Airwell

Service Manual

DCI Light Commercial Series

CBD Indoor Units	DCD Indoor Units	FBD Indoor Units	FWDB indoor Units	XAD Indoor Units	Outdoor Units
AWSI-CBD012-N11	AWSI-DCD012-N11			AWSI-XAD012-N11	AWAU-YLD012-H11
AWSI-CBD018-N11	AWSI-DCD018-N11	AWSI-FBD018-N11	AWSI-FWDB018-N11	AWSI-XAD018-N11	AWAU-YLD018-H11
AWSI-CBD024-N11	AWSI-DCD024-N11	AWSI-FBD024-N11	AWSI-FWDB024-N11		AWAU-YLD024-H11
AWSI-CBD030-N11	AWSI-DCD030-N11	AWSI-FBD030-N11			AWAU-YLD030-H11
AWSI-CBD036-N11	AWSI-DCD036-N11	AWSI-FBD036-N11			AWAU-YLD036-H11
					AWAU-YLD036-H13
AWSI-CBD048-N11	AWSI-DCD048-N11	AWSI-FBD048-N11			AWAU-YLD048-H13
	AWSI-DCD060-N11				AWAU-YLD060-H13

REFRIGERANT

R410A

HEATPUMP

SM YLD DCI Ver.6 GB

JUNE 2016

※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
Super slim cassette	Cooling and heating			●	●	●	●	
Duct	Cooling and heating	●	●	●	●	●	●	●
Ceiling-floor	Cooling and heating		●	●	●	●	●	
Ceiling-floor(Wine Cellar)	Cooling		●	●				
Four-way cassette(compact)	Cooling and heating	●	●					
Console	Cooling and heating	●	●					

1.2 Outdoor Units

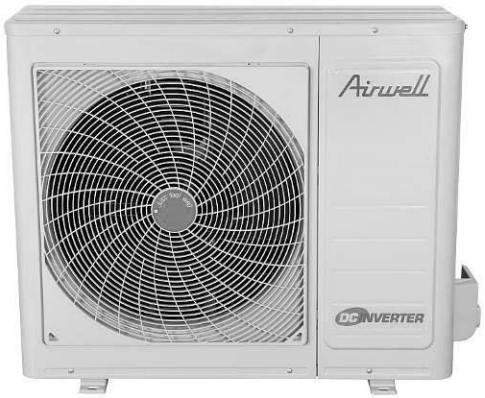
Universal Outdoor unit Model	Compressor type	Compressor Brand	Matched indoor units
AWAU-YLD012-H11	Rotary	GMCC	AWSI-CBD012-N11 AWSI-DCD012-N11 AWSI-XAD012-N11
AWAU-YLD018-H11	Rotary	GMCC	AWSI-CBD018-N11 AWSI-DCD018-N11 AWSI-FBD018-N11 AWSI-FWBD018-N11 AWSI-XAD018-N11
AWAU-YLD024-H11	Twin-rotary	GMCC	AWSI-CBD024-N11 AWSI-DCD024-N11 AWSI-FBD024-N11 AWSI-FWBD024-N11
AWAU-YLD030-H11	Twin-rotary	GMCC	AWSI-DCD030-N11 AWSI-CBD030-N11 AWSI-FBD030-N11
AWAU-YLD036-H11	Twin-rotary	Mitsubishi	AWSI-CBD036-N11 AWSI-DCD036-N11 AWSI-FBD036-N11
AWAU-YLD036-H13	Twin-rotary	Mitsubishi	
AWAU-YLD048-H13	Twin-rotary	Mitsubishi	AWSI-DCD048-N11 AWSI-FBD048-N11 AWSI-CBD048-N11
AWAU-YLD060-H13	Twin-rotary	Mitsubishi	AWSI-DCD060-N11

2. External Appearance

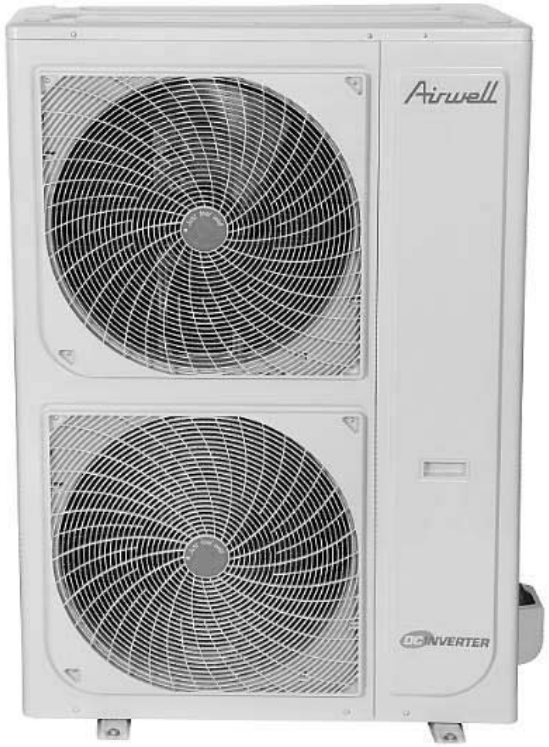
2.1 Indoor Units

Compact Four-way cassette 	Super slim cassette 
Ceiling-Floor 	Console 
Duct(12000-48000Btu/h) 	Duct(60000Btu/h) 

2.2 Outdoor Units



Single fan outdoor unit



Double fan outdoor unit

3. Product specification

Model Indoor Unit				AWSI-CBD012-N11(7SP042243)	
Model Outdoor Unit				AWAU-YLD012-H11	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
					Average
Capacity (1)			kW	3.5	3.5
Pdesign			kW	3.5	3.5
SEER/EER /SCOP/COP (2)			W/W	5.6	3.8
Energy efficiency class				A+	A
Annual energy consumption			kWh	219	1289
Tbiv			°C	N/A	-7
Tol			°C	N/A	-15
Power supply			V/Ph/Hz	220-240V/Single/50Hz	
Circuit breaker rating			A	16	
INDOOR	Fan type & quantity			Centrifugal fan x1	
	Fan speeds	H/M/L	RPM	700/580/500	700/580/500
	Air flow (3)	H/M/L	m3/hr	650/530/450	650/530/450
	External static pressure	Min-Max	Pa	0	
	Sound power level (4)	H/M/L	dB(A)	55	
	Sound pressure level(5)	H/M/L	dB(A)	42/38/34	
	Moisture removal		l/hr	1.5	
	Condensate drain tube I.D		mm	ODΦ25	
	Dimensions	WxHxD	mm	570x270x570	
	Weight		kg	16	
	Package dimensions	LxWxH	mm	655x655x290	
	Packaged weight		kg	19	
	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	7levels	
OUTDOOR	Refrigerant control			Capillary +EXV	
	Compressor type. model			Rotary DC Inverter	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	850	
	Air flow	H/L	m3/hr	2200	
	Sound power level(4)	H/L	dB(A)	62	
	Sound pressure level(5)	H/L	dB(A)	52	
	Dimensions	WxHxD	mm	760x590x285	
	Weight		kg	35.4	
	Package dimensions	LxWxH	mm	887x355x645	
	Packaged weight		kg	37.9	
	Stacking height		units	4 levels	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	1.1	
	Additional charge per 1 meter		gr / 1m	15	
	Connections between units	Liquid line	In.(mm)	1/4"(Φ6.35)	
		Suction line	In.(mm)	3/8"(Φ9.52)	
		Max.tubing length	m.	Max.20	
		Max.height difference	m.	Max.10	
Operation control type				Remote control	

Model Indoor Unit				AWSI-XAD012-N11	
Model Outdoor Unit				AWAU-YLD012-H11	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
					Average
Capacity (1)			kW	3.5	3.6
Pdesign			kW	3.5	3.5
SEER /SCOP (2)			W/W	6.1	3.8
Energy efficiency class				A++	A
Annual energy consumption			kWh	201	1290
Tbiv			ºC	N/A	-7
Tol			ºC	N/A	-15
Power supply			V/Ph/Hz	220-240V/Single/50Hz	
Circuit breaker rating			A	16	
INDOOR	Fan type & quantity			Centrifugal fan x1	
	Fan speeds	H/M/L	RPM	810/780/680/530	810/780/680/530
	Air flow (3)	H/M/L	m3/hr	700/640/560/440	700/640/560/440
	External static pressure	Min-Max	Pa	0	
	Sound power level (4)	H/M/L	dB(A)	58	
	Sound pressure level(5)	H/M/L	dB(A)	44 / 40 /36	
	Moisture removal		l/hr	1.5	
	Condensate drain tube I.D		mm	ODΦ16	
	Dimensions	WxHxD	mm	700x600x210	
	Weight		kg	15	
	Package dimensions	LxWxH	mm	810x305x710	
	Packaged weight		kg	20	
	Stacking height		units	8 levels	
OUTDOOR	Refrigerant control			Capillary +EXV	
	Compressor type. model			Rotary DC Inverter	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	850	
	Air flow	H/L	m3/hr	2200	
	Sound power level(4)	H/L	dB(A)	62	
	Sound pressure level(5)	H/L	dB(A)	52	
	Dimensions	WxHxD	mm	760x590x285	
	Weight		kg	35.4	
	Package dimensions	LxWxH	mm	887x355x645	
	Packaged weight		kg	37.9	
	Stacking height		units	4 levels	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	1.1	
	Additional charge per 1 meter		gr / 1m	15	
	Connections between units	Liquid line	In.(mm)	1/4"(Φ6.35)	
		Suction line	In.(mm)	3/8"(Φ9.52)	
		Max.tubing length	m.	Max.20	
		Max.height difference	m.	Max.10	
Operation control type				Remote control	

Model Indoor Unit				AWSI-DCD012-N11	
Model Outdoor Unit				AWAU-YLD012-H11	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
					Average
Capacity (1)			kW	3.5	3.8
Pdesign			kW	3.5	3.4
SEER/EER /SCOP/COP (2)			W/W	5.1	3.8
Energy efficiency class				A	A
Annual energy consumption			kWh	240.1960784	1252.631579
Tbiv			°C	N/A	-7
Tol			°C	N/A	-15
Power supply			V/Ph/Hz	220-240V/Single/50Hz	
Circuit breaker rating			A	16	
INDOOR	Fan type & quantity			Centrifugal fan x2	
	Fan speeds	H/M/L	RPM	1200/1070/900	1200/1070/900
	Air flow (3)	H/M/L	m3/hr	560/440/410	560/440/410
	External static pressure	Min-Max	Pa	25(0~40)	
	Sound power level (4)	H/M/L	dB(A)	58	
	Sound pressure level(5)	H/M/L	dB(A)	41/39/36	
	Moisture removal		l/hr	1.5	
	Condensate drain tube I.D		mm	ODΦ25	
	Dimensions	WxHxD	mm	700x210x635	
	Weight		kg	18	
	Package dimensions	LxWxH	mm	915x655x290	
	Packaged weight		kg	22.8	
	Stacking height		units	6levels	
OUTDOOR	Refrigerant control			Capillary +EXV	
	Compressor type. model			Rotary DC Inverter	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	850	
	Air flow	H/L	m3/hr	2200	
	Sound power level(4)	H/L	dB(A)	62	
	Sound pressure level(5)	H/L	dB(A)	52	
	Dimensions	WxHxD	mm	760x590x285	
	Weight		kg	35.4	
	Package dimensions	LxWxH	mm	887x355x645	
	Packaged weight		kg	37.9	
	Stacking height		units	4 levels	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	1.1	
	Additional charge per 1 meter		gr / 1m	15	
	Connections between units	Liquid line	In.(mm)	1/4"(Φ6.35)	
		Suction line	In.(mm)	3/8"(Φ9.52)	
		Max.tubing length	m.	Max.20	
		Max.height difference	m.	Max.10	
Operation control type				Wired remote control	

Model Indoor Unit				AWSI-CBD018-N11 (7SP042244)	
Model Outdoor Unit				AWAU-YLD018-H11	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
					Average
Capacity (1)			kW	5	5.3
Pdesign			kW	5	5.3
SEER/EER /SCOP/COP (2)			W/W	5.6	3.8
Energy efficiency class				A+	A
Annual energy consumption			kWh	313	1953
Tbiv			°C	N/A	-7
Tol			°C	N/A	-15
Power supply			V/Ph/Hz	220-240V/Single/50Hz	
Circuit breaker rating			A	10+16	
INDOOR	Fan type & quantity			Centrifugal fan x1	
	Fan speeds	H/M/L	RPM	820/670/500	820/670/500
	Air flow (3)	H/M/L	m3/hr	800/650/500	800/650/500
	External static pressure	Min-Max	Pa	0	
	Sound power level (4)	H/M/L	dB(A)	60	
	Sound pressure level(5)	H/M/L	dB(A)	48/40/33	
	Moisture removal		l/hr	2.0	
	Condensate drain tube I.D		mm	ODΦ25	
	Dimensions	WxHxD	mm	570x270x570	
	Weight		kg	16.5	
	Package dimensions	LxWxH	mm	655x655x290	
	Packaged weight		kg	19	
	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	7levels	
OUTDOOR	Refrigerant control			Capillary +EXV	
	Compressor type. model			Rotary DC Inverter	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	800	
	Air flow	H/L	m3/hr	2500	
	Sound power level(4)	H/L	dB(A)	65	
	Sound pressure level(5)	H/L	dB(A)	55	
	Dimensions	WxHxD	mm	845x700x320	
	Weight		kg	46	
	Package dimensions	LxWxH	mm	965x395x755	
	Packaged weight		kg	50	
	Stacking height		units	3levels	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	1.8	
	Additional charge per 1 meter		gr / 1m	15	
	Connections between units	Liquid line	In.(mm)	1/4"(Φ6.35)	
		Suction line	In.(mm)	1/2"(Φ12.7)	
		Max.tubing length	m.	Max.30	
		Max.height difference	m.	Max.20	
Operation control type				Remote control	

Model Indoor Unit				AWSI-XAD018-N11	
Model Outdoor Unit				AWAU-YLD018-H11	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
					Average
Capacity (1)			kW	4.7	5
Pdesign			kW	4.7	5
SEER /SCOP (2)			W/W	5.6	3.8
Energy efficiency class				A+	A
Annual energy consumption			kWh	294	1842
Tbiv			°C	N/A	-7
Tol			°C	N/A	-15
Power supply			V/Ph/Hz	220-240V/Single/50Hz	
Circuit breaker rating			A	10+16	
INDOOR	Fan type & quantity			Centrifugal fan x1	
	Fan speeds	H/M/L	RPM	900/850/780/700	900/850/780/700
	Air flow (3)	H/M/L	m3/hr	740/700/640/560	740/700/640/560
	External static pressure	Min-Max	Pa	0	
	Sound power level (4)	H/M/L	dB(A)	60	
	Sound pressure level(5)	H/M/L	dB(A)	45/ 42 /39	
	Moisture removal		l/hr	2.0	
	Condensate drain tube I.D		mm	ODΦ16	
	Dimensions	WxHxD	mm	700x600x210	
	Weight		kg	15	
	Package dimensions	LxWxH	mm	810x305x710	
	Packaged weight		kg	20	
	Stacking height		units	8 levels	
OUTDOOR	Refrigerant control			Capillary +EXV	
	Compressor type. model			Rotary DC Inverter	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	800	
	Air flow	H/L	m3/hr	2500	
	Sound power level(4)	H/L	dB(A)	65	
	Sound pressure level(5)	H/L	dB(A)	55	
	Dimensions	WxHxD	mm	845x700x320	
	Weight		kg	46	
	Package dimensions	LxWxH	mm	965x395x755	
	Packaged weight		kg	50	
	Stacking height		units	3levels	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	1.8	
	Additional charge per 1 meter		gr / 1m	15	
	Connections between units	Liquid line	In.(mm)	1/4"(Φ6.35)	
		Suction line	In.(mm)	1/2"(Φ12.7)	
		Max.tubing length	m.	Max.30	
		Max.height difference	m.	Max.20	
Operation control type				Remote control	

Model Indoor Unit				AWSI-FBD018-N11	
Model Outdoor Unit				AWAU-YLD018-H11	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
					Average
Capacity (1)			kW	5.3	5.9
Pdesign			kW	5.3	5.3
SEER/EER /SCOP/COP (2)			W/W	6.1	3.8
Energy efficiency class				A++	A
Annual energy consumption			kWh	304	1953
Tbiv			°C	N/A	-7
Tol			°C	N/A	-15
Power supply			V/Ph/Hz	220-240V/Single/50Hz	
Circuit breaker rating			A	10+16	
INDOOR	Fan type & quantity			Centrifugal fan x2	
	Fan speeds	H/M/L	RPM	950/850/750	950/850/750
	Air flow (3)	H/M/L	m3/hr	900/750/600	900/750/600
	External static pressure	Min-Max	Pa	0	
	Sound power level (4)	H/M/L	dB(A)	60	
	Sound pressure level(5)	H/M/L	dB(A)	44/41/38	
	Moisture removal		l/hr	2.0	
	Condensate drain tube I.D		mm	ODΦ25	
	Dimensions	WxHxD	mm	1068x235x675	
	Weight		kg	25	
	Package dimensions	LxWxH	mm	1145x755x313	
	Packaged weight		kg	31.5	
	Stacking height		units	6levels	
OUTDOOR	Refrigerant control			Capillary +EXV	
	Compressor type. model			Rotary DC Inverter	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	800	
	Air flow	H/L	m3/hr	2500	
	Sound power level(4)	H/L	dB(A)	65	
	Sound pressure level(5)	H/L	dB(A)	55	
	Dimensions	WxHxD	mm	845x700x320	
	Weight		kg	46	
	Package dimensions	LxWxH	mm	965x395x755	
	Packaged weight		kg	50	
	Stacking height		units	3levels	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	1.8	
	Additional charge per 1 meter		gr / 1m	15	
	Connections between units	Liquid line	In.(mm)	1/4"(Φ6.35)	
		Suction line	In.(mm)	1/2"(Φ12.7)	
		Max.tubing length	m.	Max.30	
		Max.height difference	m.	Max.20	
Operation control type				Remote control	

Model Indoor Unit				AWSI-FWDB018-N11	
Model Outdoor Unit				AWAU-YLD018-H11	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
					Average
Capacity (1)			kW	5.3	5.9
Pdesign			kW	5.3	5.3
SEER/EER /SCOP/COP (2)			W/W	6.1	3.8
Energy efficiency class				A++	A
Annual energy consumption			kWh	304	1953
Tbiv			°C	N/A	-7
Tol			°C	N/A	-15
Power supply			V/Ph/Hz	220-240V/Single/50Hz	
Circuit breaker rating			A	10+16	
INDOOR	Fan type & quantity			Centrifugal fan x2	
	Fan speeds	H/M/L	RPM	950/850/750	950/850/750
	Air flow (3)	H/M/L	m3/hr	900/750/600	900/750/600
	External static pressure	Min-Max	Pa	0	
	Sound power level (4)	H/M/L	dB(A)	60	
	Sound pressure level(5)	H/M/L	dB(A)	44/41/38	
	Moisture removal		l/hr	2.0	
	Condensate drain tube I.D		mm	ODΦ25	
	Dimensions	WxHxD	mm	1068x235x675	
	Weight		kg	25	
	Package dimensions	LxWxH	mm	1145x755x313	
	Packaged weight		kg	31.5	
	Stacking height		units	6levels	
OUTDOOR	Refrigerant control			Capillary +EXV	
	Compressor type. model			Rotary DC Inverter	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	800	
	Air flow	H/L	m3/hr	2500	
	Sound power level(4)	H/L	dB(A)	65	
	Sound pressure level(5)	H/L	dB(A)	55	
	Dimensions	WxHxD	mm	845x700x320	
	Weight		kg	46	
	Package dimensions	LxWxH	mm	965x395x755	
	Packaged weight		kg	50	
	Stacking height		units	3levels	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	1.8	
	Additional charge per 1 meter		gr / 1m	15	
	Connections between units	Liquid line	In.(mm)	1/4"(Φ6.35)	
		Suction line	In.(mm)	1/2"(Φ12.7)	
		Max.tubing length	m.	Max.30	
		Max.height difference	m.	Max.20	
Operation control type				Remote control	

Model Indoor Unit				AWSI-DCD018-N11	
Model Outdoor Unit				AWAU-YLD018-H11	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
					Average
Capacity (1)			kW	5.3	5.6
Pdesign			kW	5.3	5.1
SEER/EER /SCOP/COP (2)			W/W	6.4	3.8
Energy efficiency class				A++	A
Annual energy consumption			kWh	290	1879
Tbiv			°C	N/A	-7
Tol			°C	N/A	-15
Power supply			V/Ph/Hz	220-240V/Single/50Hz	
Circuit breaker rating			A	10+16	
INDOOR	Fan type & quantity			Centrifugal fan x2	
	Fan speeds	H/M/L	RPM	1030/880/800	1030/880/800
	Air flow (3)	H/M/L	m3/hr	1250/950/800	1250/950/800
	External static pressure	Min-Max	Pa	25(0-60)	
	Sound power level (4)	H/M/L	dB(A)	58	
	Sound pressure level(5)	H/M/L	dB(A)	45/43/39	
	Moisture removal		l/hr	2.0	
	Condensate drain tube I.D		mm	ODΦ25	
	Dimensions	WxHxD	mm	920x270x635	
	Weight		kg	28	
	Package dimensions	LxWxH	mm	1135x655x350	
	Packaged weight		kg	31.5	
	Stacking height		units	6levels	
OUTDOOR	Refrigerant control			Capillary +EXV	
	Compressor type. model			Rotary DC Inverter	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	800	
	Air flow	H/L	m3/hr	2500	
	Sound power level(4)	H/L	dB(A)	65	
	Sound pressure level(5)	H/L	dB(A)	55	
	Dimensions	WxHxD	mm	845x700x320	
	Weight		kg	46	
	Package dimensions	LxWxH	mm	965x395x755	
	Packaged weight		kg	50	
	Stacking height		units	3levels	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	1.8	
	Additional charge per 1 meter		gr / 1m	15	
	Connections between units	Liquid line	In.(mm)	1/4"(Φ6.35)	
		Suction line	In.(mm)	1/2"(Φ12.7)	
		Max.tubing length	m.	Max.30	
		Max.height difference	m.	Max.20	
Operation control type				Wired remote control	

Model Indoor Unit				AWSI-CBD024-N11	
Model Outdoor Unit				AWAU-YLD024-H11	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
					Average
Capacity (1)			kW	7.2	8
Pdesign			kW	7.2	7.8
SEER/EER /SCOP/COP (2)			W/W	6.1	3.9
Energy efficiency class				A++	A
Annual energy consumption			kWh	413	2800
Tbiv			°C	N/A	-7
Tol			°C	N/A	-15
Power supply			V/Ph/Hz	220-240V/Single/50Hz	
Circuit breaker rating			A	10+20	
INDOOR	Fan type & quantity			Centrifugal fan x1	
	Fan speeds	H/M/L	RPM	700/600/450	700/600/450
	Air flow (3)	H/M/L	m3/hr	1780/1560/1360	1780/1560/1360
	External static pressure	Min-Max	Pa	0	
	Sound power level (4)	H/M/L	dB(A)	62	
	Sound pressure level(5)	H/M/L	dB(A)	47 / 45 /42	
	Moisture removal		l/hr	2.5	
	Condensate drain tube I.D		mm	ODΦ32	
	Dimensions	WxHxD	mm	840x245x840	
	Weight		kg	24	
	Package dimensions	LxWxH	mm	900x900x265	
	Packaged weight		kg	28	
	Frame outline dimensions	WxHxD	mm	950x55x950	
	Frame Weight		kg	5	
	Frame package dimensions	LxWxH	mm	1035x1035x90	
	Frame Packaged weight		kg	8	
	Stacking height		units	7levels	
OUTDOOR	Refrigerant control			Capillary +EXV	
	Compressor type. model			Twin-rotary DC Inverter	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	800	
	Air flow	H/L	m3/hr	3500	
	Sound power level(4)	H/L	dB(A)	69	
	Sound pressure level(5)	H/L	dB(A)	57	
	Dimensions	WxHxD	mm	900x860x315	
	Weight		kg	59	
	Package dimensions	LxWxH	mm	1043x395x915	
	Packaged weight		kg	63	
	Stacking height		units	2levels	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	2.2	
	Additional charge per 1 meter		gr / 1m	30	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	5/8"(Φ15.9)	
		Max.tubing length	m.	50	
		Max.height difference	m.	25	
Operation control type				Remote control	

Model Indoor Unit				AWSI-FBD024-N11	
Model Outdoor Unit				AWAU-YLD024-H11	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
					Average
Capacity (1)			kW	7.2	7.8
Pdesign			kW	7.2	7.8
SEER/EER /SCOP/COP (2)			W/W	6.4	3.9
Energy efficiency class				A++	A
Annual energy consumption			kWh	394	2800
Tbiv			°C	N/A	-7
Tol			°C	N/A	-15
Power supply			V/Ph/Hz	220-240V/Single/50Hz	
Circuit breaker rating			A	10+20	
INDOOR	Fan type & quantity			Centrifugal fan x2	
	Fan speeds	H/M/L	RPM	1200/1080/890	1200/1080/890
	Air flow (3)	H/M/L	m3/hr	1400/1250/1100	1400/1250/1100
	External static pressure	Min-Max	Pa	0	
	Sound power level (4)	H/M/L	dB(A)	63	
	Sound pressure level(5)	H/M/L	dB(A)	52/50/46	
	Moisture removal		l/hr	2.3	
	Condensate drain tube I.D		mm	ODΦ25	
	Dimensions	WxHxD	mm	1068x235x675	
	Weight		kg	25	
	Package dimensions	LxWxH	mm	1145x755x313	
	Packaged weight		kg	30	
	Stacking height		units	6levels	
OUTDOOR	Refrigerant control			Capillary +EXV	
	Compressor type. model			Twin-rotary DC Inverter	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	800	
	Air flow	H/L	m3/hr	3500	
	Sound power level(4)	H/L	dB(A)	69	
	Sound pressure level(5)	H/L	dB(A)	57	
	Dimensions	WxHxD	mm	900x860x315	
	Weight		kg	59	
	Package dimensions	LxWxH	mm	1043x395x915	
	Packaged weight		kg	63	
	Stacking height		units	2levels	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	2.2	
	Additional charge per 1 meter		gr / 1m	30	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	5/8"(Φ15.9)	
		Max.tubing length	m.	50	
		Max.height difference	m.	25	
Operation control type				Remote control	

Model Indoor Unit				AWSI-FWBD024-N11	
Model Outdoor Unit				AWAU-YLD024-H11	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
					Average
Capacity (1)			kW	7.2	7.8
Pdesign			kW	7.2	7.8
SEER/EER /SCOP/COP (2)			W/W	6.4	3.9
Energy efficiency class				A++	A
Annual energy consumption			kWh	394	2800
Tbiv			°C	N/A	-7
Tol			°C	N/A	-15
Power supply			V/Ph/Hz	220-240V/Single/50Hz	
Circuit breaker rating			A	10+20	
INDOOR	Fan type & quantity			Centrifugal fan x2	
	Fan speeds	H/M/L	RPM	1200/1080/890	1200/1080/890
	Air flow (3)	H/M/L	m3/hr	1400/1250/1100	1400/1250/1100
	External static pressure	Min-Max	Pa	0	
	Sound power level (4)	H/M/L	dB(A)	63	
	Sound pressure level(5)	H/M/L	dB(A)	52/50/46	
	Moisture removal		l/hr	2.3	
	Condensate drain tube I.D		mm	ODΦ25	
	Dimensions	WxHxD	mm	1068x235x675	
	Weight		kg	25	
	Package dimensions	LxWxH	mm	1145x755x313	
	Packaged weight		kg	30	
	Stacking height		units	6levels	
OUTDOOR	Refrigerant control			Capillary +EXV	
	Compressor type. model			Twin-rotary DC Inverter	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	800	
	Air flow	H/L	m3/hr	3500	
	Sound power level(4)	H/L	dB(A)	69	
	Sound pressure level(5)	H/L	dB(A)	57	
	Dimensions	WxHxD	mm	900x860x315	
	Weight		kg	59	
	Package dimensions	LxWxH	mm	1043x395x915	
	Packaged weight		kg	63	
	Stacking height		units	2levels	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	2.2	
	Additional charge per 1 meter		gr / 1m	30	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	5/8"(Φ15.9)	
		Max.tubing length	m.	50	
		Max.height difference	m.	25	
Operation control type				Remote control	

Model Indoor Unit				AWSI-DCD024-N11	
Model Outdoor Unit				AWAU-YLD024-H11	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
					Average
Capacity (1)			kW	7	7.8
Pdesign			kW	7	7.8
SEER/EER /SCOP/COP (2)			W/W	6.6	3.8
Energy efficiency class				A++	A
Annual energy consumption			kWh	371	2874
Tbiv			°C	N/A	-7
Tol			°C	N/A	-15
Power supply			V/Ph/Hz	220-240V/Single/50Hz	
Circuit breaker rating			A	10+20	
INDOOR	Fan type & quantity			Centrifugal fan x2	
	Fan speeds	H/M/L	RPM	1030/880/800	1030/880/800
	Air flow (3)	H/M/L	m3/hr	1250/950/800	1250/950/800
	External static pressure	Min-Max	Pa	25(0-80)	
	Sound power level (4)	H/M/L	dB(A)	63	
	Sound pressure level(5)	H/M/L	dB(A)	46/43/39	
	Moisture removal		l/hr	2.3	
	Condensate drain tube I.D		mm	ODΦ25	
	Dimensions	WxHxD	mm	920x270x635	
	Weight		kg	28	
	Package dimensions	LxWxH	mm	1135x655x350	
	Packaged weight		kg	31.5	
	Stacking height		units	6levels	
OUTDOOR	Refrigerant control			Capillary +EXV	
	Compressor type. model			Twin-rotary DC Inverter	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	800	
	Air flow	H/L	m3/hr	3500	
	Sound power level(4)	H/L	dB(A)	69	
	Sound pressure level(5)	H/L	dB(A)	57	
	Dimensions	WxHxD	mm	900x860x315	
	Weight		kg	59	
	Package dimensions	LxWxH	mm	1043x395x915	
	Packaged weight		kg	63	
	Stacking height		units	2levels	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	2.2	
	Additional charge per 1 meter		gr / 1m	30	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	5/8"(Φ15.9)	
		Max.tubing length	m.	50	
		Max.height difference	m.	25	
Operation control type				Wired remote control	

Model Indoor Unit				AWSI-CBD030-N11	
Model Outdoor Unit				AWAU-YLD030-H11	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
					Average
Capacity (1)			kW	8.5	8.6
Pdesign			kW	8.5	8.1
SEER/EER /SCOP/COP (2)			W/W	6.4	3.9
Energy efficiency class				A++	A
Annual energy consumption			kWh	465	2908
Tbiv			°C	N/A	-7
Tol			°C	N/A	-15
Power supply			V/Ph/Hz	220-240V/Single/50Hz	
Circuit breaker rating			A	10+30	
INDOOR	Fan type & quantity			Centrifugal fan x1	
	Fan speeds	H/M/L	RPM	720/630/560	720/630/560
	Air flow (3)	H/M/L	m3/hr	1850/1600/1400	1850/1600/1400
	External static pressure	Min-Max	Pa	0	
	Sound power level (4)	H/M/L	dB(A)	62	
	Sound pressure level(5)	H/M/L	dB(A)	50 / 47 / 44	
	Moisture removal		l/hr	3.0	
	Condensate drain tube I.D		mm	ODΦ32	
	Dimensions	WxHxD	mm	840x245x840	
	Weight		kg	26.5	
	Package dimensions	LxWxH	mm	900x900x265	
	Packaged weight		kg	30.5	
	Frame outline dimensions	WxHxD	mm	950x55x950	
	Frame Weight		kg	5	
	Frame package dimensions	LxWxH	mm	1035x1035x90	
	Frame Packaged weight		kg	8	
	Stacking height		units	7levels	
OUTDOOR	Refrigerant control			Capillary +EXV	
	Compressor type. model			Twin-rotary DC Inverter	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	860	
	Air flow	H/L	m3/hr	3800	
	Sound power level(4)	H/L	dB(A)	70	
	Sound pressure level(5)	H/L	dB(A)	58	
	Dimensions	WxHxD	mm	900x860x315	
	Weight		kg	59	
	Package dimensions	LxWxH	mm	1043x395x915	
	Packaged weight		kg	63	
	Stacking height		units	2levels	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	2.45	
	Additional charge per 1 meter		gr / 1m	30	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	5/8"(Φ15.9)	
		Max.tubing length	m.	50	
		Max.height difference	m.	25	
Operation control type				Remote control	

Model Indoor Unit				AWSI-FBD030-N11	
Model Outdoor Unit				AWAU-YLD030-H11	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
					Average
Capacity (1)			kW	8.5	9
Pdesign			kW	8.5	8.5
SEER/EER /SCOP/COP (2)			W/W	6.4	3.9
Energy efficiency class				A++	A
Annual energy consumption			kWh	465	3051
Tbiv			°C	N/A	-7
Tol			°C	N/A	-15
Power supply			V/Ph/Hz	220-240V/Single/50Hz	
Circuit breaker rating			A	10+30	
INDOOR	Fan type & quantity			Centrifugal fan x3	
	Fan speeds	H/M/L	RPM	1300/1150/1000	1300/1150/1000
	Air flow (3)	H/M/L	m3/hr	1850/1650/1450	1850/1650/1450
	External static pressure	Min-Max	Pa	0	
	Sound power level (4)	H/M/L	dB(A)	64	
	Sound pressure level(5)	H/M/L	dB(A)	53/50/46	
	Moisture removal		l/hr	2.5	
	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	6levels	
OUTDOOR	Refrigerant control			Capillary +EXV	
	Compressor type. model			Twin-rotary DC Inverter	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	860	
	Air flow	H/L	m3/hr	3800	
	Sound power level(4)	H/L	dB(A)	70	
	Sound pressure level(5)	H/L	dB(A)	58	
	Dimensions	WxHxD	mm	900x860x315	
	Weight		kg	59	
	Package dimensions	LxWxH	mm	1043x395x915	
	Packaged weight		kg	63	
	Stacking height		units	2levels	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	2.45	
	Additional charge per 1 meter		gr / 1m	30	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	5/8"(Φ15.9)	
		Max.tubing length	m.	50	
		Max.height difference	m.	25	
Operation control type				Remote control	

Model Indoor Unit				AWSI-DCD030-N11	
Model Outdoor Unit				AWAU-YLD030-H11	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
					Average
Capacity (1)			kW	8.3	9.2
Pdesign			kW	8.3	8.5
SEER/EER /SCOP/COP (2)			W/W	6.3	3.8
Energy efficiency class				A++	A
Annual energy consumption			kWh	461	3132
Tbiv			°C	N/A	-7
Tol			°C	N/A	-15
Power supply			V/Ph/Hz	220-240V/Single/50Hz	
Circuit breaker rating			A	10+30	
INDOOR	Fan type & quantity			Centrifugal fan x2	
	Fan speeds	H/M/L	RPM	1150/1000/860	1150/1000/860
	Air flow (3)	H/M/L	m3/hr	1990/1580/1140	1990/1580/1140
	External static pressure	Min-Max	Pa	37(0~80)	
	Sound power level (4)	H/M/L	dB(A)	65	
	Sound pressure level(5)	H/M/L	dB(A)	48/44/40	
	Moisture removal		l/hr	2.5	
	Condensate drain tube I.D		mm	ODΦ25	
	Dimensions	WxHxD	mm	1140x270x775	
	Weight		kg	35	
	Package dimensions	LxWxH	mm	1355x795x350	
	Packaged weight		kg	42	
	Stacking height		units	6levels	
OUTDOOR	Refrigerant control			Capillary +EXV	
	Compressor type. model			Twin-rotary DC Inverter	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	860	
	Air flow	H/L	m3/hr	3800	
	Sound power level(4)	H/L	dB(A)	70	
	Sound pressure level(5)	H/L	dB(A)	58	
	Dimensions	WxHxD	mm	900x860x315	
	Weight		kg	59	
	Package dimensions	LxWxH	mm	1043x395x915	
	Packaged weight		kg	63	
	Stacking height		units	2levels	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	2.45	
	Additional charge per 1 meter		gr / 1m	30	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	5/8"(Φ15.9)	
		Max.tubing length	m.	50	
		Max.height difference	m.	25	
Operation control type				Wired remote control	

Model Indoor Unit				AWSI-CBD036-N11	
Model Outdoor Unit				AWAU-YLD036-H11	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
					Average
Capacity (1)			kW	10	10.5
Pdesign			kW	10	10
SEER/EER /SCOP/COP (2)			W/W	5.4	3.8
Energy efficiency class				A	A
Annual energy consumption			kWh	648	3684
Tbiv			°C	N/A	-7
Tol			°C	N/A	-15
Power supply			V/Ph/Hz	220-240V/Single/50Hz	
Circuit breaker rating			A	10+30	
INDOOR	Fan type & quantity			Centrifugal fan x1	
	Fan speeds	H/M/L	RPM	720/630/560	720/630/560
	Air flow (3)	H/M/L	m3/hr	1850/1600/1400	1850/1600/1400
	External static pressure	Min-Max	Pa	0	
	Sound power level (4)	H/M/L	dB(A)	63	
	Sound pressure level(5)	H/M/L	dB(A)	51/49/46	
	Moisture removal		l/hr	3.8	
	Condensate drain tube I.D		mm	ODΦ32	
	Dimensions	WxHxD	mm	840x245x840	
	Weight		kg	26.5	
	Package dimensions	LxWxH	mm	900x900x265	
	Packaged weight		kg	30.5	
	Frame outline dimensions	WxHxD	mm	950x55x950	
	Frame Weight		kg	5	
	Frame package dimensions	LxWxH	mm	1035x1035x90	
	Frame Packaged weight		kg	8	
	Stacking height		units	7levels	
OUTDOOR	Refrigerant control			Capillary +EXV	
	Compressor type. model			Twin-rotary DC Inverter	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	860	
	Air flow	H/L	m3/hr	7200	
	Sound power level(4)	H/L	dB(A)	70	
	Sound pressure level(5)	H/L	dB(A)	60	
	Dimensions	WxHxD	mm	990x965x345	
	Weight		kg	73	
	Package dimensions	LxWxH	mm	1120x435x1100	
	Packaged weight		kg	83	
	Stacking height		units	2levels	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	2.75	
	Additional charge per 1 meter		gr / 1m	30	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	5/8"(Φ15.9)	
		Max.tubing length	m.	65	
		Max.height difference	m.	30	
Operation control type				Remote control	

Model Indoor Unit				AWSI-FBD036-N11	
Model Outdoor Unit				AWAU-YLD036-H11	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
					Average
Capacity (1)			kW	10.5	11
Pdesign			kW	10.5	10.2
SEER/EER /SCOP/COP (2)			W/W	6	3.8
Energy efficiency class				A+	A
Annual energy consumption			kWh	613	3758
Tbiv			ºC	N/A	-7
Tol			ºC	N/A	-15
Power supply			V/Ph/Hz	220-240V/Single/50Hz	
Circuit breaker rating			A	10+30	
INDOOR	Fan type & quantity			Centrifugal fan x4	
	Fan speeds	H/M/L	RPM	1200/1050/850	1200/1050/850
	Air flow (3)	H/M/L	m3/hr	2200/1850/1500	2200/1850/1500
	External static pressure	Min-Max	Pa	0	
	Sound power level (4)	H/M/L	dB(A)	65	
	Sound pressure level(5)	H/M/L	dB(A)	52 / 49 /43	
	Moisture removal		l/hr	3.5	
	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	6levels	
OUTDOOR	Refrigerant control			Capillary +EXV	
	Compressor type. model			Twin-rotary DC Inverter	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	860	
	Air flow	H/L	m3/hr	7200	
	Sound power level(4)	H/L	dB(A)	70	
	Sound pressure level(5)	H/L	dB(A)	60	
	Dimensions	WxHxD	mm	990x965x345	
	Weight		kg	73	
	Package dimensions	LxWxH	mm	1120x435x1100	
	Packaged weight		kg	83	
	Stacking height		units	2levels	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	2.75	
	Additional charge per 1 meter		gr / 1m	30	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	5/8"(Φ15.9)	
		Max.tubing length	m.	65	
		Max.height difference	m.	30	
Operation control type				Remote control	

Model Indoor Unit				AWSI-DCD036-N11	
Model Outdoor Unit				AWAU-YLD036-H11	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
					Average
Capacity (1)			kW	10	11
Pdesign			kW	10	10.2
SEER/EER /SCOP/COP (2)			W/W	5.3	3.8
Energy efficiency class				A	A
Annual energy consumption			kWh	660	3758
Tbiv			°C	N/A	-7
Tol			°C	N/A	-15
Power supply			V/Ph/Hz	220-240V/Single/50Hz	
Circuit breaker rating			A	10+30	
INDOOR	Fan type & quantity			Centrifugal fan x3	
	Fan speeds	H/M/L	RPM	960/880/800	960/880/800
	Air flow (3)	H/M/L	m3/hr	1740/1560/1180	1740/1560/1180
	External static pressure	Min-Max	Pa	37(0~80)	
	Sound power level (4)	H/M/L	dB(A)	62	
	Sound pressure level(5)	H/M/L	dB(A)	42/39/36	
	Moisture removal		l/hr	3.5	
	Condensate drain tube I.D		mm	ODΦ25	
	Dimensions	WxHxD	mm	1200x300x865	
	Weight		kg	44	
	Package dimensions	LxWxH	mm	1385x920x373	
	Packaged weight		kg	52.5	
	Stacking height		units	6levels	
OUTDOOR	Refrigerant control			Capillary +EXV	
	Compressor type. model			Twin-rotary DC Inverter	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	860	
	Air flow	H/L	m3/hr	7200	
	Sound power level(4)	H/L	dB(A)	70	
	Sound pressure level(5)	H/L	dB(A)	60	
	Dimensions	WxHxD	mm	990x965x345	
	Weight		kg	73	
	Package dimensions	LxWxH	mm	1120x435x1100	
	Packaged weight		kg	83	
	Stacking height		units	2levels	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	2.75	
	Additional charge per 1 meter		gr / 1m	30	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	5/8"(Φ15.9)	
		Max.tubing length	m.	65	
		Max.height difference	m.	30	
Operation control type				Wired remote control	

Model Indoor Unit				AWSI-CBD036-N11	
Model Outdoor Unit				AWAU-YLD036-H13	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
					Average
Capacity (1)			kW	10	10.5
Pdesign			kW	10	10
SEER/EER /SCOP/COP (2)			W/W	5.4	3.8
Energy efficiency class				A	A
Annual energy consumption			kWh	648	3684
Tbiv			°C	N/A	-7
Tol			°C	N/A	-15
Power supply			V/Ph/Hz	380-420V/Three-phase/50Hz	
Circuit breaker rating			A	10+20	
INDOOR	Fan type & quantity			Centrifugal fan x1	
	Fan speeds	H/M/L	RPM	720/630/560	720/630/560
	Air flow (3)	H/M/L	m3/hr	1850/1600/1400	1850/1600/1400
	External static pressure	Min-Max	Pa	0	
	Sound power level (4)	H/M/L	dB(A)	63	
	Sound pressure level(5)	H/M/L	dB(A)	51/49/46	
	Moisture removal		l/hr	3.8	
	Condensate drain tube I.D		mm	ODΦ32	
	Dimensions	WxHxD	mm	840x245x840	
	Weight		kg	26.5	
	Package dimensions	LxWxH	mm	900x900x265	
	Packaged weight		kg	30.5	
	Frame outline dimensions	WxHxD	mm	950x55x950	
	Frame Weight		kg	5	
	Frame package dimensions	LxWxH	mm	1035x1035x90	
	Frame Packaged weight		kg	8	
	Stacking height		units	7levels	
OUTDOOR	Refrigerant control			Capillary +EXV	
	Compressor type. model			Twin-rotary DC Inverter	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	860	
	Air flow	H/L	m3/hr	7200	
	Sound power level(4)	H/L	dB(A)	70	
	Sound pressure level(5)	H/L	dB(A)	60	
	Dimensions	WxHxD	mm	990x965x345	
	Weight		kg	77	
	Package dimensions	LxWxH	mm	1120x435x1100	
	Packaged weight		kg	88	
	Stacking height		units	2levels	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	3	
	Additional charge per 1 meter		gr / 1m	30	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	5/8"(Φ15.9)	
		Max.tubing length	m.	65	
		Max.height difference	m.	30	
Operation control type				Remote control	

Model Indoor Unit				AWSI-FBD036-N11	
Model Outdoor Unit				AWAU-YLD036-H13	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
					Average
Capacity (1)			kW	10.2	11
Pdesign			kW	10.2	10
SEER/EER /SCOP/COP (2)			W/W	5.7	3.8
Energy efficiency class				A+	A
Annual energy consumption			kWh	626	3684
Tbiv			°C	N/A	-7
Tol			°C	N/A	-15
Power supply			V/Ph/Hz	380-420V/Three-phase/50Hz	
Circuit breaker rating			A	10+20	
INDOOR	Fan type & quantity			Centrifugal fan x4	
	Fan speeds	H/M/L	RPM	1200/1050/850	1200/1050/850
	Air flow (3)	H/M/L	m3/hr	2200/1850/1500	2200/1850/1500
	External static pressure	Min-Max	Pa	0	
	Sound power level (4)	H/M/L	dB(A)	65	
	Sound pressure level(5)	H/M/L	dB(A)	52 / 49 /43	
	Moisture removal		l/hr	3.5	
	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	6levels	
OUTDOOR	Refrigerant control			Capillary +EXV	
	Compressor type. model			Twin-rotary DC Inverter	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	860	
	Air flow	H/L	m3/hr	7200	
	Sound power level(4)	H/L	dB(A)	70	
	Sound pressure level(5)	H/L	dB(A)	60	
	Dimensions	WxHxD	mm	990x965x345	
	Weight		kg	77	
	Package dimensions	LxWxH	mm	1120x435x1100	
	Packaged weight		kg	88	
	Stacking height		units	2levels	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	3	
	Additional charge per 1 meter		gr / 1m	30	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	5/8"(Φ15.9)	
		Max.tubing length	m.	65	
		Max.height difference	m.	30	
Operation control type				Remote control	

Model Indoor Unit				AWSI-DCD036-N11	
Model Outdoor Unit				AWAU-YLD036-H13	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
					Average
Capacity (1)			kW	10.2	11
Pdesign			kW	10.2	10.2
SEER/EER /SCOP/COP (2)			W/W	5.1	3.8
Energy efficiency class				A	A
Annual energy consumption			kWh	700	3758
Tbiv			°C	N/A	-7
Tol			°C	N/A	-15
Power supply			V/Ph/Hz	380-420V/Three-phase/50Hz	
Circuit breaker rating			A	10+20	
INDOOR	Fan type & quantity			Centrifugal fan x3	
	Fan speeds	H/M/L	RPM	960/880/800	960/880/800
	Air flow (3)	H/M/L	m3/hr	1740/1560/1180	1740/1560/1180
	External static pressure	Min-Max	Pa	37(0~80)	
	Sound power level (4)	H/M/L	dB(A)	62	
	Sound pressure level(5)	H/M/L	dB(A)	42/39/36	
	Moisture removal		l/hr	3.5	
	Condensate drain tube I.D		mm	ODΦ25	
	Dimensions	WxHxD	mm	1200x300x865	
	Weight		kg	44	
	Package dimensions	LxWxH	mm	1385x920x373	
	Packaged weight		kg	52.5	
	Stacking height		units	6levels	
OUTDOOR	Refrigerant control			Capillary +EXV	
	Compressor type. model			Twin-rotary DC Inverter	
	Fan type & quantity			Axial x 1	
	Fan speeds	H/L	RPM	860	
	Air flow	H/L	m3/hr	7200	
	Sound power level(4)	H/L	dB(A)	70	
	Sound pressure level(5)	H/L	dB(A)	60	
	Dimensions	WxHxD	mm	990x965x345	
	Weight		kg	77	
	Package dimensions	LxWxH	mm	1120x435x1100	
	Packaged weight		kg	88	
	Stacking height		units	2levels	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	3	
	Additional charge per 1 meter		gr / 1m	30	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	5/8"(Φ15.9)	
		Max.tubing length	m.	65	
		Max.height difference	m.	30	
Operation control type				Wired remote control	

Model Indoor Unit				AWSI-CBD048-N11	
Model Outdoor Unit				AWAU-YLD048-H13	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
					Average
Capacity (1)			kW	12.5	13
Pdesign			kW	-	-
SEER/EER /SCOP/COP (2)			W/W	3.21	3.61
Energy efficiency class				A	A
Annual energy consumption			kWh	-	-
Tbiv			°C	-	-
Tol			°C	-	-
Power supply			V/Ph/Hz	380-420V/Three-phase/50Hz	
Circuit breaker rating			A	10+25	
INDOOR	Fan type & quantity			Centrifugal fan x1	
	Fan speeds	H/M/L	RPM	770/610/540	770/610/540
	Air flow (3)	H/M/L	m3/hr	2200/1800/1600	2200/1800/1600
	External static pressure	Min-Max	Pa	0	
	Sound power level (4)	H/M/L	dB(A)	64	
	Sound pressure level(5)	H/M/L	dB(A)	54/50/47	
	Moisture removal		l/hr	4.5	
	Condensate drain tube I.D		mm	ODΦ32	
	Dimensions	WxHxD	mm	840x245x840	
	Weight		kg	29	
	Package dimensions	LxWxH	mm	900x900x292	
	Packaged weight		kg	33	
	Frame outline dimensions	WxHxD	mm	950x55x950	
	Frame Weight		kg	5	
	Frame package dimensions	LxWxH	mm	1035x1035x90	
	Frame Packaged weight		kg	8	
	Stacking height		units	7levels	
OUTDOOR	Refrigerant control			Capillary +EXV	
	Compressor type. model			Twin-rotary DC Inverter	
	Fan type & quantity			Axial x 2	
	Fan speeds	H/L	RPM	860	
	Air flow	H/L	m3/hr	7200	
	Sound power level(4)	H/L	dB(A)	70	
	Sound pressure level(5)	H/L	dB(A)	61	
	Dimensions	WxHxD	mm	938x1369x392	
	Weight		kg	102.5	
	Package dimensions	LxWxH	mm	1095x495x1505	
	Packaged weight		kg	116	
	Stacking height		units	2levels	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	4.35	
	Additional charge per 1 meter		gr / 1m	30	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	5/8"(Φ15.9)	
		Max.tubing length	m.	65	
		Max.height difference	m.	30	
Operation control type				Remote control	

Model Indoor Unit				AWSI-FBD048-N11	
Model Outdoor Unit				AWAU-YLD048-H13	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
					Average
Capacity (1)			kW	14	14.6
Pdesign			kW	-	-
SEER/EER /SCOP/COP (2)			W/W	3.21	3.61
Energy efficiency class				A	A
Annual energy consumption			kWh	-	-
Tbiv			°C	-	-
Tol			°C	-	-
Power supply			V/Ph/Hz	380-420V/Three-phase/50Hz	
Circuit breaker rating			A	10+25	
INDOOR	Fan type & quantity			Centrifugal fan x4	
	Fan speeds	H/M/L	RPM	1320/1200/1120	1320/1200/1120
	Air flow (3)	H/M/L	m3/hr	2300/1900/1700	2300/1900/1700
	External static pressure	Min-Max	Pa	0	
	Sound power level (4)	H/M/L	dB(A)	68	
	Sound pressure level(5)	H/M/L	dB(A)	57/54/51	
	Moisture removal		l/hr	4.5	
	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	6levels	
OUTDOOR	Refrigerant control			Capillary +EXV	
	Compressor type. model			Twin-rotary DC Inverter	
	Fan type & quantity			Axial x 2	
	Fan speeds	H/L	RPM	860	
	Air flow	H/L	m3/hr	7200	
	Sound power level(4)	H/L	dB(A)	70	
	Sound pressure level(5)	H/L	dB(A)	61	
	Dimensions	WxHxD	mm	938x1369x392	
	Weight		kg	102.5	
	Package dimensions	LxWxH	mm	1095x495x1505	
	Packaged weight		kg	116	
	Stacking height		units	2levels	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	4.35	
	Additional charge per 1 meter		gr / 1m	30	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	5/8"(Φ15.9)	
		Max.tubing length	m.	65	
		Max.height difference	m.	30	
Operation control type				Remote control	

Model Indoor Unit				AWSI-DCD048-N11	
Model Outdoor Unit				AWAU-YLD048-H13	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
					Average
Capacity (1)			kW	14	17
Pdesign			kW	-	-
SEER/EER /SCOP/COP (2)			W/W	3.21	3.72
Energy efficiency class				A	A
Annual energy consumption			kWh	-	-
Tbiv			°C	-	-
Tol			°C	-	-
Power supply			V/Ph/Hz	380-420V/Three-phase/50Hz	
Circuit breaker rating			A	10+25	
INDOOR	Fan type & quantity			Centrifugal fan x3	
	Fan speeds	H/M/L	RPM	1120/1100/1020	1120/1100/1020
	Air flow (3)	H/M/L	m3/hr	2410/1640/1300	2410/1640/1300
	External static pressure	Min-Max	Pa	50(0~100)	
	Sound power level (4)	H/M/L	dB(A)	62	
	Sound pressure level(5)	H/M/L	dB(A)	42/39/36	
	Moisture removal		l/hr	4.5	
	Condensate drain tube I.D		mm	ODΦ25	
	Dimensions	WxHxD	mm	1200x300x865	
	Weight		kg	44	
	Package dimensions	LxWxH	mm	1385x920x373	
	Packaged weight		kg	53	
	Stacking height		units	6levels	
OUTDOOR	Refrigerant control			Capillary +EXV	
	Compressor type. model			Twin-rotary DC Inverter	
	Fan type & quantity			Axial x 2	
	Fan speeds	H/L	RPM	860	
	Air flow	H/L	m3/hr	7200	
	Sound power level(4)	H/L	dB(A)	70	
	Sound pressure level(5)	H/L	dB(A)	61	
	Dimensions	WxHxD	mm	938x1369x392	
	Weight		kg	102.5	
	Package dimensions	LxWxH	mm	1095x495x1505	
	Packaged weight		kg	116	
	Stacking height		units	2levels	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	4.35	
	Additional charge per 1 meter		gr / 1m	30	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	5/8"(Φ15.9)	
		Max.tubing length	m.	65	
		Max.height difference	m.	30	
Operation control type				Wired remote control	

Model Indoor Unit				AWSI-DCD060-N11	
Model Outdoor Unit				AWAU-YLD060-H13	
Installation Method of Pipe				Flared	
Characteristics			**Units**	**Cooling**	**Heating**
					Average
Capacity (1)			kW	16	19.5
Pdesign			kW	-	-
SEER/EER /SCOP/COP (2)			W/W	3.22	3.62
Energy efficiency class				A	A
Annual energy consumption			kWh	-	-
Tbiv			°C	-	-
Tol			°C	-	-
Power supply			V/Ph/Hz	380-420V/Three-phase/50Hz	
Circuit breaker rating			A	10+25	
INDOOR	Fan type & quantity			Centrifugal fan x2	
	Fan speeds	H/M/L	RPM	1070/920/820	1070/920/820
	Air flow (3)	H/M/L	m3/hr	3010/2410/1940	3010/2410/1940
	External static pressure	Min-Max	Pa	50(0~200)	
	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	0DΦ25	
	Dimensions	WxHxD	mm	1400x440x858	
	Weight		kg	75	
	Package dimensions	LxWxH	mm	1590x895x470	
	Packaged weight		kg	83	
	Stacking height		units	6levels	
OUTDOOR	Refrigerant control			Capillary +EXV	
	Compressor type. model			Twin-rotary DC Inverter	
	Fan type & quantity			Axial x 2	
	Fan speeds	H/L	RPM	860	
	Air flow	H/L	m3/hr	7500	
	Sound power level(4)	H/L	dB(A)	70	
	Sound pressure level(5)	H/L	dB(A)	61	
	Dimensions	WxHxD	mm	938x1369x392	
	Weight		kg	102.5	
	Package dimensions	LxWxH	mm	1095x495x1505	
	Packaged weight		kg	116	
	Stacking height		units	2levels	
	Refrigerant type			R410A	
	Refrigerant charge (standard connecting tubing length)		kg(5m)	4.8	
	Additional charge per 1 meter		gr / 1m	30	
	Connections between units	Liquid line	In.(mm)	3/8"(Φ9.52)	
		Suction line	In.(mm)	3/4"(Φ19)	
		Max.tubing length	m.	65	
		Max.height difference	m.	30	
Operation control type				Wired remote control	

4. Features

4.1. To meet Europe A level, actual EER/COP of new product with BLDC motors of indoor & outdoor unit and DC compressor will be higher than 3.4.
4.2. Low ambient kit is standard for outdoor units
4.3. Network control function is standard for the indoor units.
4.4. Standard auto restart function and follow me function.
4.5. Slim cassette with standard remote controller, wire controller and CCM for optional. Med Duct and HESP duct with standard wired controller, remote controller and CCM for optional.
4.6. Standard anti-cold air function.
4.7. Standard auto defrosting function.
4.8. Standard self-diagnose function.
4.9. Standard timer function and sleep mode function controlled by controller.

Part 2
Indoor Units

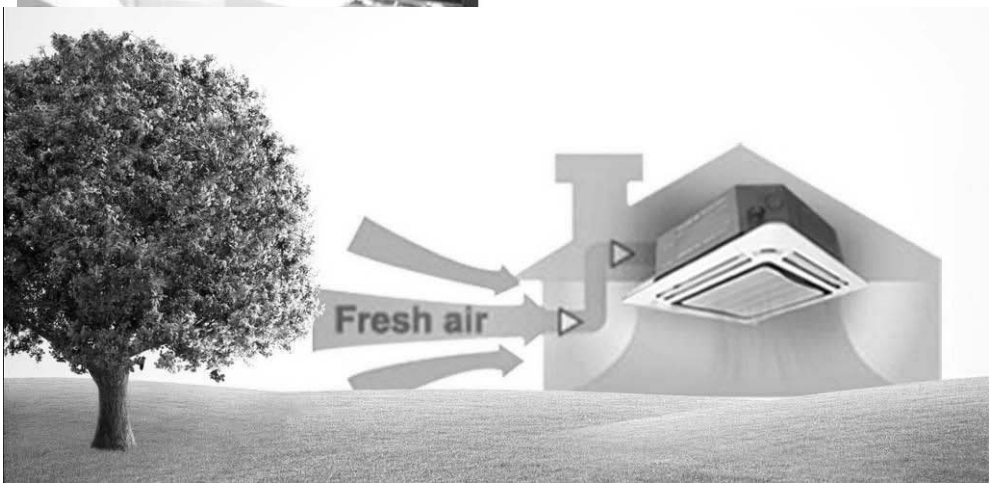
Super Slim Cassette Type

1. Features

1.1 Fresh air intake function

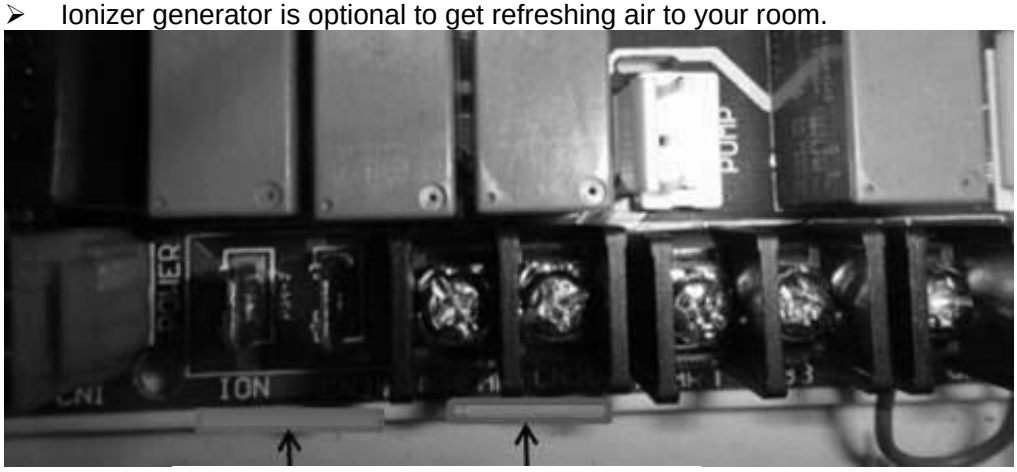
- Fresh air fulfills air quality more healthy and comfortable.
- Ventilation motor is optional to increase the effect of fresh air.

New air-intake



1.2 Optional ionizer generator

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



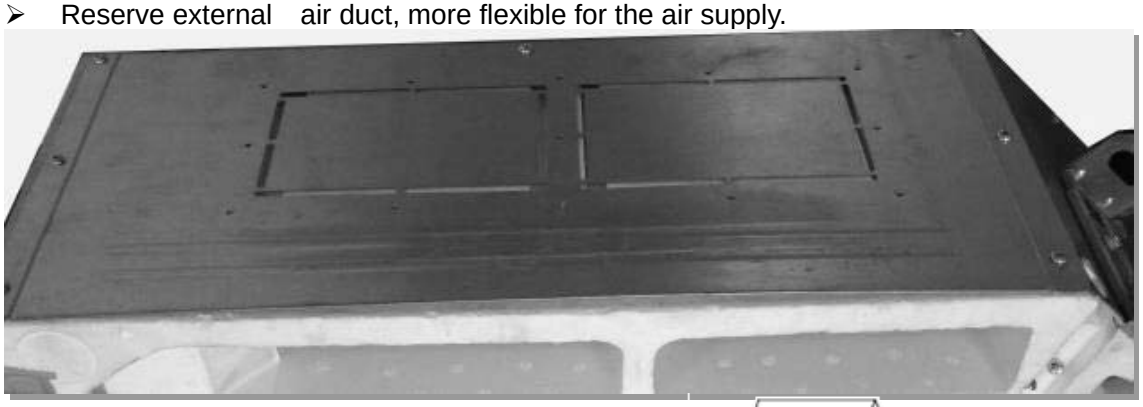
Ionizer generator connector

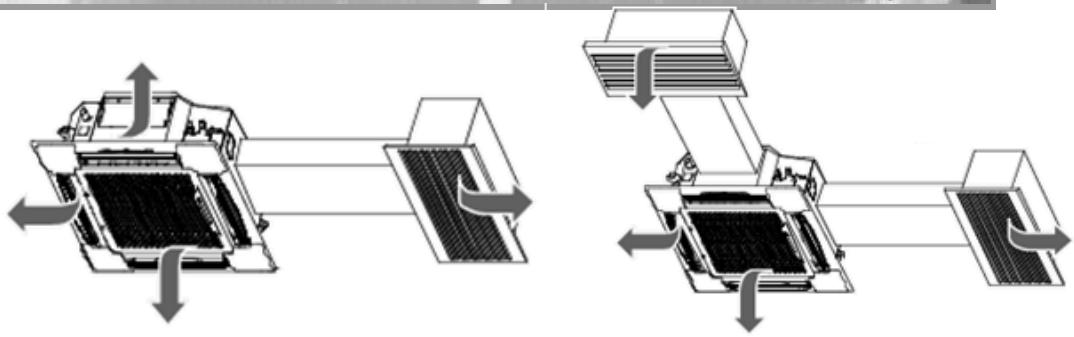
Ventilation motor connector

- 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.

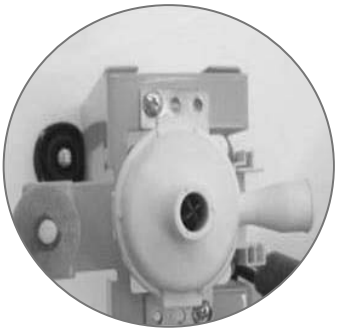


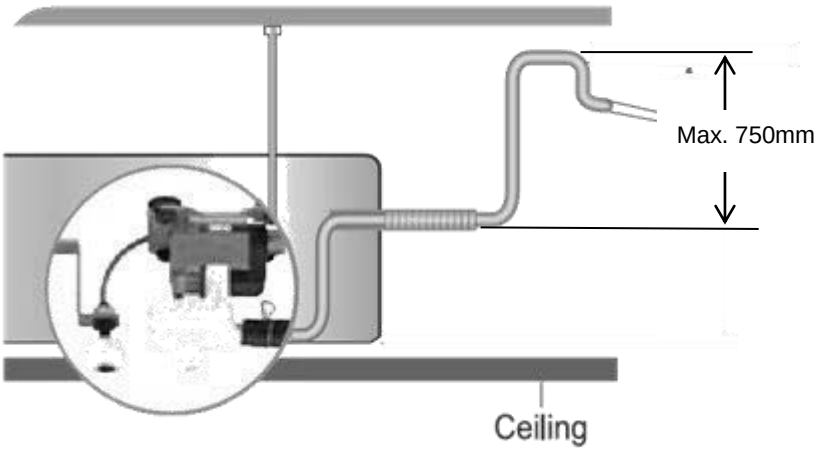


1.4 Built-in draining pump

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

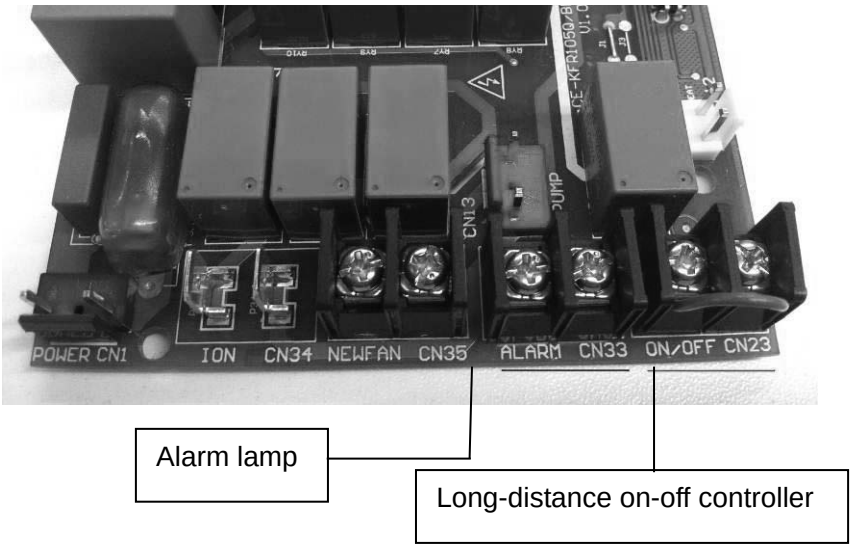
- Built-in draining pump to make sure condensed water drain out reliably.





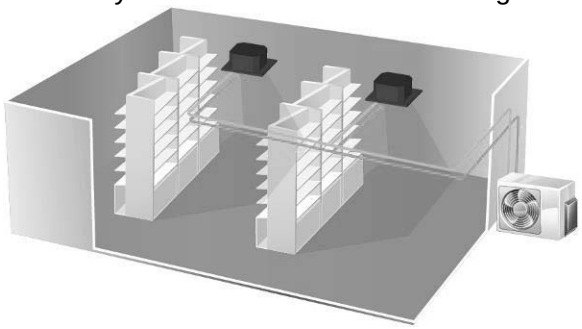
1.5 Terminals for alarm lamp and long-distance on-off controller connection are standard

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

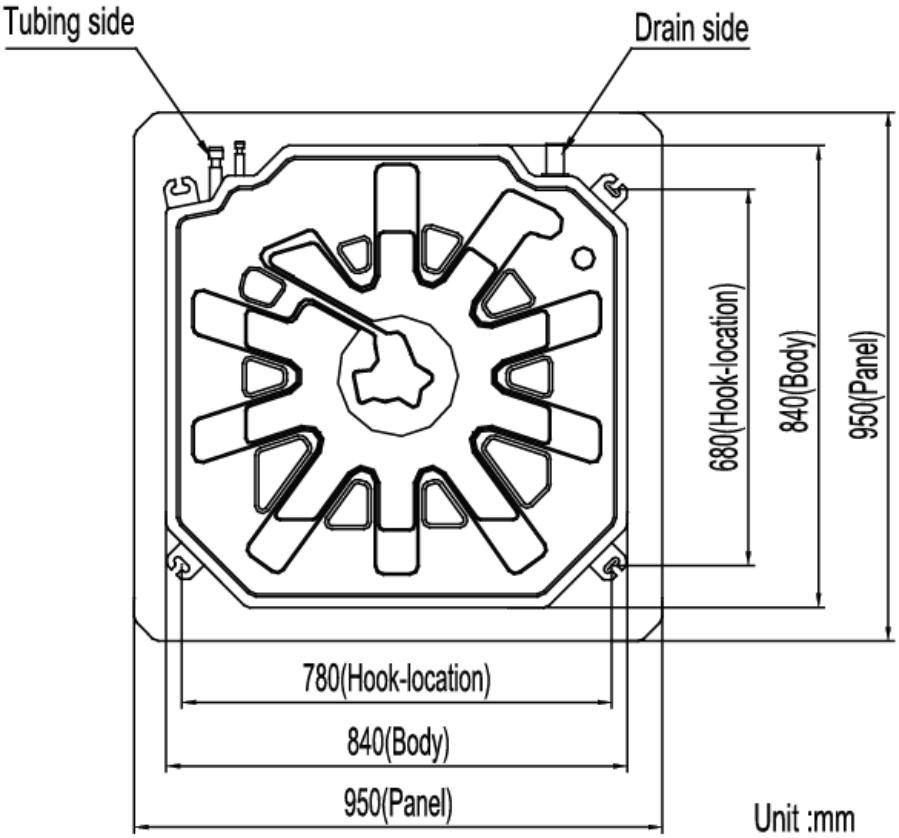


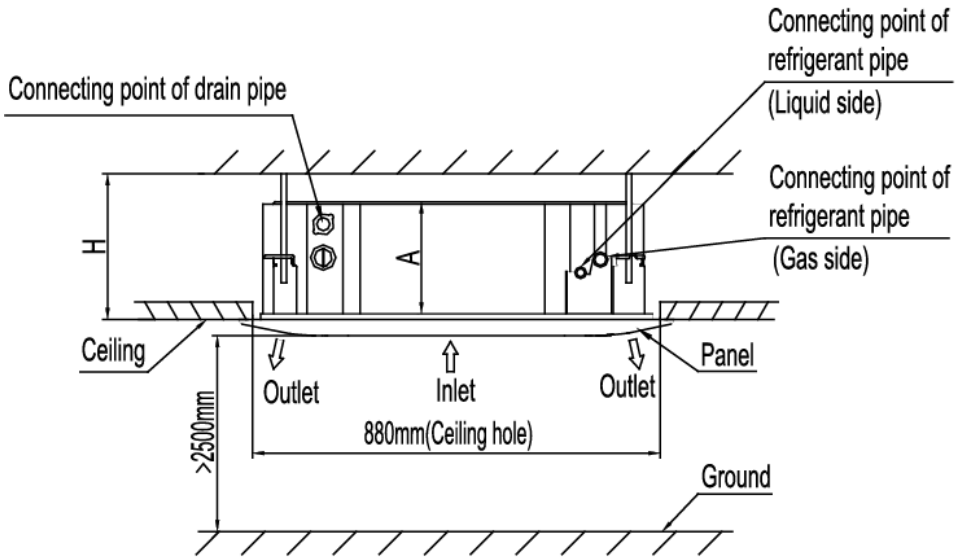
1.6 Twins Combination(24~30K)

- The units can be installed as Twin systems: one outdoor unit can connect with two indoor units. The indoor units can be combined in any of the different available ratings.



