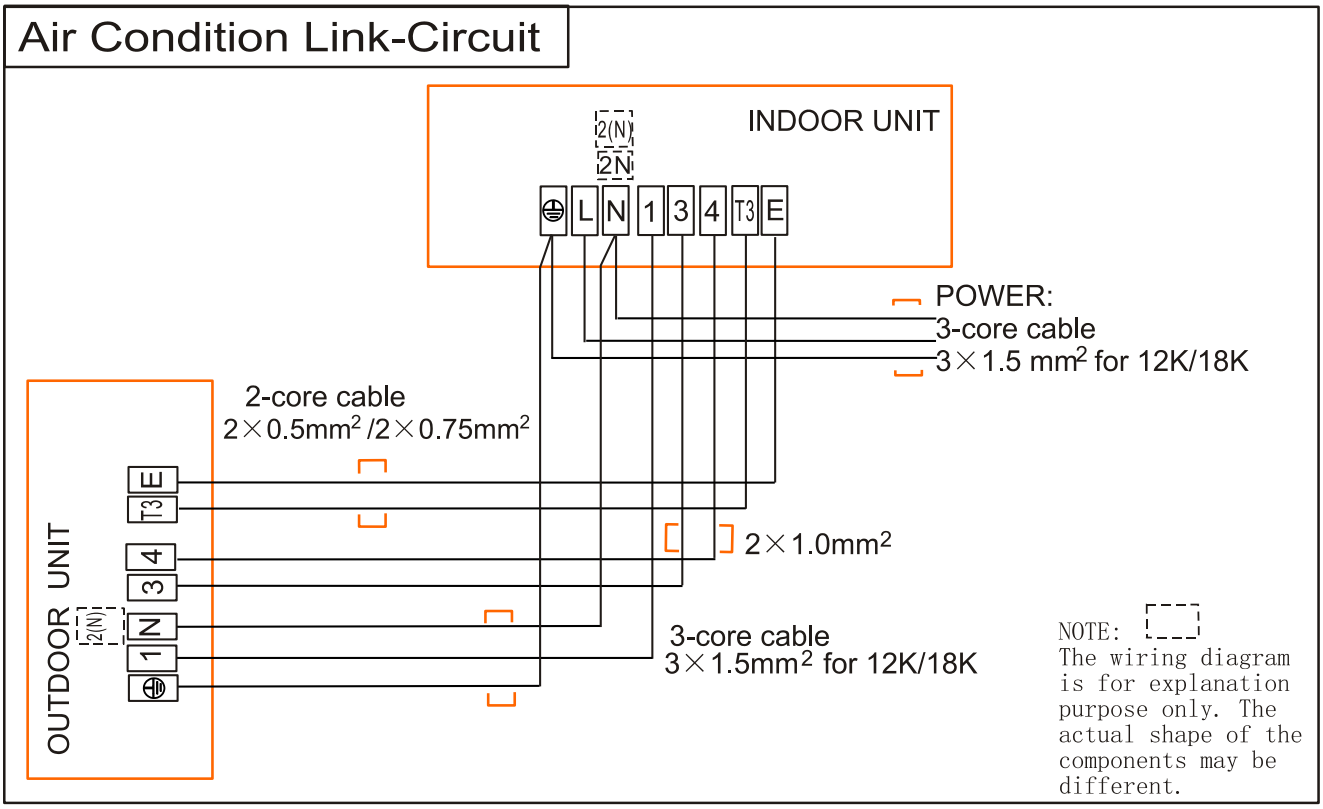
	Name	Shape	Quantity
Remote controller & Its holder(The product you have might not be provided the following accessories)	1. Remote controller		1
	2. Remote controller holder		1
	3. Mounting screw (ST2.9×10-C-H)		2
	4. Alkaline dry batteries (AM4)		2
Others	5. Owner's manual	——	1
	6. Installation manual	——	1
	7. Remote controller manual	——	1

8. The Specification of Power

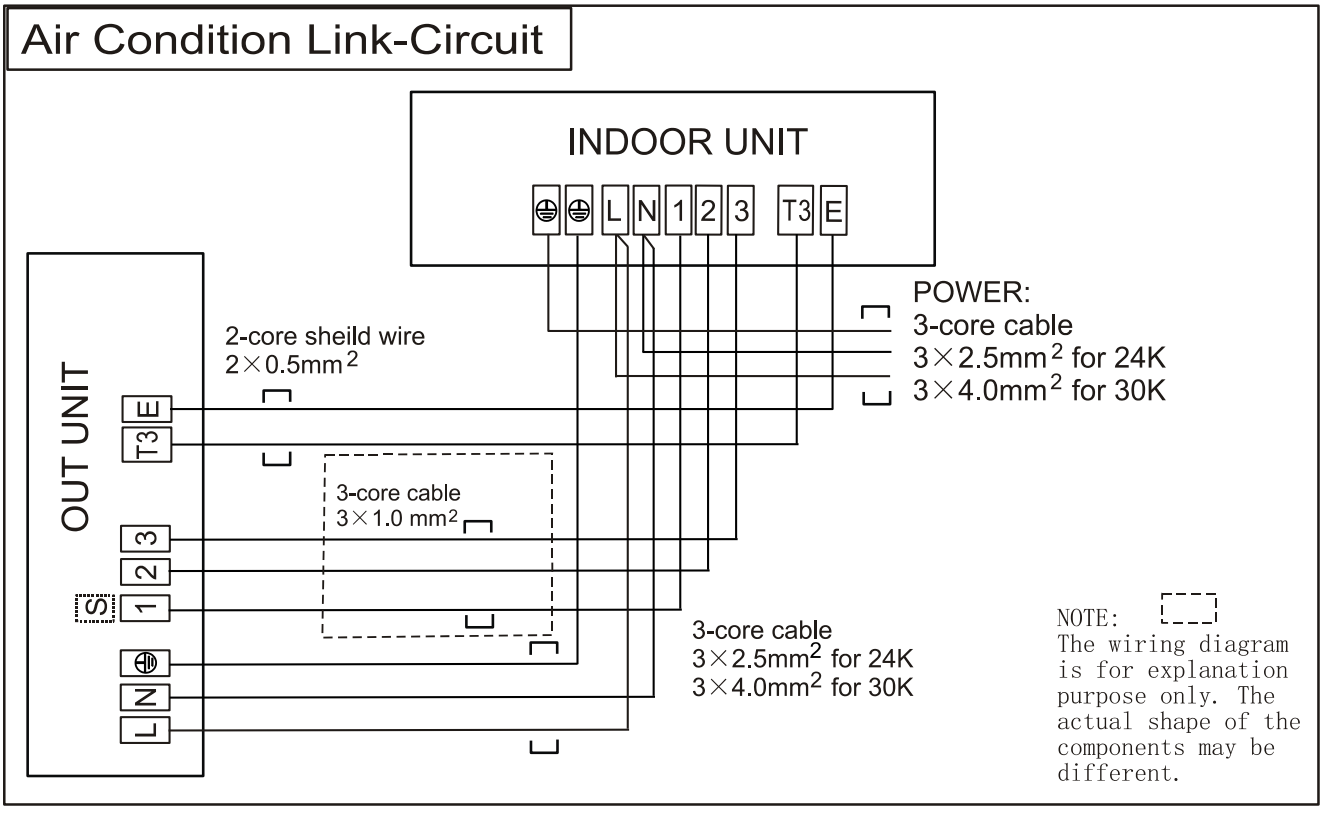
Capacity(Btu/h)		12000-18000	24000	30000-36000	36000	48000-60000
Indoor Unit Power	Phase	1-phase	1-phase	1-phase	——	1-phase
	Frequency and Voltage	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz	——	220-240V, 50Hz
	Power Wiring(mm^2)	3×1.5	3×2.5	3×4.0	——	3×1.0
	Circuit Breaker/Fuse(A)	20/16	40/25	50/30	——	20/16
Outdoor Unit Power	Phase	——	——	——	3-phase	3-phase
	Frequency and Voltage	——	——	——	380-415V, 50Hz	380-415V, 50Hz
	Power Wiring(mm^2)	——	——	——	5×2.5	5×2.5
	Circuit Breaker/ Fuse (A)	——	——	——	25/20	25/20
Indoor/Outdoor Connecting Wiring(Weak Electric Signal)(mm^2)		2-core shield wire 2×0.75/2×0.5	2×0.5	2×0.75	——	3×0.5
Indoor/Outdoor Connecting Wiring(Strong Electric Signal)(mm^2)		2×1.0	3×1.0	3×1.0	3×1.0	——

9. Field Wiring

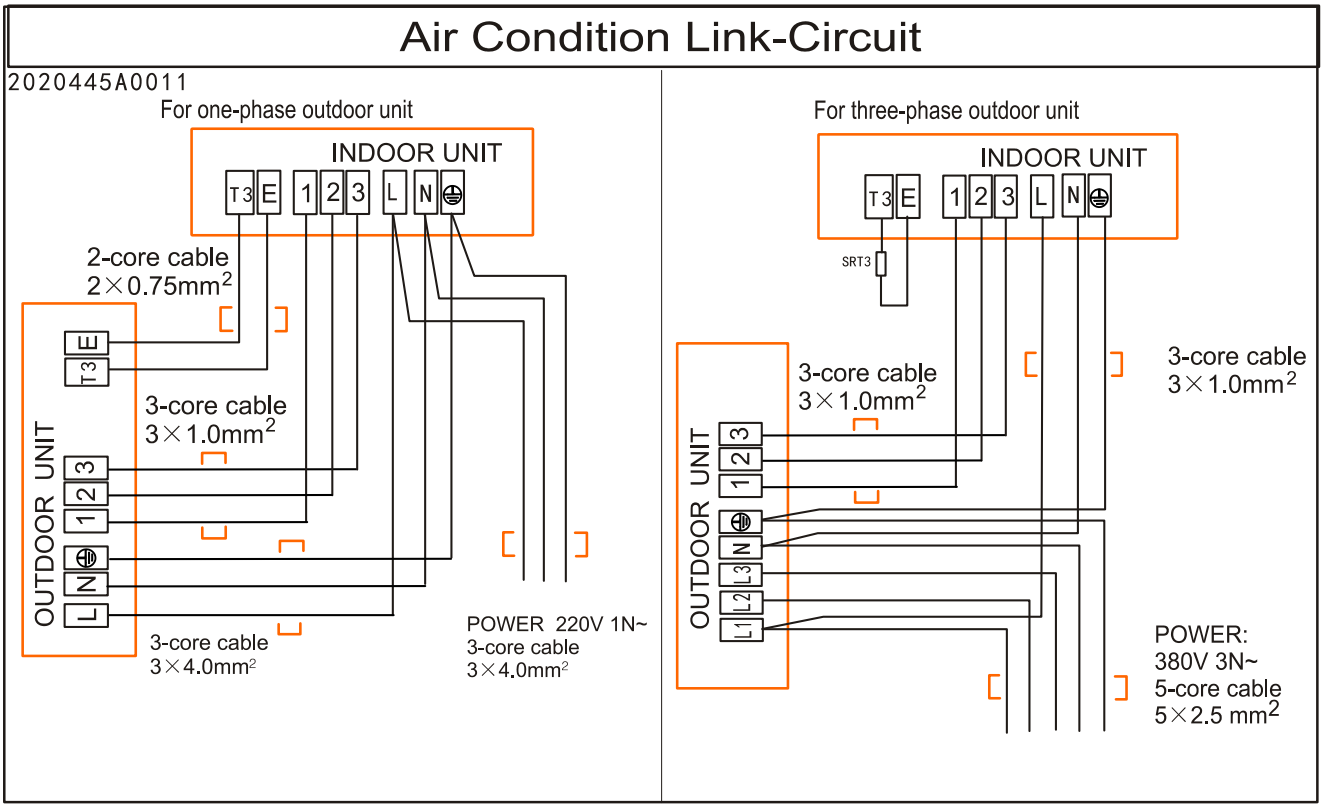
AWSI-FCF012-N11 AWSI-FCF018-N11



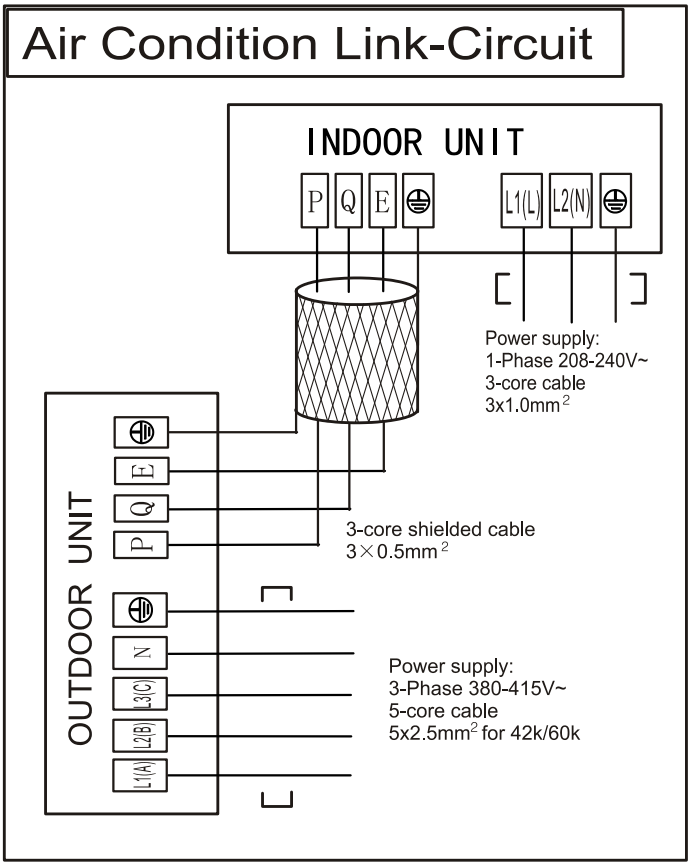
AWSI-FCF024-N11 AWSI-FCF030-N11



AWSI-FCF036-N11

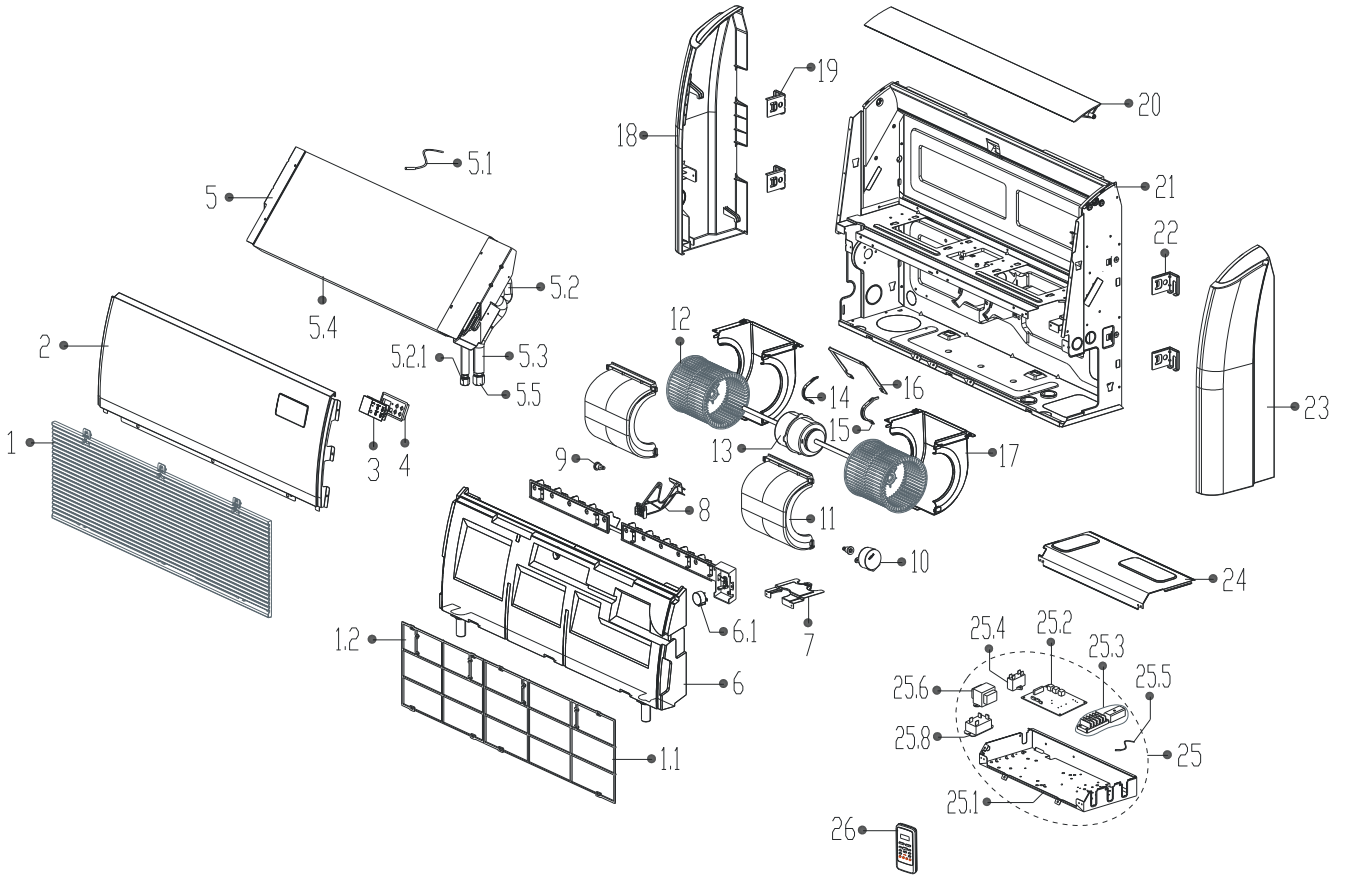


AWSI-FCF048-N11 AWSI-FCF060-N11



10. Exploded View and Spare Part list

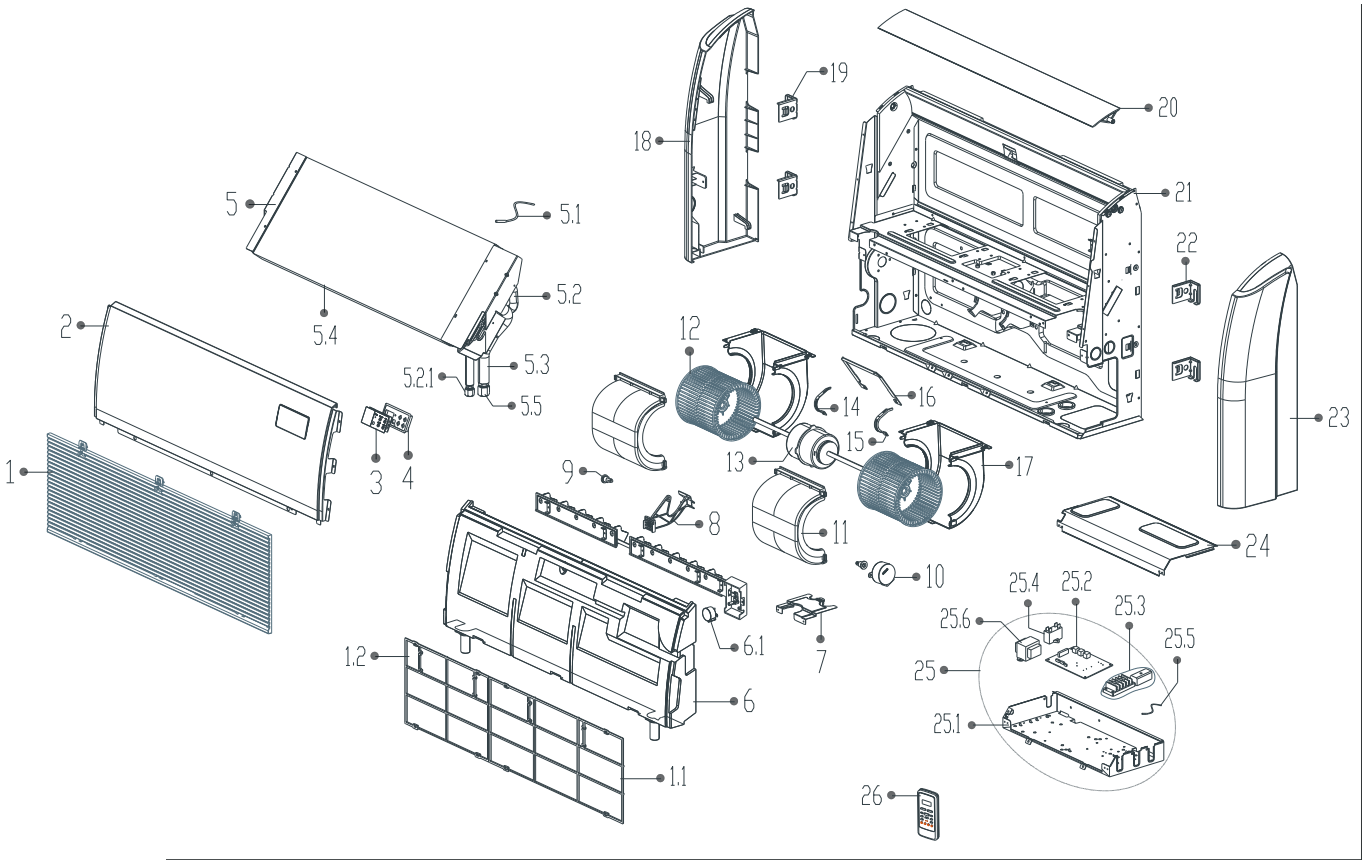
Exploded View of indoor unit: AWSI-FCF012-N11



Spare part list of indoor unit: AWSI-FCF012-N11

No.	Part Name	Qty	BOM Code	No.	Part Name	Qty	BOM Code
1	Air inlet grille assembly I	1	201144290054	14	Fan motor axes clamp (right)	1	201280200006
1.1	Air filter I	1	201144790024	15	Fan motor axes clamp (left)	1	201280200005
1.2	Air filter II	1	201144790023	16	Fan motor fixing board	1	201244590001
2	Top cover assembly	1	2012442A0012	17	Volute shell (below)	2	201144690033
3	Display board assembly	1	2013447A0064	18	Right cover	1	201144790017
4	Display installation box	1	2011447A0009	19	Right hook	2	201244790033
5	Evaporator assembly	1	201544090019	20	Louver	1	201144290056
5.1	Pipe temperature sensor assembly	1	202301300111	21	Chassis assembly	1	201244290051
5.2	Input pipe assembly	1	201644090056	22	Left hook	2	201244790034
5.2.1	Copper nut	1	201600320000	23	Left cover	1	201144790019
5.3	Output pipe assembly	1	201644090060	24	Cover of electronic control box	1	201244490048
5.4	Evaporator	1	201544090020	25	Electronic control box assembly	1	203344090018
5.5	Copper nut	1	201600320002	25.1	Electronic control box	1	201244790050
6	Water collector	1	202244290014	25.2	Main control board assembly	1	201344190019
6.1	Louver motor (vertical)	1	202400200100	25.3	Wire joint	1	202301450125
7	Pipe clamp board	1	201244790047	25.3	Wire joint	1	202301450135
8	Supporter of louver	1	201144790018	25.4	Capacitor	1	202401100006
9	Insulated axis	2	201132590888	25.5	Ambient temperature sensor assembly	1	202301310072
10	Louver motor	1	202400200162	25.6	Transformer	1	202300900552
11	Volute shell (above)	2	201144690032	25.8	Relay	1	202300800071
12	Centrifugal fan	2	201144690083	26	Remote controller	1	203355091552
13	Asynchronous motor	1	202400400466				

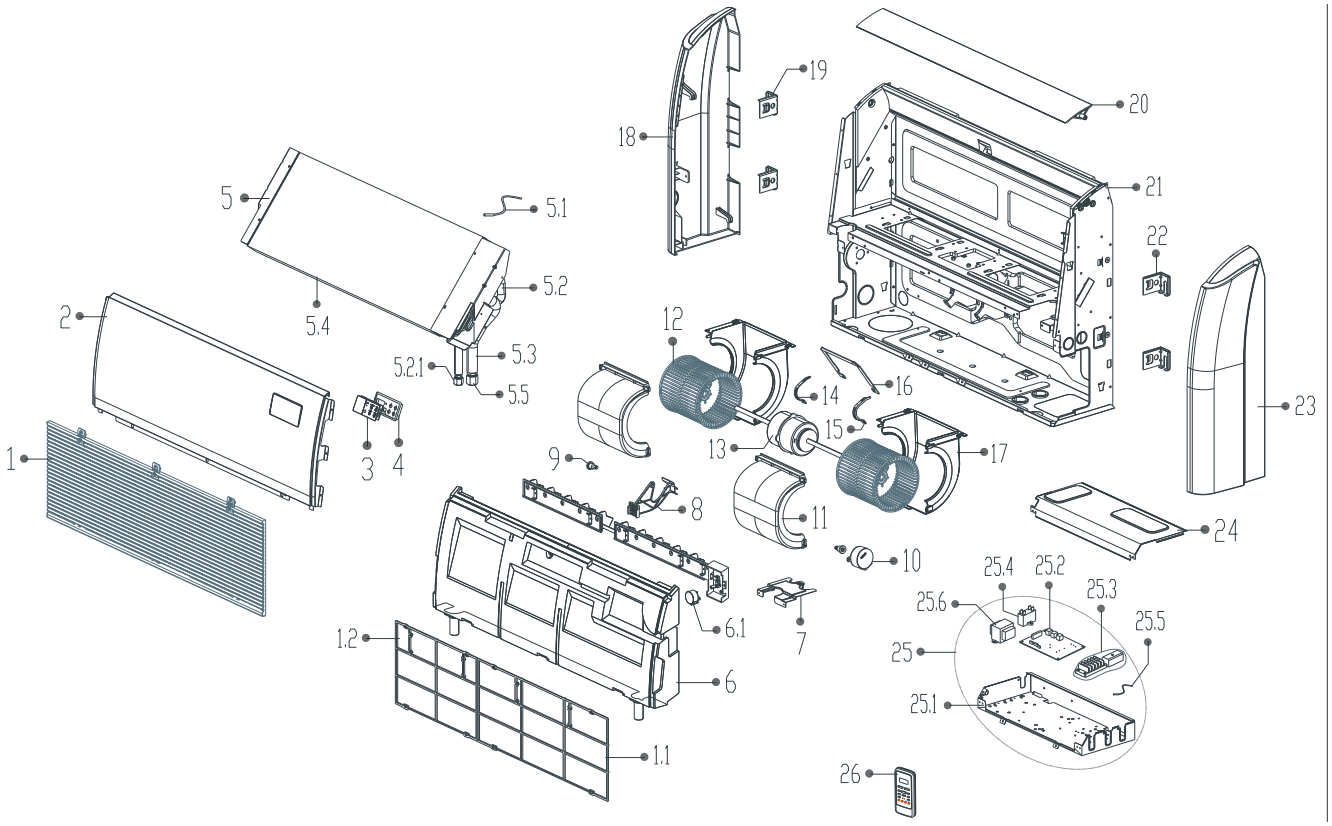
Exploded View of indoor unit: AWSI-FCF018-N11



Spare part list of indoor unit: AWSI-FCF018-N11

No.	Part Name	Qty	BOM Code	No.	Part Name	Qty	BOM Code
1	Air inlet grille assembly I	1	201144290054	13	Asynchronous motor	1	202400401161
1.1	Air filter I	1	201144790024	14	Fan motor axes clamp (right)	1	201280200006
1.2	Air filter II	1	201144790023	15	Fan motor axes clamp (left)	1	201280200005
2	Top cover assembly	1	2012442A0012	16	Fan motor fixing board	1	201244590001
3	Display board assembly	1	2013447A0064	17	Volute shell (below)	2	201144690033
4	Display installation box	1	2011447A0009	18	Right cover	1	201144790017
5	Evaporator assembly	1	201544190037	19	Right hook	2	201244790033
5.1	Pipe temperature sensor assembly	1	202301300804	20	Louver	1	201144290056
5.1	Pipe temperature sensor assembly	1	202301300111	21	Chassis assembly	1	201244290051
5.2	Input pipe assembly	1	201644190059	22	Left hook	2	201244790034
5.2.1	Copper nut	1	201600320000	23	Left cover	1	201144790019
5.3	Output pipe assembly	1	201644190057	24	Cover of electronic control box	1	201244490048
5.4	Evaporator	1	201544290183	25	Electronic control box assembly	1	203344190016
5.5	Copper nut	1	201600320002	25.1	Electronic control box	1	201244790050
6	Water collector	1	202244290014	25.2	Main control board assembly	1	201344190019
6.1	Louver motor (vertical)	1	202400200100	25.3	Wire joint	1	202301450125
7	Pipe clamp board	1	201244790047	25.3	Wire joint	1	202301450135
8	Supporter of louver	1	201144790018	25.4	Capacitor	1	202401190048
9	Insulated axis	2	201132590888	25.5	Ambient temperature sensor assembly	1	202301310072
10	Louver motor	1	202400200162	25.6	Transformer	1	202300900552
11	Volute shell (above)	2	201144690032	25.8	Relay	1	202300800071
12	Centrifugal fan	2	201144690083	26	Remote controller	1	203355091552

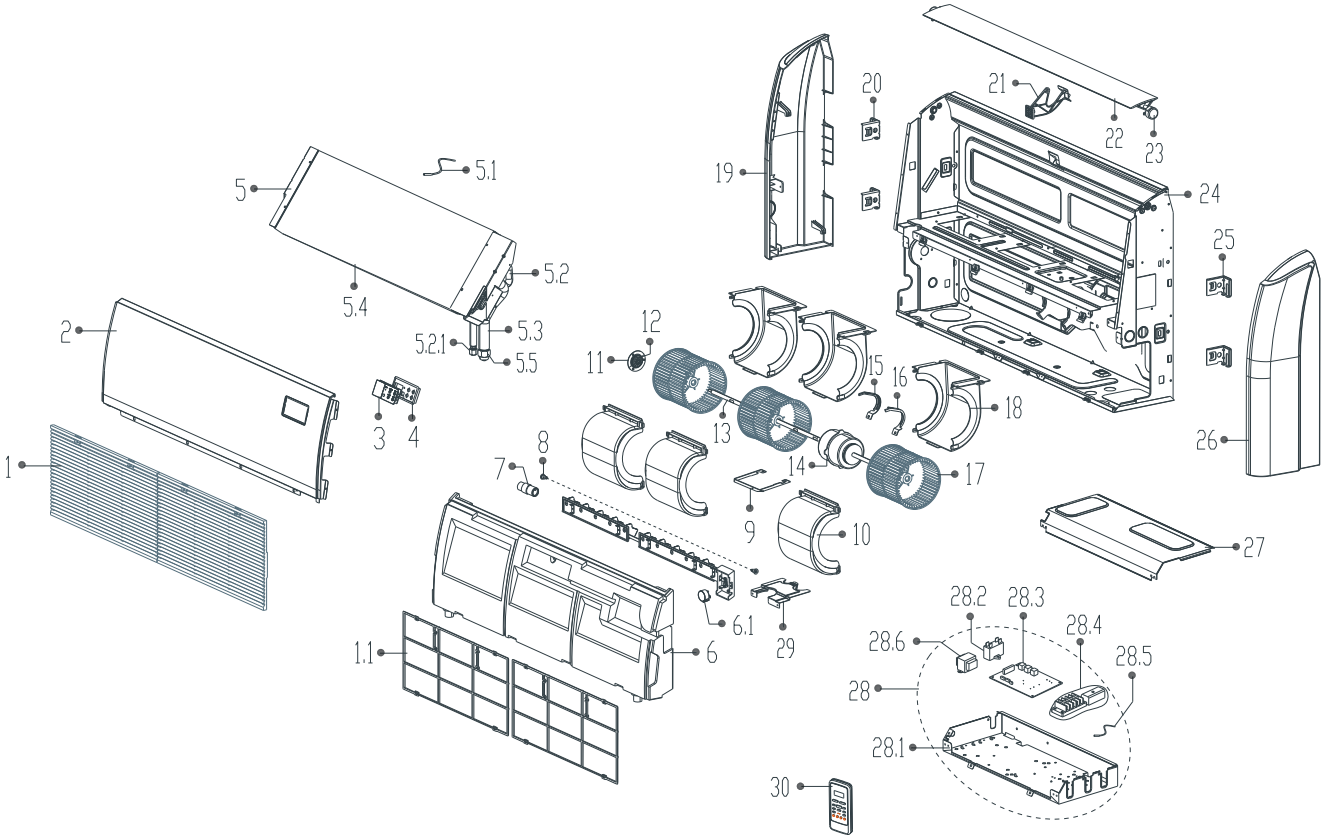
Exploded View of indoor unit: AWSI-FCF024-N11



Spare part list of indoor unit: AWSI-FCF024-N11

No.	Part Name	Qty	BOM Code	No.	Part Name	Qty	BOM Code
1	Air inlet grille assembly I	1	201144290054	13	Asynchronous motor	1	202400401161
1.1	Air filter I	1	201144790024	14	Fan motor axes clamp (right)	1	201280200006
1.2	Air filter II	1	201144790023	15	Fan motor axes clamp (left)	1	201280200005
2	Top cover assembly	1	2012442A0012	16	Fan motor fixing board	1	201244590001
3	Display board assembly	1	2013447A0064	17	Volute shell (below)	2	201144690033
4	Display installation box	1	2011447A0009	18	Right cover	1	201144790017
5	Evaporator assembly	1	201544290184	19	Right hook	2	201244790033
5.1	Pipe temperature sensor assembly	1	202301300111	20	Louver	1	201144290056
5.2	Input pipe assembly	1	201644290207	21	Chassis assembly	1	201244290051
5.2.1	Copper nut	1	201600320001	22	Left hook	2	201244790034
5.3	Output pipe assembly	1	201644290208	23	Left cover	1	201144790019
5.4	Evaporator	1	201544290183	24	Cover of electronic control box	1	201244490048
5.5	Copper nut	1	201600320003	25	Electronic control box assembly	1	203344290032
6	Water collector	1	202244290014	25.1	Electronic control box	1	201244790050
6.1	Louver motor (vertical)	1	202400200100	25.2	Main control board assembly	1	201344290054
7	Pipe clamp board	1	201244790047	25.3	Wire joint	1	202301450135
8	Supporter of louver	1	201144790018	25.3	Wire joint	1	202301450121
9	Insulated axis	2	201132590888	25.4	Capacitor	1	202401190019
10	Louver motor	1	202400200162	25.5	Ambient temperature sensor assembly	1	202301310072
11	Volute shell (above)	2	201144690032	25.6	Transformer	1	202300900552
12	Centrifugal fan	2	201144690083	26	Remote controller	1	203355091552

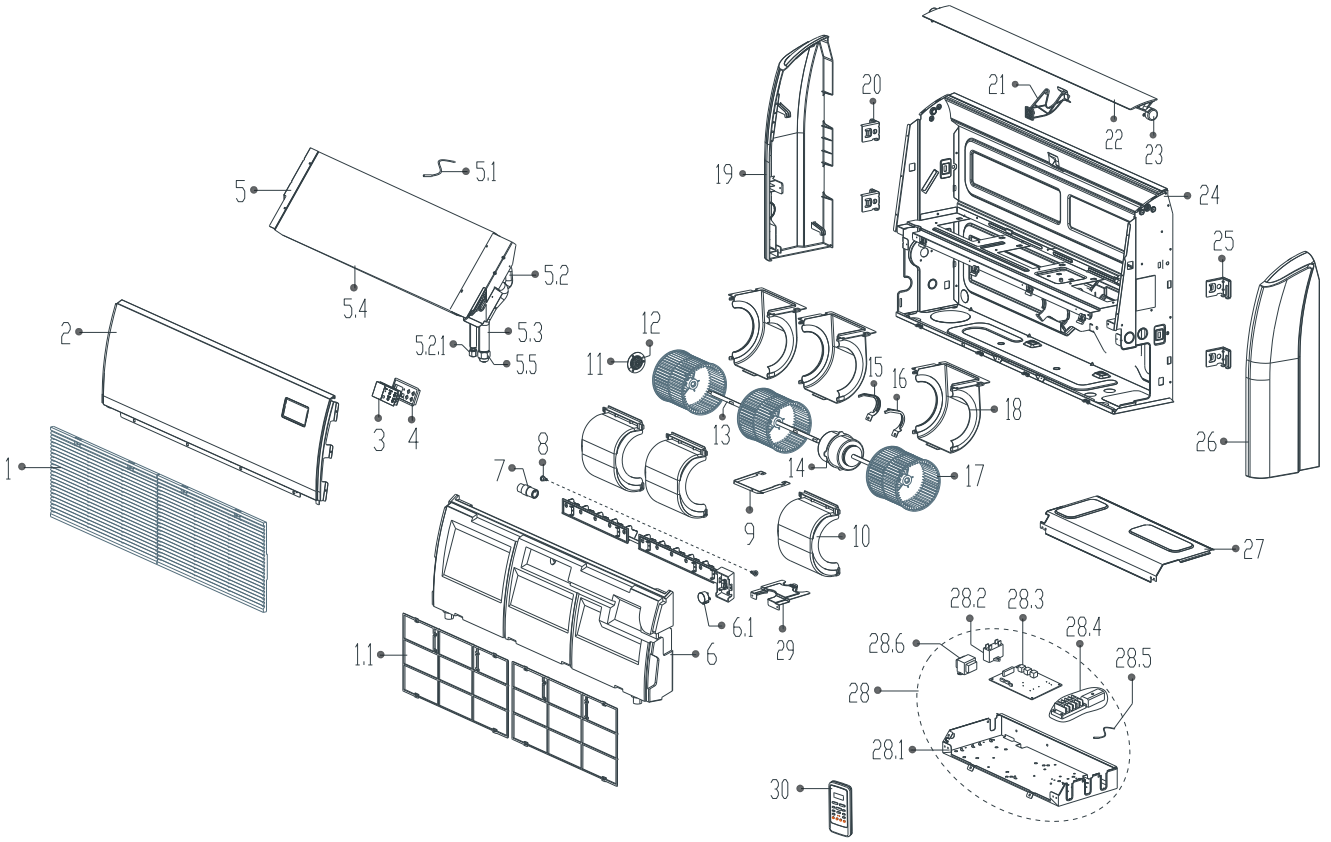
Exploded View of indoor unit: AWSI-FCF030-N11



Spare part list of indoor unit: AWSI-FCF030-N11

No.	Part Name	Qty	BOM Code	No.	Part Name	Qty	BOM Code
1	Air inlet grille assembly I	2	201144790015	16	Fan motor axes clamp (left)	1	201280200005
1.1	Air filter I	1	201144790024	17	Centrifugal fan	3	201144690083
2	Top cover assembly	1	2012444A0012	18	Volute shell (below)	3	201144690033
3	Display board assembly	1	2013447A0064	19	Right cover	1	201144790017
4	Display installation box	1	2011447A0009	20	Right hook	2	201244790033
5	Evaporator assembly	1	201544490265	21	Supporter of louver	1	201144790018
5.1	Pipe temperature sensor assembly	1	202301300111	22	Louver	1	201144490040
5.2	Input pipe assembly	1	201644490323	23	Louver motor	1	202400200162
5.2.1	Copper nut	1	201600320001	24	Chassis assembly	1	201244490046
5.3	Output pipe assembly	1	201644490315	25	Left hook	2	201244790034
5.4	Evaporator	1	201544490252	26	Left cover	1	201144790019
5.5	Copper nut	1	201600320004	27	Cover of electronic control box	1	201244490048
6	Water collector	1	202244490015	28	Electronic control box assembly	1	203344490061
6.1	Louver motor (vertical)	1	202400200100	28.1	Electronic control box	1	201244790050
7	Coupling	1	202970790001	28.2	Capacitor	1	202401100023
8	Insulated axis	2	201132590888	28.3	Main control board assembly	1	201344290054
9	Fan motor fixing board	1	201244590001	28.4	Wire joint	1	202301450135
10	Volute shell (above)	3	201144690032	28.4	Wire joint	1	202301450121
11	Bearing fixing board	1	201287000011	28.5	Ambient temperature sensor assembly	1	202301310072
12	Bearing base	1	202732400001	28.6	Transformer	1	202300900552
13	Connecting shaft	1	202501180103	29	Pipe clamp board	1	201244790047
14	Asynchronous motor	1	202400401237	30	Remote controller	1	203355091552
15	Fan motor axes clamp (right)	1	201280200006				