2. Dimensions





Model	A	H
AWSI-CBD024-N11	245	>275
AWSI-CBD030-N11	245	>275
AWSI-CBD036-N11	245	>275
AWSI-CBD048-N11	287	>317

3. Service Space

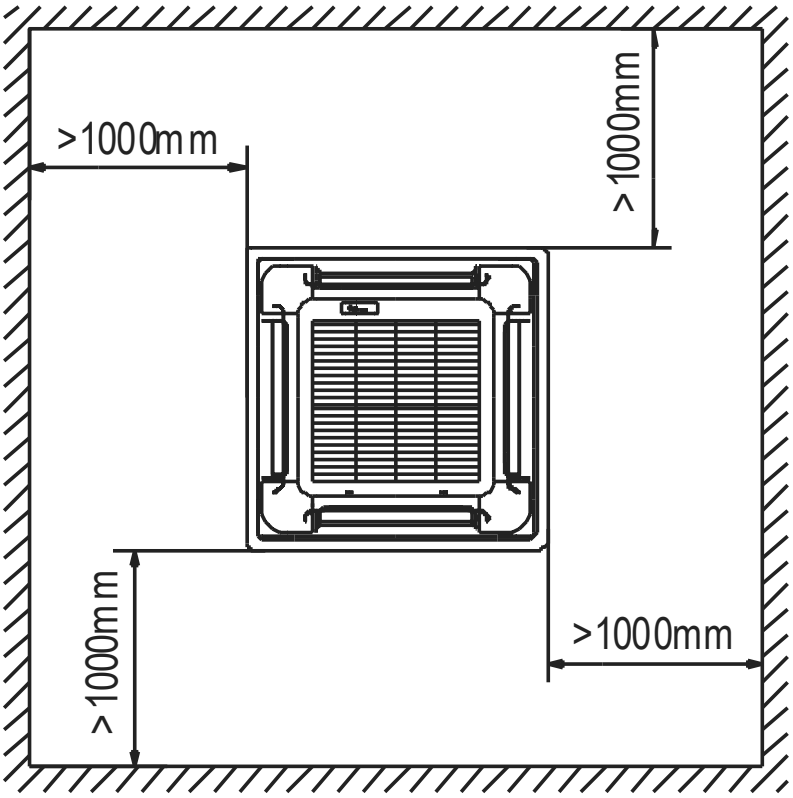
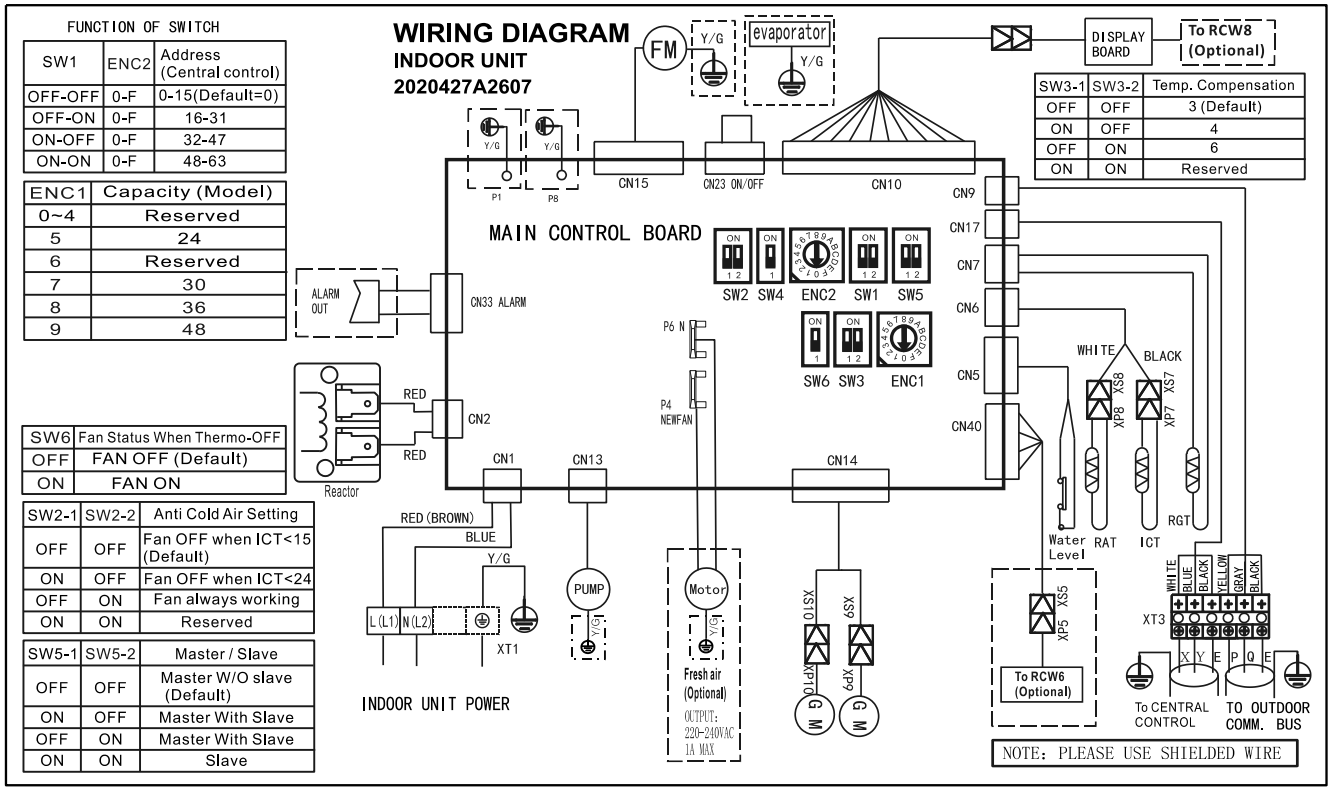


Chart 3

4. Wiring Diagrams

AWSI-CBD024-N11 AWSI-CBD030-N11 AWSI-CBD036-N11 AWSI-CBD048-N11

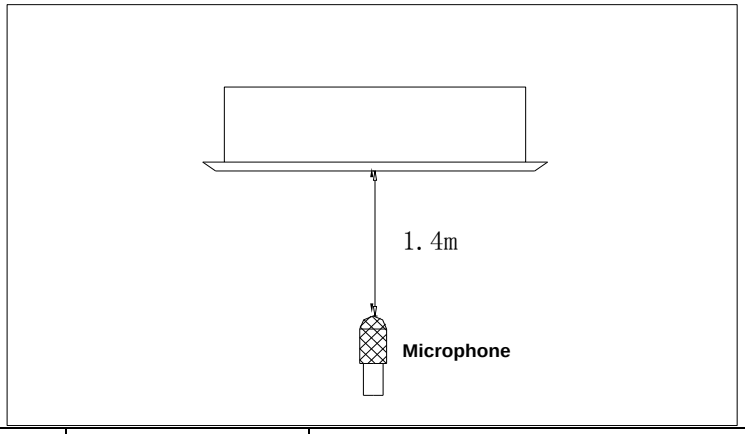


5. Electric Characteristics

Model	Indoor Unit				Power Supply
	Hz	Voltage	Min	Max	MFA
AWSI-CBD024-N11	50	220-240	198	254	10
AWSI-CBD030-N11	50	220-240	198	254	10
AWSI-CBD036-N11	50	220-240	198	254	10
AWSI-CBD048-N11	50	220-240	198	254	10

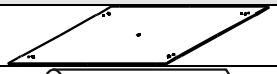
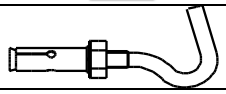
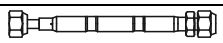
Notes:
MFA: Max. Fuse Amps. (A)

6. Sound Levels



Model	Noise Power dB(A)	Noise level dB(A)		
		H	M	L
AWSI-CBD024-N11	62	47	45	42
AWSI-CBD030-N11	62	50	47	44
AWSI-CBD036-N11	63	51	49	46
AWSI-CBD048-N11	64	54	50	47

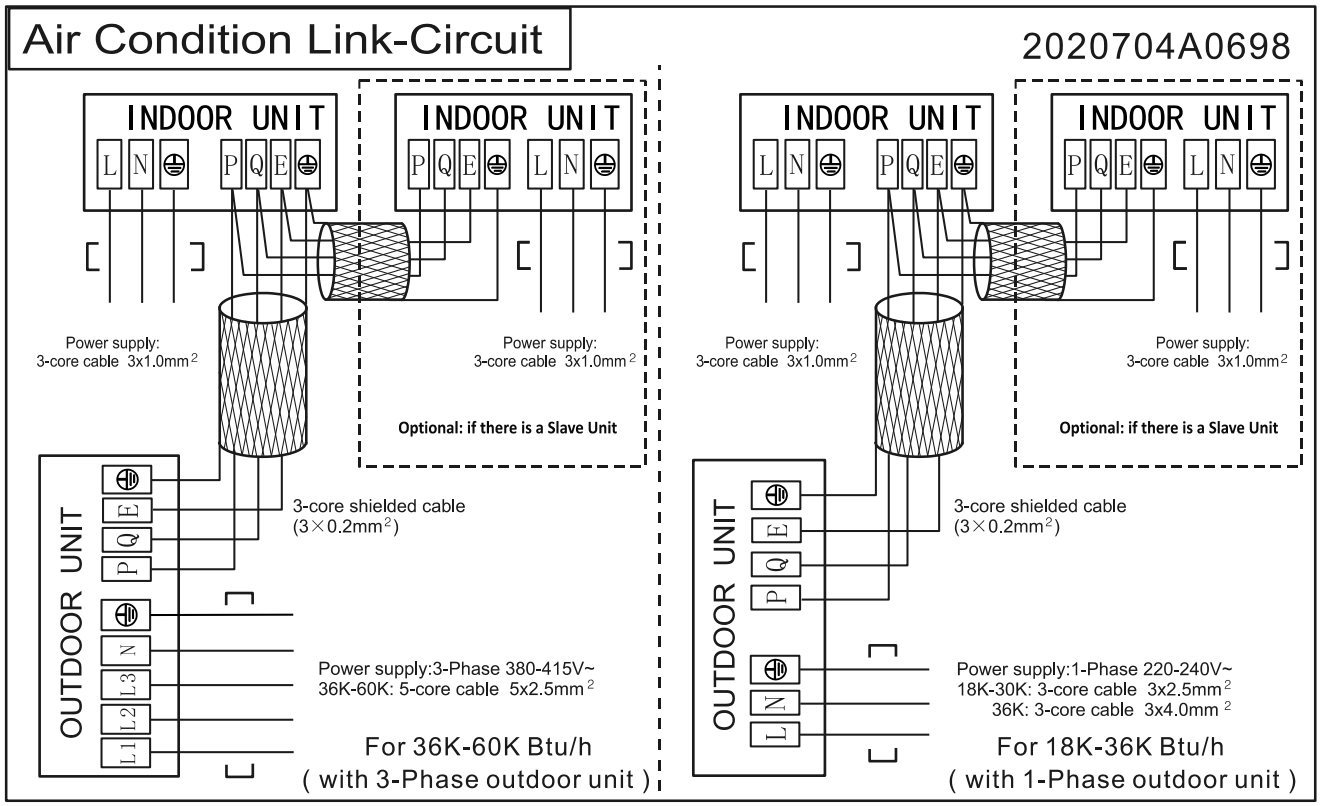
7. Accessories

	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

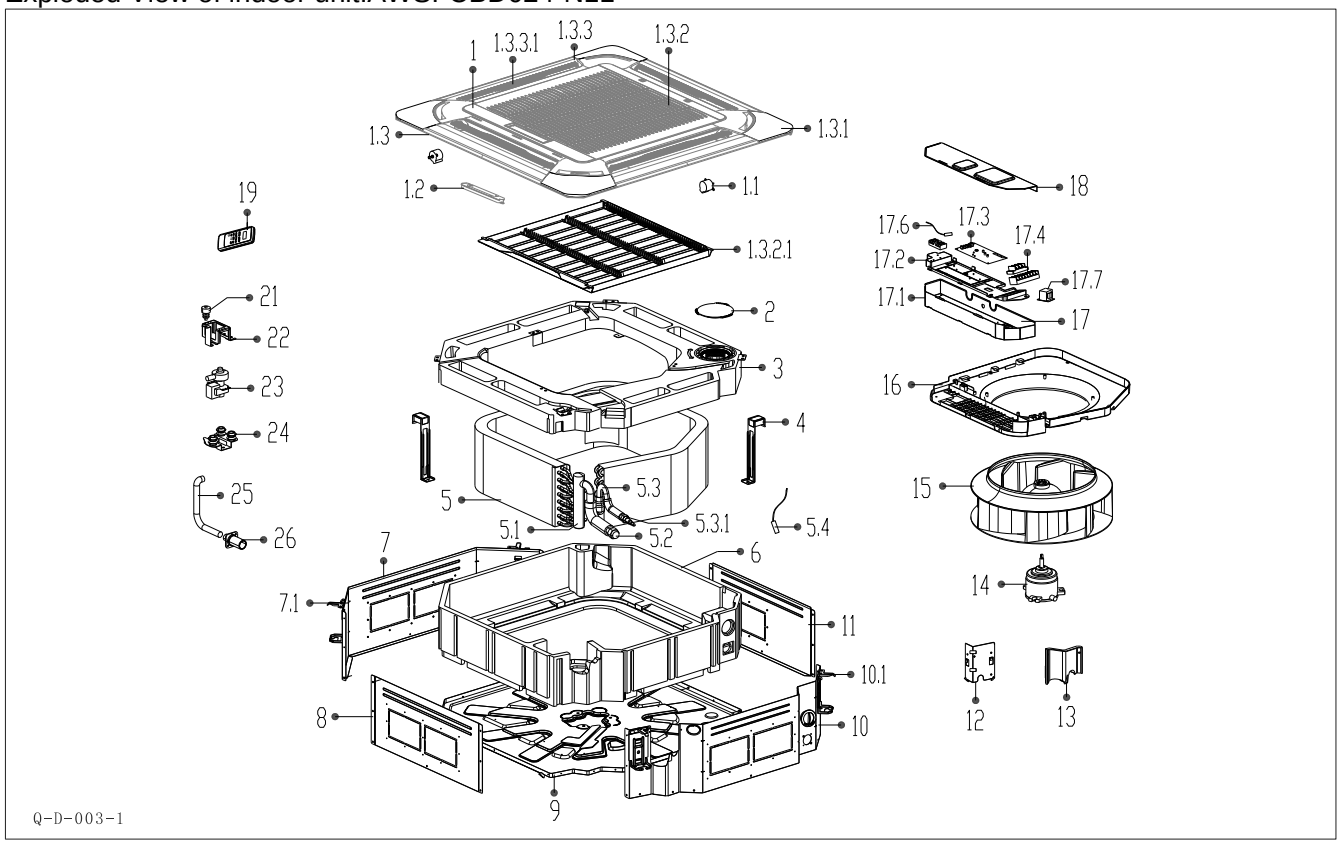
Capacity(Btu/h)		24000	30000	36000	36000	48000
Indoor Unit Power	Phase	1-phase	1-phase	1-phase	1-phase	1-phase
	Frequency and Voltage	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz
	Power Wiring(mm^2)	3×1.0	3×1.0	3×1.0	3×1.0	3×1.0
	Circuit Breaker/ Fuse (A)	15/10	15/10	15/10	15/10	15/10
Outdoor Unit Power	Phase	1-phase	1-phase	1-phase	3-phase	3-phase
	Frequency and Voltage	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz	380-415V, 50Hz	380-415V, 50Hz
	Power Wiring(mm^2)	3×2.5	3×2.5	3×4.0	5×2.5	5×2.5
	Circuit Breaker/ Fuse (A)	30/20	40/30	40/30	30/20	30/25
Indoor/Outdoor Connecting Wiring(Weak Electric Signal) (mm^2)		3×0.5	3×0.5	3×0.5	3×0.5	3×0.5
Indoor/Outdoor Connecting Wiring(Strong Electric Signal) (mm^2)		———	———	———	———	———

9. Field Wiring



10. Exploded View and Spare Part list

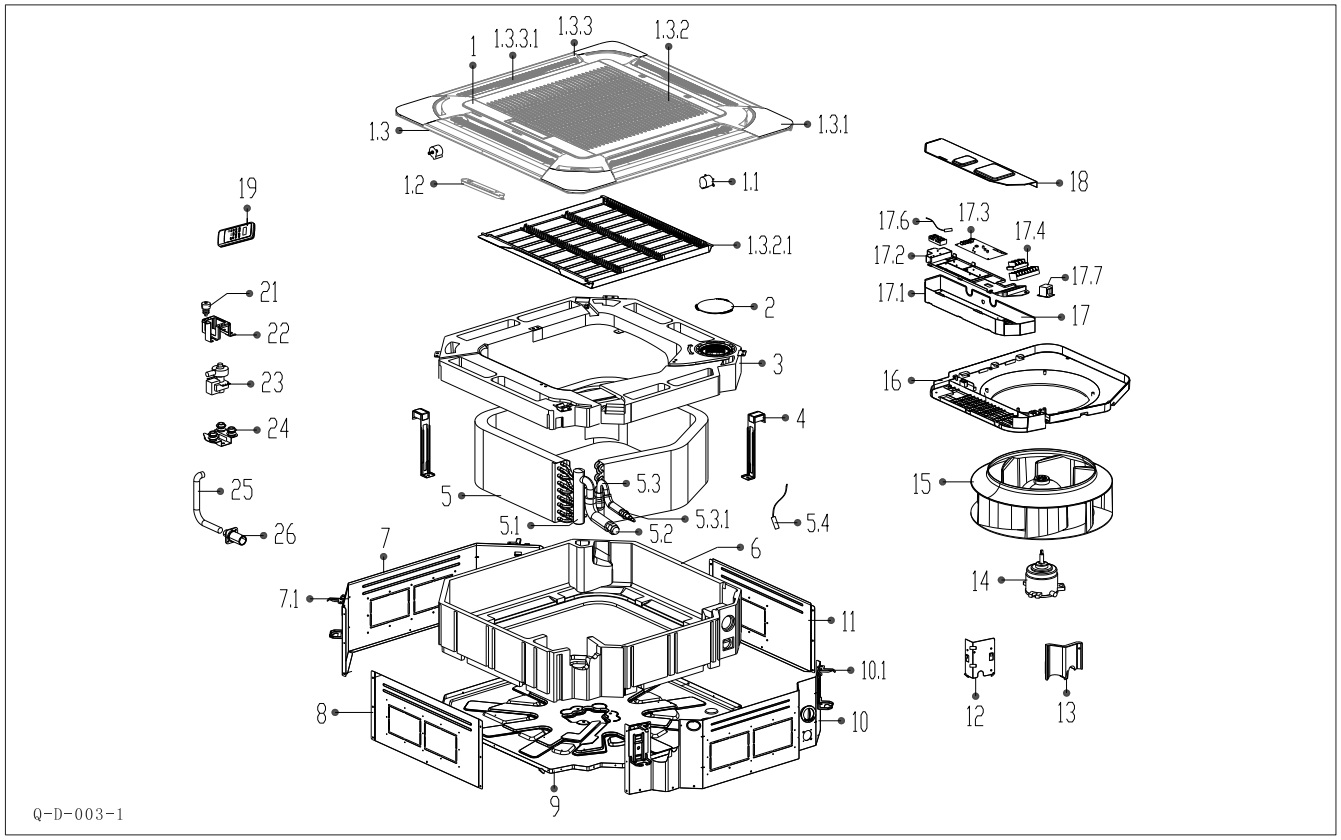
Exploded View of indoor unit:AWSI-CBD024-N11



Spare part list of indoor unit: AWSI-CBD024-N11

No.	BOM Code	Part Name	Quantity
1	2011099A2561	Panel assembly	1
1.1	202400100007	Louver motor	2
1.2	203342890005	Display box assembly	1
1.3	P0000449603	Panel assembly	1
1.3.1	P0000449698	Cover assembly of installation plate	4
1.3.2	P0000449689	Air inlet grille assembly	1
1.3.2.1	201109901903	Air filter	1
1.3.3	P0000449696	Transmission framework	2
1.3.3.1	P0000449731	Louver	2
2	201142790001	Cover	1
3	202242790002	Foam tray assembly for condenser water	1
4	201242790008	Evaporator fixing hanger	2
5	201542790048	Evaporator assembly	1
5.1	201642790041	Output pipe assembly	1
5.2	201600320003	Copper nut	1
5.3	201642790043	Input pipe assembly	1
5.3.1	201600320001	Copper nut	1
5.4	202301300804	Pipe temperature sensor assembly	1
5.4	202440500004	Pipe temperature sensor assembly	1
6	202242790001	Base foam assembly	1
7	201242790007	Board assembly III	1
7.1	P0001115013	Hook	2
8	201242790004	Board assembly I	1
9	201242590012	Chassis assembly	1
10	201242790009	Board assembly II	1
10.1	P0001115013	Hook	2
11	201242790003	Board assembly Ⅳ	1
12	201242790011	Evaporator fixing board	1
13	201142790002	Pipe fixing board assembly	1
14	202400300529	Asynchronous motor	1
15	201100100846	Fan assembly	1
16	201142790004	Ventilation assembly	1
17	203342590050	Electronic control box assembly	1
17.1	201242590004	Electronic control box	1
17.2	201142590002	Insulation plate	1
17.3	201342591519	Main control board assembly	1
17.4	202301450125	Wire joint	1
17.4	202301450116	Wire joint	1
17.6	202440120100	Ambient temperature sensor assembly	1
17.7	202301000950	Reactance	1
18	201242590023	Cover of electronic control box I	1
19	203355091552	Remote controller	1
21	202301310095	Water level sensor assembly	1
22	201242990003	Water Pump installation bracket assembly	1
23	202400600203	Drain pump	1
24	202742000002	Pump rubber washer	3
25	202856001093	Drain pipe	1
25	202742590002	Drain pipe	1
26	201142500032	Water pipe	1

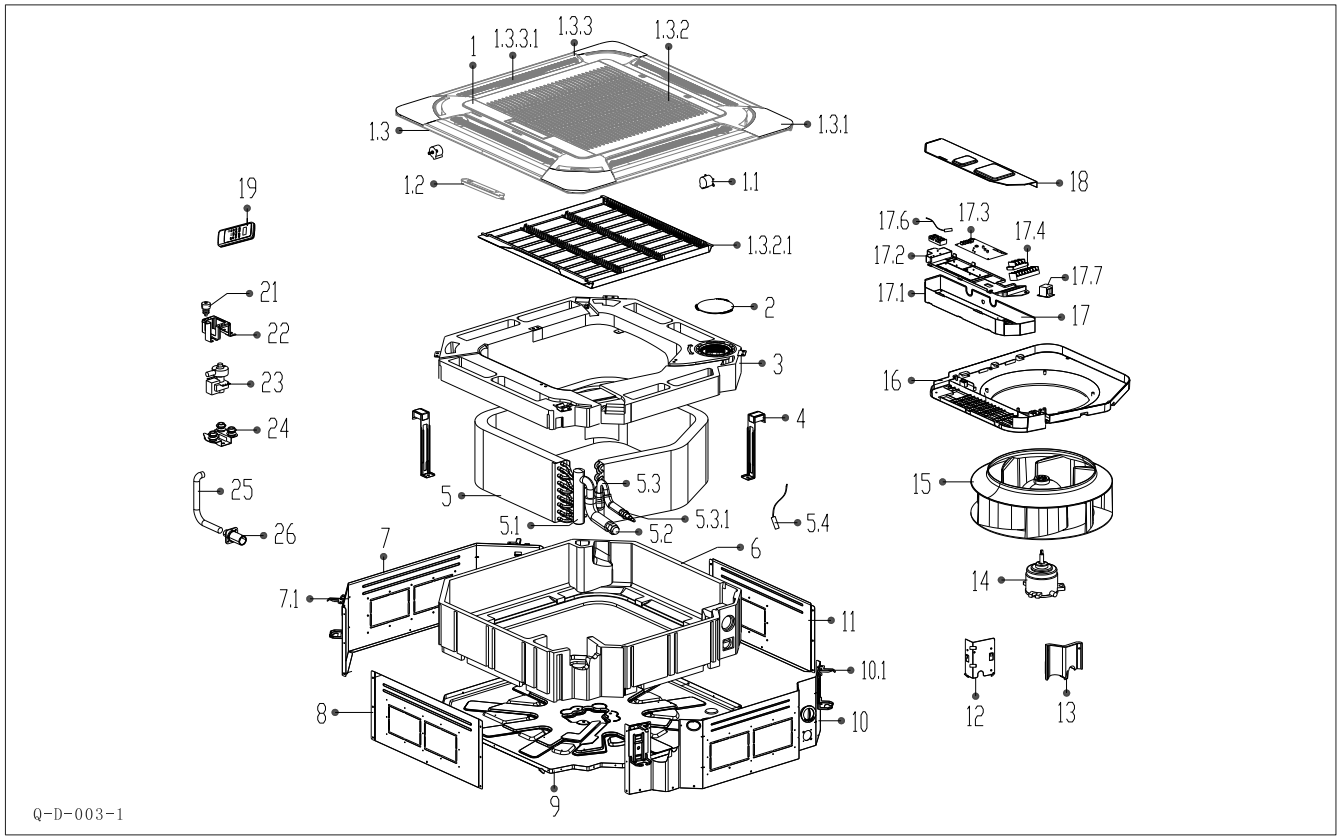
Exploded View of indoor unit:AWSI-CBD030-N11



Spare part list of indoor unit: AWSI-CBD030-N11

No.	BOM Code	Part Name	Quantity
1	2011099A2561	Panel assembly	1
1.1	202400100007	Louver motor	2
1.2	203342890005	Display box assembly	1
1.3	P0000449603	Panel assembly	1
1.3.1	P0000449698	Cover assembly of installation plate	4
1.3.2	P0000449689	Air inlet grille assembly	1
1.3.2.1	201109901903	Air filter	1
1.3.3	P0000449696	Transmission framework	2
1.3.3.1	P0000449731	Louver	2
2	201142790001	Cover	1
3	202242790002	Foam tray assembly for condenser water	1
4	201242890006	Evaporator fixing hanger	2
5	201542890054	Evaporator assembly	1
5.1	201642890046	Output pipe assembly	1
5.2	201600320003	Copper nut	1
5.3	201642890048	Input pipe assembly	1
5.3.1	201600320001	Copper nut	1
5.4	202301300804	Pipe temperature sensor assembly	1
5.4	202440500004	Pipe temperature sensor assembly	1
6	202242790001	Base foam assembly	1
7	201242790007	Board assembly III	1
7.1	P0001115013	Hook	2
8	201242790004	Board assembly I	1
9	201242590012	Chassis assembly	1
10	201242790009	Board assembly II	1
10.1	P0001115013	Hook	2
11	201242790003	Board assembly Ⅳ	1
12	201242790011	Evaporator fixing board	1
13	201142790002	Pipe fixing board assembly	1
14	202400300529	Asynchronous motor	1
15	201100100846	Fan assembly	1
16	201142790004	Ventilation assembly	1
17	203342590050	Electronic control box assembly	1
17.1	201242590004	Electronic control box	1
17.2	201142590002	Insulation plate	1
17.3	201342591519	Main control board assembly	1
17.4	202301450125	Wire joint	1
17.4	202301450116	Wire joint	1
17.6	202440120100	Ambient temperature sensor assembly	1
17.7	202301000950	Reactance	1
18	201242590023	Cover of electronic control box I	1
19	203355091552	Remote controller	1
21	202301310095	Water level sensor assembly	1
22	201242990003	Water Pump installation bracket assembly	1
23	202400600203	Drain pump	1
24	202742000002	Pump rubber washer	3
25	202856001093	Drain pipe	1
25	202742590002	Drain pipe	1
26	201142500032	Water pipe	1

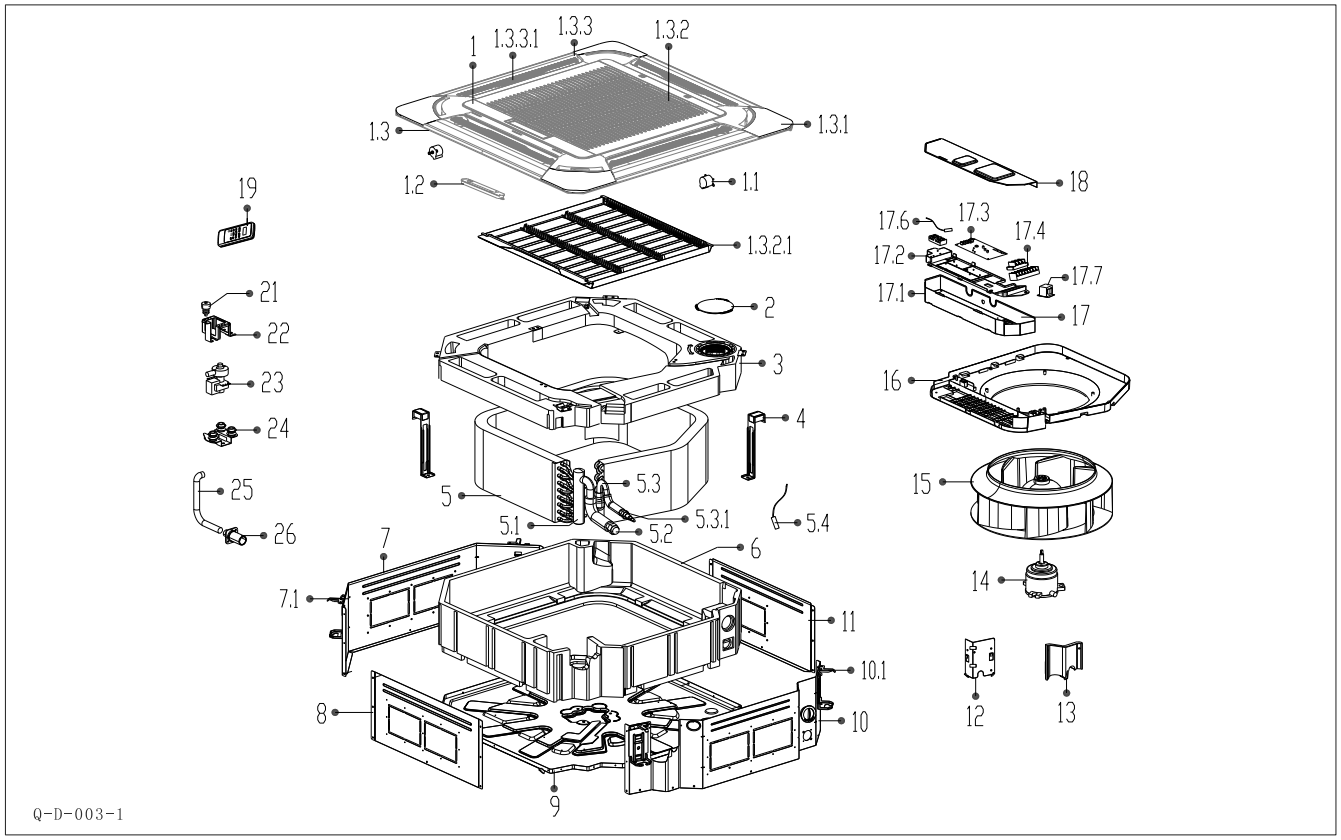
Exploded View of indoor unit:AWSI-CBD036-N11



Spare part list of indoor unit: AWSI-CBD036-N11

No.	BOM Code	Part Name	Quantity
1	2011099A2561	Panel assembly	1
1.1	202400100007	Louver motor	2
1.2	203342890005	Display box assembly	1
1.3	P0000449603	Panel assembly	1
1.3.1	P0000449698	Cover assembly of installation plate	4
1.3.2	P0000449689	Air inlet grille assembly	1
1.3.2.1	201109901903	Air filter	1
1.3.3	P0000449696	Transmission framework	2
1.3.3.1	P0000449731	Louver	2
2	201142790001	Cover	1
3	202242790002	Foam tray assembly for condenser water	1
4	201242890006	Evaporator fixing hanger	2
5	201542890054	Evaporator assembly	1
5.1	201642890046	Output pipe assembly	1
5.2	201600320003	Copper nut	1
5.3	201642890048	Input pipe assembly	1
5.3.1	201600320001	Copper nut	1
5.4	202301300804	Pipe temperature sensor assembly	1
5.4	202440500004	Pipe temperature sensor assembly	1
6	202242790001	Base foam assembly	1
7	201242790007	Board assembly III	1
7.1	P0001115013	Hook	2
8	201242790004	Board assembly I	1
9	201242590012	Chassis assembly	1
10	201242790009	Board assembly II	1
10.1	P0001115013	Hook	2
11	201242790003	Board assembly Ⅳ	1
12	201242790011	Evaporator fixing board	1
13	201142790002	Pipe fixing board assembly	1
14	202400300529	Asynchronous motor	1
15	201100100846	Fan assembly	1
16	201142790004	Ventilation assembly	1
17	203342590050	Electronic control box assembly	1
17.1	201242590004	Electronic control box	1
17.2	201142590002	Insulation plate	1
17.3	201342591519	Main control board assembly	1
17.4	202301450125	Wire joint	1
17.4	202301450116	Wire joint	1
17.6	202440120100	Ambient temperature sensor assembly	1
17.7	202301000950	Reactance	1
18	201242590023	Cover of electronic control box I	1
19	203355091552	Remote controller	1
21	202301310095	Water level sensor assembly	1
22	201242990003	Water Pump installation bracket assembly	1
23	202400600203	Drain pump	1
24	202742000002	Pump rubber washer	3
25	202856001093	Drain pipe	1
25	202742590002	Drain pipe	1
26	201142500032	Water pipe	1

Exploded View of indoor unit:AWSI-CBD048-N11



Spare part list of indoor unit: AWSI-CBD048-N11

No.	BOM Code	Part Name	Quantity
1	2011099A2561	Panel assembly	1
1.1	202400100007	Louver motor	2
1.2	203342890005	Display box assembly	1
1.3	P0000449603	Panel assembly	1
1.3.1	P0000449698	Cover assembly of installation plate	4
1.3.2	P0000449689	Air inlet grille assembly	1
1.3.2.1	201109901903	Air filter	1
1.3.3	P0000449696	Transmission framework	2
1.3.3.1	P0000449731	Louver	2
2	201142790001	Cover	1
3	202242790002	Foam tray assembly for condenser water	1
4	201242990039	Evaporator fixing hanger	2
5	201542990025	Evaporator assembly	1
5.1	201642990044	Output pipe assembly	1
5.2	201600320003	Copper nut	1
5.3	201642990006	Input pipe assembly	1
5.3.1	201600320001	Copper nut	1
5.4	202301300804	Pipe temperature sensor assembly	1
5.4	202440500004	Pipe temperature sensor assembly	1
6	202242990004	Base foam assembly	1
7	201242990035	Board assembly III	1
7.1	P0001115013	Hook	2
8	201242990034	Board assembly I	1
9	201242590012	Chassis assembly	1
10	201242990037	Board assembly II	1
10.1	P0001115013	Hook	2
11	201242990036	Board assembly Ⅳ	1
12	201242790011	Evaporator fixing board	1
13	201142790002	Pipe fixing board assembly	1
14	202400300529	Asynchronous motor	1
15	201100100846	Fan assembly	1
16	201142990003	Ventilation assembly	1
17	203342590050	Electronic control box assembly	1
17.1	201242590004	Electronic control box	1
17.2	201142590002	Insulation plate	1
17.3	201342591519	Main control board assembly	1
17.4	202301450125	Wire joint	1
17.4	202301450116	Wire joint	1
17.6	202440120100	Ambient temperature sensor assembly	1
17.7	202301000950	Reactance	1
18	201242590023	Cover of electronic control box I	1
19	203355091552	Remote controller	1
21	202301310095	Water level sensor assembly	1
22	201242990003	Water Pump installation bracket assembly	1
23	202400600203	Drain pump	1
24	202742000002	Pump rubber washer	3
25	202856001093	Drain pipe	1
25	202742590002	Drain pipe	1
26	201142500032	Water pipe	1

Duct Type

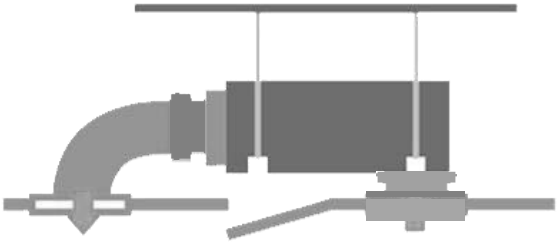
1. Features

AWSI-DCD012-N11,AWSI-DCD018-N11,AWSI-DCD024-N11, AWSI-DCD030-N11, AWSI-DCD036-N11, AWSI-DCD048-N11

1.1 Installation accessories: (Optional)

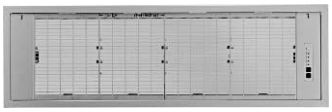
- Front Board, Canvas Air Passage, Filter, Panel, for easy installation

Front Board



Canvas Air Passage

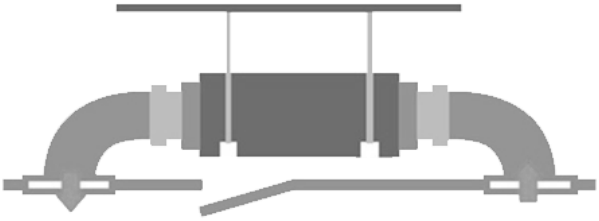
Filter



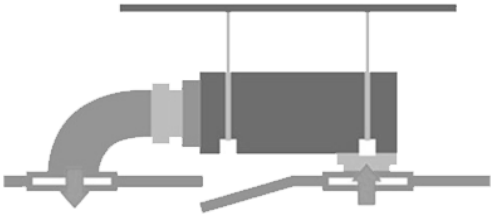
Panel

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.



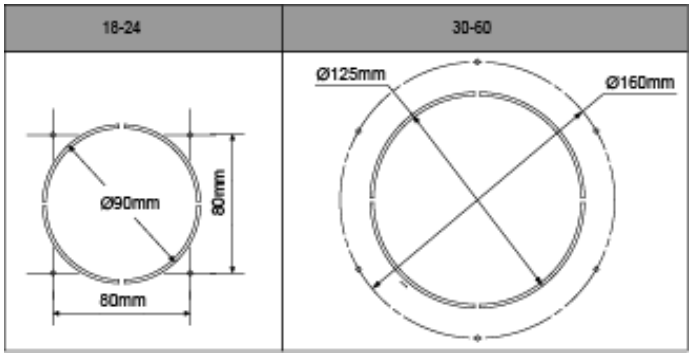
Air intake from rear (Standard)



Air intake from bottom (Optional)

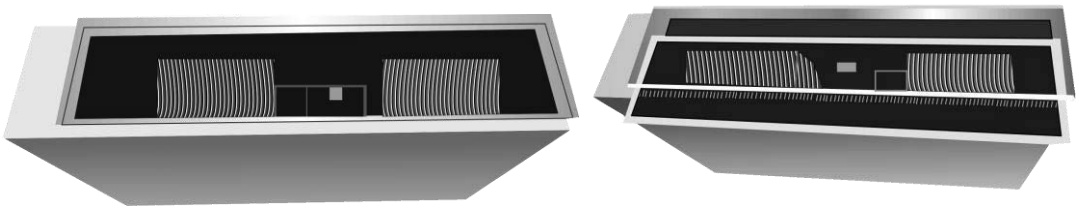
1.3 Fresh air intake function

- 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.

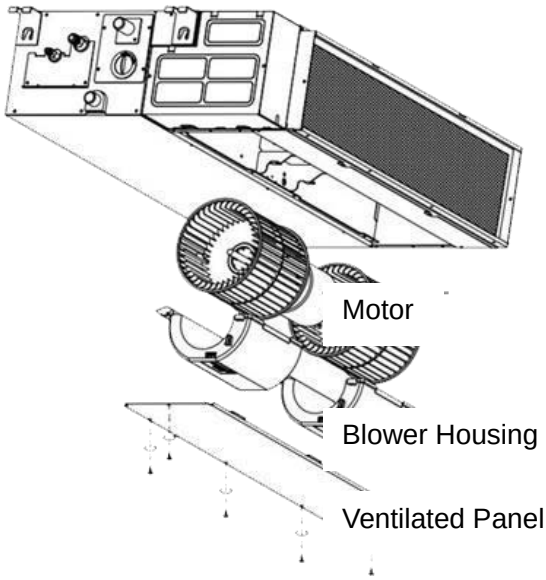


1.4 Easy maintenance

- 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.

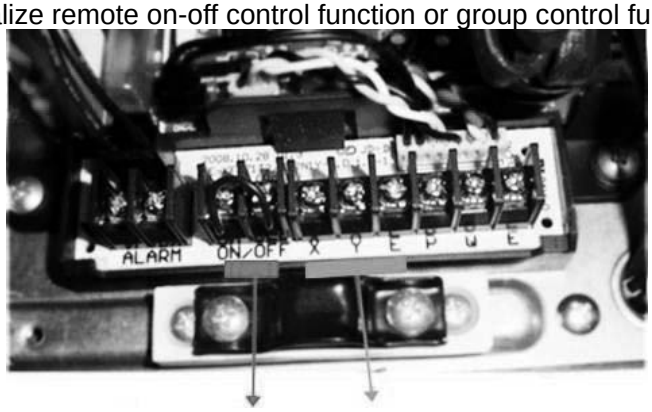


- Replace the motor or centrifugal fan
  Remove the ventilated panel firstly. Remove a half of blower housing and take out the motor with centrifugal fan. Directly remove two bolts, and then replace the motor or centrifugal fan easily.



1.5 Reserved remote on-off and central control ports

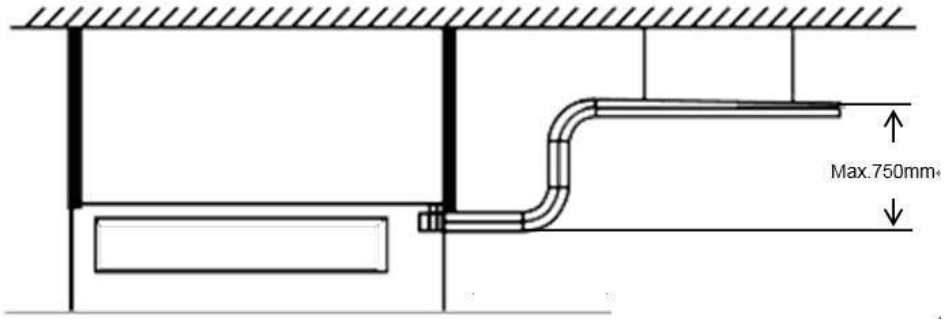
- Reserved remote on-off ports and central control ports, can connect the cable of an on-off controller or a central controller to realize remote on-off control function or group control function.

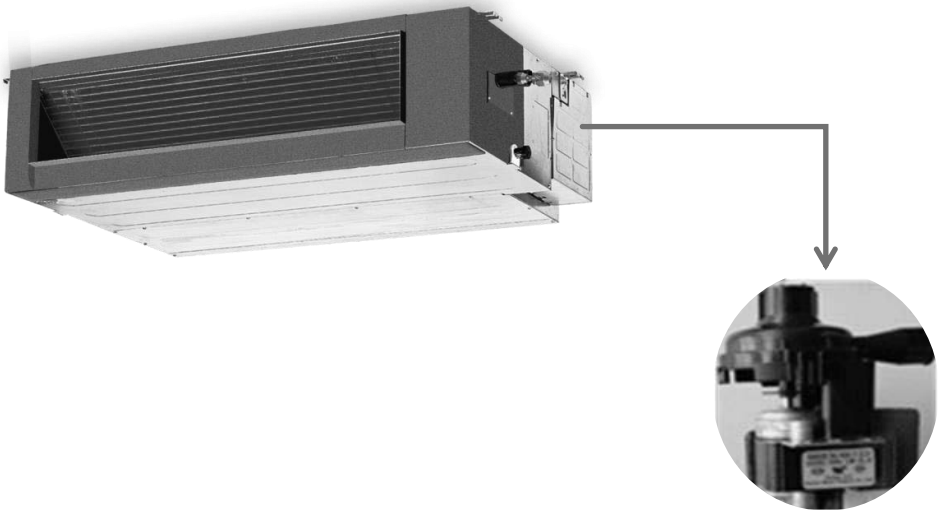


Remote on-off ports Central control ports

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.

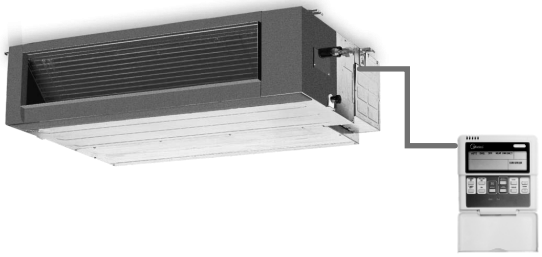




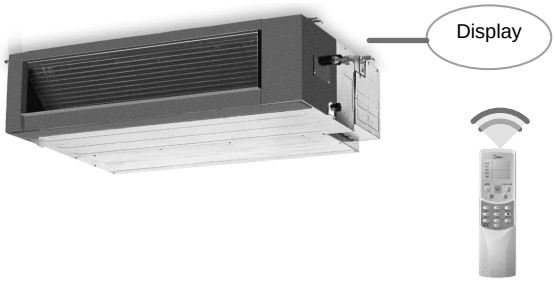
1.7 Built-in display board

- 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)

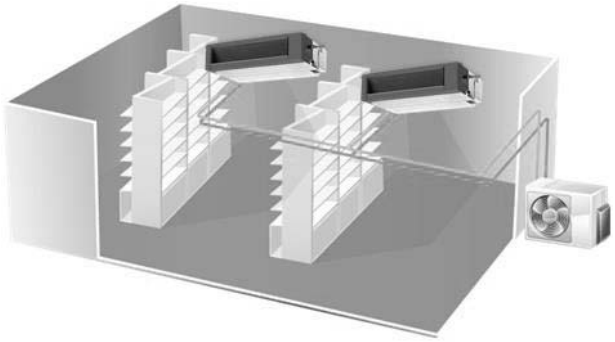


Remote Controller (Optional)



1.8 Twins Combination

- The units can be installed as Twin systems: one outdoor unit can connect with two indoor units. The indoor units can be combined in any of the different available ratings.

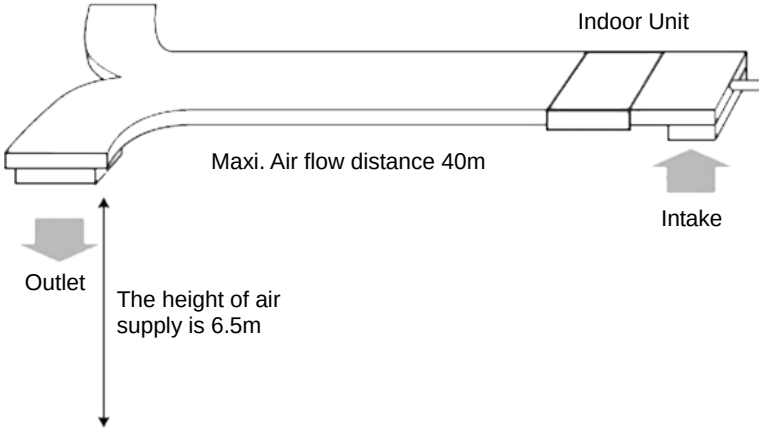


AWSI-DCD060-N11

1.1 High static pressure design

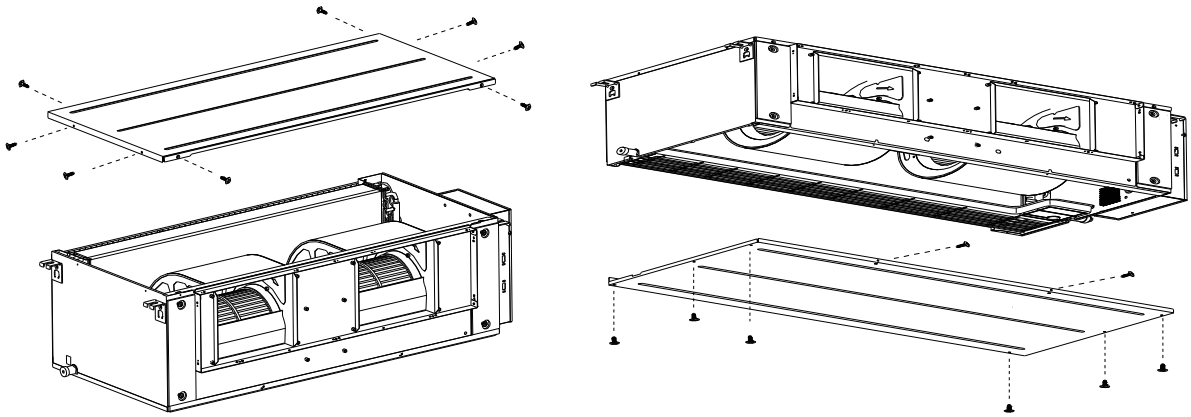
- Max static pressure of indoor unit is 200Pa.
- The longest distance of air supply is 40m, the max height of air supply is 6.5m.
- Specially recommended for spacious and large rooms like large stores and factories.

High static pressure design enables long duct.



1.2 Easy maintenance

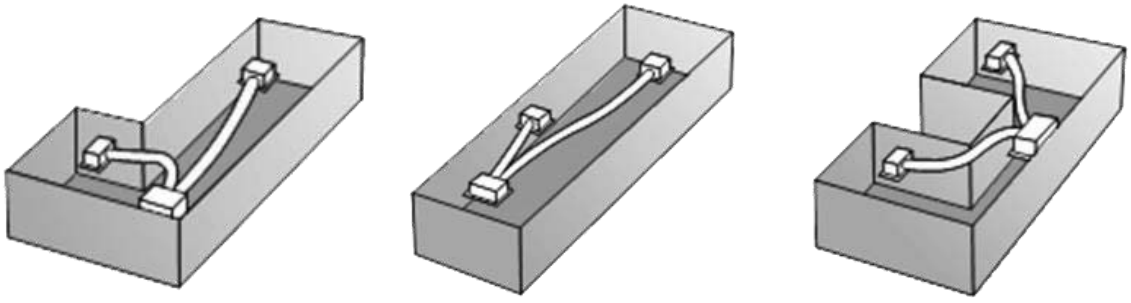
- The unit can be opened from top or bottom.



- The air outlet flange is isolated from either top panel or base panel, which makes the maintenance much easier when connecting duct.

1.3 Flexible Installation

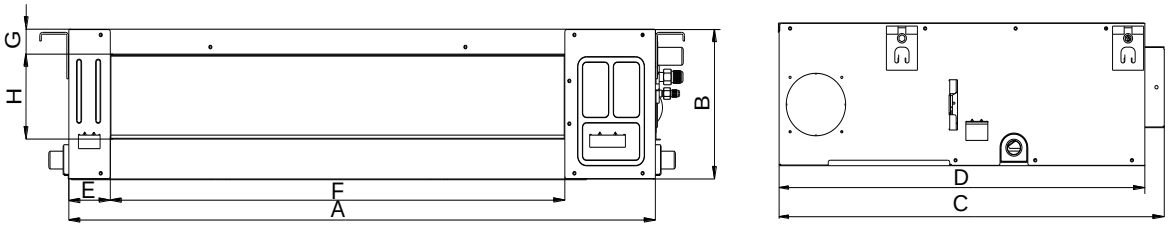
- Different solutions for any shape room by using kinds of air distribution ducts.

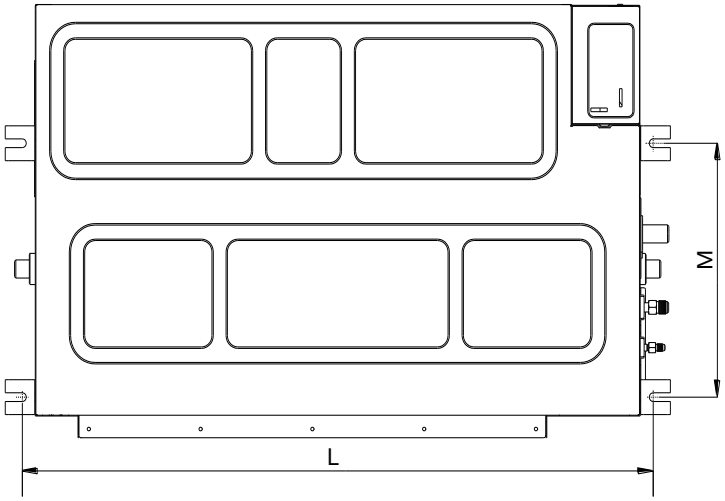


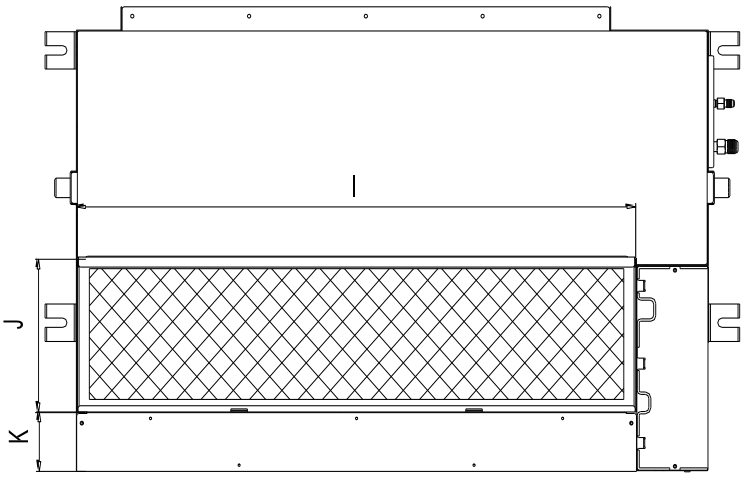
L-shaped | Areas far apart | Y-shaped

2. Dimensions

AWSI-DCD012-N11,AWSI-DCD018-N11,AWSI-DCD024-N11,AWSI-DCD030-N11,AWSI-DCD036-N11, AWSI-DCD048-N11

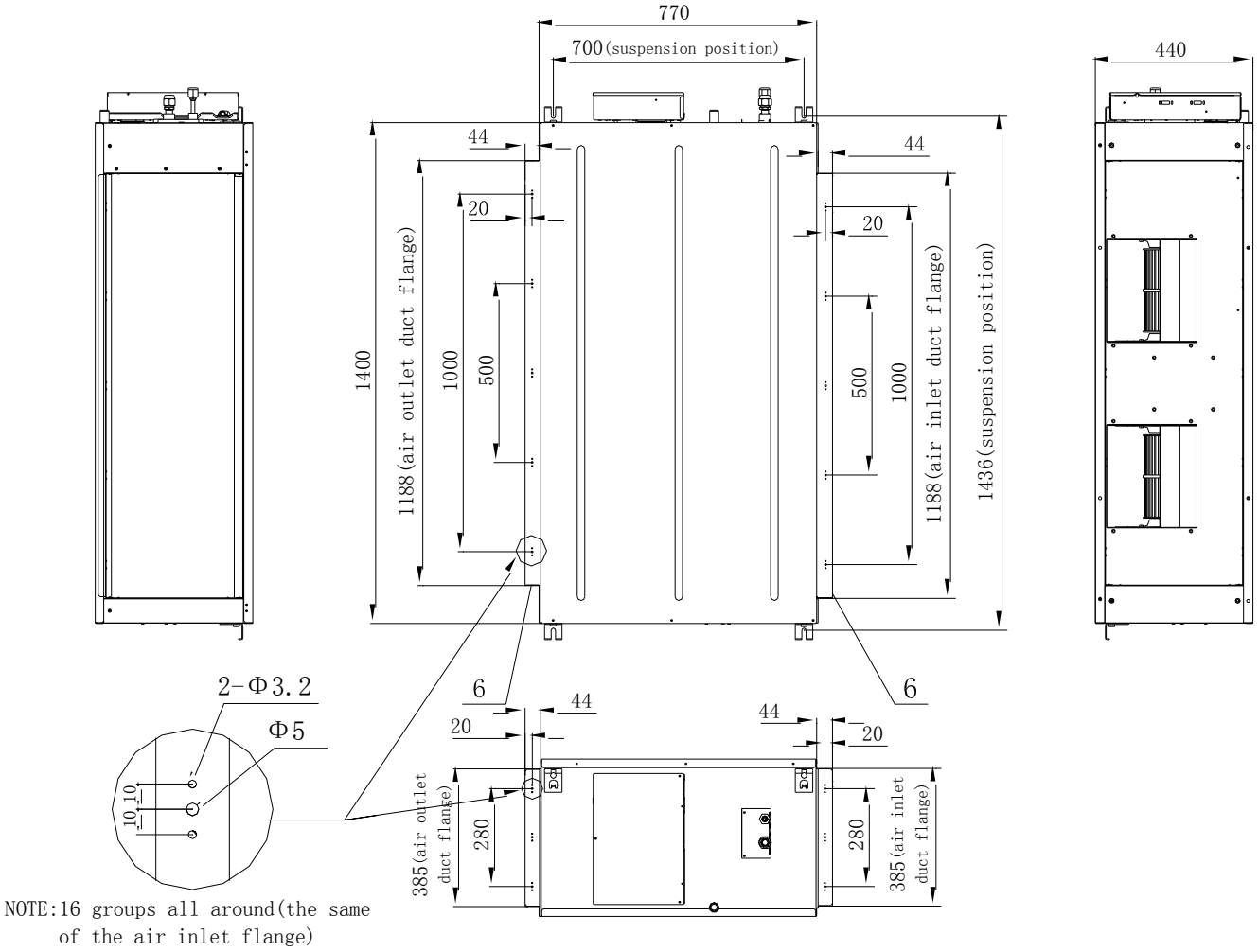






Model	Outline dimension(mm)				Air outlet opening size				Air return opening size			Size of outline dimension mounted plug	
	A	B	C	D	E	F	G	H	I	J	K	L	M
AWSI-DCD012-N11	700	210	635	570	65	493	35	119	595	200	80	740	350
AWSI-DCD018-N11	920	270	635	570	65	713	35	179	815	260	20	960	350
AWSI-DCD024-N11	920	270	635	570	65	713	35	179	815	260	20	960	350
AWSI-DCD030-N11	1140	270	775	710	65	933	35	179	1035	260	20	1180	490
AWSI-DCD036-N11	1140	270	775	710	65	933	35	179	1035	260	20	1180	490
AWSI-DCD048-N11	1200	300	865	800	80	968	40	204	1094	288	45	1240	500

AWSI-DCD060-N11

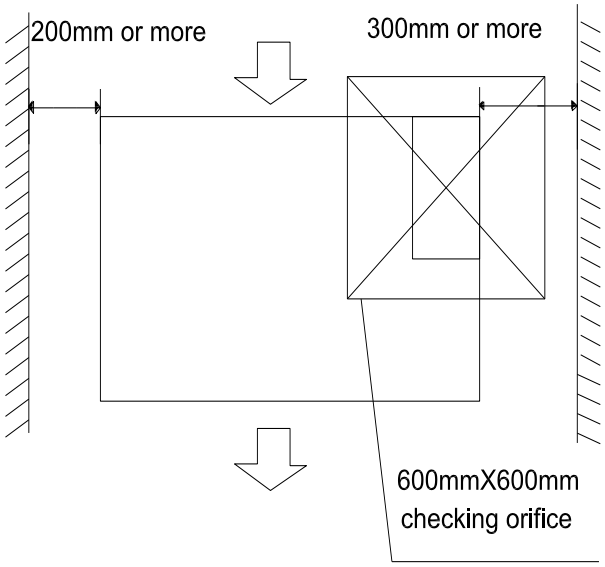


NOTE:16 groups all around(the same of the air inlet flange)

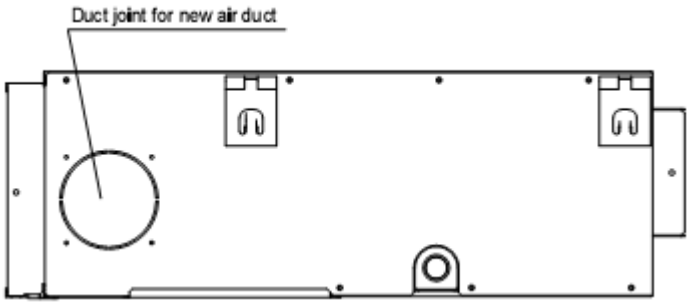
3. Service Space

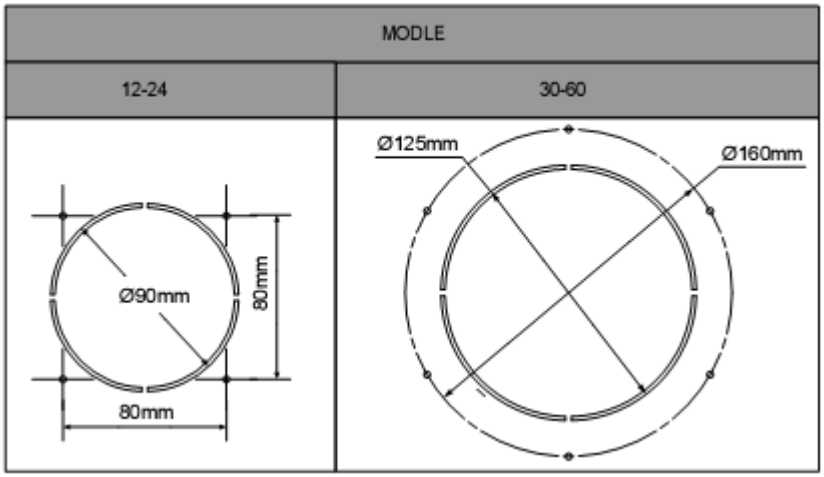
AWSI-DCD012-N11,AWSI-DCD018-N11,AWSI-DCD024-N11,AWSI-DCD030-N11,AWSI-DCD036-N11, AWSI-DCD048-N11

Ensure enough space required for installation and maintenance.



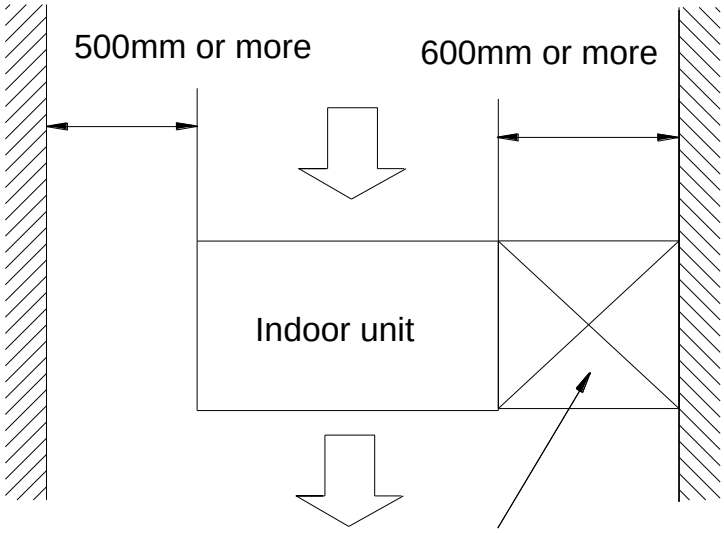
All the indoor units reserve the hole to joint the fresh air pipe. The hole size as following:





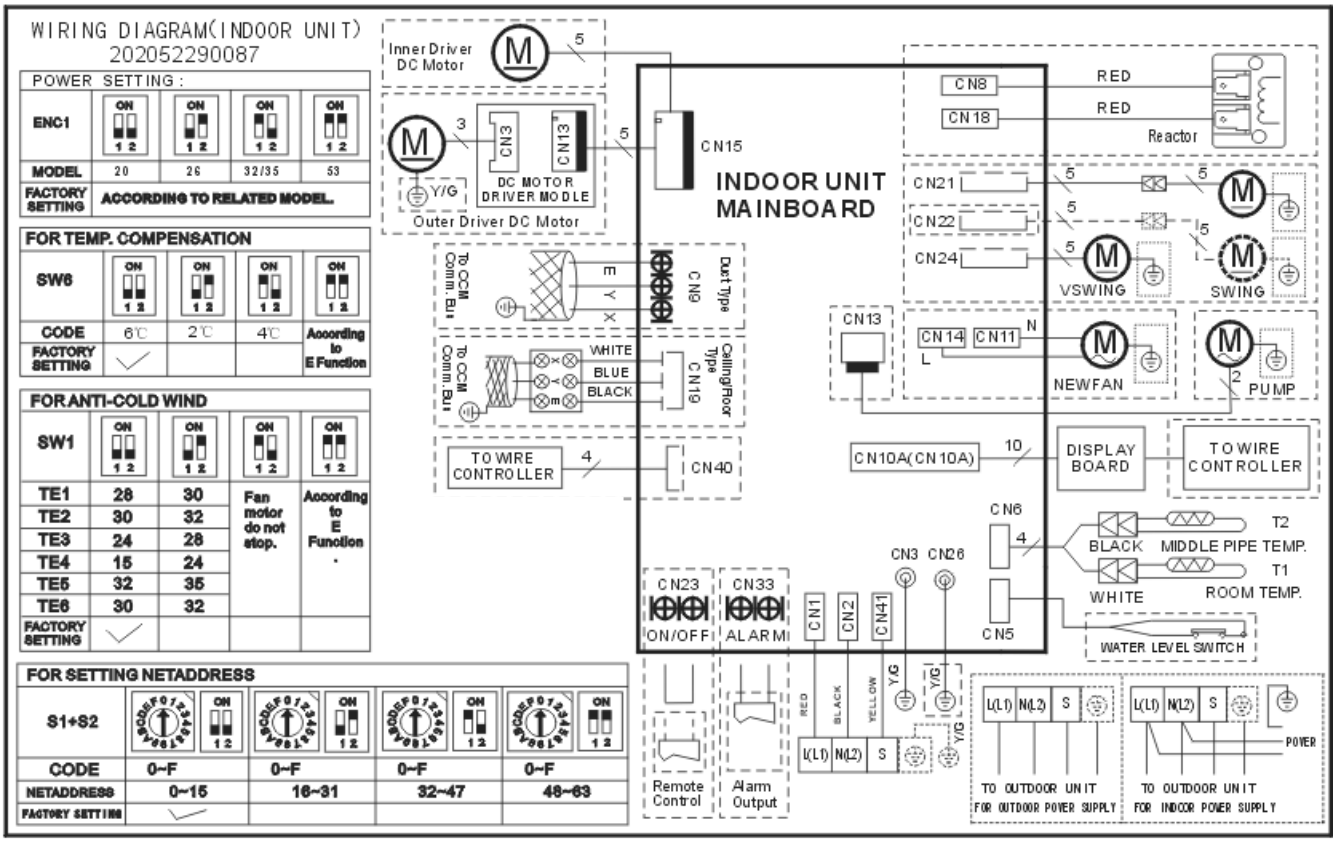
AWSI-DCD060-N11

Ensure enough space required for installation and maintenance.

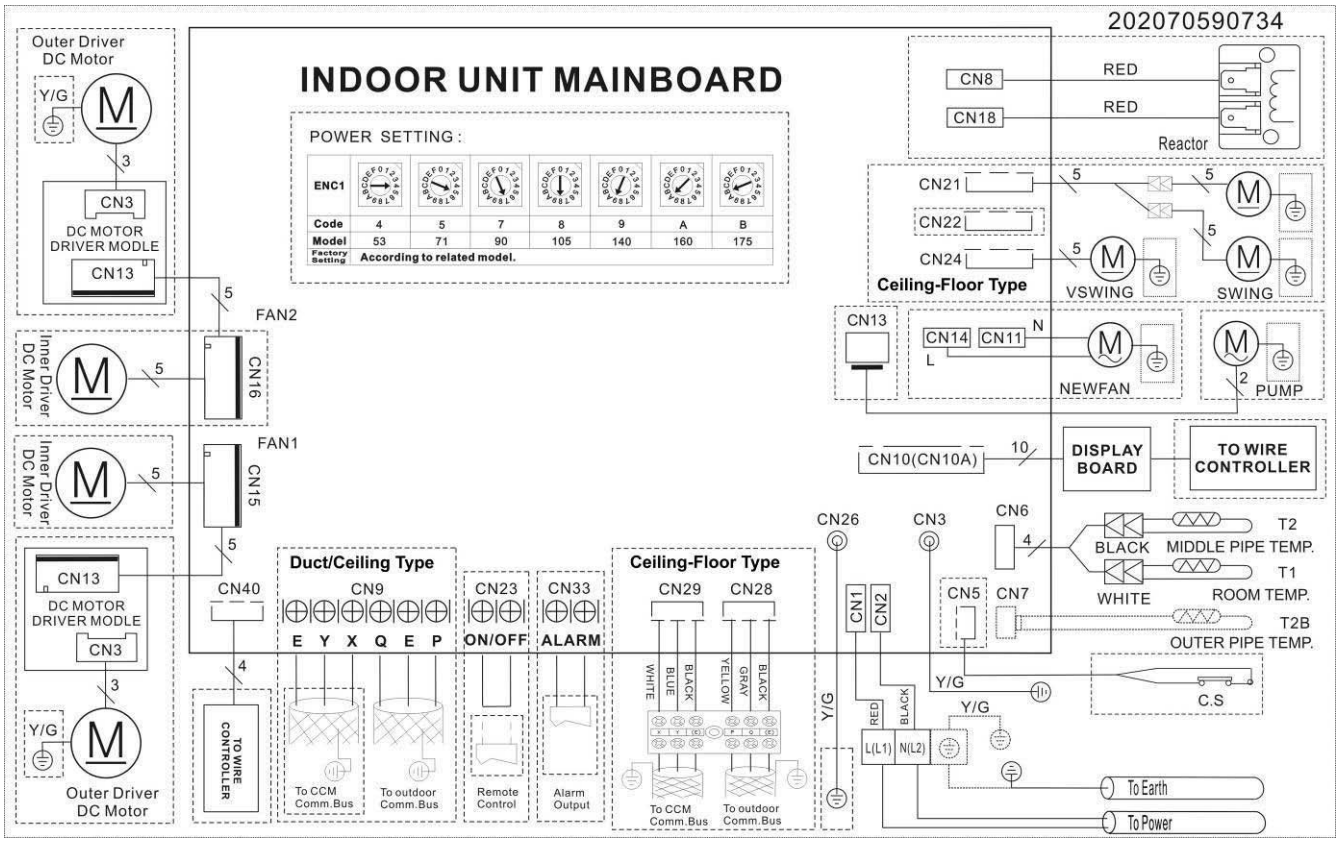


4. Wiring Diagrams

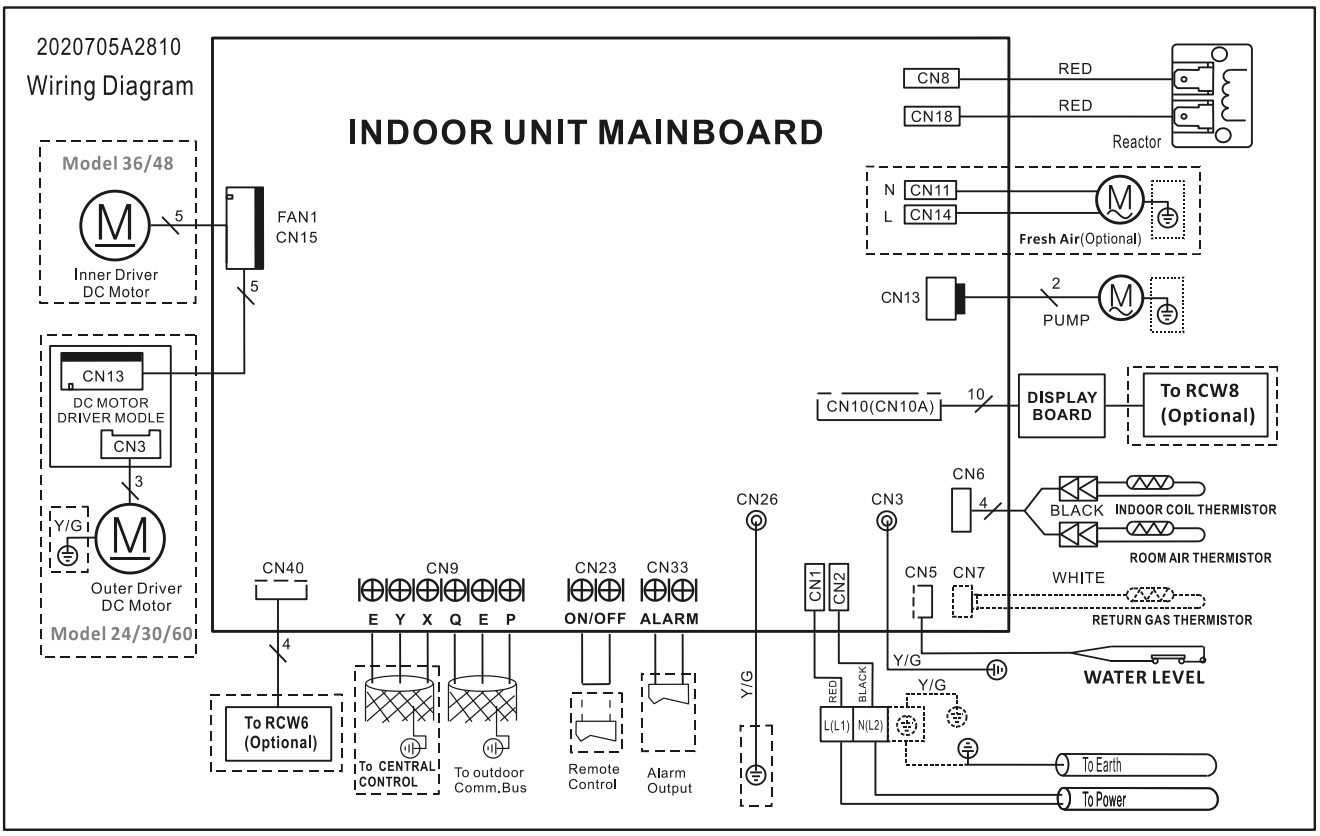
AWSI-DCD012-N11



AWSI-DCD018-N11



AWSI-DCD024-N11 AWSI-DCD030-N11 AWSI-DCD036-N11 AWSI-DCD048-N11 AWSI-DCD060-N11



AWSI-DCD018-N11

FOR SETTING POWER

ENC1							
CODE	4	5	7	8	9	A	B
Power	53	71	90	105	140	160	175
FACTORY SETTING	ACCORDING TO RELATED MODEL.						

FOR MAIN-SLAVE SETTING

SW1	ON 1 2	ON 1 2	ON 1 2	ON 1 2
MODE	MAIN NO SLAVE	MAIN	MAIN	SLAVE
FACTORY SETTING	✓			

FOR SETTING NETADDRESS

S1+S2	ON 1 2	ON 1 2	ON 1 2	ON 1 2
CODE	0~F	0~F	0~F	0~F
NETADDRESS	0~15	16~31	32~47	48~63
FACTORY SETTING	✓			

FOR SETTING FAN MOTOR CONTROL THEN NO POWER REQUEST

SW2	ON 1	ON 1
MODE	FAN OFF	FAN ON
FACTORY SETTING	✓	

FOR SETTING STATIC PRESSURE

ENC2					
Code	0	1	2	3	4
HIGH STATIC PRESSURE	0~50	51~80	81~120	121~150	>150
MIDDLE STATIC PRESSURE	0~25	26~37	38~50	51~100	>100
FACTORY SETTING	✓				

FOR TEMP. COMPENSATION

SW6	ON 1 2	ON 1 2	ON 1 2	ON 1 2
DUCT TYPE	3℃	4℃	6℃	According to E Function
CEILING AND FLOOR TYPE	1℃	4℃	6℃	
FOR SETTING CEILING TYPE OR FLOOR TYPE	FLOOR TYPE	CEILING TYPE		
FACTORY SETTING	✓			

202070290383

FUNCTION SETTING INDICATION

AWSI-DCD024-N11 AWSI-DCD030-N11 AWSI-DCD036-N11

ENC2	Middle Static Pressure	High Static Pressure
0	0-25(Default)	0-50(Default)
1	26-37	51-80
2	38-50	81-120
3	51-100	121-150
4	>100	>150

ENC1	Capacity (Model)
0~4	Reserved
5	24
6	Reserved
7	30
8	36
9	48
A	60

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

SW1-1	SW1-2	Master/Slave
OFF	OFF	Master W/O slave (Default)
ON	OFF	Master With Slave
OFF	ON	Master With Slave
ON	ON	Slave

SW2	Fan Status When Thermo-OFF
OFF	FAN OFF (Default)
ON	FAN ON

SW6-1	SW6-2	Temp. Compensation (Heating)
OFF	OFF	3(Default)
OFF	ON	4
ON	OFF	6
ON	ON	Reserved

FUNCTION SETTING INDICATION

2020702A1406

AWSI-DCD048-N11 AWSI-DCD060-N11

ENC2	Middle Static Pressure	High Static Pressure
0	0-25(Default)	0-50(Default)
1	26-37	51-80
2	38-50	81-120
3	51-100	121-150
4	>100	>150

ENC1	Capacity (Model)
0~4	Reserved
5	24
6	Reserved
7	30
8	36
9	48
A	60

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

SW1-1	SW1-2	Anti Cold Air Setting
OFF	OFF	Fan OFF when ICT<15 (Default)
ON	OFF	Fan OFF when ICT<24
OFF	ON	Fan always working
ON	ON	Reserved

SW2	Fan Status When Thermo-OFF
OFF	FAN OFF (Default)
ON	FAN ON

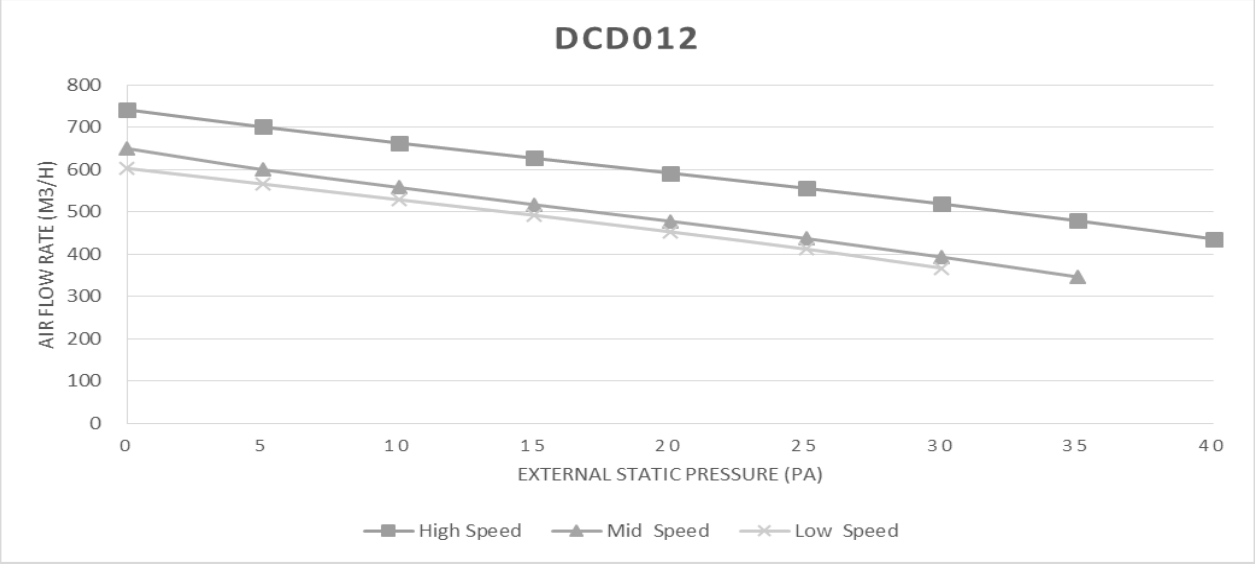
SW6-1	SW6-2	Temp. Compensation (Heating)
OFF	OFF	3(Default)
OFF	ON	4
ON	OFF	6
ON	ON	Reserved

FUNCTION SETTING INDICATION

2020705A2811

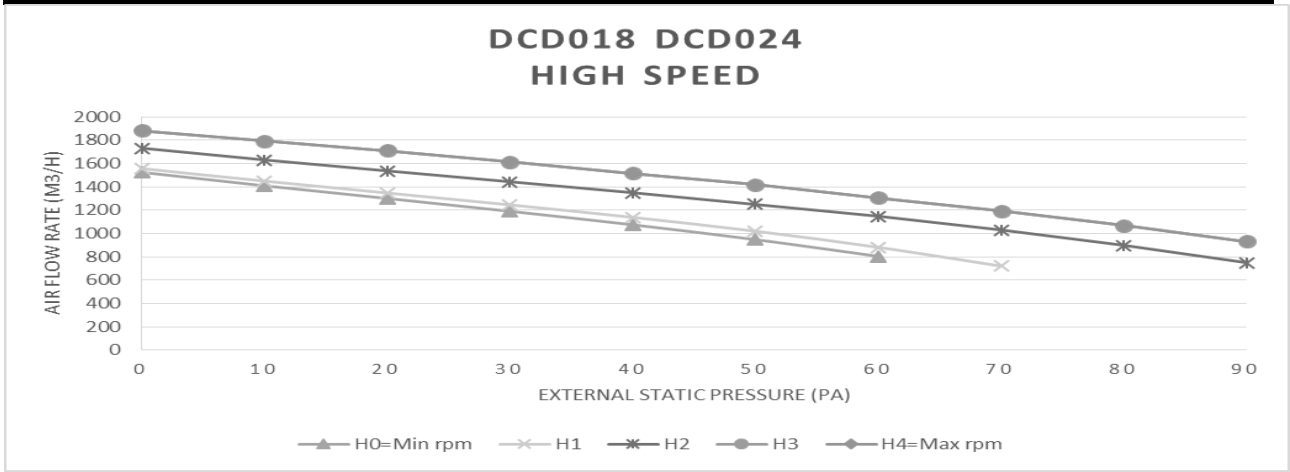
5. Static Pressure

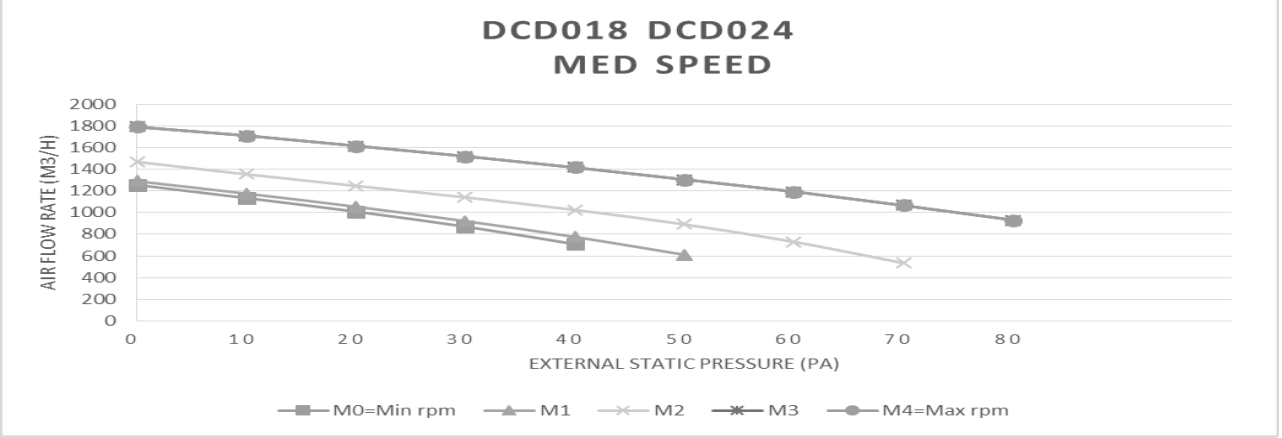
AWSI-DCD012-N11

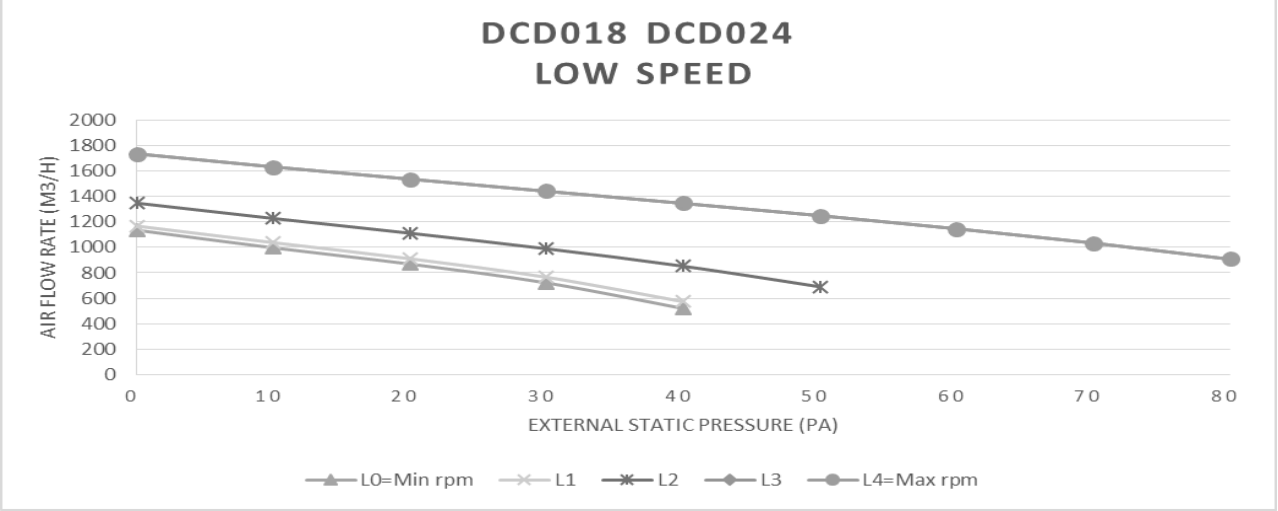


AWSI-DCD018-N11 / AWSI-DCD024-N11

	ESP selection Switch ENC2 setting	Fan speed		RPM
DCD 18 & 24	ESP Setting-0 (0-25Pa)	FANL	L0	800
		FANM	M0	880
		FANHH	H0	1030
	ESP Setting-1 (26-37Pa)	FANL	L1	830
		FANM	M1	900
		FANHH	H1	1050
	ESP Setting-2 (38-50Pa)	FANL	L2	930
		FANM	M2	1000
		FANHH	H2	1150
	ESP Setting-3 (51-100Pa)	FANL	L3	1150
		FANM	M3	1220
		FANHH	H3	1350
	ESP Setting-4 (＞100Pa)	FANL	L4	1150
		FANM	M4	1220
		FANHH	H4	1350

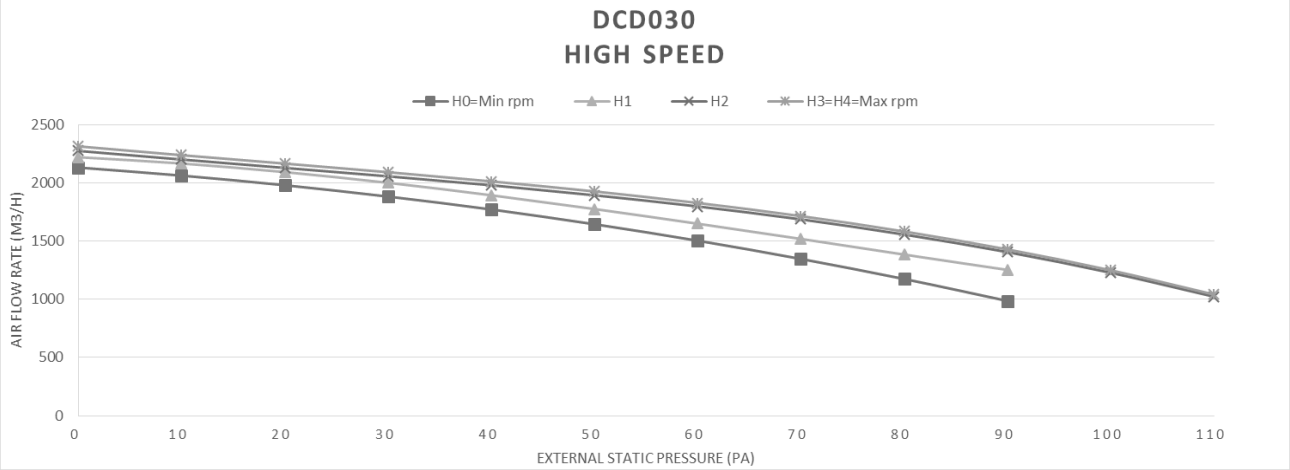


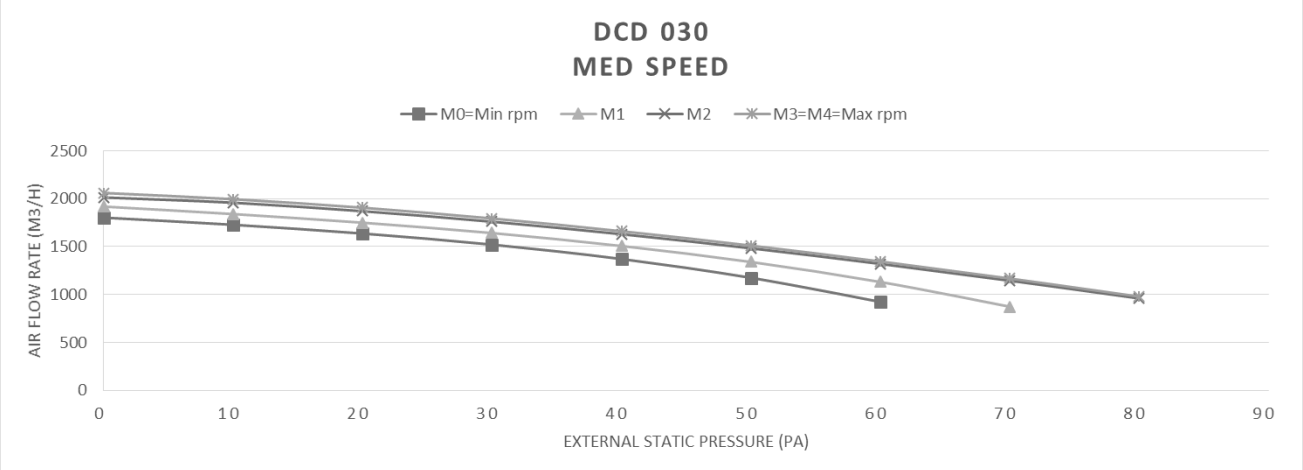


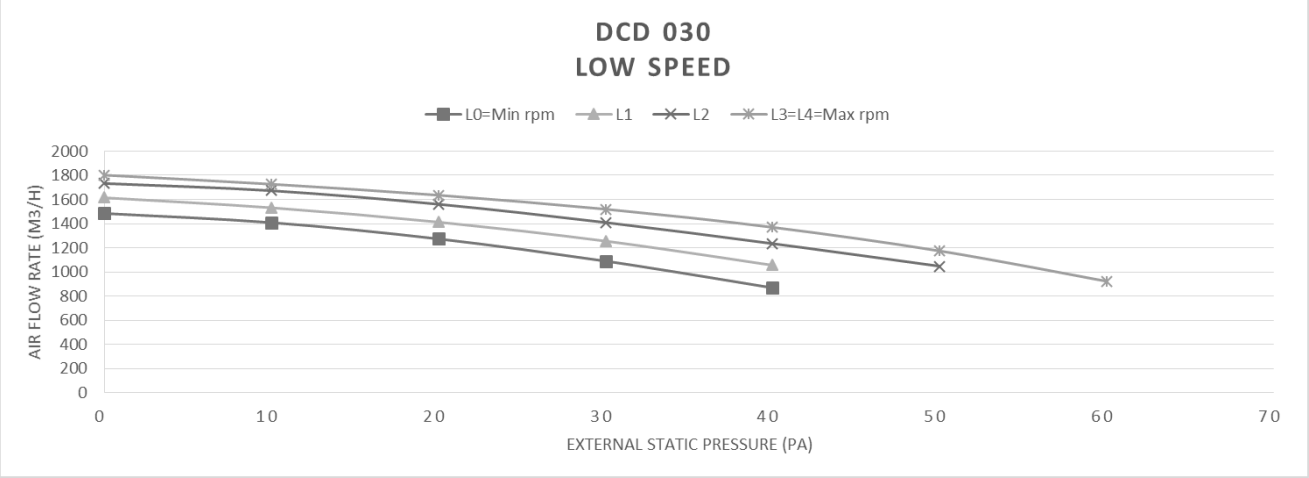


AWSI-DCD030-N11

	ESP selection Switch ENC2 setting	Fan speed		RPM
DCD 030	ESP Setting-0 (0-25Pa)	FANL	L0	800
		FANM	M0	950
		FANHH	H0	1100
	ESP Setting-1 (26-37Pa)	FANL	L1	860
		FANM	M1	1000
		FANHH	H1	1150
	ESP Setting-2 (38-50Pa)	FANL	L2	920
		FANM	M2	1050
		FANHH	H2	1180
	ESP Setting-3 (51-100Pa)	FANL	L3	950
		FANM	M3	1070
		FANHH	H3	1200
	ESP Setting-4 (＞100Pa)	FANL	L4	950
		FANM	M4	1070
		FANHH	H4	1200

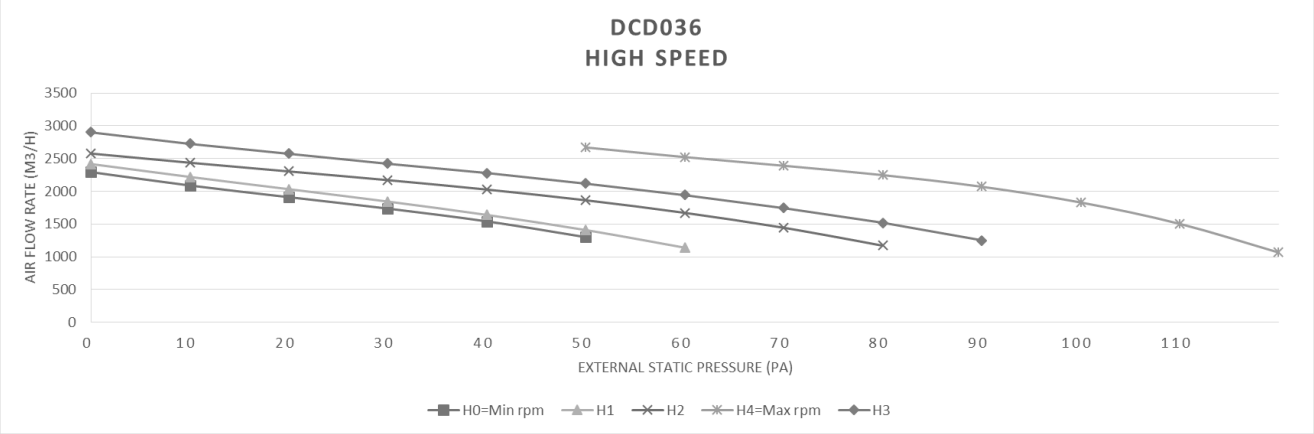


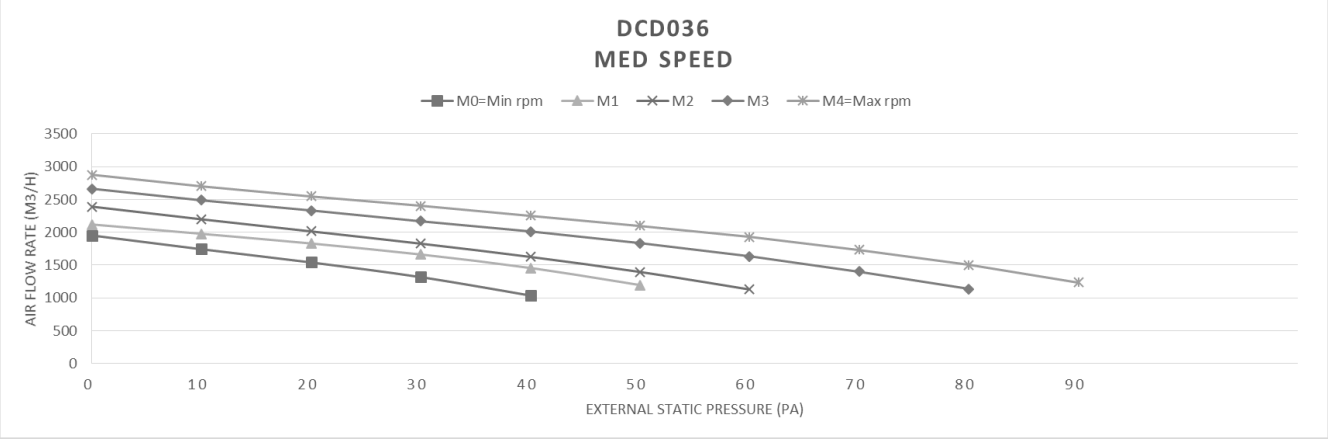


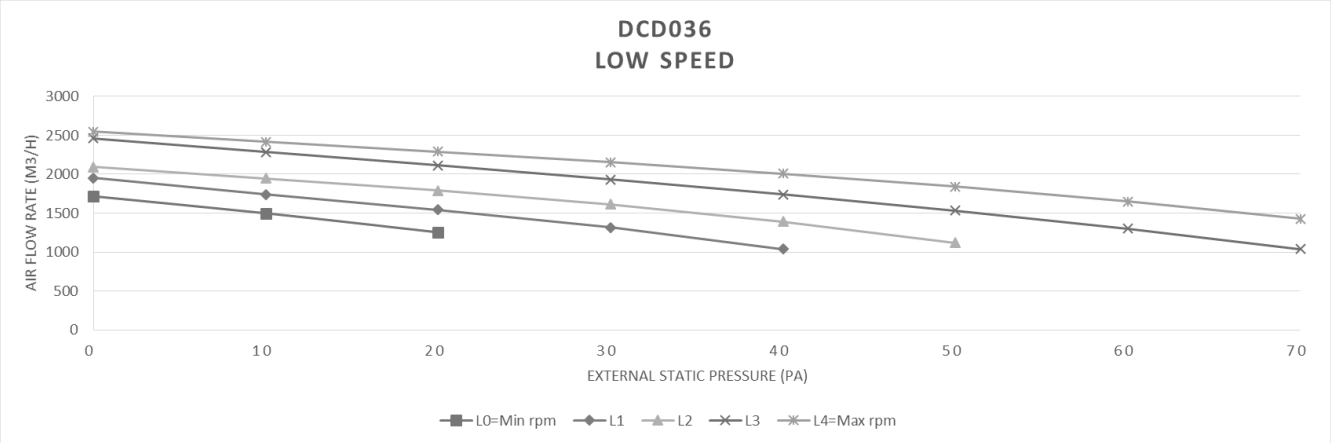


AWSI-DCD036-N11

	ESP selection Switch ENC2 setting	Fan speed		RPM
DCD 036	ESP Setting-0 (0-25Pa)	FANL	L0	720
		FANM	M0	800
		FANHH	H0	900
	ESP Setting-1 (26-37Pa)	FANL	L1	800
		FANM	M1	880
		FANHH	H1	960
	ESP Setting-2 (38-50Pa)	FANL	L2	860
		FANM	M2	950
		FANHH	H2	1030
	ESP Setting-3 (51-100Pa)	FANL	L3	970
		FANM	M3	1040
		FANHH	H3	1110
	ESP Setting-4 (＞100Pa)	FANL	L4	1020
		FANM	M4	1100
		FANHH	H4	1200

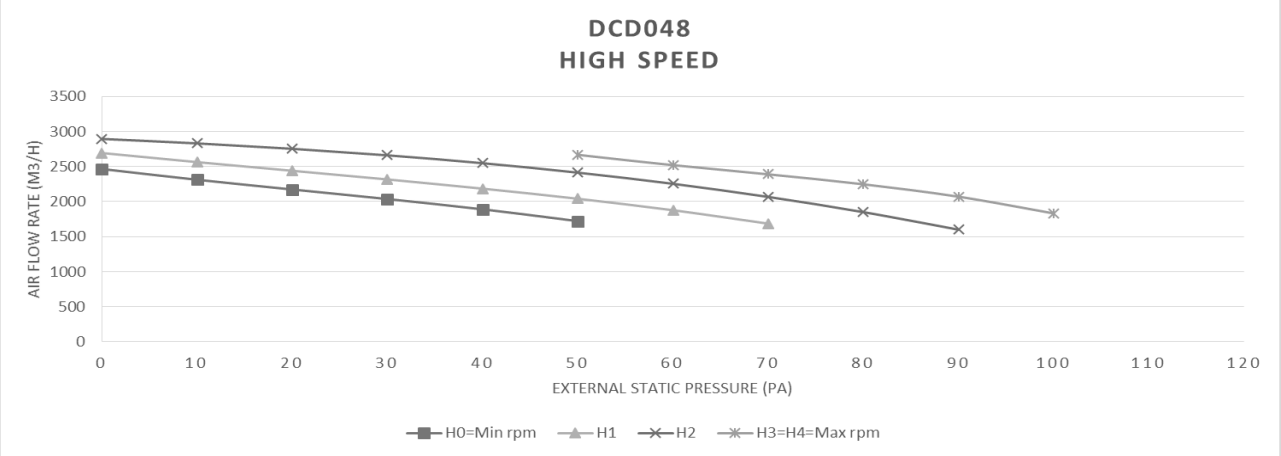


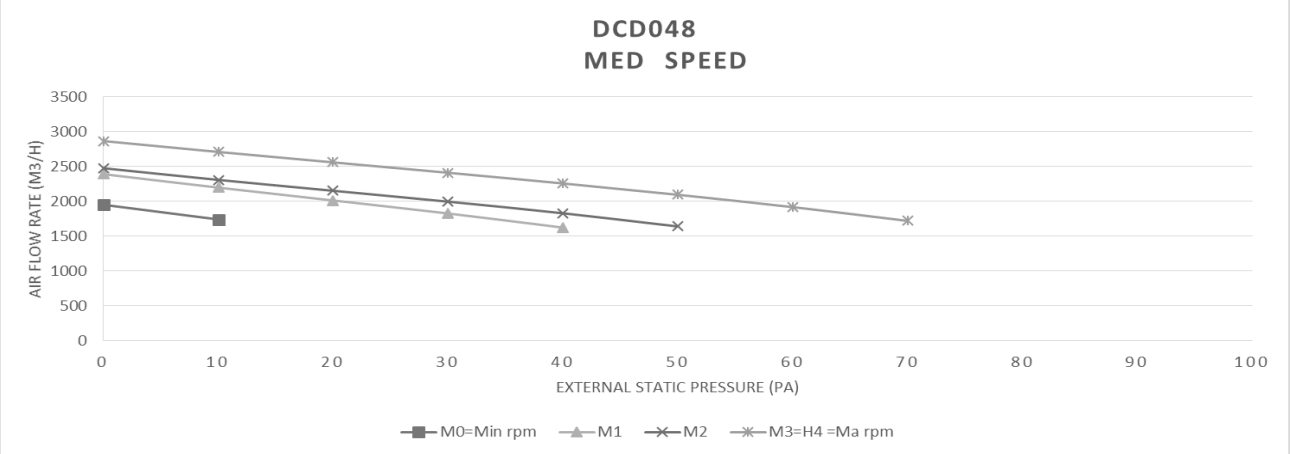


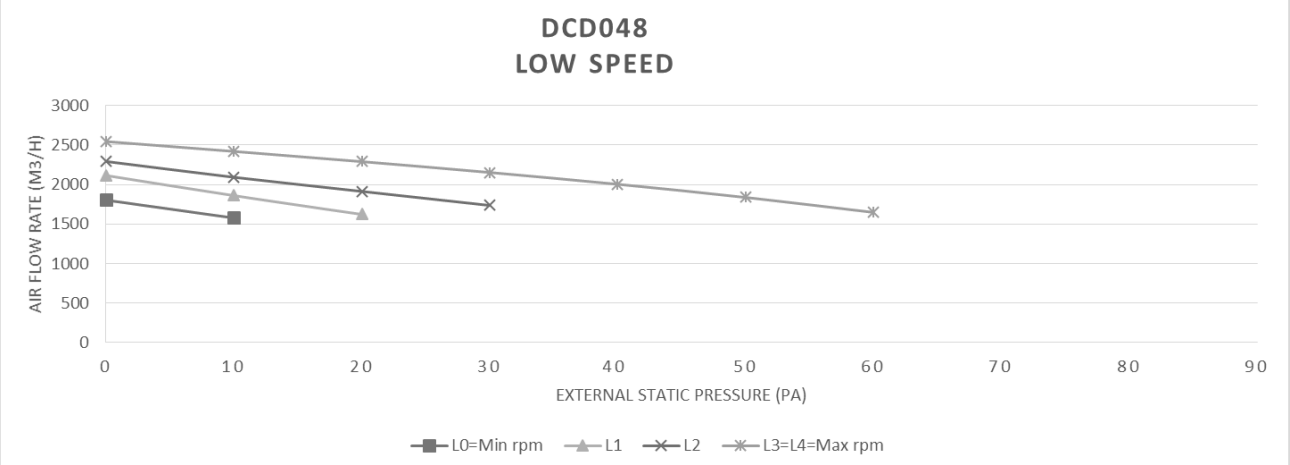


AWSI-DCD048-N11

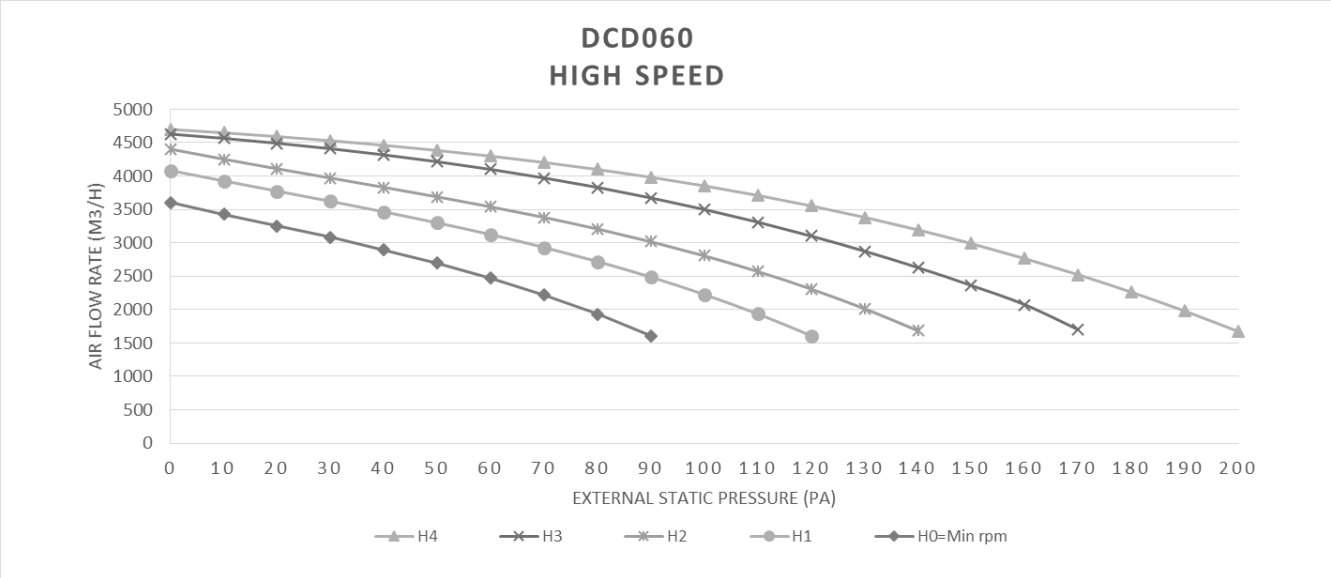
	ESP selection Switch ENC2 setting	Fan speed		RPM
DCD 048	ESP Setting-0 (0-25Pa)	FANL	L0	750
		FANM	M0	880
		FANHH	H0	1000
	ESP Setting-1 (26-37Pa)	FANL	L1	830
		FANM	M1	950
		FANHH	H1	1070
	ESP Setting-2 (38-50Pa)	FANL	L2	900
		FANM	M2	990
		FANHH	H2	1120
	ESP Setting-3 (51-100Pa)	FANL	L3	1020
		FANM	M3	1100
		FANHH	H3	1200
	ESP Setting-4 (＞100Pa)	FANL	L4	1020
		FANM	M4	1100
		FANHH	H4	1200

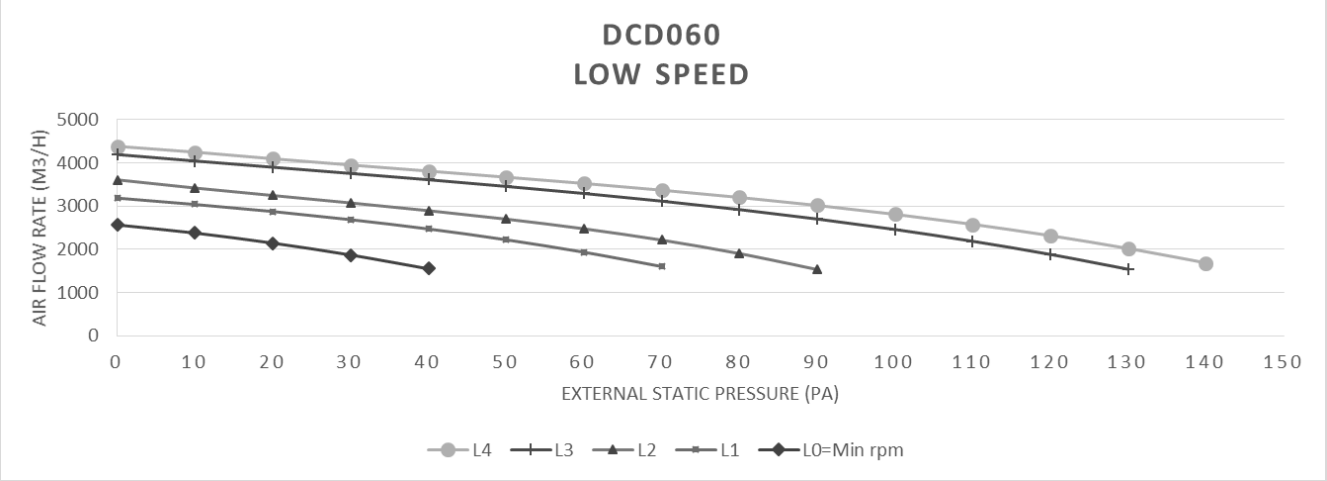






AWSI-DCD060-N11



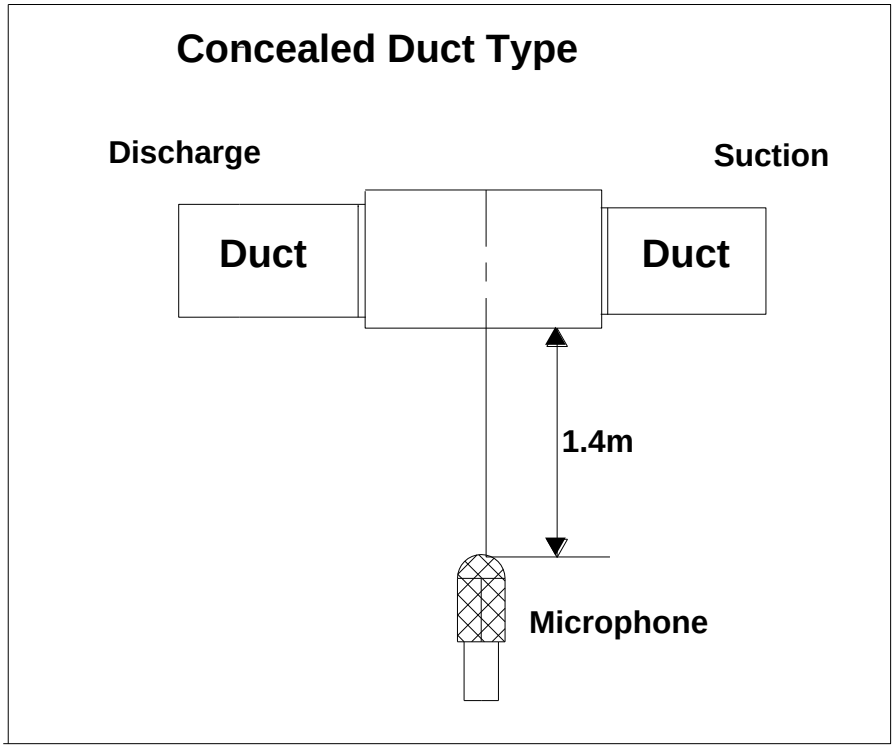


6. Electric Characteristics

Model	Indoor Unit				Power Supply
	Hz	Voltage	Min.	Max.	MFA
AWSI-DCD012-N11	50	220-240	198	254	/
AWSI-DCD018-N11	50	220-240	198	254	10
AWSI-DCD024-N11	50	220-240	198	254	10
AWSI-DCD030-N11	50	220-240	198	254	10
AWSI-DCD036-N11	50	220-240	198	254	10
AWSI-DCD048-N11	50	220-240	198	254	10
AWSI-DCD060-N11	50	220-240	198	254	10

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

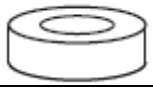
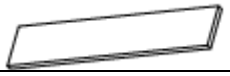
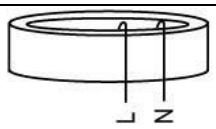
7. Sound Levels



Model	Sound Power dB(A)	Noise level dB(A)		
		H	M	L
AWSI-DCD012-N11	57	41	39	36
AWSI-DCD018-N11	58	45	43	39
AWSI-DCD024-N11	63	46	43	39
AWSI-DCD030-N11	65	48	44	40
AWSI-DCD036-N11	62	42	39	36
AWSI-DCD048-N11	62	42	39	36
AWSI-DCD060-N11	67	57	54	51

8. Accessories

AWSI-DCD012-N11,AWSI-DCD018-N11,AWSI-DCD024-N11,AWSI-DCD030-N11,AWSI-DCD036-N11, AWSI-DCD048-N11

	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
EMS & It's fitting	Magnetic ring (twist the electric wires L and N around it to five circles)		1

AWSI-DCD060-N11

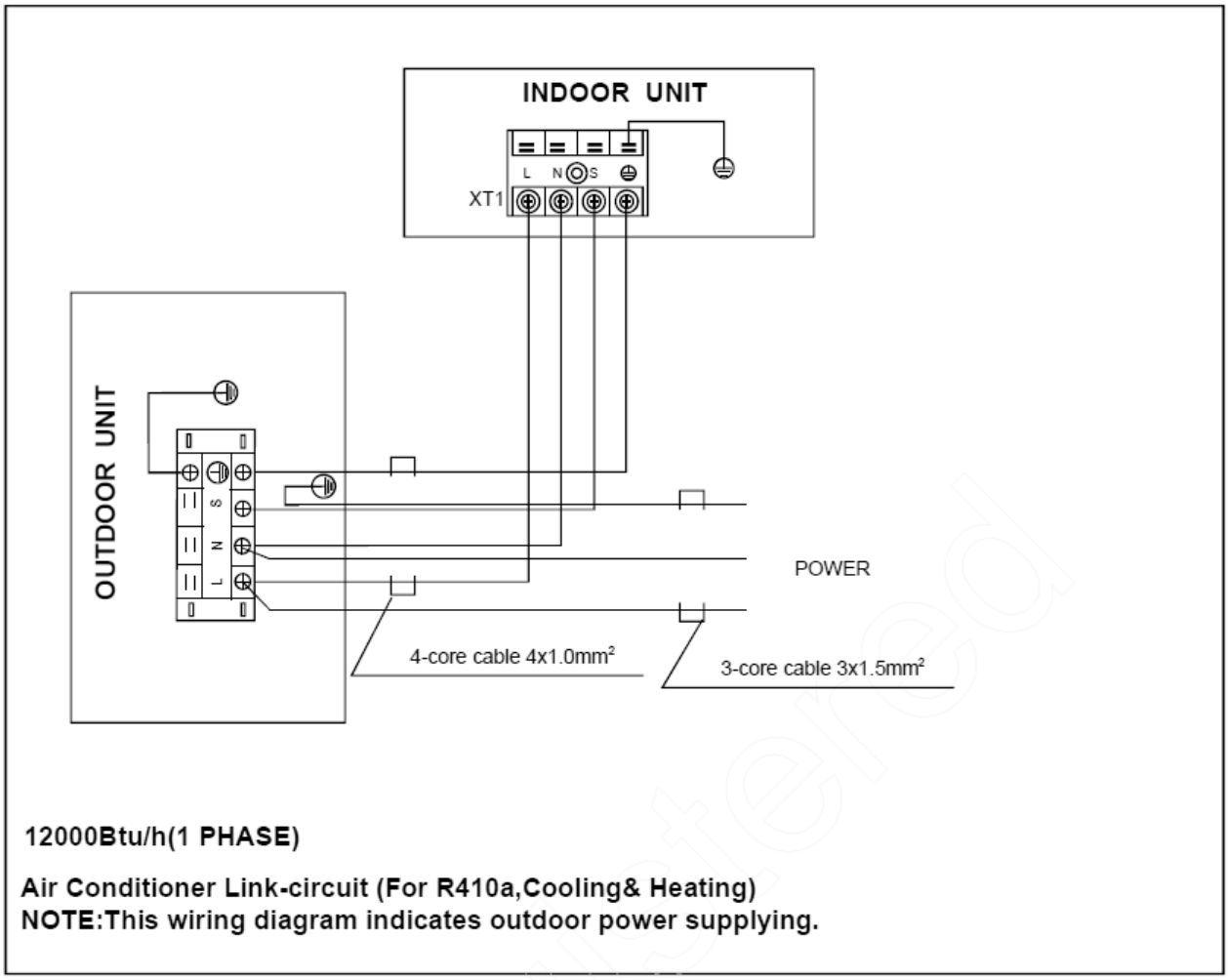
	Name	Shape	Quantity
Tubing & Fittings	Soundproof / insulation sheath		2
Drainpipe Fittings (for cooling & heating)	Drain joint		1
	Seal ring		1
Wired controller & Its Frame	Wired controller		1
	Owner' s manual of wired controller		1
	Wired controller installation manual		1
Others	Owner' s manual		1
	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	1-phase	1-phase
	Frequency and Voltage	———	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz
	Power Wiring(mm^2)	———	3×1.0	3×1.0	3×1.0	3×1.0	3×1.0	3×1.0
	Circuit Breaker/ Fuse (A)	———	15/10	15/10	15/10	15/10	15/10	15/10
Outdoor Unit Power	Phase	1-phase	1-phase	1-phase	1-phase	1-phase	3-phase	3-phase
	Frequency and Voltage	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz	380-415V, 50Hz	380-415V, 50Hz
	Power Wiring(mm^2)	3×1.5	3×2.5	3×2.5	3×2.5	3×4.0	5×2.5	5×2.5
	Circuit Breaker/ Fuse (A)	20/16	20/16	30/20	40/30	40/30	30/20	30/25
Indoor/Outdoor Connecting Wiring(Weak Electric Signal) (mm^2)		———	3×0.5	3×0.5	3×0.5	3×0.5	3×0.5	3×0.5
Indoor/Outdoor Connecting Wiring(Strong Electric Signal) (mm^2)		4×1.0	———	———	———	———	———	———

10. Field Wiring

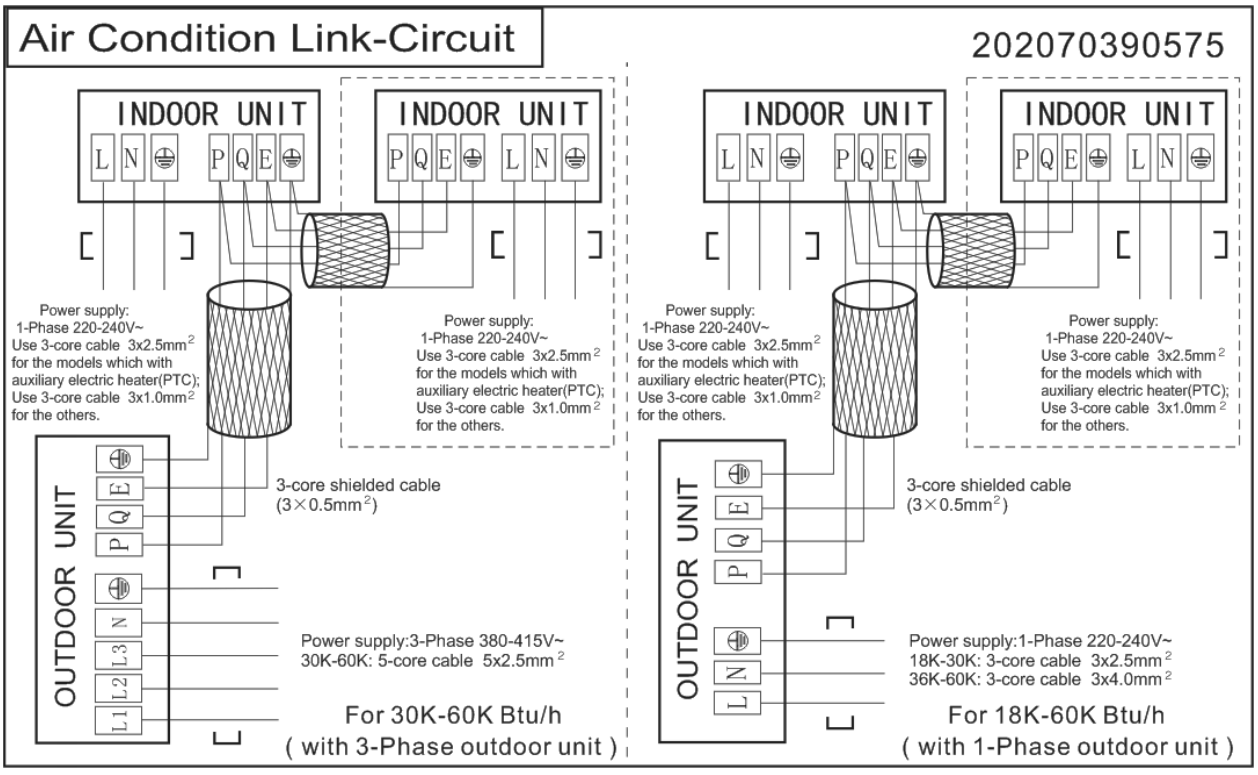
AWSI-DCD012-N11



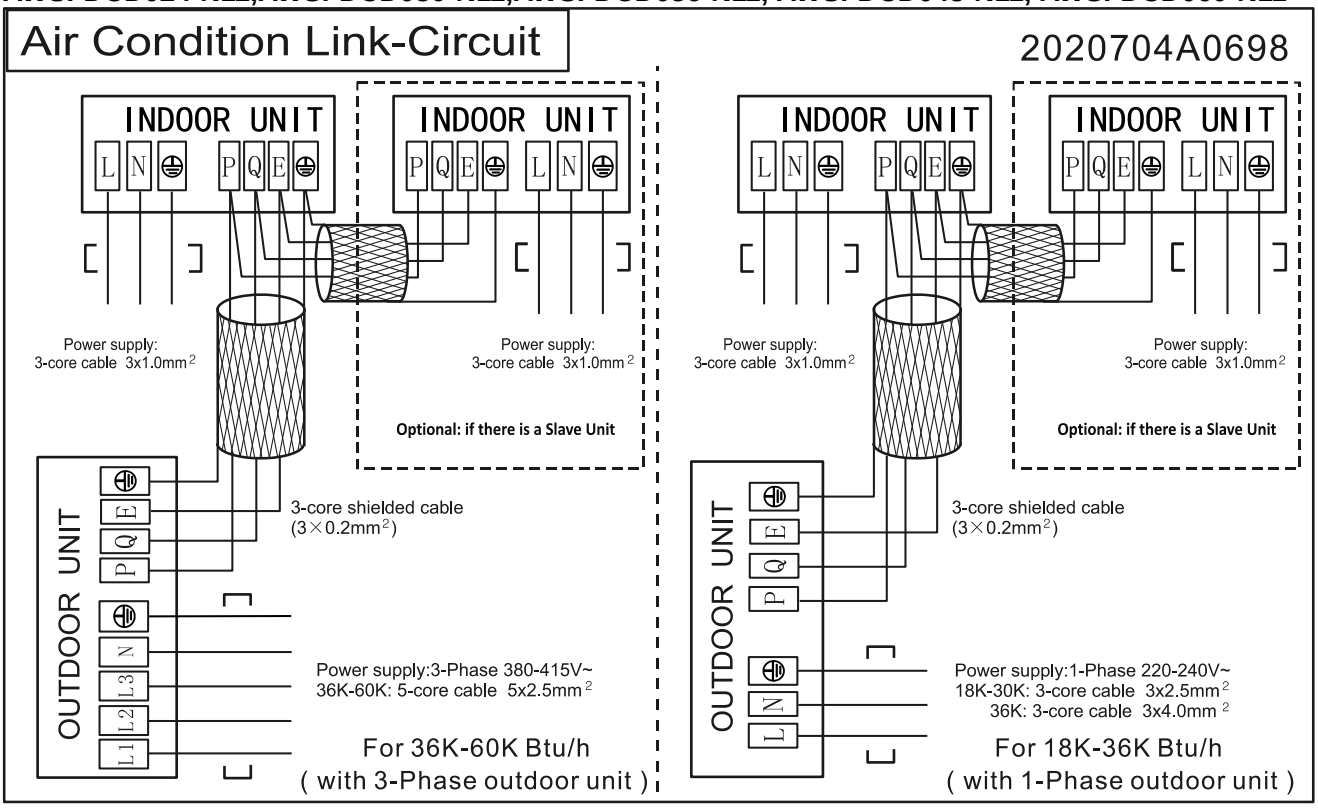
12000Btu/h(1 PHASE)

Air Conditioner Link-circuit (For R410a,Cooling& Heating)
NOTE:This wiring diagram indicates outdoor power supplying.

AWSI-DCD018-N11

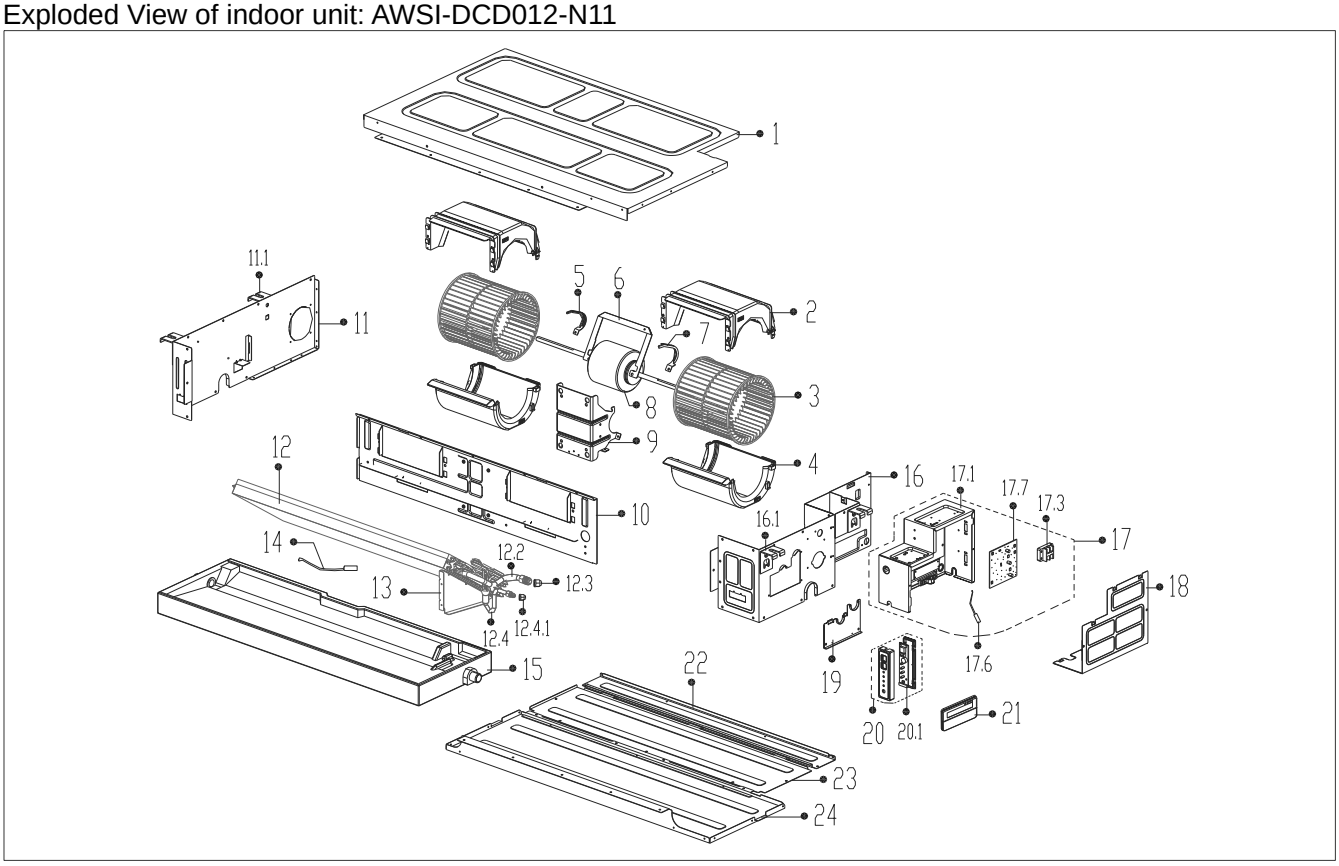


AWSI-DCD024-N11,AWSI-DCD030-N11,AWSI-DCD036-N11, AWSI-DCD048-N11, AWSI-DCD060-N11



11. Exploded View and Spare Part list

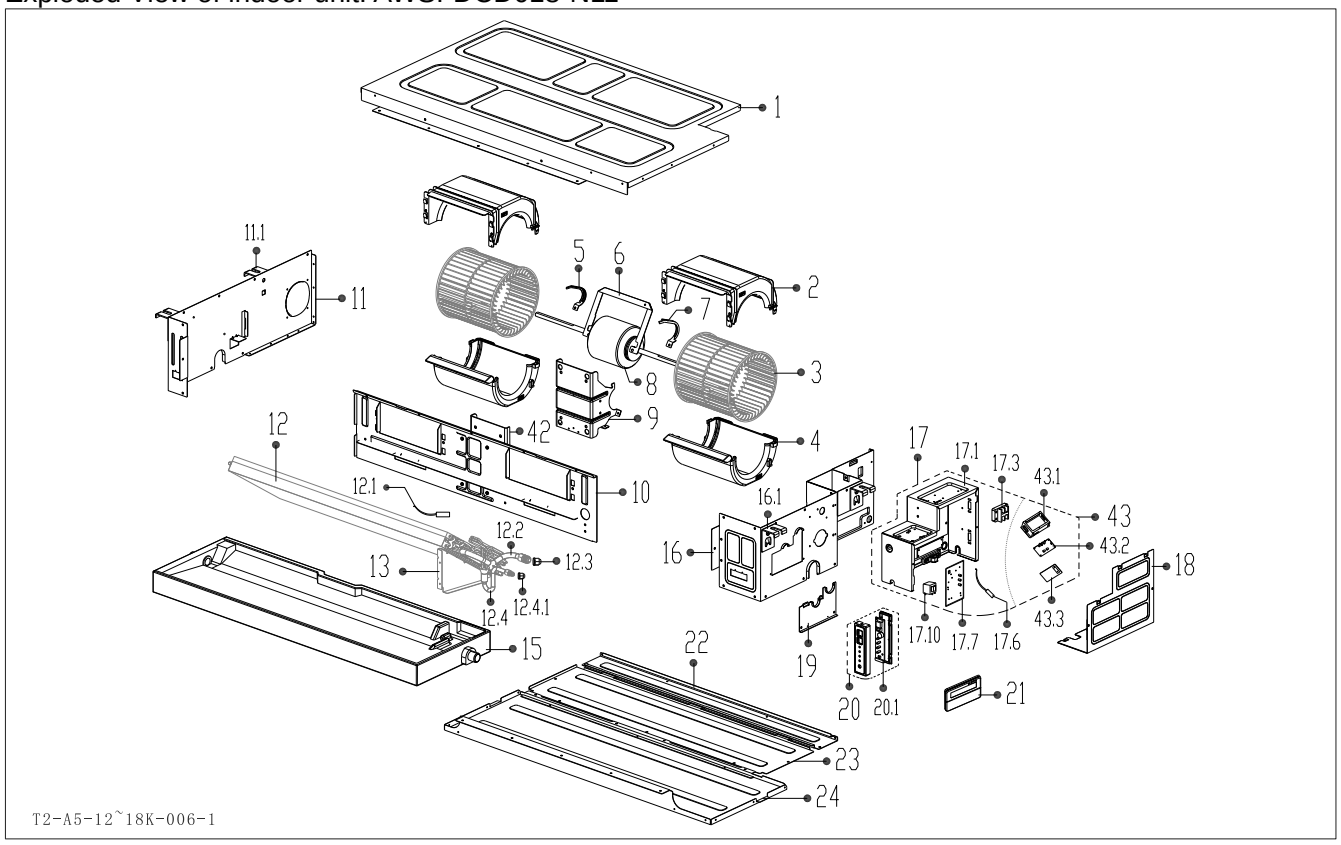
Exploded View of indoor unit: AWSI-DCD012-N11



Spare part list of indoor unit: AWSI-DCD012-N11

No.	BOM Code	Part Name	Quantity
1	201285190014	Chassis assembly	1
2	201185190001	Up volute shell	2
3	201100100809	Centrifugal fan	2
4	201185190002	Below volute shell	2
5	201280200005	Fan motor axes clamp (left)	1
6	201252490002	Fan motor fixing board	1
7	201280200006	Fan motor axes clamp (right)	1
8	202400300053	Asynchronous motor	1
9	201252290005	Supporter of fan motor	1
10	201285190002	Middle beam assembly	1
11	201270290091	Left clapboard assembly	1
11.1	201270890021	Hook	2
12	201552290012	Evaporator assembly	1
12.2	201652290013	Output pipe assembly	1
12.3	201600320001	Copper nut	1
12.4	201670190020	Input pipe assembly	1
12.4.1	201600320000	Copper nut	1
13	201270290034	Evaporator right support board assembly	1
14	202440500004	Pipe temperature sensor assembly	1
15	202285190003	Water collector	1
16	201270290090	Right clapboard assembly	1
16.1	201270890021	Hook	2
17	203370190015	Electronic control box assembly	1
17.1	201270290163	Electronic control box	1
17.3	202301450003	Wire joint	1
17.6	202301310075	Ambient temperature sensor assembly	1
17.7	201352290020	Main control board assembly	1
18	201270290081	Cover of electronic control box	1
19	201270290082	Pipe clamp board assembly	1
20	2033702A0077	Display box assembly	1
20.1	201370290012	Display board assembly	1
21	17317100A00087	Wired controller	1
22	201285190003	Rear beam	1
23	201285190004	Rear cover assembly	1
24	201285190008	Top cover assembly	1