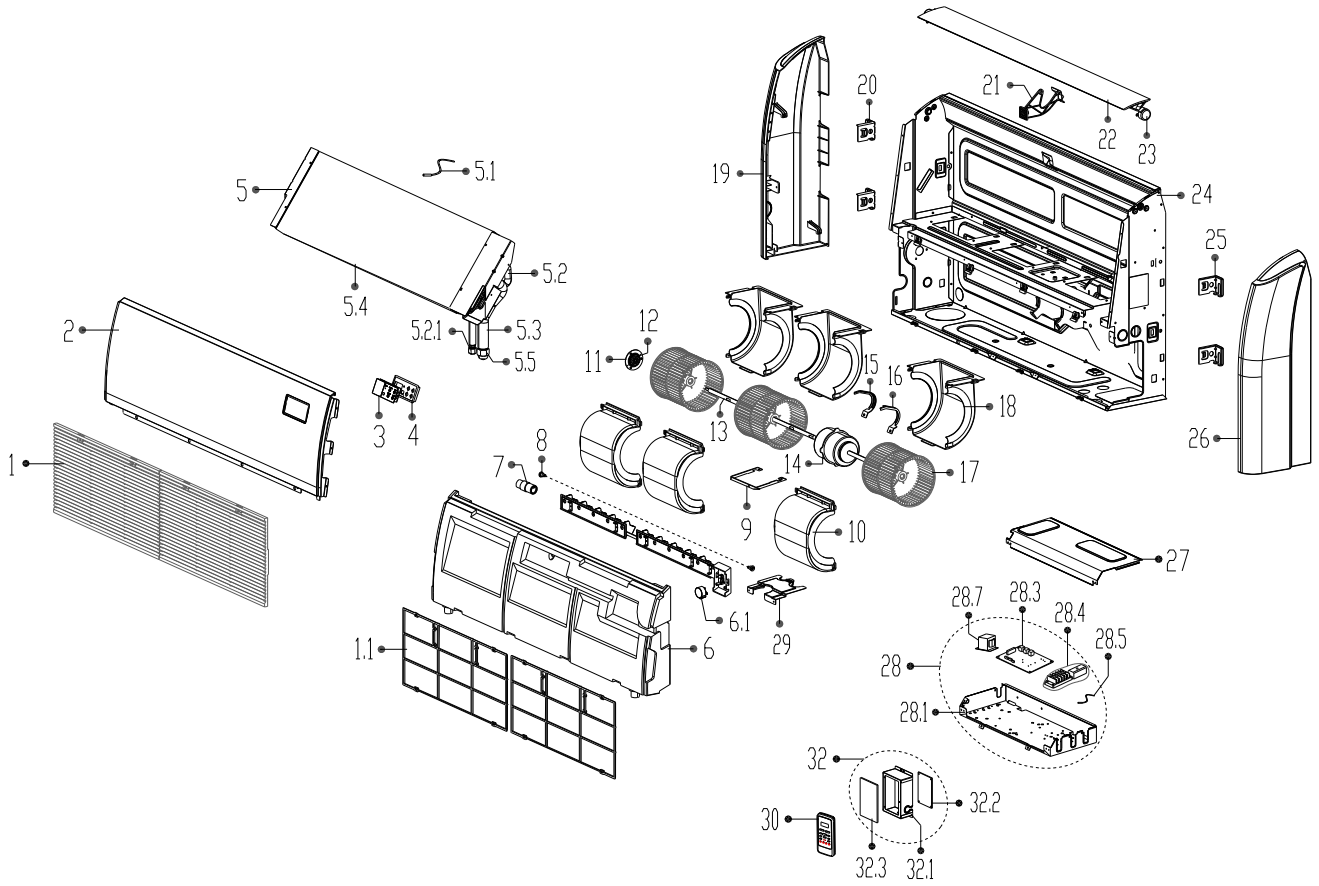
Exploded View of indoor unit: AWSI-FCF036-N11



Spare part list of indoor unit: AWSI-FCF036-N11

No.	Part Name	Qty	BOM Code	No.	Part Name	Qty	BOM Code
1	Air inlet grille assembly I	2	201144790015	16	Fan motor axes clamp (left)	1	201280200005
1.1	Air filter I	1	201144790024	17	Centrifugal fan	3	201144690083
2	Top cover assembly	1	2012444A0012	18	Volute shell (below)	3	201144690033
3	Display board assembly	1	2013447A0064	19	Right cover	1	201144790017
4	Display installation box	1	2011447A0009	20	Right hook	2	201244790033
5	Evaporator assembly	1	201544490265	21	Supporter of louver	1	201144790018
5.1	Pipe temperature sensor assembly	1	202301300111	22	Louver	1	201144490040
5.2	Input pipe assembly	1	201644490323	23	Louver motor	1	202400200162
5.2.1	Copper nut	1	201600320001	24	Chassis assembly	1	201244490046
5.3	Output pipe assembly	1	201644490315	25	Left hook	2	201244790034
5.4	Evaporator	1	201544490252	26	Left cover	1	201144790019
5.5	Copper nut	1	201600320004	27	Cover of electronic control box	1	201244490048
6	Water collector	1	202244490015	28	Electronic control box assembly	1	2033446A0044
6.1	Louver motor (vertical)	1	202400200100	28.1	Electronic control box	1	201244790050
7	Coupling	1	202970790001	28.2	Capacitor	1	202401100023
8	Insulated axis	2	201132590888	28.3	Main control board assembly	1	201344290054
9	Fan motor fixing board	1	201244590001	28.4	Wire joint	1	202301450135
10	Volute shell (above)	3	201144690032	28.4	Wire joint	1	202301450125
11	Bearing fixing board	1	201287000011	28.5	Ambient temperature sensor assembly	1	202301310072
12	Bearing base	1	202732400001	28.6	Transformer	1	202300900552
13	Connecting shaft	1	202501180103	29	Pipe clamp board	1	201244790047
14	Asynchronous motor	1	202400401237	30	Remote controller	1	203355091552
15	Fan motor axes clamp (right)	1	201280200006				

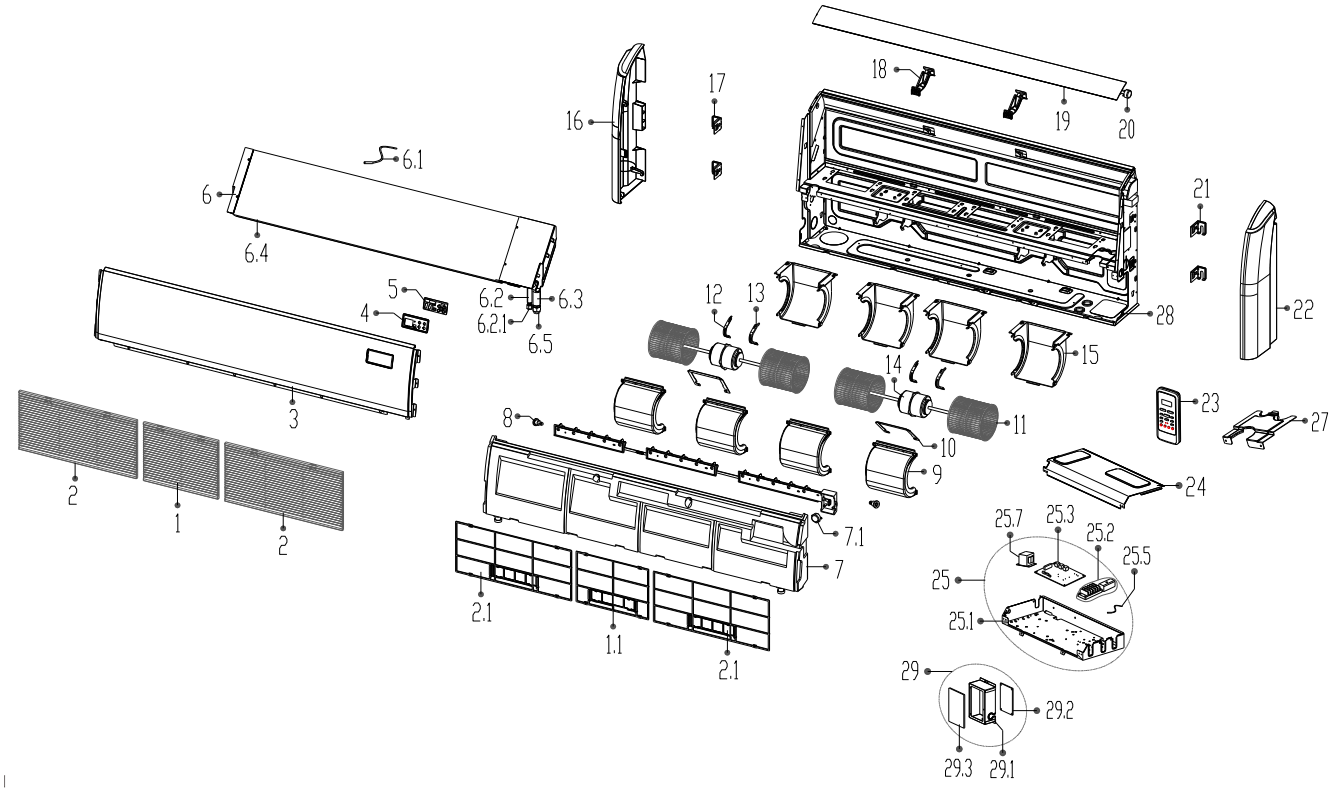
Exploded View of indoor unit: AWSI-FCF048-N11



Spare part list of indoor unit:AWSI-FCF048-N11

No.	Part Name	Qty	BOM Code	No.	Part Name	Qty	BOM Code
1	Air inlet grille assembly I	2	201144790015	17	Centrifugal fan	3	201144690083
1.1	Air filter I	1	201144790024	18	Volute shell (below)	3	201144690033
2	Top cover assembly	1	2012444A0012	19	Right cover	1	201144790017
3	Display board assembly	1	2013447A0064	20	Right hook	2	201244790033
4	Display installation box	1	2011447A0009	21	Supporter of louver	1	201144790018
5	Evaporator assembly	1	201544690190	22	Louver	1	201144490040
5.1	Pipe temperature sensor assembly	1	202301300111	23	Louver motor	1	202400200162
5.2	Input pipe assembly	1	201644690252	24	Chassis assembly	1	201244490052
5.2.1	Copper nut	1	201600320001	25	Left hook	2	201244790034
5.3	Output pipe assembly	1	201644690236	26	Left cover	1	201144790019
5.4	Evaporator	1	201544690174	27	Cover of electronic control box	1	201244490048
5.5	Copper nut	1	201600320004	28	Electronic control box assembly	1	203344690027
6	Water collector	1	202244490015	28.1	Electronic control box	1	201244790050
6.1	Louver motor (vertical)	1	202400200100	28.3	Main control board assembly	1	201344690019
7	Coupling	1	202970790001	28.4	Wire joint	1	202301450042
8	Insulated axis	2	201132590888	28.4	Wire joint	1	202301450125
9	Fan motor fixing board	1	201252490002	28.5	Ambient temperature sensor assembly	1	202301310072
10	Volute shell (above)	3	201144690032	28.7	Reactance	1	202301000950
11	Bearing fixing board	1	201287000011	29	Pipe clamp board	1	201244790047
12	Bearing base	1	202732400001	30	Remote controller	1	203355091552
13	Connecting shaft	1	202501180103	32	Electronic control box assembly	1	203319900796
14	Asynchronous motor	1	202400300512	32.1	Electronic control box	1	201270590340
15	Fan motor axes clamp	1	201280200006	32.2	Inverter control board	1	201319903060
16	Fan motor axes clamp (left)	1	201280200005	32.3	Radiator	1	202301900138

Exploded View of indoor unit: AWSI-FCF060-N11

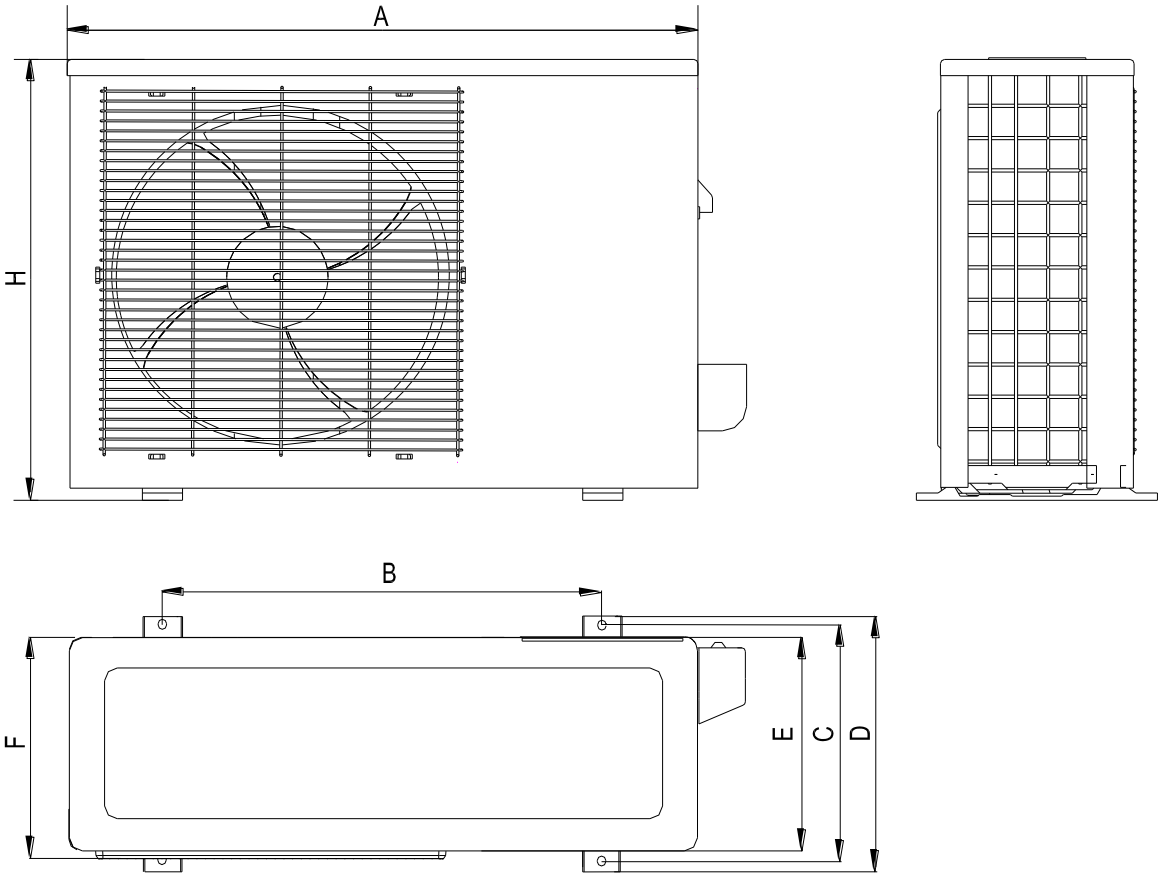


Spare part list of indoor unit:AWSI-FCF060-N11

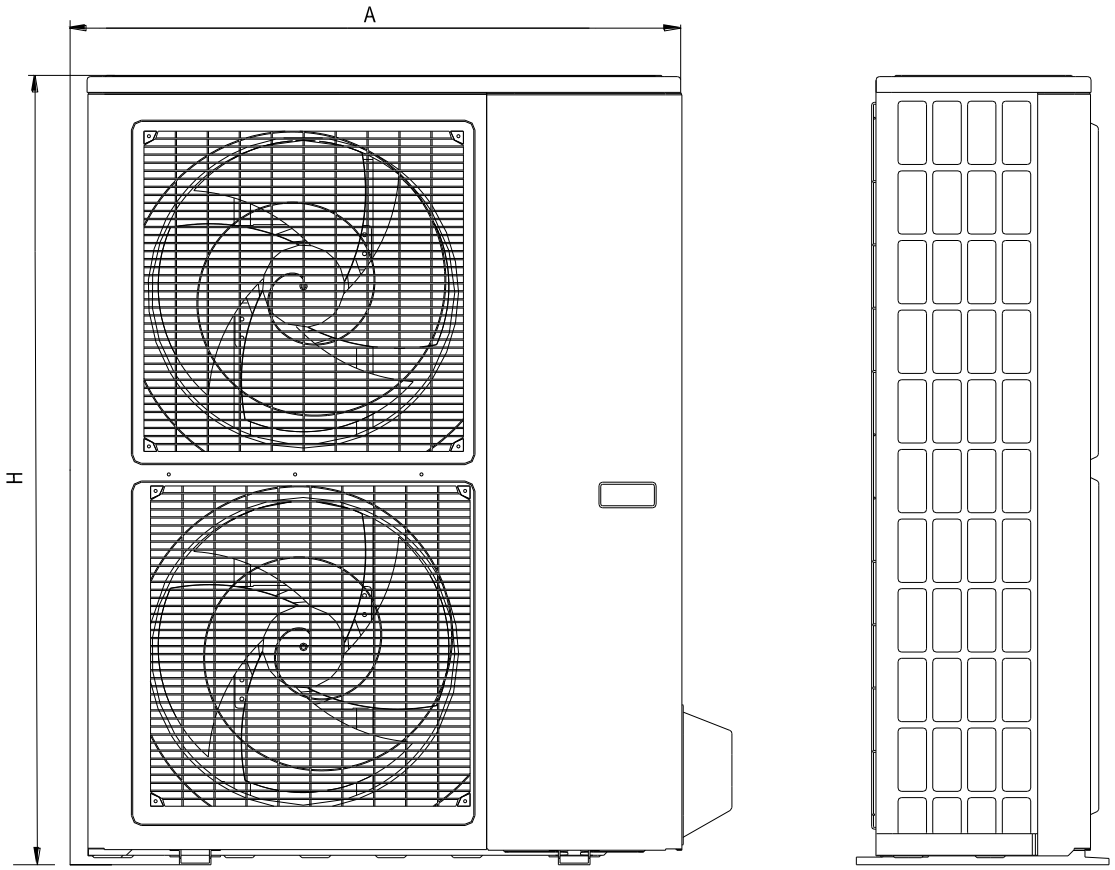
No.	Part Name	Qty	BOM Code	No.	Part Name	Qty	BOM Code
1	Air inlet grille assembly II	1	201144790014	15	Volute shell (below)	4	201144690033
1.1	Air filter I	1	201144790023	16	Right cover	1	201144790017
2	Air inlet grille assembly I	2	201144790015	17	Right hook	2	201244790033
2.1	Air filter II	1	201144790024	18	Supporter of louver	2	201144790018
3	Top cover assembly	1	2012447A0016	19	Louver	1	201144790006
4	Display installation box	1	2011447A0009	20	Louver motor	1	202400200162
5	Display board assembly	1	2013447A0064	21	Left hook	2	201244790034
6	Evaporator assembly	1	201544790142	22	Left cover	1	201144790019
6.1	Pipe temperature sensor assembly	1	202301300111	23	Remote controller	1	203355091552
6.2	Input pipe assembly	1	201644790189	24	Cover of electronic control box	1	201244490048
6.2.1	Copper nut	1	201600320001	25	Electronic control box assembly	1	203344690026
6.3	Output pipe assembly	1	201644790185	25.1	Electronic control box	1	201244790050
6.4	Evaporator	1	201544790139	25.2	Wire joint	1	202301450042
6.5	Copper nut	1	201600320004	25.2	Wire joint	1	202301450125
7	Water collector	1	202244790001	25.3	Main control board assembly	1	201344690017
7.1	Louver motor	1	202400200100	25.5	Ambient temperature sensor assembly	1	202301310072
8	Insulated axis	2	201132590888	25.7	Reactor	1	202301000950
9	Volute shell (above)	4	201144690032	27	Pipe clamp board	1	201244790047
10	Fan motor fixing board	2	201252490002	28	Chassis assembly	1	201244690053
11	Centrifugal fan	4	201144690083	29	Electronic control box assembly	2	203319900796
12	Fan motor axes clamp (right)	2	201280200006	29.1	Electronic control box	1	201270590340
13	Fan motor axes clamp (left)	2	201280200005	29.2	Inverter control board assembly	1	201319903060
14	Asynchronous motor	2	202400300070	29.3	Radiator	1	202301900138

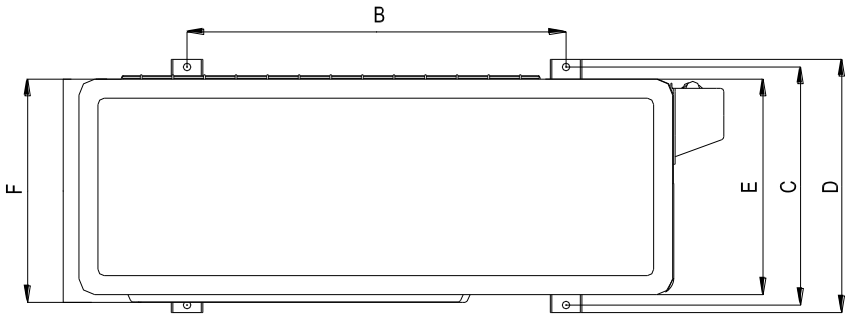
Part 3
Outdoor Units

1. Dimensions



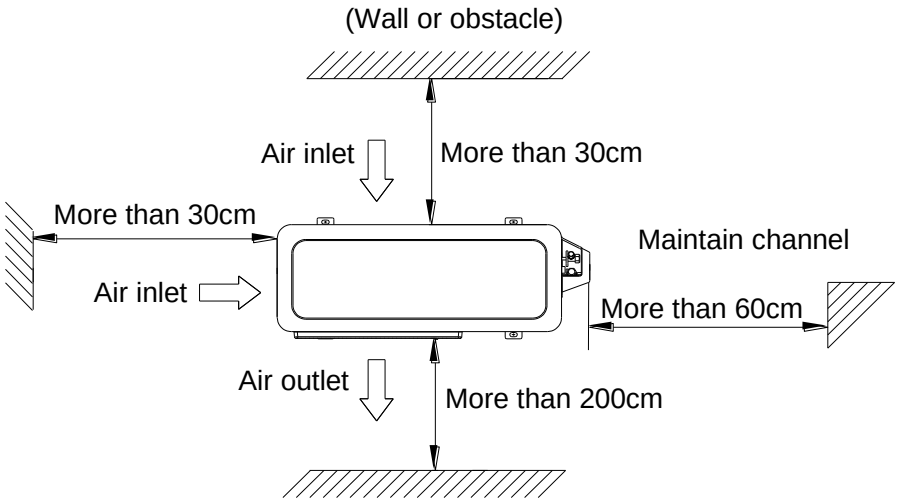
Model	Unit：mm						
	A	B	C	D	E	F	H
AWAU-YOF012-H11	780	548	266	300	241	250	540
AWAU-YOF018-H11	760	530	290	315	270	285	590
AWAU-YOF024-H11	845	560	335	360	312	320	700
AWAU-YOF030-H11	990	624	366	396	340	345	965
AWAU-YOF036-H11	990	624	366	396	340	345	965
AWAU-YOF036-H13	990	624	366	396	340	345	965

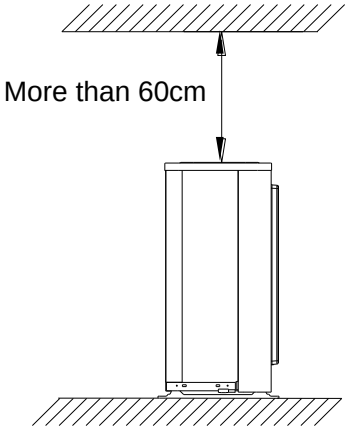




Model	Unit：mm						
	A	B	C	D	E	F	H
AWAU-YOF048-H13	938	633.5	404	448	370	392	1369
AWAU-YOF060-H13	938	633.5	404	448	370	392	1369

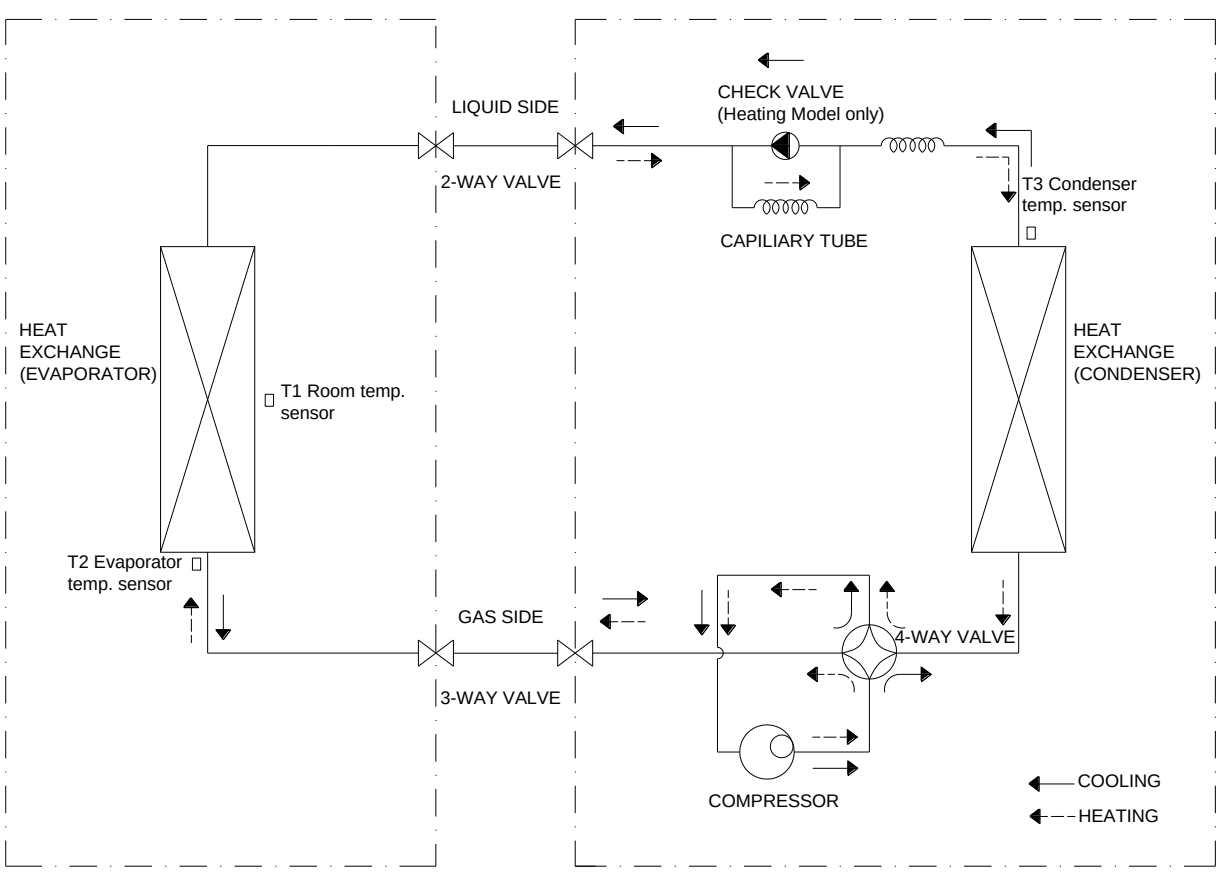
2. Service Space



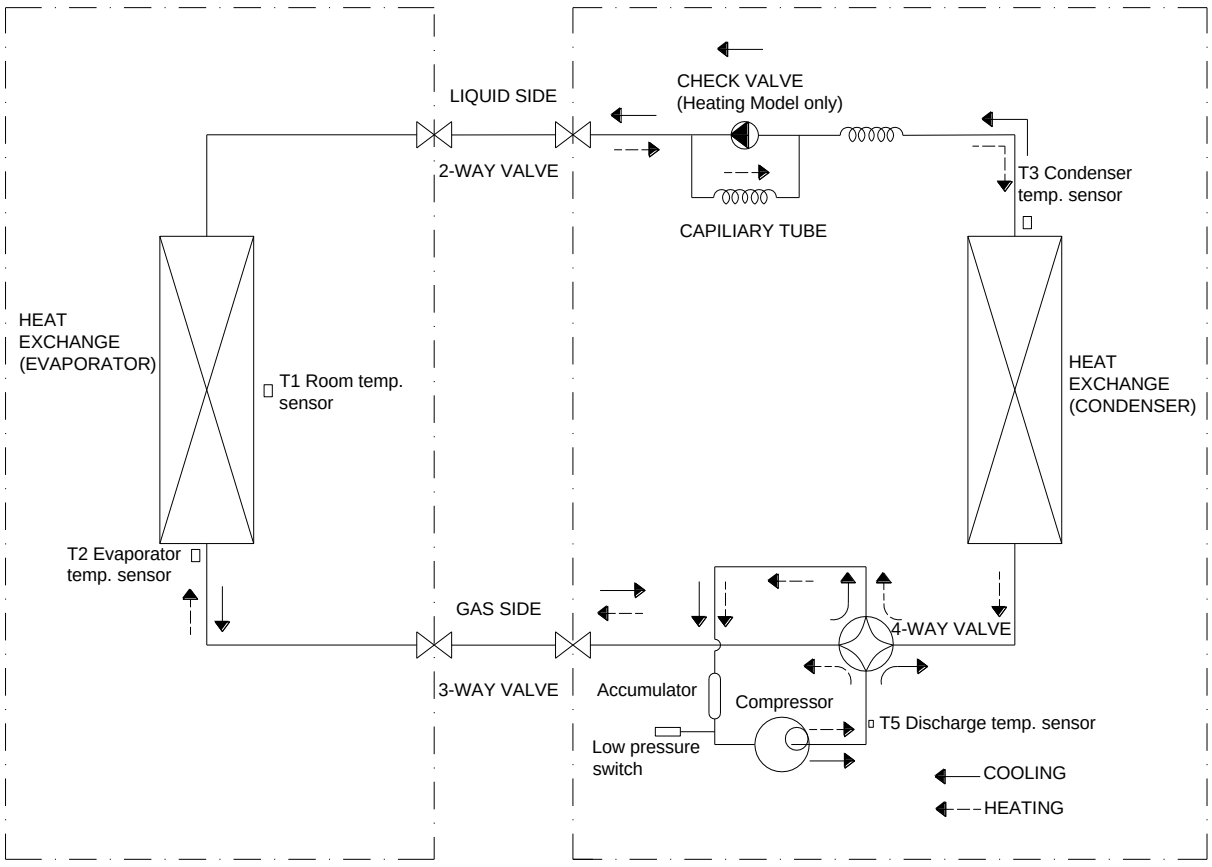


3. Piping Diagrams

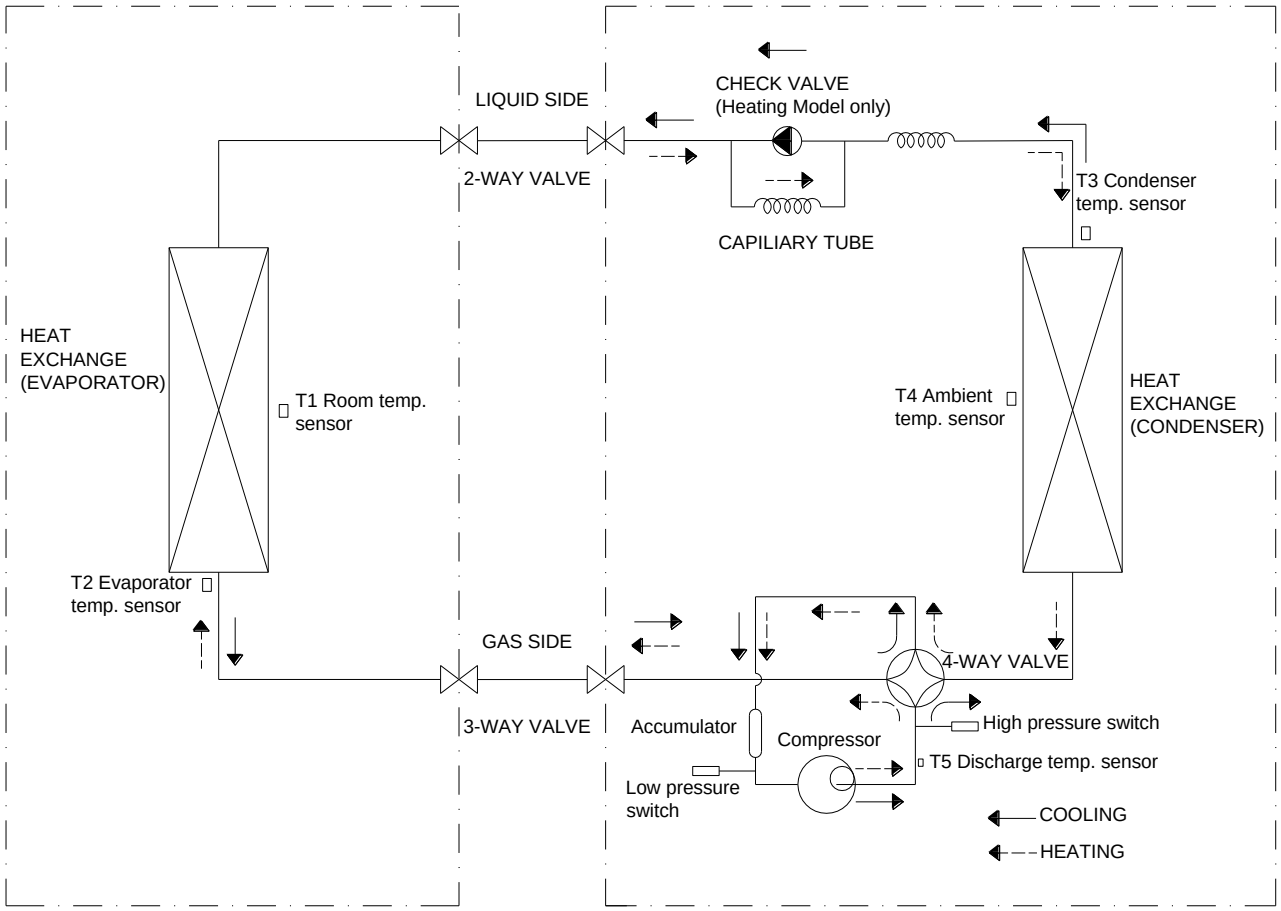
AWAU-YOF012-H11 AWAU-YOF018-H11 AWAU-YOF024-H11 AWAU-YOF030-H11



AWAU-YOF036-H11



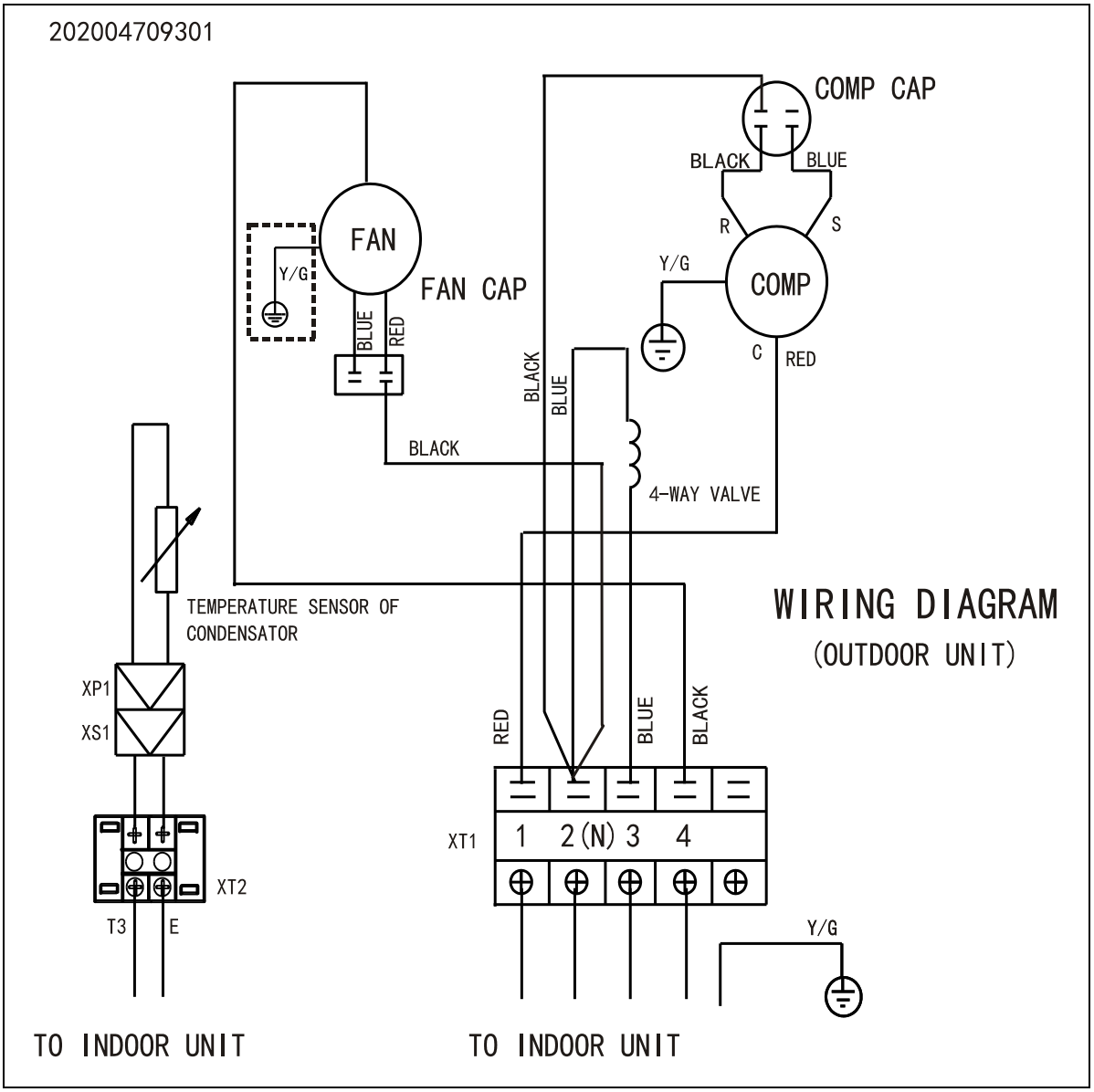
AWAU-YOF036-H13 AWAU-YOF048-H13 AWAU-YOF060-H13



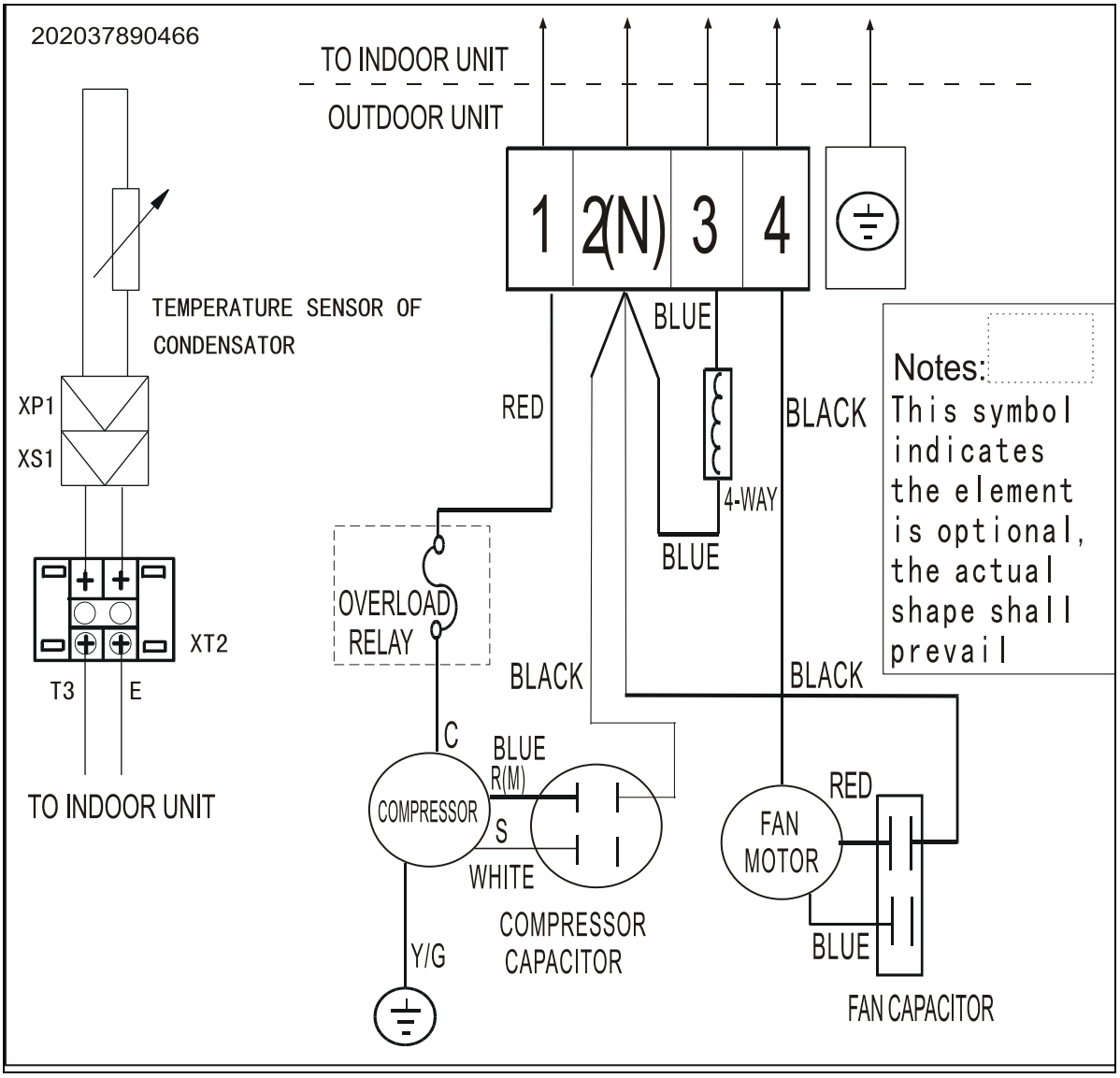
For AWAU-YOF036-H13, there is no high pressure switch.

4. Wiring Diagrams

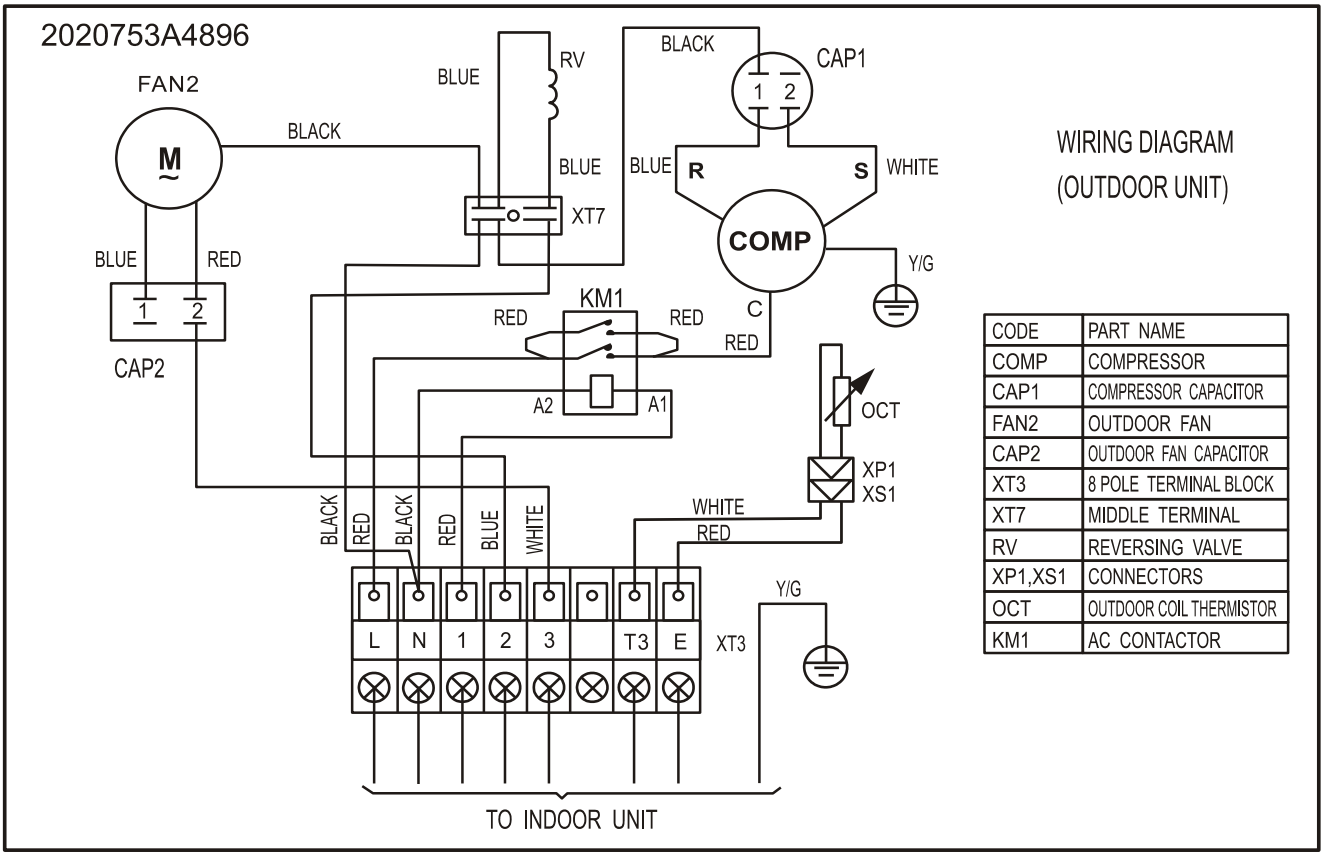
AWAU-YOF012-H11



AWAU-YOF018-H11

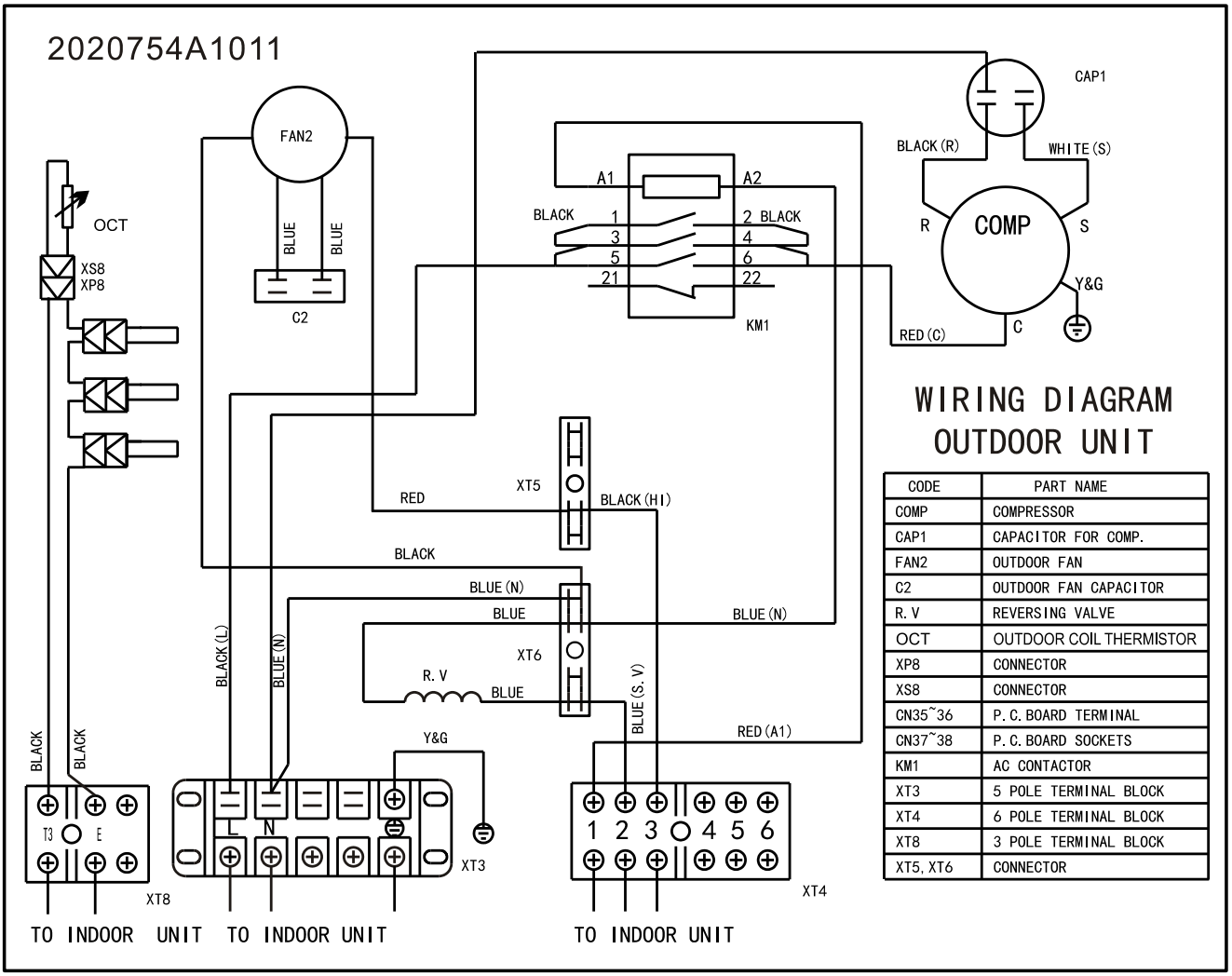


AWAU-YOF024-H11



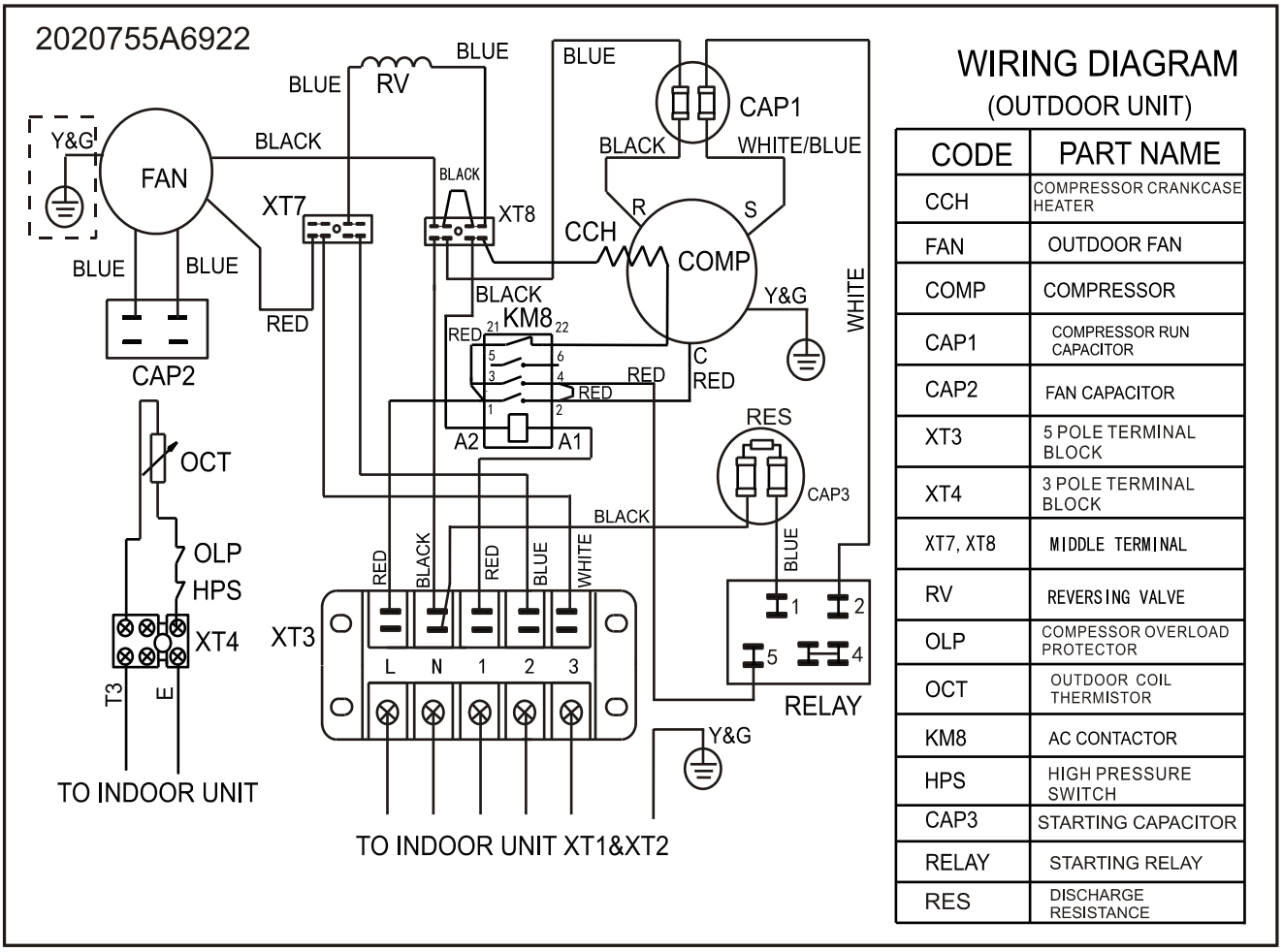
CODE	PART NAME
COMP	COMPRESSOR
CAP1	COMPRESSOR CAPACITOR
FAN2	OUTDOOR FAN
CAP2	OUTDOOR FAN CAPACITOR
XT3	8 POLE TERMINAL BLOCK
XT7	MIDDLE TERMINAL
RV	REVERSING VALVE
XP1,XS1	CONNECTORS
OCT	OUTDOOR COIL THERMISTOR
KM1	AC CONTACTOR

AWAU-YOF030-H11



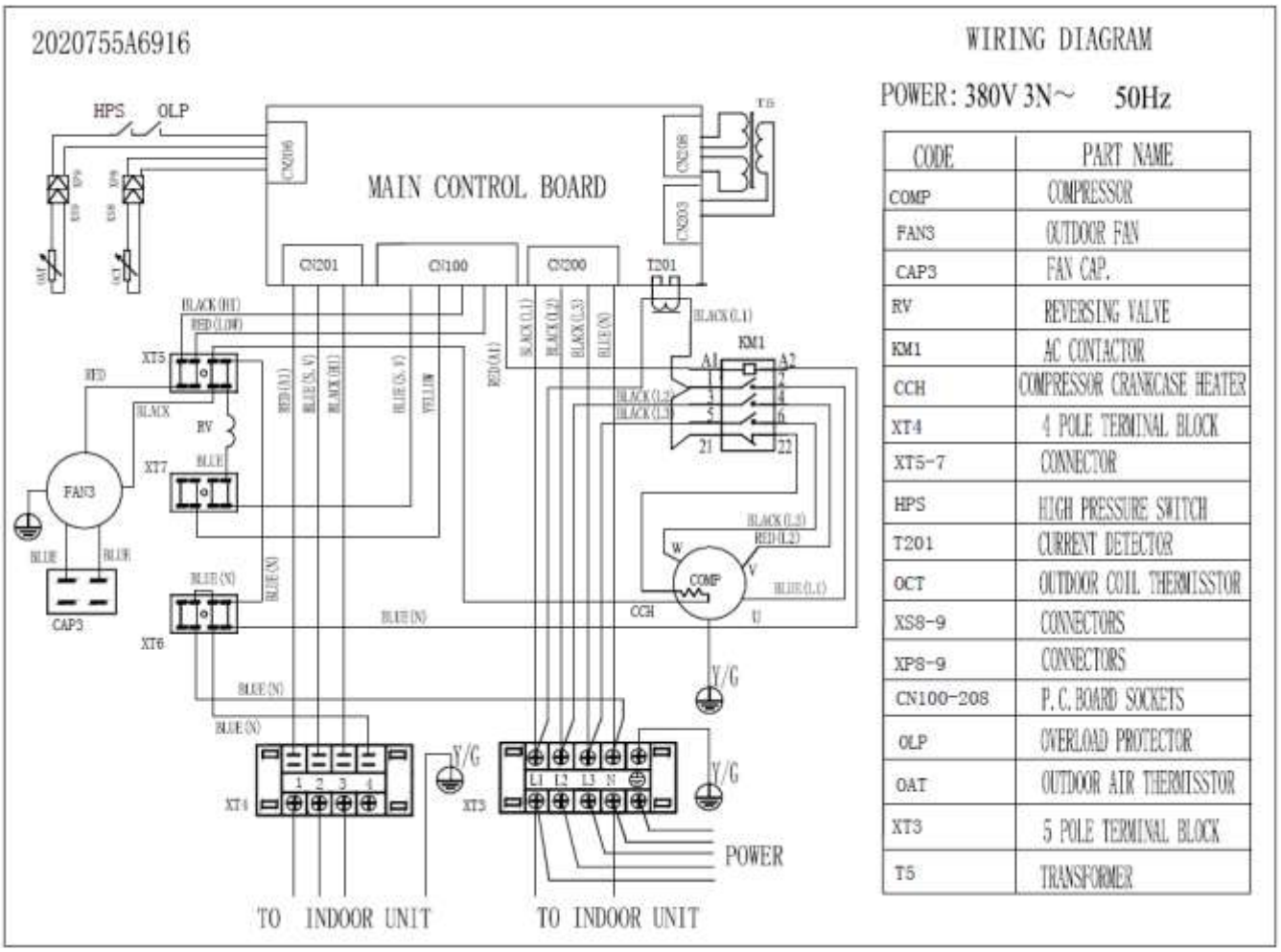
CODE	PART NAME
COMP	COMPRESSOR
CAP1	CAPACITOR FOR COMP.
FAN2	OUTDOOR FAN
C2	OUTDOOR FAN CAPACITOR
R. V	REVERSING VALVE
OCT	OUTDOOR COIL THERMISTOR
XP8	CONNECTOR
XS8	CONNECTOR
CN35~36	P. C. BOARD TERMINAL
CN37~38	P. C. BOARD SOCKETS
KM1	AC CONTACTOR
XT3	5 POLE TERMINAL BLOCK
XT4	6 POLE TERMINAL BLOCK
XT8	3 POLE TERMINAL BLOCK
XT5, XT6	CONNECTOR

AWAU-YOF036-H11



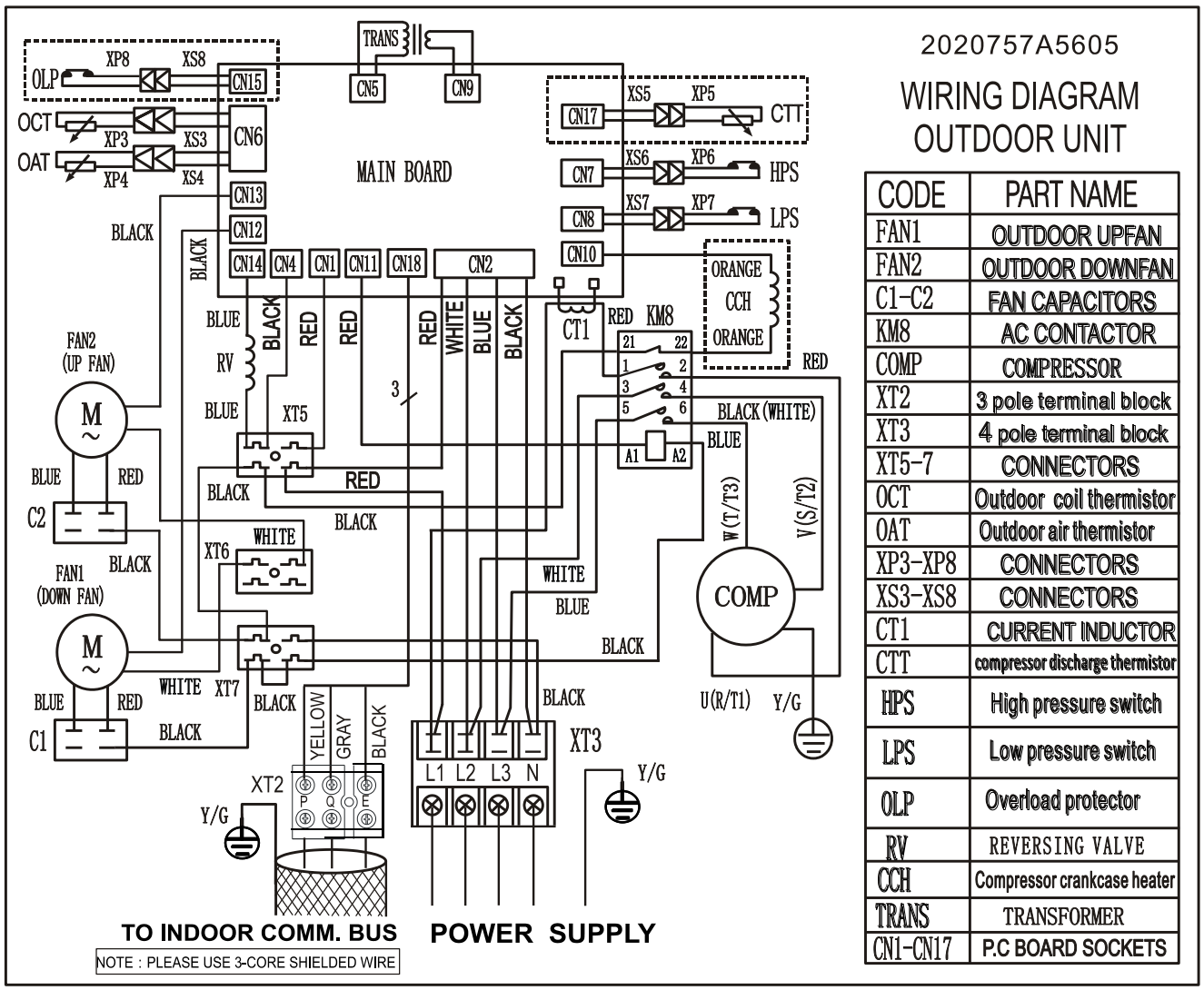
CODE	PART NAME
CCH	COMPRESSOR CRANKCASE HEATER
FAN	OUTDOOR FAN
COMP	COMPRESSOR
CAP1	COMPRESSOR RUN CAPACITOR
CAP2	FAN CAPACITOR
XT3	5 POLE TERMINAL BLOCK
XT4	3 POLE TERMINAL BLOCK
XT7, XT8	MIDDLE TERMINAL
RV	REVERSING VALVE
OLP	COMPESSOR OVERLOAD PROTECTOR
OCT	OUTDOOR COIL THERMISTOR
KM8	AC CONTACTOR
HPS	HIGH PRESSURE SWITCH
CAP3	STARTING CAPACITOR
RELAY	STARTING RELAY
RES	DISCHARGE RESISTANCE

AWAU-YOF036-H13



CODE	PART NAME
COMP	COMPRESSOR
FAN3	OUTDOOR FAN
CAP3	FAN CAP.
RV	REVERSING VALVE
KM1	AC CONTACTOR
CCH	COMPRESSOR CRANKCASE HEATER
XT4	4 POLE TERMINAL BLOCK
XT5-7	CONNECTOR
HPS	HIGH PRESSURE SWITCH
T201	CURRENT DETECTOR
OCT	OUTDOOR COIL THERMISSTOR
XS8-9	CONNECTORS
XP8-9	CONNECTORS
CN100-208	P.C.BOARD SOCKETS
OLP	OVERLOAD PROTECTOR
OAT	OUTDOOR AIR THERMISSTOR
XT3	5 POLE TERMINAL BLOCK
T5	TRANSFORMER

AWAU-YOF048-H13 AWAU-YOF060-H13



CODE	PART NAME
FAN1	OUTDOOR UPFAN
FAN2	OUTDOOR DOWNFAN
C1-C2	FAN CAPACITORS
KM8	AC CONTACTOR
COMP	COMPRESSOR
XT2	3 pole terminal block
XT3	4 pole terminal block
XT5-7	CONNECTORS
OCT	Outdoor coil thermistor
OAT	Outdoor air thermistor
XP3-XP8	CONNECTORS
XS3-XS8	CONNECTORS
CT1	CURRENT INDUCTOR
CTT	compressor discharge thermistor
HPS	High pressure switch
LPS	Low pressure switch
OLP	Overload protector
RV	REVERSING VALVE
CCH	Compressor crankcase heater
TRANS	TRANSFORMER
CN1-CN17	P.C BOARD SOCKETS

5. Electric Characteristics

Model	Outdoor Unit				Power Supply
	Hz	Voltage	Min.	Max.	MFA
AWAU-YOF012-H11	50	220-240V	198V	254V	/
AWAU-YOF018-H11	50	220-240V	198V	254V	/
AWAU-YOF024-H11	50	220-240V	198V	254V	/
AWAU-YOF030-H11	50	220-240V	198V	254V	/
AWAU-YOF036-H11	50	220-240V	198V	254V	/
AWAU-YOF036-H13	50	380-415V	342V	440V	20
AWAU-YOF048-H13	50	380-415V	342V	440V	20
AWAU-YOF060-H13	50	380-415V	342V	440V	20

Note:
MFA: Max. Fuse Amps. (A)

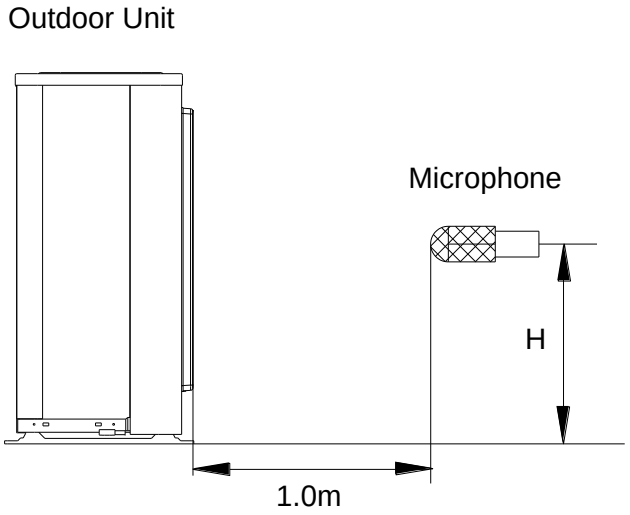
6. Operation Limits

Mode \ Temperature	Cooling operation	Heating operation
Room temperature	17℃～32℃	0℃～30℃
Outdoor temperature	18℃～43℃	-7℃～24℃
	（-7℃～43℃：For the models with low temperature cooling system）	

CAUTION:

1. If the air conditioner is used beyond the above conditions, certain safety protection features may come into operation and cause the unit to operate abnormally.
2. The room relative humidity should be less than 80%. If the air conditioner operates beyond this figure, the surface of the air conditioner may attract condensation. Please set the vertical air flow louver to its maximum angle (vertically to the floor), and set HIGH fan mode.
3. The optimum performance will be achieved during this operating temperature zone.

7. Sound Levels

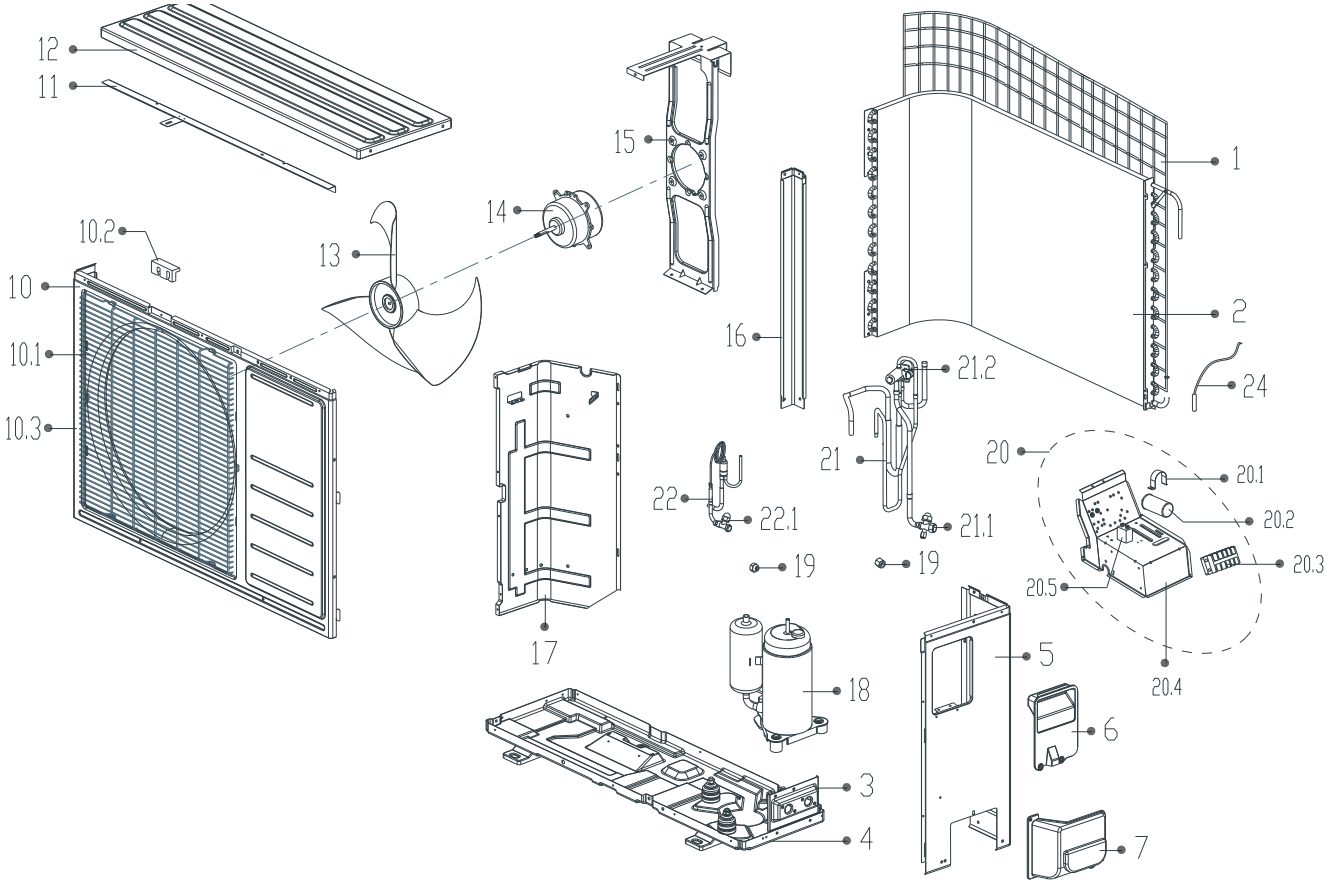


Note: H= 0.5 × height of outdoor unit

Model	Noise Power dB(A)	Noise level dB(A)
AWAU-YOF012-H11	65	55
AWAU-YOF018-H11	68	58
AWAU-YOF024-H11	69	59
AWAU-YOF030-H11	71	61
AWAU-YOF036-H11	71	61
AWAU-YOF036-H13	71	61
AWAU-YOF048-H13	72	62
AWAU-YOF060-H13	73	63

8. Exploded View and Spare Part list

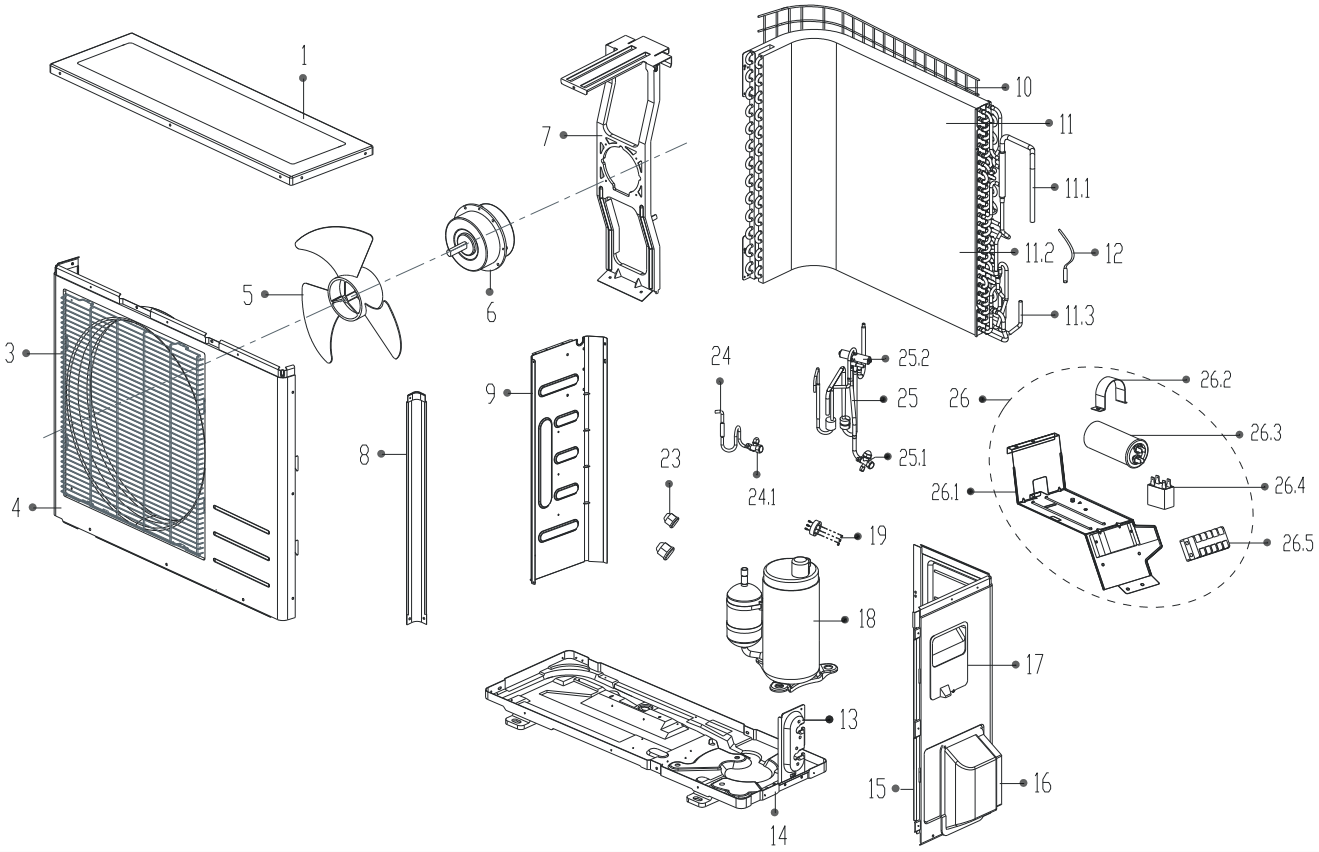
Exploded View of outdoor unit: AWAU-YOF012-H11



Spare part list of outdoor unit: AWAU-YOF012-H11

No.	Part Name	Qty	BOM Code	No.	Part Name	Qty	BOM Code
1	Rear net	1	2011376G0001	18	Compressor	1	201400600620
2	Condenser assembly	1	201537590063	19	Copper nut	1	201600320002
3	Valve plate	1	201237300316	19	Copper nut	1	201600320000
4	Chassis assembly	1	201237590083	20	Electronic control box assembly	1	203347390001
5	Right clapboard	1	201237690009	20.1	Capacitor clip	1	201200100025
6	Big handle	1	201137400366	20.2	Capacitor of compressor	1	202401000078
7	Water collector	1	201137390017	20.3	Wire joint	1	202301450043
10	Front panel	1	201237400411	20.3	Wire joint	1	202301450090
	Air outlet grille	1	2011374A0004	20.4	Installation plate of electric parts	1	201237400005
	Round sticker for air outlet grille	1	2011374A0005	20.5	Fan motor capacitor	1	202401190019
11	Supporting board	1	201237400055	21	4-way valve assembly	1	2016374A0084
12	Top cover assembly	1	201237400412	21.1	Gas valve	1	201600720194
13	Axial flow fan	1	201100300502	21.2	4-Ways valve	1	201600600119
14	Asynchronous motor	1	202400400912	22	Liquid valve assembly	1	201637490573
15	Supporter assembly of fan motor	1	201237400051	22.1	Liquid valve	1	201600700078
16	Left supporter	1	201237400397	24	Pipe temperature sensor assembly	1	202440500004
17	Partition board	1	201237400355				

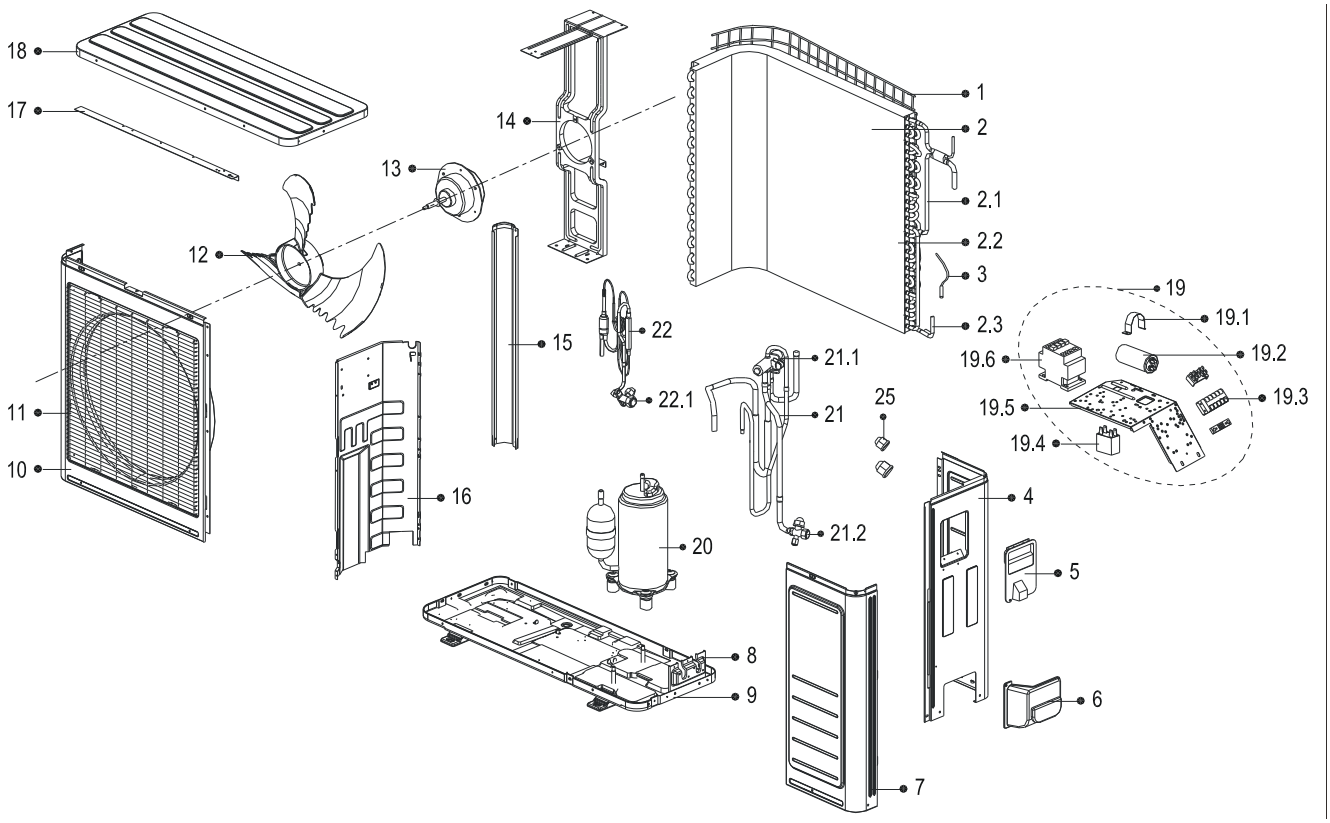
Exploded View of outdoor unit: AWAU-YOF018-H11



Spare part list of outdoor unit: AWAU-YOF018-H11

No.	Part Name	Qty	BOM Code	No.	Part Name	Qty	BOM Code
1	Top cover assembly	1	201237400405	16	Water collector	1	
3	Air outlet grille	1	2011374A0004	17	Big handle	1	
	Round sticker for air outlet grille	1	2011374A0005	18	Compressor	1	
4	Front panel	1	201237890111	19	Compressor wire assembly	1	
5	Axial flow fan	1	201100300534	23	Copper nut	1	
6	Asynchronous motor	1	202400410505	23	Copper nut	1	
7	Supporter assembly of fan motor	1	201237890017	24	Liquid valve assembly	1	
8	Left supporter	1	201237400400	24.1	Liquid valve	1	
9	Partition board assembly	1	201237890019	25	4-way valve assembly	1	
10	Rear net	1	2011374G0003	25.1	Gas valve	1	
11	Condenser assembly	1	201537891087	25.2	4-Ways valve	1	
11.1	Input pipe assembly	1	201637891114	26	Electronic control box assembly	1	
11.2	Condenser assembly	1	201537590078	26.1	Installation plate of electric parts	1	
11.3	Fluted pipe assembly	1	201637390721	26.2	Capacitor clip	1	
12	Pipe temperature sensor assembly	1	202440500004	26.3	Capacitor of compressor	1	
13	Valve plate	1	201237200299	26.4	Fan motor capacitor	1	
14	Chassis assembly	1	201237890107	26.5	Wire joint	1	
15	Rear right clapboard assembly	1	201248100369	26.5	Wire joint	1	