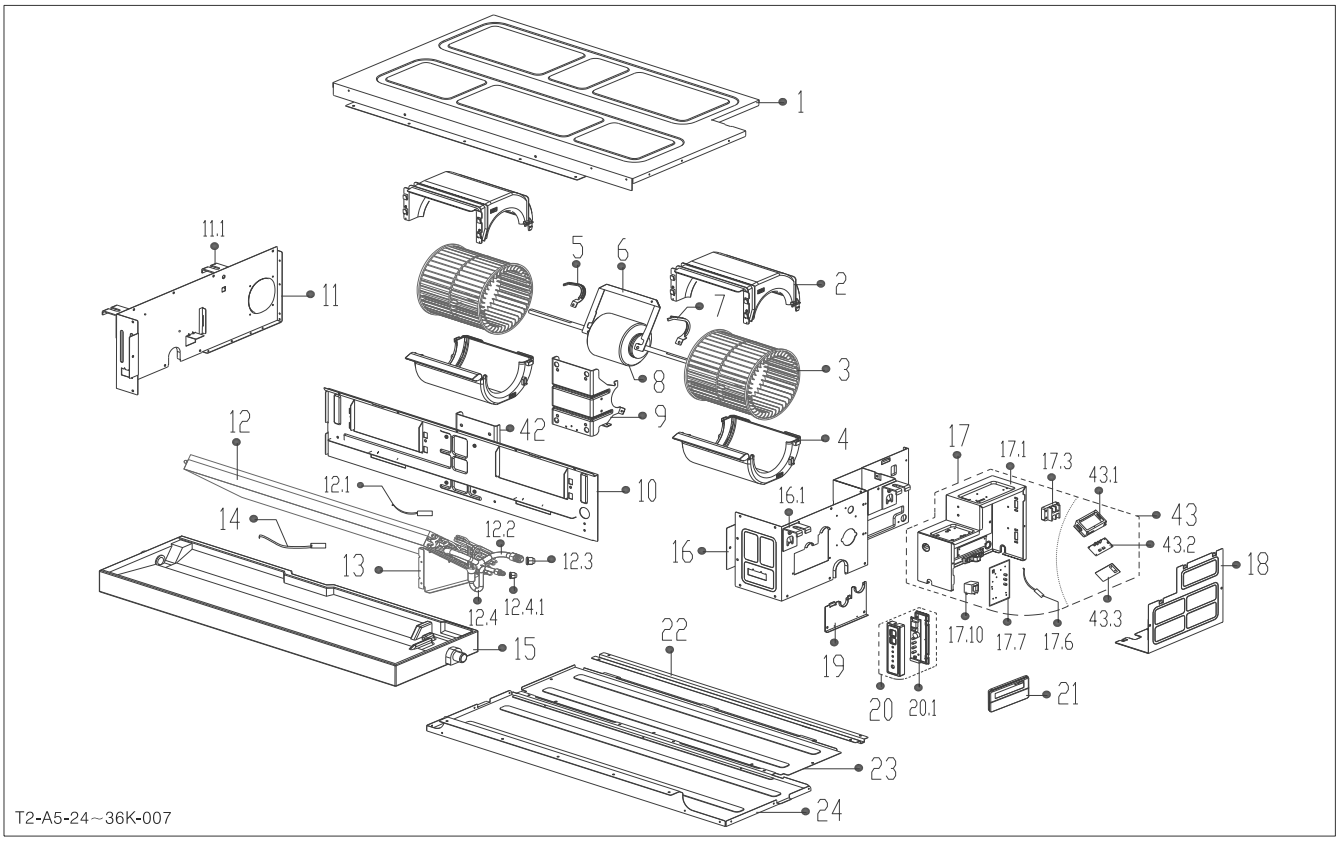
Exploded View of indoor unit: AWSI-DCD018-N11



Spare part list of indoor unit: AWSI-DCD018-N11

No.	BOM Code	Part Name	Quantity
1	201270390381	Chassis assembly	1
2	201170590004	Up volute shell	2
3	201100100807	Centrifugal fan	2
4	201170590003	Below volute shell	2
5	201280200005	Fan motor axes clamp (left)	1
6	201270290101	Fan motor fixing board	1
7	201280200006	Fan motor axes clamp (right)	1
8	202400300070	Asynchronous motor	1
9	201270290100	Supporter of fan motor	1
10	201270390312	Middle beam assembly	1
11	201270390384	Left clapboard assembly	1
11.1	201270890021	Hook	2
12	201570290053	Evaporator assembly	1
12.1	202440500004	Pipe temperature sensor assembly	1
12.2	201670290116	Output pipe assembly	1
12.3	201600320002	Copper nut	1
12.4	201670290118	Input pipe assembly	1
12.4.1	201600320000	Copper nut	1
13	201270390313	Evaporator right support board assembly	1
14	202301300804	Pipe temperature sensor assembly	1
15	202270290004	Water collector	1
16	201270390383	Right clapboard assembly	1
16.1	201270890021	Hook	2
17	203370390078	Electronic control box assembly	1
17.1	201270590384	Electronic control box	1
17.3	202301450042	Wire joint	1
17.6	202301310072	Ambient temperature sensor assembly	1
17.7	201370390064	Main control board assembly	1
17.10	202301000950	Reactor	1
18	201270590100	Cover of electronic control box	1
19	201270290082	Pipe clamp board assembly	1
20	2033702A0077	Display box assembly	1
20.1	201370290012	Display board assembly	1
21	17317100A00087	Wired controller	1
22	201270390314	Rear beam	1
23	201270390385	Rear cover assembly	1
24	201270290078	Top cover assembly	1
42	201270390379	Fan motor fixing base	1
43	203319900796	Electronic control box assembly	1
43.1	201270590340	Electronic control box	1
43.2	201319903060	Inverter control board assembly	1
43.3	202301900138	Radiator	1

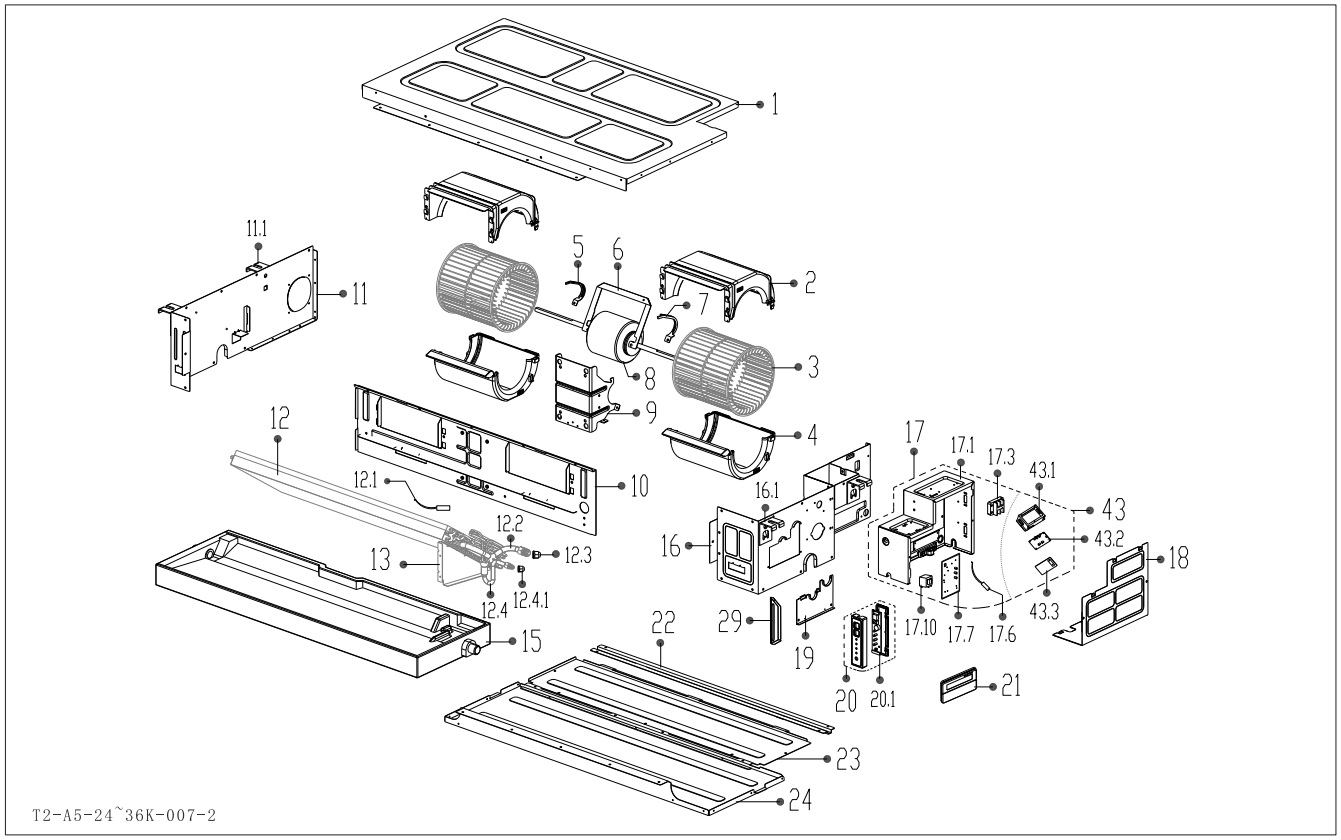
Exploded View of indoor unit: AWSI-DCD024-N11



Spare part list of indoor unit:AWSI-DCD024-N11

No.	BOM Code	Part Name	Quantity
1	201270390381	Chassis assembly	1
2	201170590004	Up volute shell	2
3	201100100807	Centrifugal fan	2
4	201170590003	Below volute shell	2
5	201280200005	Fan motor axes clamp (left)	1
6	201270290101	Fan motor fixing board	1
7	201280200006	Fan motor axes clamp (right)	1
8	202400300070	Asynchronous motor	1
9	201270290100	Supporter of fan motor	1
10	201270390312	Middle beam assembly	1
11	201270390384	Left clapboard assembly	1
11.1	201270890021	Hook	2
12	201570390029	Evaporator assembly	1
12.1	202440500004	Pipe temperature sensor assembly	1
12.2	201670390138	Output pipe assembly	1
12.3	201600320003	Copper nut	1
12.4	201670390130	Input pipe assembly	1
12.4.1	201600320001	Copper nut	1
13	201270390313	Evaporator right support board assembly	1
14	202301300804	Pipe temperature sensor assembly	1
15	202270290004	Water collector	1
16	201270390383	Right clapboard assembly	1
16.1	201270890021	Hook	2
17	203370390078	Electronic control box assembly	1
17.1	201270590384	Electronic control box	1
17.3	202301450042	Wire joint	1
17.6	202301310072	Ambient temperature sensor assembly	1
17.7	201370390064	Main control board assembly	1
17.10	202301000950	Reactor	1
18	201270590100	Cover of electronic control box	1
19	201270290082	Pipe clamp board assembly	1
20	2033702A0077	Display box assembly	1
20.1	201370290012	Display board assembly	1
21	17317100A00087	Wired controller	1
22	201270390314	Rear beam	1
23	201270390315	Rear cover assembly	1
24	201270290078	Top cover assembly	1
42	201270390379	Fan motor fixing base	1
43	203319900796	Electronic control box assembly	1
43.1	201270590340	Electronic control box	1
43.2	201319903060	Inverter control board assembly	1
43.3	202301900138	Radiator	1
	202400600005	Drain pump	1
	201270290085	Holder of drain pump	1
	202301310051	Liquid level sensor assembly	1
	201270390316	Flange	1
	201170290011	Air filter	1

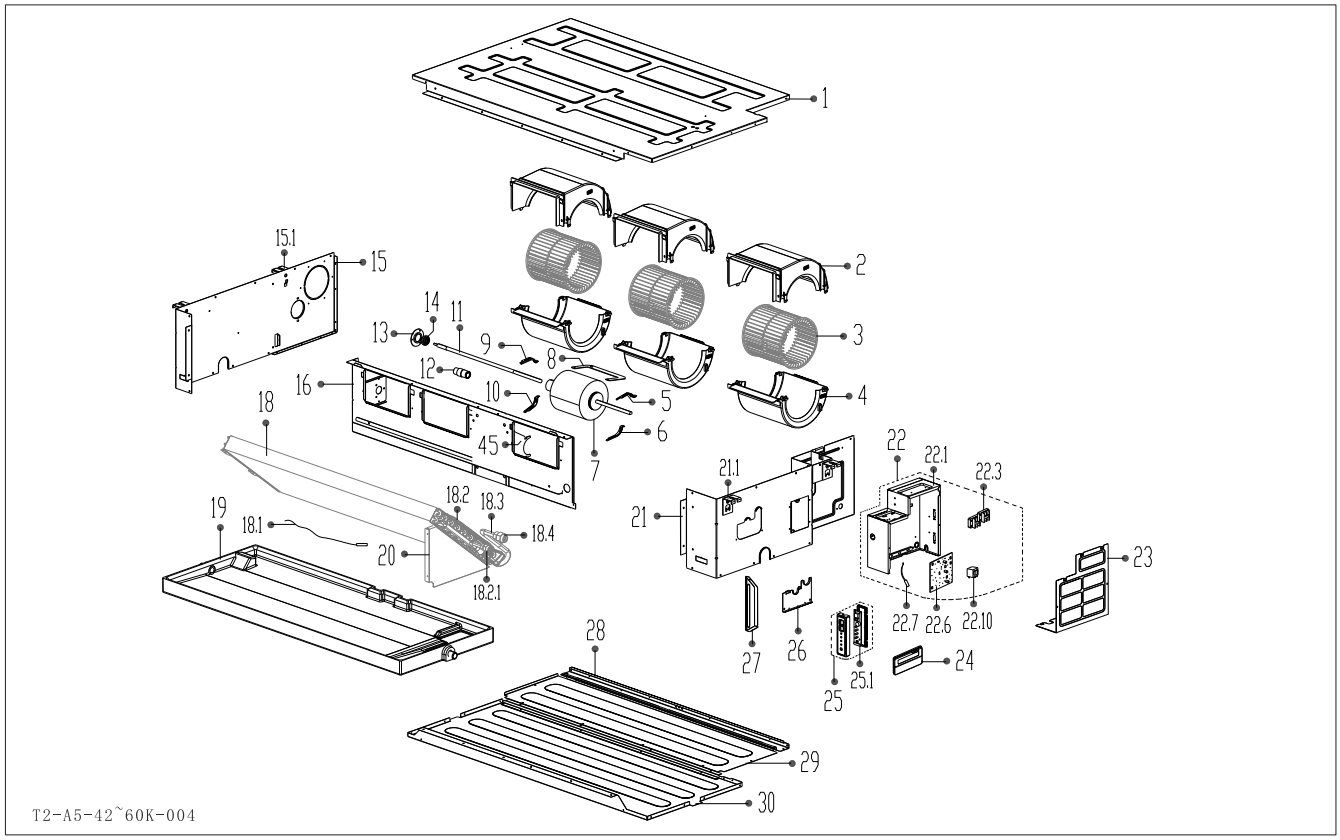
Exploded View of indoor unit:AWSI-DCD030-N11



Spare part list of indoor unit: AWSI-DCD030-N11

No.	BOM Code	Part Name	Quantity
1	201270590299	Chassis assembly	1
2	201170590004	Up volute shell	2
3	201100100807	Centrifugal fan	2
4	201170590003	Below volute shell	2
5	201280200005	Fan motor axes clamp (left)	1
6	201270290101	Fan motor fixing board	1
7	201280200006	Fan motor axes clamp (right)	1
8	202400300510	Asynchronous motor	1
9	201270290100	Supporter of fan motor	1
10	201270590298	Middle beam assembly	1
11	201270590302	Left clapboard assembly	1
11.1	201270890021	Hook	2
12	201570590113	Evaporator assembly	1
12.1	202301300804	Pipe temperature sensor assembly	1
12.1	202440500004	Pipe temperature sensor assembly	1
12.2	201670590265	Output pipe assembly	1
12.3	201600320003	Copper nut	1
12.4	201670590266	Input pipe assembly	1
12.4.1	201600320001	Copper nut	1
13	201270590181	Evaporator right support board assembly	1
15	202270590004	Water collector	1
16	201270590301	Right clapboard assembly	1
16.1	201270890021	Hook	2
17	203370390078	Electronic control box assembly	1
17.1	201270590384	Electronic control box	1
17.3	202301450042	Wire joint	1
17.6	202301310072	Ambient temperature sensor assembly	1
17.7	201370390064	Main control board assembly	1
17.10	202301000950	Reactor	1
18	201270590100	Cover of electronic control box	1
19	201270290082	Pipe clamp board assembly	1
20	2033702A0077	Display box assembly	1
20.1	201370290012	Display board assembly	1
21	17317100A00087	Wired controller	1
22	201270590183	Rear beam	1
23	201270590184	Rear cover assembly	1
24	201270590272	Top cover assembly	1
29	201270590176	Right clapboard strengthen board	1
43	203319900794	Electronic control box assembly	1
43.1	201270590340	Electronic control box	1
43.2	201319903054	Inverter control board assembly	1
43.3	202301900138	Radiator	1
	202400600005	Drain pump	1
	201270290085	Holder of drain pump	1
	202301310051	Liquid level sensor assembly	1
	201270590185	Flange	1
	201170590006	Air filter	1

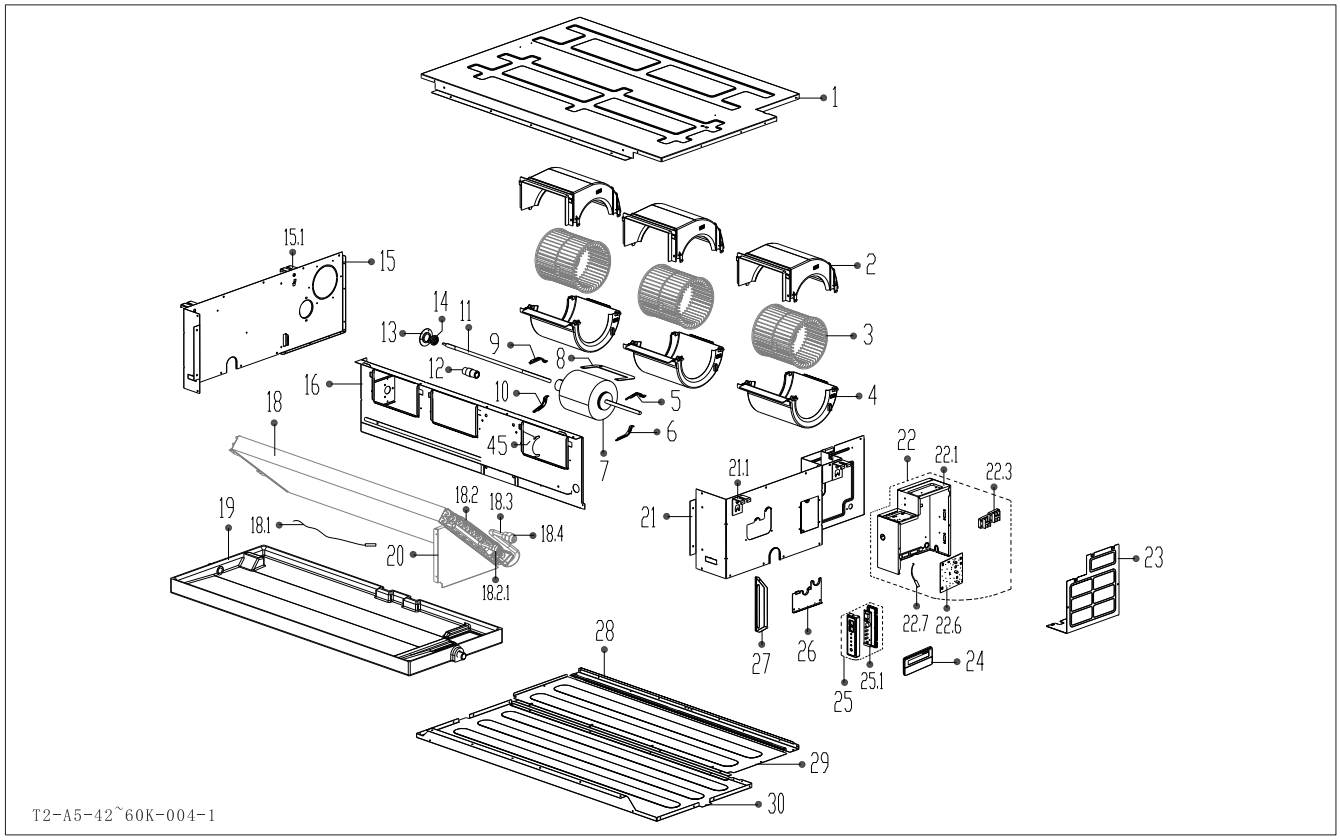
Exploded View of indoor unit:AWSI-DCD036-N11



Spare part list of indoor unit: AWSI-DCD036-N11

No.	BOM Code	Part Name	Quantity
1	201270790180	Chassis assembly	1
2	201170590004	Up volute shell	3
3	201100100807	Centrifugal fan	3
4	201170590003	Below volute shell	3
5	201286000008	Fan motor top fixing clamp (right)	1
6	201286000053	Fan motor below fixing clamp (right)	1
7	202400300055	Asynchronous motor	1
8	201270790176	Fan motor fixing board	1
9	201286000007	Fan motor top fixing clamp (left)	1
10	201286000052	Fan motor below fixing clamp (left)	1
11	202501180006	Connecting shaft	1
12	202970790001	Coupling	1
13	201287000011	Bearing Fixing board	1
14	202732400001	Bearing base	1
15	201270790183	Left clapboard assembly	1
15.1	201270890021	Hook	2
16	201270790178	Middle beam assembly	1
18	201570790050	Evaporator assembly	1
18.1	202301300804	Pipe temperature sensor assembly	1
18.1	202440500004	Pipe temperature sensor assembly	1
18.2	201670790142	Input pipe assembly	1
18.2.1	201600320001	Copper nut	1
18.3	201670790225	Output pipe assembly	1
18.4	201600320003	Copper nut	1
19	202270990001	Water collector	1
20	201270790134	Evaporator right support board assembly	1
21	201270790182	Right clapboard assembly	1
21.1	201270890021	Hook	2
22	203370390078	Electronic control box assembly	1
22.1	201270590384	Electronic control box	1
22.3	202301450042	Wire joint	1
22.6	201370390064	Main control board assembly	1
22.7	202301310072	Ambient temperature sensor assembly	1
22.10	202301000950	Reactor	1
23	201270590100	Cover of electronic control box	1
24	17317100A00087	Wired controller	1
25	2033702A0077	Display box assembly	1
25.1	201370290012	Display board assembly	1
26	201270290082	Pipe clamp board assembly	1
27	201270790042	Right clapboard strengthen board	1
28	201270790179	Rear beam assembly	1
29	201270790136	Rear cover assembly	1
30	201270790135	Top cover assembly	1
45	201270790177	Supporter assembly of fan motor	1
	202400600005	Drain pump	1
	201270290085	Holder of drain pump	1
	202301310051	Liquid level sensor assembly	1
	201270790137	Flange	1
	201170790007	Air filter	1

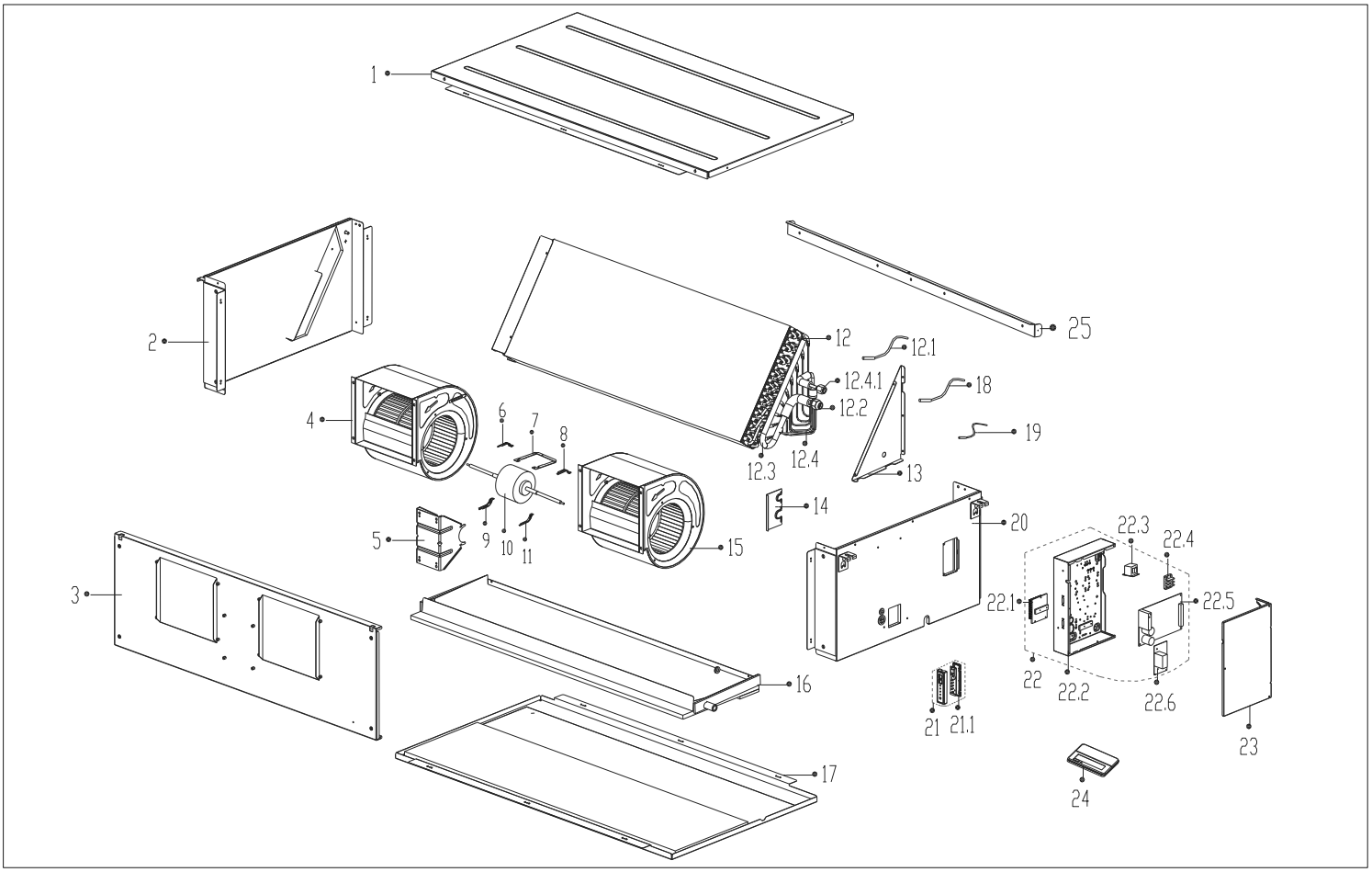
Exploded View of indoor unit:AWSI-DCD048-N11



Spare part list of indoor unit: AWSI-DCD048-N11

No.	BOM Code	Part Name	Quantity
1	201270790180	Chassis assembly	1
2	201170590004	Up volute shell	3
3	201100100807	Centrifugal fan	3
4	201170590003	Below volute shell	3
5	201286000008	Fan motor top fixing clamp (right)	1
6	201286000053	Fan motor below fixing clamp (right)	1
7	202400300055	Asynchronous motor	1
8	201270790176	Fan motor fixing board	1
9	201286000007	Fan motor top fixing clamp (left)	1
10	201286000052	Fan motor below fixing clamp (left)	1
11	202501180006	Connecting shaft	1
12	202970790001	Coupling	1
13	201287000011	Bearing Fixing board	1
14	202732400001	Bearing base	1
15	201270790183	Left clapboard assembly	1
15.1	201270890021	Hook	2
16	201270790178	Middle beam assembly	1
18	201570790050	Evaporator assembly	1
18.1	202301300804	Pipe temperature sensor assembly	1
18.1	202440500004	Pipe temperature sensor assembly	1
18.2	201670790142	Input pipe assembly	1
18.2.1	201600320001	Copper nut	1
18.3	201670790225	Output pipe assembly	1
18.4	201600320003	Copper nut	1
19	202270990001	Water collector	1
20	201270790134	Evaporator right support board assembly	1
21	201270790182	Right clapboard assembly	1
21.1	201270890021	Hook	2
22	203370390080	Electronic control box assembly	1
22.1	201270590384	Electronic control box	1
22.3	202301450042	Wire joint	1
22.6	201370390071	Main control board assembly	1
22.7	202301310072	Ambient temperature sensor assembly	1
23	201270590100	Cover of electronic control box	1
24	17317100A00087	Wired controller	1
25	2033702A0077	Display box assembly	1
25.1	201370290012	Display board assembly	1
26	201270290082	Pipe clamp board assembly	1
27	201270790042	Right clapboard strengthen board	1
28	201270790179	Rear beam assembly	1
29	201270790136	Rear cover assembly	1
30	201270790135	Top cover assembly	1
45	201270790177	Supporter assembly of fan motor	1
	202400600005	Drain pump	1
	201270290085	Holder of drain pump	1
	202301310051	Liquid level sensor assembly	1
	201270790137	Flange	1
	201170790007	Air filter	1

Exploded View of indoor unit:AWSI-DCD060-N11



Spare part list of indoor unit: AWSI-DCD060-N11

No.	BOM Code	Part Name	Quantity
1	201270890273	Top cover assembly	1
2	2012708A0063	Left clapboard assembly	1
3	201270890265	Front clapboard assembly	1
4	201200300873	Left fan assembly	1
5	201270790177	Supporter of fan motor	1
6	201286000007	Fan motor top fixing clamp (left)	1
7	201270790176	Fan motor fixing board	1
8	201286000008	Fan motor top fixing clamp (right)	1
9	201286000052	Fan motor below fixing clamp (left)	1
10	202400300511	Brushless DC motor	1
11	201286000053	Fan motor below fixing clamp (right)	1
12	2015708A0038	Evaporator assembly	1
12.1	202301300111	Pipe temperature sensor	1
12.1	202301300804	Pipe temperature sensor	1
12.2	201600320004	Copper nut	1
12.3	201670890312	Output pipe assembly	1
12.4	201670890318	Input pipe assembly	1
12.4.1	201600320001	Copper nut	1
13	2012708A0065	Right supporter of evaporator	1
14	201270390441	Cover board assembly	1
15	201200300874	Right fan assembly	1
16	2022708A0001	Water collector	1
17	2012708A0069	Chassis assembly	1
18	202301300197	Ambient temperature sensor assembly	1
19	202301300111	Pipe temperature sensor	1
20	2012708A0061	Right clapboard assembly	1
21	2033702A0077	Display box assembly	1
21.1	201370290012	Display board assembly	1
22	203370790049	Electronic control box assembly	1
22.1	202301901195	Radiator	1
22.2	201270890279	Electronic control box	1
22.3	202301000950	Reactance	1
22.4	202301400215	Wire joint	1
22.5	201370790020	Main control board assembly	1
22.6	201319903058	Inverter control board assembly	1
23	201270890254	Cover of electronic control box	1
24	17317100A00087	Wired controller	1
25	201270890278	Flange board	4
	202400600005	Drain pump	1
	201270290085	Holder of drain pump	1
	202301310051	Liquid level sensor assembly	1
	2011708A0001	Air filter	1

Ceiling & Floor Type

1. Features

1.1. New design, more modern and elegant appearance.

1.2. Convenient installation

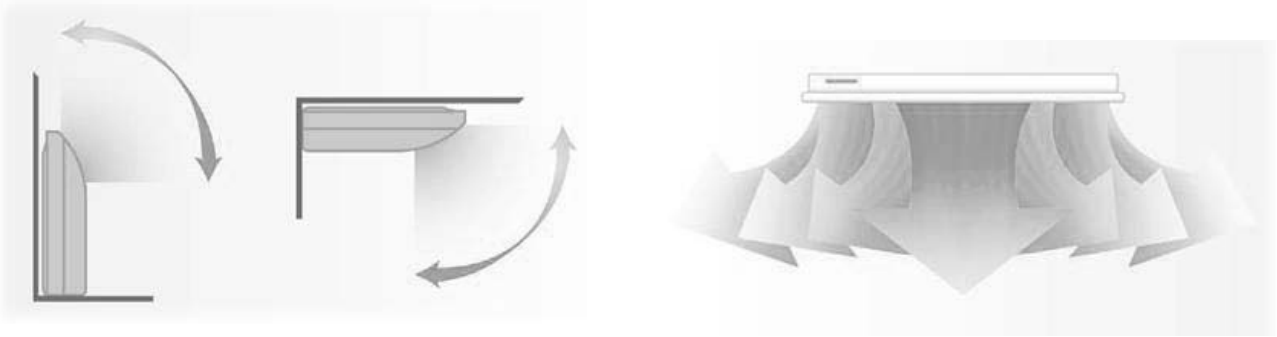
--The ceiling type can be easily installed into a corner of the ceiling even if the ceiling is very narrow

--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,

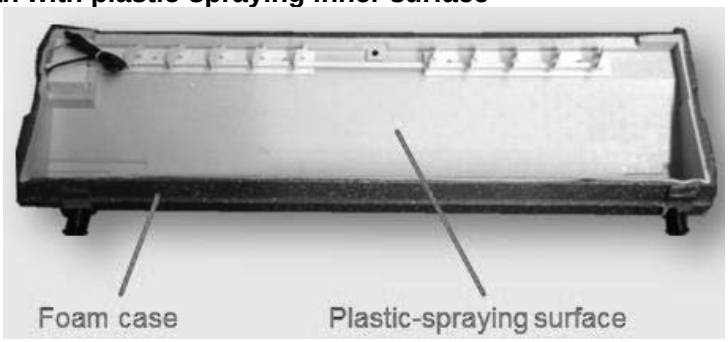
--Air flow directional control minimizes the air resistance and produces wilder air flow to vertical direction.

--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.

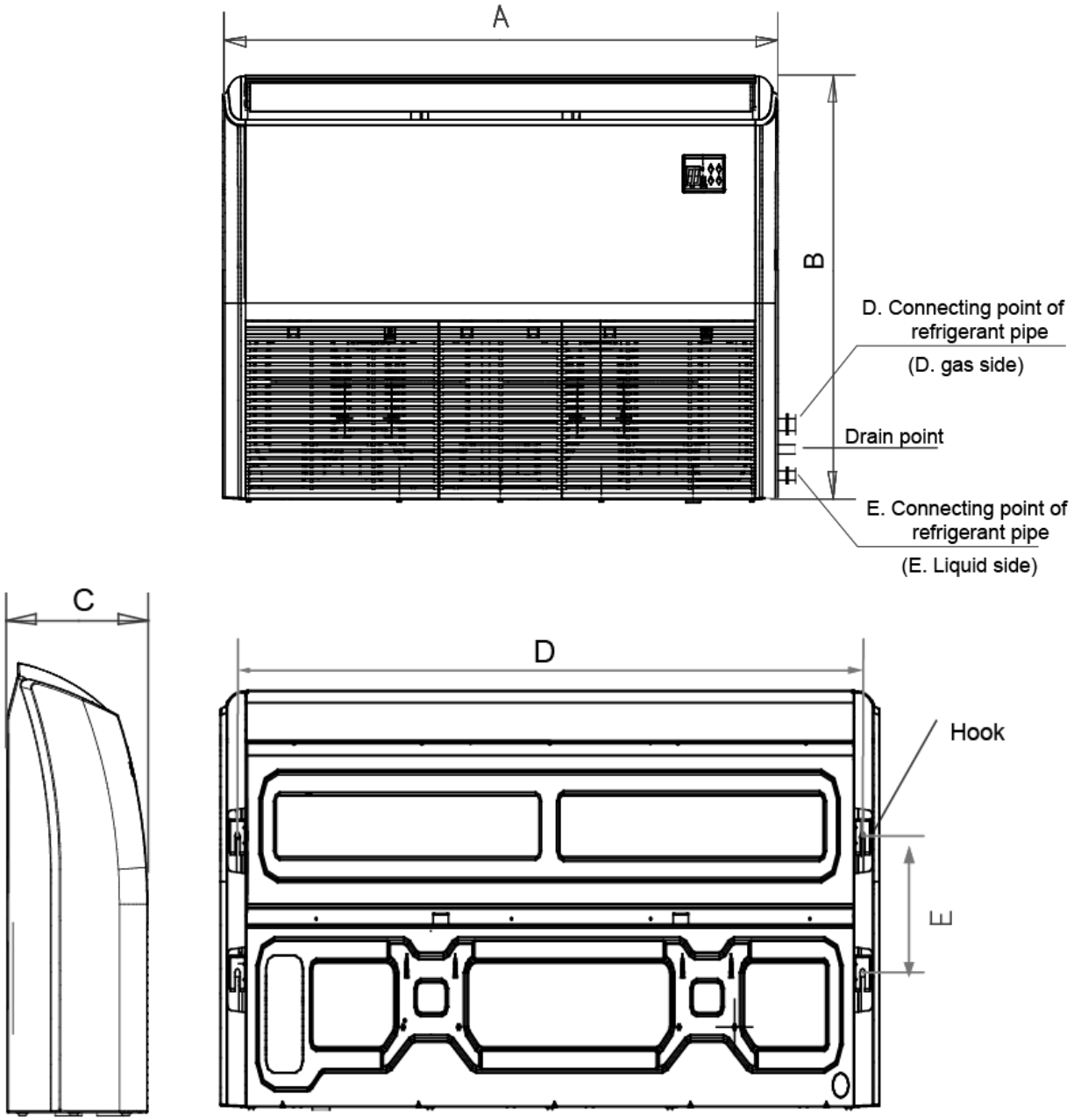
1.5. New foam drain pan with plastic-spraying inner surface



1.6. Easy operation.

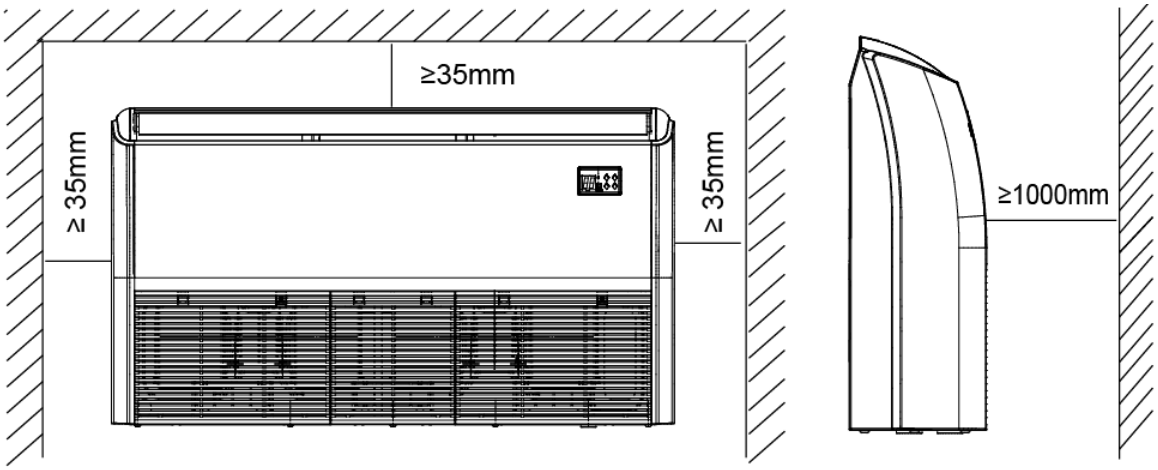
1.7. Remote control and optional wired control method.

2. Dimensions



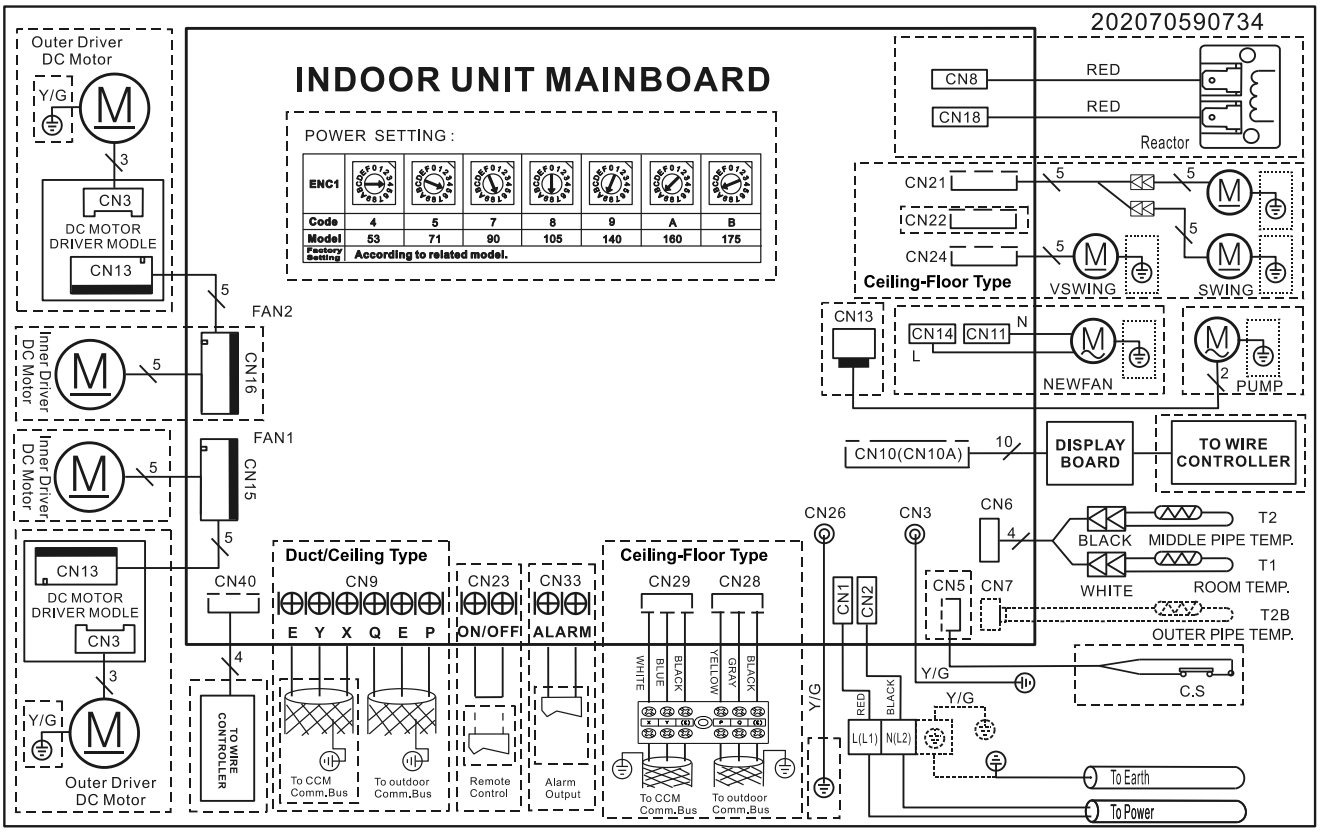
Model	A	B	C	D	E
AWSI-FBD018-N11 AWSI-FWDB018-N11	1068	675	235	983	220
AWSI-FBD024-N11 AWSI-FWDB024-N11	1068	675	235	983	220
AWSI-FBD030-N11	1285	675	235	1200	220
AWSI-FBD036-N11	1285	675	235	1200	220
AWSI-FBD048-N11	1650	675	235	1565	220

3. Service Space

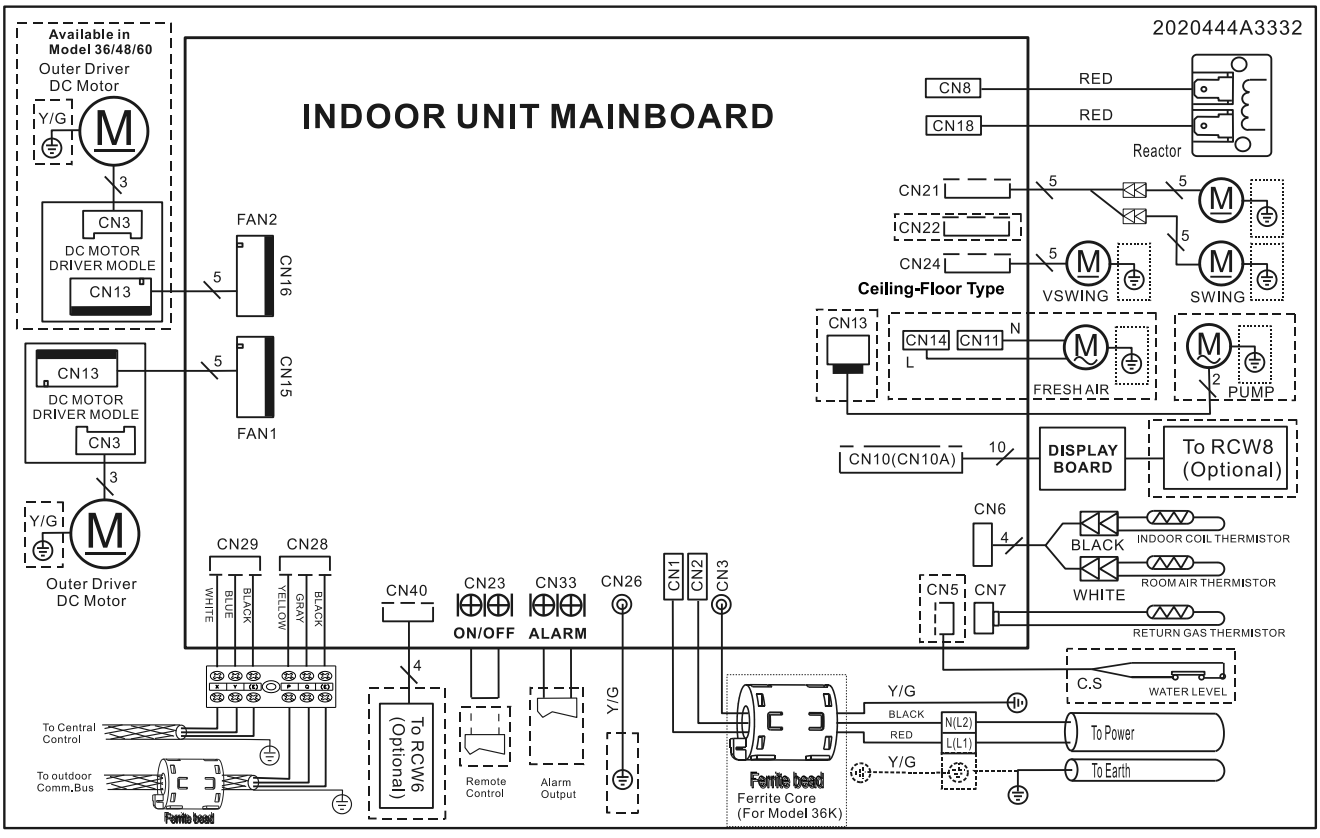


4. Wiring Diagrams

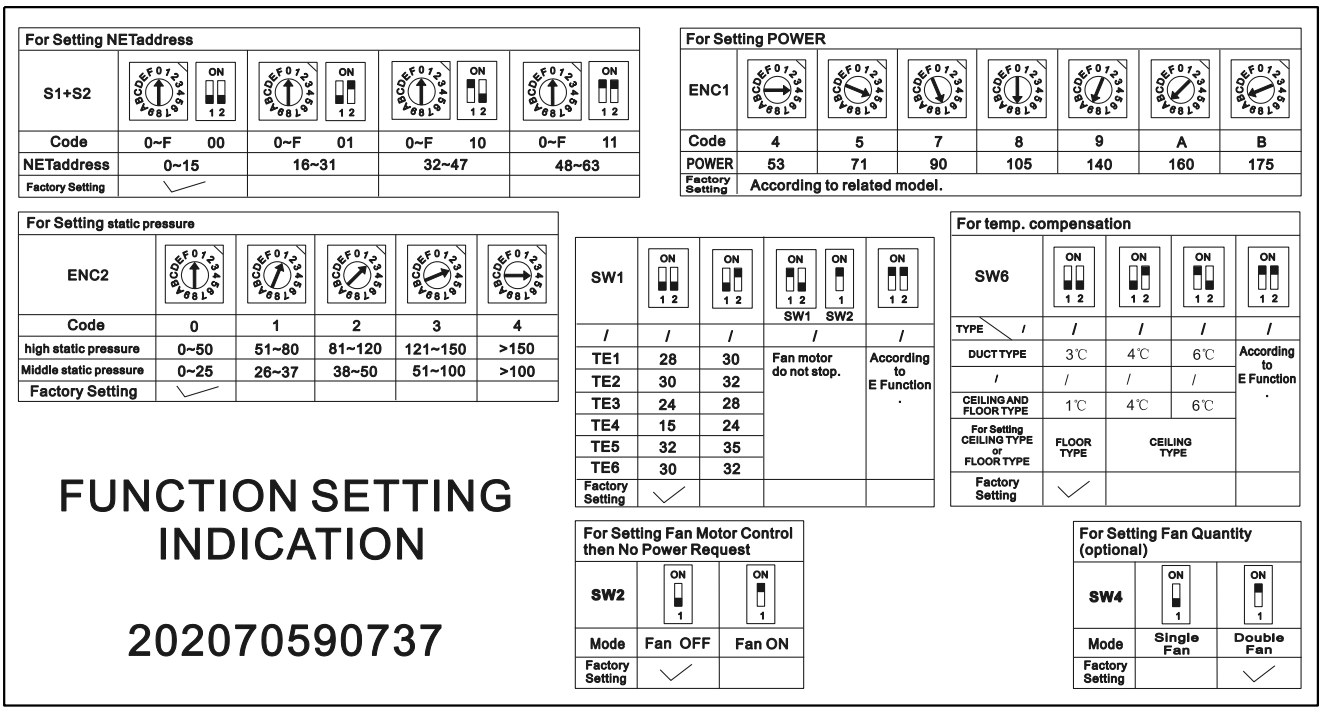
AWSI-FBD018-N11



AWSI-FBD024-N11 AWSI-FBD030-N11 AWSI-FBD036-N11 AWSI-FBD048-N11



AWSI-FBD018-N11



AWSI-FBD024-N11 AWSI-FBD030-N11 AWSI-FBD036-N11 AWSI-FBD048-N11

2020705A2812

FUNCTION SETTING INDICATION

ENC1	Capacity (Model)
0~4	Reserved
5	24
6	Reserved
7	30
8	36
9	48
A	60

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

SW1-1	SW1-2	Anti Cold Air Setting
OFF	OFF	Fan OFF when ICT＜15
OFF	ON	Fan OFF when ICT＜24
ON	OFF	Fan always working
ON	ON	Reserved

SW6-1	SW6-2	Temp. Compensation (Heating)
OFF	OFF	1(Default, Floor)
OFF	ON	4 (Ceiling)
ON	OFF	6 (Ceiling)
ON	ON	Reserved

SW2	Fan Status When Thermo-OFF
OFF	FAN OFF (Default)
ON	FAN ON

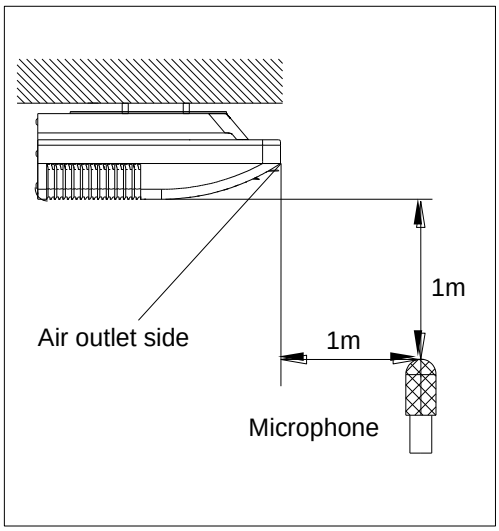
SW4	Indoor Fan Qty.
OFF	Single Fan
ON	Double Fan (Default)

5. Electric Characteristics

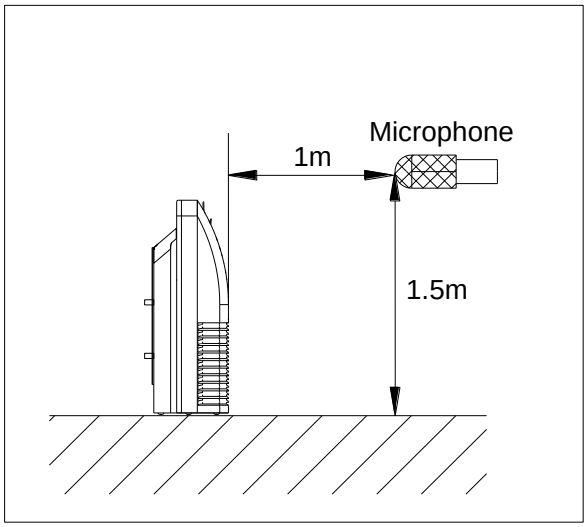
Model	Indoor Units				Power Supply
	Hz	Voltage	Min.	Max.	MFA
AWSI-FBD018-N11 AWSI-FWDB018-N11	50	220-240	198	254	10
AWSI-FBD024-N11 AWSI-FWDB024-N11	50	220-240	198	254	10
AWSI-FBD030-N11	50	220-240	198	254	10
AWSI-FBD036-N11	50	220-240	198	254	10
AWSI-FBD048-N11	50	220-240	198	254	10

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

6. Sound Levels



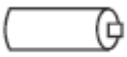
Ceiling



Floor

Model	Sound Power dB (A)	Noise level dB(A)		
		H	M	L
AWSI-FBD018-N11 AWSI-FWDB018-N11	60	44	41	38
AWSI-FBD024-N11 AWSI-FWDB024-N11	63	52	50	46
AWSI-FBD030-N11	64	53	50	46
AWSI-FBD036-N11	65	52	49	43
AWSI-FBD048-N11	68	57	54	51

7. Accessories

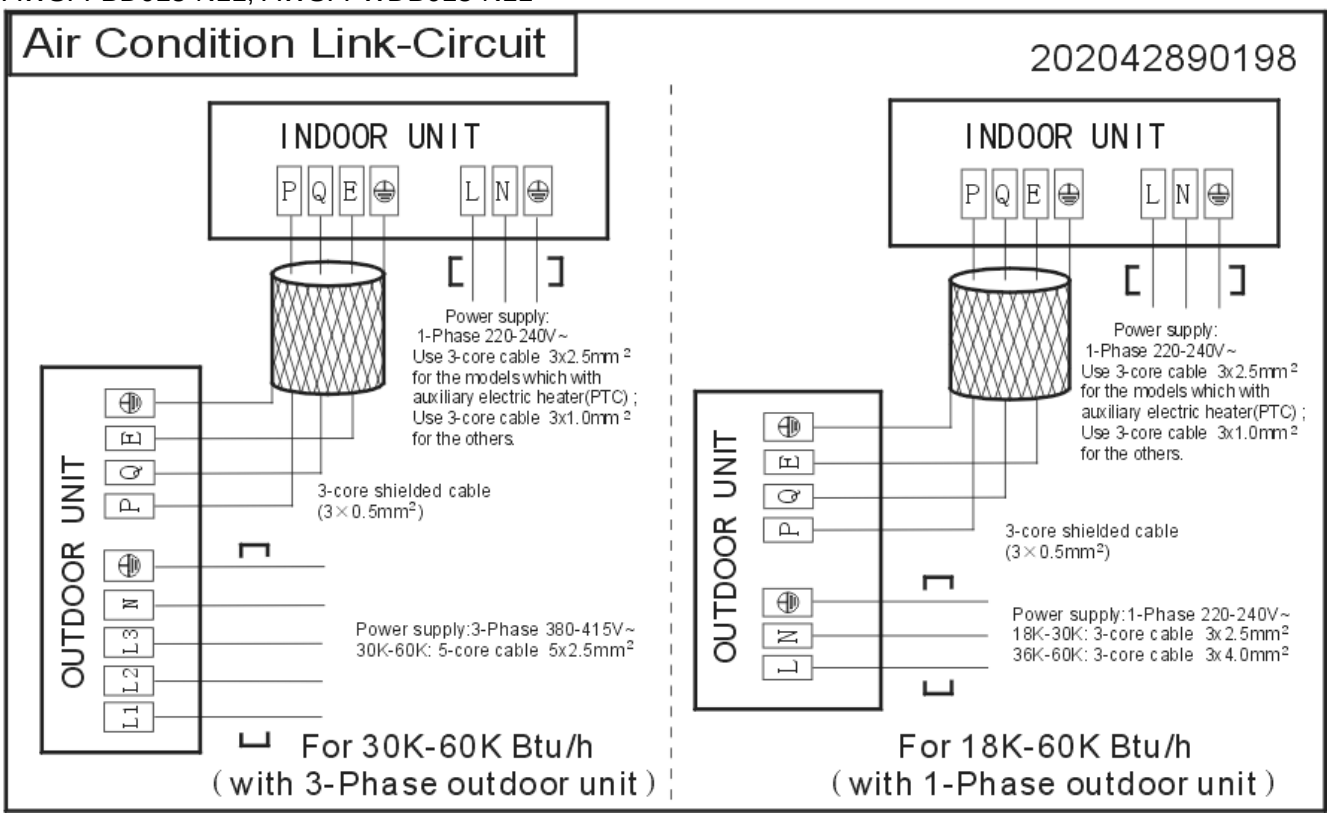
	Name	Shape	Quantity
Remote controller & Its holder(The product you have might not be provided the following accessories)	1. Remote controller		1
	2. Remote controller holder		1
	3. Mounting screw (ST2.9×10-C-H)		2
	4. Alkaline dry batteries (AM4)		2
Others	5. Owner's manual	——	1
	6. Installation manual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

8. The Specification of Power

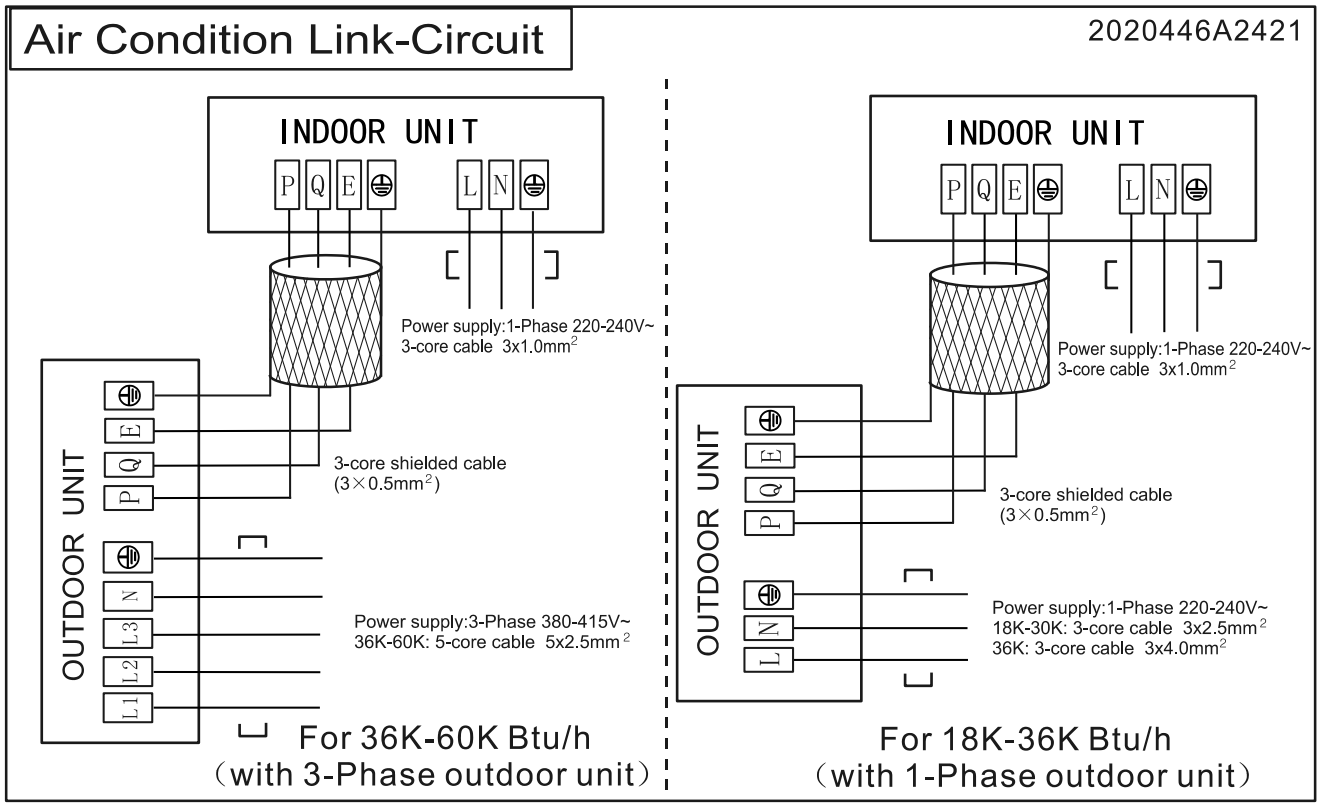
Capacity(Btu/h)		18000	24000	30000	36000	36000	48000
Indoor Unit Power	Phase	1-phase	1-phase	1-phase	1-phase	1-phase	1-phase
	Frequency and Voltage	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz
	Power Wiring(mm^2)	3×1.0	3×1.0	3×1.0	3×1.0	3×1.0	3×1.0
	Circuit Breaker/ Fuse (A)	15/10	15/10	15/10	15/10	15/10	15/10
Outdoor Unit Power	Phase	1-phase	1-phase	1-phase	1-phase	3-phase	3-phase
	Frequency and Voltage	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz	380-415V, 50Hz	380-415V, 50Hz
	Power Wiring(mm^2)	3×2.5	3×2.5	3×2.5	3×4.0	5×2.5	5×2.5
	Circuit Breaker/ Fuse (A)	20/16	30/20	40/30	40/30	30/20	30/25
Indoor/Outdoor Connecting Wiring(Weak Electric Signal) (mm^2)		3×0.5	3×0.5	3×0.5	3×0.5	3×0.5	3×0.5
Indoor/Outdoor Connecting Wiring(Strong Electric Signal) (mm^2)		——	——	——	——	——	——

9. Field Wiring

AWSI-FBD018-N11, AWSI-FWDB018-N11

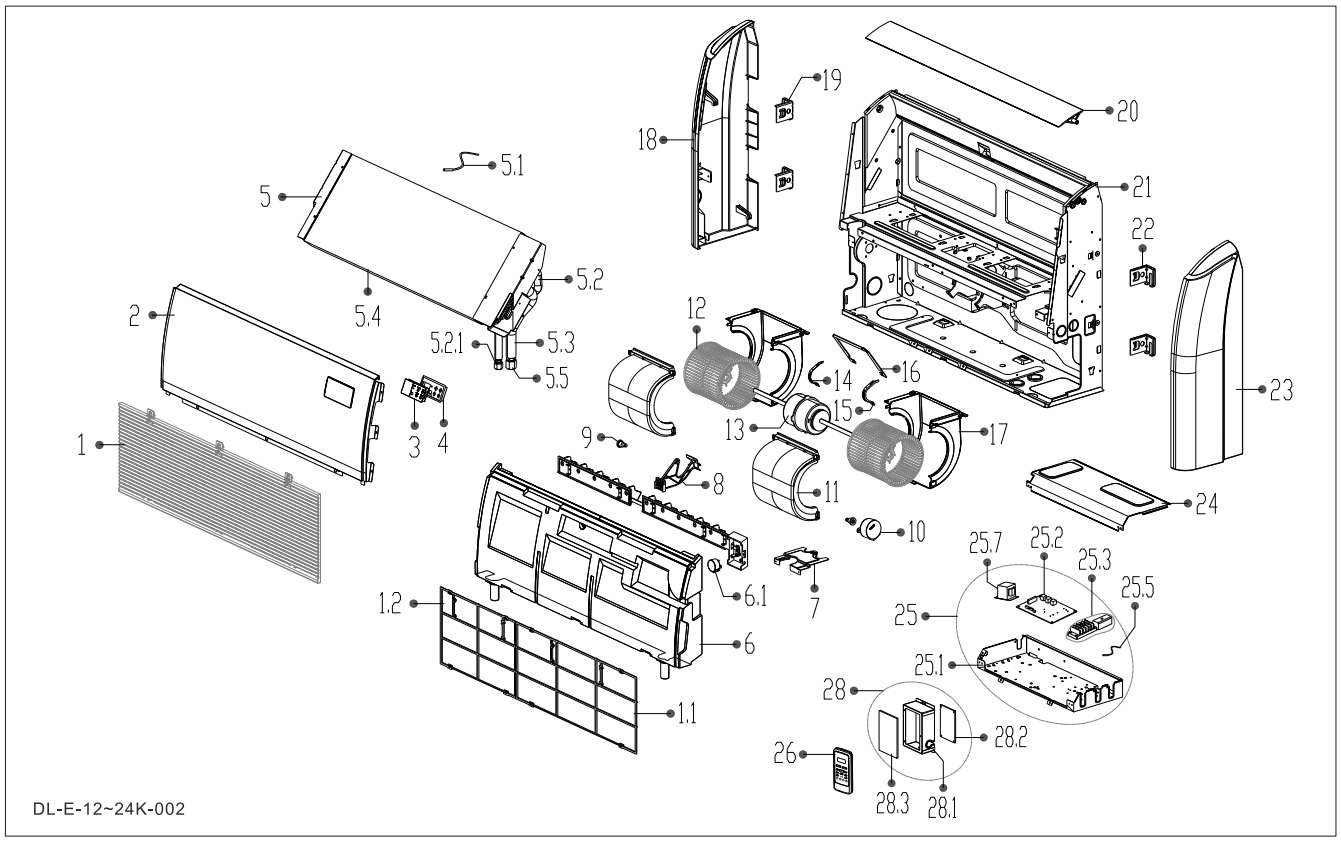


AWSI-FBD024-N11 AWSI-FBD030-N11 AWSI-FBD036-N11 AWSI-FBD048-N11
AWSI-FWDB024-N11



10. Exploded View and Spare Part list

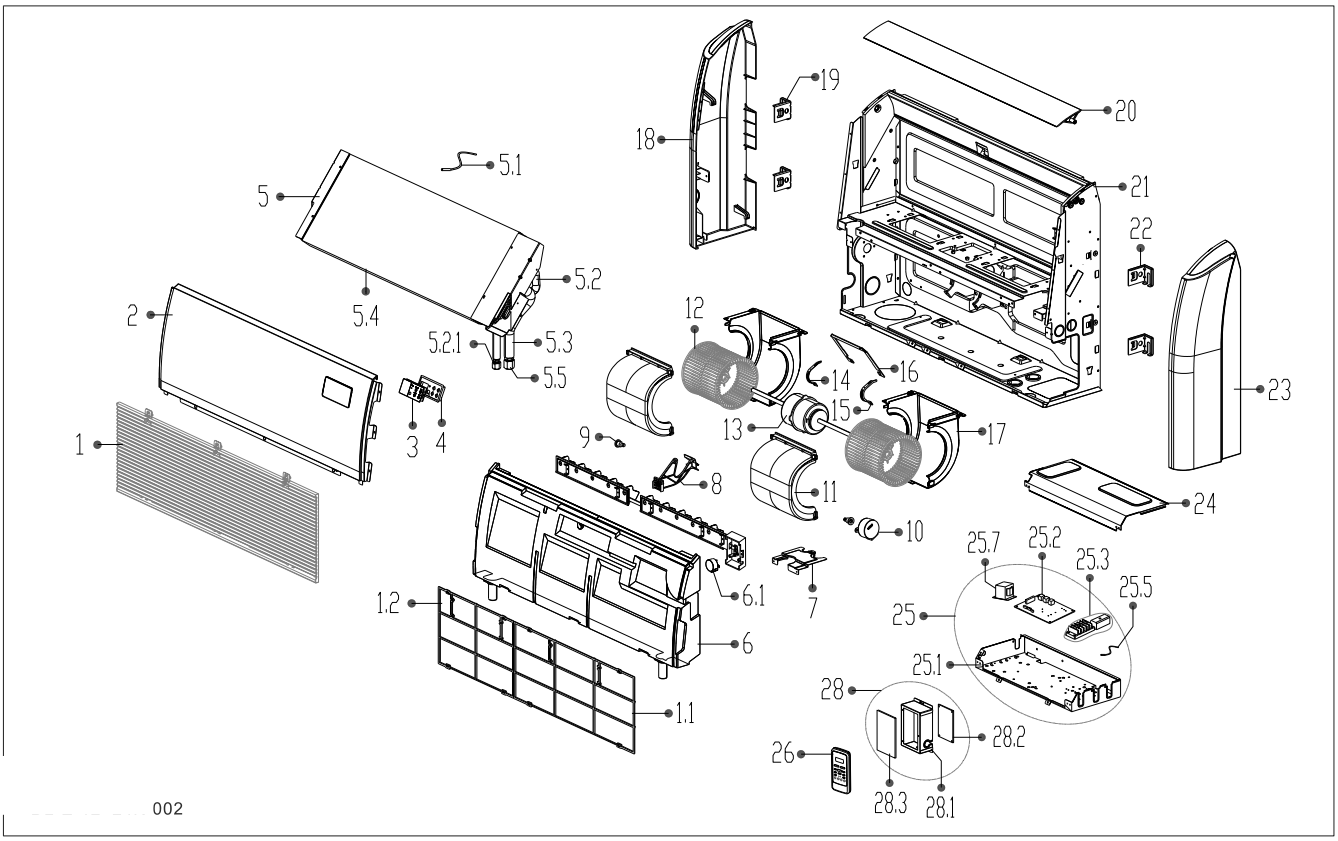
Exploded View of indoor unit: AWSI-FBD018-N11



Spare part list of indoor unit: AWSI-FBD018-N11

No.	BOM Code	Part Name	Quantity
1	201144290054	Air inlet grille assembly I	1
1.1	201144790024	Air filter I	1
1.2	201144790023	Air filter II	1
2	2012442A0012	Top cover assembly	1
3	2013447A0064	Display board assembly	1
4	2011447A0009	Display installation box	1
5	201544190036	Evaporator assembly	1
5.1	202301300804	Pipe temperature sensor assembly	1
5.1	202301300111	Pipe temperature sensor assembly	1
5.2	201644190055	Input pipe assembly	1
5.2.1	201600320000	Copper nut	1
5.3	201644190053	Output pipe assembly	1
5.4	201544290182	Evaporator	1
5.5	201600320002	Copper nut	1
6	202244290014	Water collector	1
6.1	202400200100	Louver motor (vertical)	1
7	201244790047	Pipe clamp board	1
8	201144790018	Supporter of louver	1
9	201132590888	Insulated axis	2
10	202400200162	Louver motor	1
11	201144690032	Volute shell (above)	2
12	201144690083	Centrifugal fan	2
13	202400300447	Asynchronous motor	1
14	201280200006	Fan motor axes clamp (right)	1
15	201280200005	Fan motor axes clamp (left)	1
16	201252490002	Fan motor fixing board	1
17	201144690033	Volute shell (below)	2
18	201144790017	Right cover	1
19	201244790033	Right hook	2
20	201144290056	Louver	1
21	201244290053	Chassis assembly	1
22	201244790034	Left hook	2
23	201144790019	Left cover	1
24	201244490048	Cover of electronic control box	1
25	203344290030	Electronic control box assembly	1
25.1	201244790050	Electronic control box	1
25.2	201344290050	Main control board assembly	1
25.3	202301450042	Wire joint	1
25.3	202301450125	Wire joint	1
25.5	202301310072	Ambient temperature sensor assembly	1
25.7	202301000950	Reactance	1
26	203355091552	Remote controller	1
28	203319900795	Electronic control box assembly	1
28.1	201270590340	Electronic control box	1
28.2	201319903056	Inverter control board assembly	1
28.3	202301900138	Radiator	1