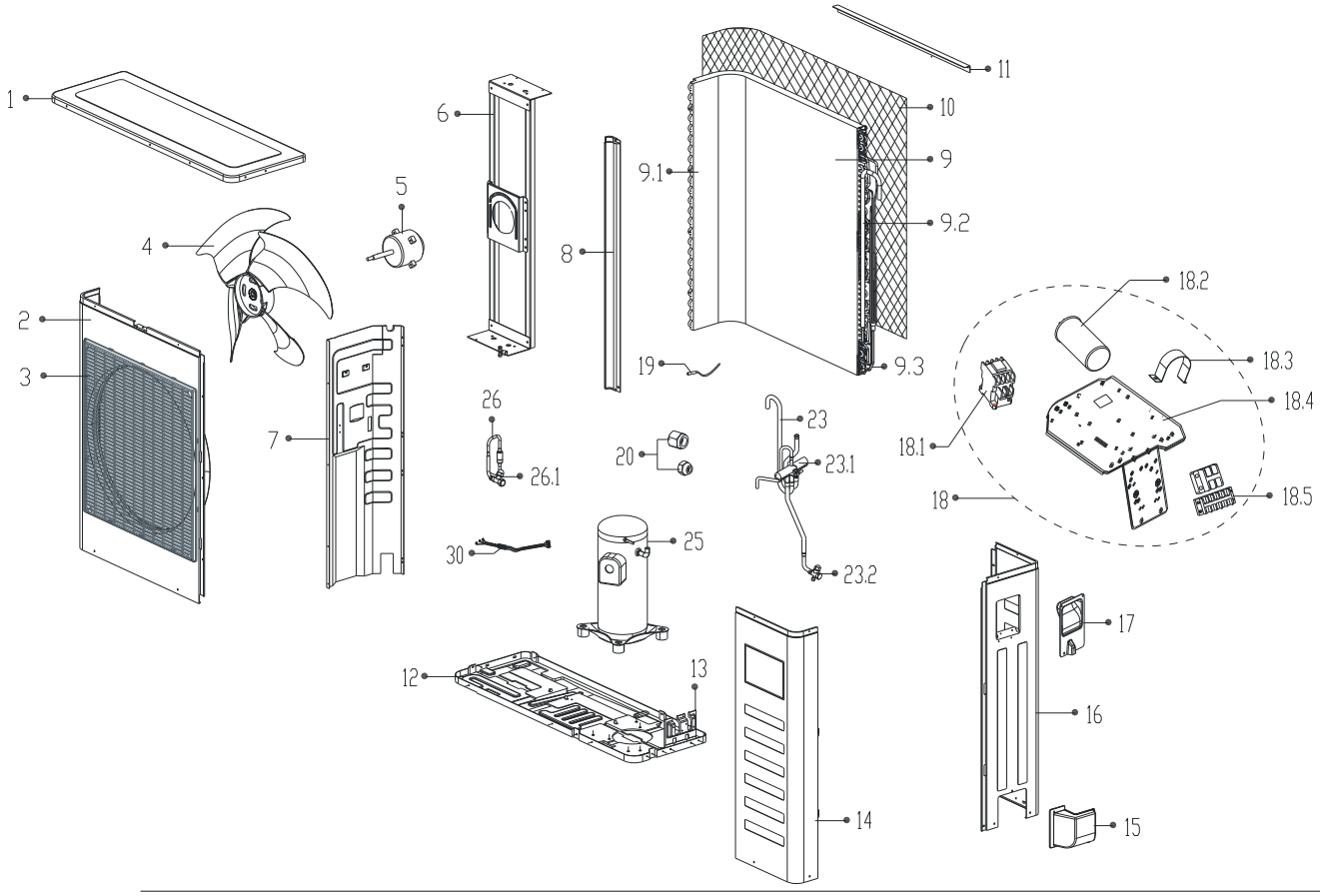
Exploded View of outdoor unit: AWAU-YOF024-H11



Spare part list of outdoor unit: AWAU-YOF024-H11

No.	Part Name	Qty	BOM Code	No.	Part Name	Qty	BOM Code
1	Rear net	1	2011481G0001	16	Partition board assembly	1	201238090056
2	Condenser assembly	1	201537990071	17	Rear net frame	1	201248100384
2.1	Input pipe assembly	1	201637990115	18	Top cover assembly	1	201248100266
2.2	Condenser assembly	1	201535490089	19	Electronic control box assembly	1	203375390286
2.3	Fluted pipe assembly	1	201602300876	19.1	Capacitor clip	1	201200100057
3	Pipe temperature sensor assembly	1	202440500004	19.2	Capacitor of compressor	1	202401000074
4	Rear right clapboard assembly	1	201237890121	19.3	Wire joint	1	202301450122
5	Big handle	1	201148100123	19.3	Wire joint	1	202301450127
6	Water collector	1	201137390017	19.4	Fan motor capacitor	1	202401100505
7	Front right clapboard assembly	1	201248100385	19.5	Installation plate of electric parts	1	201237900010
8	Valve plate	1	201237300316	19.6	AC contactor	1	202300850047
9	Chassis assembly	1	201248100342	20	Compressor	1	201400602920
10	Front panel	1	201248100390	21	4-way valve assembly	1	2016380A0108
11	Air outlet grille	1	2011379A0005	21.1	4-Ways valve	1	201600690011
	Round sticker for air outlet grille	1	2011374A0005	21.2	Gas valve	1	201600720296
12	Axial flow fan	1	201145500002	22	liquid valve assembly	1	201675390771
13	Asynchronous motor	1	202400430109	22.1	Liquid valve	1	201600740704
14	Supporter assembly of fan motor	1	2012481G0038	25	Copper nut	1	201600320001
15	Left supporter	1	201248100367	25	Copper nut	1	201600320003

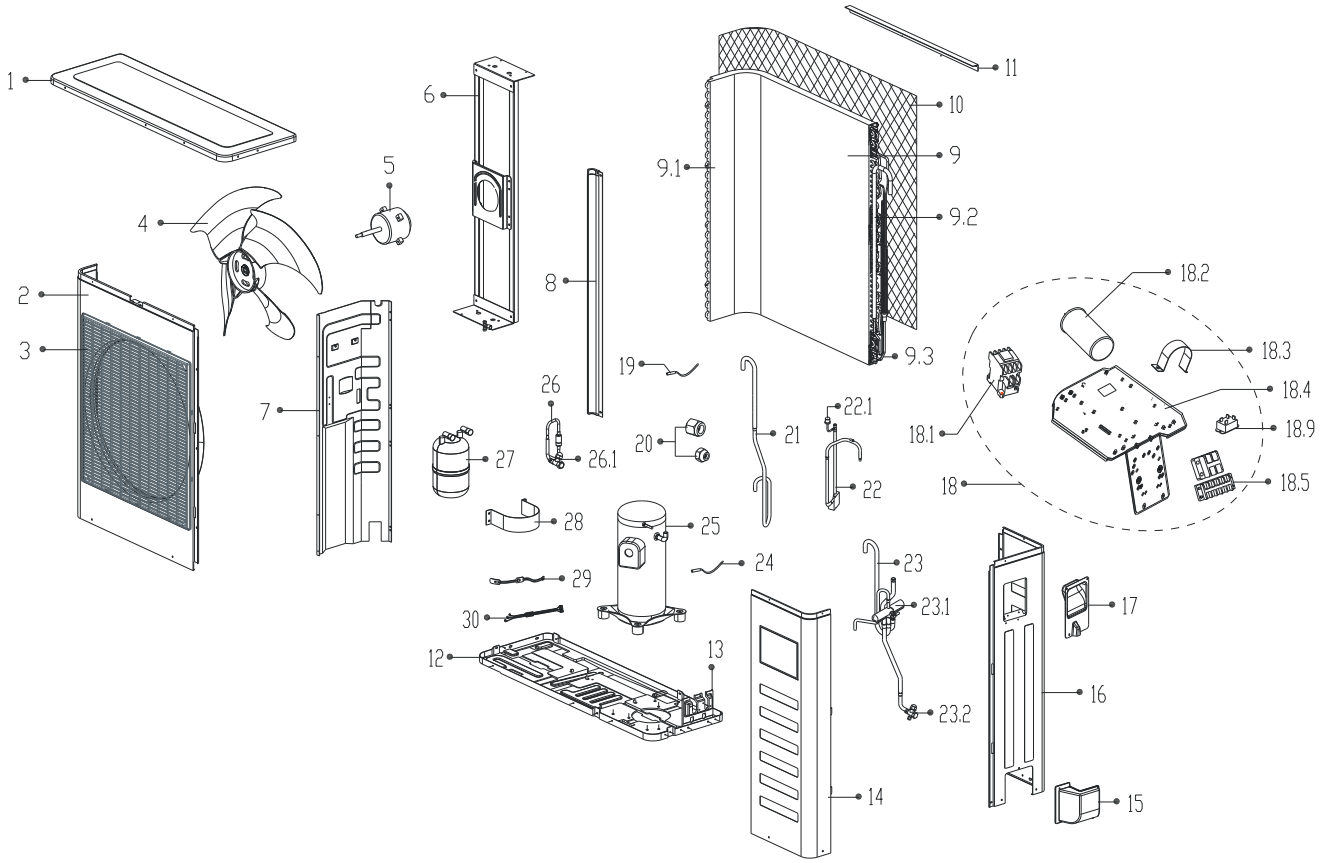
Exploded View of outdoor unit: AWAU-YOF030-H11



Spare part list of outdoor unit: AWAU-YOF030-H11

No.	Part Name	Qty	BOM Code	No.	Part Name	Qty	BOM Code
1	Top cover assembly	1	201248700174	17	Big handle	1	201157390007
2	Front panel	1	201248700072	18	Electronic control box assembly	1	203375490044
3	Air outlet grille	1	2011487A0003	18.1	Contactor	1	202300850054
	Round sticker for air outlet grille	1	2011374A0005	18.2	Capacitor	1	202401000075
4	Axial flow fan	1	201100300145	18.2	Capacitor	1	202401000006
5	Asynchronous motor	1	202400400582	18.3	Capacitor Clamp	1	201200100001
6	Supporter assembly of fan motor	1	201275590200	18.3	Capacitor Clamp	1	201200100011
7	Partition board assembly	1	201248700070	18.4	Installation plate of electric parts	1	201275590077
8	Left supporter	1	201248700262	18.5	Wire joint	1	202301450121
9	Condenser assembly	1	201575590104	18.5	Wire joint	2	202301450117
9.1	Condenser assembly	1	201575590105	18.5	Wire joint	1	202301450039
9.1	Condenser assembly	1	201575590106	18.5	Wire joint	1	202301450125
9.2	Input pipe assembly	1	201675590624	19	Pipe temperature sensor assembly	1	202301300111
9.3	Fluted pipe assembly	1	201657190403	20	Copper nut	1	201600320001
9.3	Fluted pipe assembly	1	201675590973	23	4-way valve assembly	1	2016754A0071
10	Rear net	1	2011487G0001	23.1	4-Ways valve	1	201600600124
11	Rear net clip	1	2012487G0011	23.2	Gas valve	1	201600720425
12	Chassis assembly	1	201275490085	25	Compressor	1	201400603012
13	Valve plate	1	201248790014	26	liquid valve assembly	1	201675490308
14	Front right clapboard assembly	1	201248700056	26.1	Liquid valve	1	201600740704
15	Water collector	1	201148790000	30	Compressor wire assembly	1	202402220156
16	Rear right clapboard assembly	1	201248700266				

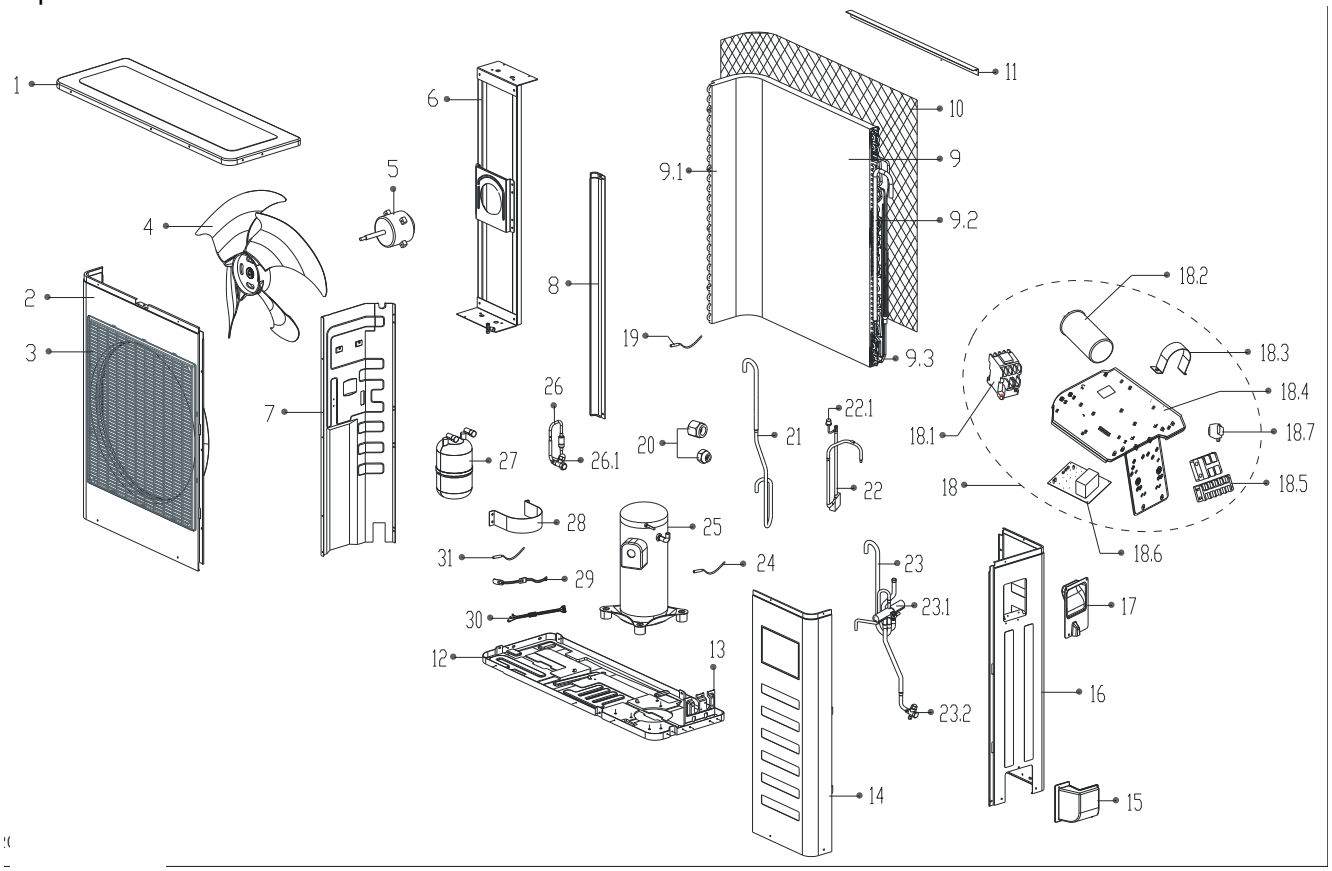
Exploded View of outdoor unit: AWAU-YOF036-H11



Spare part list of outdoor unit: AWAU-YOF036-H11

No.	Part Name	Qty	BOM Code	No.	Part Name	Qty	BOM Code
1	Top cover assembly	1	201248700174	18.2	Capacitor	1	202401000861
2	Front panel	1	201248700072	18.3	Capacitor Clamp	1	201200100001
3	Air outlet grille	1	2011487A0003	18.3	Capacitor Clamp	1	201200100011
	Round sticker for air outlet grille	1	2011374A0005	18.3	Capacitor Clamp	1	201200100008
4	Axial flow fan	1	201100300145	18.4	Installation plate of electric parts	1	201275590077
5	Asynchronous motor	1	202400400582	18.5	Wire joint	2	202301450117
6	Supporter assembly of fan motor	1	201275590200	18.5	Wire joint	1	202301450135
7	Partition board assembly	1	201248700070	18.5	Wire joint	1	202301450121
8	Left supporter	1	201248700262	18.9	Relay	1	202300800500
9	Condenser assembly	1	201575590065	19	Pipe temperature sensor assembly	1	202301300111
9.1	Condenser assembly	1	201575590067	20	Copper nut	1	201600320001
9.1	Condenser assembly	1	201575590066	20	Copper nut	1	201600320004
9.2	Input pipe assembly	1	201675590624	22	Discharge pipe assembly	1	201675591023
9.3	Fluted pipe assembly	1	201675590669	22.1	Pressure switch	1	202301820020
10	Rear net	1	2011487G0001	23	4-way valve assembly	1	2016755A2263
11	Rear net clip	1	2012487G0011	23.1	4-Ways valve	1	201600600124
12	Chassis assembly	1	201248700168	23.2	Gas valve	1	201600720684
13	Valve plate	1	201248790014	24	Discharge temperature sensor	1	202301610024
14	Front right clapboard assembly	1	201248700056	25	Compressor	1	201400710620
15	Water collector	1	201148790000	26	liquid valve assembly	1	201675490226
16	Rear right clapboard assembly	1	201248700266	26.1	Liquid valve	1	201600740704
17	Big handle	1	201157390007	27	Accumulator cylinder	1	201601000193
18	Electronic control box assembly	1	2033755A1116	28	Fix clamp of segregator	1	201245000901
18.1	Contactor	1	202300850045	29	Crankcase electric heater	1	202403101716
18.2	Capacitor	1	202401000006	30	Compressor wire assembly	1	202402220156
18.2	Capacitor	1	202401000073				

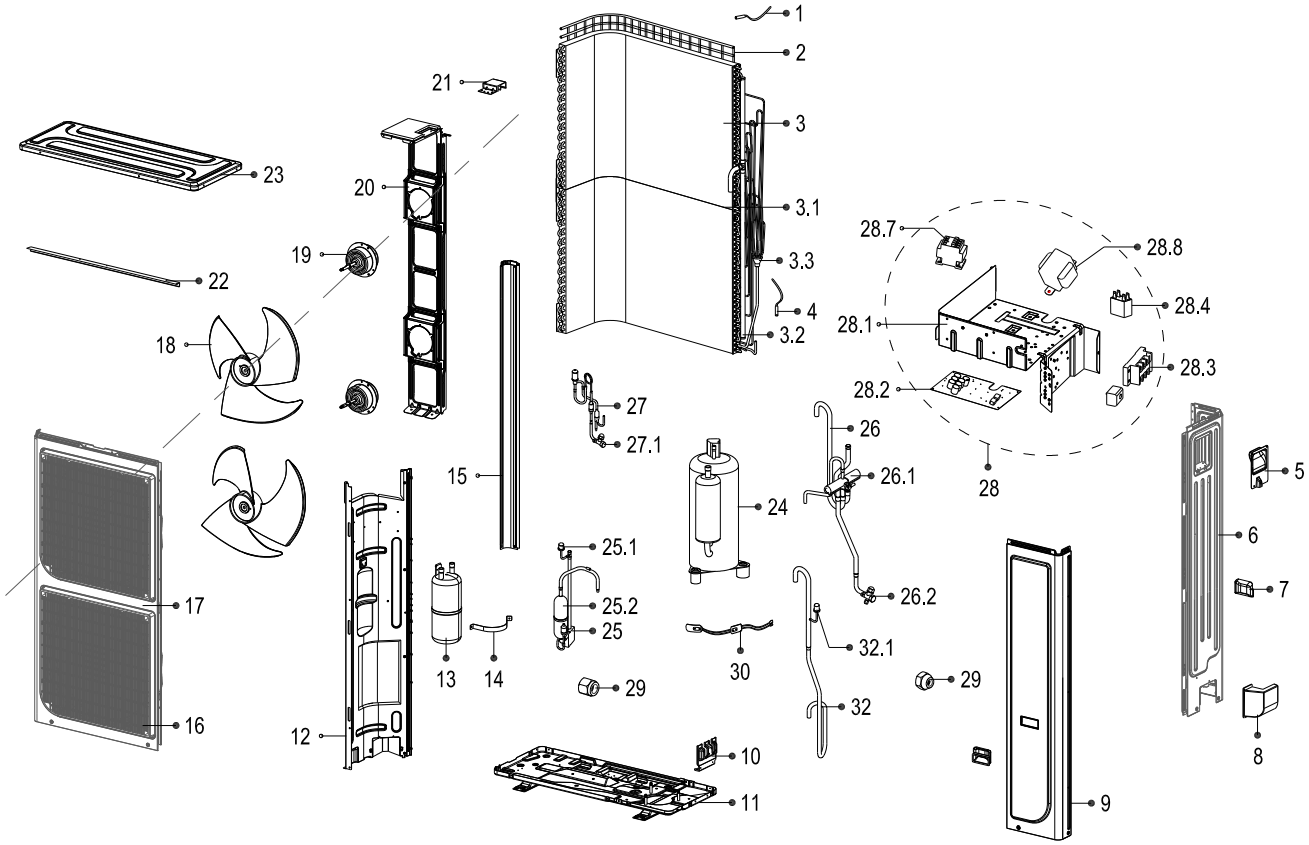
Exploded View of outdoor unit: AWAU-YOF036-H13



Spare part list of outdoor unit: AWAU-YOF036-H13

No.	Part Name	Qty	BOM Code	No.	Part Name	Qty	BOM Code
1	Top cover assembly	1	201248700174	18.2	Capacitor	1	202401000006
2	Front panel	1	201248700072	18.3	Capacitor Clamp	1	201200100001
3	Air outlet grille	1	2011487A0003	18.4	Installation plate of electric parts	1	201275590077
	Round sticker for air outlet grille	1	2011374A0005	18.5	Wire joint	3	202301450117
4	Axial flow fan	1	201100300145	18.5	Wire joint	1	202301450130
5	Asynchronous motor	1	202400400582	18.5	Wire joint	1	202301450039
6	Supporter assembly of fan motor	1	201275590200	18.6	Main control board assembly	1	201375590150
7	Partition board assembly	1	201248700070	18.7	Transformer	1	202300900083
8	Left supporter	1	201248700262	19	Pipe temperature sensor assembly	1	202301300111
9	Condenser assembly	1	201575590164	20	Copper nut	1	201600320001
9.1	Condenser assembly	1	201575590165	20	Copper nut	1	201600320004
9.1	Condenser assembly	1	201575590066	22	Discharge pipe assembly	1	201675591175
9.2	Input pipe assembly	1	201675590624	22.1	Pressure switch	1	202301820020
9.3	Fluted pipe assembly	1	201657190403	23	4-way valve assembly	1	2016755A2263
9.3	Fluted pipe assembly	1	201675590973	23.1	4-Ways valve	1	201600600124
10	Rear net	1	2011487G0001	23.2	Gas valve	1	201600720684
11	Rear net clip	1	2012487G0011	24	Discharge temperature sensor	1	202301610024
12	Chassis assembly	1	201248700168	25	Compressor	1	201400710580
13	Valve plate	1	201248790014	26	liquid valve assembly	1	201675591098
14	Front right clapboard assembly	1	201248700056	26.1	Liquid valve	1	201600740704
15	Water collector	1	201148790000	27	Accumulator cylinder	1	201601000193
16	Rear right clapboard assembly	1	201248700266	28	Fix clamp of segregator	1	201245000901
17	Big handle	1	201157390007	29	Crankcase electric heater	1	202403101716
18	Electronic control box assembly	1	2033755A1115	30	Compressor wire assembly	1	202402220170
18.1	Contactor	1	202300850046	31	Ambient temperature sensor assembly	1	202301310075

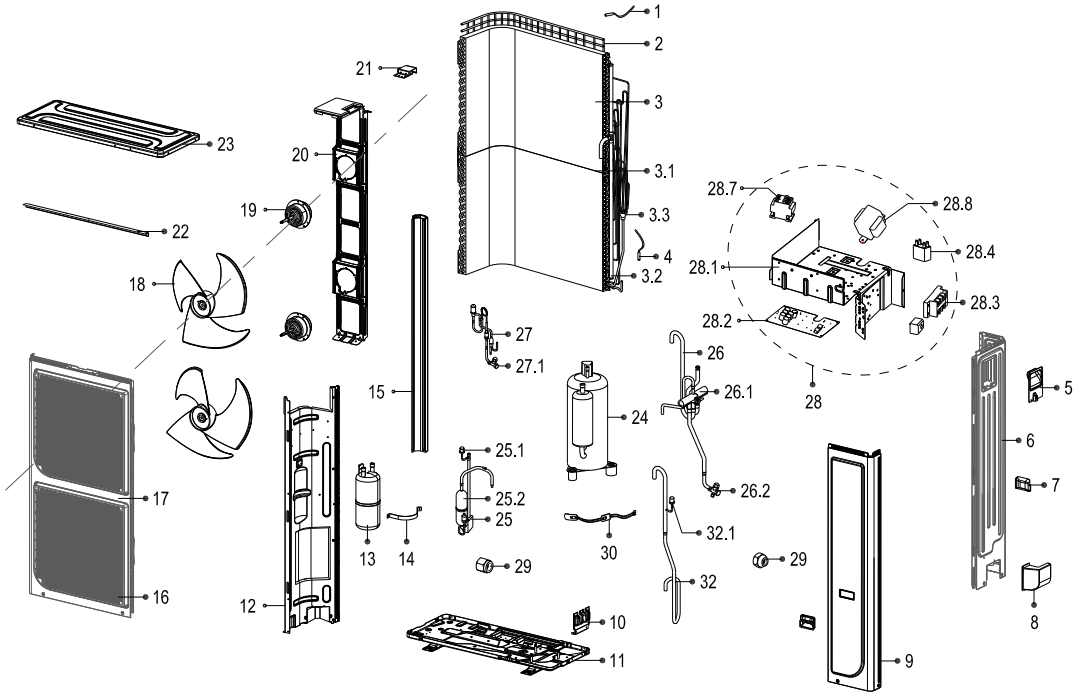
Exploded View of outdoor unit: AWAU-YOF048-H13



Spare part list of outdoor unit: AWAU-YOF048-H13

No.	Part Name	Qty	BOM Code	No.	Part Name	Qty	BOM Code
1	Ambient temperature sensor assembly	1	202440220061	21	Support Board	1	201248300232
2	Rear net	1	201175690001	22	Supporting bar	1	201275690066
3	Condenser assembly	1	2015758A0113	23	Top cover assembly	1	201248300242
3.1	Condenser assembly	1	201575890170	24	Compressor	1	201400710570
3.1	Condenser assembly	1	201575890171	25	Discharge pipe assembly	1	201675890952
3.2	Input pipe assembly	1	2016758A0185	25.1	Pressure switch	1	202301820020
3.3	Fluted pipe assembly	1	201675890890	25.2	Muffler	1	201601000041
4	Pipe temperature sensor assembly	1	202450200331	26	4-way valve assembly	1	201675790946
5	Big Handle assembly	1	201157390007	26.1	4-way valve	1	201600600166
6	Rear right clapboard assembly	1	201248700199	26.2	Gas valve	1	201600720425
7	Handle	2	201148700009	27	Liquid valve assembly	1	201675790989
8	Water collector	1	201148790000	27.1	Liquid valve	1	201600740704
9	Front clapboard assembly	1	201248700204	28	Electronic control box assembly	1	203375790142
10	Valve plate	1	201248790014	28.1	Installation plate of electric parts	1	201248700286
11	Chassis	1	201248700285	28.2	Main control board assembly	1	201348890013
12	Partition board assembly	1	201275690068	28.3	Wire joint	1	202301450003
13	Accumulator cylinder	1	201601000636	28.3	Wire joint	1	202301450121
14	Fix clamp of segregator	1	201248700067	28.3	Wire joint	3	202301450117
15	Left clapboard	1	201275690067	28.4	Fan motor capacitor	2	202401100505
16	Air outlet grille	2	2011487A0002	28.7	AC contactor	1	202300850045
	Round sticker for air outlet grille	2	2011374A0005	28.8	Transformer	1	202300900161
17	Front panel	1	201248700201	29	Copper nut	1	201600320001
18	Axial flow fan	2	201100300045	30	Crankcase electric heater	1	202403101716
19	Fan motor	2	202400401375	32	Suction pipe assembly	1	201675790991
20	Supporter assembly of fan motor	1	201248700197	32.1	Pressure switch	1	202301800118

Exploded View of outdoor unit: AWAU-YOF060-H13

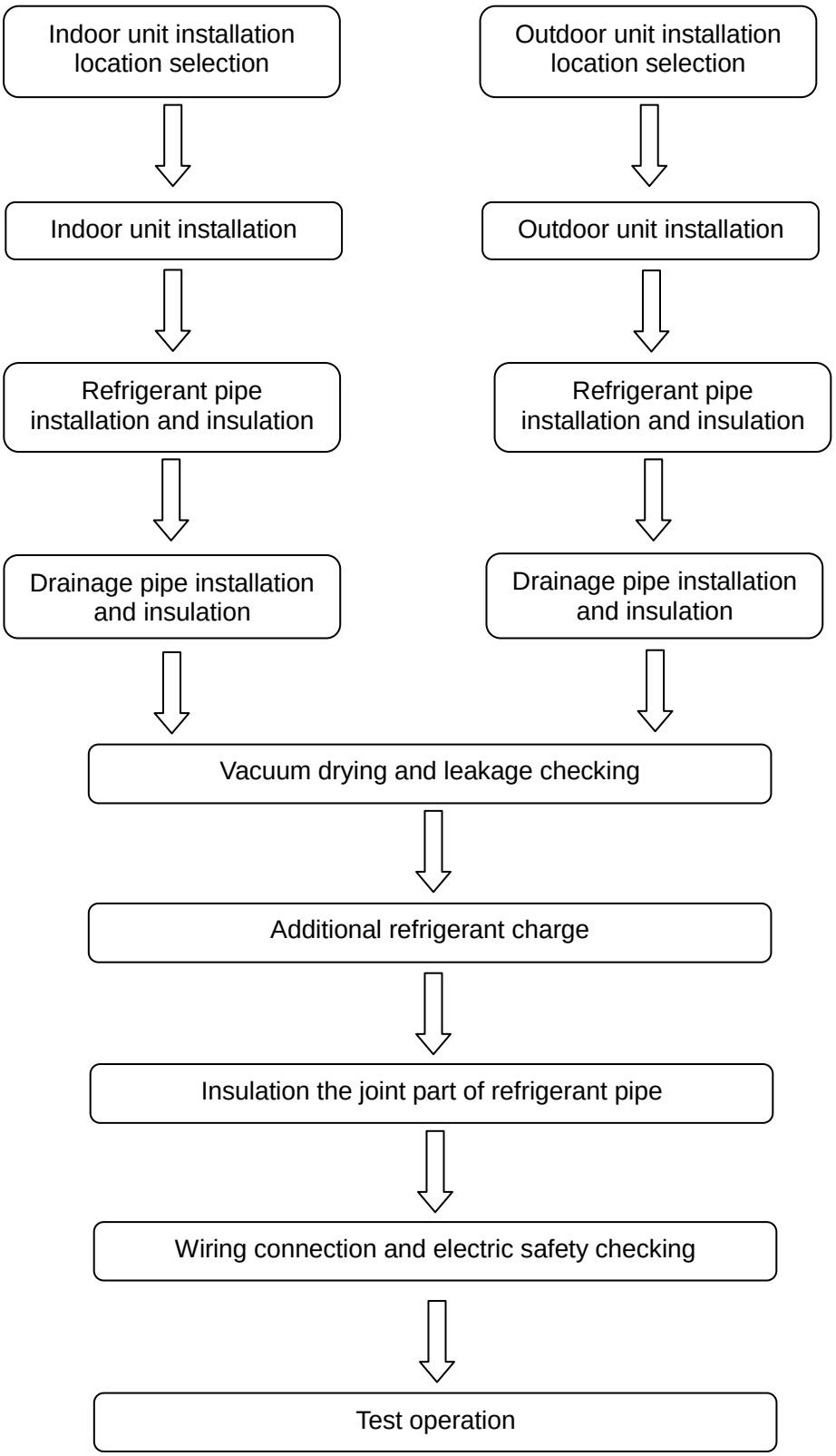


Spare part list of outdoor unit: AWAU-YOF060-H13

No.	Part Name	Qty	BOM Code	No.	Part Name	Qty	BOM Code
1	Ambient temperature sensor assembly	1	202440220061	21	Support Board	1	201248300232
2	Rear net	1	201175690001	22	Supporting bar	1	201275690066
3	Condenser assembly	1	2015757A0171	23	Top cover assembly	1	201248300242
3.1	Condenser assembly	1	201575790152	24	Compressor	1	201400710560
3.1	Condenser assembly	1	201575790153	25	Discharge pipe assembly	1	201675890952
3.2	Input pipe assembly	1	2016758A0185	25.1	Pressure switch	1	202301820020
3.3	Fluted pipe assembly	1	201675890890	25.2	Muffler	1	201601000041
4	Pipe temperature sensor assembly	1	202450200331	26	4-way valve assembly	1	201675790946
5	Big Handle assembly	1	201157390007	26.1	4-way valve	1	201600600166
6	Rear right clapboard assembly	1	201248700199	26.2	Gas valve	1	201600720425
7	Handle	2	201148700009	27	Liquid valve assembly	1	201675790987
8	Water collector	1	201148790000	27.1	Liquid valve	1	201600740704
9	Front clapboard assembly	1	201248700204	28	Electronic control box assembly	1	203375790142
10	Valve plate	1	201248790014	28.1	Installation plate of electric parts	1	201248700286
11	Chassis	1	201248700285	28.2	Main control board assembly	1	201348890013
12	Partition board assembly	1	201275690068	28.3	Wire joint	1	202301450003
13	Accumulator cylinder	1	201601000636	28.3	Wire joint	1	202301450121
14	Fix clamp of segregator	1	201248700067	28.3	Wire joint	3	202301450117
15	Left clapboard	1	201275690067	28.4	Fan motor capacitor	2	202401100505
16	Air outlet grille	2	2011487A0002	28.7	AC contactor	1	202300850045
	Round sticker for air outlet grille	2	2011374A0005	28.8	Transformer	1	202300900161
17	Front panel	1	201248700201	29	Copper nut	1	201600320001
18	Axial flow fan	2	201100300045	30	Crankcase electric heater	1	202403101716
19	Fan motor	2	202400401375	32	Suction pipe assembly	1	201675790991
20	Supporter assembly of fan motor	1	201248700197	32.1	Pressure switch	1	202301800118

Part 4
Installation

1. Installation Procedure



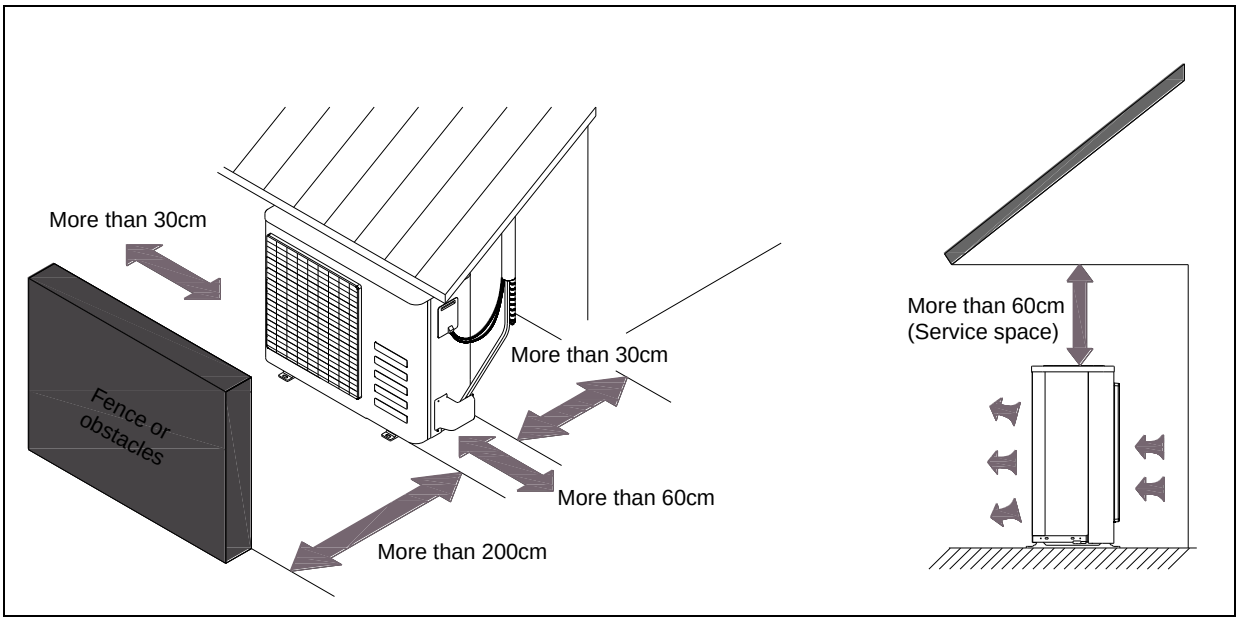
2. Location selection

2.1 Indoor unit location selection

- The place shall easily support the indoor unit's weight.
- The place can ensure the indoor unit installation and inspection.
- The place can ensure the indoor unit horizontally installed.
- The place shall allow easy water drainage.
- The place shall easily connect with the outdoor unit.
- The place where air circulation in the room should be good.
- There should not be any heat source or steam near the unit.
- There should not be any oil gas near the unit
- There should not be any corrosive gas near the unit
- There should not be any salty air neat the unit
- There should not be strong electromagnetic wave near the unit
- There should not be inflammable materials or gas near the unit
- There should not be strong voltage vibration.

2.2 Outdoor unit location selection

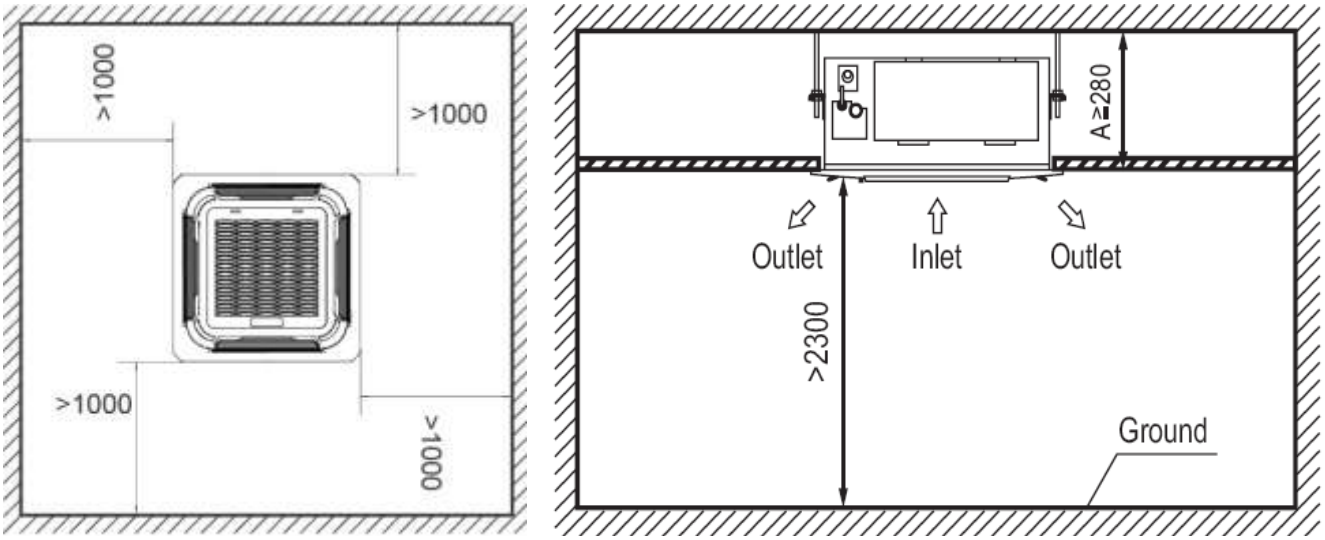
- The place shall easily support the outdoor unit's weight.
- Locate the outdoor unit as close to indoor unit as possible
- The piping length and height drop can not exceed the allowable value.
- The place where the noise, vibration and outlet air do not disturb the neighbors.
- There is enough room for installation and maintenance.
- The air outlet and the air inlet are not impeded, and not face the strong wind.
- It is easy to install the connecting pipes and cables.
- There is no danger of fire due to leakage of inflammable gas.
- It should be a dry and well ventilation place
- The support should be flat and horizontal
- Do not install the outdoor unit in a dirty or severely polluted place, so as to avoid blockage of the heat exchanger in the outdoor unit.
- If is built over the unit to prevent direct sunlight, rain exposure, direct strong wend, snow and other scraps accumulation, make sure that heat radiation from the condenser is not restricted.



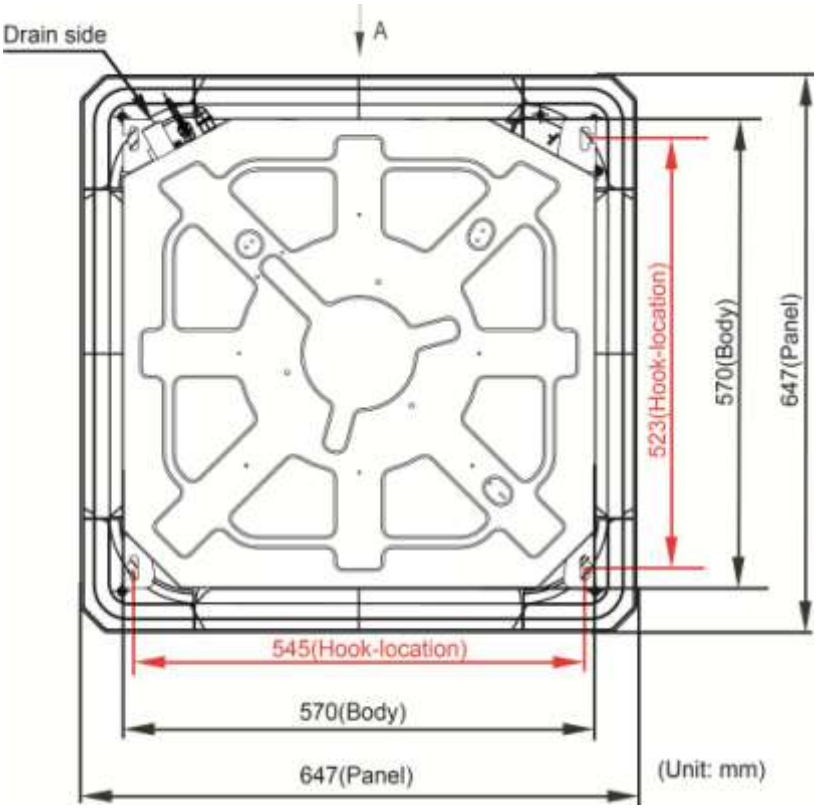
3. Indoor unit installation

3.1 Compact cassette indoor unit installation

3.1.1 Service space for indoor unit



3.1.2 Bolt pitch



3.1.3 Install the pendant bolt

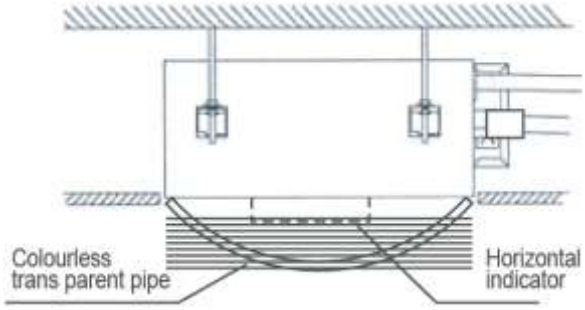
Select the position of installation hooks according to the hook holes positions showed in upper picture.

Drill four holes of Ø12mm, 45~50mm deep at the selected positions on the ceiling. Then embed the expansible hooks (fittings).

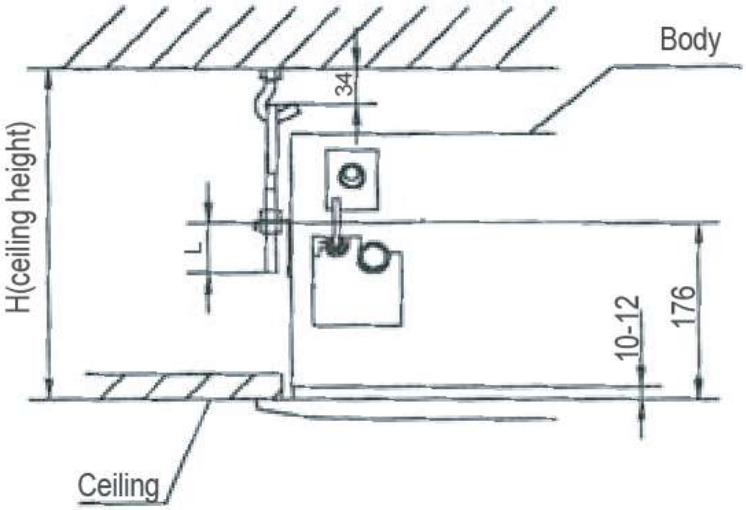
Face the concave side of the installation hooks toward the expansible hooks. Determine the length of the installation hooks from the height of ceiling, then cut off the unnecessary part.
If the ceiling is extremely high, please determine the length of the installation hook depending on the real situation.

3.1.4 Install the main body

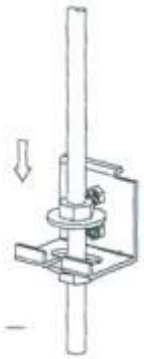
Make the 4 suspender through the 4 hanger of the main body to suspend it. Adjust the hexangular nuts on the four installation hooks evenly, to ensure the balance of the body. Use a leveling instrument to make sure the levelness of the main body is within ±1°.



Adjust the position to ensure the gaps between the body and the four sides of ceiling are even. The body's lower part should sink into the ceiling for 10~12 mm. In general, L is half of the screw length of the installation hook.

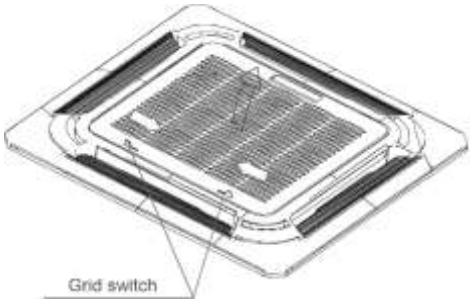


Locate the air conditioner firmly by wrenching the nuts after having adjusted the body's position well.

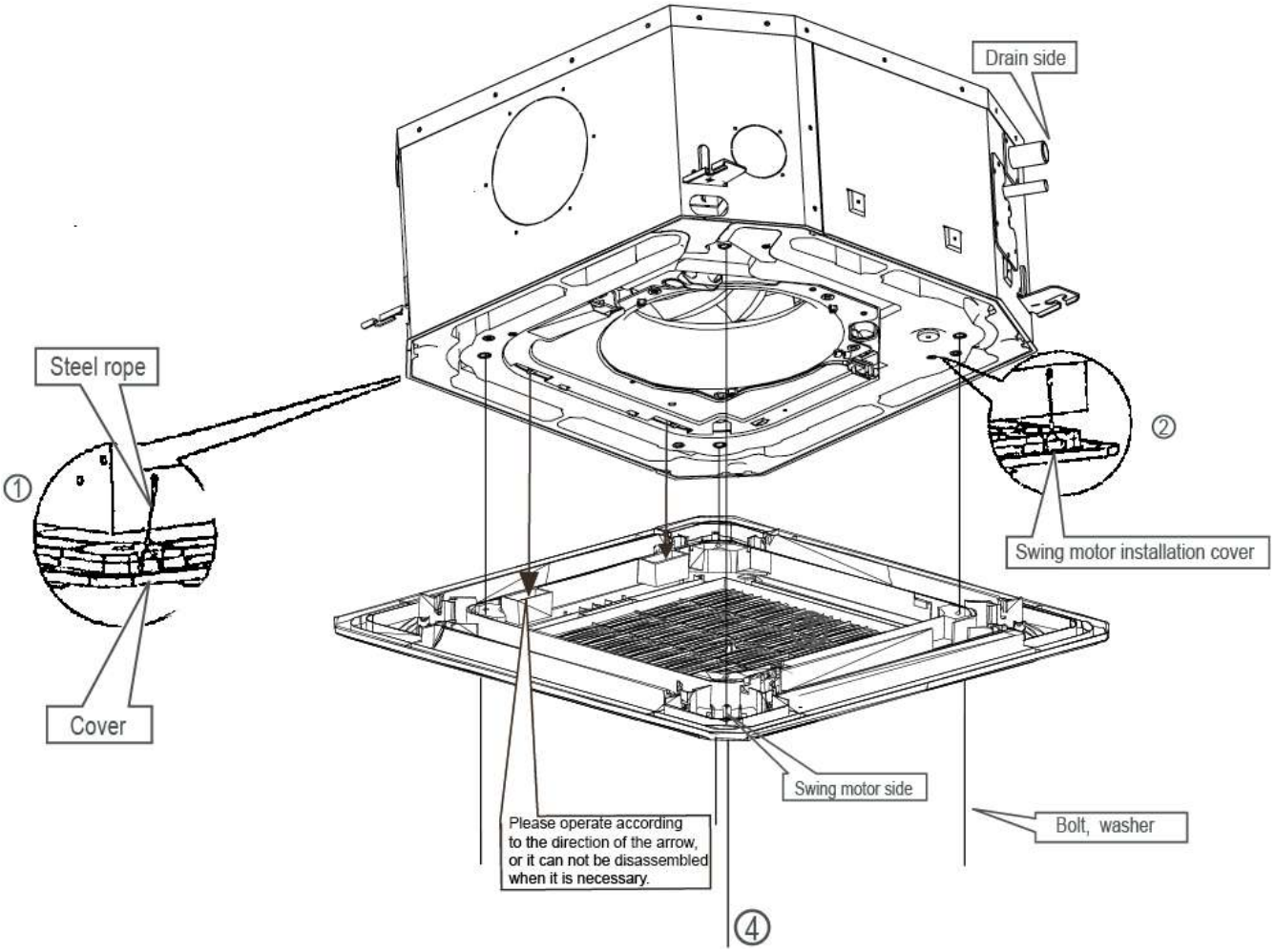


3.1.5 Install the panel

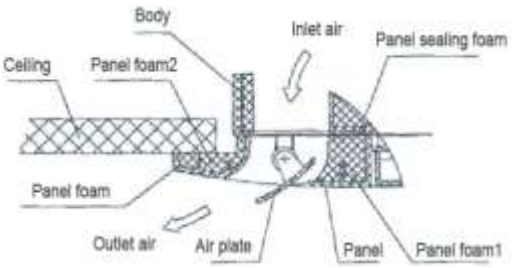
Remove the grille

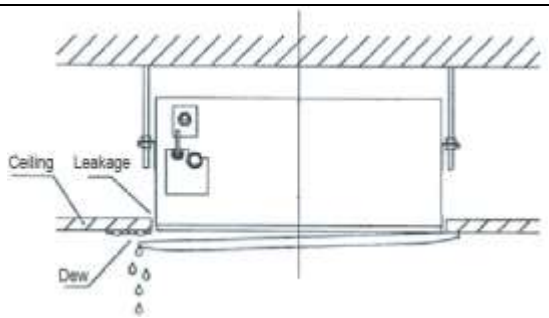


Hang the panel to the hooks on the mainbody.



Tighten the screws under the panel hooks till the panel closely stick on the ceiling to avoid condensate water.



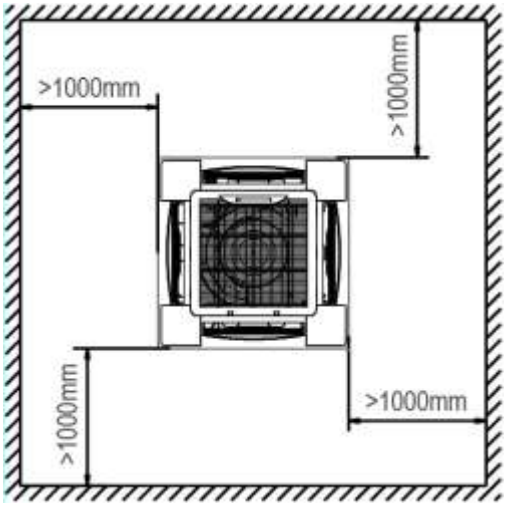


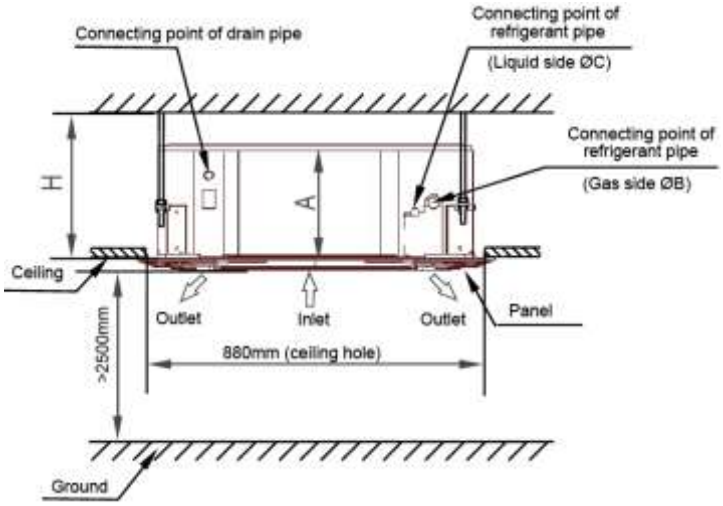
Hang the air-in grill to the panel, then connect the lead terminator of the swing motor and that of the control box with corresponding terminators on the body respectively.

Note: The panel shall be installed after the wiring connected.

3.2 Super slim cassette indoor unit installation

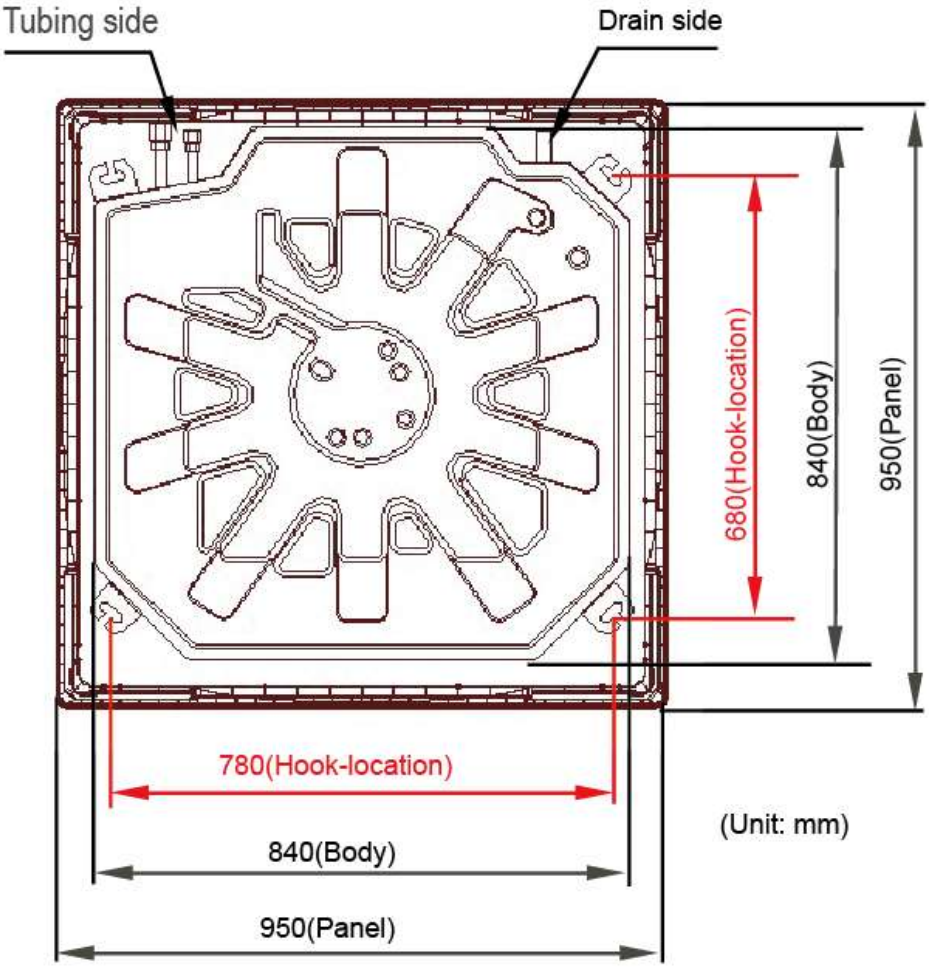
3.2.1 Service space for indoor unit





Model	A	H
AWSI-CBF024-N11	205	>235
AWSI-CBF036-N11	245	>275
AWSI-CBF048-N11	245	>275
AWSI-CBF060-N11	287	>317

3.2.2 Bolt pitch



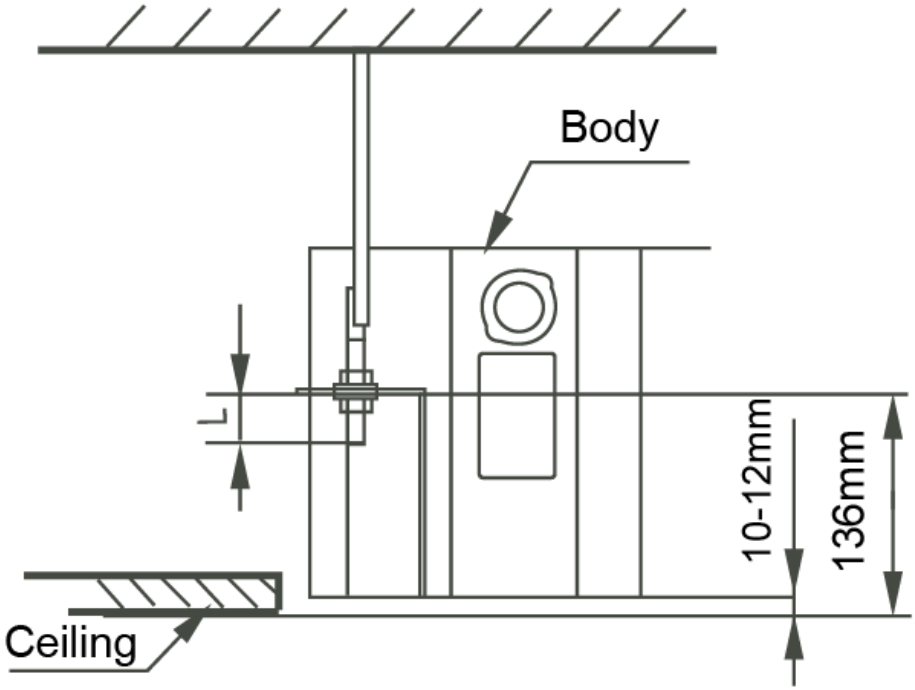
3.2.3 Install the pendant bolt

Select the position of installation hooks according to the hook holes positions showed in upper picture.
Drill four holes of Ø12mm, 45~50mm deep at the selected positions on the ceiling. Then embed the expansible hooks (fittings).

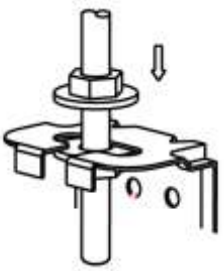
3.2.4 Install the main body

Make the 4 suspender through the 4 hanger of the main body to suspend it. Adjust the hexangular nuts on the four installation hooks evenly, to ensure the balance of the body. Use a leveling instrument to make sure the levelness of the main body is within ±1°.

Adjust the position to ensure the gaps between the body and the four sides of ceiling are even. The body's lower part should sink into the ceiling for 10~12 mm. In general, L is half of the screw length of the installation hook.

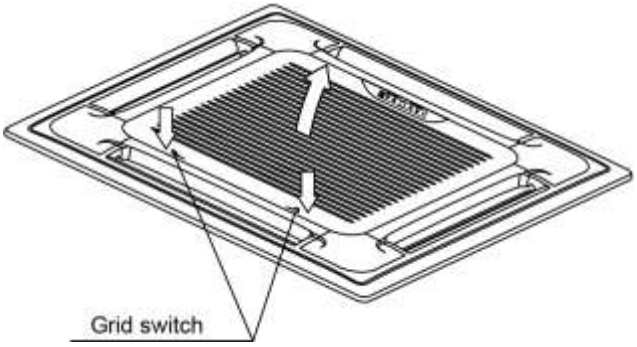


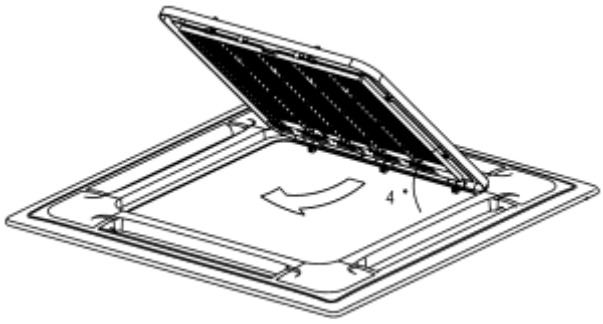
Locate the air conditioner firmly by wrenching the nuts after having adjusted the body's position well.



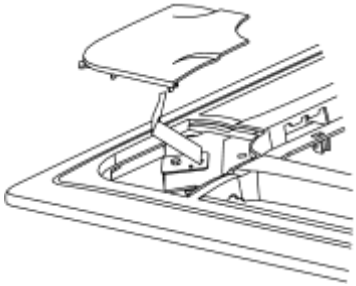
3.2.5 Install the panel

Remove the grille

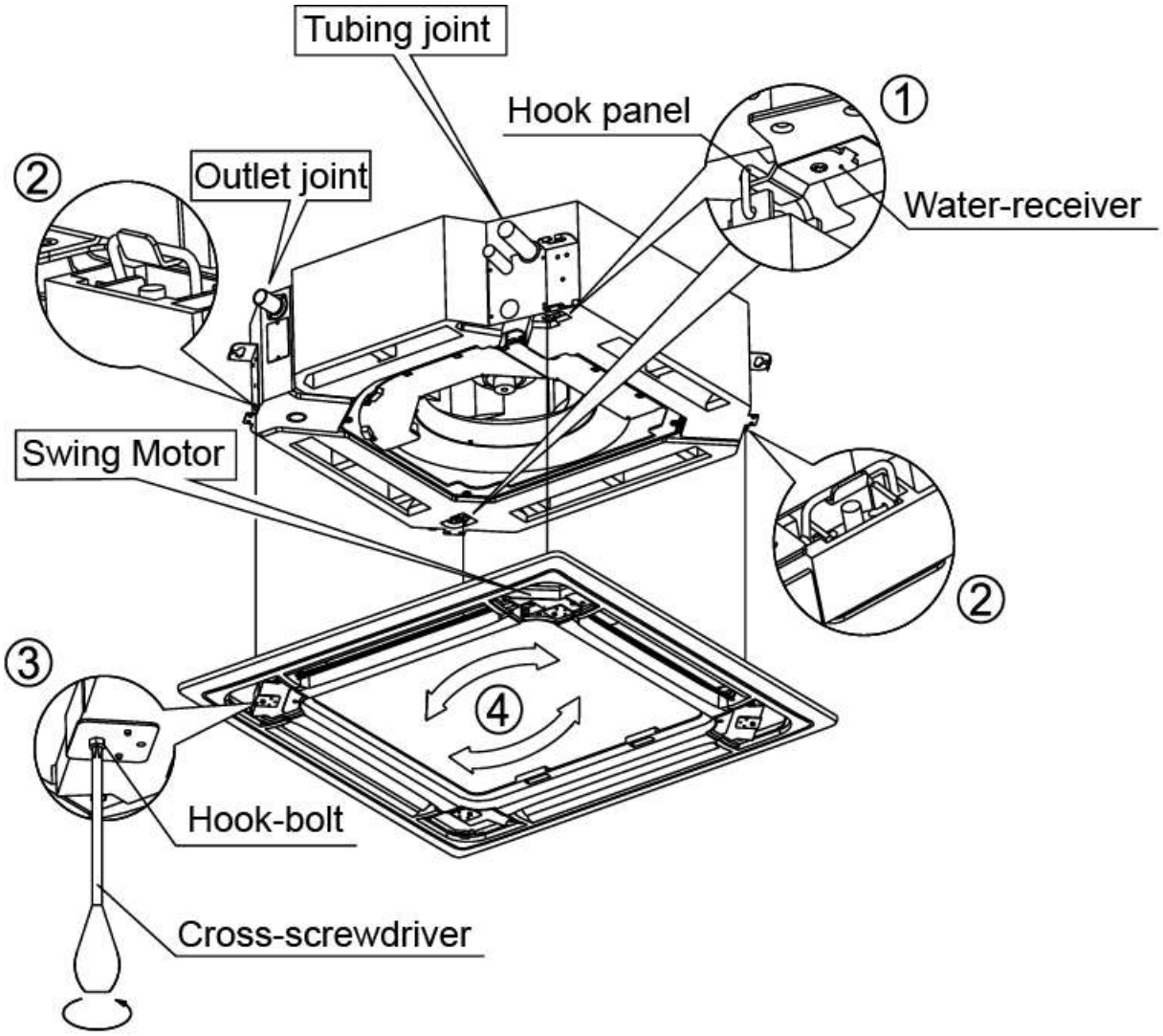




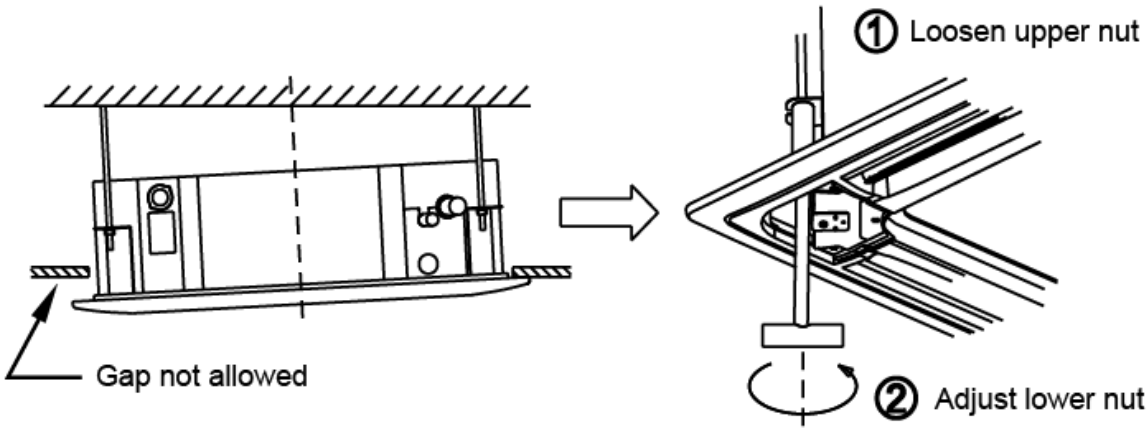
Remove the 4 corner covers.

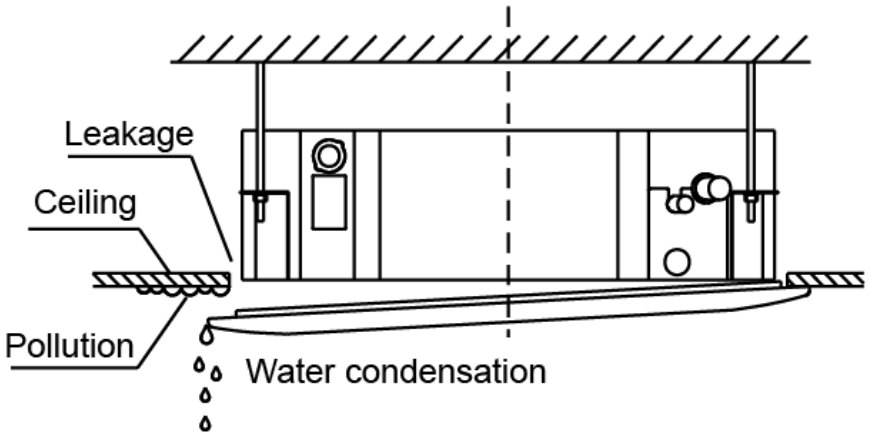


Hang the panel to the hooks on the mainbody. If the panel is with auto-lift grille, please watch the ropes lifing the grille, DO NOT make the ropes enwinded or blocked.



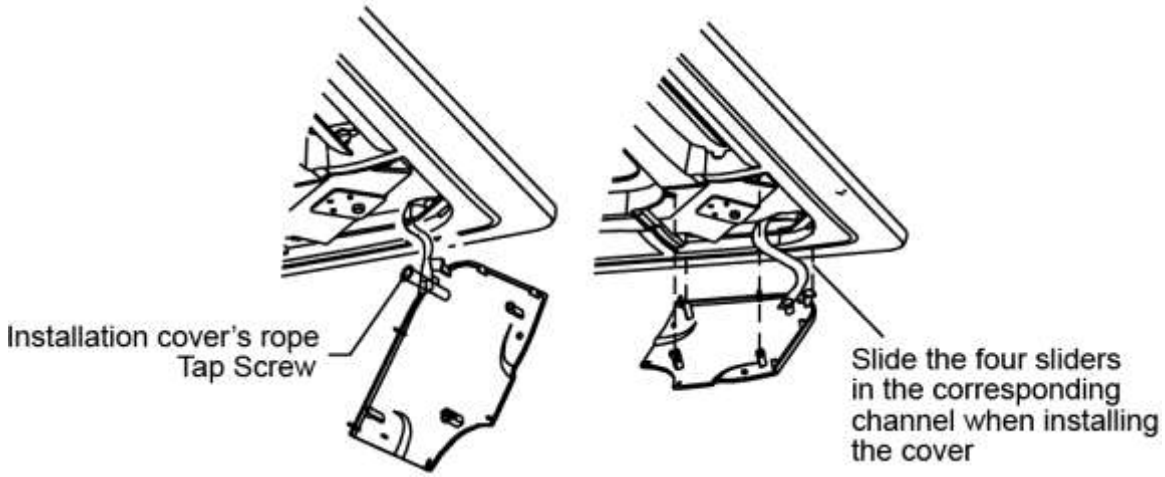
Tighten the screws under the panel hooks till the panel closely stick on the ceiling to avoid condensate water.





Hang the air-in grill to the panel, then connect the lead terminator of the swing motor and that of the control box with corresponding terminators on the body respectively.

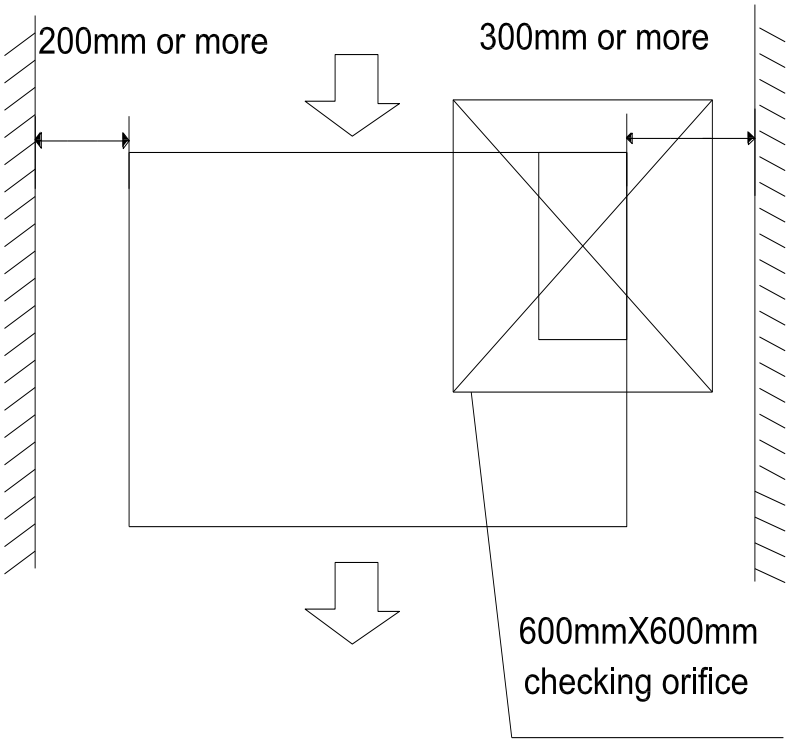
Install the 4 corner covers back.



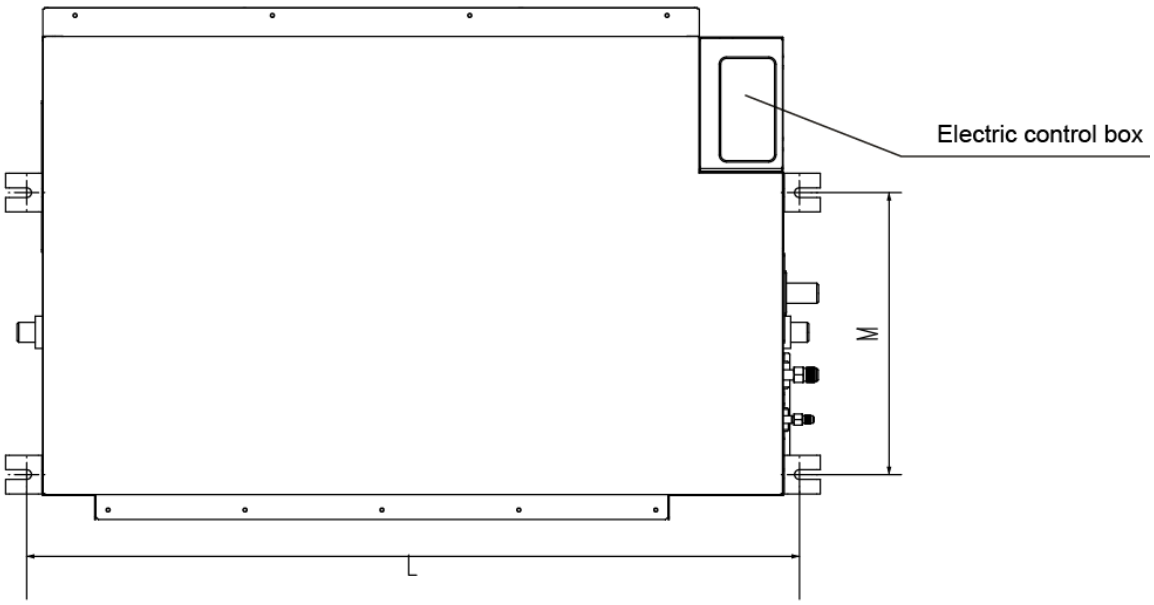
Note: The panel shall be installed after the wiring connected.

3.3 Duct indoor unit installation

3.3.1 Service space for indoor unit



3.3.2 Bolt pitch



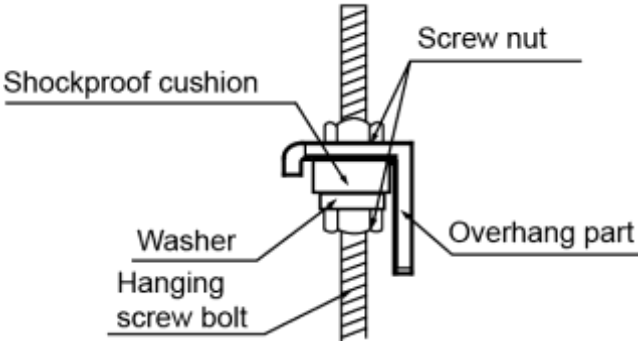
Model	Size of outline dimension mounted plug	
	L	M
AWSI-DBF012-N11	740	350
AWSI-DBF018-N11	960	350
AWSI-DBF024-N11	960	350
AWSI-DBF030-N11	1180	490
AWSI-DBF036-N11	1180	490
AWSI-DBF048-N11	1240	500
AWSI-DBF060-N11	1240	500

3.3.3 Install the pendant bolt

Select the position of installation hooks according to the hook holes positions showed in upper picture.
Drill four holes of Ø12mm, 45~50mm deep at the selected positions on the ceiling. Then embed the expansible hooks (fittings).

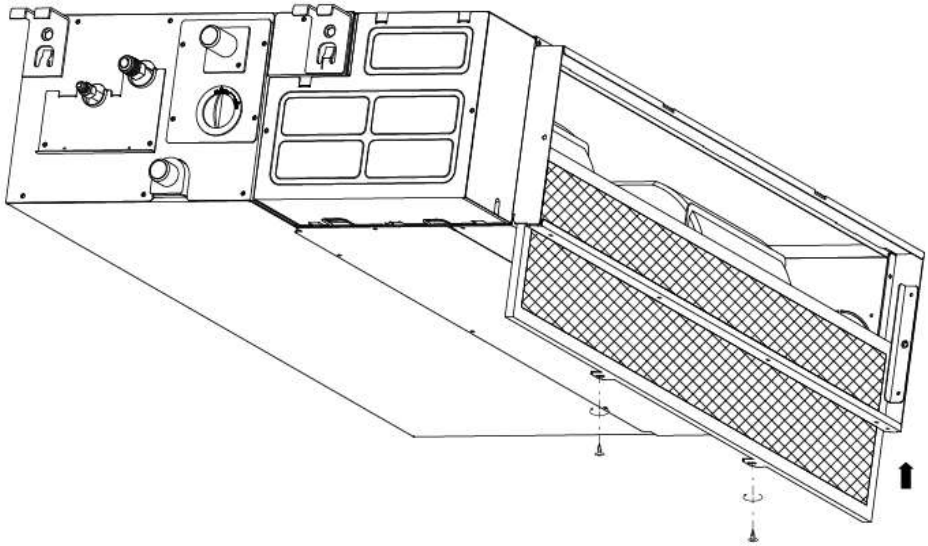
3.3.4 Install the main body

Make the 4 suspender through the 4 hanger of the main body to suspend it. Adjust the hexangular nuts on the four installation hooks evenly, to ensure the balance of the body. Use a leveling instrument to make sure the levelness of the main body is within ±1°.



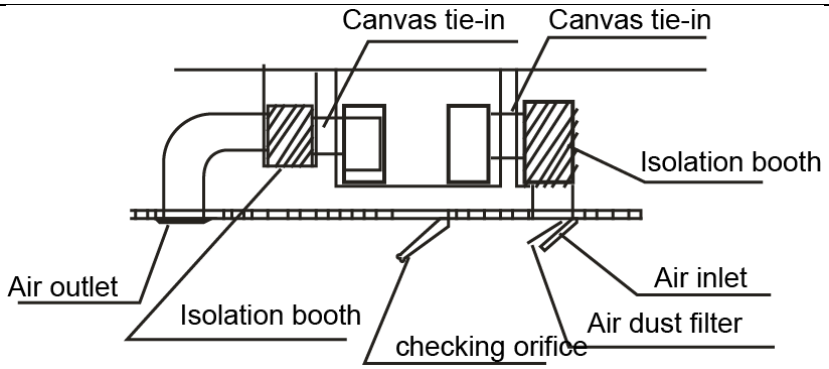
3.3.5 Install the air filter

Insert the air filter through the filter slot and fix it with 2 screws.



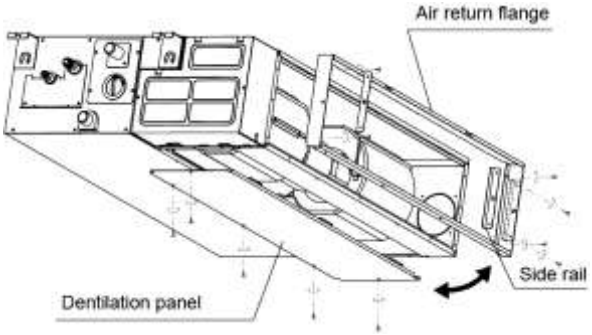
3.3.6 Install the air duct

Please design the air duct as below recommended picture

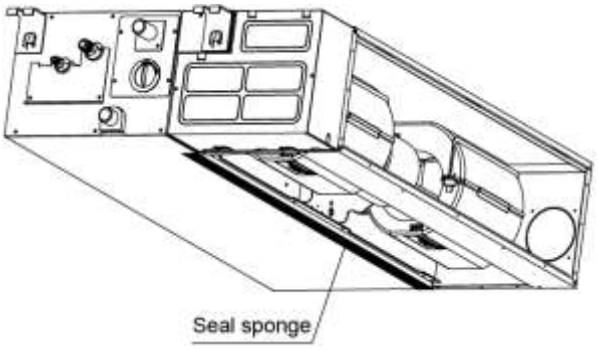


3.3.7 Change the air inlet direction

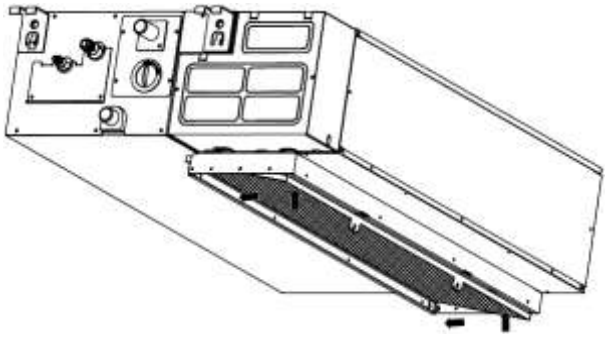
① Take off ventilation panel and flange, cut off the staples at side rail.