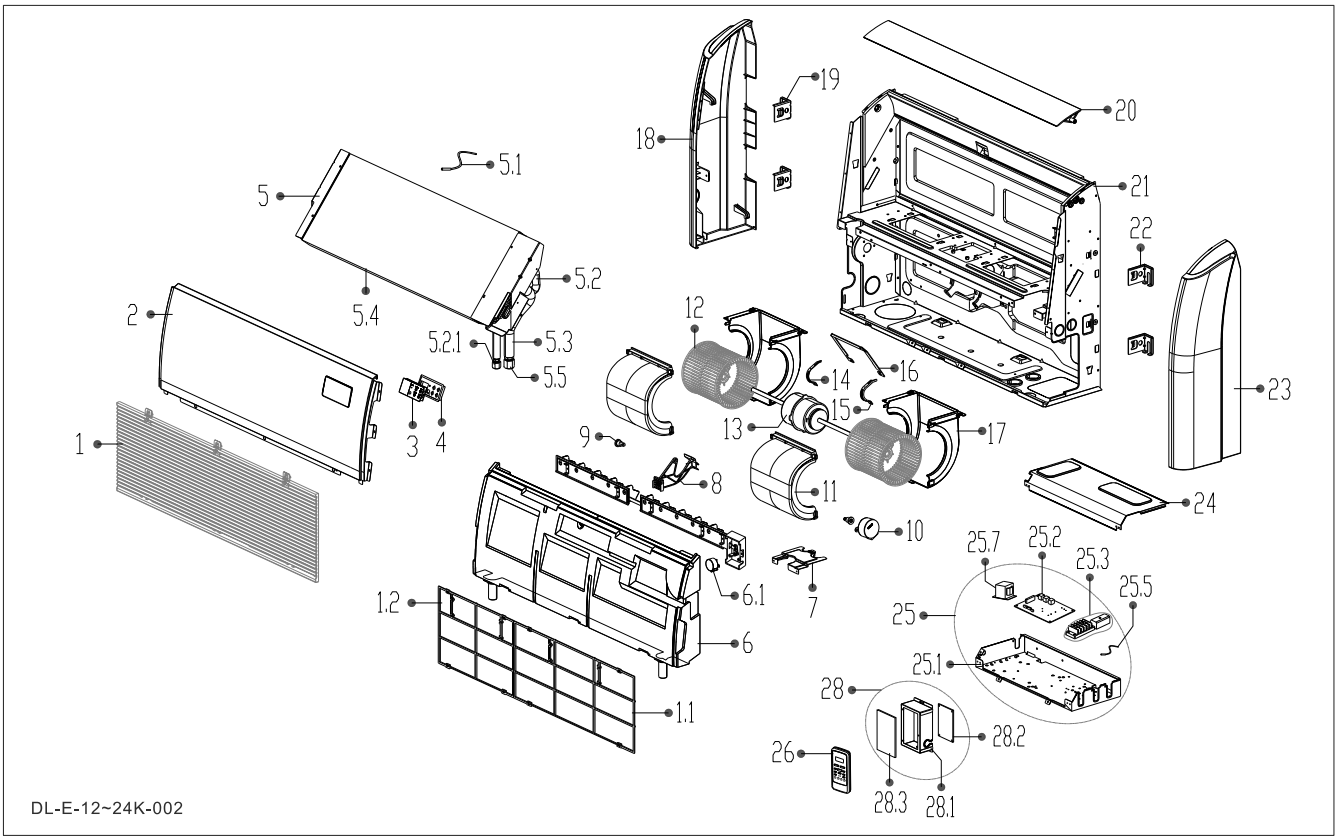
Exploded View of indoor unit: AWSI-FWDB018-N11



Spare part list of indoor unit: AWSI-FWDB018-N11

No.	BOM Code	Part Name	Quantity
1	12122700000100	Air Returning Grille Subassembly	1
1.1	12100204000718	Air Filter	1
1.2	12100204000719	Air Filter	1
2	12222700A00038	Top cover	1
3	17122700A00001	VLED Display Module	1
4	12122700A00010	Display panel box	1
5	15822700A00020	Evaporator assembly Gas valve assembly	1
5.1	11201007000006	Temperature Sensor	1
5.1	11201007000266	Temperature Sensor	1
5.2	15122700000324	Input pipes of Evaporator assemblyJoint board of Evaporator	1
5.2.1	15500406000016	Brass Nut	1
5.3	15122700000201	Outlet Pipes of Evaporator	1
5.4	15822700000203	Evaporator	1
5.5	15500406000012	Brass Nut	1
6	12822700000010	Water receiver subassembly	1
6.1	11002010000034	stepper motor	1
7	12222700000054	Connecting pipe clamp	1
8	12122700000150	Guide holder	1
9	12122000000344	Anti-power Shaft	2.0
10	11002010000057	stepper motor	1
11	12122700000047	Upper Volute	2.0
12	12100103000002	Centrifugal Fan	2.0
13	11002015000043	Brushless DC Motor	1
14	12222500000255	Right Gland of Motor Bush	1
15	12222500000253	Left Gland of Motor Bush	1
16	12222300000230	Motor Boarding	1
17	12122700000111	Lower Scroll	2.0
18	12122700000087	Cover plate (right)	1
19	12222700000018	Installation Right Hanger	2.0
20	12122700000061	Subassembly of Air Guide Strip	1
21	12222700000059	Chassis Assembly	1
22	12222700000016	Installation Left Hanger	2.0
23	12122700000093	Cover plate (left)	1
24	12222700000058	E-Part Box Cover Subassembly	1
25	17222700A00058	Electrical Control Box Subassembly	1
25.1	12222700000083	Welding Parts of Electrical Control Box	1
25.2	17122700000050	Indoor Main Control Board Subassembly	1
25.3	17400401000026	Wire holder	1
25.3	17400401000042	Wire holder	1
25.5	11201007000073	Room Temperature Sensor	1
25.7	17400306000070	Reactor	1
26	17317000A02580	Remote controller	1
28	17222700000159	Electrical Control Box Subassembly	1
28.1	12223000000052	Electrical Control Box	1
28.2	17122000008562	Inverter Module Subassembly (Sticker)	1
28.3	11203803000154	Radiator	1

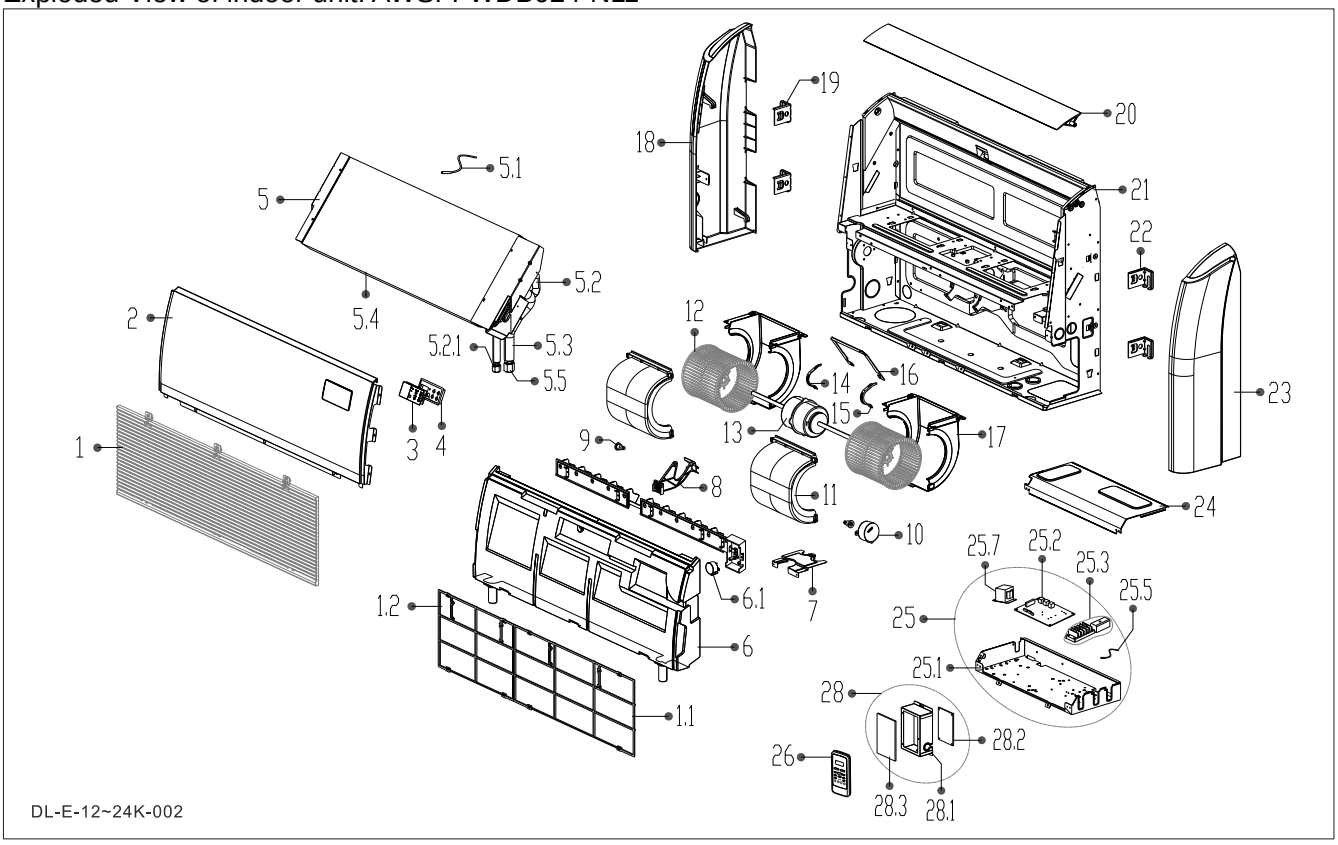
Exploded View of indoor unit: AWSI-FBD024-N11



Spare part list of indoor unit:AWSI-FBD024-N11

No.	BOM Code	Part Name	Quantity
1	201144290054	Air inlet grille assembly I	1
1.1	201144790024	Air filter I	1
1.2	201144790023	Air filter II	1
2	2012442A0012	Top cover assembly	1
3	2013447A0064	Display board assembly	1
4	2011447A0009	Display installation box	1
5	201544290181	Evaporator assembly	1
5.1	202301300804	Pipe temperature sensor assembly	1
5.1	202301300111	Pipe temperature sensor assembly	1
5.2	201644290197	Input pipe assembly	1
5.2.1	201600320001	Copper nut	1
5.3	201644290196	Output pipe assembly	1
5.4	201544290182	Evaporator	1
5.5	201600320003	Copper nut	1
6	202244290014	Water collector	1
6.1	202400200100	Louver motor (vertical)	1
7	201244790047	Pipe clamp board	1
8	201144790018	Supporter of louver	1
9	201132590888	Insulated axis	2
10	202400200162	Louver motor	1
11	201144690032	Volute shell (above)	2
12	201144690083	Centrifugal fan	2
13	202400300447	Asynchronous motor	1
14	201280200006	Fan motor axes clamp (right)	1
15	201280200005	Fan motor axes clamp (left)	1
16	201252490002	Fan motor fixing board	1
17	201144690033	Volute shell (below)	2
18	201144790017	Right cover	1
19	201244790033	Right hook	2
20	201144290056	Louver	1
21	201244290053	Chassis assembly	1
22	201244790034	Left hook	2
23	201144790019	Left cover	1
24	201244490048	Cover of electronic control box	1
25	203344290030	Electronic control box assembly	1
25.1	201244790050	Electronic control box	1
25.2	201344290050	Main control board assembly	1
25.3	202301450042	Wire joint	1
25.3	202301450125	Wire joint	1
25.5	202301310072	Ambient temperature sensor assembly	1
25.7	202301000950	Reactance	1
26	203355091552	Remote controller	1
28	203319900795	Electronic control box assembly	1
28.1	201270590340	Electronic control box	1
28.2	201319903056	Inverter control board assembly	1
28.3	202301900138	Radiator	1

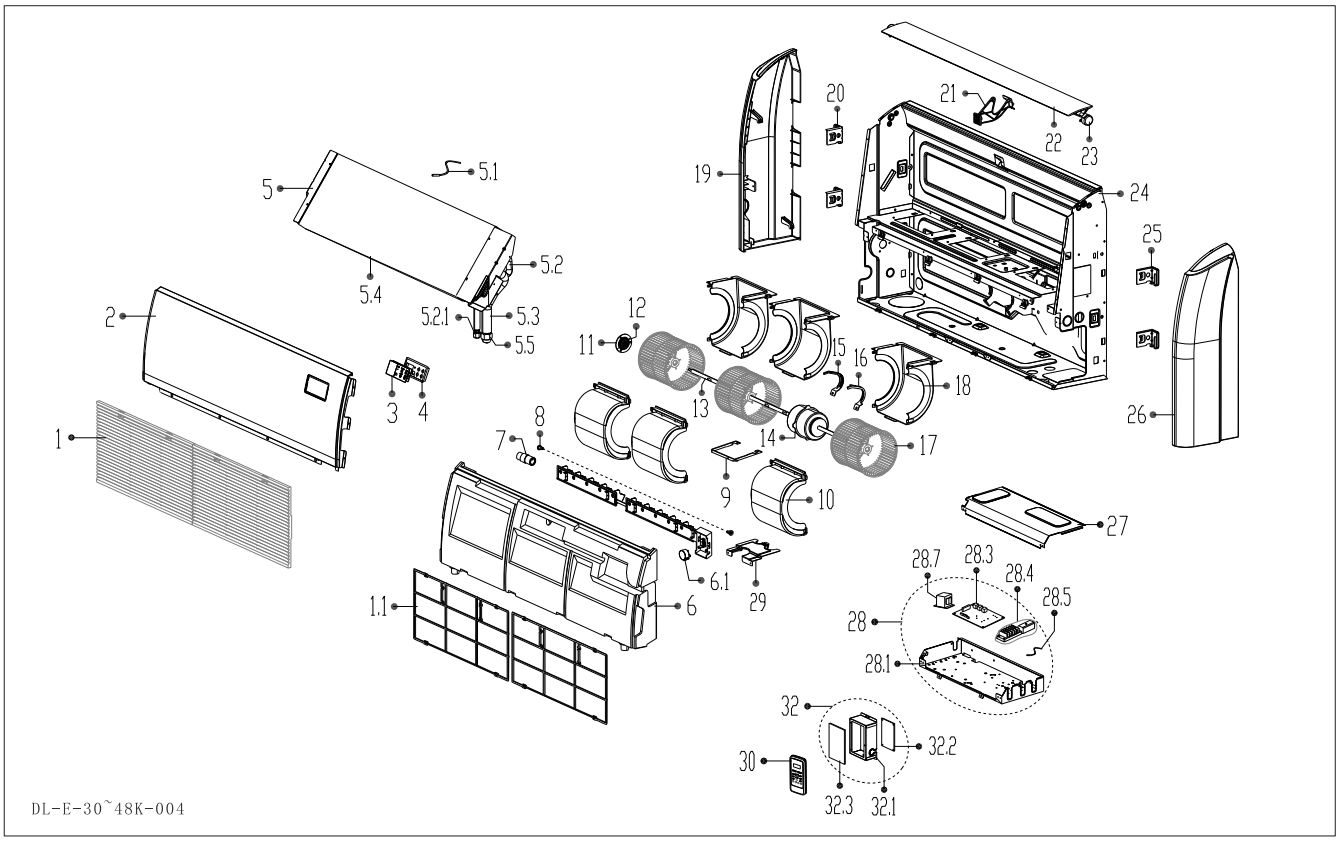
Exploded View of indoor unit: AWSI-FWDB024-N11



Spare part list of indoor unit:AWSI-FWDB024-N11

No.	BOM Code	Part Name	Quantity
1	12122700000100	Air Returning Grille Subassembly	1
1.1	12100204000718	Air Filter	1
1.2	12100204000719	Air Filter	1
2	12222700A00038	Top cover	1
3	17122700A00001	VLED Display Module	1
4	12122700A00010	Display panel box	1
5	15822700A00003	Evaporator assembly Gas valve assembly	1
5.1	11201007000266	Temperature Sensor	1
5.1	11201007000006	Temperature Sensor	1
5.2	15122700000228	Input pipes of Evaporator assemblyJoint board of Evaporator	1
5.2.1	15500406000010	Brass Nut	1
5.3	15122700000185	Outlet Pipes of Evaporator	1
5.4	15822700000203	Evaporator	1
5.5	15500406000003	Brass Nut	1
6	12822700000010	Water receiver subassembly	1
6.1	11002010000034	stepper motor	1
7	12222700000054	Connecting pipe clamp	1
8	12122700000150	Guide holder	1
9	12122000000344	Anti-power Shaft	2
10	11002010000057	stepper motor	1
11	12122700000047	Upper Volute	2
12	12100103000002	Centrifugal Fan	2
13	11002015000043	Brushless DC Motor	1
14	12222500000255	Right Gland of Motor Bush	1
15	12222500000253	Left Gland of Motor Bush	1
16	12222300000230	Motor Boarding	1
17	12122700000111	Lower Scroll	2
18	12122700000087	Cover plate (right)	1
19	12222700000018	Installation Right Hanger	2
20	12122700000061	Subassembly of Air Guide Strip	1
21	12222700000059	Chassis Assembly	1
22	12222700000016	Installation Left Hanger	2
23	12122700000093	Cover plate (left)	1
24	12222700000058	E-Part Box Cover Subassembly	1
25	17222700A00058	Electrical Control Box Subassembly	1
25.1	12222700000083	Welding Parts of Electrical Control Box	1
25.2	17122700000050	Indoor Main Control Board Subassembly	1
25.3	17400401000026	Wire holder	1
25.3	17400401000042	Wire holder	1
25.5	11201007000073	Room Temperature Sensor	1
25.7	17400306000070	Reactor	1
26	17317000A02580	Remote controller	1
28	17222700000159	Electrical Control Box Subassembly	1
28.1	12223000000052	Electrical Control Box	1
28.2	17122000008562	Inverter Module Subassembly (Sticker)	1
28.3	11203803000154	Radiator	1

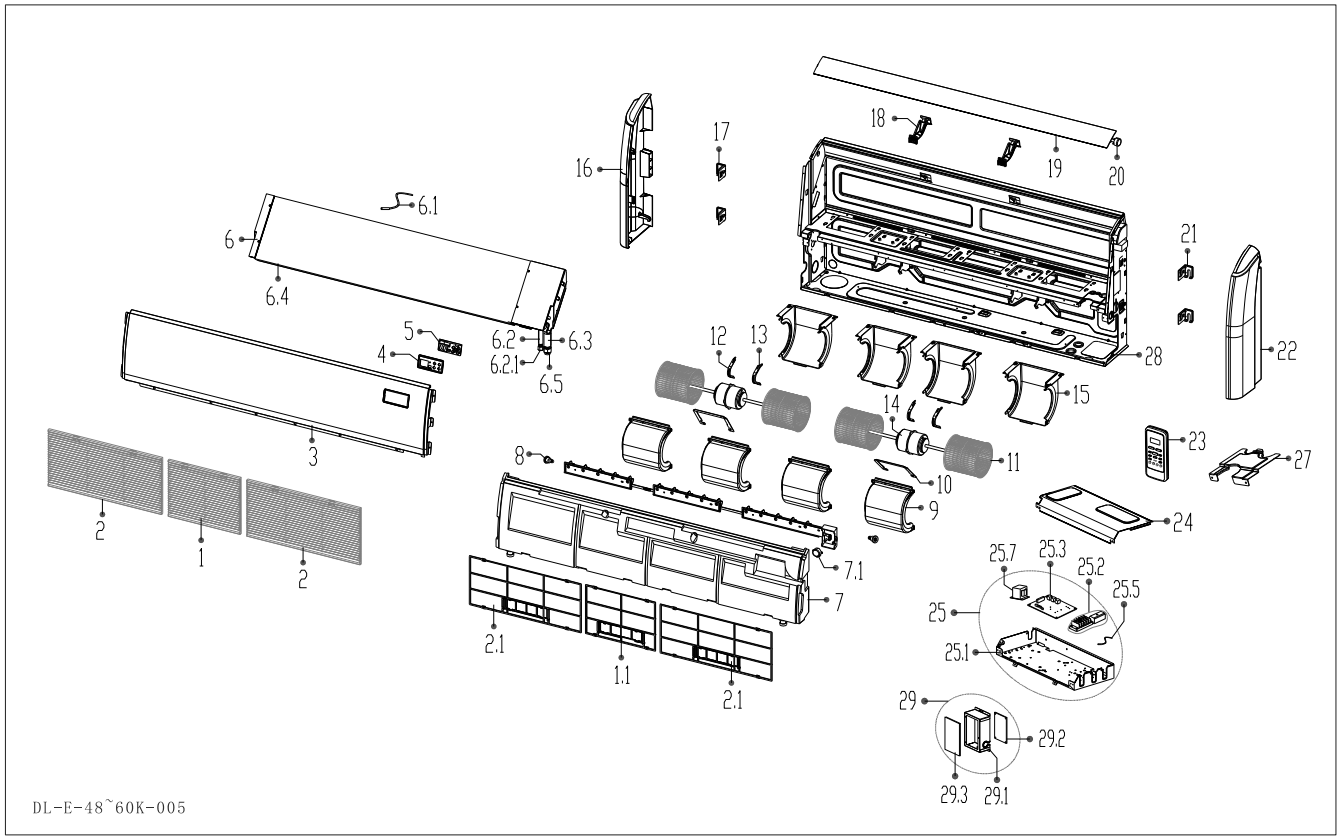
Exploded View of indoor unit:AWSI-FBD030-N11



Spare part list of indoor unit:AWSI-FBD030-N11

No.	BOM Code	Part Name	Quantity
1	201144790015	Air inlet grille assembly I	2
1.1	201144790024	Air filter I	1
2	2012444A0012	Top cover assembly	1
3	2013447A0064	Display board assembly	1
4	2011447A0009	Display installation box	1
5	201544490266	Evaporator assembly	1
5.1	202301300804	Pipe temperature sensor assembly	1
5.1	202301300111	Pipe temperature sensor assembly	1
5.2	201644690252	Input pipe assembly	1
5.2.1	201600320001	Copper nut	1
5.3	201644490324	Output pipe assembly	1
5.4	201544690174	Evaporator	1
5.5	201600320003	Copper nut	1
6	202244490015	Water collector	1
6.1	202400200100	Louver motor (vertical)	1
7	202970790001	Coupling	1
8	201132590888	Insulated axis	2
9	201252490002	Fan motor fixing board	1
10	201144690032	Volute shell (above)	3
11	201287000011	Bearing fixing board	1
12	202732400001	Bearing base	1
13	202501180103	Connecting shaft	1
14	202400300512	Asynchronous motor	1
15	201280200006	Fan motor axes clamp (right)	1
16	201280200005	Fan motor axes clamp (left)	1
17	201144690083	Centrifugal fan	3
18	201144690033	Volute shell (below)	3
19	201144790017	Right cover	1
20	201244790033	Right hook	2
21	201144790018	Supporter of louver	1
22	201144490040	Louver	1
23	202400200162	Louver motor	1
24	201244490052	Chassis assembly	1
25	201244790034	Left hook	2
26	201144790019	Left cover	1
27	201244490048	Cover of electronic control box	1
28	203344290030	Electronic control box assembly	1
28.1	201244790050	Electronic control box	1
28.3	201344290050	Main control board assembly	1
28.4	202301450042	Wire joint	1
28.4	202301450125	Wire joint	1
28.5	202301310072	Ambient temperature sensor assembly	1
28.7	202301000950	Reactance	1
29	201244790047	Pipe clamp board	1
30	203355091552	Remote controller	1
32	203319900796	Electronic control box assembly	1
32.1	201270590340	Electronic control box	1
32.2	201319903060	Inverter control board assembly	1
32.3	202301900138	Radiator	1

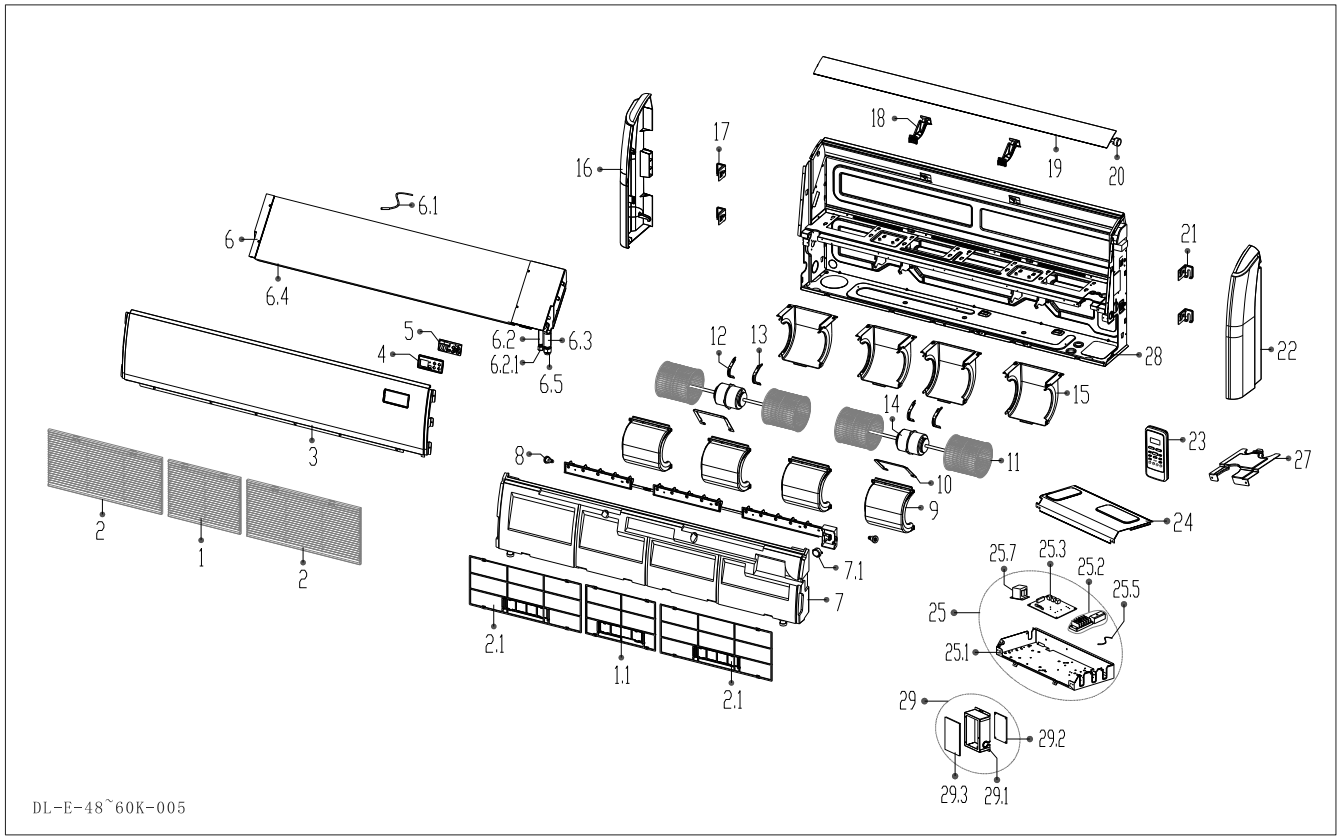
Exploded View of indoor unit:AWSI-FBD036-N11



Spare part list of indoor unit:AWSI-FBD036-N11

No.	BOM Code	Part Name	Quantity
1	201144790014	Air inlet grille assembly II	1
1.1	201144790023	Air filter I	1
2	201144790015	Air inlet grille assembly I	2
2.1	201144790024	Air filter II	1
3	2012447A0016	Top cover assembly	1
4	2011447A0009	Display installation box	1
5	2013447A0064	Display board assembly	1
6	201544790144	Evaporator assembly	1
6.1	202301300804	Pipe temperature sensor assembly	1
6.1	202301300111	Pipe temperature sensor assembly	1
6.2	201644790189	Input pipe assembly	1
6.2.1	201600320001	Copper nut	1
6.3	201644790192	Output pipe assembly	1
6.4	201544790139	Evaporator	1
6.5	201600320003	Copper nut	1
7	202244790001	Water collector	1
7.1	202400200100	Louver motor	1
8	201132590888	Insulated axis	2
9	201144690032	Volute shell (above)	4
10	201252490002	Fan motor fixing board	2
11	201144690083	Centrifugal fan	4
12	201280200006	Fan motor axes clamp (right)	2
13	201280200005	Fan motor axes clamp (left)	2
14	202400300070	Asynchronous motor	2
15	201144690033	Volute shell (below)	4
16	201144790017	Right cover	1
17	201244790033	Right hook	2
18	201144790018	Supporter of louver	2
19	201144790006	Louver	1
20	202400200162	Louver motor	1
21	201244790034	Left hook	2
22	201144790019	Left cover	1
23	203355091552	Remote controller	1
24	201244490048	Cover of electronic control box	1
25	203344490068	Electronic control box assembly	1
25.1	201244790050	Electronic control box	1
25.2	202301450116	Wire joint	1
25.2	202301450125	Wire joint	1
25.3	201344490054	Main control board assembly	1
25.5	202301310072	Ambient temperature sensor assembly	1
25.7	202301000950	Reactor	1
27	201244790047	Pipe clamp board	1
28	201244690053	Chassis assembly	1
29	203319900796	Electronic control box assembly	2
29.1	201270590340	Electronic control box	1
29.2	201319903060	Inverter control board assembly	1
29.3	202301900138	Radiator	1

Exploded View of indoor unit:AWSI-FBD048-N11



Spare part list of indoor unit:AWSI-FBD048-N11

No.	BOM Code	Part Name	Quantity
1	201144790014	Air inlet grille assembly II	1
1.1	201144790023	Air filter I	1
2	201144790015	Air inlet grille assembly I	2
2.1	201144790024	Air filter II	1
3	2012447A0016	Top cover assembly	1
4	2011447A0009	Display installation box	1
5	2013447A0064	Display board assembly	1
6	201544790144	Evaporator assembly	1
6.1	202301300804	Pipe temperature sensor assembly	1
6.1	202301300111	Pipe temperature sensor assembly	1
6.2	201644790189	Input pipe assembly	1
6.2.1	201600320001	Copper nut	1
6.3	201644790192	Output pipe assembly	1
6.4	201544790139	Evaporator	1
6.5	201600320003	Copper nut	1
7	202244790001	Water collector	1
7.1	202400200100	Louver motor	1
8	201132590888	Insulated axis	2
9	201144690032	Volute shell (above)	4
10	201252490002	Fan motor fixing board	2
11	201144690083	Centrifugal fan	4
12	201280200006	Fan motor axes clamp (right)	2
13	201280200005	Fan motor axes clamp (left)	2
14	202400300070	Asynchronous motor	2
15	201144690033	Volute shell (below)	4
16	201144790017	Right cover	1
17	201244790033	Right hook	2
18	201144790018	Supporter of louver	2
19	201144790006	Louver	1
20	202400200162	Louver motor	1
21	201244790034	Left hook	2
22	201144790019	Left cover	1
23	203355091552	Remote controller	1
24	201244490048	Cover of electronic control box	1
25	203344490068	Electronic control box assembly	1
25.1	201244790050	Electronic control box	1
25.2	202301450116	Wire joint	1
25.2	202301450125	Wire joint	1
25.3	201344490054	Main control board assembly	1
25.5	202301310072	Ambient temperature sensor assembly	1
25.7	202301000950	Reactor	1
27	201244790047	Pipe clamp board	1
28	201244690053	Chassis assembly	1
29	203319900796	Electronic control box assembly	2
29.1	201270590340	Electronic control box	1
29.2	201319903060	Inverter control board assembly	1
29.3	202301900138	Radiator	1

Four-way Cassette Type (Compact)

1. Features

1.1 New panel

- 360°surrounding air outlet design, affords comfortable feeling

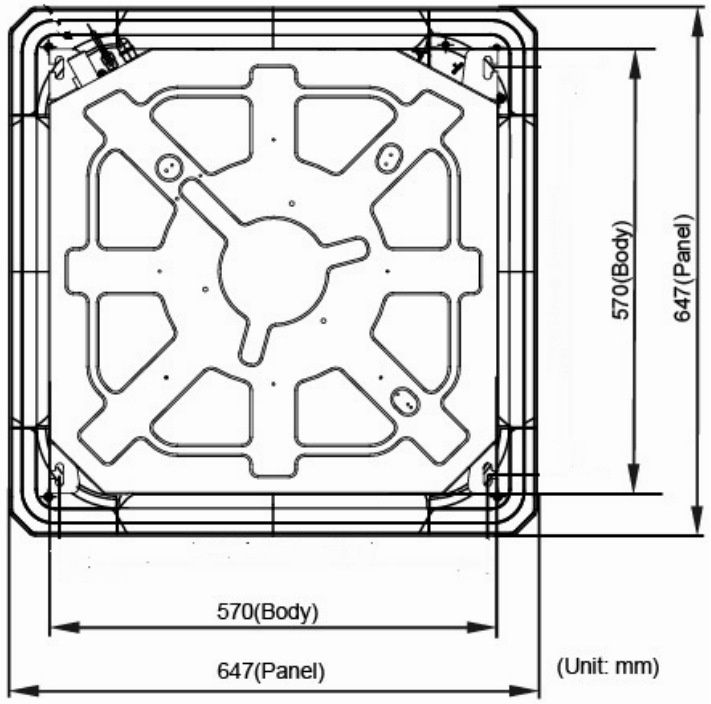
1.2 Compact design

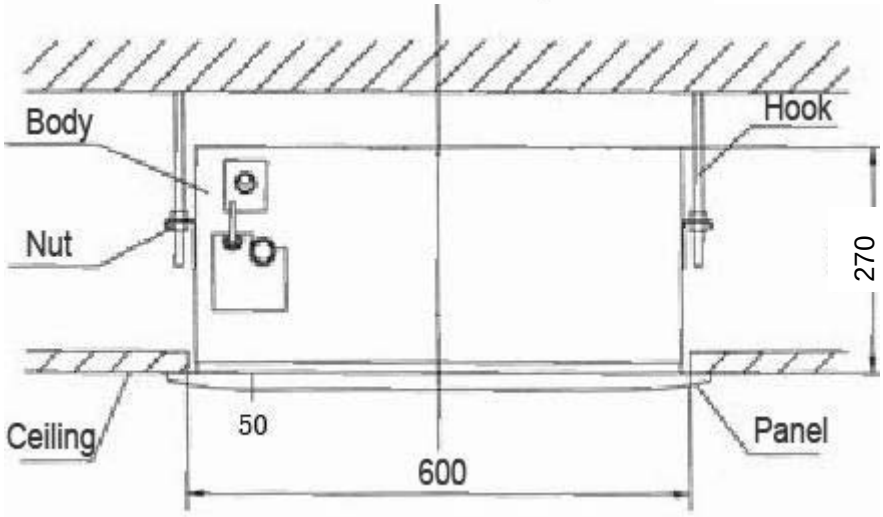
- The body size is 570×260×570mm, it's just smaller than the ceiling board, so it's very easy for installation and will not damage the decoration. The panel size is 647×50×647mm.
- The hooks are designed in the four corners of the body, which can save installation space.

1.3 Electric control box built-in design

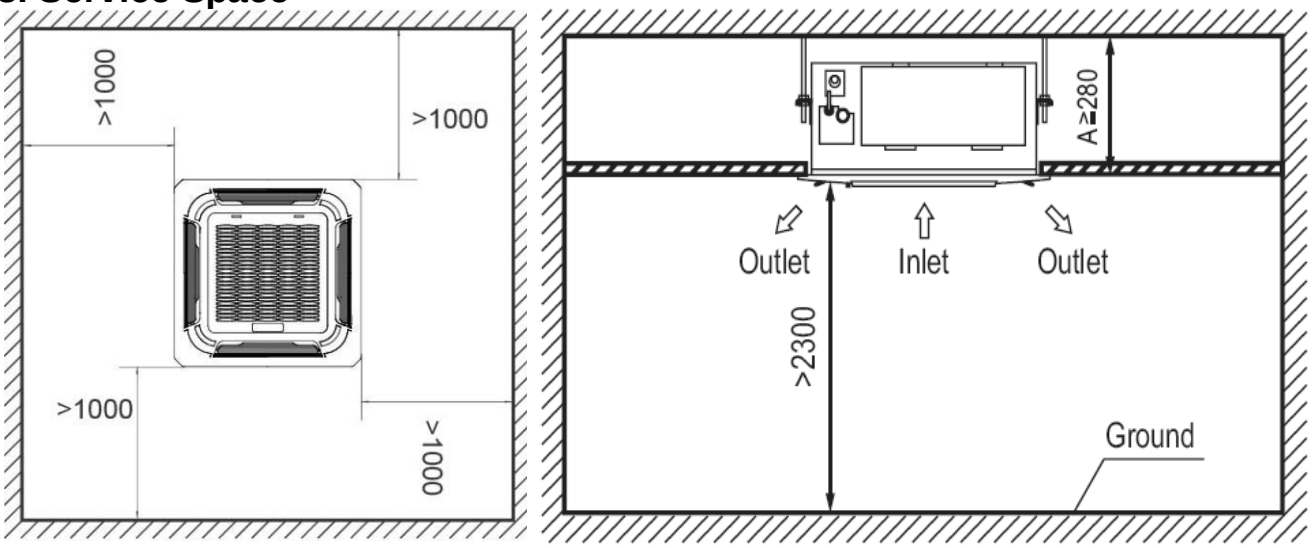
- The E-box is simply and safely built inside the indoor unit. It's convenient for installation and maintenance. Can check the control part easily, you only need to open the air return grille.

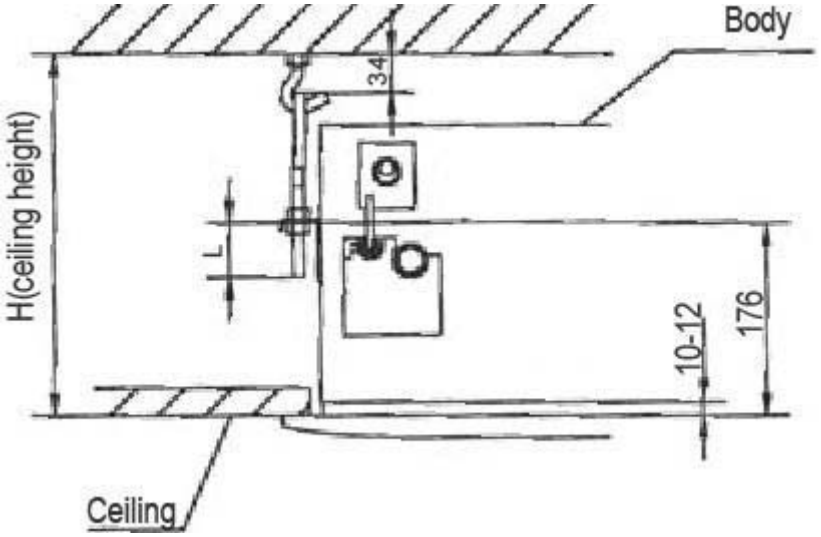
2. Dimensions





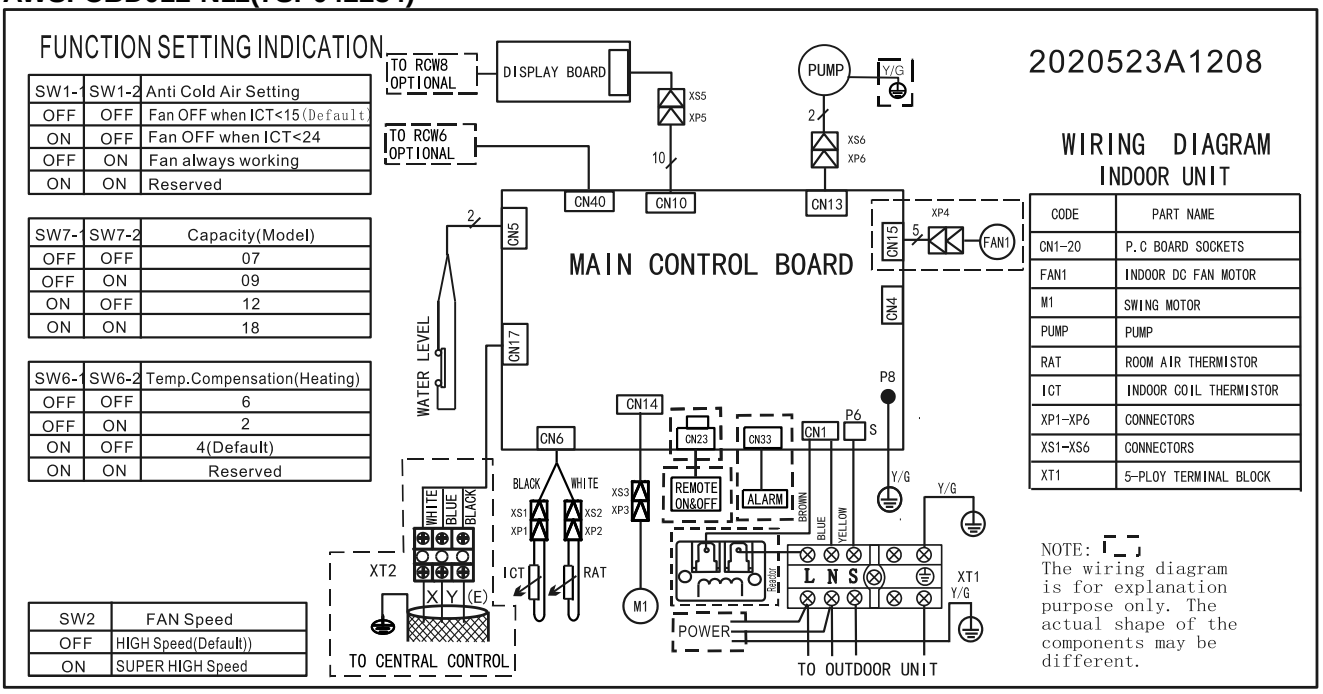
3. Service Space





4. Wiring Diagrams

AWSI-CBD012-N11(7SP042234)



AWSI-CBD012-N11(7SP042243)

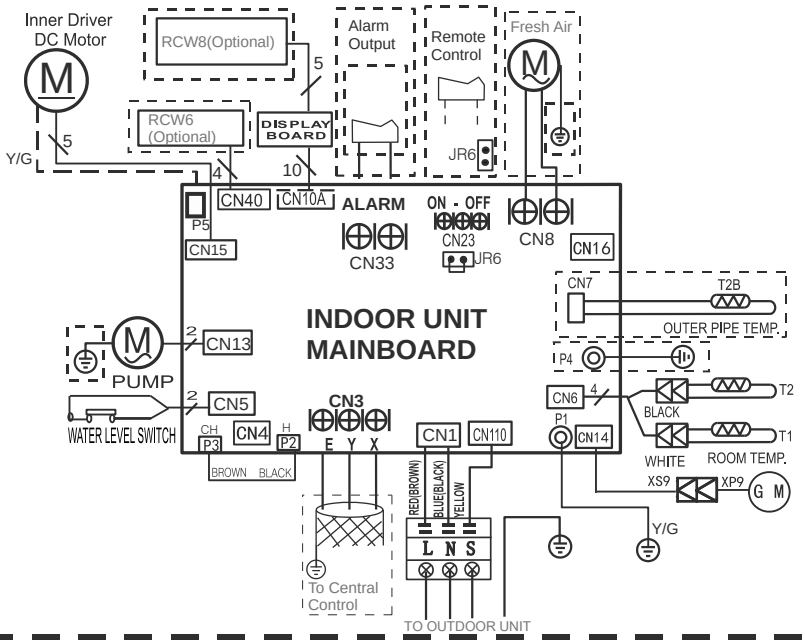
FUNCTION OF SWITCH

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

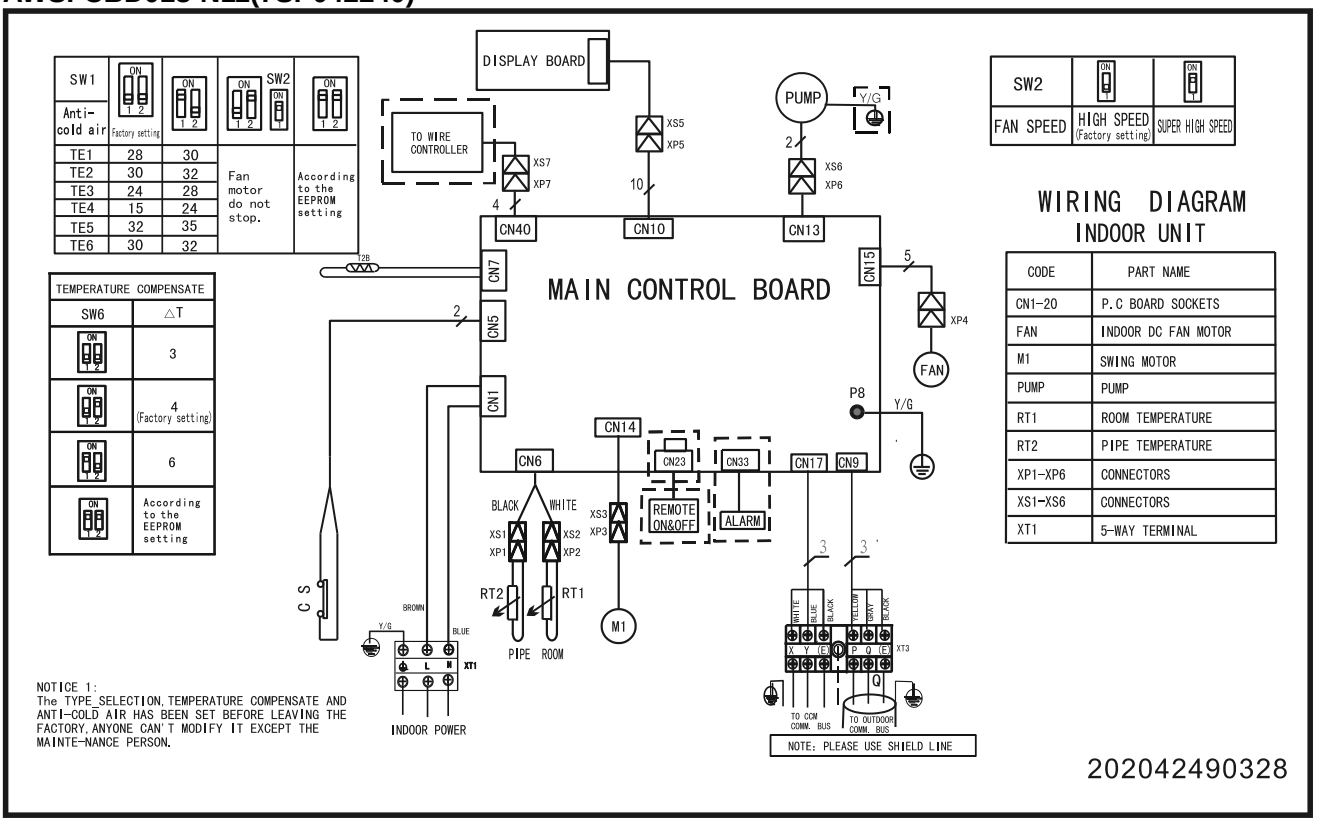
SW1-1	SW1-2	Anti Cold Air Setting
OFF	OFF	Fan OFF when ICT<24(Default)
ON	OFF	Fan OFF when ICT<15
OFF	ON	Fan OFF when ICT<8
ON	ON	Reserved

SW6-1	SW6-2	Temp. Compensation (Heating)
OFF	OFF	6(Default)
ON	OFF	4
OFF	ON	2
ON	ON	Reserved

SW2	Fan Status When Thermo-OFF
OFF	FAN ON(Default)
ON	FAN OFF



AWSI-CBD018-N11(7SP042240)



AWSI-CBD018-N11(7SP042244)

FUNCTION OF SWITCH

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

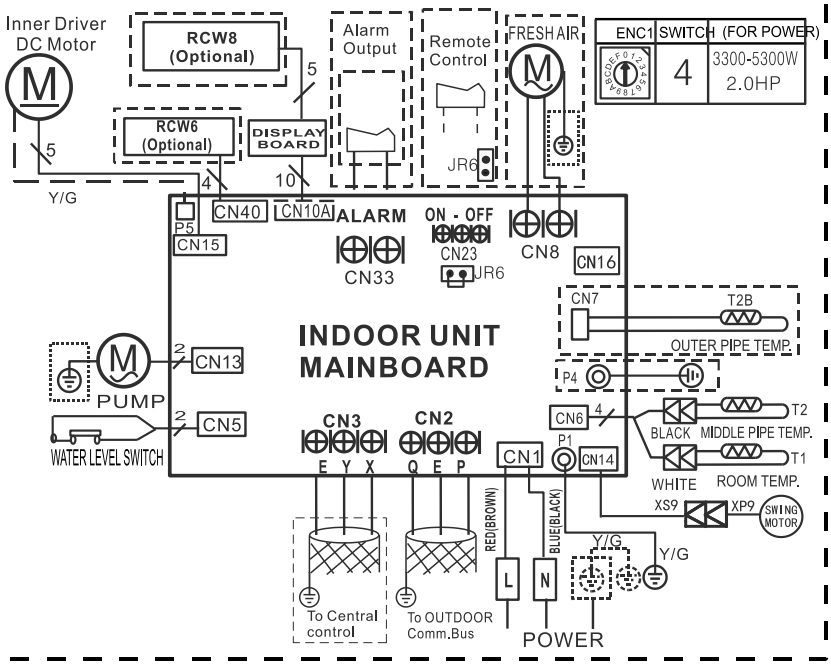
SW1-1	SW1-2	Anti Cold Air Setting
OFF	OFF	Fan OFF when ICT<15(Default)
ON	OFF	Fan OFF when ICT<24
OFF	ON	Fan ON
ON	ON	Reserved

SW2	Fan Status When Thermo-OFF
OFF	FAN OFF(Default)
ON	FAN ON

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

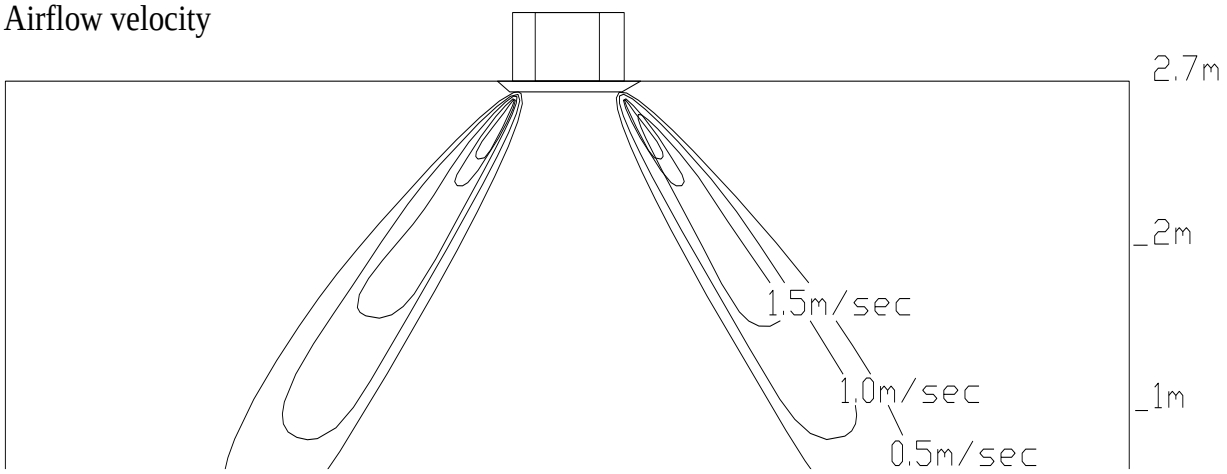
SW6-1	SW6-2	Temp. Compensation (Heating)
OFF	OFF	3(Default)
ON	OFF	4
OFF	ON	6
ON	ON	Reserved

SW5-1	SW5-2	Master / Slave
OFF	OFF	Master W/O Slave (Default)
OFF	ON	Master With Slave
ON	OFF	Master With Slave
ON	ON	Slave

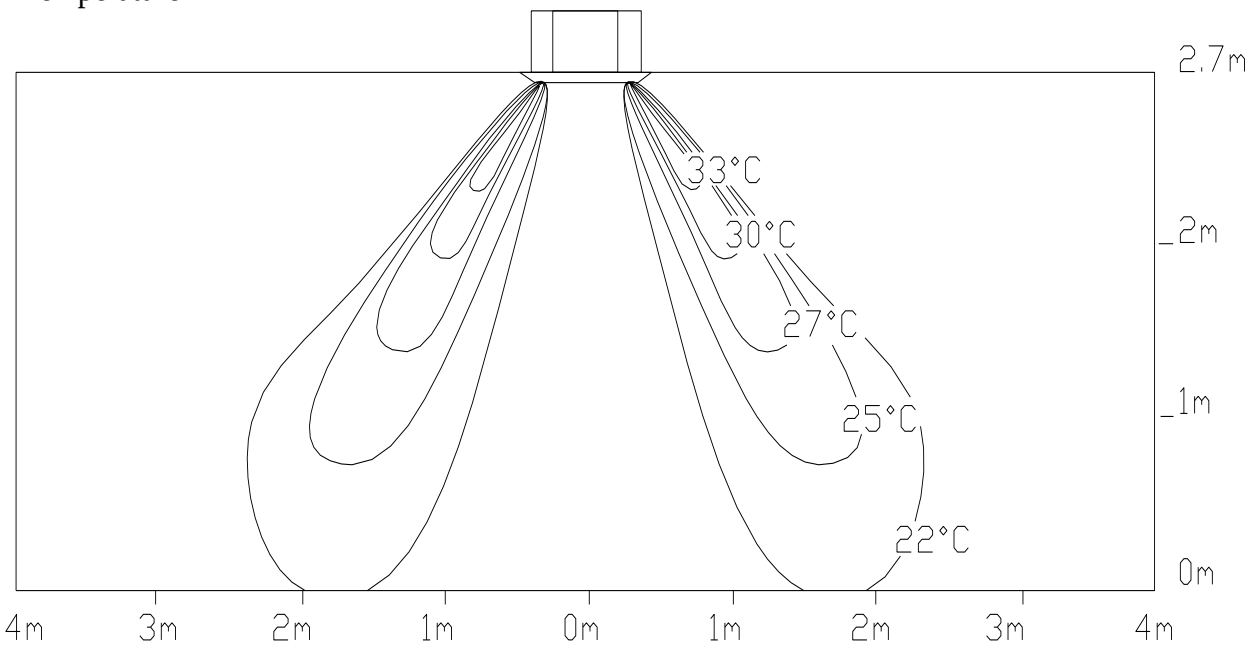


5. Air Velocity and Temperature Distributions(Reference Data)

Airflow velocity



Temperature

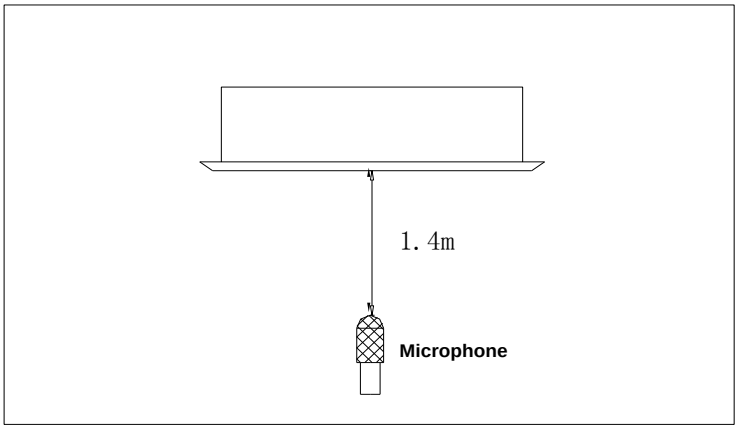


6. Electric Characteristics

Model	Indoor Units				Power Supply
	Hz	Voltage	Min.	Max.	MFA
AWSI-CBD012-N11	50	220-240	198	254	/
AWSI-CBD018-N11	50	220-240	198	254	10

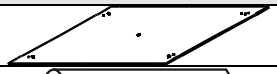
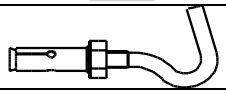
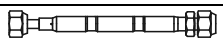
Note :
MFA: Max. Fuse Amps. (A)

7. Sound Levels



Model	Noise Power dB(A)	Noise level dB(A)		
		H	M	L
AWSI-CBD012-N11(7SP042234)	55	46	43	40
AWSI-CBD018-N11(7SP042240)	60	47	43	39
AWSI-CBD012-N11(7SP042243)	55	42	38	34
AWSI-CBD018-N11(7SP042244)	60	48	40	30

8. Accessories

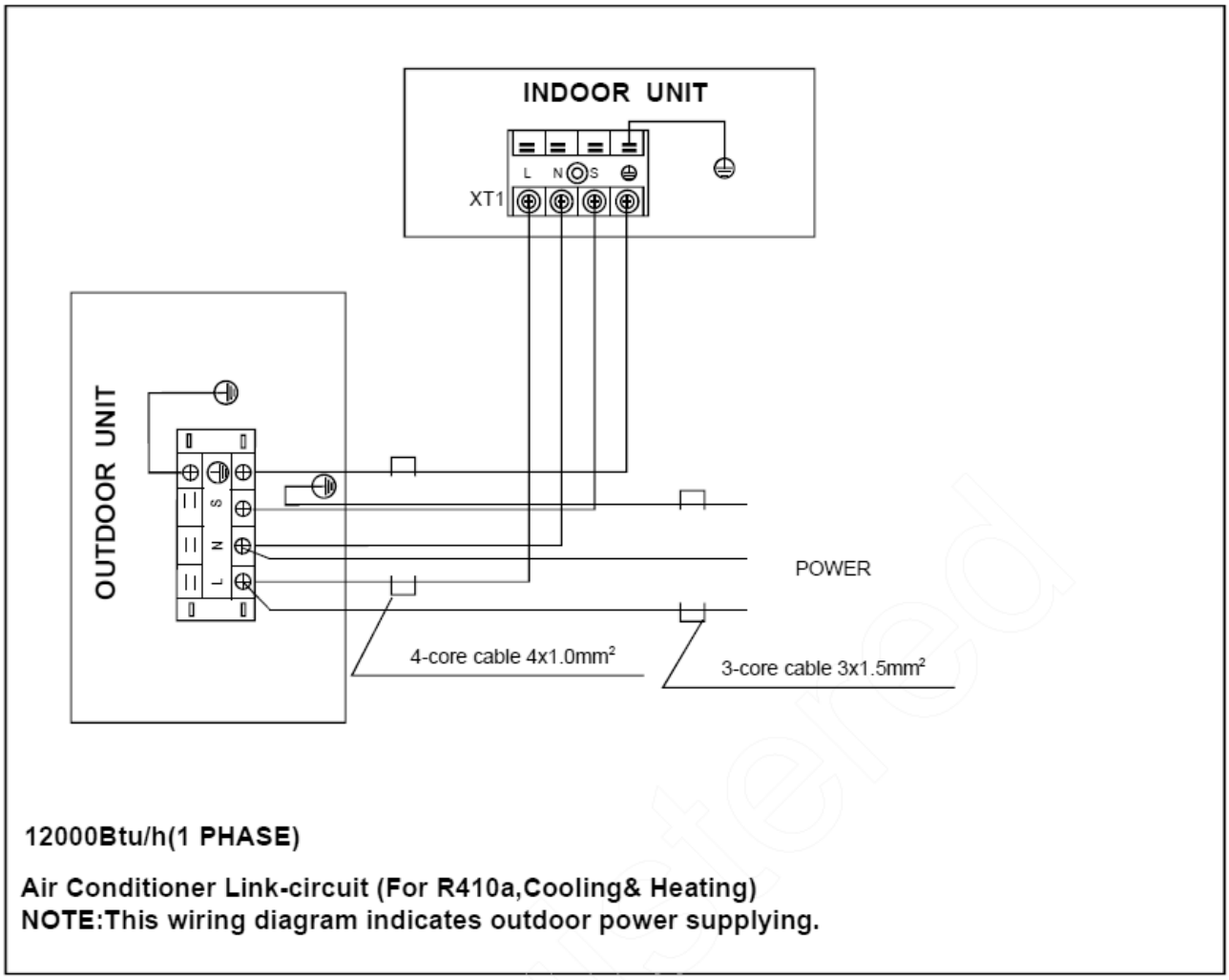
	Name	Shape	Quantity
Installation Fittings	Installation paper board		1
Tubing & Fittings	Soundproof / insulation sheath		1
Drainpipe Fittings	Out-let pipe sheath		1
	Out-let pipe clasp		1
	Drain joint		1
	Seal ring		1
Remote controller & Its Frame(The product you have might not be provided the following 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-CBD012-N11	AWSI-CBD018-N11
Indoor Unit Power	Phase	———	1-phase
	Frequency and Voltage	———	220-240V, 50Hz
	Power Wiring(mm^2)	———	3×1.0
	Circuit Breaker/Fuse (A)	———	15/10
Outdoor Unit Power	Phase	1-phase	1-phase
	Frequency and Voltage	220-240V, 50Hz	220-240V, 50Hz
	Power Wiring(mm^2)	3×1.5	3×2.5
	Circuit Breaker/Fuse (A)	20/16	20/16
Indoor/Outdoor Connecting Wiring(Weak Electric Signal) (mm^2)		———	3×0.5
Indoor/Outdoor Connecting Wiring(Strong Electric Signal) (mm^2)		4×1.0	———

10. Field Wiring

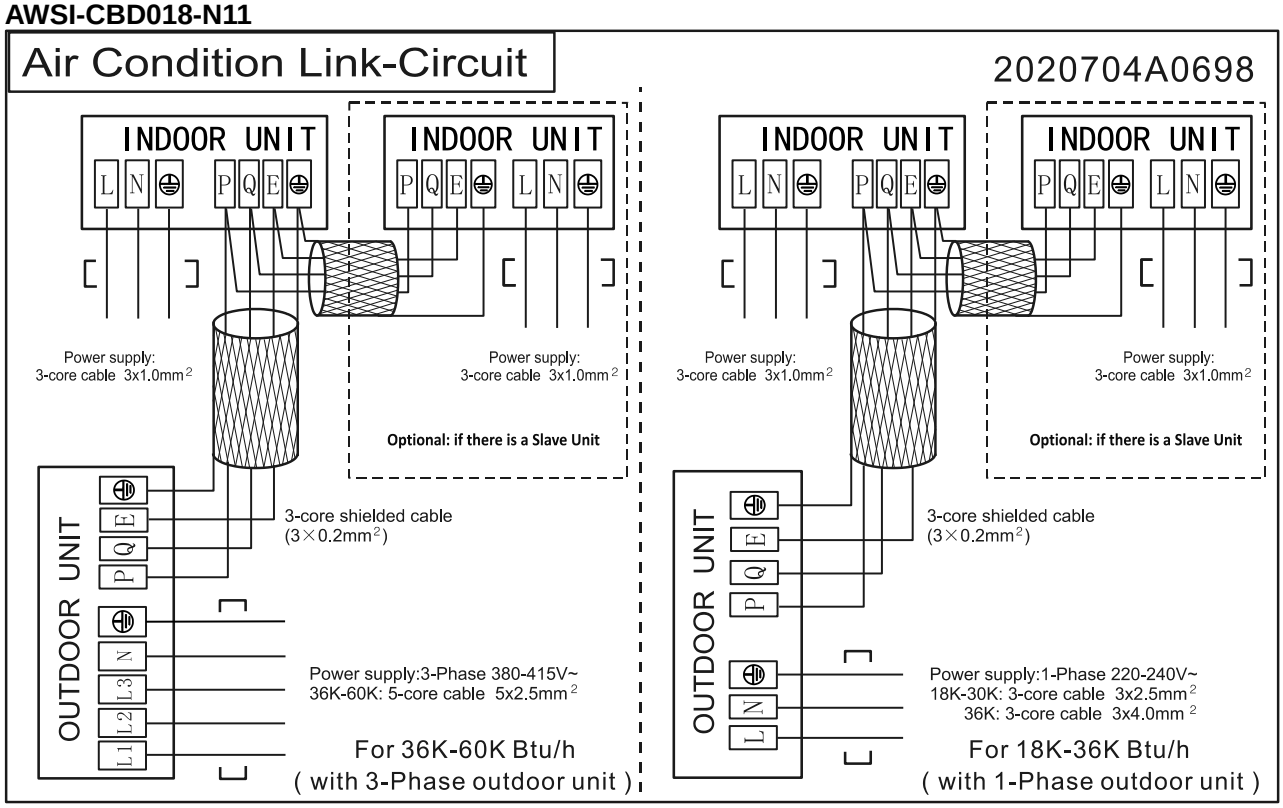
AWSI-CBD012-N11



12000Btu/h(1 PHASE)

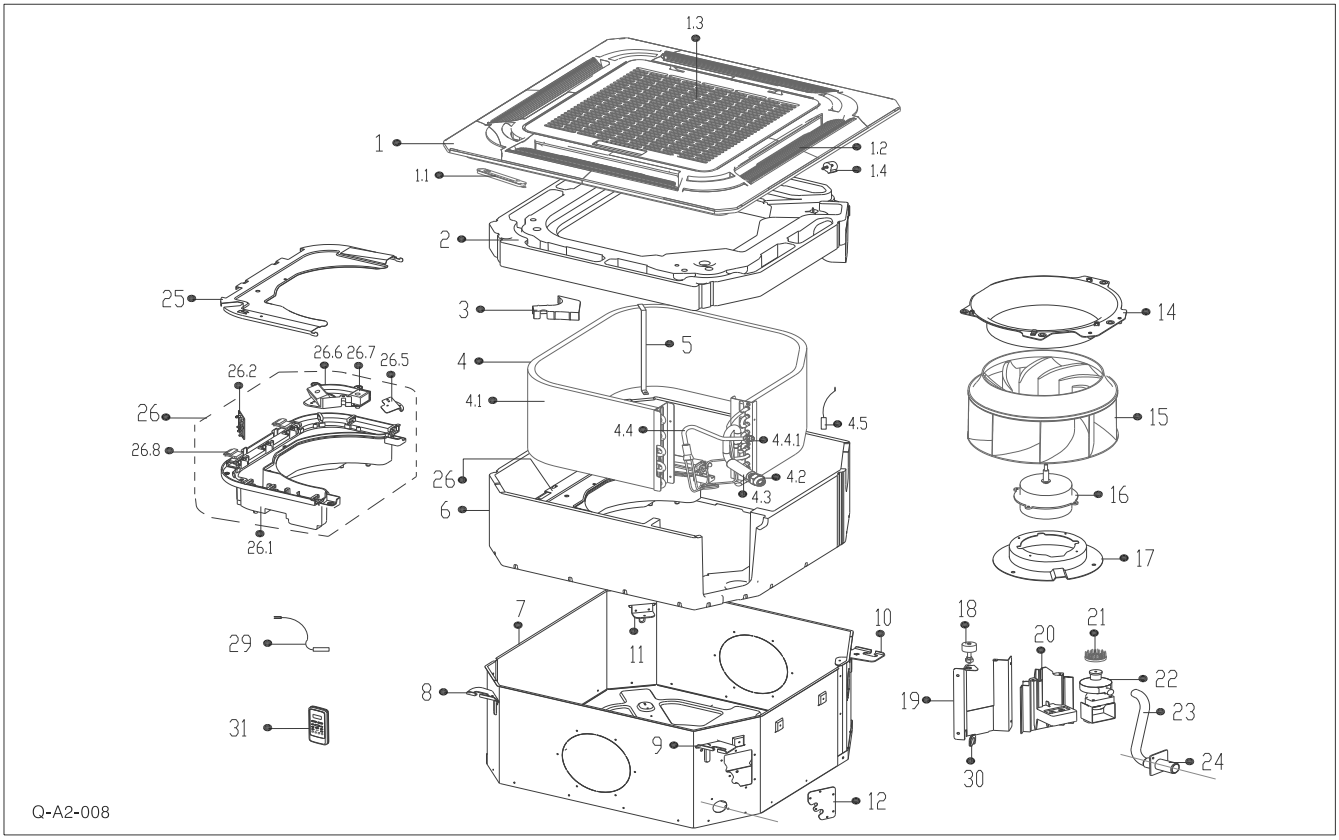
Air Conditioner Link-circuit (For R410a,Cooling& Heating)
NOTE:This wiring diagram indicates outdoor power supplying.