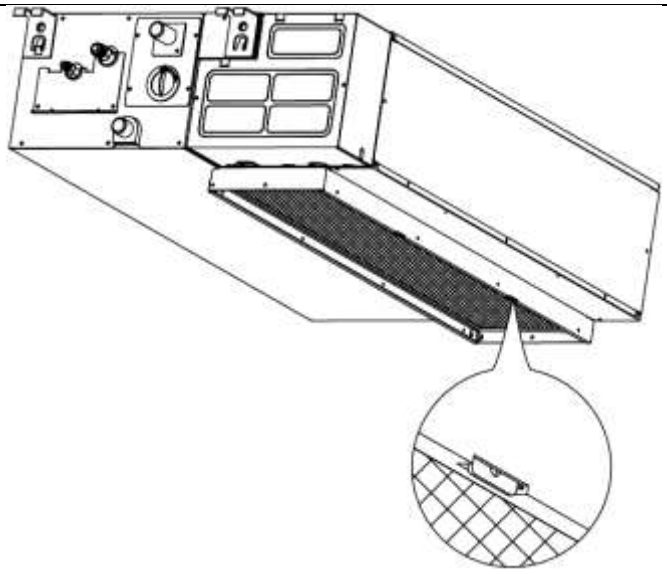
② Stick the attached seal sponge as per the indicating place in the following fig, and then change the mounting positions of air return panel and air return flange .



③ When install the filter mesh, please plug it into flange inclined from air return opening, and then push up.

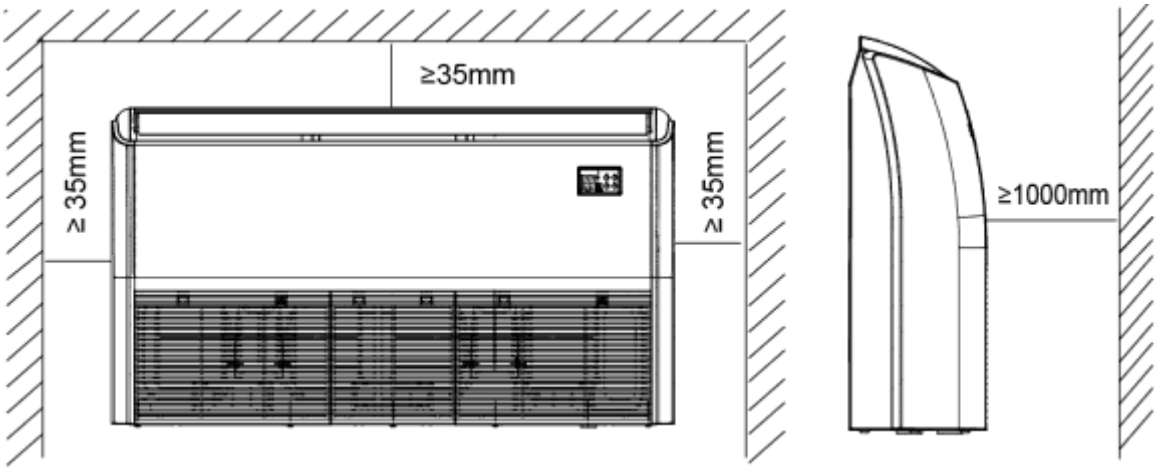


④ The installation has finish, upon filter mesh which fixing blocks have been insert to the flange positional holes.



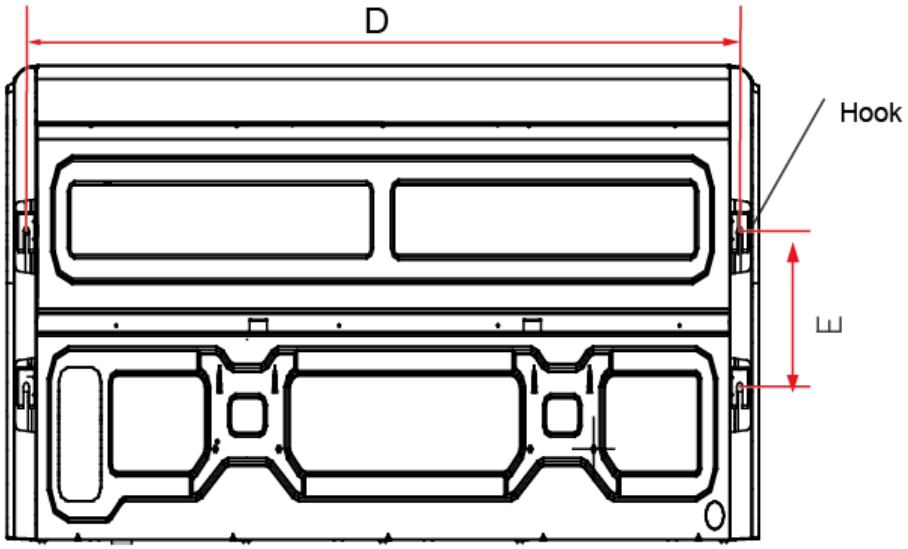
3.4 Ceiling & floor indoor unit installation

3.4.1 Service space for indoor unit



3.4.2 Bolt pitch

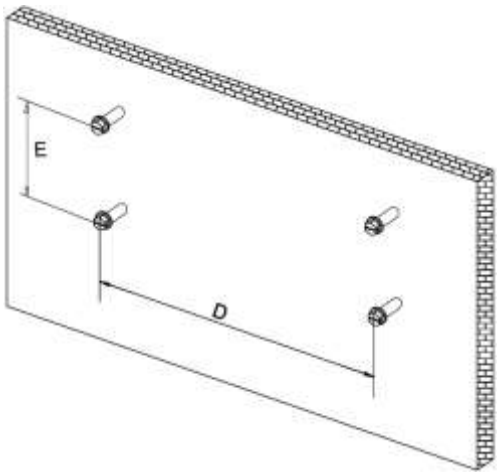
① Ceiling installation



Model	D	E
AWSI-FCF012-N11	983	220
AWSI-FCF018-N11	983	220
AWSI-FCF024-N11	983	220
AWSI-FCF030-N11	1200	220

AWSI-FCF036-N11	1200	220
AWSI-FCF048-N11	1200	220
AWSI-FCF060-N11	1565	220

② Wall-mounted installation



3.4.3 Install the pendant bolt

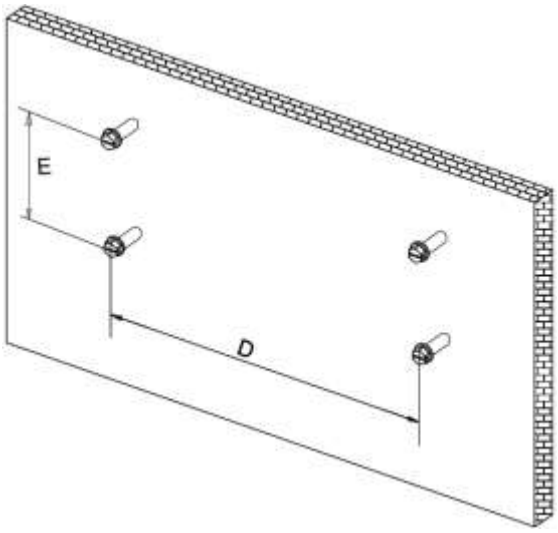
① Ceiling installation

Select the position of installation hooks according to the hook holes positions showed in upper picture.

Drill four holes of Ø12mm, 45~50mm deep at the selected positions on the ceiling. Then embed the expansible hooks (fittings).

② Wall-mounted installation

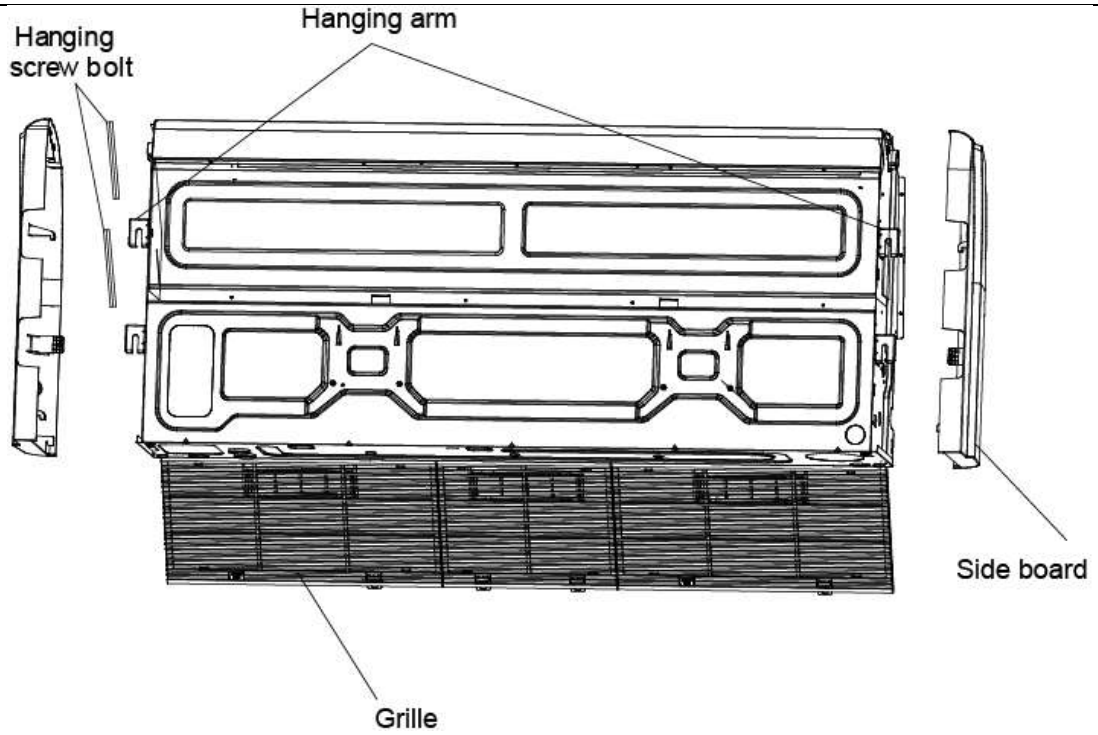
Install the tapping screws onto the wall.(Refer to picture below)



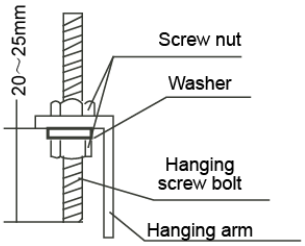
3.4.4 Install the main body

① Ceiling installation (The only installation method for the unit with drain pump)

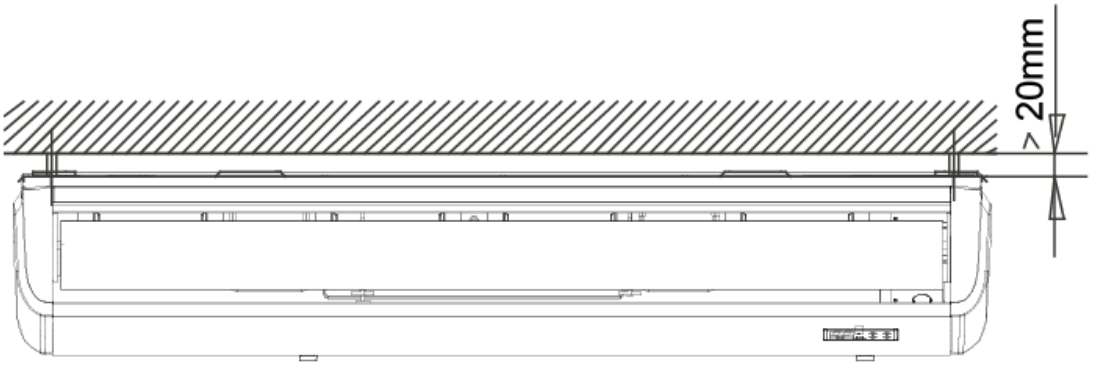
Remove the side board and the grille.

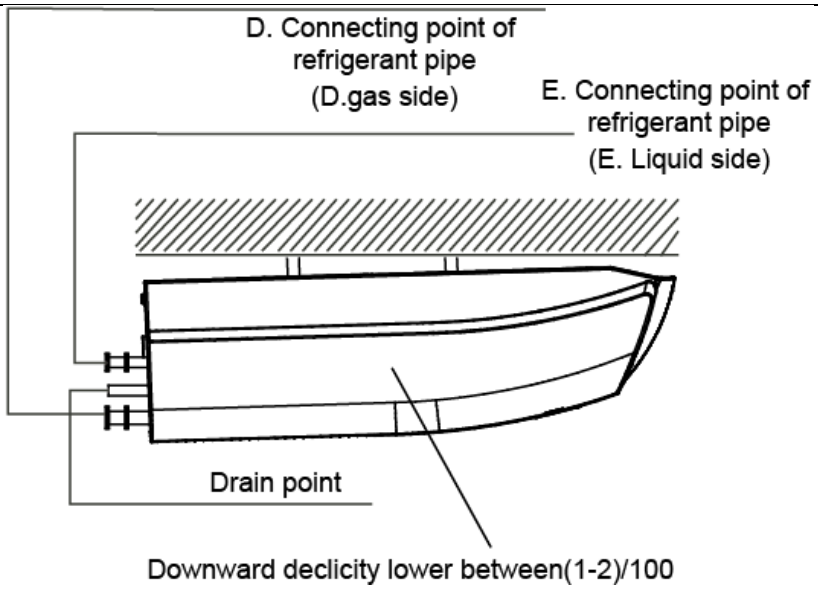


Locate the hanging arm on the hanging screw bolt. Prepare the mounting bolts on the unit.



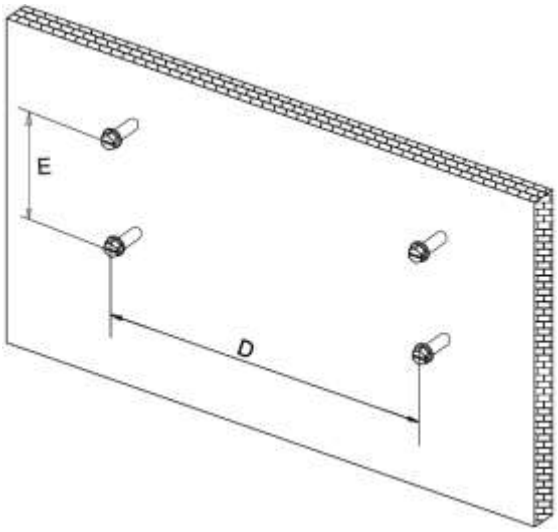
Put the side panels and grilles back.

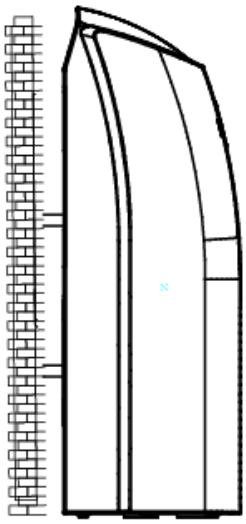




② Wall-mounted installation

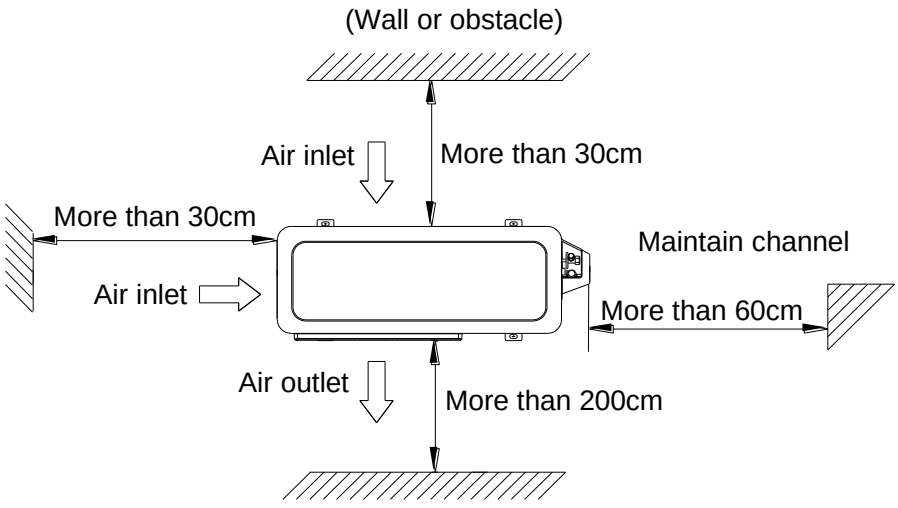
Hang the indoor unit by insert the tapping screws into the hanging arms on the main unit. (The bottom of body can touch with floor or suspended, but the body must install vertically.)

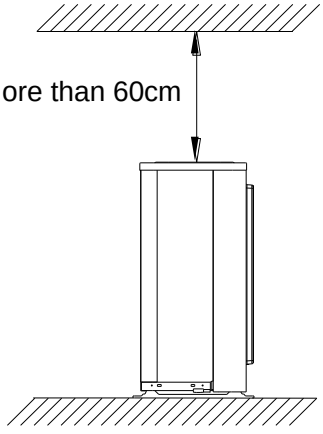




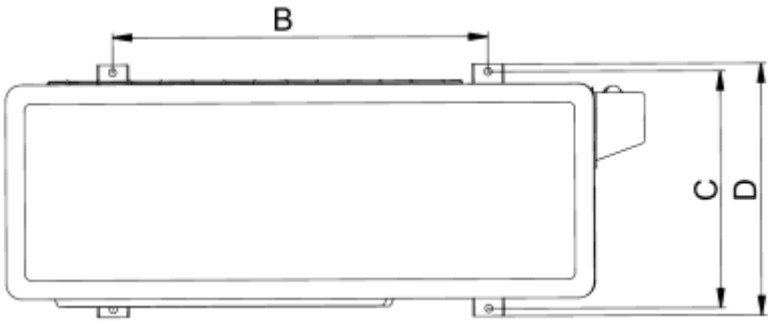
4. Outdoor unit installation (Side Discharge Unit)

4.1 Service space for outdoor unit





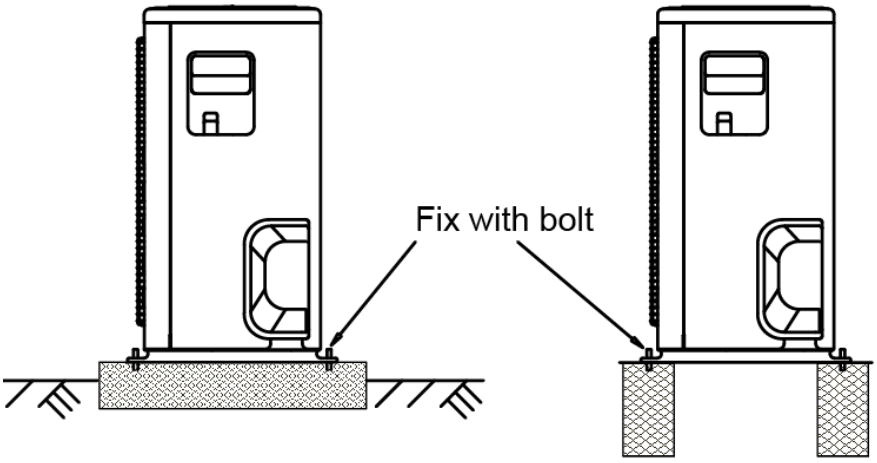
4.2 Bolt pitch



Model	B	C	D
AWAU-YOF012-H11	548	266	300
AWAU-YOF018-H11	530	290	315
AWAU-YOF024-H11	560	335	360
AWAU-YOF030-H11	624	366	396
AWAU-YOF036-H11	624	366	396
AWAU-YOF036-H13	624	366	396
AWAU-YOF048-H13	633.5	404	448
AWAU-YOF060-H13	633.5	404	448

4.3 Install the Unit

Since the gravity center of the unit is not at its physical center, so please be careful when lifting it with a sling.
Never hold the inlet of the outdoor unit to prevent it from deforming.
Do not touch the fan with hands or other objects.
Do not lean it more than 45, and do not lay it sidelong.
Make concrete foundation according to the specifications of the outdoor units.
Fasten the feet of this unit with bolts firmly to prevent it from collapsing in case of earthquake or strong wind.



5. Refrigerant pipe installation

5.1 Maximum pipe length and height drop

Considering the allowable pipe length and height drop to decide the installation position. Make sure the distance and height drop between indoor and outdoor unit not exceeded the date in the following table.

Capacity	Max. Length	Max. Elevation
12,000Btu/h	15m	8m
18,000Btu/h~30,000Btu/h	25m	15m
36,000Btu/h	30m	20m
48,000Btu/h ~60,000Btu/h	50m	25m

5.2 The procedure of connecting pipes

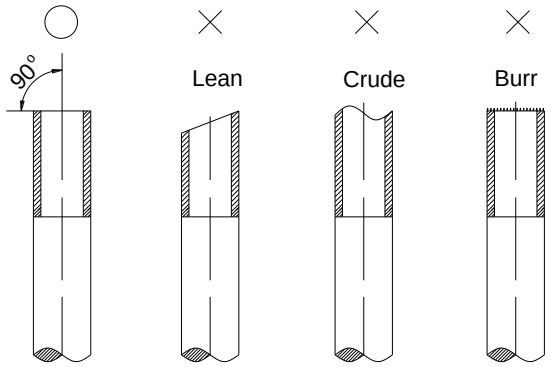
5.2.1 Choose the pipe size according to the specification table.

5.2.2 Confirm the cross way of the pipes.

5.2.3 Measure the necessary pipe length.

5.2.4 Cut the selected pipe with pipe cutter

- Make the section flat and smooth.

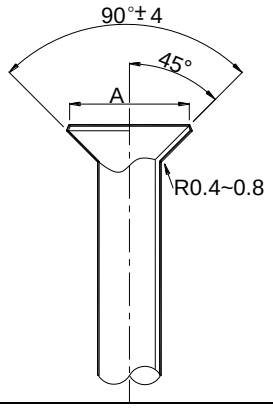


5.2.5 Insulate the copper pipe

- Before test operation, the joint parts should not be heat insulated.

5.2.6 Flare the pipe

- Insert a flare nut into the pipe before flaring the pipe
- According to the following table to flare the pipe

Pipe diameter	Flare dimension A (mm)		Flare shape
	Min	Max	
1/4" (6.35)	8.3	8.7	
3/8" (9.52)	12.0	12.4	
1/2" (12.7)	15.4	15.8	
5/8" (15.9)	18.6	19.1	
3/4" (19)	22.9	23.3	

- After flared the pipe, the opening part must be seal by end cover or adhesive tape to avoid duct or exogenous impurity come into the pipe.

5.2.7 Drill holes if the pipes need to pass the wall.

5.2.8 According to the field condition to bend the pipes so that it can pass the wall smoothly.

5.2.9 Bind and wrap the wire together with the insulated pipe if necessary.

5.2.10 Set the wall conduit

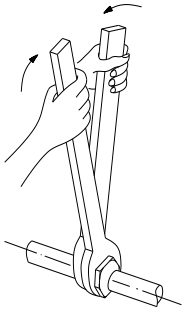
5.2.11 Set the supporter for the pipe.

5.2.12 Locate the pipe and fix it by supporter

- For horizontal refrigerant pipe, the distance between supporters should not be exceed 1m.
- For vertical refrigerant pipe, the distance between supporters should not be exceed 1.5m.

5.2.13 Connect the pipe to indoor unit and outdoor unit by using two spanners.

- Be sure to use two spanners and proper torque to fasten the nut, too large torque will damage the bellmouthing, and too small torque may cause leakage. Refer the following table for different pipe connection.

Pipe Diameter	Torque		Sketch map
	(kgf.cm)	(N.cm)	
1/4" (6.35)	144~176	1420~1720	
3/8" (9.52)	333~407	3270~3990	
1/2" (12.7)	504~616	4950~6030	
5/8" (15.9)	630~770	6180~7540	
3/4" (19)	990~1210	9270~11860	

6. Drainage pipe installation

Install the drainage pipe as shown below and take measures against condensation. Improperly installation could lead to leakage and eventually wet furniture and belongings.

6.1 Installation principle

- Ensure at least 1/100 slope of the drainage pipe
- Adopt suitable pipe diameter
- Adopt nearby condensate water discharge

6.2 Key points of drainage water pipe installation

6.2.1 Considering the pipeline route and elevation

- Before installing condensate water pipeline, determine its route and elevation to avoid intersection with other pipelines and ensure slope is straight.

6.2.2 Drainage pipe selection

- The drainage pipe diameter shall not small than the drain hose of indoor unit
- According to the water flowrate and drainage pipe slope to choose the suitable pipe, the water flowrate is decided by the capacity of indoor unit.

Relationship between water flowrate and capacity of indoor unit

Capacity (x1000Btu)	Water flowrate (l/h)
12	2.4
18	4
24	6
30	7
36	8
42	10
48	12
60	14

According to the above table to calculate the total water flowrate for the confluence pipe selection.

For horizontal drainage pipe (The following table is for reference)

PVC pipe	Reference value of inner diameter of pipe (mm)	Allowable maximum water flowrate (l/h)		Remark
		Slope 1/50	Slope 1/100	
PVC25	20	39	27	For branch pipe
PVC32	25	70	50	
PVC40	31	125	88	Could be used for confluence pipe
PVC50	40	247	175	
PVC63	51	473	334	

Attention: Adopt PVC40 or bigger pipe to be the main pipe.

For Vertical drainage pipe (The following table is for reference)

PVC pipe	Reference value of inner diameter of pipe (mm)	Allowable maximum water flowrate (l/h)	Remark
PVC25	20	220	For branch pipe
PVC32	25	410	
PVC40	31	730	Could be used for confluence pipe
PVC50	40	1440	
PVC63	51	2760	
PVC75	67	5710	
PVC90	77	8280	

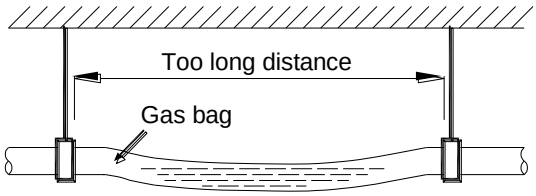
Attention: Adopt PVC40 or bigger pipe to be the main pipe.

6.2.3 Individual design of drainage pipe system

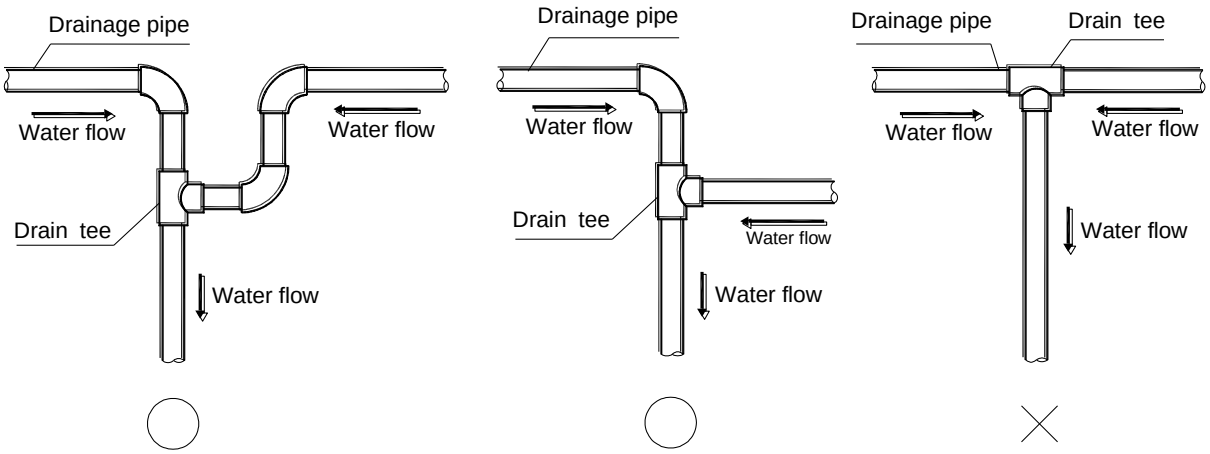
- The drainage pipe of air conditioner shall be installed separately with other sewage pipe, rainwater pipe and drainage pipe in building.
- The drainage pipe of the indoor unit with water pump should be apart from the one without water pump.

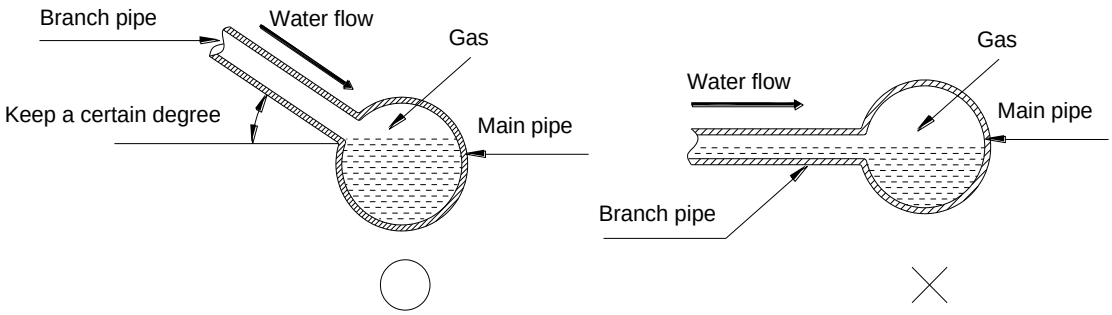
6.2.4 Supporter gap of drainage pipe

- In general, the supporter gap of the drainage pipe horizontal pipe and vertical pipe is respectively 1m~1.5m and 1.5m~2.0m.
- Each vertical pipe shall be equipped with not less than two hangers.
- Overlarge hanger gap for horizontal pipe shall create bending, thus leading to air block.



6.2.5 The horizontal pipe layout should avoid converse flow or bad flow



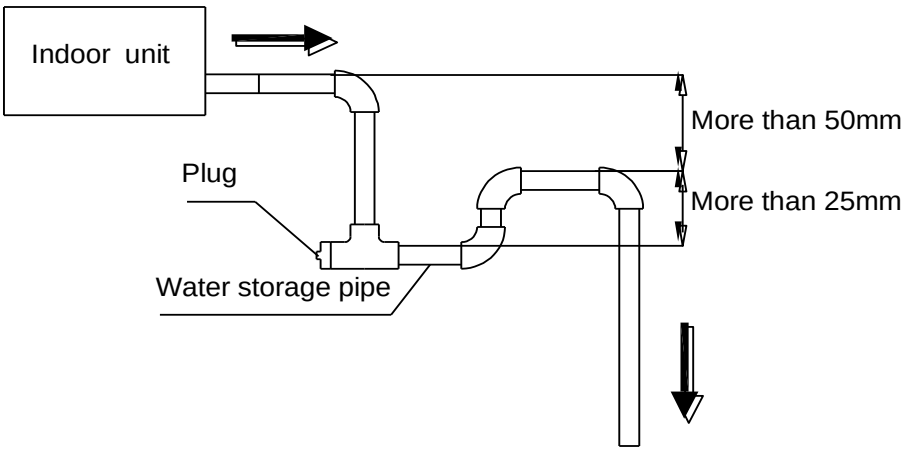


- The correct installation will not cause converse water flow and the slope of the branch pipes can be adjusted freely
- The false installation will cause converse water flow and the slope of the branch pipe can not be

adjusted.

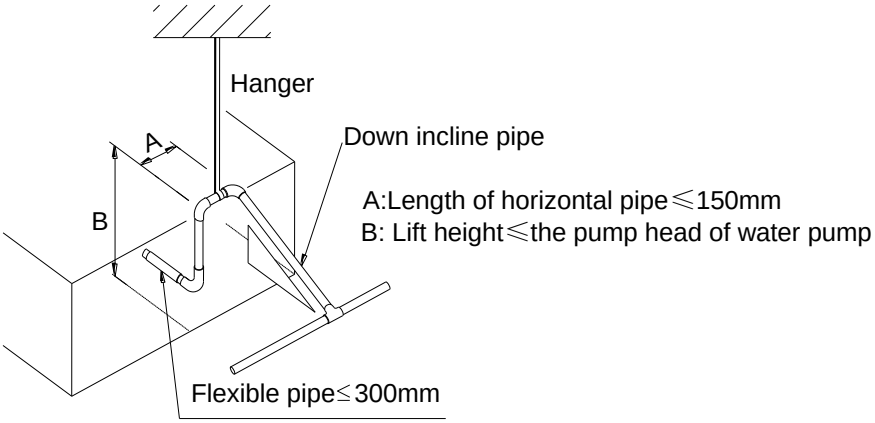
6.2.6 Water storage pipe setting

- If the indoor unit has high extra static pressure and without water pump to elevate the condensate water, such as high extra static pressure duct unit , the water storage pipe should be set to avoid converse flow or blow water phenomena.



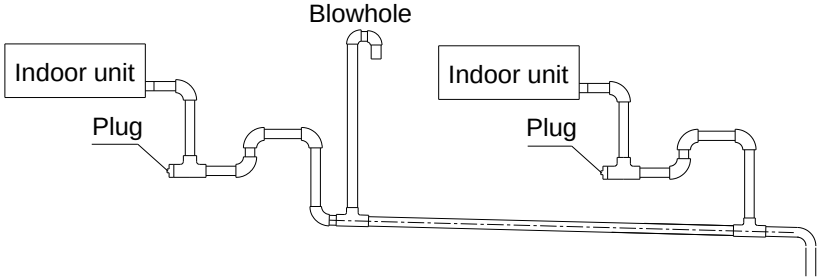
6.2.7 Lifting pipe setting of indoor unit with water pump

- The length of lifting pipe should not exceed the pump head of indoor unit water pump.
  Pump head of big four way cassette: 750mm
  Pump head of compact four way cassette: 500mm
- The drainage pipe should be set down inclined after the lifting pipe immediately to avoid wrong operation of water level switch.
- Refer the following picture for installation reference.



6.2.8 Blowhole setting

- For the concentrated drainage pipe system, there should design a blowhole at the highest point of main pipe to ensure the condensate water discharge smoothly.
- The air outlet shall face down to prevent dirt entering pipe.
- Each indoor unit of the system should be installed it.
- The installation should be considering the convenience for future cleaning.



6.2.9 The end of drainage pipe shall not contact with ground directly.

6.3 Drainage test

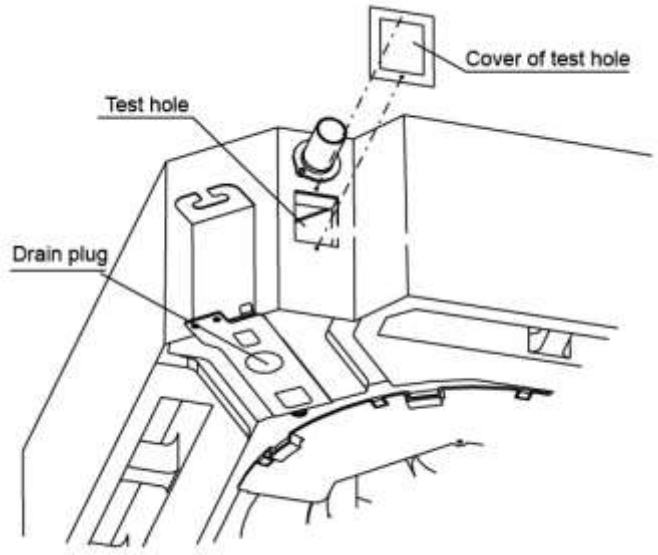
6.3.1 Water leakage test

After finishing the construction of drainage pipe system, fill the pipe with water and keep it for 24 hours to check whether there is leakage at joint section.

6.3.2 Water discharge test

1. Natural drainage mode(the indoor unit with outdoor drainage pump)
   Infuse above 600ml water through water test hole slowly into the water collector, observe whether the water can discharge through the transparent hard pipe at drainage outlet.
2. Pump drainage mode

2.1 Disconnect the plug of water level switch, remove the cover of water test hole and slowly infuse about 2000ml water through the water test hole, be sure that the water will not touch the motor of drainage pump.



2.2 Power on and let the air conditioner operate for cooling. Check operation status of drainage pump, and then connect the plug of water level switch, check the operation sound of water pump and observe whether the water can discharge through the transparent hard pipe at drainage outlet. (In light of the length of drainage pipe, water shall be discharged about 1 minute delayed)

2.3 Stop the operation of air conditioner, power off the power supply and put the cover of water test hole back to the original place.

a. After stopped the air conditioner 3 minutes, check whether there is anything abnormal. If drainage pipes have not been distributed properly, over back-flow water shall cause the flashing of alarm indicator at remote-controlled receiving board and even water shall run over the water collector.

b. Continuously infusing water until water level alarmed, check whether the drainage pump could discharge water at once. If water level does not decline under warning water level 3 minutes later, it shall cause shutdown of unit. When this situation happens, the normal startup only can be recovered by turning down power supply and eliminating accumulated water.

Note: Drain plug at the main water-containing plate is used for eliminating accumulated water in water-containing plate when maintaining air conditioner fault. During normal operation, the plug shall be filled in to prevent leakage.

6.4 Insulation work of drainage pipe

Refer the introduction to the insulation engineering parts.

7. Vacuum Drying and Leakage Checking

7.1 Purpose of vacuum drying

- Eliminating moisture in system to prevent the phenomena of ice-blockage and copper oxidation.

Ice-blockage shall cause abnormal operation of system, while copper oxide shall damage compressor.

- Eliminating the non-condensable gas (air) in system to prevent the components oxidizing, pressure fluctuation and bad heat exchange during the operation of system.

7.2 Selection of vacuum pump

- The ultimate vacuum degree of vacuum pump shall be -756mmHg or above.
- Precision of vacuum pump shall reach 0.02mmHg or above.

7.3 Operation procedure for vacuum drying

Due to different construction environment, two kinds of vacuum drying ways could be chosen, namely ordinary vacuum drying and special vacuum drying.

7.3.1 Ordinary vacuum drying

1. When conduct first vacuum drying, connect pressure gauge to the infusing mouth of gas pipe and liquid pipe, and keep vacuum pump running for 1hour (vacuum degree of vacuum pump shall be reached -755mmHg).
2 If the vacuum degree of vacuum pump could not reach -755mmHg after 1 hour of drying, it indicates that there is moisture or leakage in pipeline system and need to go on with drying for half an hour.
3 If the vacuum degree of vacuum pump still could not reach -755mmHg after 1.5 hours of drying, check whether there is leakage source.
4 Leakage test: After the vacuum degree reaches -755mmHg, stop vacuum drying and keep the pressure for 1 hour. If the indicator of vacuum gauge does not go up, it is qualified. If going up, it indicates that there is moisture or leak source.

7.3.2 Special vacuum drying

The special vacuum drying method shall be adopted when:

1. Finding moisture during flushing refrigerant pipe.
2. Conducting construction on rainy day, because rain water might penetrated into pipeline.
3. Construction period is long, and rain water might penetrated into pipeline.
4. Rain water might penetrate into pipeline during construction.

Procedures of special vacuum drying are as follows:

1. Vacuum drying for 1 hour.
2. Vacuum damage, filling nitrogen to reach 0.5Kgf/cm2 .
   Because nitrogen is dry gas, vacuum damage could achieve the effect of vacuum drying, but this method could not achieve drying thoroughly when there is too much moisture. Therefore, special attention shall be drawn to prevent the entering of water and the formation of condensate water.
3. Vacuum drying again for half an hour.
   If the pressure reached -755mmHg, start to pressure leakage test. If it cannot reached the value, repeat vacuum damage and vacuum drying again for 1 hour.

3 Leakage test: After the vacuum degree reaches -755mmHg, stop vacuum drying and keep the pressure for 1 hour. If the indicator of vacuum gauge does not go up, it is qualified. If going up, it indicates that there is moisture or leak source.

8. Additional refrigerant charge

- After the vacuum drying process is carried out, the additional refrigerant charge process need to be performed.
- The outdoor unit is factory charged with refrigerant. The additional refrigerant charge volume is decided by the diameter and length of the liquid pipe between indoor and outdoor unit. Refer the following formula to calculate the charge volume.

Diameter of liquid pipe (mm)	Φ6.35	Φ9.52

Formula	V=15g/m×(L-5)	V=30g/m×(L-5)

V: Additional refrigerant charge volume (g).

L : The length of the liquid pipe (m).

Note:

- Refrigerant may only be charged after performed the vacuum drying process.
- Always use gloves and glasses to protect your hands and eyes during the charge work.
- Use electronic scale or fluid infusion apparatus to weight refrigerant to be recharged. Be sure to avoid extra refrigerant charged, it may cause liquid hammer of the compressor or protections.
- Use supplementing flexible pipe to connect refrigerant cylinder, pressure gauge and outdoor unit. And The refrigerant should be charged in liquid state. Before recharging, The air in the flexible pipe and manifold gauge should be exhausted.
- After finished refrigerant recharge process, check whether there is refrigerant leakage at the connection joint part.(Using gas leakage detector or soap water to detect).

9. Engineering of insulation

9.1 Insulation of refrigerant pipe

9.1.1 Operational procedure of refrigerant pipe insulation

Cut the suitable pipe → insulation (except joint section) → flare the pipe → piping layout and connection→ vacuum drying → insulate the joint parts

9.1.2 Purpose of refrigerant pipe insulation

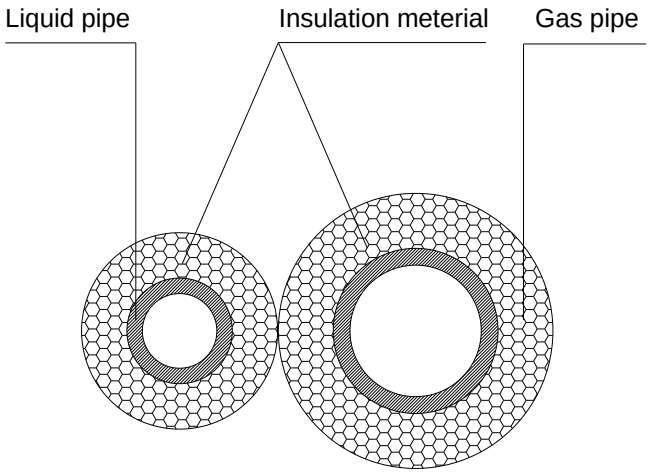
- During operation, temperature of gas pipe and liquid pipe shall be over-heating or over-cooling extremely. Therefore, it is necessary to carry out insulation; otherwise it shall debase the performance of unit and burn compressor.
- Gas pipe temperature is very low during cooling. If insulation is not enough, it shall form dew and cause leakage.
- Temperature of gas pipe is very high (generally 50-100℃) during heating. Insulation work must be carried out to prevent hurt by carelessness touching.

9.1.3 Insulation material selection for refrigerant pipe

- The burning performance should over 120℃
- According to the local law to choose insulation materials
- The thickness of insulation layer shall be above 10mm.If in hot or wet environment place, the layer of insulation should be thicker accordingly.

9.1.4 Installation highlights of insulation construction

- Gas pipe and liquid pipe shall be insulated separately, if the gas pipe and liquid pipe were insulated together; it will decrease the performance of air conditioner.



- The insulation material at the joint pipe shall be 5~10cm longer than the gap of the insulation material.
- The insulation material at the joint pipe shall be inserted into the gap of the insulation material.
- The insulation material at the joint pipe shall be banded to the gap pipe and liquid pipe tightly.
- The linking part should be use glue to paste together
- Be sure not bind the insulation material over-tight, it may extrude out the air in the material to cause bad insulation and cause easy aging of the material.

9.2 Insulation of drainage pipe

9.2.1 Operational procedure of refrigerant pipe insulation

Select the suitable pipe → insulation (except joint section) → piping layout and connection→ drainage test→ insulate the joint parts

9.2.2 Purpose of drainage pipe insulation

The temperature of condensate drainage water is very low. If insulation is not enough, it shall form dew and cause leakage to damage the house decoration.

Insulation material selection for drainage pipe

- The insulation material should be flame retardant material, the flame retardancy of the material should be selected according to the local law.
- Thickness of insulation layer is usually above 10mm.
- Use specific glue to paste the seam of insulation material, and then bind with adhesive tape. The width of tape shall not be less than 5cm. Make sure it is firm and avoid dew.

9.2.3 Installation and highlights of insulation construction

- The single pipe should be insulated before connecting to another pipe, the joint part should be insulated after the drainage test.
- There should be no insulation gap between the insulation material.

10. Engineering of electrical wiring

10.1 Highlights of electrical wiring installation

- All field wiring construction should be finished by qualified electrician.
- Air conditioning equipment should be grounded according to the local electrical regulations.
- Current leakage protection switch should be installed.
- Do not connect the power wire to the terminal of signal wire.
- When power wire is parallel with signal wire, put wires to their own wire tube and remain at least 300mm gap.
- According to table in indoor part named “the specification of the power” to choose the wiring, make sure the selected wiring not small than the date showing in the table.
- Select different colors for different wire according to relevant regulations.
- Do not use metal wire tube at the place with acid or alkali corrosion, adopt plastic wire tube to replace it.
- There must be not wire connect joint in the wire tube If joint is a must, set a connection box at the place.
- The wiring with different voltage should not be in one wire tube.
- Ensure that the color of the wires of outdoor and the terminal No. are same as those of indoor unit respectively.

11. Test operation

11.1 The test operation must be carried out after the entire installation has been completed.

11.2 Please confirm the following points before the test operation.

- The indoor unit and outdoor unit are installed properly.

- Tubing and wiring are correctly completed.
- The refrigerant pipe system is leakage-checked.
- The drainage is unimpeded.
- The ground wiring is connected correctly.
- The length of the tubing and the added stow capacity of the refrigerant have been recorded.
- The power voltage fits the rated voltage of the air conditioner.
- There is no obstacle at the outlet and inlet of the outdoor and indoor units.
- The gas-side and liquid-side stop values are both opened.
- The air conditioner is pre-heated by turning on the power.

11.3 Test operation

Set the air conditioner under the mode of "COOLING" by remote controller, and check the following points.

Indoor unit

- Whether the switch on the remote controller works well.
- Whether the buttons on the remote controller works well.
- Whether the air flow louver moves normally.
- Whether the room temperature is adjusted well.
- Whether the indicator lights normally.
- Whether the temporary buttons works well.
- Whether the drainage is normal.
- Whether there is vibration or abnormal noise during operation.

Outdoor unit

- Whether there is vibration or abnormal noise during operation.
- Whether the generated wind, noise, or condensed of by the air conditioner have influenced your neighborhood.
- Whether any of the refrigerant is leaked.

Part 5
Electrical Control System

1. Electrical Control Function

1.1 Definition

T1: Room Air Thermistor (RAT)

T2: Indoor Coil Thermistor (ICT)

T3: Outdoor Coil Thermistor (OCT)

T4: Outdoor Air Thermistor (OAT)

T5: Compressor Discharge Thermistor (CTT)

1.2 Main Protection

1.2.1 Time delay at restart for compressor.

1.2.2 Sensor protection at open circuit and breaking disconnection.

1.2.3 Phase check function

If the phase sequence is detected wrong or lack of 1 or 2 phase, the unit won't start and there is error code displayed on outdoor PCB.

1.2.4 Over-current protection

When compressor is running, if the current is over twice of the rated for 3 seconds, the compressor will stop and an error code will be displayed on the outdoor PCB. If the current becomes normal, the indoor sends signal to the outdoor, the outdoor will display normally.

1.2.5 Low pressure check function

The low pressure switch should be always closed. If it is open, the system will stop until the fault is cleared. During defrosting procedure and 4 minutes after defrosting ends, low pressure switch won't be checked.

Note: The system will not check if the protection could be cleared in 30 seconds after the protection occurs. If this protection occurs 3 times, it won't recover automatically until the main power is cut off.

1.2.6 Fan Speed is out of control(For used DC fan models)

When Indoor fan speed keeps too low (less than 300RPM) for 50s, the unit will stop and the LED will display the failure.

1.3 Operation Modes and Functions

1.3.1 Fan mode

(1) Outdoor fan and compressor stop.

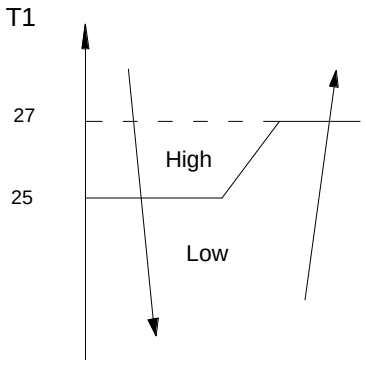
(2) Temperature setting function is disabled, and no setting temperature is displayed.

(3) Indoor fan can be set to high/(med)/low/auto.

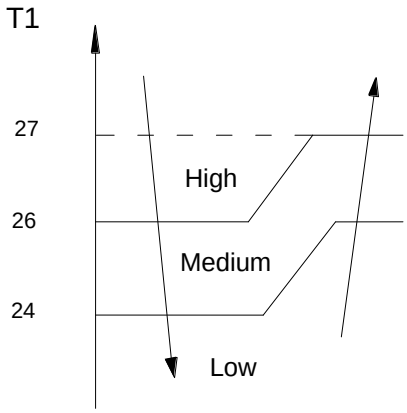
(4) The louver operates same as in cooling mode.

(5) Auto fan:

Compact cassette:



Others type:

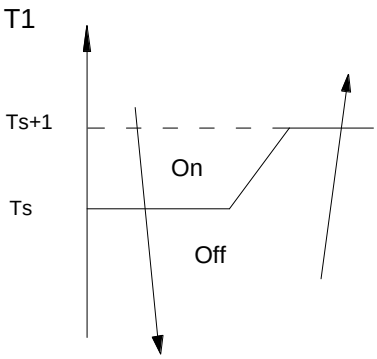


1.3.2 Cooling Mode

1.3.2.1 Compressor running rules

Once the compressor starts up, it will follow the below rules:

When indoor room temp.T1 is lower than Ts, the compressor and outdoor fan will shut off. When T1 is higher than Ts+1, the compressor and outdoor fan will start up.

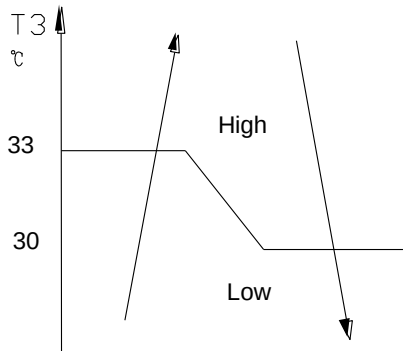


1.3.2.2 Outdoor fan running rules

For 1-phase outdoor units:

The On-off outdoor units have single fan speed. The outdoor fan will run following the compressor except when AC is in evaporator high temp. protection in heating mode ,condenser high temp. protection in cooling mode, defrosting mode and the current protection.

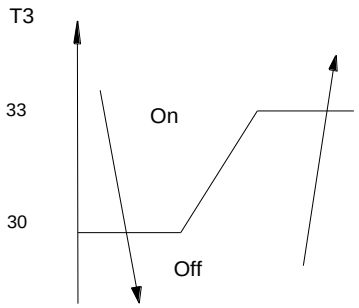
For AWAU-YOF036-H13:



For AWAU-YOF048-H13, AWAU-YOF060-H13:

Fan(above): The outdoor fan runs all the time.

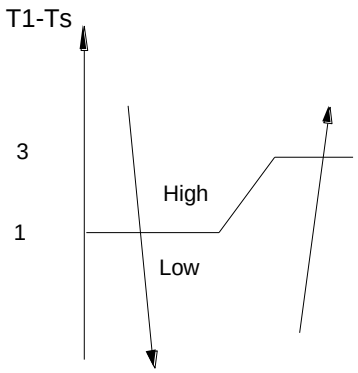
Fan(below):



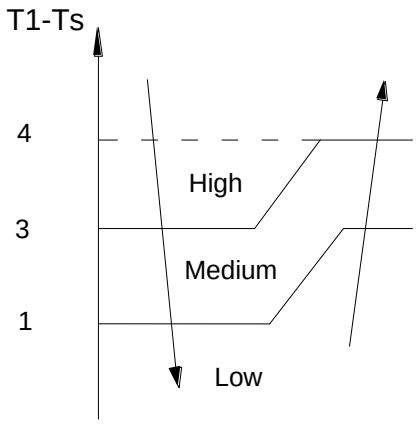
1.3.2.3 Indoor fan running rules

In cooling mode, indoor fan runs all the time and the speed can be selected as high, medium, low and auto. The auto fan:

Compact cassette:

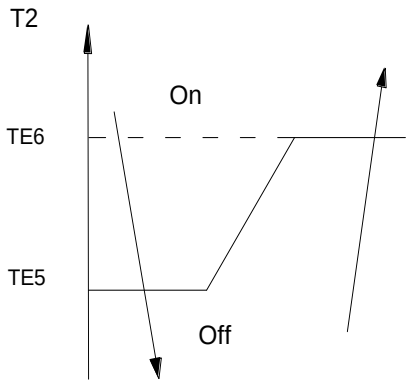


Others type:



1.3.2.4 Low evaporator coil temperature T2 protection

For Compact cassette, Duct:

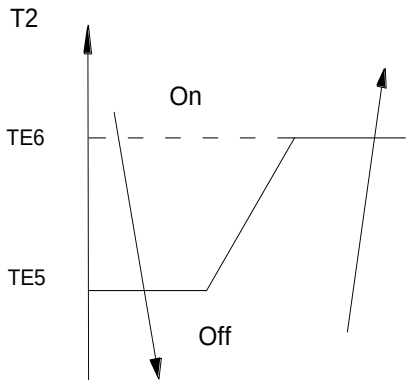


When the evaporator coil temp.T2 keeps lower than TE5 for Time0, the compressor and outdoor fan will shut off. When T2 is higher than TE6, the compressor and outdoor fan will restart up.

For Super-slim cassette and Ceiling & Floor:

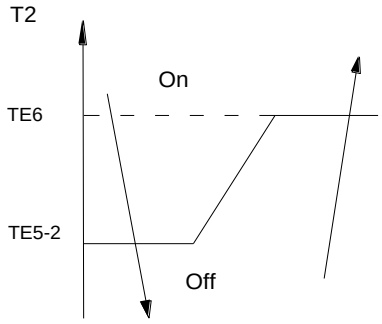
AC will enter T2 protection if any of the following conditions is satisfied.

Condition 1:



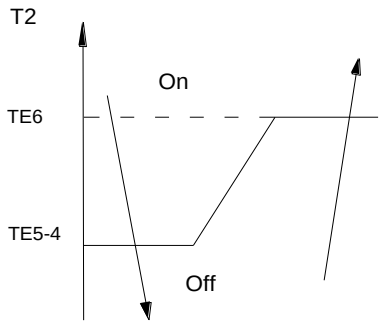
When the evaporator coil temp.T2 keeps lower than TE5 for 30 minutes, the compressor and outdoor fan will shut off. When T2 is higher than TE6, the compressor and outdoor fan will restart up.

Condition 2:



When the evaporator coil temp.T2 keeps lower than TE5-2 for 20 minutes, the compressor and outdoor fan will shut off. When T2 is higher than TE6, the compressor and outdoor fan will restart up.

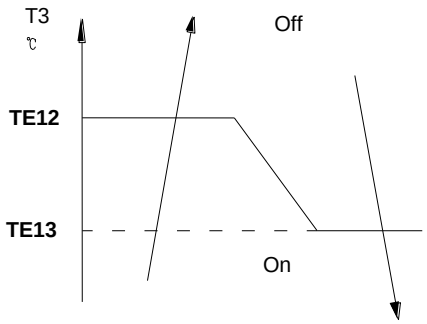
Condition 3:



When the evaporator coil temp.T2 keeps lower than TE5-4 for 8 minutes, the compressor and outdoor fan will shut off. When T2 is higher than TE6, the compressor and outdoor fan will restart up.

1.3.2.5 Condenser high temperature T3 protection

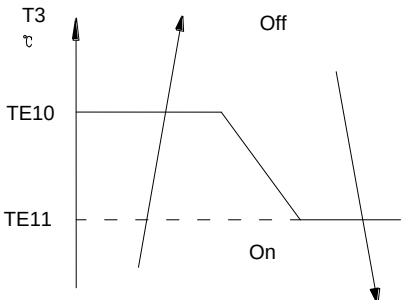
For Compact cassette, Super-slim cassette, Duct:



For Compact cassette: When T3≥TE12 for Time1, the compressor will shut off. When T3＜TE13,the compressor will restart.

For Super-slim cassette& Duct When T3>TE12 for Time1, the compressor will shut off. When T3≤ TE13,the compressor will restart.

For Ceiling & Floor:



When T3>TE10, the compressor will shut off. When T3≤TE11,the compressor will restart.

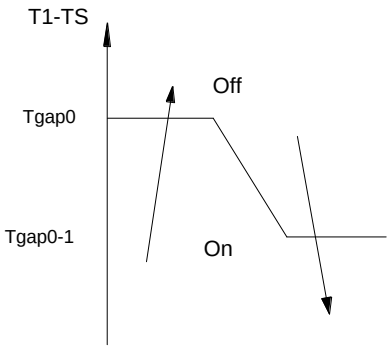
1.3.3 Heating Mode

1.3.3.1 Compressor running rules:

For Compact cassette, Super-slim cassette, Duct, Ceiling & Floor(24K~36K): Once the compressor starts up, it keeps running 7 minutes,

For Ceiling & Floor(48K~60K)**:** Once the compressor starts up, it keeps running HEATFTIM minutes, then it will follow the below rules:

When indoor room temp.T1 is higher than Tgap0, the compressor and outdoor fan will shut off. When T1 is lower than Tgap0-1, the compressor and outdoor fan will start up.



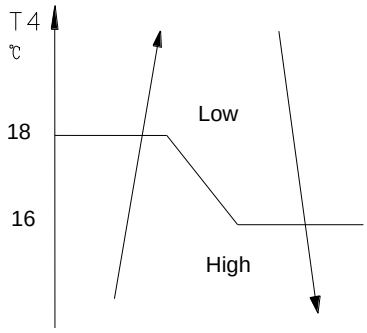
For Ceiling & Floor:Tgap0 = setting temperature-compensation. (For 24K~36K:While short JR5, Tgap0=4℃, no short JR5, Tgap0=1℃; For 48K~60K:While SW5 is off, Tgap0=4℃, SW5 is on, Tgap0=1℃;)

1.3.3.2 Outdoor fan running rules:

For 1-phase outdoor units:

The On-off outdoor units have single fan speed. The outdoor fan will run following the compressor except when AC is in evaporator high temp. protection in heating mode ,condenser high temp. protection in cooling mode, defrosting mode and the current protection.

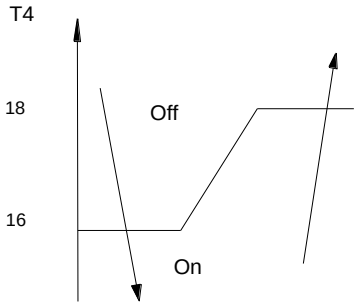
For AWAU-YOF036-H13:



For AWAU-YOF048-H13, AWAU-YOF060-H13:

Fan(below): The outdoor fan runs all the time.

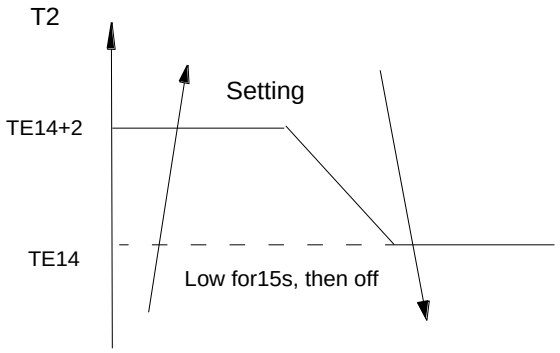
Fan(above):



1.3.3.3 Indoor fan running rules:

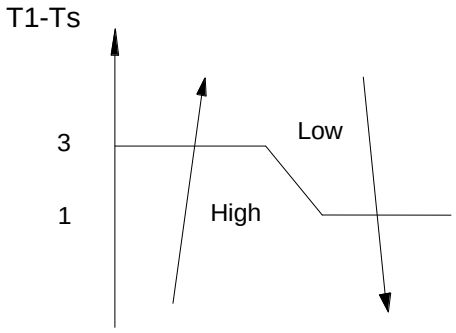
When the compressor is on, the indoor fan can be set to high/(med)/low/auto. And the anti-cold wind function has the priority.

For Ceiling & Floor: If the compressor stops caused by the room temperature rising, the indoor fan will follow the below rules. During this period, the anti-cold-wind is disabled.



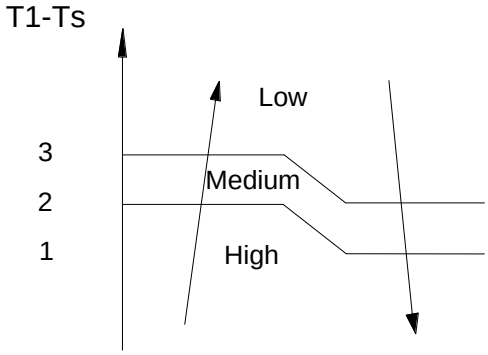
Auto fan action:

For Compact cassette:

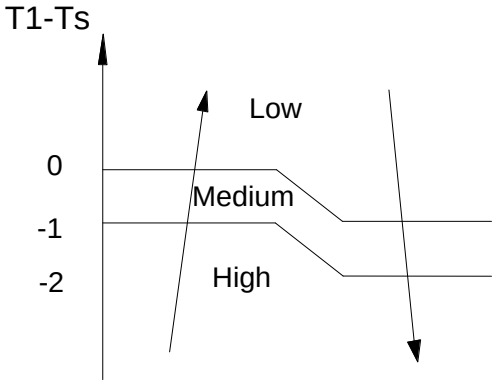


For Super-slim cassette & Duct:

For Ceiling & Floor: setting temperature-compensation.=4°C



For Ceiling & Floor: setting temperature-compensation.=1°C



1.3.3.4 Defrosting mode：

For 1-phase outdoor units &3-phase outdoor units(48K~60K):

- **Condition of defrosting:**

AC will enter defrosting mode if any of the following items is satisfied.

A: For Compact cassette : T3<-2℃ and the compressor keeps running over 40 minutes

For Super-slim cassette, Duct and Ceiling & Floor:: T3< TE19 and the compressor keeps running over 45 minutes. Meanwhile T3＜TE17 for 3 minutes.

B: After the last defrosting, the time that the outdoor fan is off but the compressor is on in high T2 protection cumulates up to 90 minutes.

- **Condition of ending defrosting:**

If any one of the following items is satisfied, the defrosting will terminate and the machine will turn to normal heating mode.

A: T3 rises to be higher than TE18.

B: The machine has run for 10 minutes in defrosting.

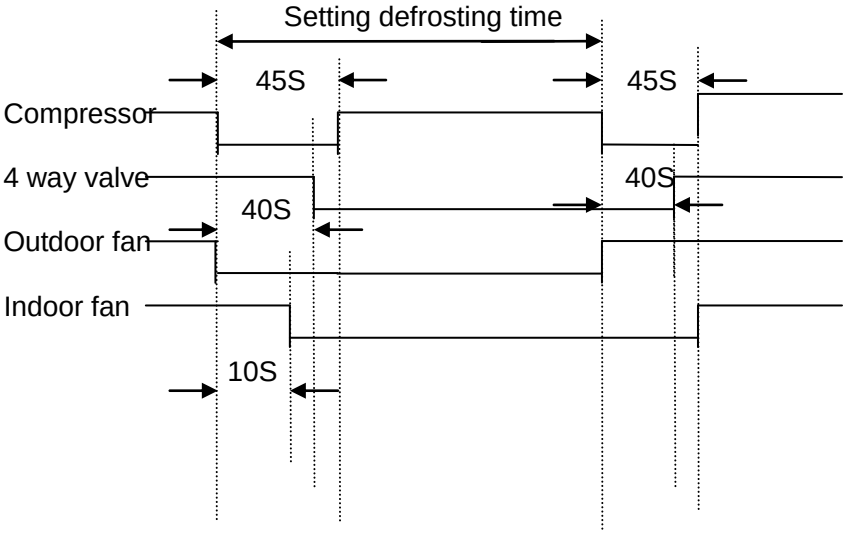
C: Turn to other modes or off.

- **Defrosting action：**

For Compact cassette

The compressor is running, and 4-way valve and outdoor fan stop. The indoor fan works as anti-cold wind procedure. When defrosting is over, the compressor keeps running and the 4-way valve and outdoor fan will start up.

For Super-slim cassette ,Duct and Ceiling & Floor



For 3-phase outdoor units(36K):

- **Condition of defrosting:**

T3<0℃ and the compressor keeps running over 40 minutes.

- **Condition of ending defrosting:**

If any one of the following items is satisfied, the defrosting will terminate and the machine will turn to normal heating mode.

A: T3 rises to be higher than 20℃.

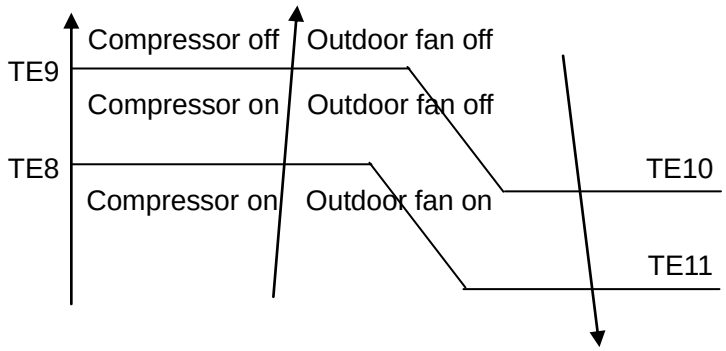
B: The machine has run for 10 minutes in defrosting.

- **Defrosting action：**

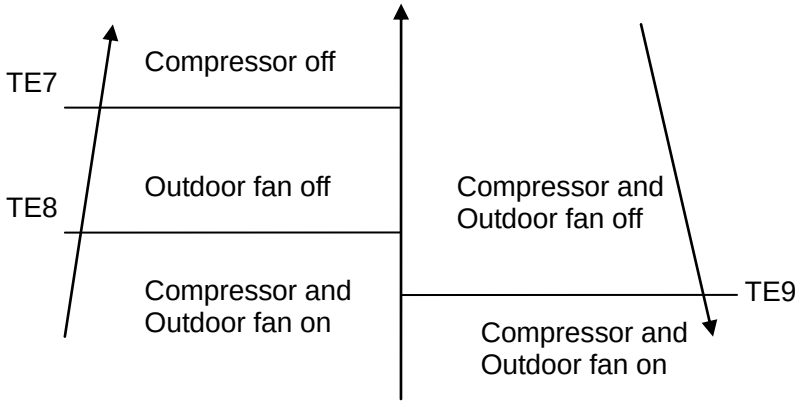
The compressor is running, and 4-way valve and outdoor fan stop. The indoor fan works as anti-cold wind procedure. When defrosting is over, the compressor keeps running and the 4-way valve and outdoor fan will start up.

1.3.3.5 High evaporator coil temp.T2 protection:

For Super-slim Cassette, Compact cassette, Duct:



For Ceiling & Floor:



1.3.4 Auto-mode

This mode can be chosen with remote controller and the setting temperature can be changed between 17~30℃.

In auto mode, the machine will choose cooling, heating or fan-only mode according to ΔT (ΔT =T1-Ts).

For Super-slim Cassette, Compact cassette, Duct:

ΔT=T1-Ts	Running mode
ΔT＞2℃	Cooling
-1≤ΔT≤2℃	Fan-only
ΔT<-1℃	Heating

For Ceiling & Floor:

ΔT=T1-Ts	Running mode
ΔT＞2℃	Cooling
-1<ΔT≤2℃	Fan-only
ΔT≤-1℃	Heating

Indoor fan will run at auto fan of the relevant mode.

The louver operates same as in relevant mode.

If the machine switches mode between heating and cooling, the compressor will keep stopping for 15 minutes and then choose mode according to T1-Ts.

If the setting temperature is modified, the machine will choose running function again.

1.3.5 Drying mode

1.3.5.1 The indoor fan will keep running at low speed.

1.3.5.2 All protections are active and the same as that in cooling mode.

1.3.5.3 The louver operates the same as in cooling mode.

1.3.6 Timer function

1.3.6.1 Timing range is 24 hours.

1.3.6.2 Timer on. The machine will turn on automatically when reaching the setting time.

1.3.6.3 Timer off. The machine will turn off automatically when reaching the setting time.

1.3.6.4 Timer on/off. The machine will turn on automatically when reaching the setting “on” time, and then turn off automatically when reaching the setting “off” time.

1.3.6.5 Timer off/on. The machine will turn off automatically when reaching the setting “off” time, and then turn on automatically when reaching the setting “on” time.

1.3.6.6 The timer function will not change the AC current operation mode. Suppose AC is off now, it will not start up firstly after setting the “timer off” function. And when reaching the setting time, the timer LED will be off and the AC running mode has not been changed.

For Compact cassette: The timer function will change the AC current operation mode. Suppose users set the “timer off” function and AC is off now, the AC will turn on firstly and then turn off when reaching the setting time.

1.3.6.7 The setting time is relative time.

1.3.7 Economy function

1.3.7.1 It is valid in cooling, heating and auto mode.

1.3.7.2. Turning off, changing mode or setting fan speed will cancel economy function.

1.3.7.3 Operation process in sleep mode is as follow:

After pressing ECONOMIC or SLEEP button on the controller, the machine will go into economy mode.

When cooling, the setting temperature rises 1℃(be lower than 30℃) every hour, 2 hours later the setting temperature stops rising.

For heat pump models, when they are in heating, the setting temperature reduces 1℃(be higher than 17℃) every hour, 2 hours later the setting temperature stops reducing.

1.3.7.4 In this mode, the fan speed is forced into AUTO mode.

1.3.8 Auto-Restart function

The indoor unit is equipped with auto-restart function, which is carried out through an auto-restart module. In case of a sudden power failure, the module memorizes the setting conditions before the power failure. The unit will resume the previous operation setting (not including Swing function) automatically after 3 minutes when power returns.

1.3.9 Drain pump control(For Duct & Cassette)

1.3.9.1 Water level check

The water lever will be checked every 5 seconds, if the feedback signal is abnormal, it will be considered as drain water full by the control system.

1.3.9.2 Drain pump control

If there is no water full error, the drain pump will be on when the unit is in cooling mode (including auto-cooling and forced cooling) and dry mode. It will be off when the unit is in heating mode, fan only mode or off state (if the pump is on before the unit is off, it will delay 3 minutes to be off).

If there is a water full error, the drain pump will be on when the error occurs. Afterwards:

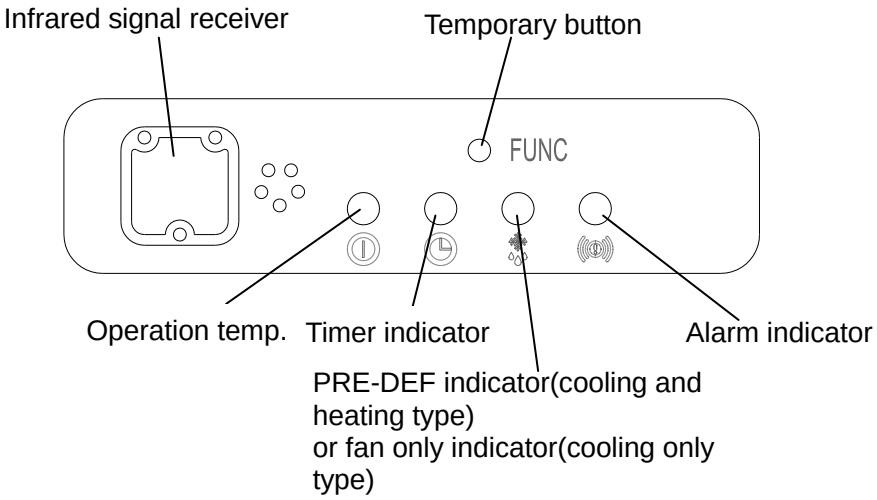
If the error disappears in 3 minutes, the drain pump will work as normal state. (if it is necessary to turn off the pump, it will be off in 1 minute delay.)

If the error is still there in 3 minutes, the drain pump will be off as well as the AC unit. The error can be cleared only when the power of the unit is cut off.

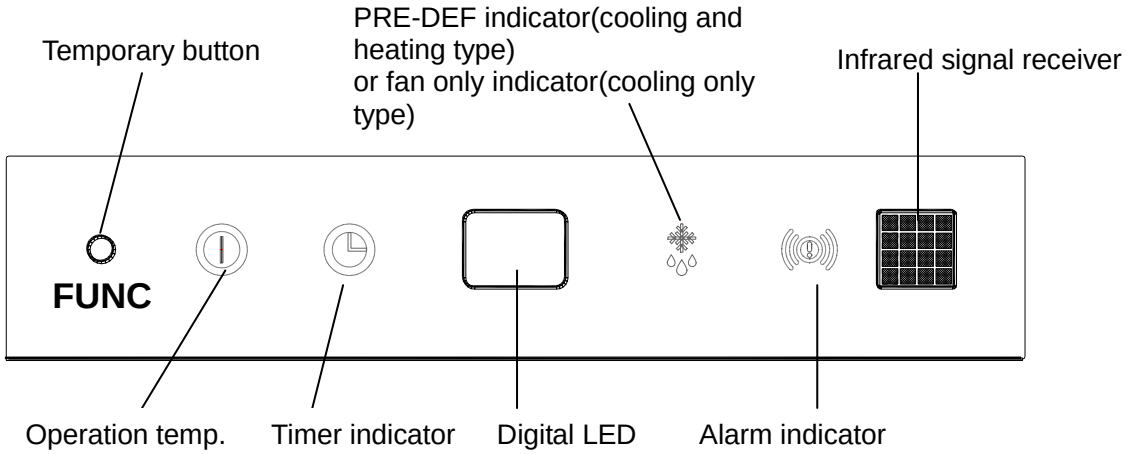
2. Troubleshooting

2.1 Display board

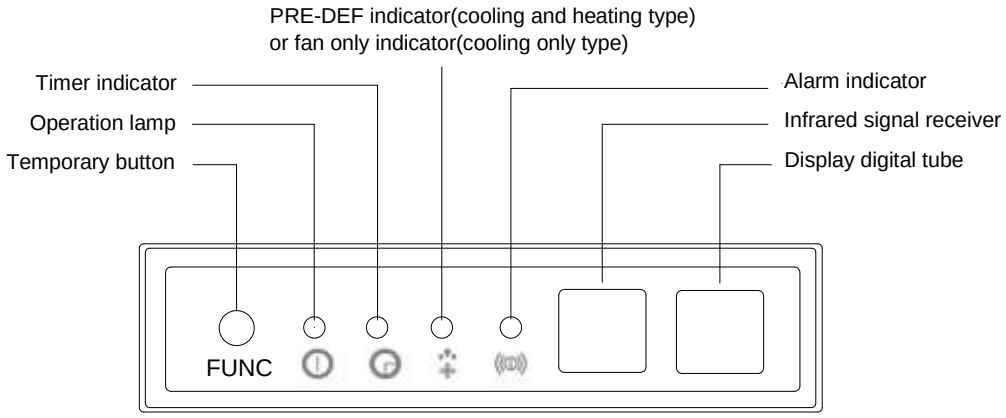
2.1.1 Icon explanation on indoor display board (Compact cassette).



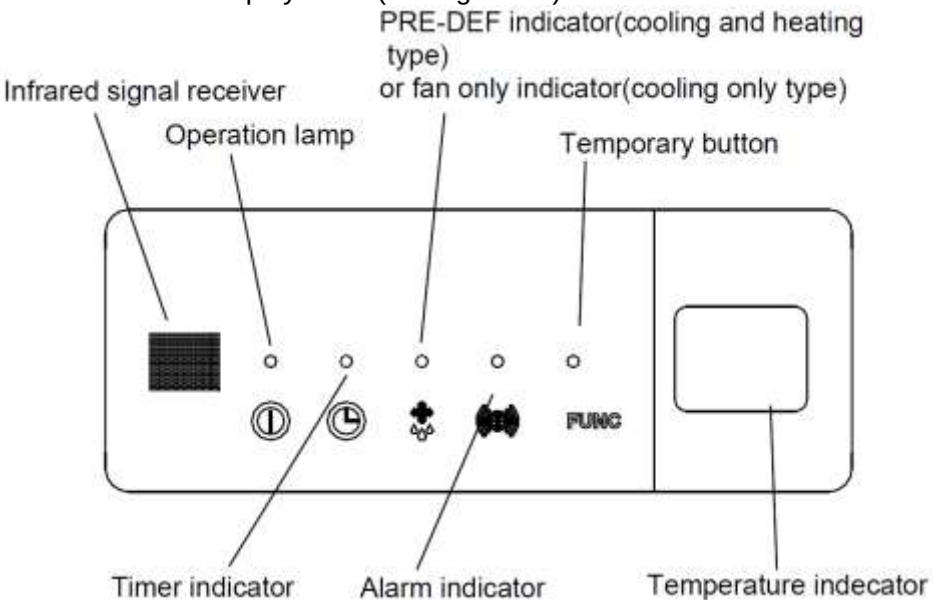
2.1.2 Icon explanation on indoor display board (Super slim cassette).