AWSI-CBD018-N11



11. Exploded View and Spare Part list

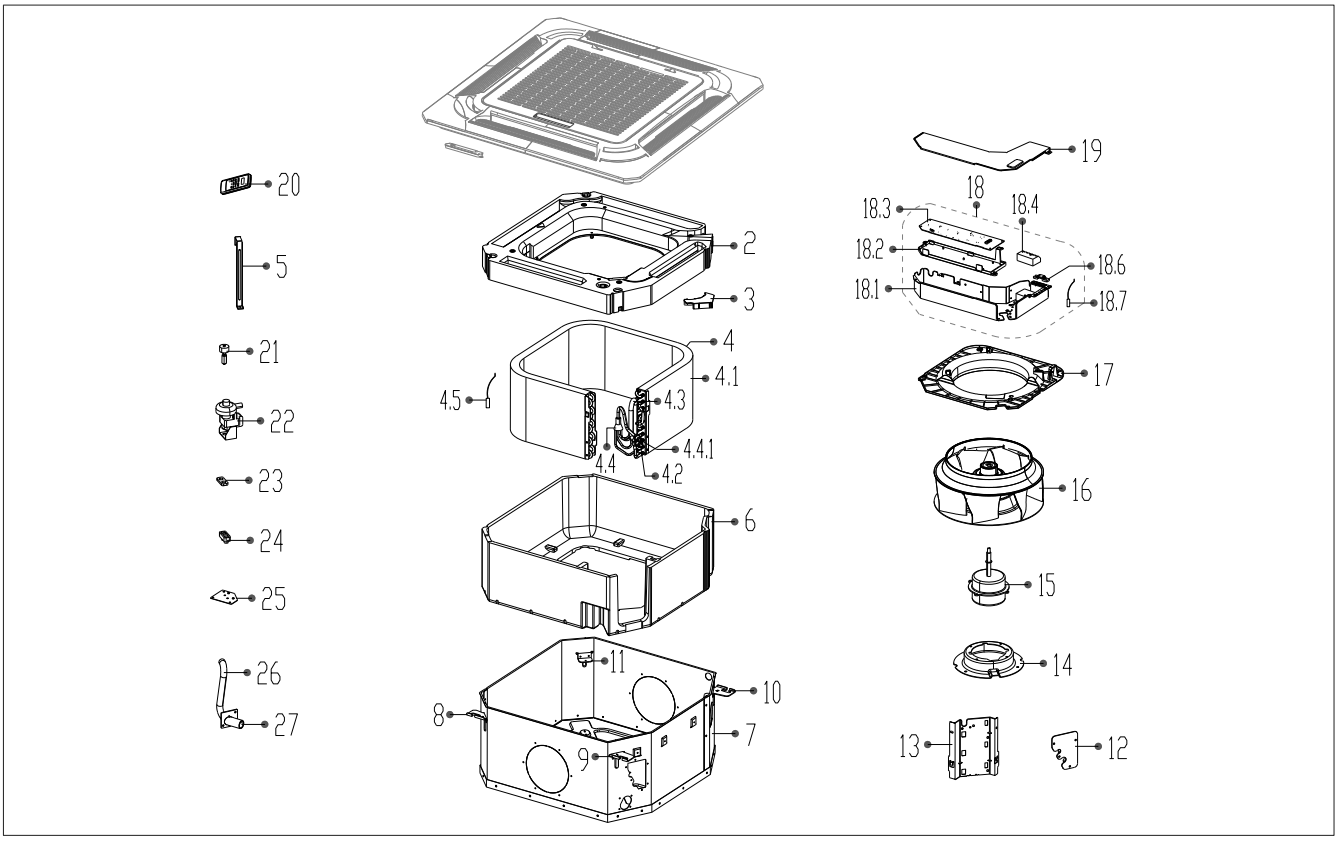
Exploded View of indoor unit:AWSI-CBD012-N11 (7SP042234)



Spare part list of indoor unit:AWSI-CBD012-N11(7SP042234)

No.	BOM Code	Part Name	Quantity
1	201109991821	Panel	1
1.1	2033702A0077	Display box assembly	1
1.2	201109991797	Horizontal louver	4
1.3	P0000453127	Air filter	1
1.4	202400280001	Louver motor	1
2	202280490006	Water collector	1
3	201180490047	Wire box	1
4	201552390007	Evaporator assembly	1
4.1	201542390002	Evaporator	1
4.2	201600320001	Copper nut	1
4.3	201652390020	Output pipe assembly	1
4.4	201642390001	Input pipe assembly	1
4.4.1	201600320000	Copper nut	1
4.5	202301300445	Pipe temperature sensor assembly	1
5	201242490009	Evaporator hang board	1
6	202280490005	Base foam assembly	1
7	201242390003	Chassis assembly	1
8	201280490483	Hook II	1
9	201280490482	Hook I	1
10	201280490485	Hook Ⅳ	1
11	201280490484	Hook III	1
12	201142390001	Pipe fixing board assembly	1
14	201142390003	Ventilation ring	1
15	201100100804	Centrifugal fan	1
16	202400300052	Asynchronous motor	1
17	201280490338	Fan motor fixing base	1
18	202301800916	Water level switch	1
19	201280490337	Evaporator fixing board	1
20	201180490049	Drain pump installation base	1
21	201180490041	Guard against block up net	1
22	202400600005	Drain pump	1
23	202742390002	Drain pipe	1
24	201101030002	Drain connecting pipe	1
25	201280490491	Cover of electronic control box	1
26	203342390100	Electronic control box assembly	1
26.1	201180490043	Electronic control box	1
26.2	201342390100	Main control board assembly	1
26.5	201280490471	Insulation plate	1
26.6	201180490044	Installation base of terminal	1
26.7	202301450119	Wire joint	1
26.8	201180490045	Clip	2
29	202301310075	Ambient temperature sensor assembly	1
30	202780490007	Rubber guard bush	1
31	203355091552	Remote controller	1

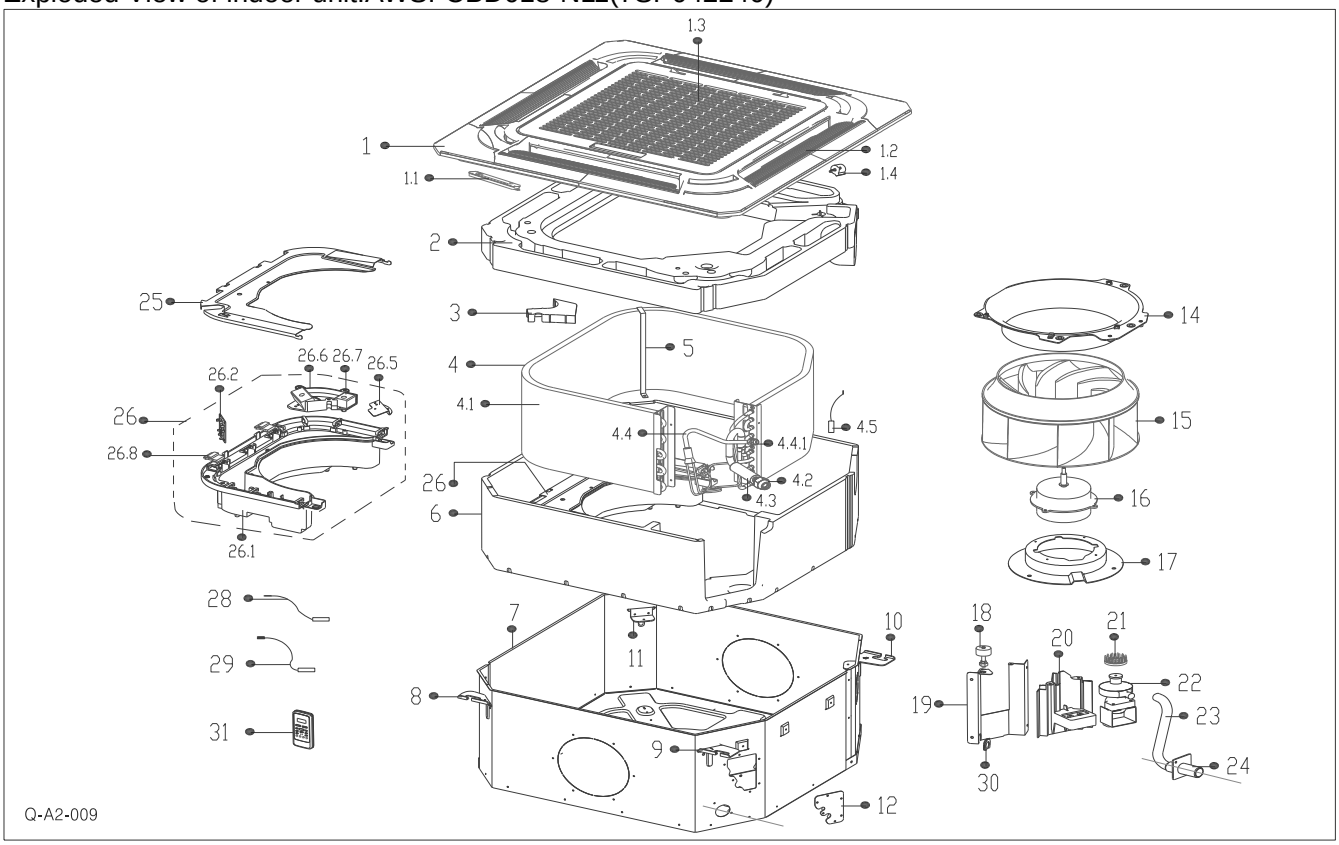
Exploded View of indoor unit:AWSI-CBD012-N11 (7SP042243)



Spare part list of indoor unit:AWSI-CBD012-N11(7SP042243)

No.	BOM Code	Part Name	Quantity
2	12822500000017	Water receiver assembly	1
3	12122500000022	Line pressing box	1
4	15822500A00260	Evaporator assembly Gas valve assembly	1
4.1	15822500000173	Evaporator	1
4.2	15500406000010	Brass Nut	1
4.3	15122500000648	Outlet Pipes of Evaporator	1
4.4	15122500000277	Input pipes of Evaporator assembly Joint board of Evaporator	1
4.4.1	15500406000016	Brass Nut	1
4.5	11201007000070	Temperature Sensor	1
5	12222500000093	Evaporator Fixing hanger	1
6	12822500000005	Chassis Foam Subassembly	1
7	12222500000224	Chassis Assembly	1
8	12222500000191	Installation Hanger	1
9	12222500000192	Installation Hanger	1
10	12222500000190	Installation Hanger	1
11	12222500000193	Installation Hanger	1
12	12122500000330	Sealing board for Pipe Tie-in Subassembly	1
13	12222500000197	Joint board of Evaporator	1
14	12222500000199	Motor Installing Foundation	1
15	11002015000069	Brushless DC Motor	1
16	12100103000089	Centrifugal Fan	1
17	12122500000425	Air Guide Coil	1
18	17222500000377	E-Parts Box assembly	1
18.1	12222500000165	Welding Parts of Electrical Control Box	1
18.2	12122500000029	Wiring baseplate	1
18.3	17122500000865	Indoor Main Control Board Subassembly (Sticker)	1
18.4	17400401000097	Wire holder	1
18.6	12222200001925	Line pressing card	1
18.7	11201007000283	Room Temperature Sensor	1
19	12222500000209	Electrical Control Box Cover Subassembly	1
20	17317000A02580	Remote controller	1
21	17400511000015	Water Level Switch	1
22	11001010000063	Induction pump	1
23	12622500000005	Rubber Gasket of Water Drain Pump	1
24	12622500000003	Drain pump rubber washer II	1
25	12222500000352	Installing Plate of Water Drain Pump(RoHS)	1
26	12622500000012	Drain pipe	1
27	12100510000019	Drain pipe	1

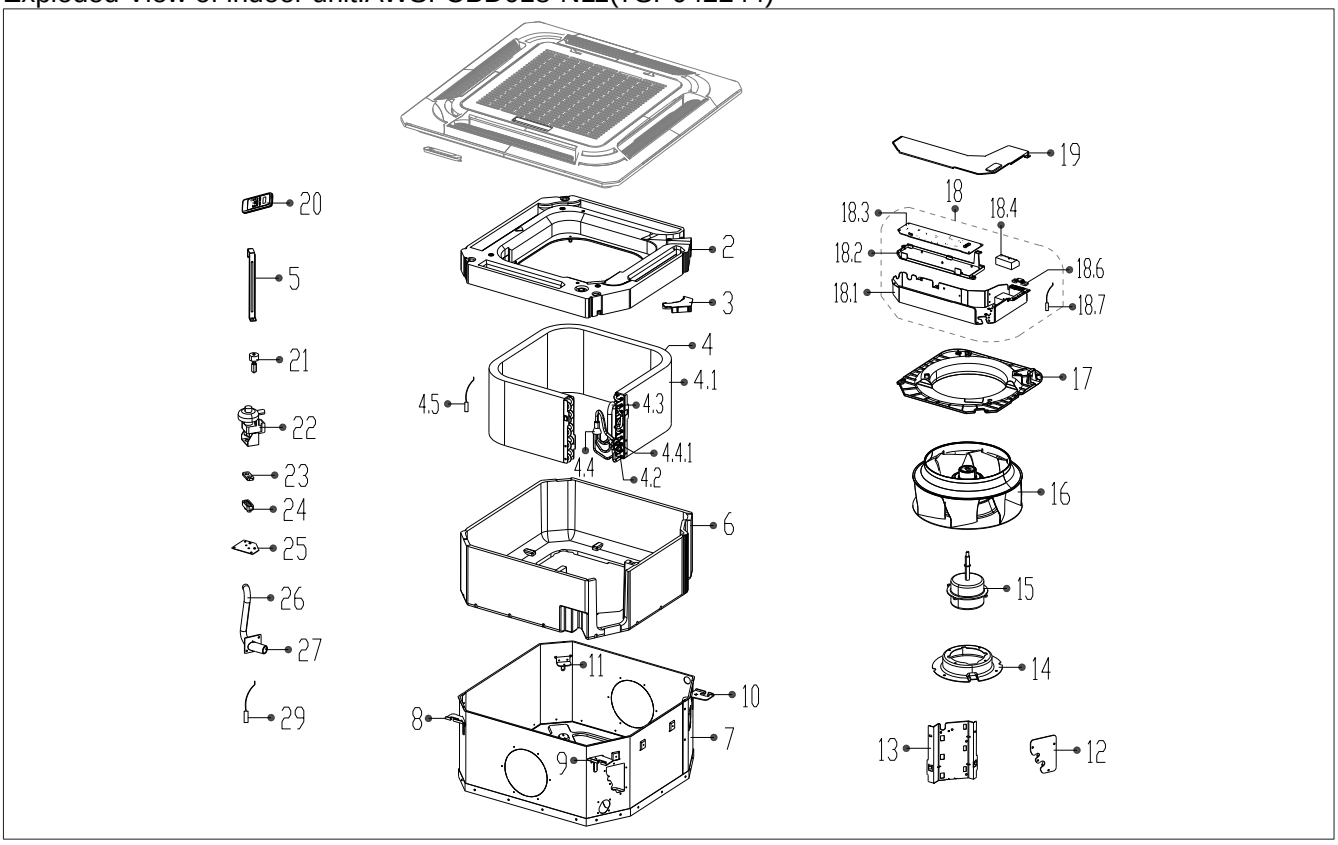
Exploded View of indoor unit:AWSI-CBD018-N11(7SP042240)



Spare part list of indoor unit: AWSI-CBD018-N11(7SP042240)

No.	BOM Code	Part Name	Quantity
1	201109991821	Panel	1
1.1	203342090008	Display box assembly	1
1.2	201109991797	Horizontal louver	4
1.3	P0000453127	Air filter	1
1.4	202400280001	Louver motor	1
2	202280490006	Water collector	1
3	201180490047	Wire box	1
4	201542490008	Evaporator assembly	1
4.1	201542490007	Evaporator	1
4.2	201600320002	Copper nut	1
4.3	201642490022	Output pipe assembly	1
4.4	201642490024	Input pipe assembly	1
4.4.1	201600320000	Copper nut	1
4.5	202301300445	Pipe temperature sensor assembly	1
5	201242490009	Evaporator hang board	1
6	202280490005	Base foam assembly	1
7	201242390003	Chassis assembly	1
8	201280490483	Hook II	1
9	201280490482	Hook I	1
10	201280490485	Hook Ⅳ	1
11	201280490484	Hook III	1
12	201142390001	Pipe fixing board assembly	1
14	201142390003	Ventilation ring	1
15	201100100804	Centrifugal fan	1
16	202400300052	Asynchronous motor	1
17	201280490338	Fan motor fixing base	1
18	202301800916	Water level switch	1
19	201280490337	Evaporator fixing board	1
20	201180490049	Drain pump installation base	1
21	201180490041	Guard against block up net	1
22	202400600005	Drain pump	1
23	202742390002	Drain pipe	1
24	201101030002	Drain connecting pipe	1
25	201280490491	Cover of electronic control box	1
26	2033424A0097	Electronic control box assembly	1
26.1	201180490043	Electronic control box	1
26.2	2013424A0069	Main control board assembly	1
26.5	201280490471	Insulation plate	1
26.6	201180490044	Installation base of terminal	1
26.7	202301450125	Wire joint	1
26.7	202301450121	Wire joint	1
26.8	201180490045	Clip	2
28	202301300804	Pipe temperature sensor	1
29	202301310075	Ambient temperature sensor assembly	1
30	202780490007	Rubber guard bush	1
31	203355091552	Remote controller	1

Exploded View of indoor unit:AWSI-CBD018-N11(7SP042244)



Spare part list of indoor unit: AWSI-CBD018-N11(7SP042244)

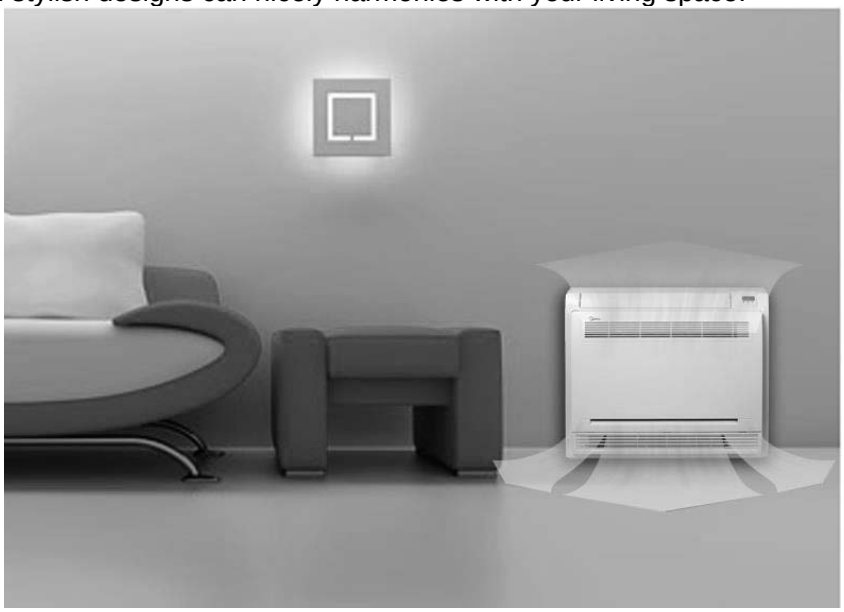
No.	BOM Code	Part Name	Quantity
2	12822500000017	Water receiver assembly	1
3	12122500000022	Line pressing box	1
4	15822500000137	Evaporator assembly Gas valve assembly	1
4.1	15822500000173	Evaporator	1
4.2	15500406000012	Brass Nut	1
4.3	15122500000226	Outlet Pipes of Evaporator	1
4.4	15122500000277	Input pipes of Evaporator assemblyJoint board of Evaporator	1
4.4.1	15500406000016	Brass Nut	1
4.5	11201007000070	Temperature Sensor	1
5	12222500000093	Evaporator Fixing hanger	1
6	12822500000005	Chassis Foam Subassembly	1
7	12222500000224	Chassis Assembly	1
8	12222500000191	Installation Hanger	1
9	12222500000192	Installation Hanger	1
10	12222500000190	Installation Hanger	1
11	12222500000193	Installation Hanger	1
12	12122500000330	Sealing board for Pipe Tie-in Subassembly	1
13	12222500000197	Joint board of Evaporator	1
14	12222500000199	Motor Installing Foundation	1
15	11002015000069	Brushless DC Motor	1
16	12100103000089	Centrifugal Fan	1
17	12122500000425	Air Guide Coil	1
18	17222500000131	Electrical Control Box Subassembly	1
18.1	12222500000165	Welding Parts of Electrical Control Box	1
18.2	12122500000029	Wiring baseplate	1
18.3	17122500000414	Indoor Main Control Board Subassembly	1
18.4	17400401000097	Wire holder	1
18.6	12200203000075	Line pressing card	1
18.7	11201007000283	Room Temperature Sensor	1
19	12222500000209	Electrical Control Box Cover Subassembly	1
20	17317000A02580	Remote controller	1
21	17400511000015	Water Level Switch	1
22	11001010000063	Induction pump	1
23	12622500000005	Rubber Gasket of Water Drain Pump	1
24	12622500000003	Drain pump rubber washer II	1
25	12222500000352	Installing Plate of Water Drain Pump(RoHS)	1
26	12622500000012	Drain pipe	1
27	12100510000019	Drain pipe	1
29	11201007000266	Temperature Sensor	1

Console Type

1. Features

1.1. Modern and elegant appearance

- The simple and stylish designs can nicely harmonies with your living space.



1.2. Four panels optional

1.3. Two air-outlet ways

Cooling mode

Quick Cooling To maintain room temp

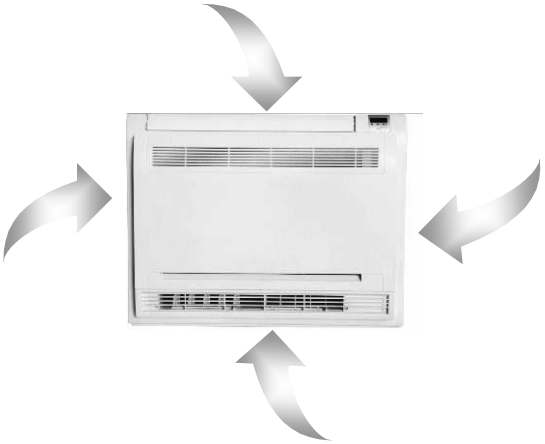
- Air outlet from top and bottom to make quick cooling ------When the A/C is just switched on, or room temp. is still high, cold air will be blown out from top and bottom air outlet to cool down the room quickly
- Air outlet from top to maintain room temp. ----When the room has been cooled down, or the A/C has been opened over 1 hour, cold air only from the top outlet to keep constant room temp

Heating mode

- Anti-cold air ------When the AC is just turn on, temperature of evaporator is very low, in this case, in order to prevent cold air direct blowing, only the upper louver is opened in a high position, the lower

louver closed.

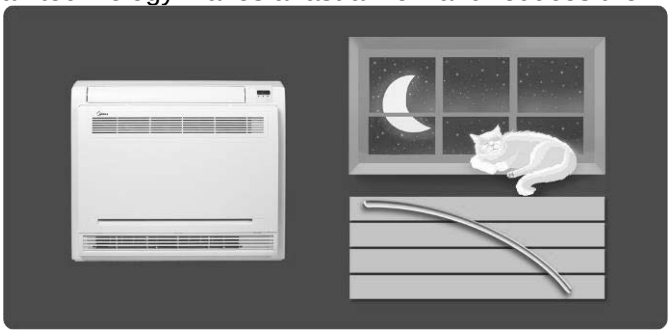
1.4. Four air inlets



1.5. Low noise

- DC indoor fan motor, which has five speeds.
- Low noise and energy saving.

- Advanced centrifugal fan technology makes a fast airflow and reduces the indoor noise lower to 28dB.

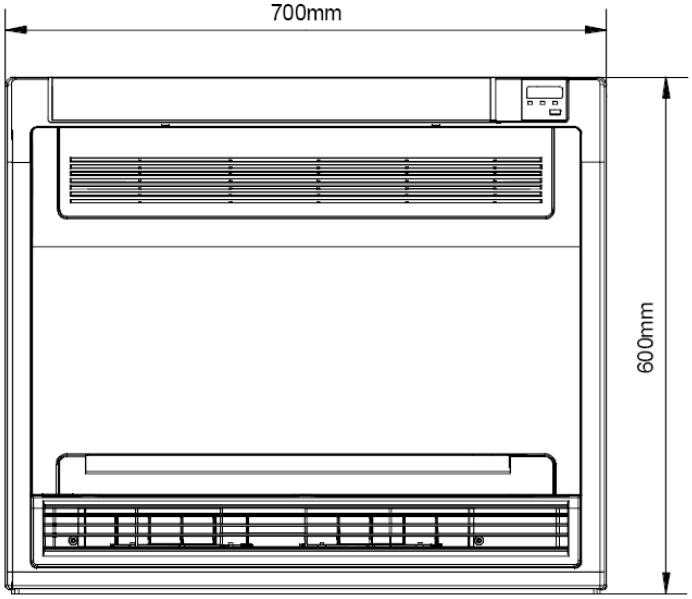


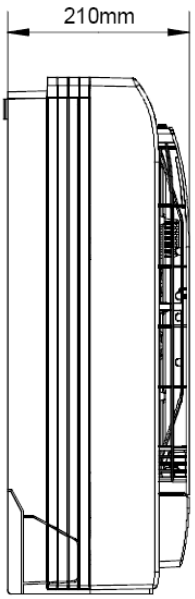
1.6. Golden fin is optional.

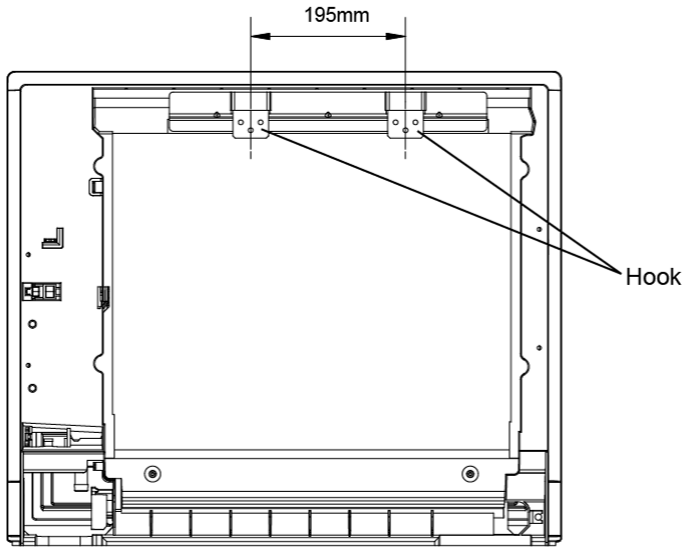
1.7. Active carbon filter is standard

2. Dimensions

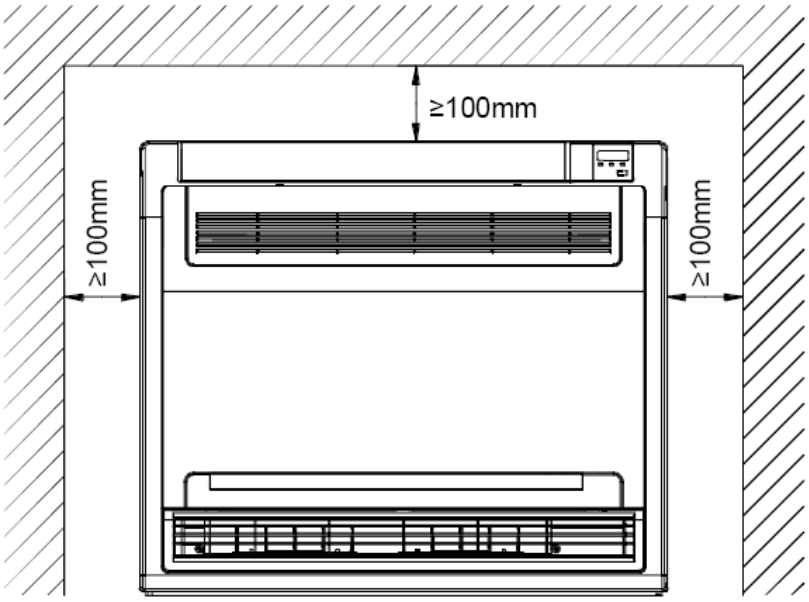
AWSI-XAD012-N11、AWSI-XAD018-N11

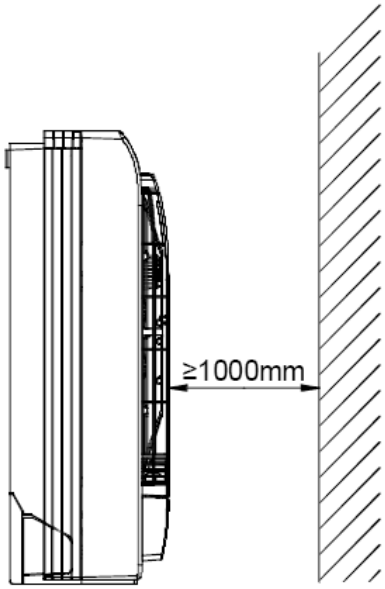






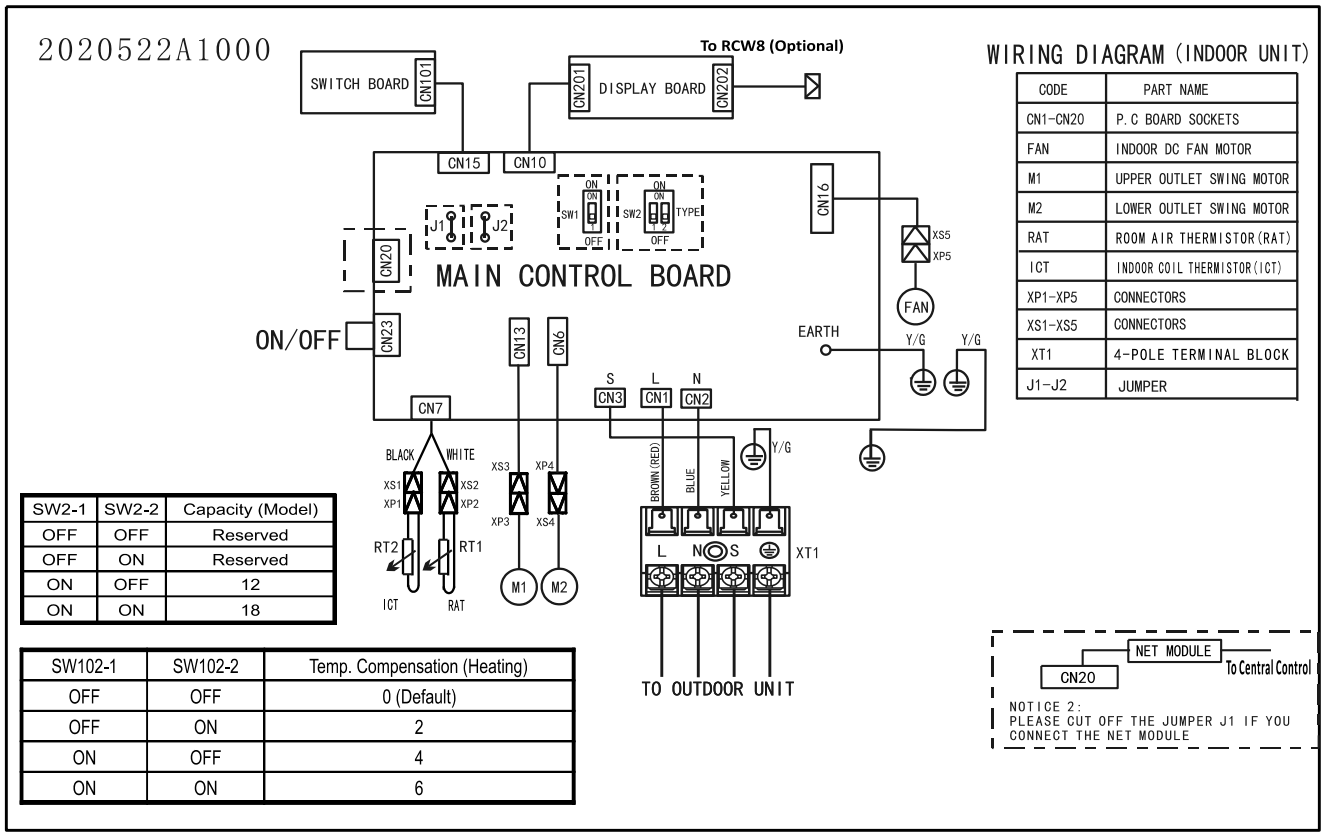
3. Service Space





4. Wiring Diagrams

AWSI-XAD012-N11



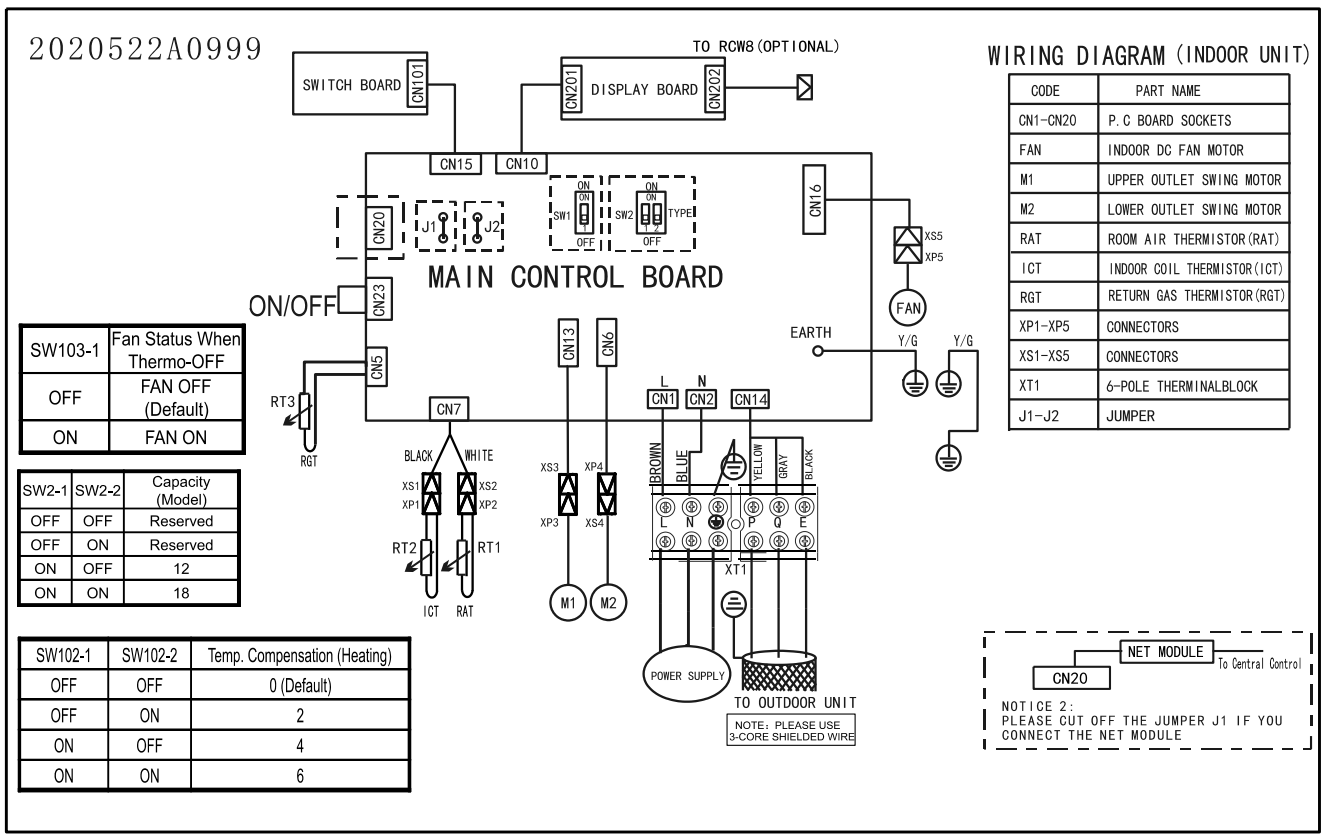
WIRING DIAGRAM (INDOOR UNIT)

CODE	PART NAME
CN1-CN20	P.C BOARD SOCKETS
FAN	INDOOR DC FAN MOTOR
M1	UPPER OUTLET SWING MOTOR
M2	LOWER OUTLET SWING MOTOR
RAT	ROOM AIR THERMISTOR(RAT)
ICT	INDOOR COIL THERMISTOR(ICT)
XP1-XP5	CONNECTORS
XS1-XS5	CONNECTORS
XT1	4-POLE TERMINAL BLOCK
J1-J2	JUMPER

SW2-1	SW2-2	Capacity (Model)
OFF	OFF	Reserved
OFF	ON	Reserved
ON	OFF	12
ON	ON	18

SW102-1	SW102-2	Temp. Compensation (Heating)
OFF	OFF	0 (Default)
OFF	ON	2
ON	OFF	4
ON	ON	6

AWSI-XAD018-N11



WIRING DIAGRAM (INDOOR UNIT)

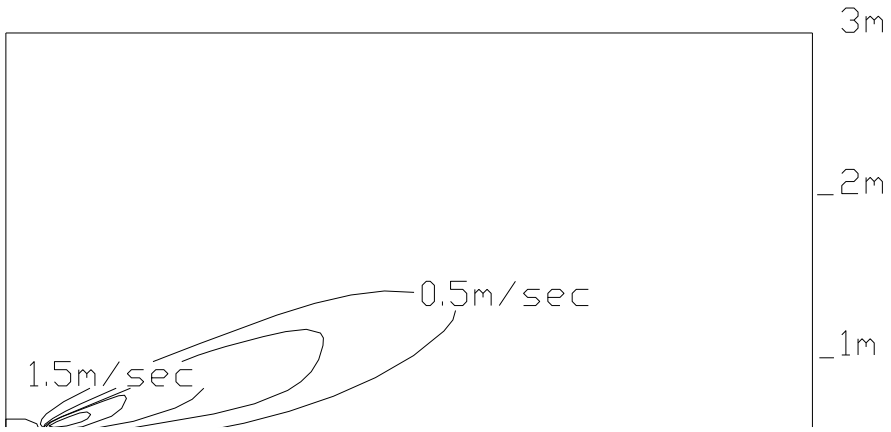
CODE	PART NAME
CN1-CN20	P.C BOARD SOCKETS
FAN	INDOOR DC FAN MOTOR
M1	UPPER OUTLET SWING MOTOR
M2	LOWER OUTLET SWING MOTOR
RAT	ROOM AIR THERMISTOR(RAT)
ICT	INDOOR COIL THERMISTOR(ICT)
RGT	RETURN GAS THERMISTOR(RGT)
XP1-XP5	CONNECTORS
XS1-XS5	CONNECTORS
XT1	6-POLE THERMINALBLOCK
J1-J2	JUMPER

SW103-1	Fan Status When Thermo-OFF
OFF	FAN OFF (Default)
ON	FAN ON

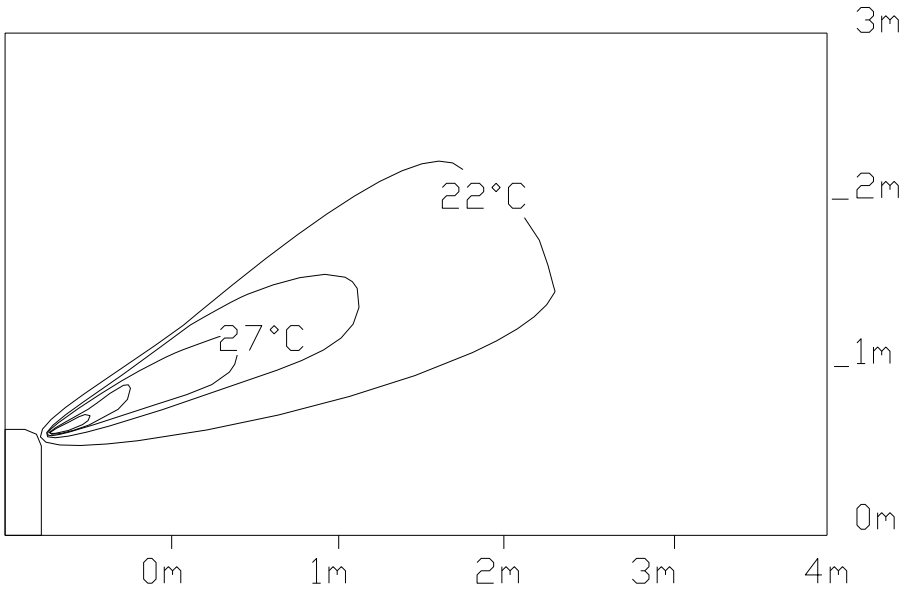
SW2-1	SW2-2	Capacity (Model)
OFF	OFF	Reserved
OFF	ON	Reserved
ON	OFF	12
ON	ON	18

SW102-1	SW102-2	Temp. Compensation (Heating)
OFF	OFF	0 (Default)
OFF	ON	2
ON	OFF	4
ON	ON	6

Airflow velocity



Temperature

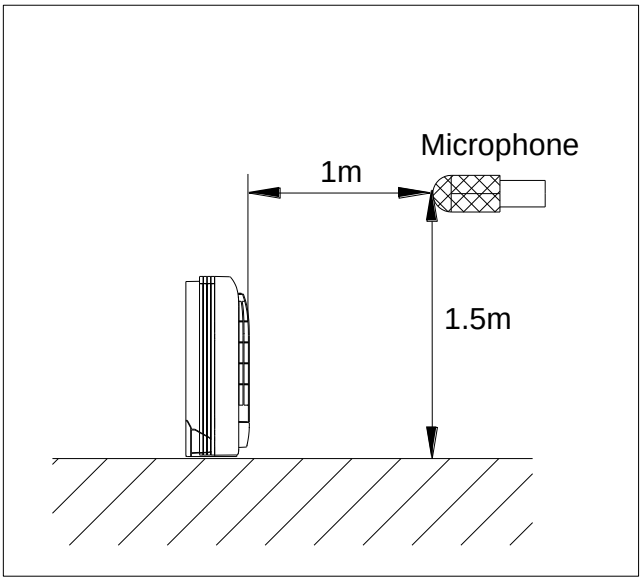


6. Electric Characteristics

Model	Indoor Units				Power Supply
	Hz	Voltage	Min.	Max.	MFA
AWSI-XAD012-N11	50	220-240	198	254	/
AWSI-XAD018-N11	50	220-240	198	254	10

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

7. Sound Levels



Model	Noise Power dB(A)	Noise level dB(A)		
		H	M	L
AWSI-XAD012-N11	58	44	40	36
AWSI-XAD018-N11	60	45	42	39

8. Accessories

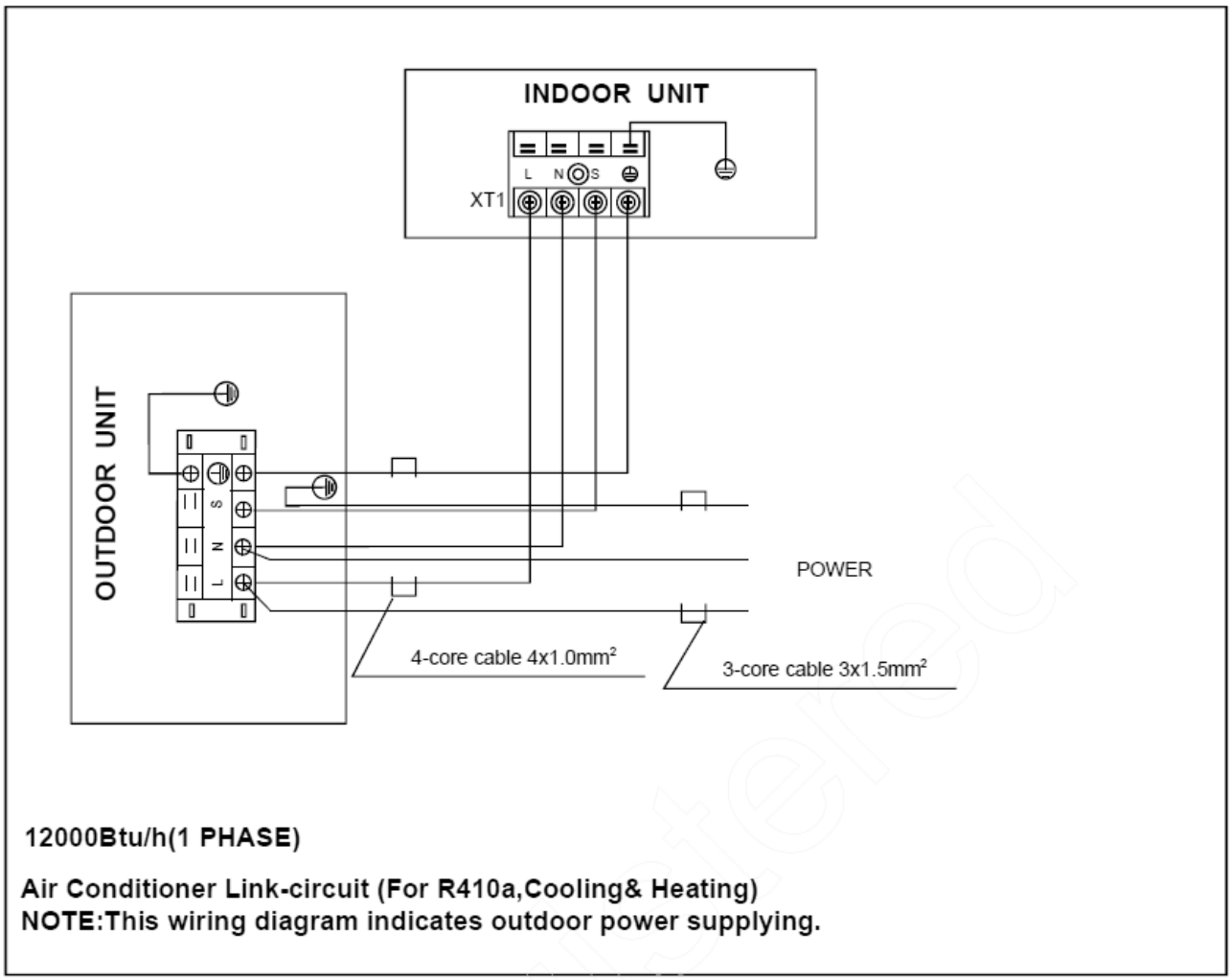
	Name	Shape	Quantity
Installation fittings	Hook		2
Remote controller & Its Frame	Remote controller		1
	Frame		1
	Mounting screw(ST2.9×10-C-H)		2
	Alkaline dry batteries (AM4)		2
Others	Installation manual	/	1
	Owner's manual	/	1

9. The Specification of Power

Capacity(Btu/h)		AWSI-XAD012-N11	AWSI-XAD018-N11
Indoor Unit Power	Phase	———	1-phase
	Frequency and Voltage	———	220-240V, 50Hz
	Power Wiring(mm^2)	———	3×1.0
	Circuit Breaker/Fuse (A)	———	15/10
Outdoor Unit Power	Phase	1-phase	1-phase
	Frequency and Voltage	220-240V, 50Hz	220-240V, 50Hz
	Power Wiring(mm^2)	3×1.5	3×2.5
	Circuit Breaker/Fuse (A)	20/16	30/20
Indoor/Outdoor Connecting Wiring(Weak Electric Signal) (mm^2)		———	3×0.2
Indoor/Outdoor Connecting Wiring(Strong Electric Signal) (mm^2)		4×1.0	———

10. Field Wiring

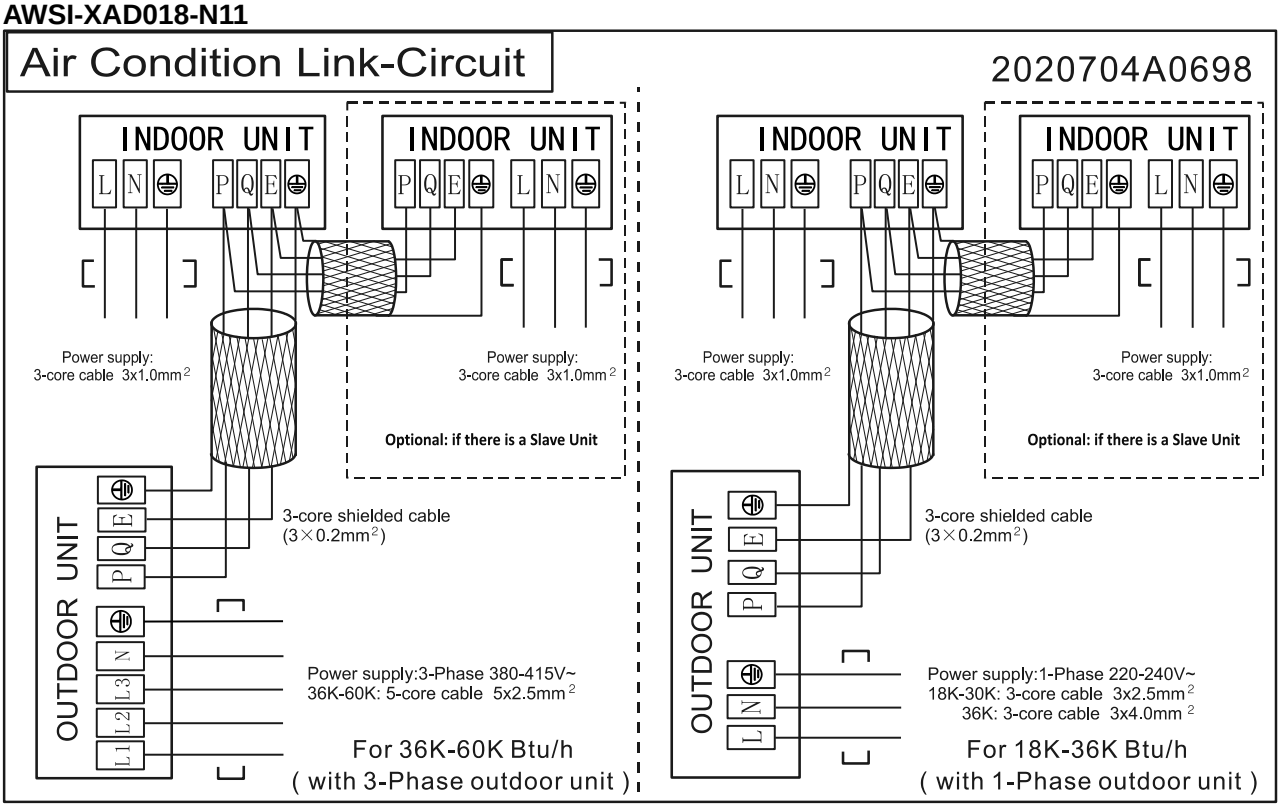
AWSI-XAD012-N11



12000Btu/h(1 PHASE)

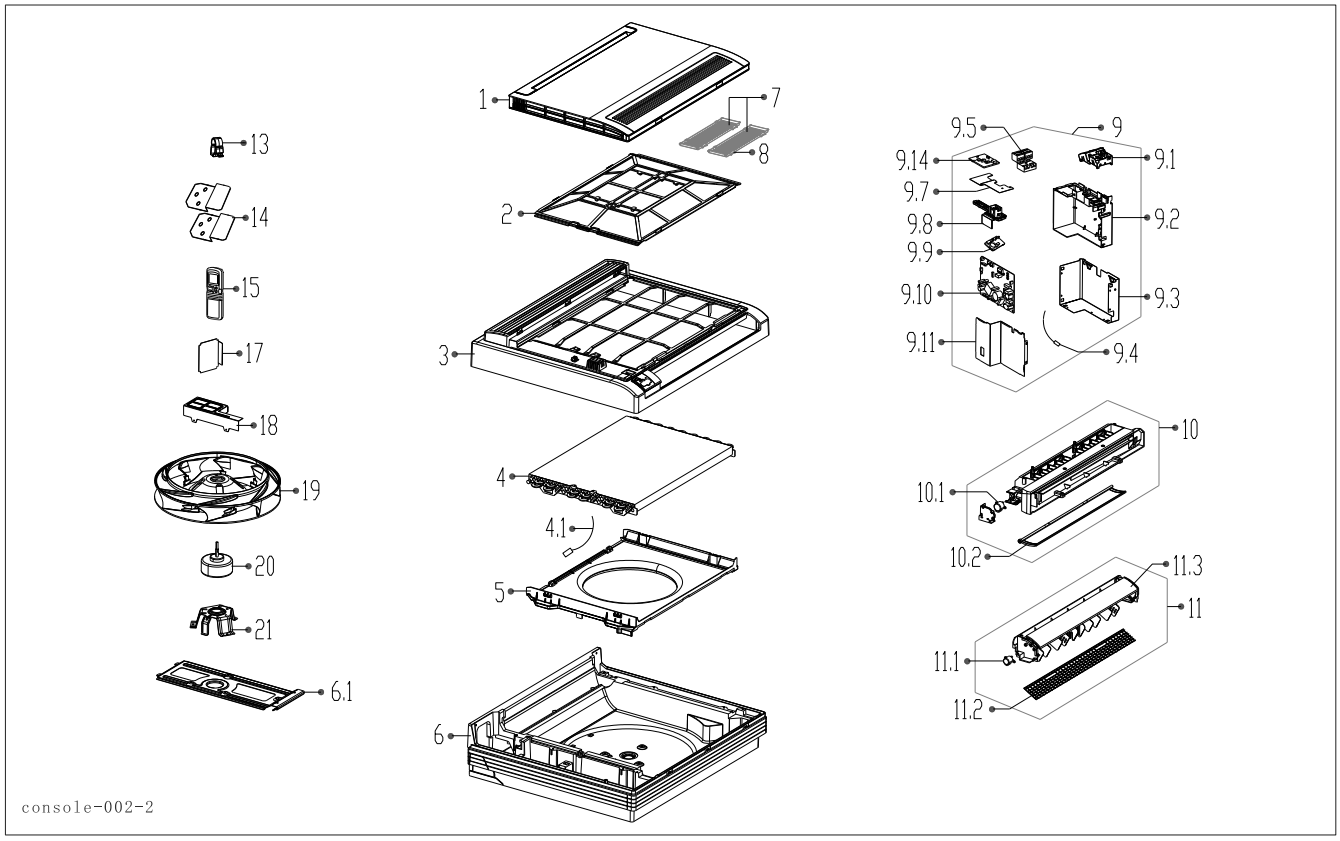
Air Conditioner Link-circuit (For R410a,Cooling& Heating)
NOTE:This wiring diagram indicates outdoor power supplying.

AWSI-XAD018-N11



11. Exploded View and Spare Part list

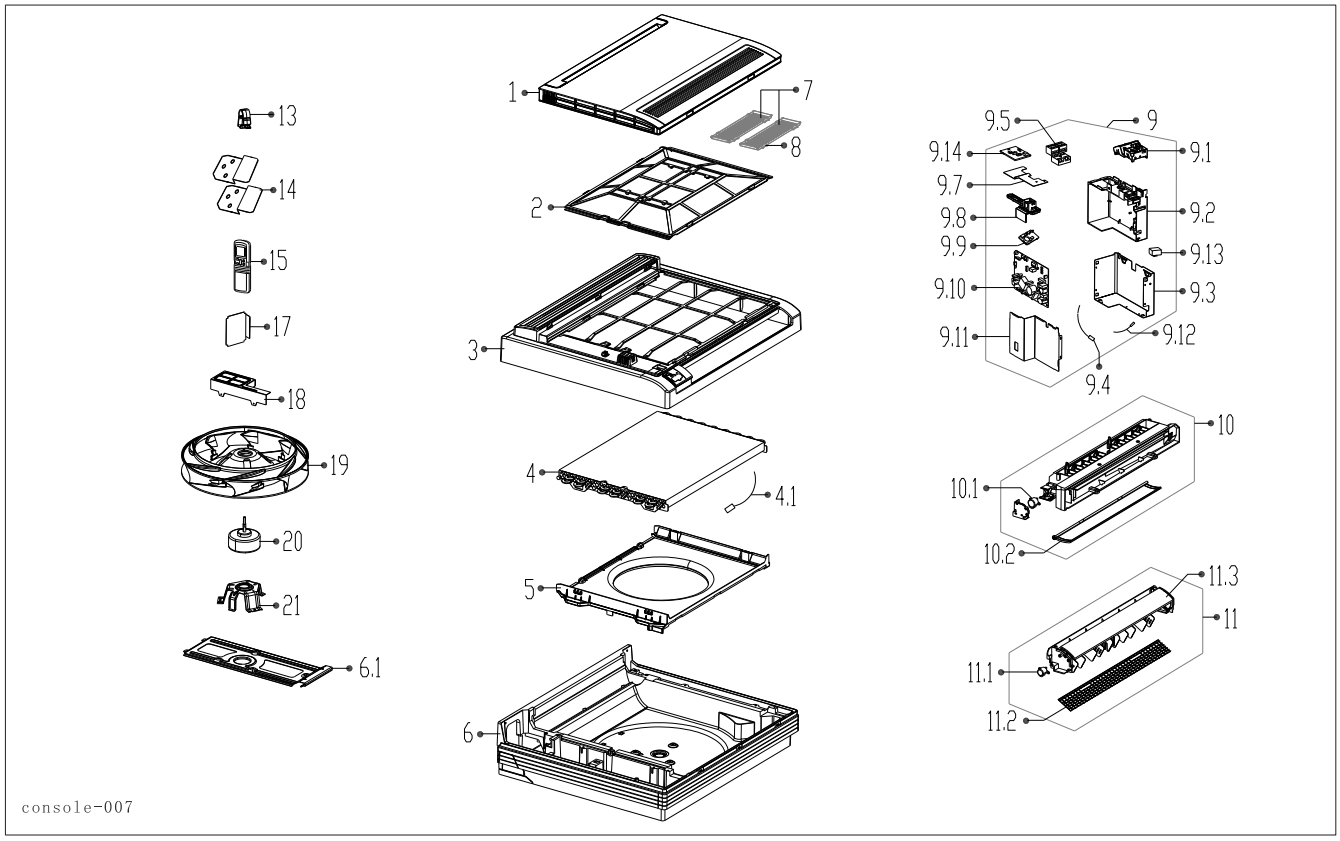
Exploded View of indoor unit:AWSI-XAD012-N11



Spare part list of indoor unit:AWSI-XAD012-N11

No.	BOM Code	Part Name	Quantity
1	2011440A0001	Panel assembly	1
2	201144090002	Air filter	1
3	201144090022	Panel frame assembly	1
4	201544090014	Evaporator assembly	1
4.1	202301310085	Pipe temperature sensor assembly	1
5	201144090030	Ventilation assembly	1
6	201144090016	Chassis assembly	1
6.1	201244090009	Hang board assembly	1
7	201131410703	Anti-bacterial filter	2
8	201132200713	Bracket of air filter	2
9	2033440A0034	Electronic control box assembly	1
9.1	201144090009	Installation plate of electric parts I	1
9.2	201144090010	Electrical control box	1
9.3	201244090003	Fixing board of electronic control box II	1
9.4	202301310072	Ambient temperature sensor assembly	1
9.5	202301400072	Wire joint	1
9.7	201244090002	Electronic control box seal plate	1
9.8	201144090008	Installation plate of electric parts	1
9.9	201344090004	Display board assembly	1
9.10	2013440A0029	Main control board assembly	1
9.11	201244090004	Fixing board of electronic control box I	1
9.14	201344090029	Auxiliary electric heater control board	1
10	201144090044	Water collector	1
10.1	202400200052	Louver motor	1
10.2	P0000281380	Underside louver	1
11	201144090042	Air outlet assembly	1
11.1	202400200053	Louver motor	1
11.2	201244090008	Rear net	1
11.3	P0000283050	Up louver	1
13	201144090011	Pipe clamp	1
14	201244290015	Installation clamp	2
15	203355091552	Remote controller	1
17	201144090005	Insulation washer	1
18	201244090001	Cover of electronic control box	1
19	201100100020	Centrifugal fan	1
20	202400300014	Fan motor	1
21	201244090005	Supporter assembly of fan motor	1

Exploded View of indoor unit:AWSI-XAD018-N11

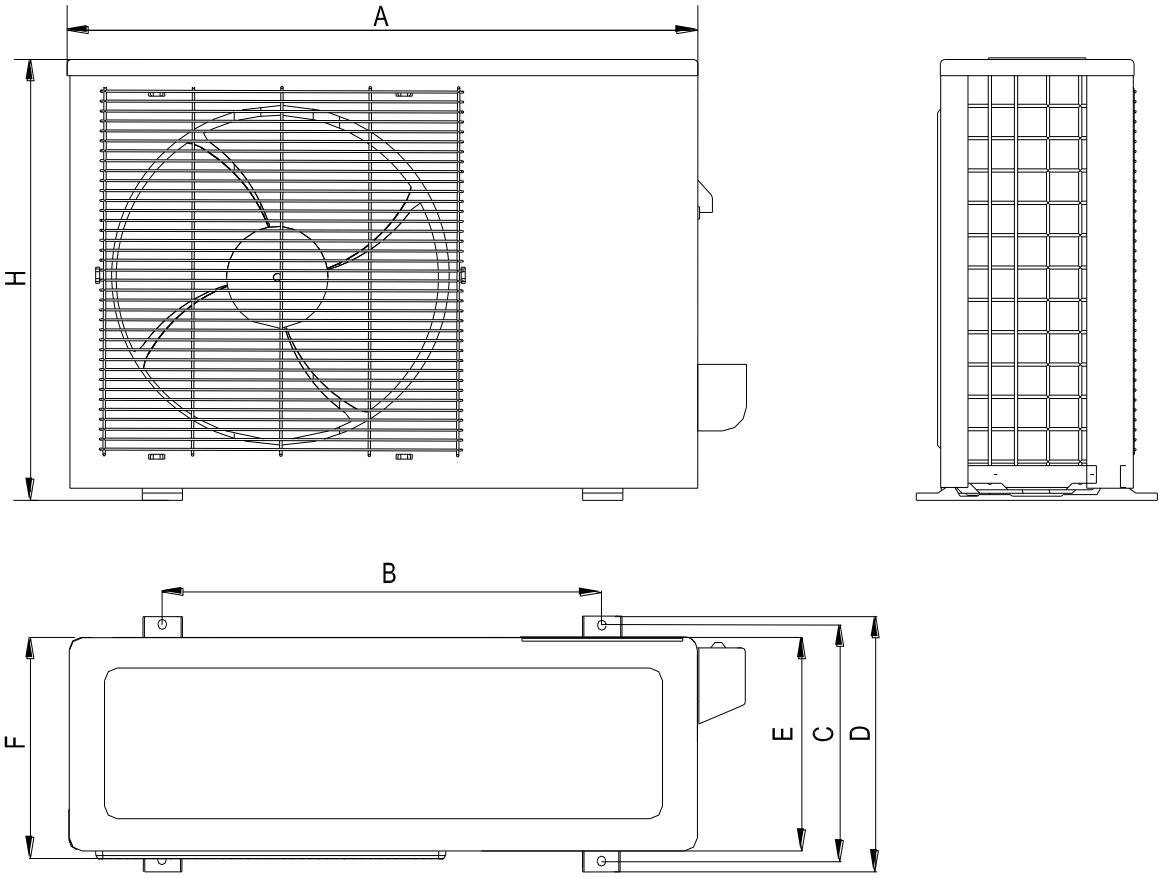


Spare part list of indoor unit:AWSI-XAD018-N11

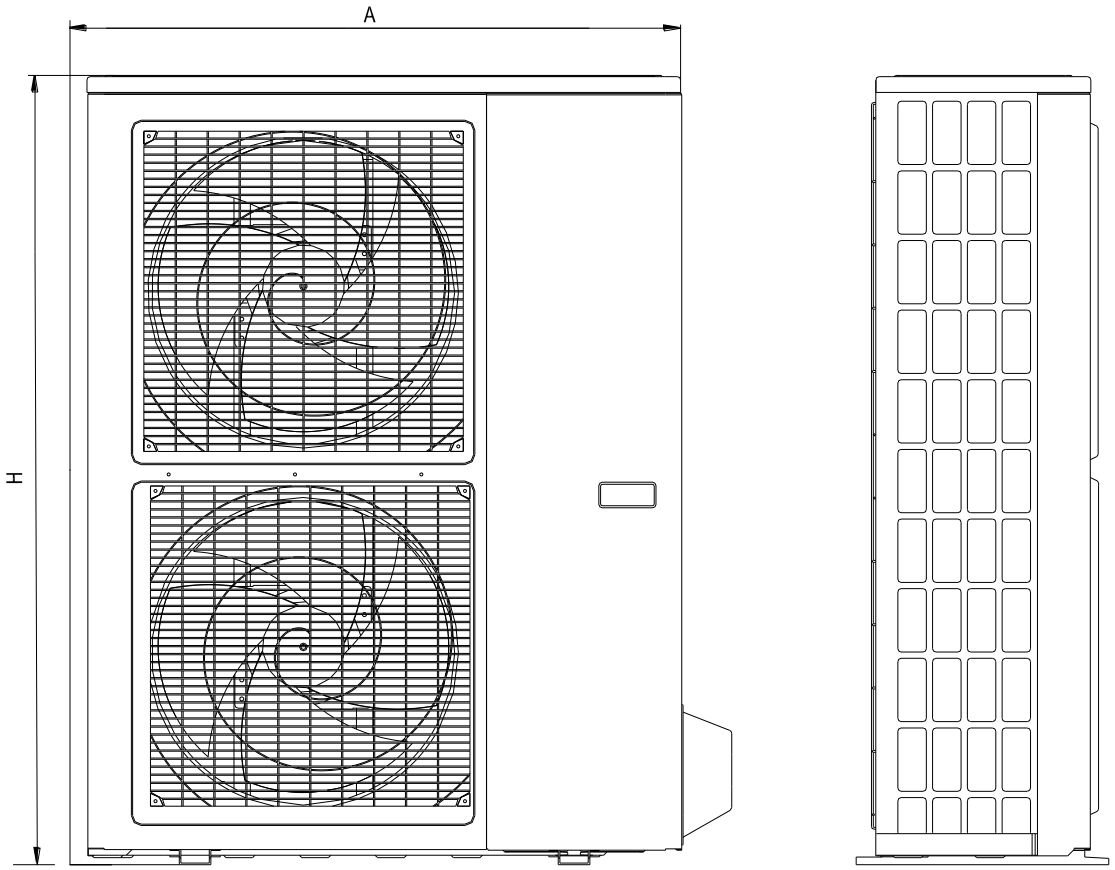
No.	BOM Code	Part Name	Quantity
1	2011440A0001	Panel assembly	1
2	201144090002	Air filter	1
3	201144090022	Panel frame assembly	1
4	201544190012	Evaporator assembly	1
4.1	202301310085	Pipe temperature sensor assembly	1
5	201144090030	Ventilation assembly	1
6	201144090016	Chassis assembly	1
6.1	201244090009	Hang board assembly	1
7	201131410703	Anti-bacterial filter	2
8	201132200713	Bracket of air filter	2
9	203344190019	Electronic control box assembly	1
9.1	201144090009	Installation plate of electric parts I	1
9.2	201144090010	Electrical control box	1
9.3	201244090003	Fixing board of electronic control box II	1
9.4	202301310072	Ambient temperature sensor assembly	1
9.5	202301450125	Wire joint	1
9.7	201244090002	Electronic control box seal plate	1
9.8	201144090008	Installation plate of electric parts	1
9.9	201344090004	Display board assembly	1
9.10	201344190028	Main control board assembly	1
9.11	201244190000	Fixing board of electronic control box I	1
9.12	202301300077	Pipe temperature sensor assembly	1
9.13	203310900018	Network module assembly	1
9.14	201344090029	Auxiliary electric heater control board	1
10	201144090044	Water collector	1
10.1	202400200052	Louver motor	1
10.2	P0000281380	Underside louver	1
11	201144090042	Air outlet assembly	1
11.1	202400200053	Louver motor	1
11.2	201244090008	Rear net	1
11.3	P0000283050	Up louver	1
13	201144090011	Pipe clamp	1
14	201244290015	Installation clamp	2
15	203355091552	Remote controller	1
17	201144090005	Insulation washer	1
18	201244090001	Cover of electronic control box	1
19	201100100020	Centrifugal fan	1
20	202400300014	Fan motor	1
21	201244090005	Supporter assembly of fan motor	1

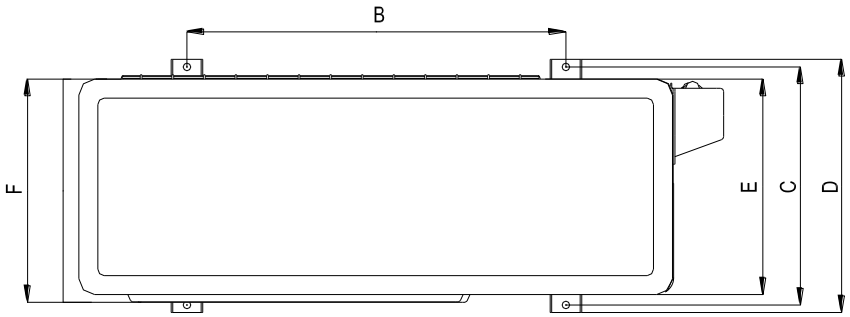
Part 3
Outdoor Units

1. Dimensions



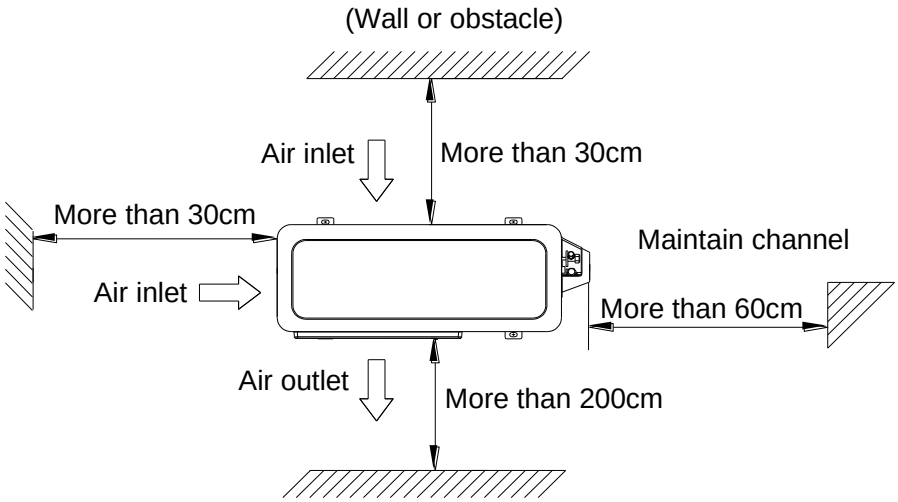
Model	Unit：mm						
	A	B	C	D	E	F	H
AWAU-YLD012-H11	760	530	290	315	270	285	590
AWAU-YLD018-H11	845	560	335	360	312	320	700
AWAU-YLD024-H11	900	590	333	355	302	315	860
AWAU-YLD030-H11	900	590	333	355	302	315	860
AWAU-YLD036-H11	990	624	366	396	340	345	965
AWAU-YLD036-H13	990	624	366	396	340	345	965

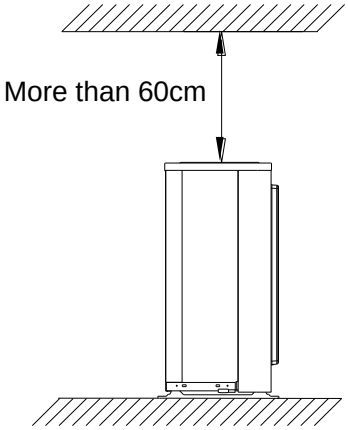




Model	Unit：mm						
	A	B	C	D	E	F	H
AWAU-YLD048-H13	938	633.5	404	448	370	392	1369
AWAU-YLD060-H13	938	633.5	404	448	370	392	1369

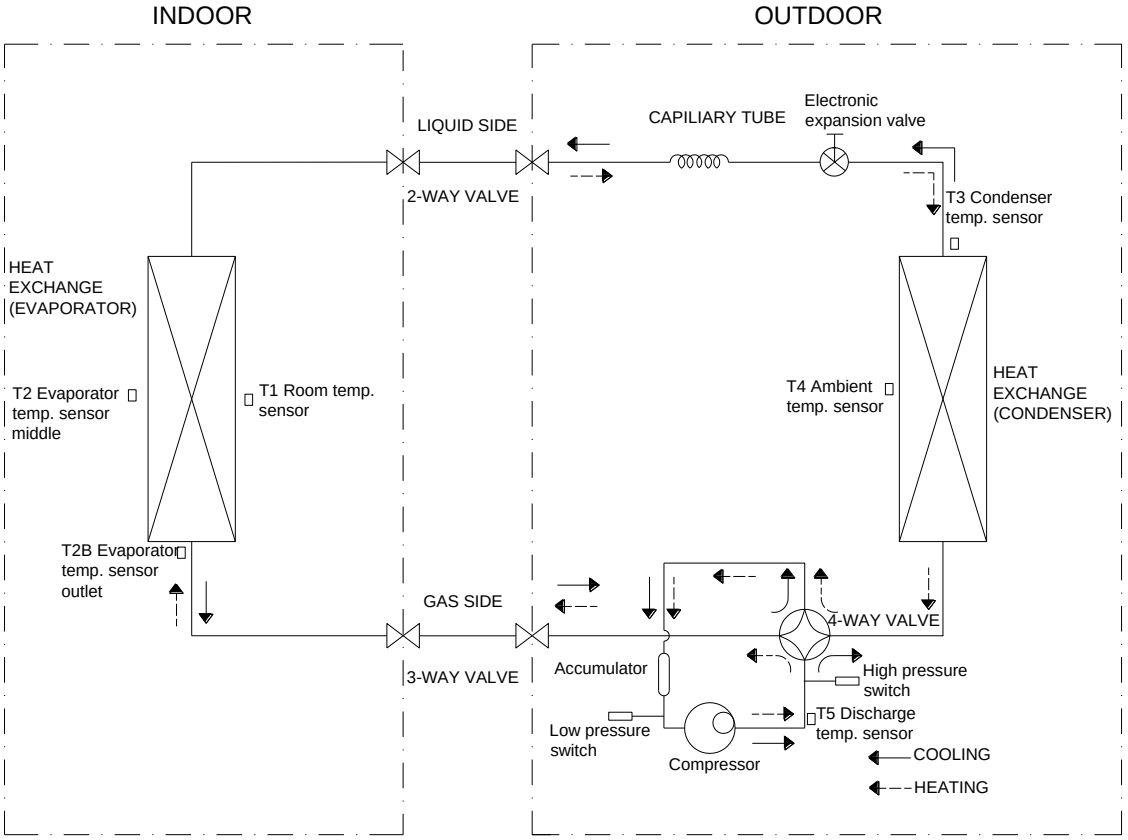
2. Service Space



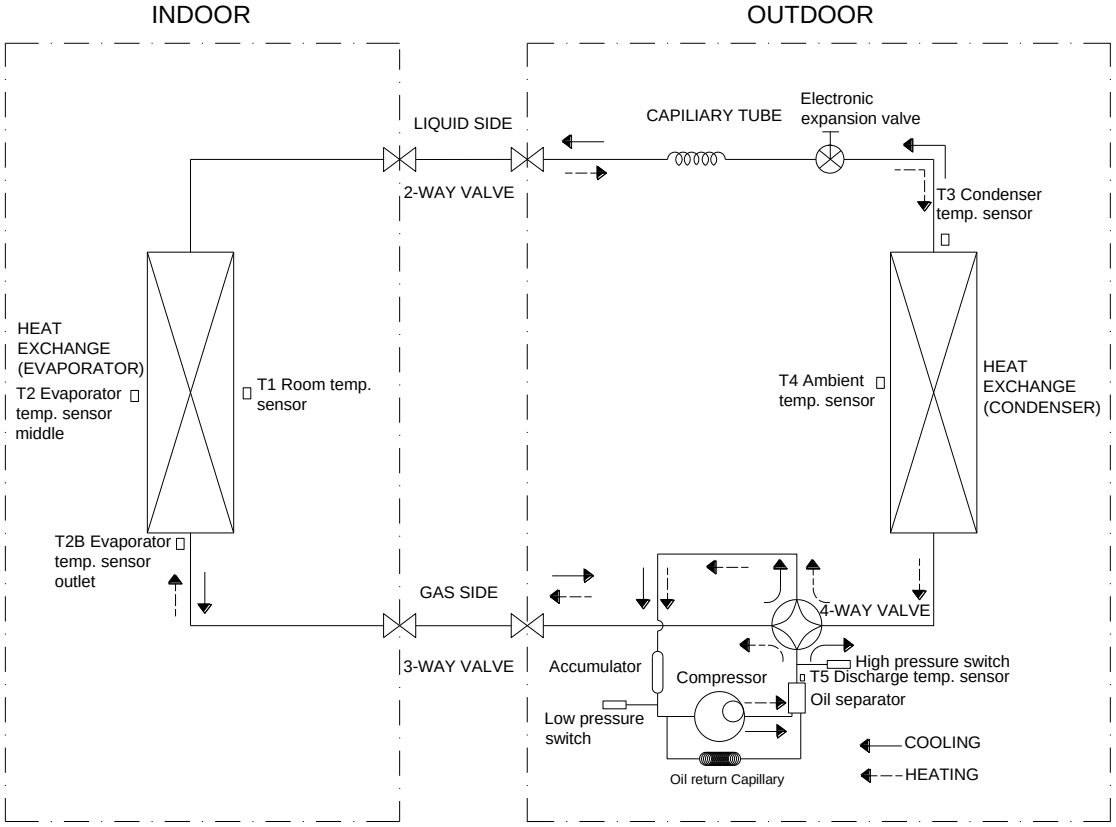


3. Piping Diagrams

AWAU-YLD012-H11 AWAU-YLD018-H11 AWAU-YLD024-H11 AWAU-YLD030-H11

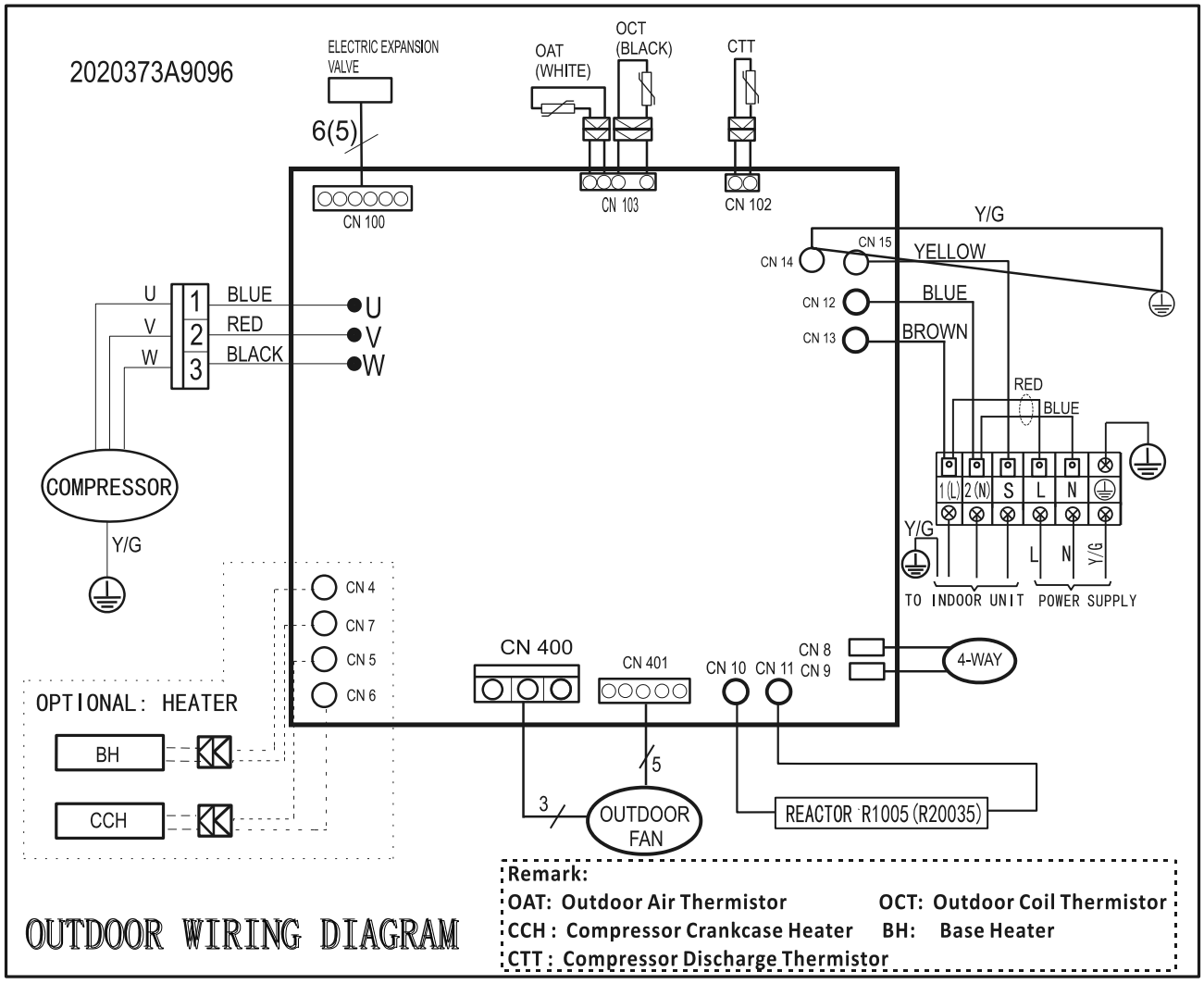


AWAU-YLD036-H11 AWAU-YLD036-H13 AWAU-YLD048-H13 AWAU-YLD060-H13

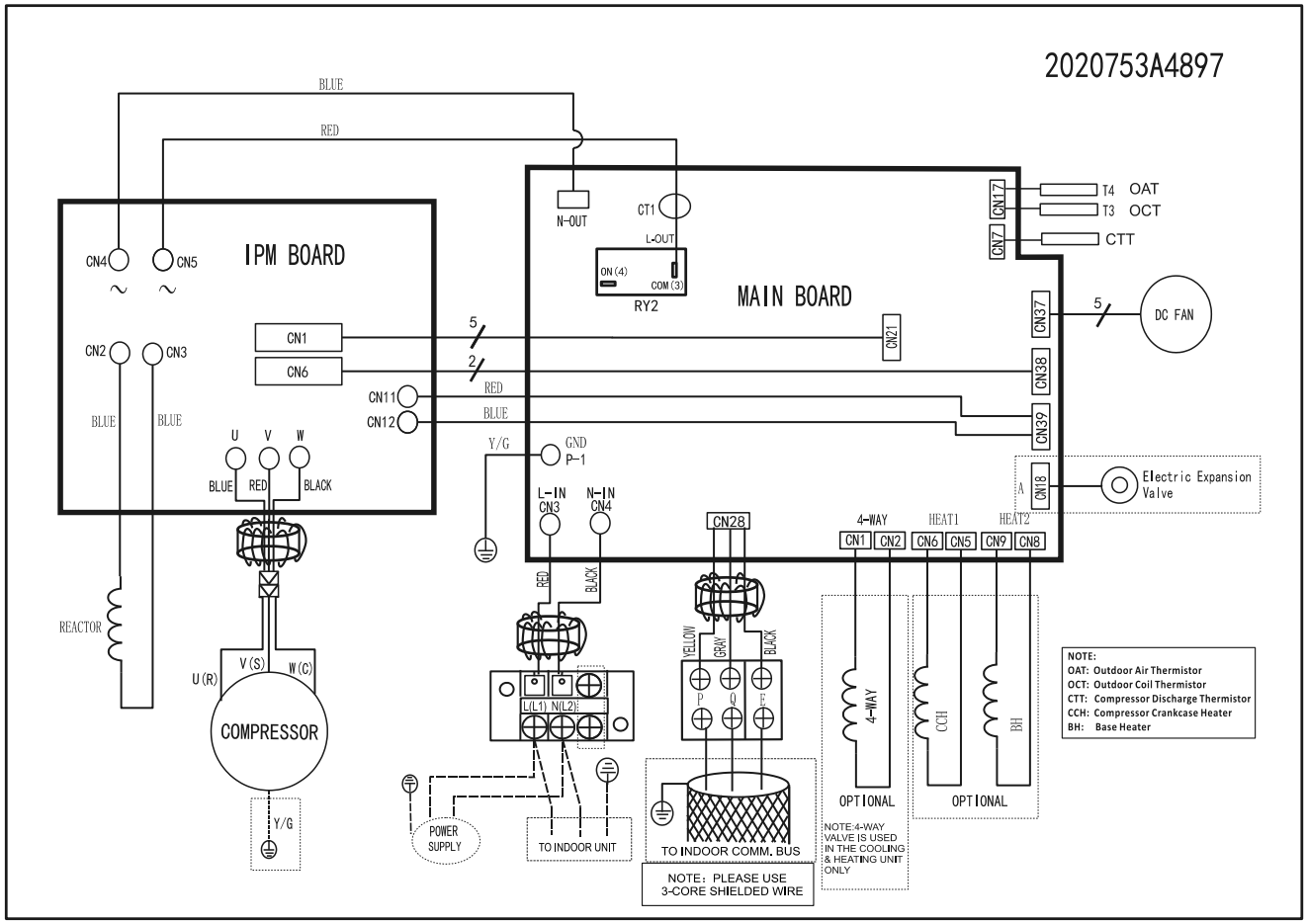


4. Wiring Diagrams

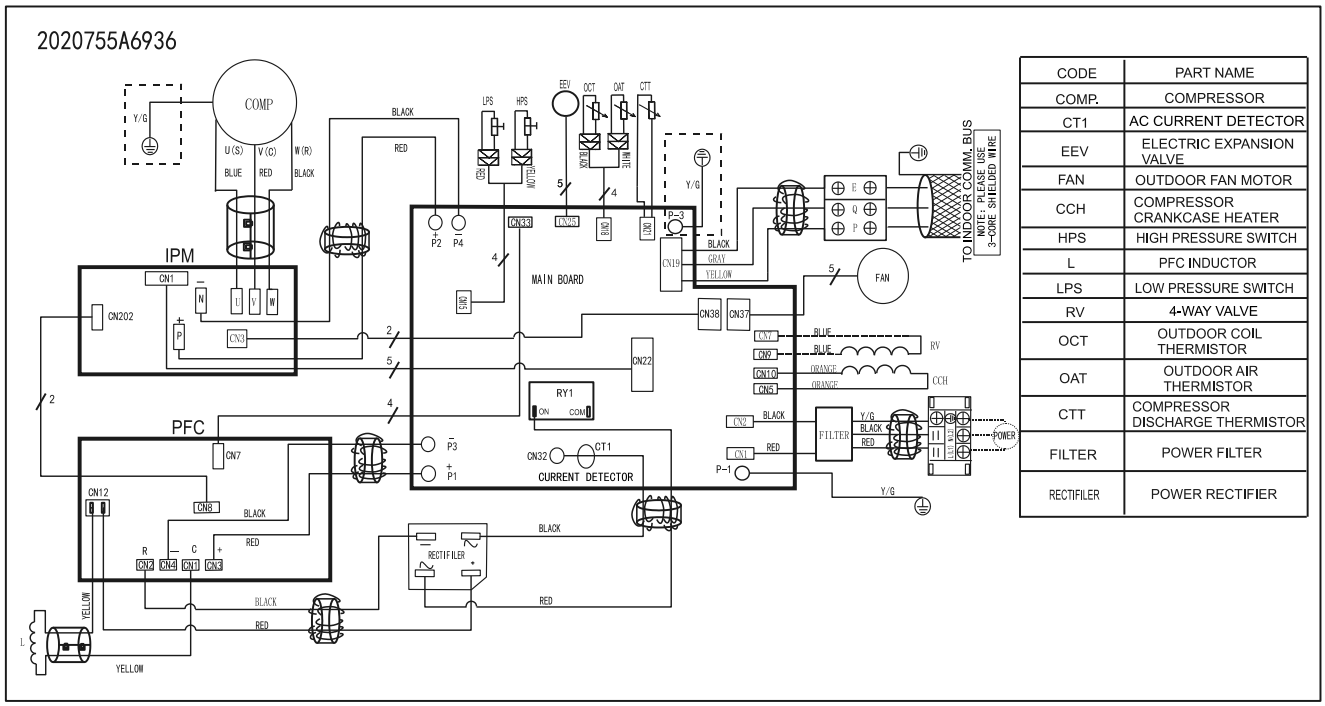
AWAU-YLD012-H11



AWAU-YLD018-H11 AWAU-YLD024-H11 AWAU-YLD030-H11

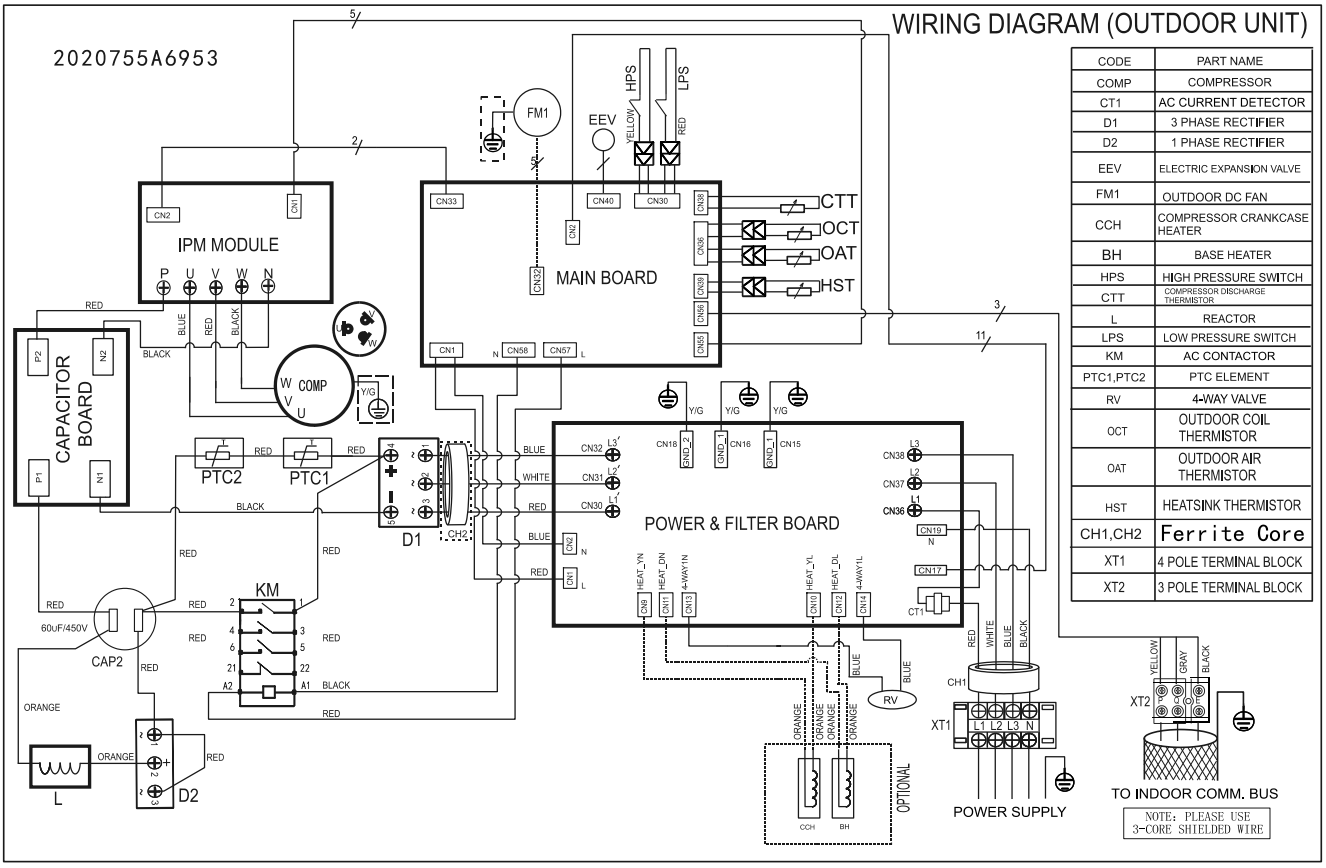


AWAU-YLD036-H11



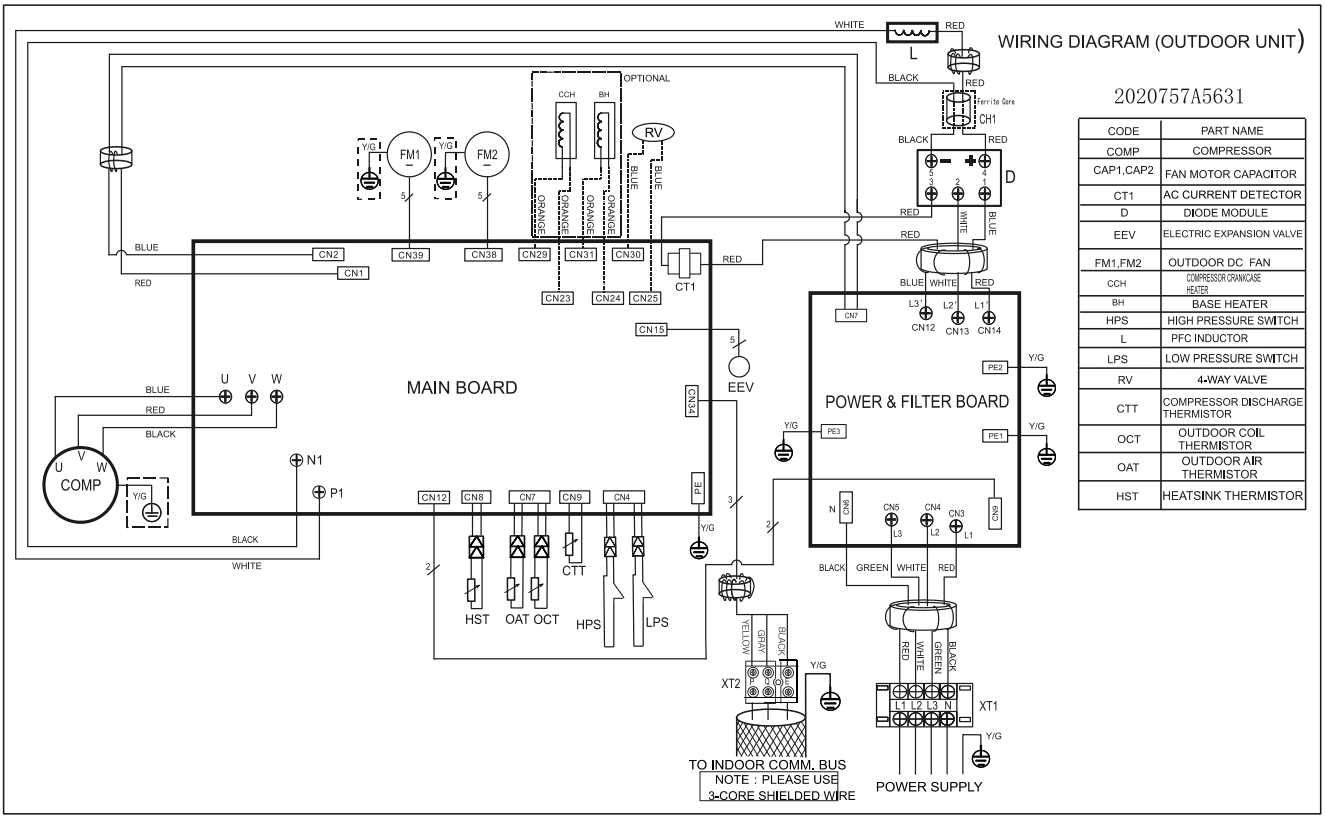
CODE	PART NAME
COMP.	COMPRESSOR
CT1	AC CURRENT DETECTOR
EEV	ELECTRIC EXPANSION VALVE
FAN	OUTDOOR FAN MOTOR
CCH	COMPRESSOR CRANKCASE HEATER
HPS	HIGH PRESSURE SWITCH
L	PFC INDUCTOR
LPS	LOW PRESSURE SWITCH
RV	4-WAY VALVE
OCT	OUTDOOR COIL THERMISTOR
OAT	OUTDOOR AIR THERMISTOR
CTT	COMPRESSOR DISCHARGE THERMISTOR
FILTER	POWER FILTER
RECTIFILER	POWER RECTIFIER

AWAU-YLD036-H13



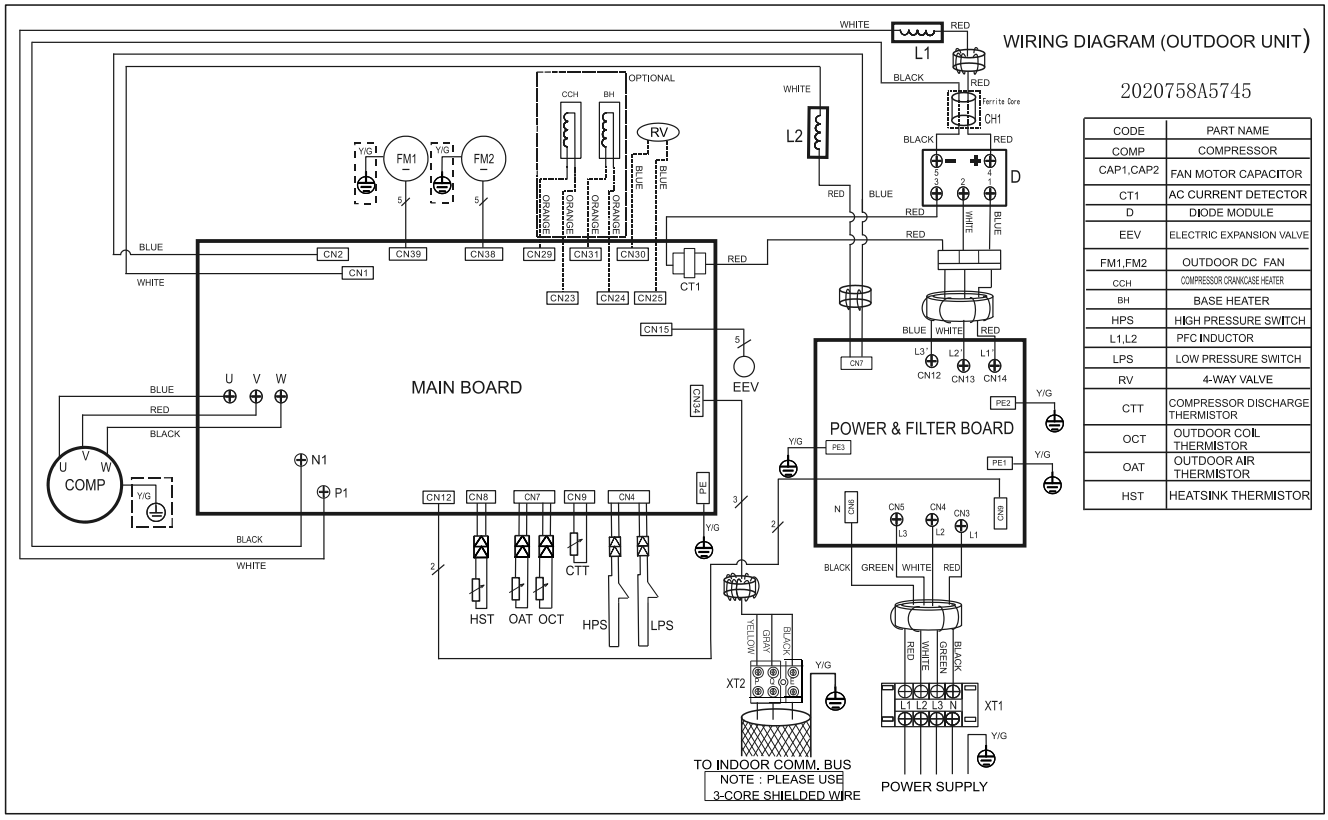
CODE	PART NAME
COMP	COMPRESSOR
CT1	AC CURRENT DETECTOR
D1	3 PHASE RECTIFIER
D2	1 PHASE RECTIFIER
EEV	ELECTRIC EXPANSION VALVE
FM1	OUTDOOR DC FAN
CCH	COMPRESSOR CRANKCASE HEATER
BH	BASE HEATER
HPS	HIGH PRESSURE SWITCH
CTT	COMPRESSOR DISCHARGE THERMISTOR
L	REACTOR
LPS	LOW PRESSURE SWITCH
KM	AC CONTACTOR
PTC1,PTC2	PTC ELEMENT
RV	4-WAY VALVE
OCT	OUTDOOR COIL THERMISTOR
OAT	OUTDOOR AIR THERMISTOR
HST	HEATSINK THERMISTOR
CH1,CH2	Ferrite Core
XT1	4 POLE TERMINAL BLOCK
XT2	3 POLE TERMINAL BLOCK

AWAU-YLD048-H13



CODE	PART NAME
COMP	COMPRESSOR
CAP1,CAP2	FAN MOTOR CAPACITOR
CT1	AC CURRENT DETECTOR
D	DIODE MODULE
EEV	ELECTRIC EXPANSION VALVE
FM1,FM2	OUTDOOR DC FAN
CCH	COMPRESSOR CRANKCASE HEATER
BH	BASE HEATER
HPS	HIGH PRESSURE SWITCH
L	PFC INDUCTOR
LPS	LOW PRESSURE SWITCH
RV	4-WAY VALVE
CTT	COMPRESSOR DISCHARGE THERMISTOR
OCT	OUTDOOR COIL THERMISTOR
OAT	OUTDOOR AIR THERMISTOR
HST	HEATSINK THERMISTOR

AWAU-YLD060-H13



CODE	PART NAME
COMP	COMPRESSOR
CAP1,CAP2	FAN MOTOR CAPACITOR
CT1	AC CURRENT DETECTOR
D	DIODE MODULE
EEV	ELECTRIC EXPANSION VALVE
FM1,FM2	OUTDOOR DC FAN
CCH	COMPRESSOR CRANKCASE HEATER
BH	BASE HEATER
HPS	HIGH PRESSURE SWITCH
L1,L2	PFC INDUCTOR
LPS	LOW PRESSURE SWITCH
RV	4-WAY VALVE
CTT	COMPRESSOR DISCHARGE THERMISTOR
OCT	OUTDOOR COIL THERMISTOR
OAT	OUTDOOR AIR THERMISTOR
HST	HEATSINK THERMISTOR

5. Electric Characteristics

Model	Outdoor Unit				Power Supply
	Hz	Voltage	Min.	Max.	MFA
AWAU-YLD012-H11	50	220-240V	198V	254V	16
AWAU-YLD018-H11	50	220-240V	198V	254V	16
AWAU-YLD024-H11	50	220-240V	198V	254V	20
AWAU-YLD030-H11	50	220-240V	198V	254V	30
AWAU-YLD036-H11	50	220-240V	198V	254V	30
AWAU-YLD036-H13	50	380-415V	342V	440V	20
AWAU-YLD048-H13	50	380-415V	342V	440V	25
AWAU-YLD060-H13	50	380-415V	342V	440V	25

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

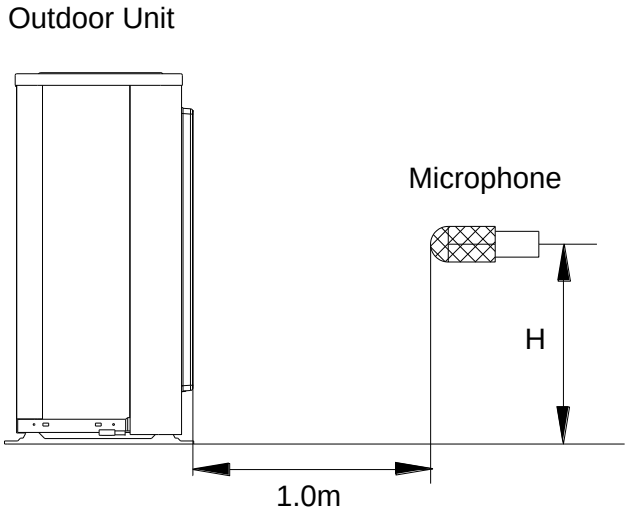
6. Operation Limits

Temperature / Mode	Cooling operation	Heating operation
Room temperature	⩾17˚C	≤30˚C
Outdoor temperature	0˚C～50˚C	-15˚C～24˚C
	-15˚C～50˚C (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

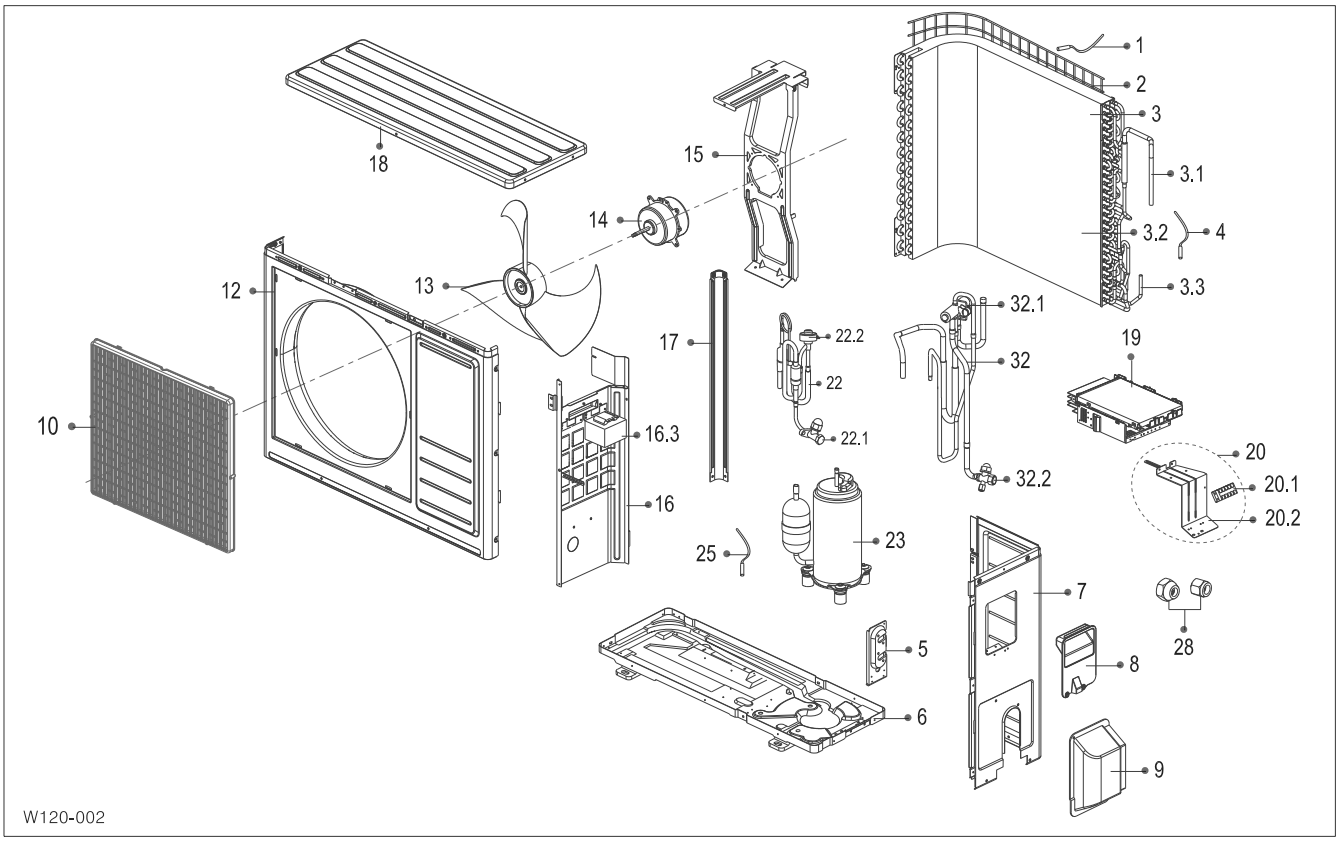


Note: H= 0.5 × height of outdoor unit

Model	Noise Power dB(A)	Noise level dB(A)
AWAU-YLD012-H11	62	52
AWAU-YLD018-H11	65	55
AWAU-YLD024-H11	69	57
AWAU-YLD030-H11	70	58
AWAU-YLD036-H11	70	60
AWAU-YLD036-H13	70	60
AWAU-YLD048-H13	70	61
AWAU-YLD060-H13	70	61

8. Exploded View and Spare Part list

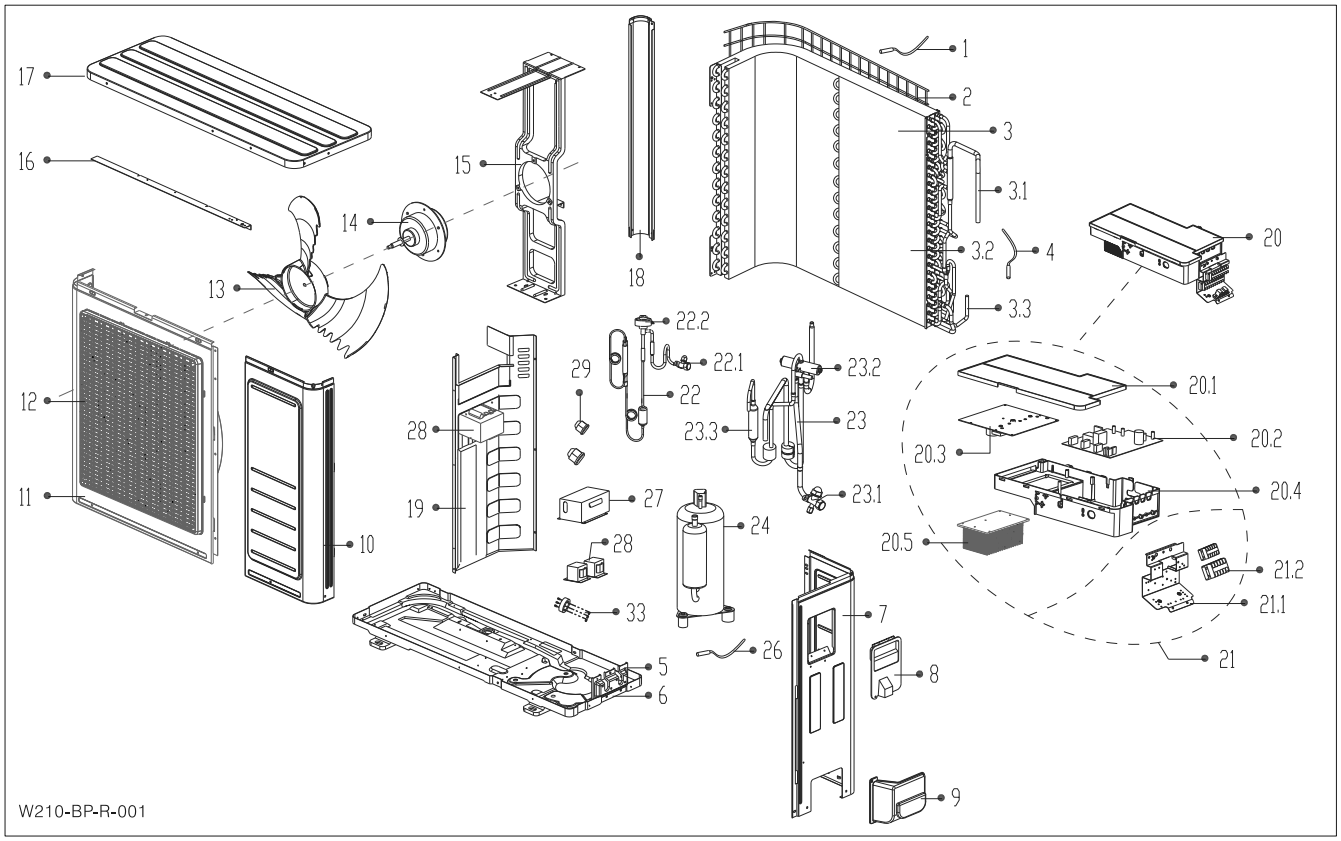
Exploded View of outdoor unit:AWAU-YLD012-H11



Spare part list of outdoor unit:AWAU-YLD012-H11

No.	BOM Code	Part Name	Quantity
1	202301310063	Ambient temperature sensor assembly	1
2	2011374G0003	Rear net	1
3	201537390033	Condenser assembly	1
3.1	201637490766	Input pipe assembly	1
3.2	201537390034	Condenser assembly	1
3.3	201637490176	Fluted pipe assembly	1
4	202440500004	Pipe temperature sensor assembly	1
5	201237200299	Valve plate	1
6	201237590105	Chassis assembly	1
7	201237500263	Rear right clapboard assembly	1
8	201137900007	Big handle	1
9	201137400000	Water collector	1
10	2011374A0004	Air outlet grille	1
	2011374A0005	Round sticker of air outlet grille	1
12	2012374A0056	Front panel	1
13	201100390002	Axial flow fan	1
14	202400300060	Asynchronous motor	1
15	201237390026	Supporter assembly of fan motor	1
16	201237500241	Partition board assembly	1
16.3	202301000867	Reactor	1
17	201237400400	Left supporter	1
18	201237900028	Top cover assembly	1
19	203337590112	Electronic control box assembly	1
20	203337790146	Terminal board assembly	1
20.1	202301400223	Wire joint	1
20.2	201237590046	Terminal board	1
22	201637391551	Liquid valve assembly	1
22.1	201600740523	Liquid valve	1
22.2	201601300554	Electronic expansion valve assembly	1
23	201400620600	Compressor	1
25	202301310068	Discharge temperature sensor assembly	1
28	201600320001	Copper nut	1
28	201600320000	Copper nut	1
32	will to be updated	4-Ways valve assembly	1
32.1	201600600521	4-Ways valve	1
32.2	201600720095	Gas valve	1

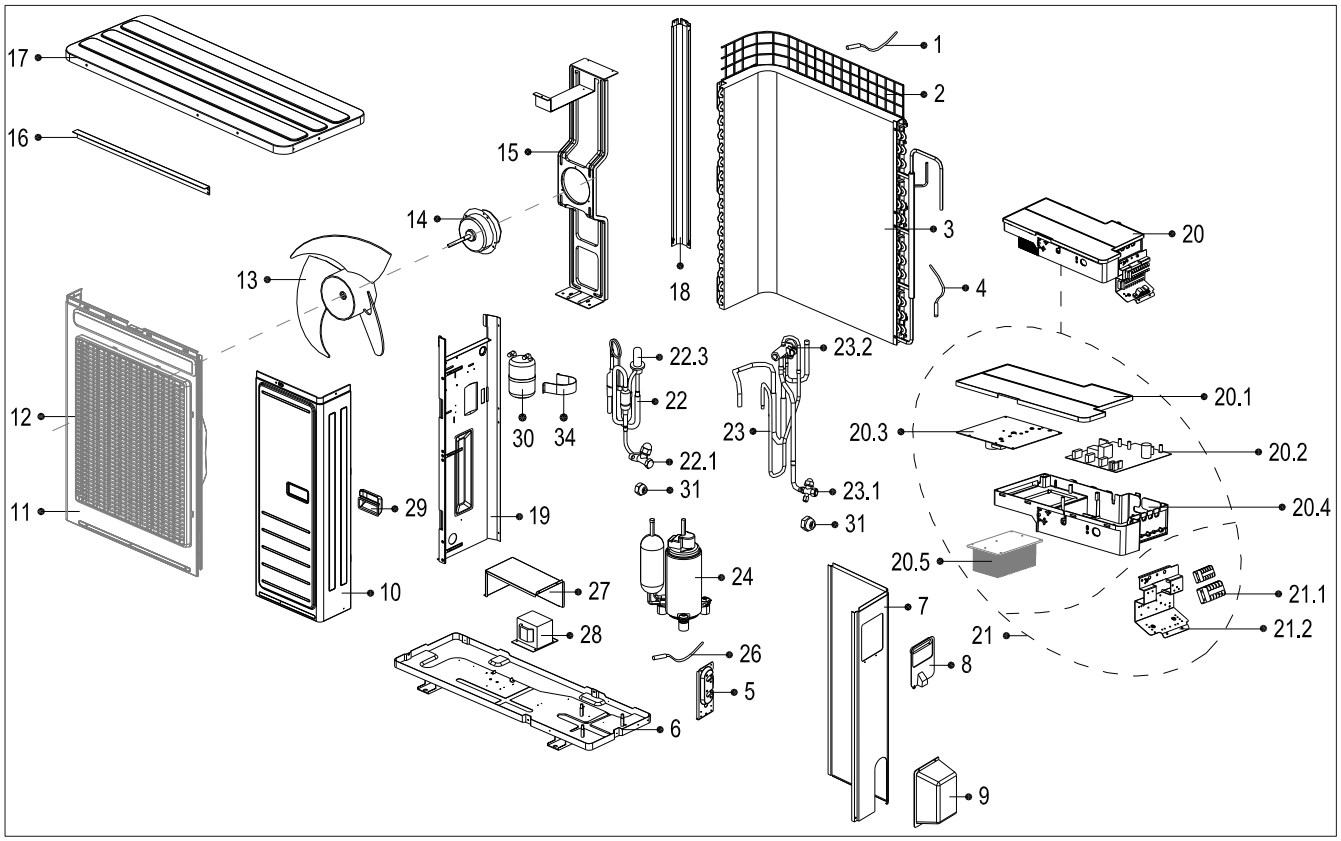
Exploded View of outdoor unit:AWAU-YLD018-H11



Spare part list of outdoor unit:AWAU-YLD018-H11

No.	BOM Code	Part Name	Quantity
1	202301310075	Ambient temperature sensor assembly	1
2	2011481G0001	Rear net	1
3	201537990084	Condenser assembly	1
3.1	201637991011	Input pipe assembly	1
3.2	201537990003	Condenser assembly	1
3.3	201637991010	Fluted pipe assembly	1
4	202440500004	Pipe temperature sensor assembly	1
5	201237300316	Valve plate	1
6	201257090054	Chassis assembly	1
7	201237890121	Rear right clapboard assembly	1
8	201137900007	Big handle	1
9	201137390017	Water collector	1
10	201248100389	Front right clapboard assembly	1
11	201248100390	Front panel	1
12	2011379A0005	Air outlet grille	1
	2011374A0005	Round sticker of air outlet grille	1
13	201100300553	Axial flow fan	1
14	202400300535	Asynchronous motor	1
15	201257090067	Supporter assembly of fan motor	1
16	201248100384	Rear supporter	1
17	201257190097	Top cover assembly	1
18	201248100367	Left supporter	1
19	201257190118	Partition board assembly	1
20	2033752A0057	Electronic control box assembly	1
20.1	201157190011	Cover of electronic control box	1
20.2	2013752A0014	Main control board assembly	1
20.3	201375290027	Inverter control board assembly	1
20.4	201157190010	Installation board for E-parts	1
20.5	202301901173	Radiator	1
21	203375290076	Terminal board assembly	1
21.1	201257190117	Installation plate of electric parts	1
21.2	202301450042	Wire joint	1
21.2	202301450121	Wire joint	1
22	201675290610	Liquid valve assembly	1
22.1	201600700078	Liquid valve	1
22.2	201601300554	Electronic expansion valve assembly	1
23	needs to be updated	4-way valve assembly	1
23.1	201600720194	Gas valve	1
23.2	201600690011	4-Ways valve	1
23.3	201601010017	Accumulator tank	1
24	201400603269	Compressor	1
26	202448200000	Discharge temperature sensor assembly	1
27	201248090001	Cover of inductance	1
28	202301000903	Reactor	1
29	201600320002	Copper nut	1
29	201600320000	Copper nut	1
33	202402220154	Compressor wire assembly	1

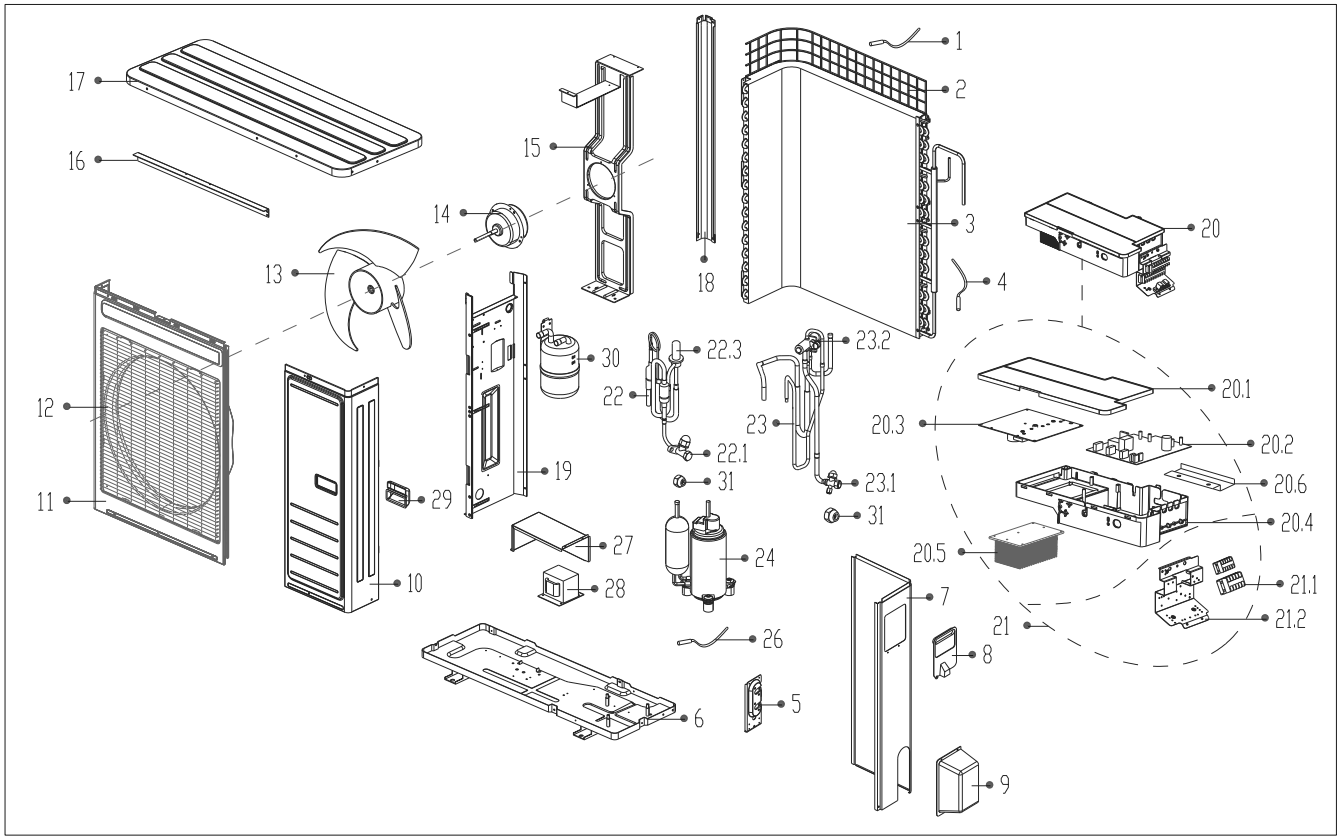
Exploded View of outdoor unit:AWAU-YLD024-H11



Spare part list of outdoor unit:AWAU-YLD024-H11

No.	BOM Code	Part Name	Quantity
1	202301310075	Ambient temperature sensor assembly	1
2	2011482G0001	Rear net	1
3	201557190037	Condenser assembly	1
4	202301300111	Pipe temperature sensor assembly	1
5	201248300316	Valve plate	1
6	201257190085	Chassis assembly	1
7	201238190023	Rear right clapboard assembly	1
8	201157390007	Big handle	1
9	201138090002	Water collector	1
10	201248200082	Front right clapboard assembly	1
11	201248200103	Front panel	1
12	2011482A0001	Air outlet grille	1
	2011374A0005	Round sticker of air outlet grille	1
13	201100300527	Axial flow fan	1
14	202400300047	Brushless DC Motor	1
15	201257190071	Supporter assembly of fan motor	1
16	201248200095	Rear supporter	1
17	201248300309	Top cover assembly	1
18	201248400036	Left supporter	1
19	201257190115	Partition board assembly	1
20	203375390332	Electronic control box assembly	1
20.1	201157190011	Cover of electronic control box	1
20.2	201375390026	Outdoor main control board assembly	1
20.3	201357190085	Inverter control board assembly	1
20.4	201157190010	Electronic installing plate	1
20.5	202301901173	Radiator	1
21	203375390330	Terminal board assembly	1
21.1	202301450042	Wire joint	1
21.1	202301450121	Wire joint	1
21.2	201257190120	Terminal board	1
22	201675390818	Liquid valve assembly	1
22.1	201600740706	Liquid valve	1
22.3	201601300032	Electronic expansion valve	1
23	will to be updated	4-ways valve assembly	1
23.1	201600720398	Gas valve	1
23.2	201600600119	4-ways valve	1
24	201400601740	Compressor	1
26	202448200000	Discharge temperature sensor assembly	1
27	201248390003	Cover of inductance	1
28	202301000943	Reactor	1
29	201148700009	Handle	2
30	201601000603	Accumulator cylinder	1
31	201600320003	Copper nut	1
31	201600320001	Copper nut	1
34	201245000901	Fix clamp of segregator	1

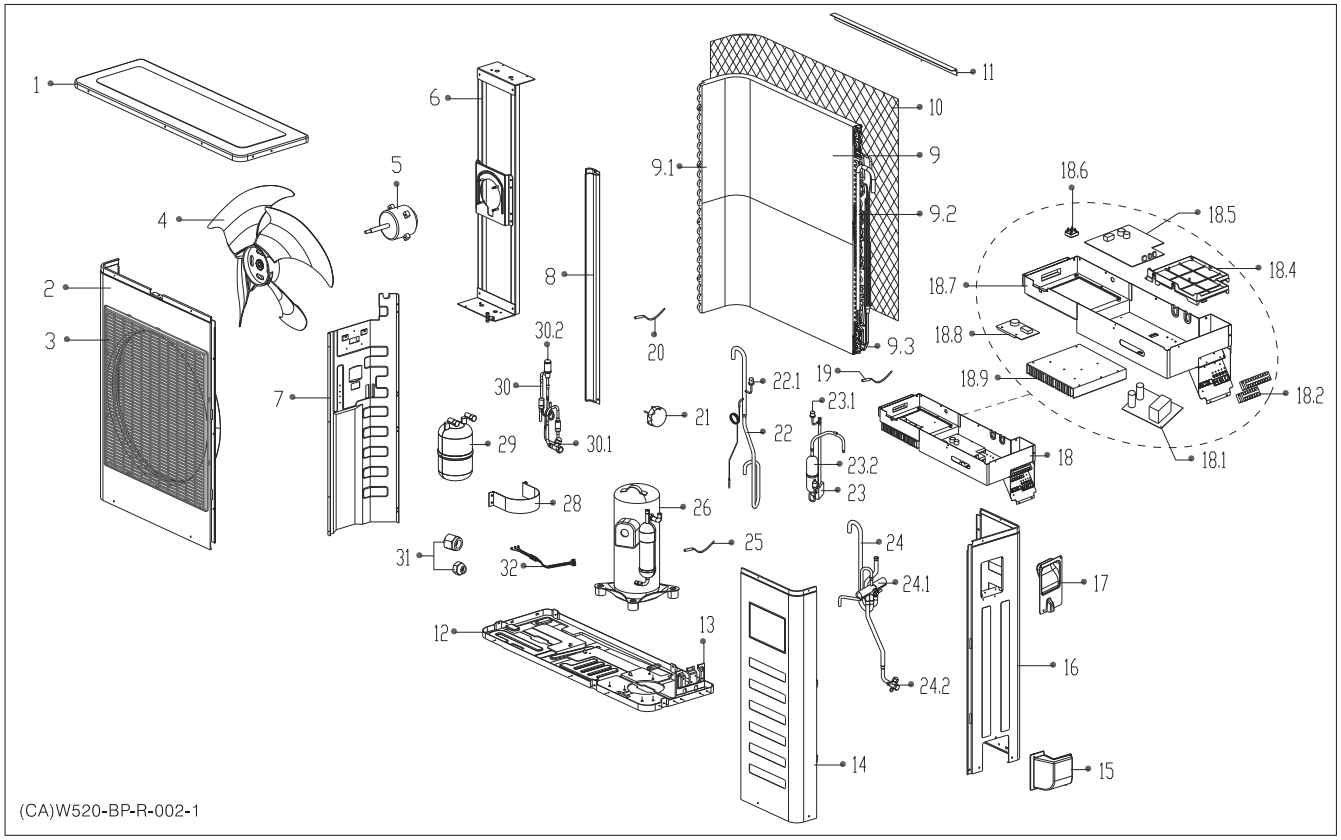
Exploded View of outdoor unit:AWAU-YLD030-H11



Spare part list of outdoor unit:AWAU-YLD030-H11

No.	BOM Code	Part Name	Quantity
1	202301310075	Ambient temperature sensor assembly	1
2	2011482G0001	Rear net	1
3	201557190037	Condenser assembly	1
4	202301300111	Pipe temperature sensor assembly	1
5	201248300316	Valve plate	1
6	201257190085	Chassis assembly	1
7	201238190023	Rear right clapboard assembly	1
8	201157390007	Big handle	1
9	201138090002	Water collector	1
10	201248200082	Front right clapboard assembly	1
11	201248200103	Front panel	1
12	2011482A0001	Air outlet grille	1
	2011374A0005	Round sticker of air outlet grille	1
13	201100300527	Axial flow fan	1
14	202400300047	Asynchronous motor	1
15	201257190071	Supporter assembly of fan motor	1
16	201248200095	Rear supporter	1
17	201248300309	Top cover assembly	1
18	201248400036	Left supporter	1
19	201257190115	Partition board assembly	1
20	203375490059	Electronic control box assembly	1
20.1	201157190011	Cover of electronic control box	1
20.2	201375490032	Main control board assembly	1
20.3	201357190085	Inverter control board assembly	1
20.4	201157190010	Installation board for E-parts	1
20.5	202301901173	Radiator	1
20.6	201295200010	Installation plate of PCB	1
21	203375390330	Terminal board assembly	1
21.1	202301450042	Wire joint	1
21.1	202301450121	Wire joint	1
21.2	201257190120	Terminal board	1
22	201675390818	Liquid valve assembly	1
22.1	201600740706	Liquid valve	1
22.3	201601300032	Electronic expansion valve	1
23	will be updated	4-way valve assembly	1
23.1	201600720398	Gas valve	1
23.2	201600600119	4-Ways valve	1
24	201400601740	Compressor	1
26	202448200000	Discharge temperature sensor assembly	1
27	201248390003	Cover of inductance	1
28	202301000943	Reactor	1
29	201148700009	Small Handle	2
30	201601000603	Accumulator cylinder	1
31	201600320003	Copper nut	1
31	201600320001	Copper nut	1

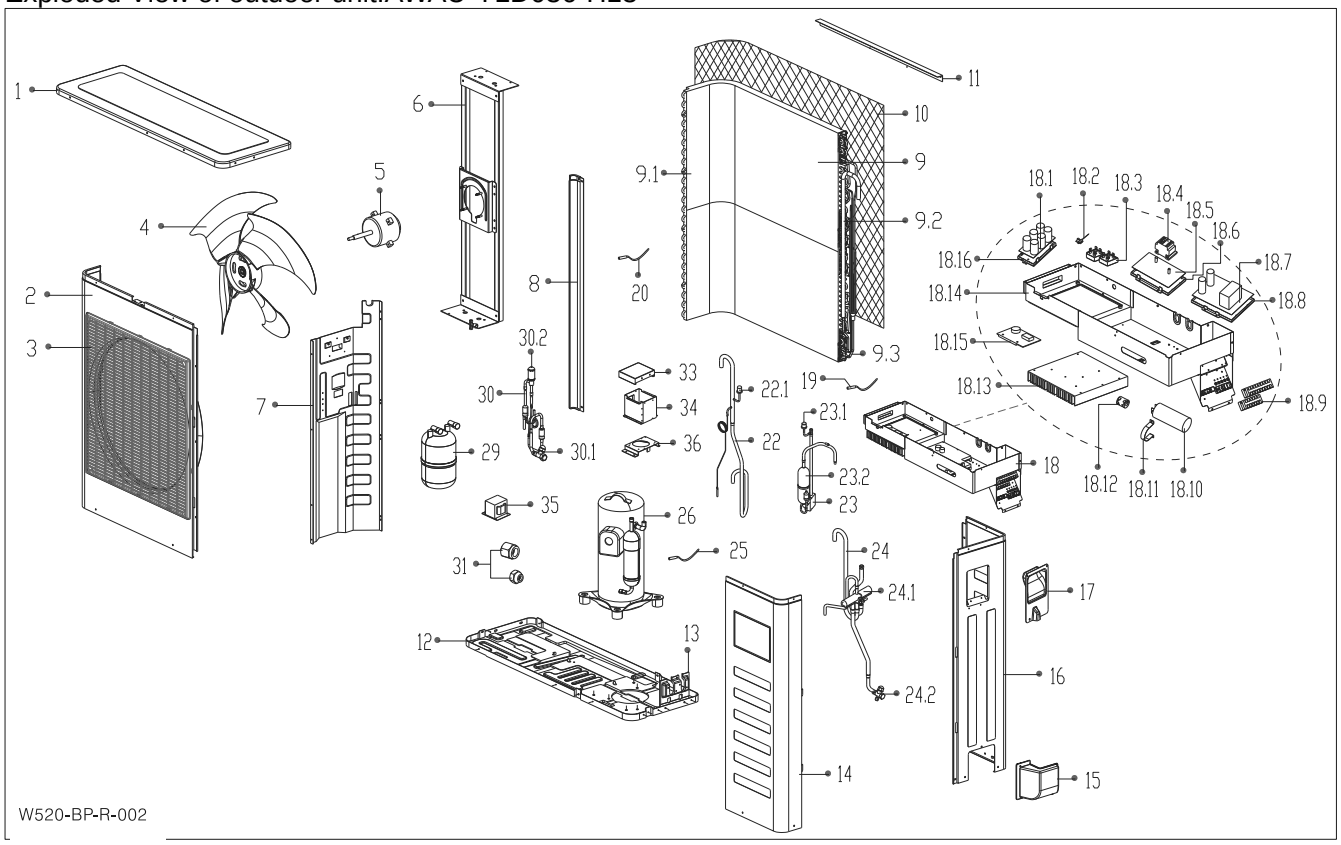
Exploded View of outdoor unit:AWAU-YLD036-H11



Spare part list of outdoor unit:AWAU-YLD036-H11

No.	BOM Code	Part Name	Quantity
1	201275590191	Top cover assembly	1
2	201248700072	Front panel	1
3	2011487A0003	Air outlet grille	1
	2011374A0005	Round sticker of air outlet grille	1
4	201100320624	Axial flow fan	1
5	202400300051	Asynchronous motor	1
6	201275590219	Supporter assembly of fan motor	1
7	201257290010	Partition board assembly	1
8	201248700262	Left supporter	1
9	201557190043	Condenser assembly	1
9.1	201557190044	Condenser assembly	1
9.1	201557190045	Condenser assembly	1
9.2	201657290044	Input pipe assembly	1
9.3	201657290037	Fluted pipe assembly	1
10	2011487G0001	Rear net	1
11	2012487G0011	Rear net frame	1
12	201275590093	Chassis assembly	1
13	201248790014	Valve plate	1
14	201248700056	Front right clapboard assembly	1
15	201148790000	Water collector	1
16	201248700266	Rear right clapboard assembly	1
17	201157390007	Big handle	1
18	203375590343	Electronic control box assembly	1
18.1	201319901145	Outdoor Power Supply Plate Subassembly	1
18.2	202301450121	Wire joint	1
18.2	202301450116	Wire joint	1
18.4	201157390005	Installing Plate	1
18.5	201375590213	Main control board assembly	1
18.6	202300500328	Rectifier bridge	1
18.7	201275590179	E-part box Subassembly	1
18.8	201357190031	Inverter control board assembly	1
18.9	202301901085	Radiator	1
19	202301300111	Pipe temperature sensor assembly	1
20	202301310075	Ambient temperature sensor assembly	1
21	202301000523	Electrical inductance	1
22	201675490388	Suction pipe assembly	1
22.1	202301820021	Pressure switch	1
23	will be updated	Discharge pipe assembly	1
23.1	202301820020	Pressure switch	1
23.2	201601100168	Oil separator	1
24	201675591195	4-way valve assembly	1
24.1	201600600124	4-Ways valve	1
24.2	201600770802	Gas valve	1
25	202448200000	Discharge temperature sensor	1
26	201401500220	Compressor	1
28	201245000901	Fix clamp of segregator	1
29	201601000074	Accumulator cylinder	1
30	201675591192	liquid valve assembly	1
30.1	201600740704	Liquid valve	1
30.2	201601300033	Electronic expansion valve	1
31	201600320003	Copper nut	1
31	201600320001	Copper nut	1
32	202402220152	Compressor wire assembly	1