2.1.3 Icon explanation on indoor display board (Duct)



2.1.4 Icon explanation on indoor display board(Ceiling& floor)



2.2 Indoor unit malfunction

During malfunction or protection, the indicators and digital LED displays as follow:

For Compact cassette

No	Operation	Timer	Def/Fan	Alarm	Information
1	X	☆	X	X	Open or short circuit of T1 temperature sensor
2	☆	X	X	X	Open or short circuit of T2 temperature sensor
3	X	X	☆	X	Open or short circuit of T3 temperature sensor
4	☆	☆	X	X	EEPROM malfunction
5	X	X	X	☆	Full-water malfunction

Note: "X" means off, "☆" means flashes at 5Hz

For Super-slim cassette(24K~36K), Duct(24K~36K), Ceiling& floor(24K~36K)

No	Operation	Timer	Def/Fan	Alarm	Digital LED Display	Malfunction or protection
1	X	☆	X	X	E2	Open or short circuit of T1 temperature sensor
2	☆	X	X	X	E3	Open or short circuit of T2 temperature sensor
3	X	X	☆	X	E4	Open or short circuit of T3 temperature sensor
4	☆	☆	X	X	E7	EEPROM malfunction
5	X	X	X	☆	E8	Full-water malfunction

Note: "X" means off, "☆" means flashes at 5Hz

For Super-slim cassette(48K~60K) , Duct(48K~60K), Ceiling& floor(48K~60K)

NO.	Malfunction	Running lamp	Timer lamp	Defrosting lamp	Alarm lamp	Display(digital tube)
1	Communication malfunction between indoor and outdoor units	☆	X	☆	X	E1
2	Open or short circuit of T1 temperature sensor	X	☆	X	X	E2
3	Open or short circuit of T2 temperature sensor	☆	X	X	X	E3
4	Open or short circuit of T3 temperature sensor	X	X	☆	X	E4
5	Outdoor unit malfunction	☆	☆	☆	☆	E6
6	Indoor EEPROM malfunction	☆	☆	X	X	E7
7	Full-water malfunction	X	X	X	☆	E8
8	Indoor fan speed is out of control	X	☆	X	☆	Eb
9	Protection of low pressure	☆	☆	☆	X	Ed
O (on) X(off) ☆(flash at 5Hz)						

2.3 Outdoor unit malfunction(For AWAU-YOF036-H13, AWAU-YOF048-H13, AWAU-YOF060-H13)

For AWAU-YOF036-H13

Type	Contents	LED1	LED2	LED3
Trouble	Phase sequence	Flash	Off	Off
Trouble	Lack of phase(B,C)	Flash	Off	Off
Trouble	Lack of phase(A)	Off	Off	Off
Trouble	Protection of Low pressure	Flash	Flash	Off
Trouble	Overload of current	Off	Off	Flash
Trouble	Communication malfunction	Flash	Off	Flash
Trouble	Open-circuit and short-circuit trouble of T3	Off	Flash	Flash
Trouble	Open-circuit and short-circuit trouble of T4 or T5	Off	Flash	Off
Trouble	High temperature protection of condenser	Flash	Flash	Flash

For AWAU-YOF048-H13, AWAU-YOF060-H13

Type	Contents	LED2(Green)	LED3(Yellow)	LED4(Red)
Normal	Normal running	O	X	X
Normal	Normal standby	X	O	X
Trouble	Phase sequence error	X	☆	X
Trouble	Lack of phase	X	X	☆
Trouble	Open-circuit and short-circuit trouble of T3	X	X	O
Trouble	Open-circuit and short-circuit trouble of T4	☆	X	X
Trouble	Temperature protection of compressor discharge	O	X	O
Trouble	Protection of high pressure	☆	☆	X
Trouble	Protection of low pressure	☆	X	☆
Trouble	Overload of current	X	☆	O
Trouble	High temperature protection of condenser	☆	☆	O
Trouble	Fan selection error	☆	☆	☆
O(light) X(off) ☆(flash at 1Hz)				

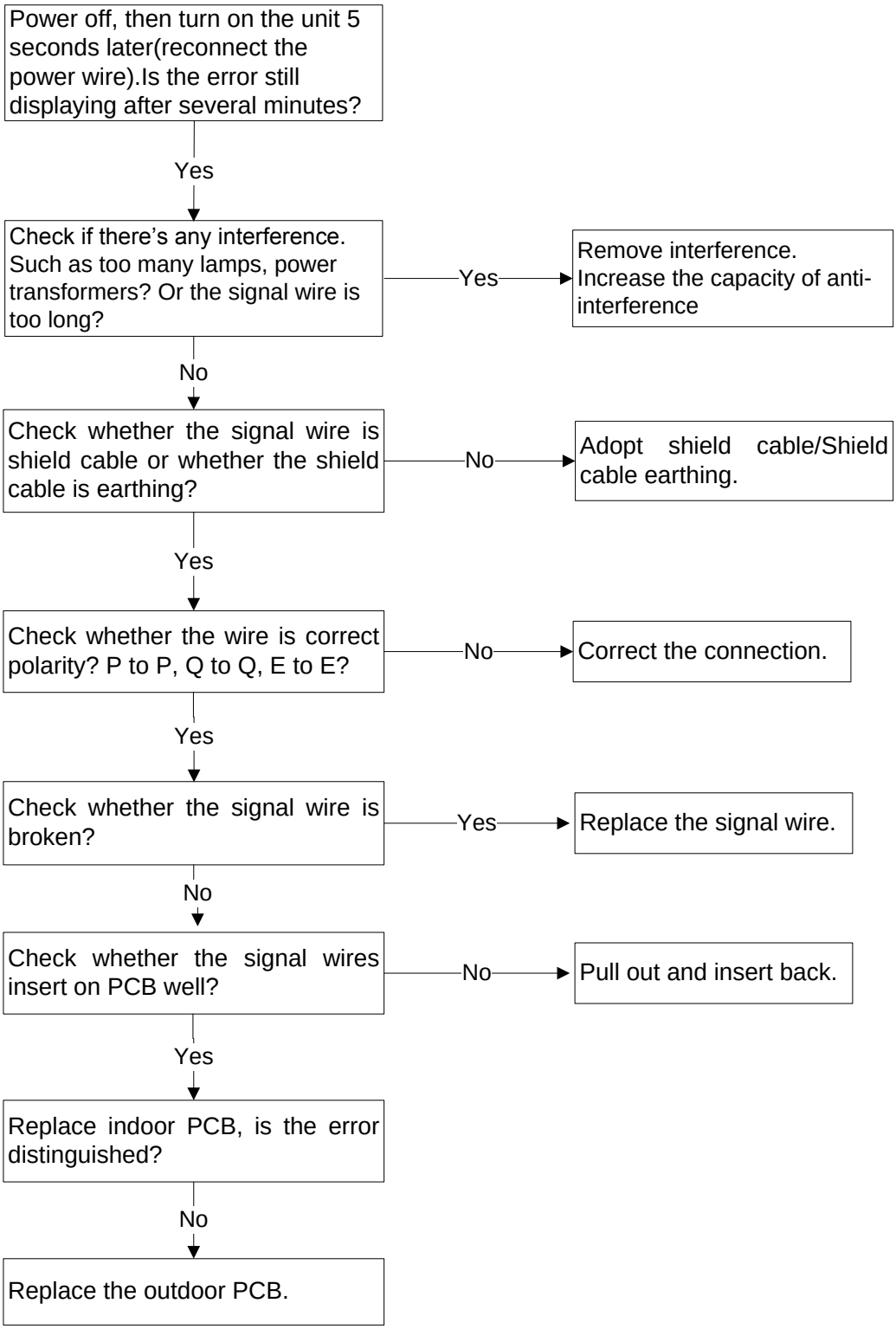
Note:

1. T3: Outdoor condenser temperature sensor
2. T4: Outdoor ambient temperature sensor

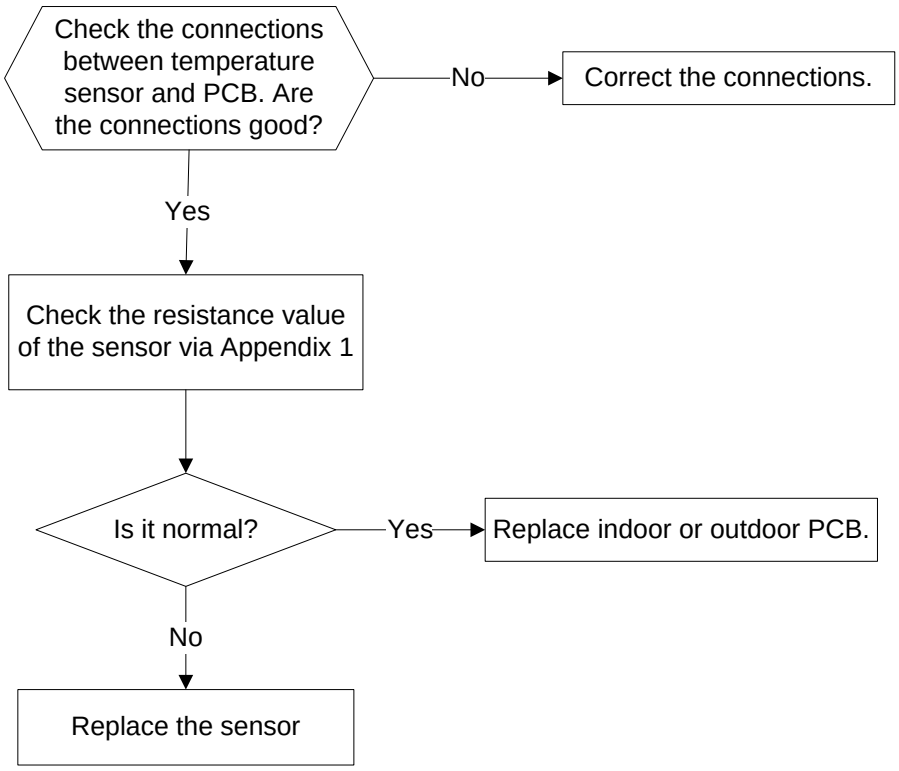
2.4 Solving steps for typical malfunction

2.4.1 For the indoor unit

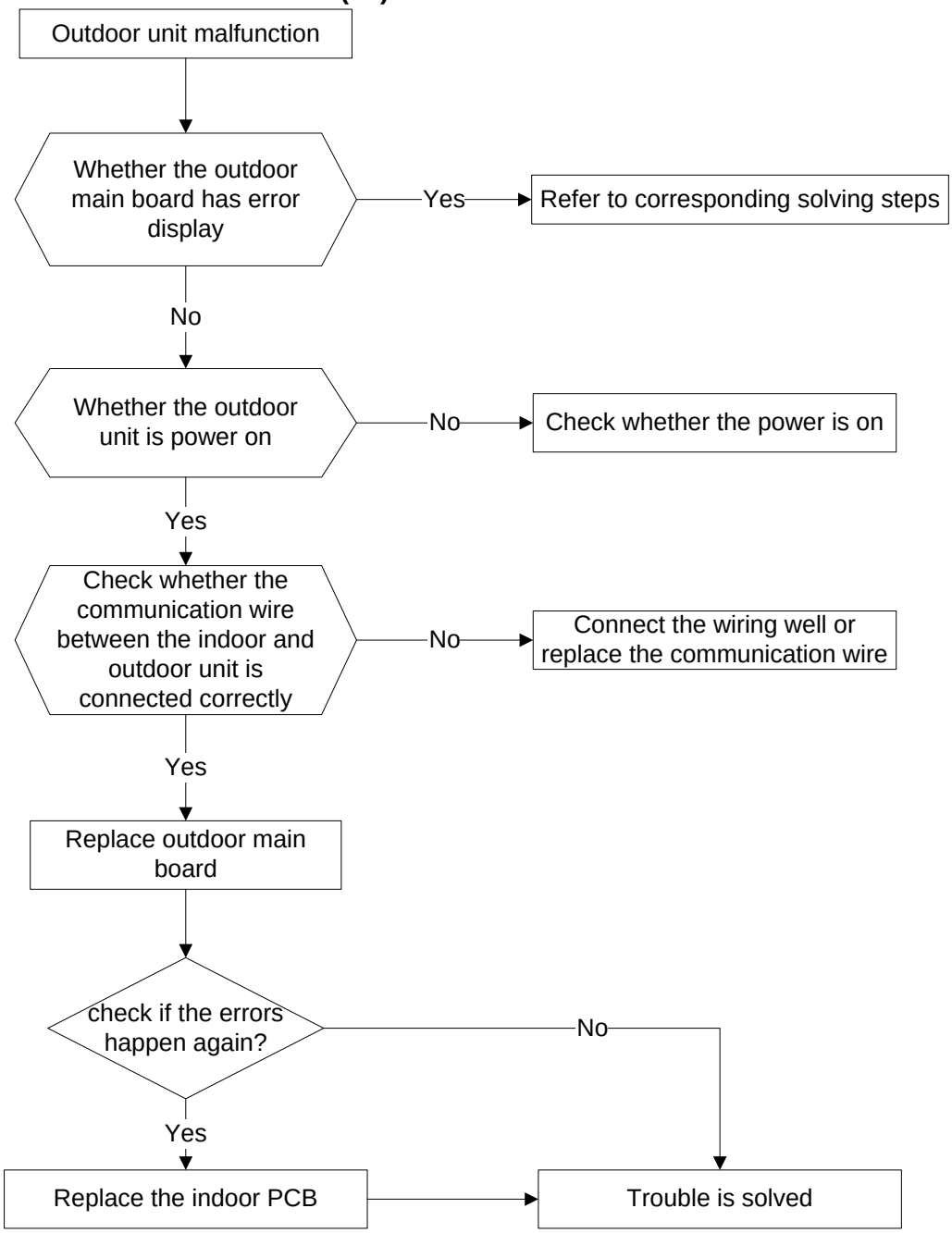
a. Communication malfunction between indoor and outdoor units(E1)



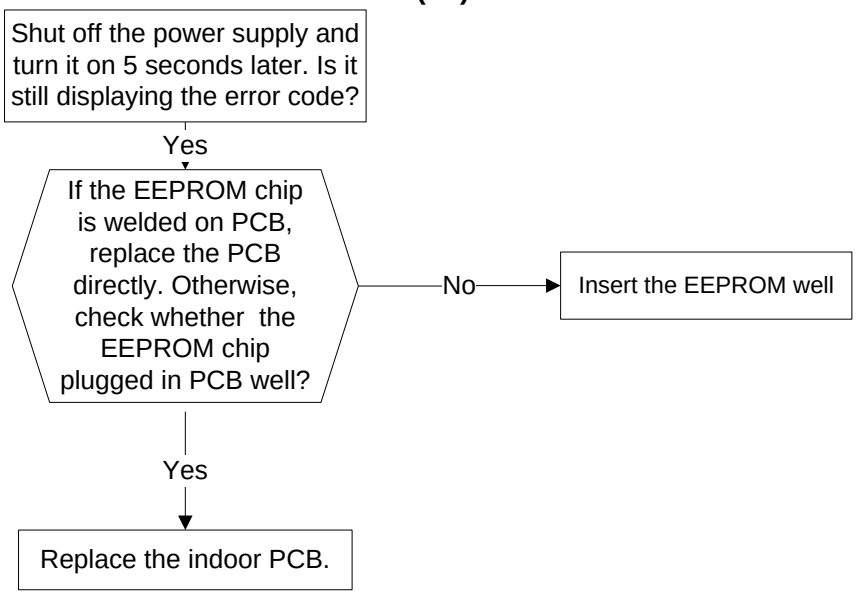
b. Open or short circuit of temperature sensor（E2，E3, E4）



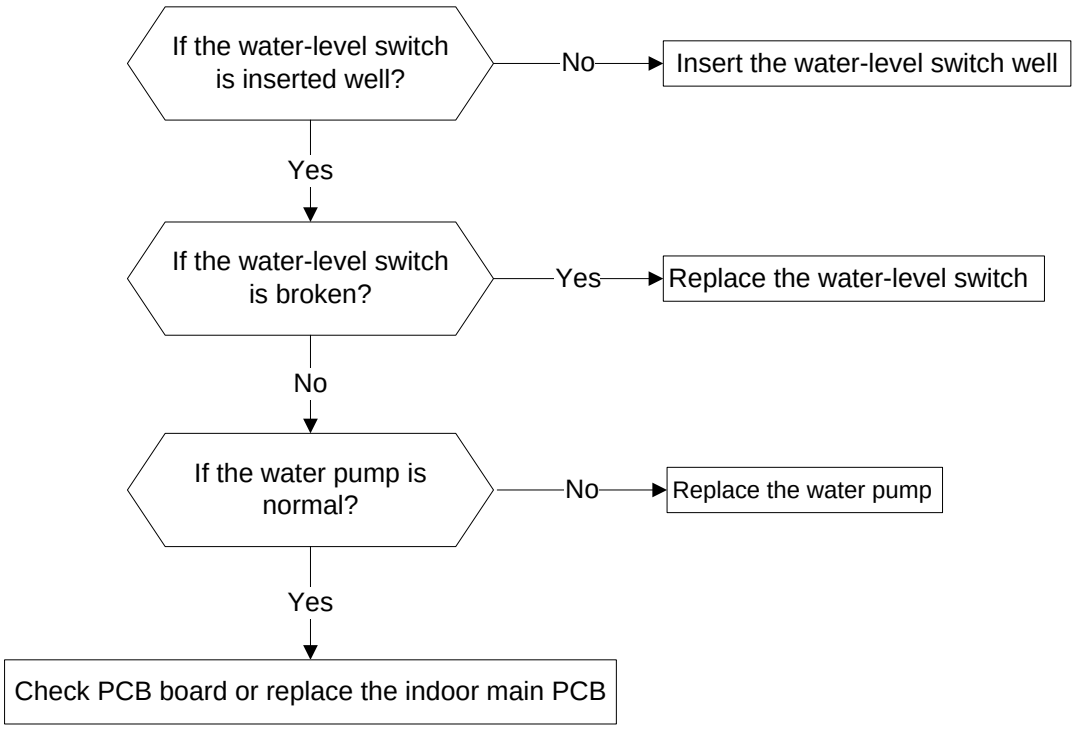
c. Outdoor unit malfunction(E6)



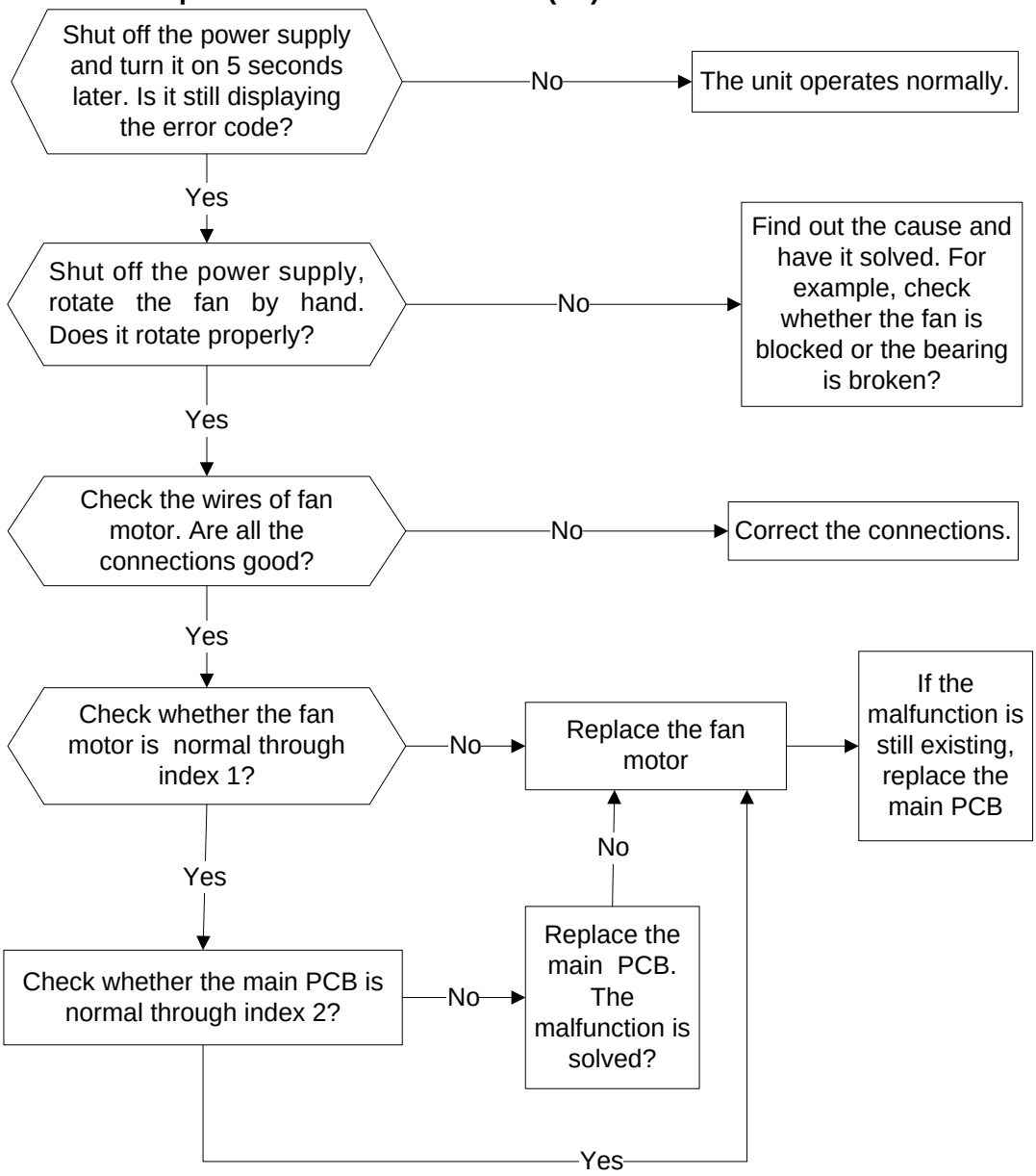
d. Indoor EEPROM malfunction(E7)



e. Full-water malfunction(E8)



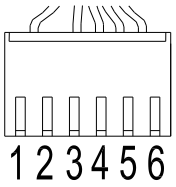
f. Indoor fan speed has been out of control(Eb)



Index 1:

1.Indoor DC fan motor(control chip is inside fan motor)

Measure the resistance value of each winding by using the tester. If any resistance value is zero, the fan motor must have problems and need to be replaced.

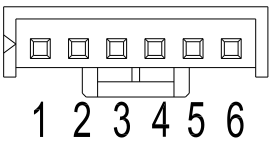


NO.	Color
1	Red
2	---
3	Black
4	White
5	Yellow
6	Blue

Index2:

1. DC fan motor(control chip is inside fan motor)

Power on and when the unit is in standby, measure the voltage of pin1-pin3, pin4-pin3 in fan motor connector. If the value of the voltage is not in the range showing in below table, the PCB must have problems and need to be replaced.

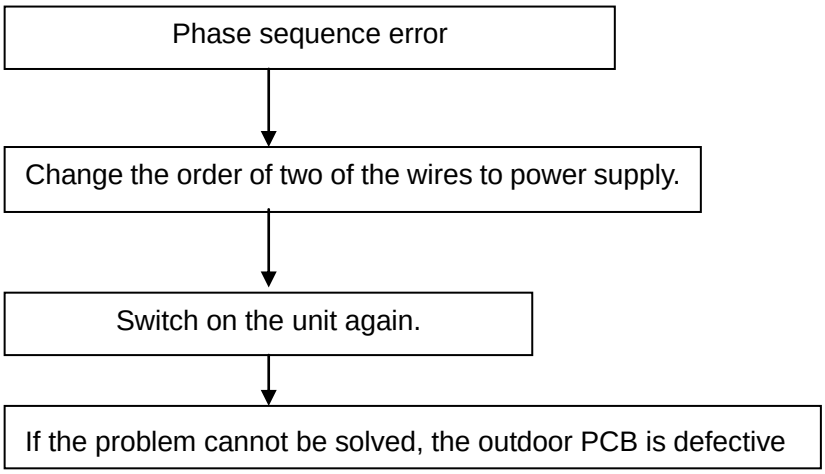


DC motor voltage input and output

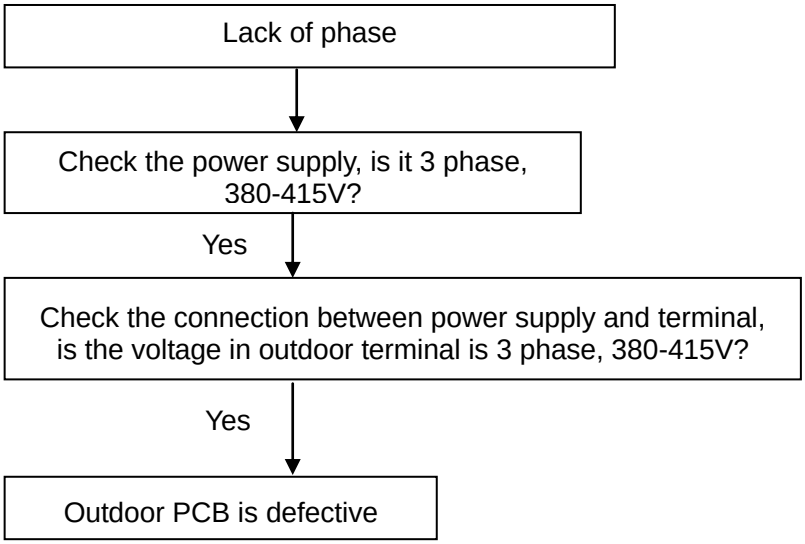
NO.	Color	Signal	Voltage
1	Red	Vs/Vm	140~380V
2	---	---	---
3	Black	GND	0V
4	White	Vcc	13.5~16.5V
5	Yellow	Vsp	0~6.5V
6	Blue	FG	15V

2.4.3 For the outdoor unit

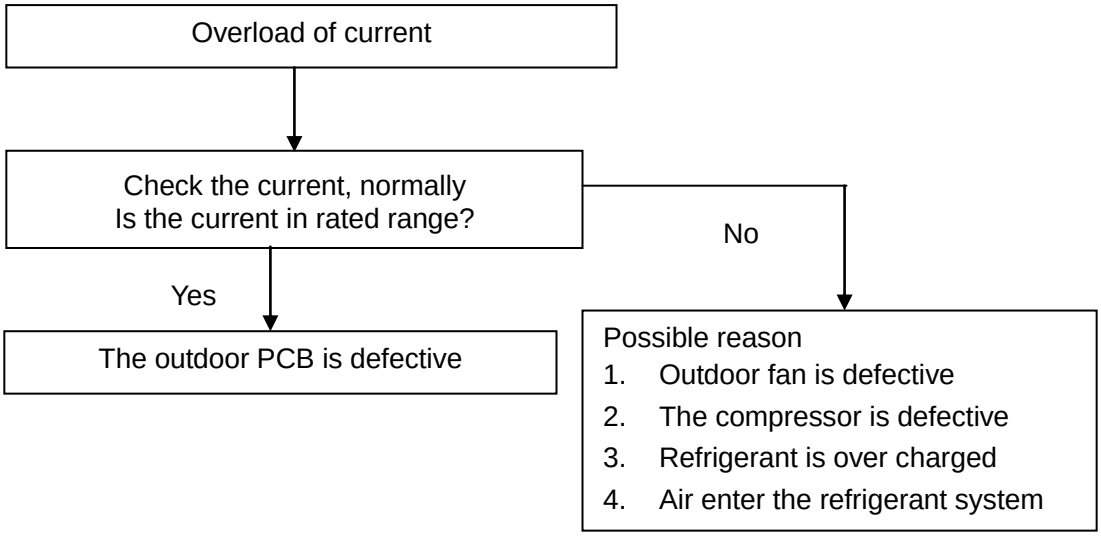
a. Phase sequence error:



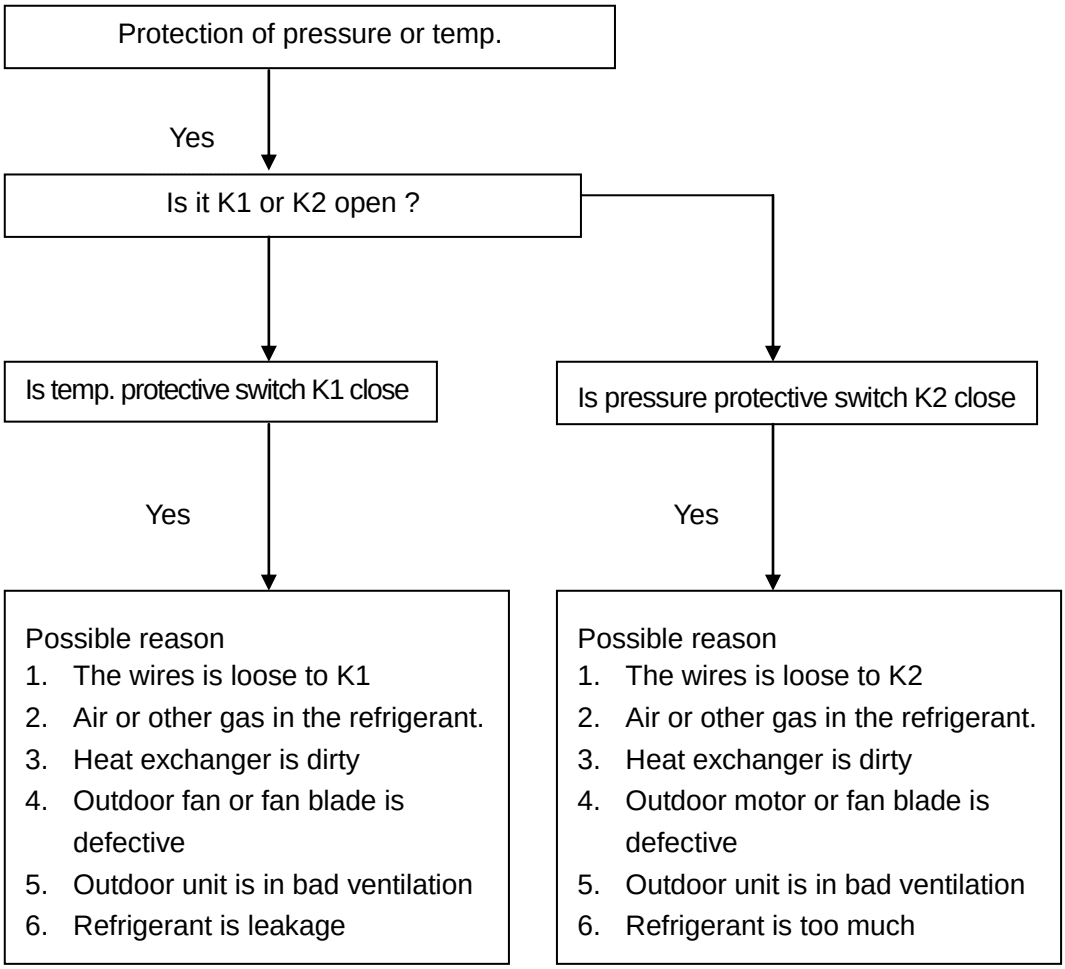
b. Lack of phase



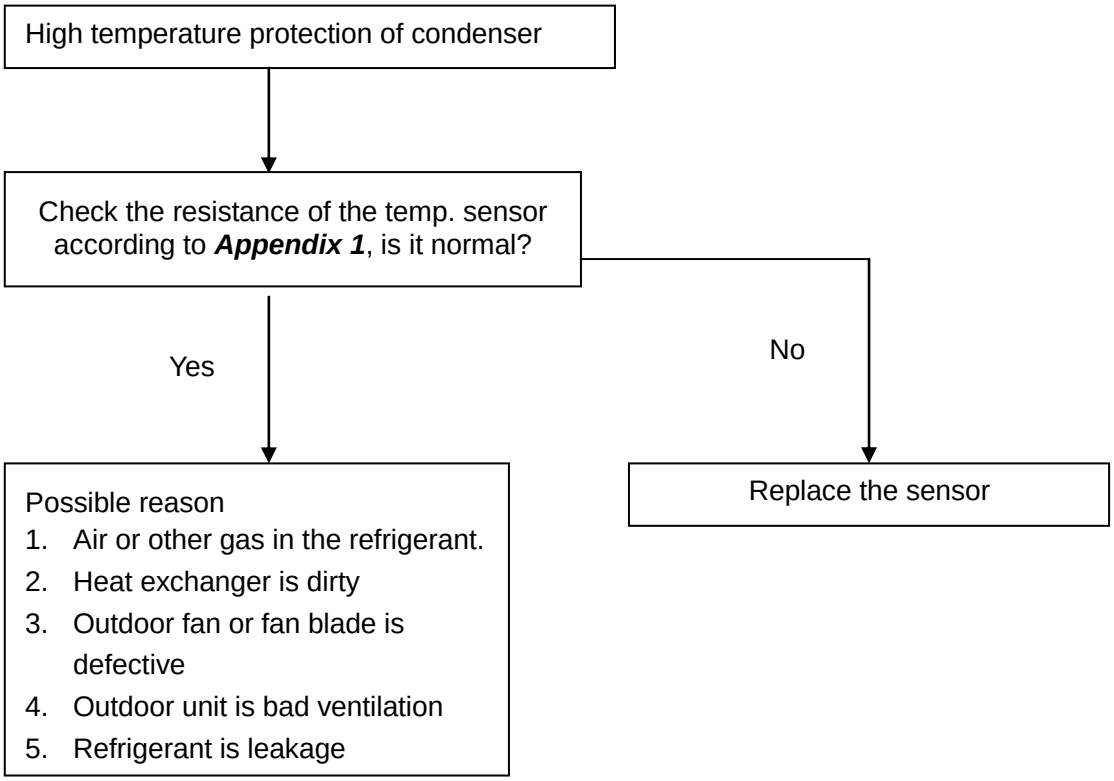
c. Overload of current



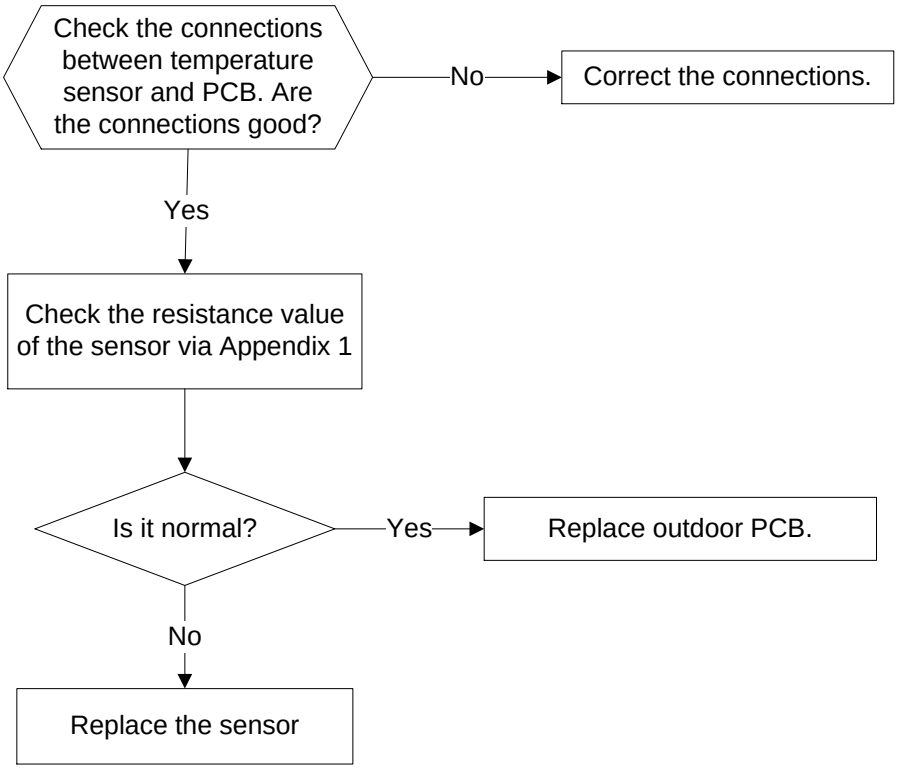
d. Protection of pressure or temp.



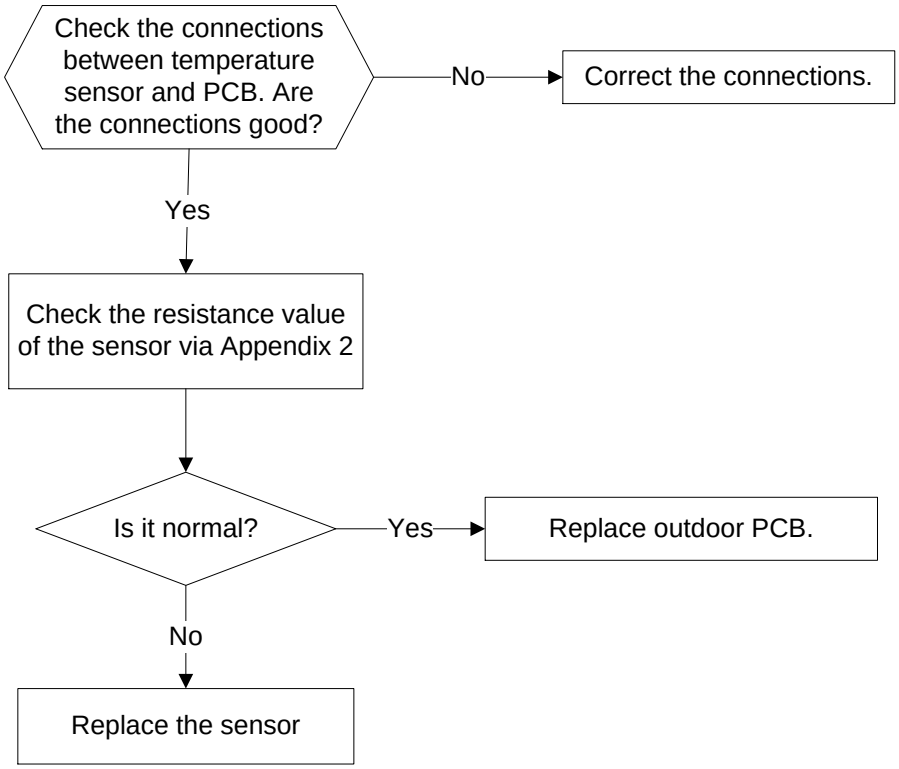
e. High temperature protection of condenser



f. Open or short circuit of T3 or T4 temperature sensor



g. Open or short circuit of T5 temperature sensor



Appendix 1 Temperature Sensor Resistance Value Table (℃--K)

℃	K Ohm	℃	K Ohm	℃	K Ohm	℃	K Ohm
-20	115.266	20	12.6431	60	2.35774	100	0.62973
-19	108.146	21	12.0561	61	2.27249	101	0.61148
-18	101.517	22	11.5000	62	2.19073	102	0.59386
-17	96.3423	23	10.9731	63	2.11241	103	0.57683
-16	89.5865	24	10.4736	64	2.03732	104	0.56038
-15	84.2190	25	10.000	65	1.96532	105	0.54448
-14	79.3110	26	9.55074	66	1.89627	106	0.52912
-13	74.5360	27	9.12445	67	1.83003	107	0.51426
-12	70.1698	28	8.71983	68	1.76647	108	0.49989
-11	66.0898	29	8.33566	69	1.70547	109	0.48600
-10	62.2756	30	7.97078	70	1.64691	110	0.47256
-9	58.7079	31	7.62411	71	1.59068	111	0.45957
-8	56.3694	32	7.29464	72	1.53668	112	0.44699
-7	52.2438	33	6.98142	73	1.48481	113	0.43482
-6	49.3161	34	6.68355	74	1.43498	114	0.42304
-5	46.5725	35	6.40021	75	1.38703	115	0.41164
-4	44.0000	36	6.13059	76	1.34105	116	0.40060
-3	41.5878	37	5.87359	77	1.29078	117	0.38991
-2	39.8239	38	5.62961	78	1.25423	118	0.37956
-1	37.1988	39	5.39689	79	1.21330	119	0.36954
0	35.2024	40	5.17519	80	1.17393	120	0.35982
1	33.3269	41	4.96392	81	1.13604	121	0.35042
2	31.5635	42	4.76253	82	1.09958	122	0.3413
3	29.9058	43	4.57050	83	1.06448	123	0.33246
4	28.3459	44	4.38736	84	1.03069	124	0.32390
5	26.8778	45	4.21263	85	0.99815	125	0.31559
6	25.4954	46	4.04589	86	0.96681	126	0.30754
7	24.1932	47	3.88673	87	0.93662	127	0.29974
8	22.5662	48	3.73476	88	0.90753	128	0.29216
9	21.8094	49	3.58962	89	0.87950	129	0.28482
10	20.7184	50	3.45097	90	0.85248	130	0.27770
11	19.6891	51	3.31847	91	0.82643	131	0.27078
12	18.7177	52	3.19183	92	0.80132	132	0.26408
13	17.8005	53	3.07075	93	0.77709	133	0.25757
14	16.9341	54	2.95896	94	0.75373	134	0.25125
15	16.1156	55	2.84421	95	0.73119	135	0.24512
16	15.3418	56	2.73823	96	0.70944	136	0.23916
17	14.6181	57	2.63682	97	0.68844	137	0.23338
18	13.9180	58	2.53973	98	0.66818	138	0.22776
19	13.2631	59	2.44677	99	0.64862	139	0.22231

Appendix 2

Unit: ℃---K			Discharge temp. sensor table				
-20	542.7	20	68.66	60	13.59	100	3.702
-19	511.9	21	65.62	61	13.11	101	3.595
-18	483	22	62.73	62	12.65	102	3.492
-17	455.9	23	59.98	63	12.21	103	3.392
-16	430.5	24	57.37	64	11.79	104	3.296
-15	406.7	25	54.89	65	11.38	105	3.203
-14	384.3	26	52.53	66	10.99	106	3.113
-13	363.3	27	50.28	67	10.61	107	3.025
-12	343.6	28	48.14	68	10.25	108	2.941
-11	325.1	29	46.11	69	9.902	109	2.86
-10	307.7	30	44.17	70	9.569	110	2.781
-9	291.3	31	42.33	71	9.248	111	2.704
-8	275.9	32	40.57	72	8.94	112	2.63
-7	261.4	33	38.89	73	8.643	113	2.559
-6	247.8	34	37.3	74	8.358	114	2.489
-5	234.9	35	35.78	75	8.084	115	2.422
-4	222.8	36	34.32	76	7.82	116	2.357
-3	211.4	37	32.94	77	7.566	117	2.294
-2	200.7	38	31.62	78	7.321	118	2.233
-1	190.5	39	30.36	79	7.086	119	2.174
0	180.9	40	29.15	80	6.859	120	2.117
1	171.9	41	28	81	6.641	121	2.061
2	163.3	42	26.9	82	6.43	122	2.007
3	155.2	43	25.86	83	6.228	123	1.955
4	147.6	44	24.85	84	6.033	124	1.905
5	140.4	45	23.89	85	5.844	125	1.856
6	133.5	46	22.89	86	5.663	126	1.808
7	127.1	47	22.1	87	5.488	127	1.762
8	121	48	21.26	88	5.32	128	1.717
9	115.2	49	20.46	89	5.157	129	1.674
10	109.8	50	19.69	90	5	130	1.632
11	104.6	51	18.96	91	4.849		
12	99.69	52	18.26	92	4.703		
13	95.05	53	17.58	93	4.562		
14	90.66	54	16.94	94	4.426		
15	86.49	55	16.32	95	4.294	B(25/50)=3950K	
16	82.54	56	15.73	96	4.167		
17	78.79	57	15.16	97	4.045	R(90℃)=5KΩ±3%	
18	75.24	58	14.62	98	3.927		
19	71.86	59	14.09	99	3.812		

SERVICE MANUAL

Fixed Speed Light Commercial Series

Airwell Residential