Exploded View of outdoor unit:AWAU-YLD036-H13

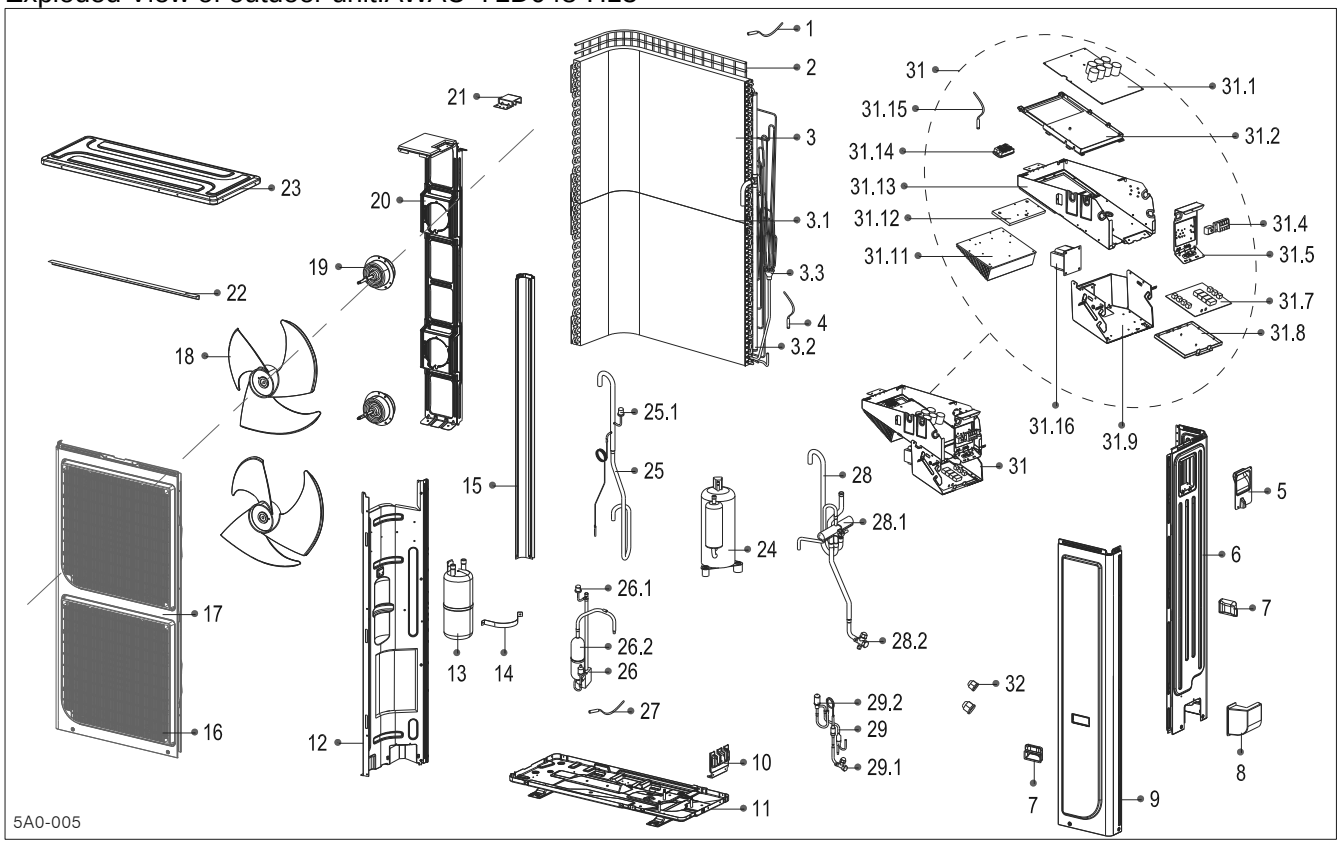


Spare part list of outdoor unit:AWAU-YLD036-H13

No.	BOM Code	Part Name	Quantity
1	201275590191	Top cover assembly	1
2	201248700072	Front panel	1
3	2011487A0003	Air outlet grille	1
	2011374A0005	Round sticker of air outlet grille	1
4	201100320624	Axial flow fan	1
5	202400300051	Asynchronous motor	1
6	201275590219	Supporter assembly of fan motor	1
7	201275590234	Partition board assembly	1
8	201248700262	Left supporter	1
9	201557190043	Condenser assembly	1
9.1	201557190044	Condenser assembly	1
9.1	201557190045	Condenser assembly	1
9.2	201657290044	Input pipe assembly	1
9.3	201657290037	Fluted pipe assembly	1
10	2011487G0001	Rear net	1
11	2012487G0011	Rear net frame	1
12	201275490004	Chassis assembly	1
13	201248790014	Valve plate	1
14	201248700056	Front right clapboard assembly	1
15	201148790000	Water collector	1
16	201248700266	Rear right clapboard assembly	1
17	201157390007	Big handle	1
18	203375590342	Electronic control box assembly	1
18.1	201375890118	Outdoor Power Supply Plate Subassembly	1
18.2	202301310068	Discharge temperature sensor assembly	1
18.3	202300500326	Rectifier bridge	1
18.3	202300500956	Rectifier bridge	1
18.4	202300850043	Contactor	1
18.5	201375590211	Main control board assembly	1
18.6	201175890008	Installing Plate	1
18.7	201375590192	Outdoor Power Supply Plate Subassembly	1
18.8	201175590323	Electric Installing Box	1
18.9	202301450139	Wire joint	1
18.9	202301450121	Wire joint	1
18.10	202401000073	Capacitor	1
18.11	201200100011	Capacitor Clamp	1
18.12	202301000016	Magnetic Loop	2
18.13	202301901144	Radiator	1
18.14	201247790001	E-part box Subassembly	1
18.15	201375590172	Inverter control board assembly	1
18.16	201175890006	Installation Board	1
19	202450200331	Pipe temperature sensor assembly	1
20	202301300197	Ambient temperature sensor assembly	1
22	201675591155	Suction pipe assembly	1

No.	BOM Code	Part Name	Quantity
22.1	202301820021	Pressure switch	1
23	will be updated	Discharge pipe assembly	1
23.1	202301820020	Pressure switch	1
23.2	201601100168	Oil separator	1
24	201675591194	4-way valve assembly	1
24.1	201600600124	4-Ways valve	1
24.2	201600770802	Gas valve	1
25	202301300124	Discharge temperature sensor	1
26	201401500230	Compressor	1
29	201601100060	Accumulator cylinder	1
30	201675591192	liquid valve assembly	1
30.1	201600740704	Liquid valve	1
30.2	201601300033	Electronic expansion valve	1
31	201600320003	Copper nut	1
31	201600320001	Copper nut	1
33	201238090037	Electric inductance cover	1
34	201238090038	Protecting board of inductance	1
35	202301000256	Reactor	1
36	201250200305	Inductance Holder	1

Exploded View of outdoor unit:AWAU-YLD048-H13

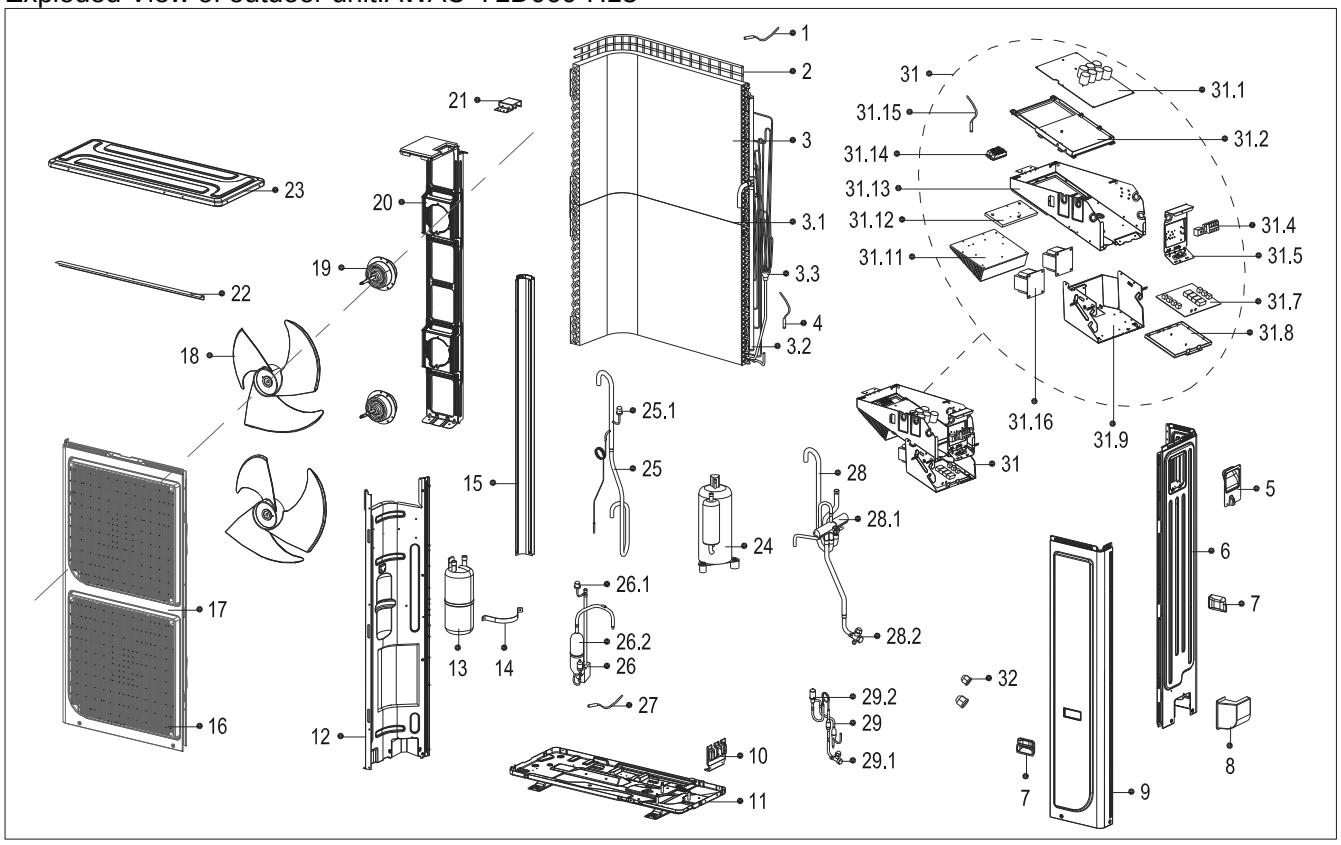


Spare part list of outdoor unit:AWAU-YLD048-H13

No.	BOM Code	Part Name	Quantity
1	202301390003	Ambient temperature sensor assembly	1
2	201175690001	Rear net	1
3	201575790146	Condenser assembly	1
3.1	201575790144	Condenser assembly	1
3.1	201575790145	Condenser assembly	1
3.2	201675790936	Input pipe assembly	1
3.3	201675591150	Fluted pipe assembly	1
4	202450200331	Pipe temperature sensor assembly	1
5	201248100325	Big Handle assembly	1
6	201248700199	Rear right clapboard assembly	1
7	201148700009	Handle	2
8	201148790000	Water collector	1
9	201248700204	Front clapboard assembly	1
10	201248790014	Valve plate	1
11	201248700290	Chassis	1
12	201248700235	Partition board assembly	1
13	201601000636	Accumulator cylinder	1
14	201248700067	Fix clamp of segregator	1
15	201275690067	Left clapboard	1
16	2011487A0002	Air outlet grille	2
	2011374A0005	Round sticker of air outlet grille	2
17	201248700201	Front panel	1
18	201100300045	Axial flow fan	2
19	202400370026	Fan motor	2
20	201248700245	Supporter assembly of fan motor	1
21	201248300231	Support Board	1
22	201275690066	Supporting bar	1
23	201248300242	Top cover assembly	1
24	201401500300	Compressor	1
25	201675890878	Suction pipe assembly	1
25.1	202301820021	Pressure switch	1
26	will be updated	Discharge pipe assembly	1
26.1	202301820038	Pressure switch	1
26.2	201601100168	Oil separator	1
27	202301300124	Discharge temperature sensor assembly	1
28	201675790959	4-way valve assembly	1
28.1	201600600124	4-way valve	1
28.2	201600770802	Gas valve	1
29	201675790952	Liquid valve assembly	1
29.1	201600740704	Liquid valve	1
29.2	201601300022	Electronic expansion valve	1
31	203375790126	Electronic control box assembly	1
31.1	201375790069	Main control board assembly	1
31.2	201175890009	Installation plate for main board	1

No.	BOM Code	Part Name	Quantity
31.4	202301450121	Wire joint	1
31.4	202301450139	Wire joint	1
31.5	201248700233	Terminal Installing Plate	1
31.7	201375890169	Outdoor power board assembly	1
31.8	201175590323	Installing Plate	1
31.9	201275890158	Connecting board of electronic control box	1
31.11	202301900140	Radiator	1
31.12	202301900139	Radiator	1
31.13	201248700234	Electric Component Mounted Board Subassembly	1
31.14	202300500326	Three phase bridge	1
31.15	202301310068	Discharge temp sensor assembly	1
31.16	202301000956	Reactor	1
32	201600320001	Copper nut	1
32	201600320003	Copper nut	1

Exploded View of outdoor unit:AWAU-YLD060-H13



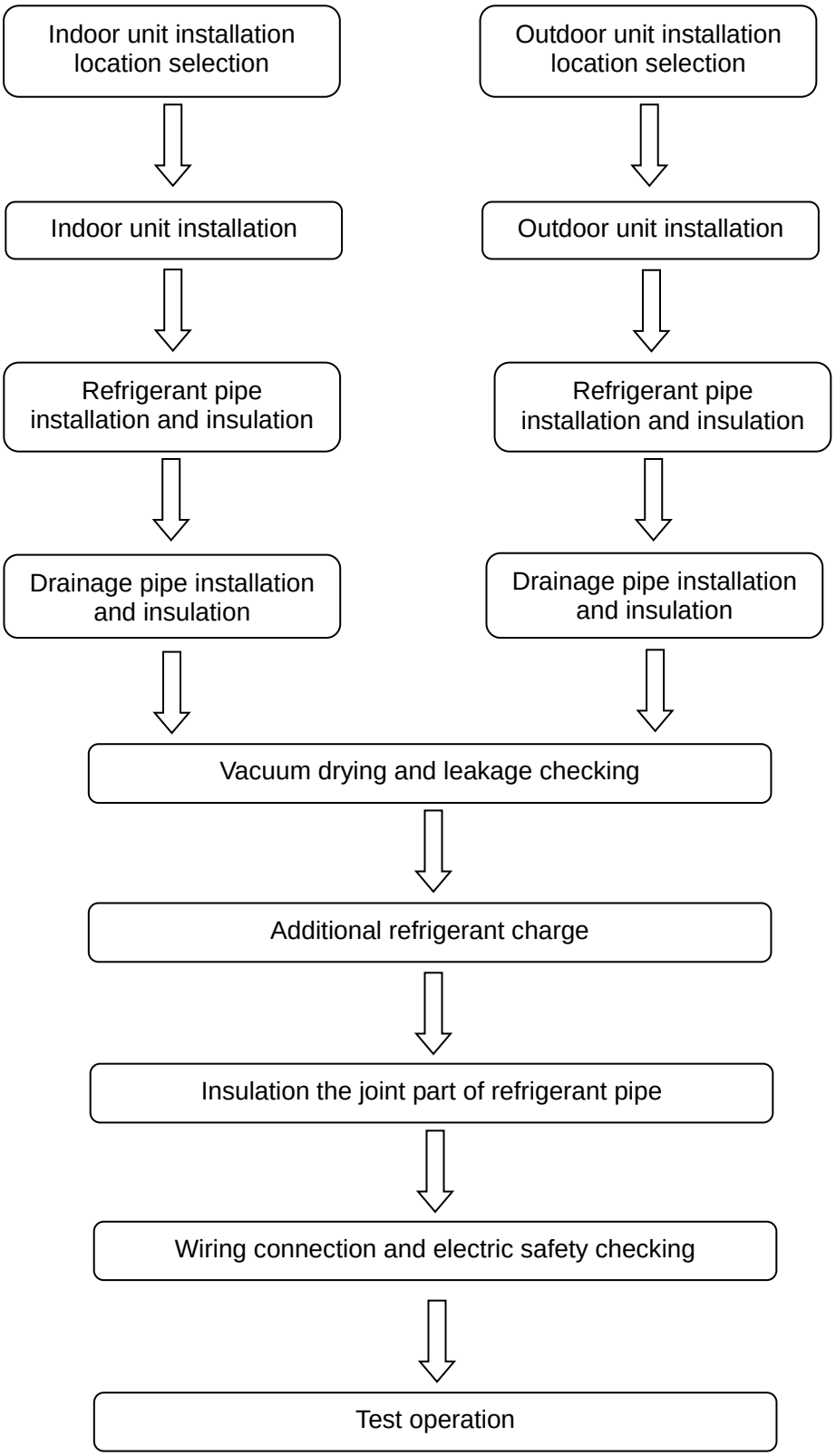
Spare part list of outdoor unit:AWAU-YLD060-H13

No.	BOM Code	Part Name	Quantity
1	202301390003	Ambient temperature sensor assembly	1
2	201175690001	Rear net	1
3	201575890172	Condenser assembly	1
3.1	201575890174	Condenser assembly	1
3.1	201575890173	Condenser assembly	1
3.2	201675890900	Input pipe assembly	1
3.3	201675890890	Fluted pipe assembly	1
4	202450200331	Pipe temperature sensor assembly	1
5	201248100325	Big Handle assembly	1
6	201248700199	Rear right clapboard assembly	1
7	201148700009	Handle	2
8	201148790000	Water collector	1
9	201248700204	Front clapboard assembly	1
10	201248790014	Valve plate	1
11	201248700290	Chassis	1
12	201248700235	Partition board assembly	1
13	201601000636	Accumulator cylinder	1
14	201248700067	Fix clamp of segregator	1
15	201275690067	Left clapboard	1
16	2011487A0002	Air outlet grille	2
	2011374A0005	Round sticker of air outlet grille	2
17	201248700201	Front panel	1
18	201100300045	Axial flow fan	2
19	202400370026	Fan motor	2
20	201248700245	Supporter assembly of fan motor	1
21	201248300231	Support Board	1
22	201275690066	Supporting bar	1
23	201248300242	Top cover assembly	1
24	201401500300	Compressor	1
25	201675890878	Suction pipe assembly	1
25.1	202301820021	Pressure switch	1
26	will be updated	Discharge pipe assembly	1
26.1	202301820038	Pressure switch	1
26.2	201601100168	Oil separator	1
27	202301300124	Discharge temperature sensor assembly	1
28	201675790986	4-way valve assembly	1
28.1	201600600166	4-way valve	1
28.2	201600720684	Gas valve	1
29	201675790952	Liquid valve assembly	1
29.1	201600740704	Liquid valve	1
29.2	201601300022	Electronic expansion valve	1
31	203375890209	Electronic control box assembly	1
31.1	201375890175	Main control board assembly	1
31.2	201175890009	Installation plate for main board	1

No.	BOM Code	Part Name	Quantity
31.4	202301450121	Wire joint	1
31.4	202301450139	Wire joint	1
31.5	201248700233	Terminal Installing Plate	1
31.7	201375890169	Outdoor power board assembly	1
31.8	201175590323	Installing Plate	1
31.9	201275890158	Connecting board of electronic control box	1
31.11	202301900140	Radiator	1
31.12	202301900139	Radiator	1
31.13	201248700234	Electric Component Mounted Board Subassembly	1
31.14	202300500326	Three phase bridge	1
31.15	202301310068	Discharge temp sensor assembly	1
31.16	202301000950	Reactor	1
31.16	202301000956	Reactor	1
32	201600320004	Copper nut	1
32	201600320001	Copper nut	1

Part 4
Installation

1. Installation Procedure



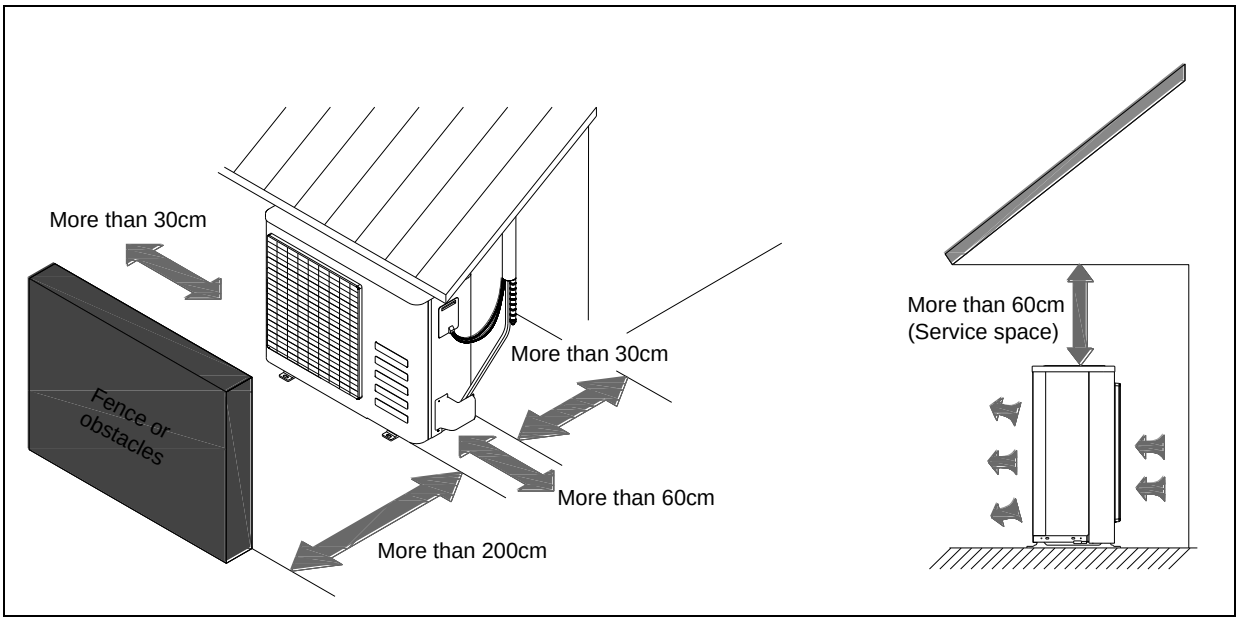
2. Location selection

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

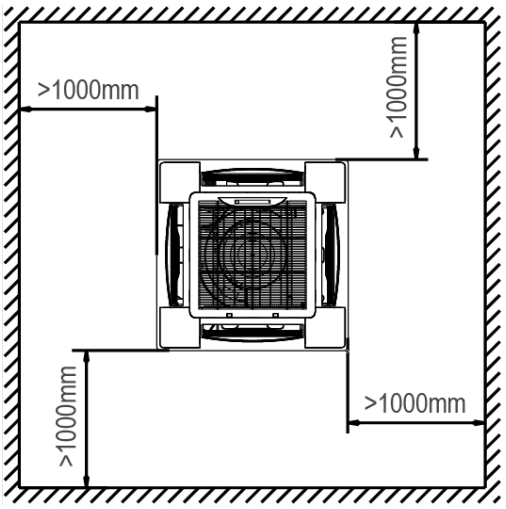
- The place shall easily support the outdoor unit's weight.
- Locate the outdoor unit as close to indoor unit as possible
- The piping length and height drop can not exceed the allowable value.
- The place where the noise, vibration and outlet air do not disturb the neighbors.
- There is enough room 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.

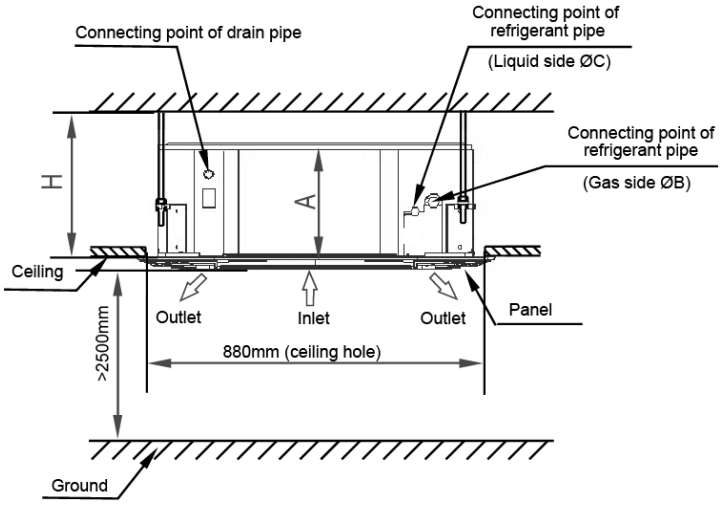


3. Indoor unit installation

3.1 Super slim cassette indoor unit installation

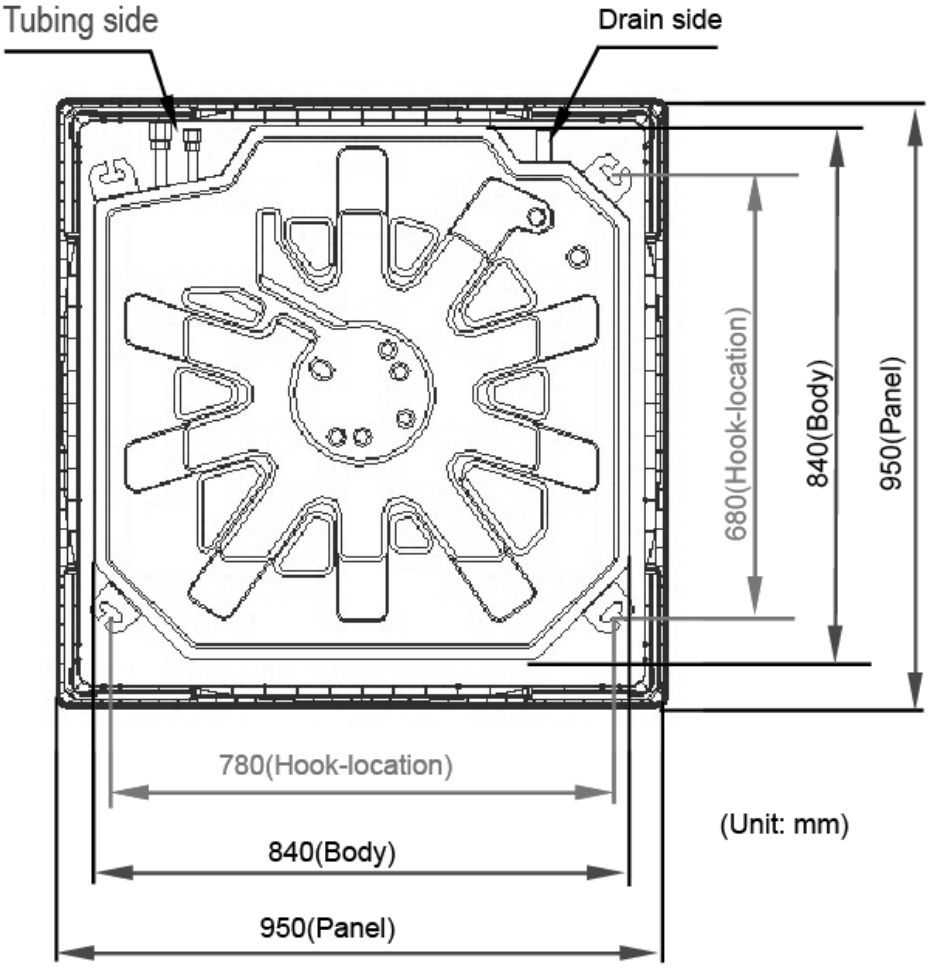
3.1.1 Service space for indoor unit





Model	A	H
AWSI-CBD024-N11	245	>275
AWSI-CBD030-N11	245	>275
AWSI-CBD036-N11	245	>275
AWSI-CBD048-N11	287	>317

3.1.2 Bolt pitch



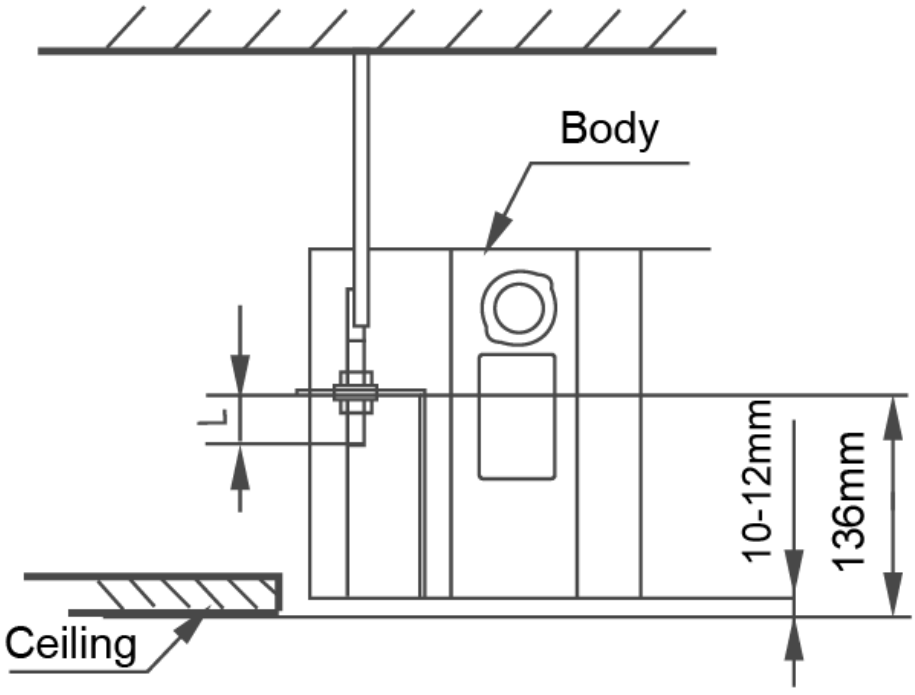
3.1.3 Install the pendant bolt

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).

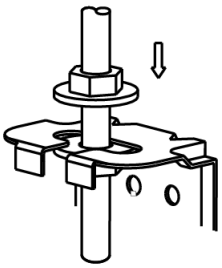
3.1.4 Install the main body

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.

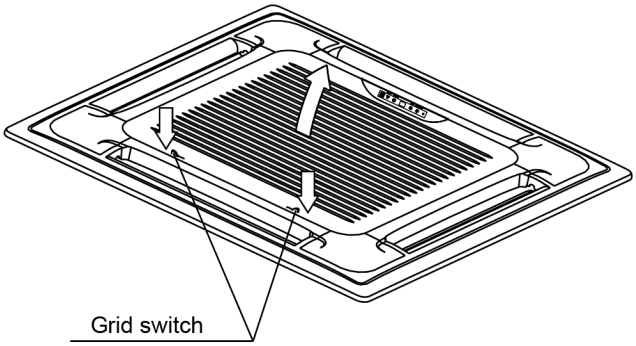


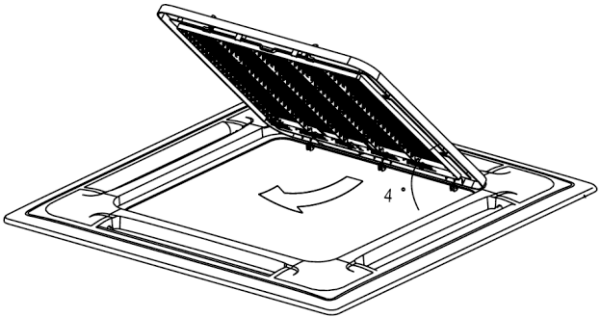
Locate the air conditioner firmly by wrenching the nuts after having adjusted the body's position well.



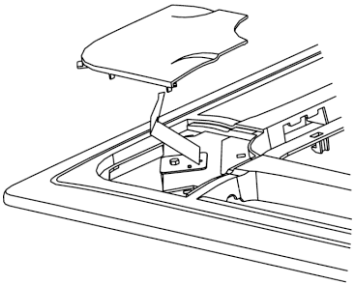
3.1.5 Install the panel

Remove the grille

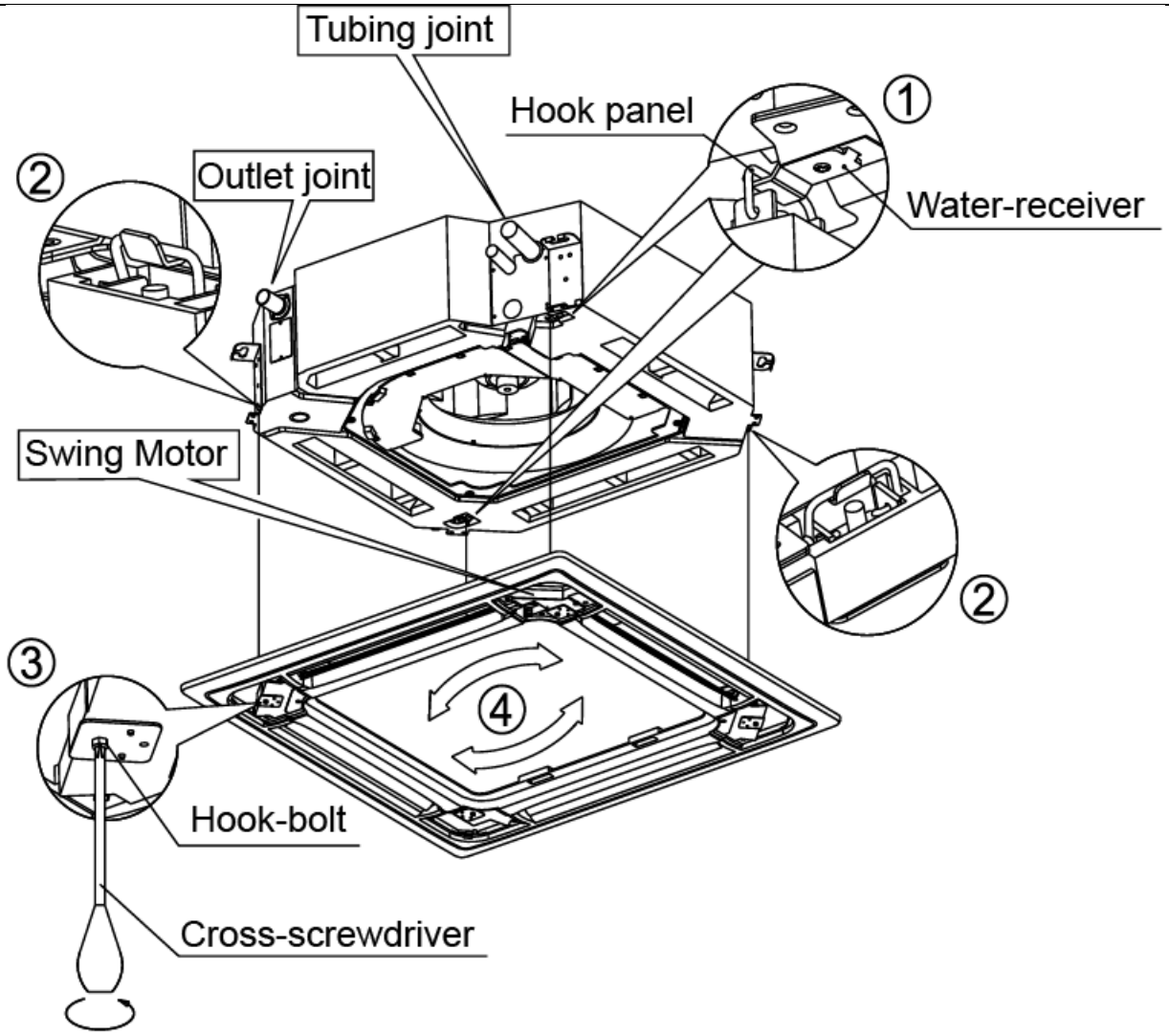




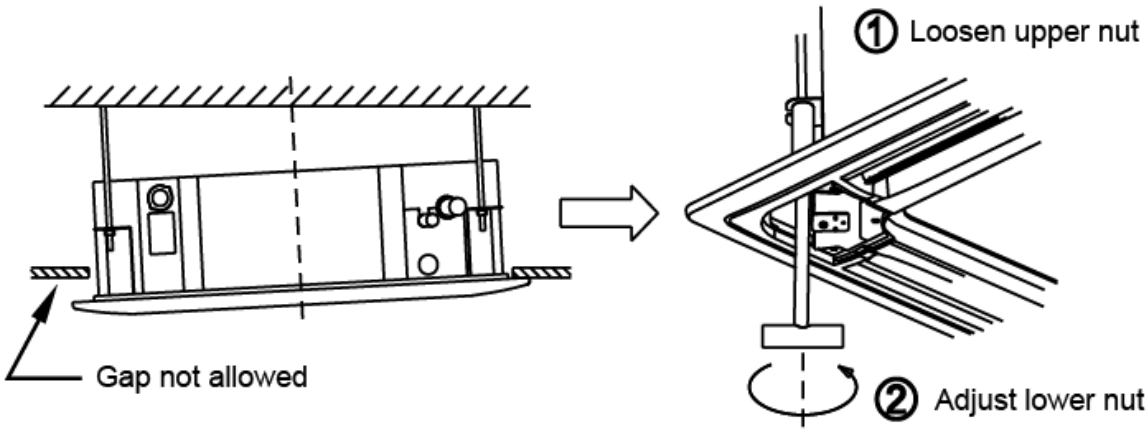
Remove the 4 corner covers.

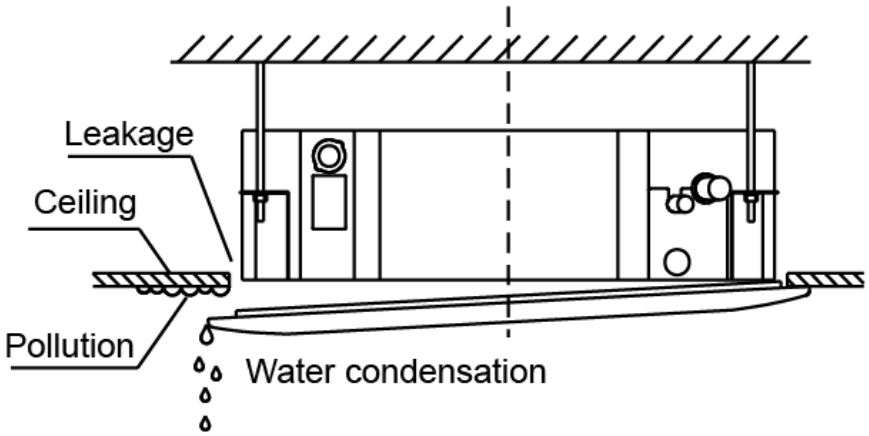


Hang the panel to the hooks on the mainbody. If the panel is with auto-lift grille, please watch the ropes lifing the grille, DO NOT make the ropes enwinded or blocked.



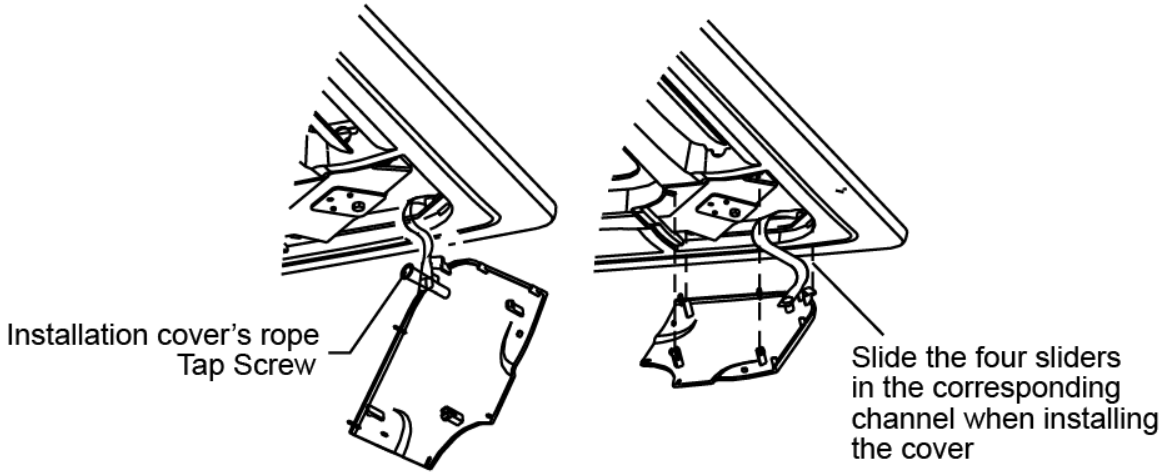
Tighten the screws under the panel hooks till the panel closely stick on the ceiling to avoid condensate water.





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.

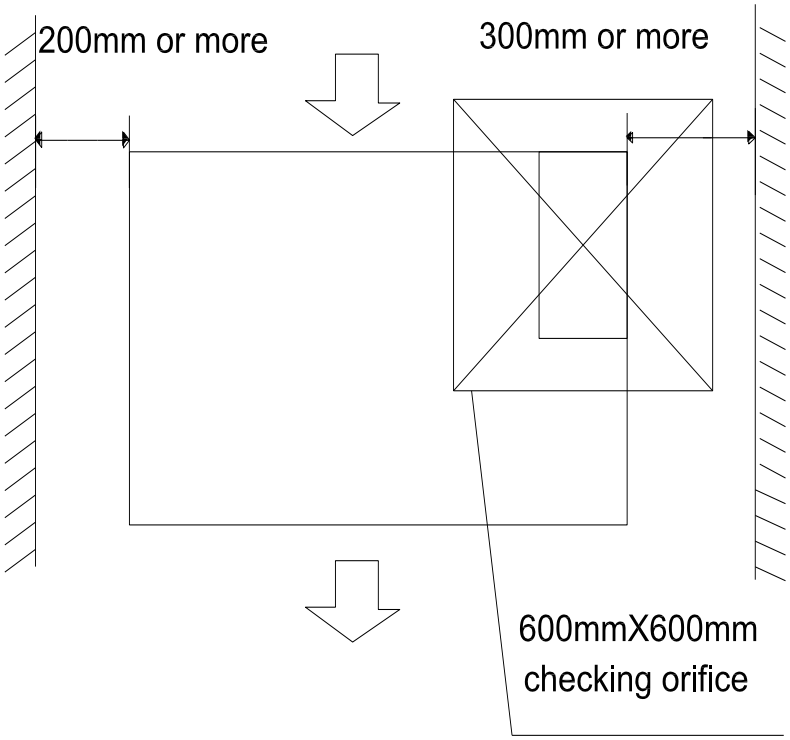


Note: The panel shall be installed after the wiring connected.

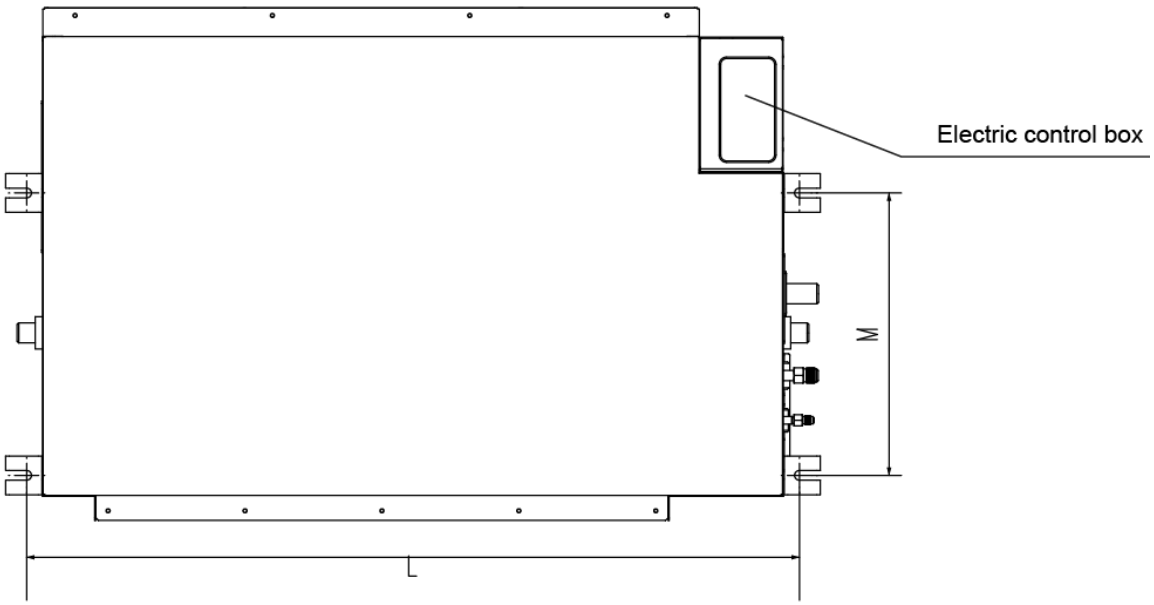
3.2 Duct indoor unit installation

AWSI-DCD012-N11,AWSI-DCD018-N11,AWSI-DCD024-N11,AWSI-DCD030-N11,AWSI-DCD036-N11, AWSI-DCD048-N11

3.2.1 Service space for indoor unit



3.2.2 Bolt pitch



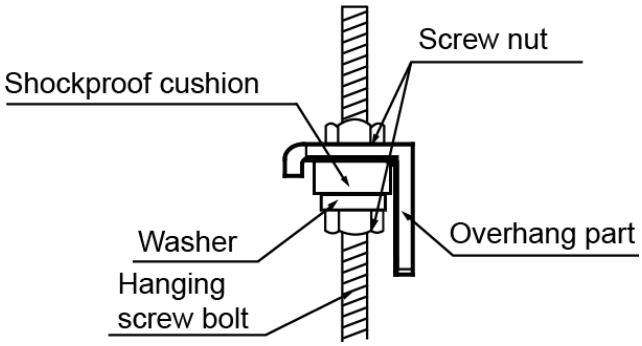
Model	Size of outline dimension mounted plug	
	L	M
AWSI-DCD012-N11	740	350
AWSI-DCD018-N11	960	350
AWSI-DCD024-N11	960	350
AWSI-DCD030-N11	1180	490
AWSI-DCD036-N11	1180	490
AWSI-DCD048-N11	1240	500

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).

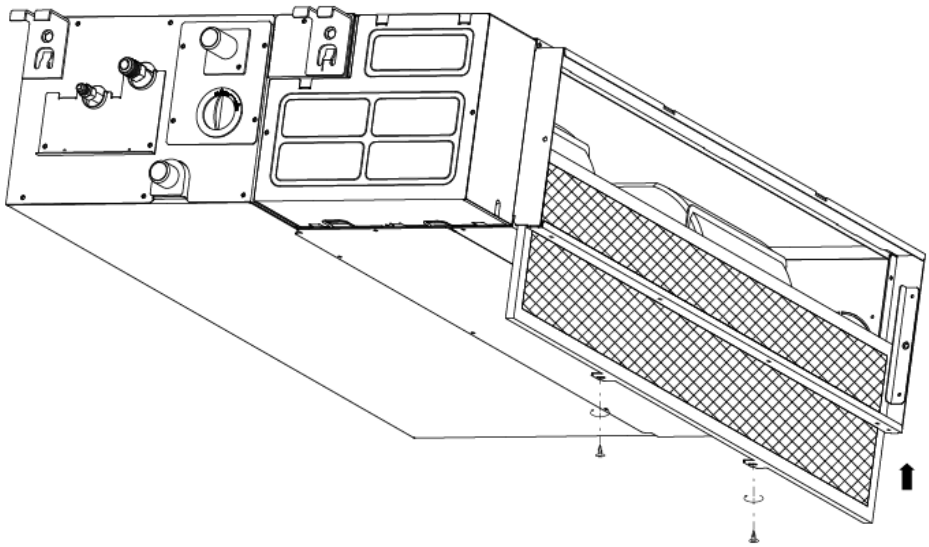
3.2.4 Install the main body

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°.



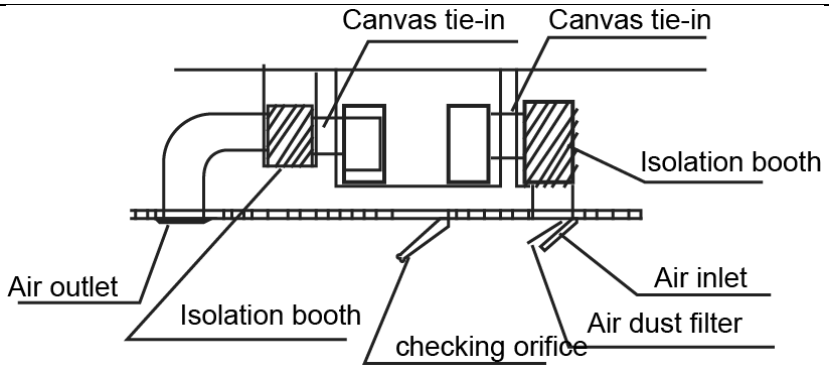
3.2.5 Install the air filter

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



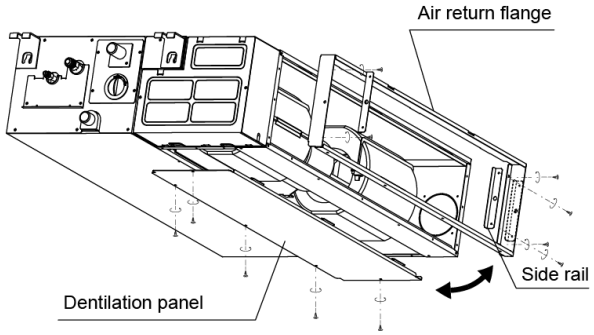
3.2.6 Install the air duct

Please design the air duct as below recommended picture

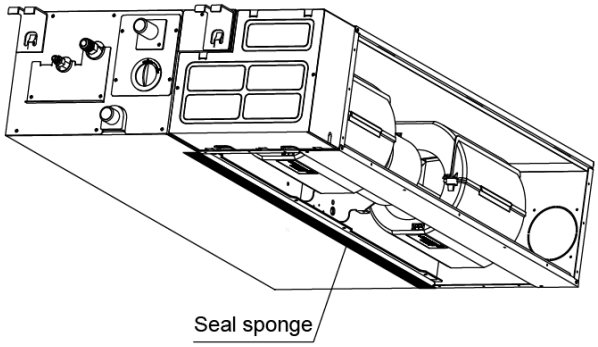


3.2.7 Change the air inlet direction

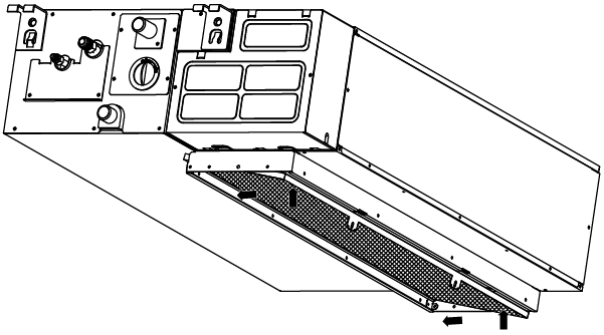
① Take off ventilation panel and flange, cut off the staples at side rail.



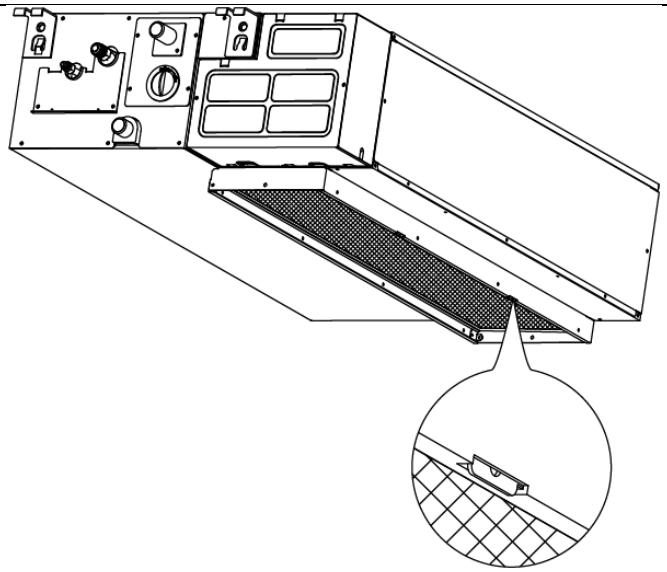
② Stick the attached seal sponge as per the indicating place in the following fig, and then change the mounting positions of air return panel and air return flange .



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

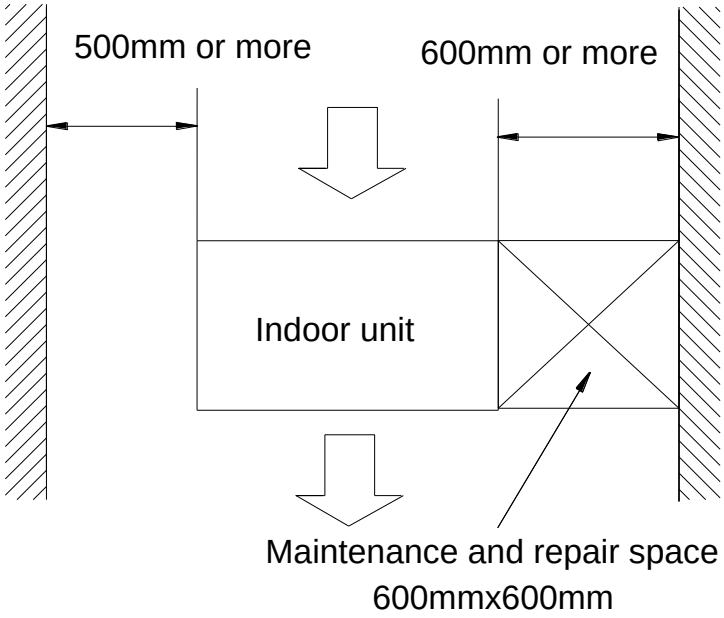


④ The installation has finish, upon filter mesh which fixing blocks have been insert to the flange positional holes.

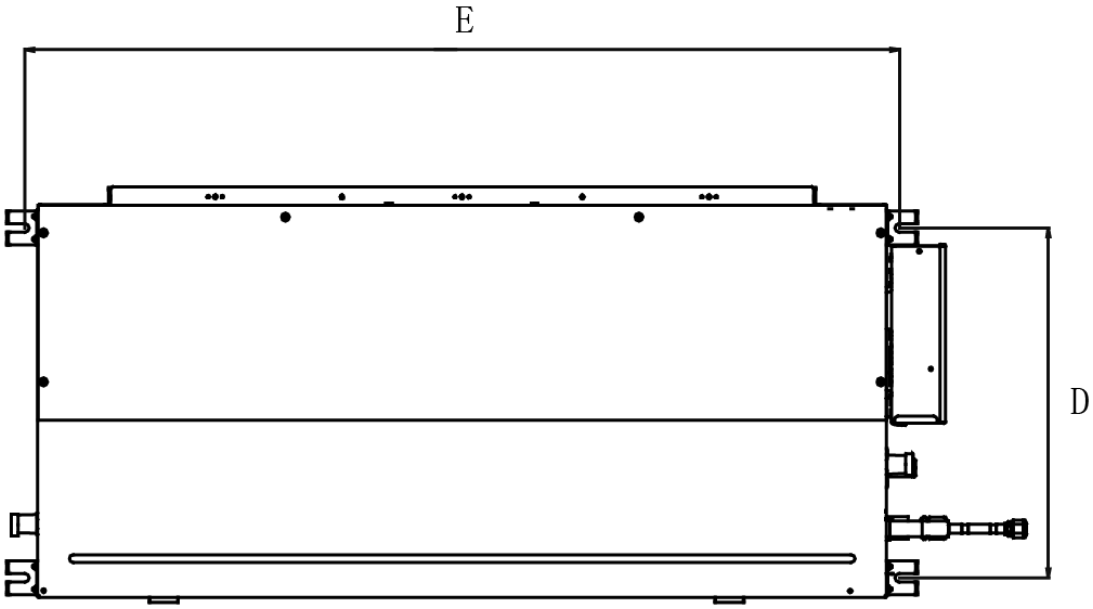


AWSI-DCD060-N11

3.2.1 Service space for indoor unit



3.2.2 Bolt pitch



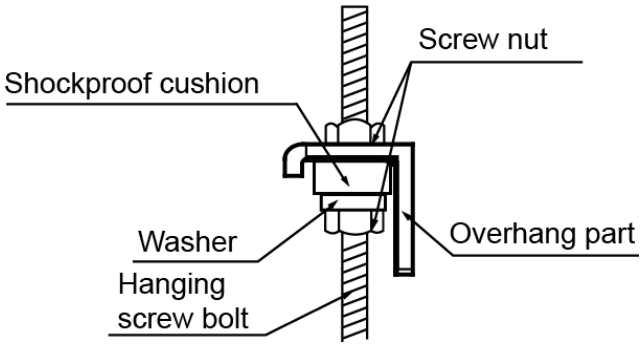
Model	Size of mounted lug	
	D	E
AWSI-DCD060-N11	700	1436

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).

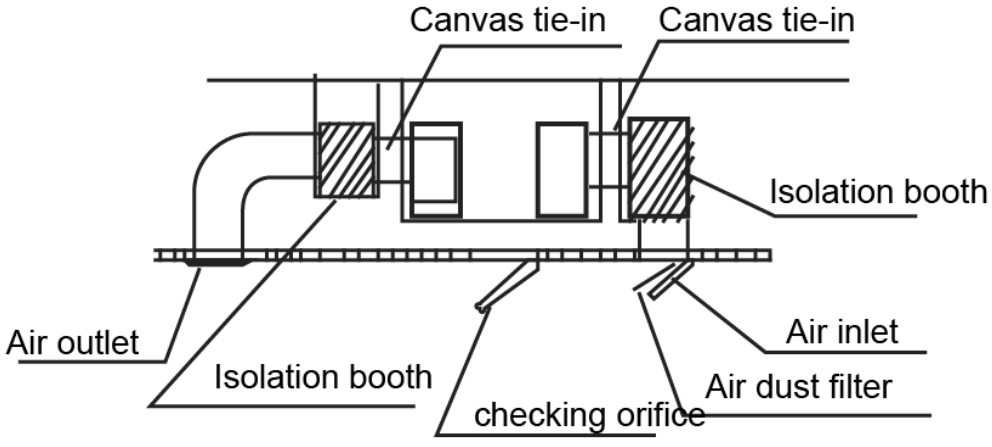
3.2.4 Install the main body

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°.



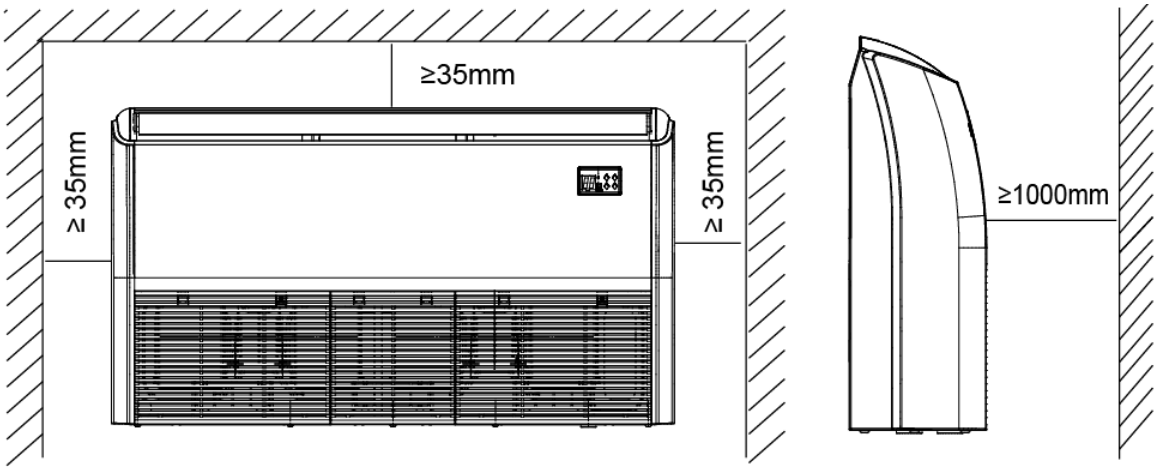
3.2.5 Install the air duct

Please design the air duct as below recommended picture



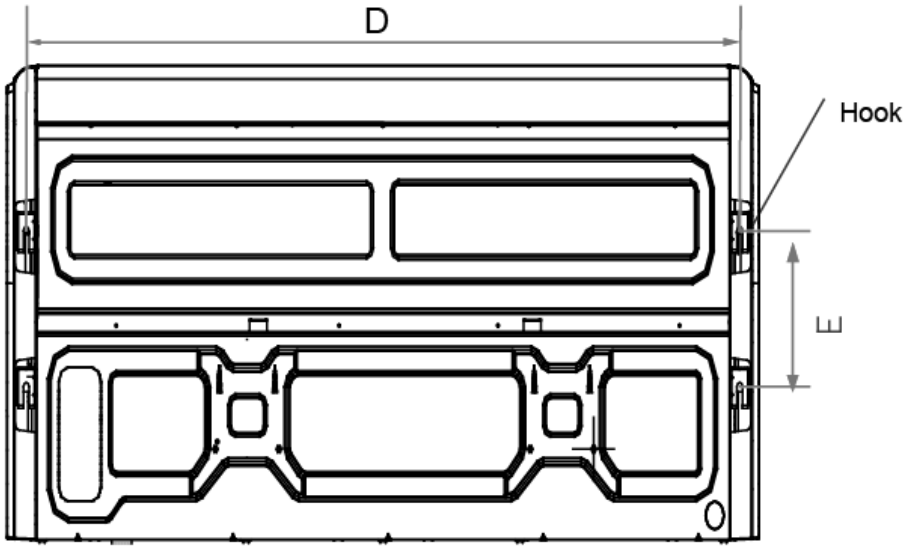
3.3 Ceiling & floor indoor unit installation

3.3.1 Service space for indoor unit



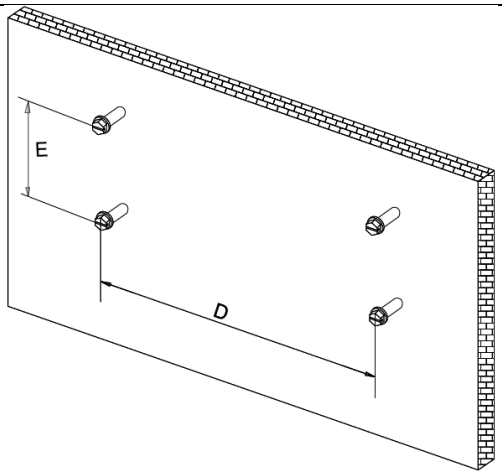
3.3.2 Bolt pitch

① Ceiling installation



Model	D	E
AWSI-FBD018-N11	983	220
AWSI-FBD024-N11	983	220
AWSI-FBD030-N11	1200	220
AWSI-FBD036-N11	1200	220
AWSI-FBD048-N11	1565	220

② Wall-mounted installation



3.3.3 Install the pendant bolt

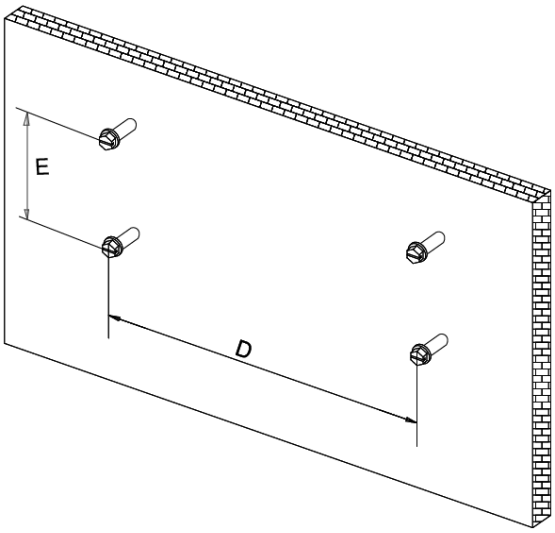
① Ceiling installation

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

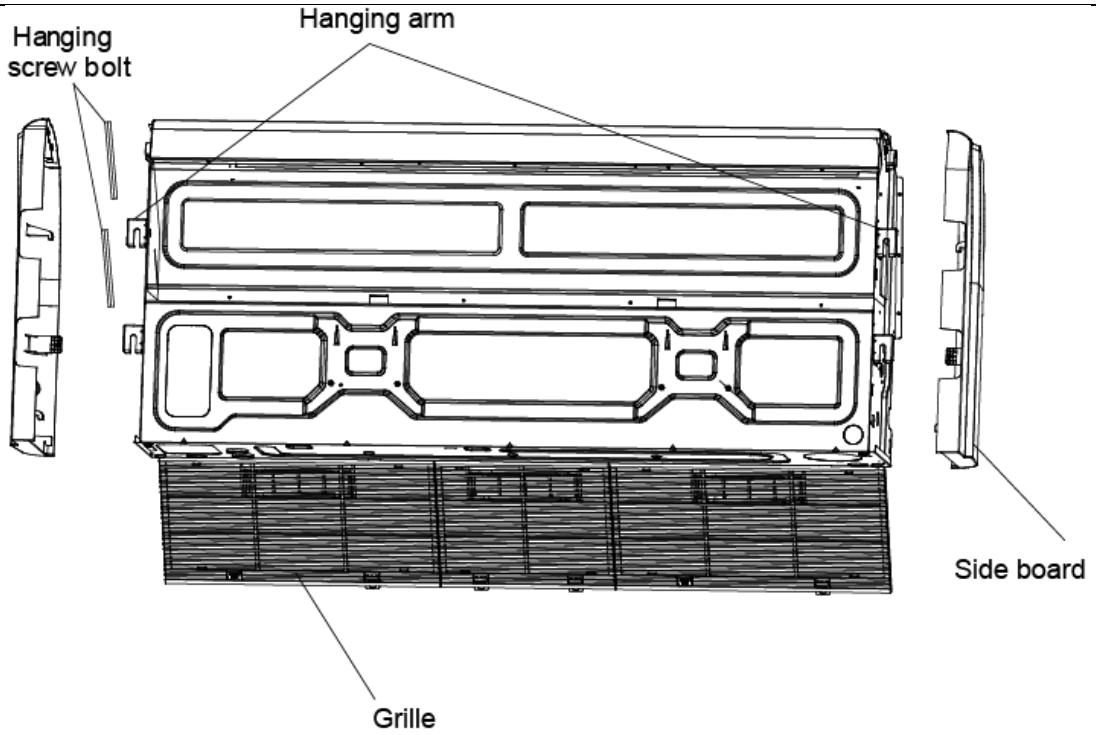
Install the tapping screws onto the wall.(Refer to picture below)



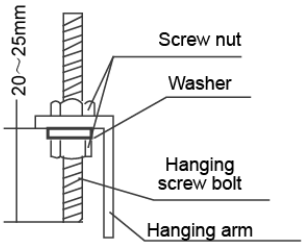
3.3.4 Install the main body

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

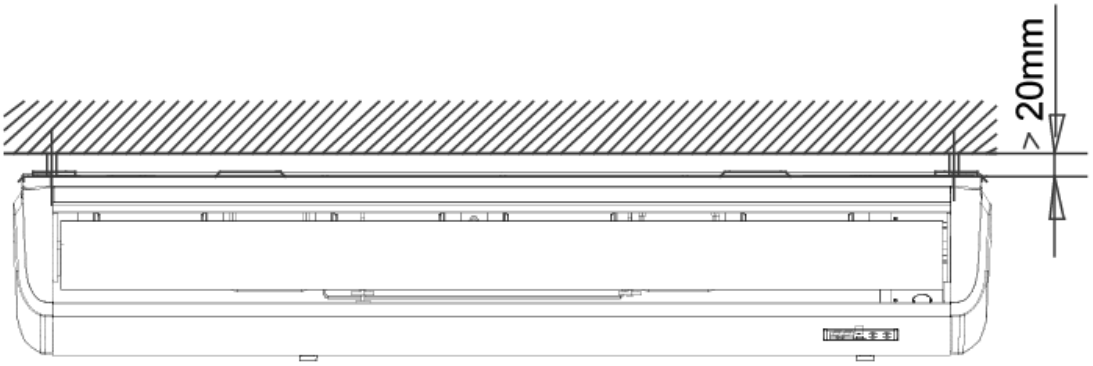
Remove the side board and the grille.

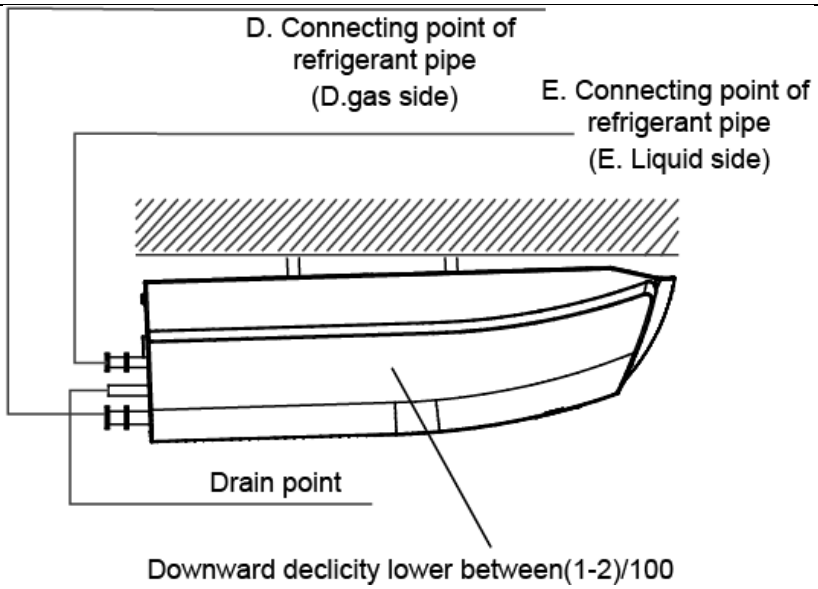


Locate the hanging arm on the hanging screw bolt. Prepare the mounting bolts on the unit.



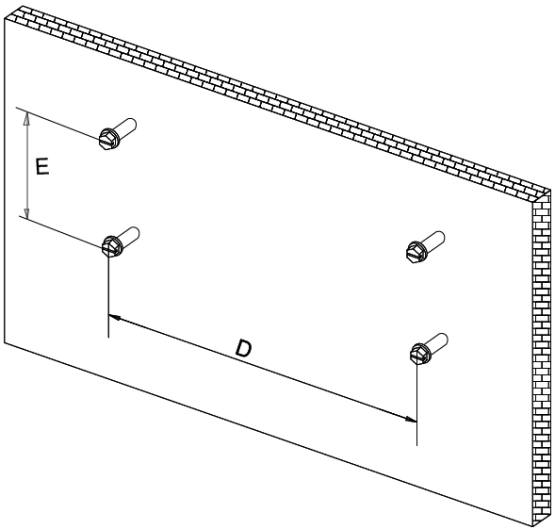
Put the side panels and grilles back.

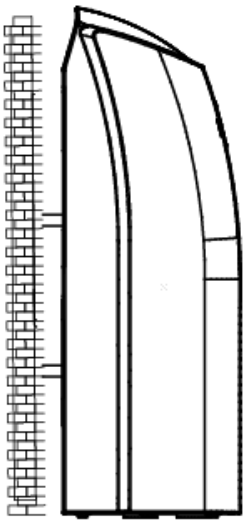




② Wall-mounted installation

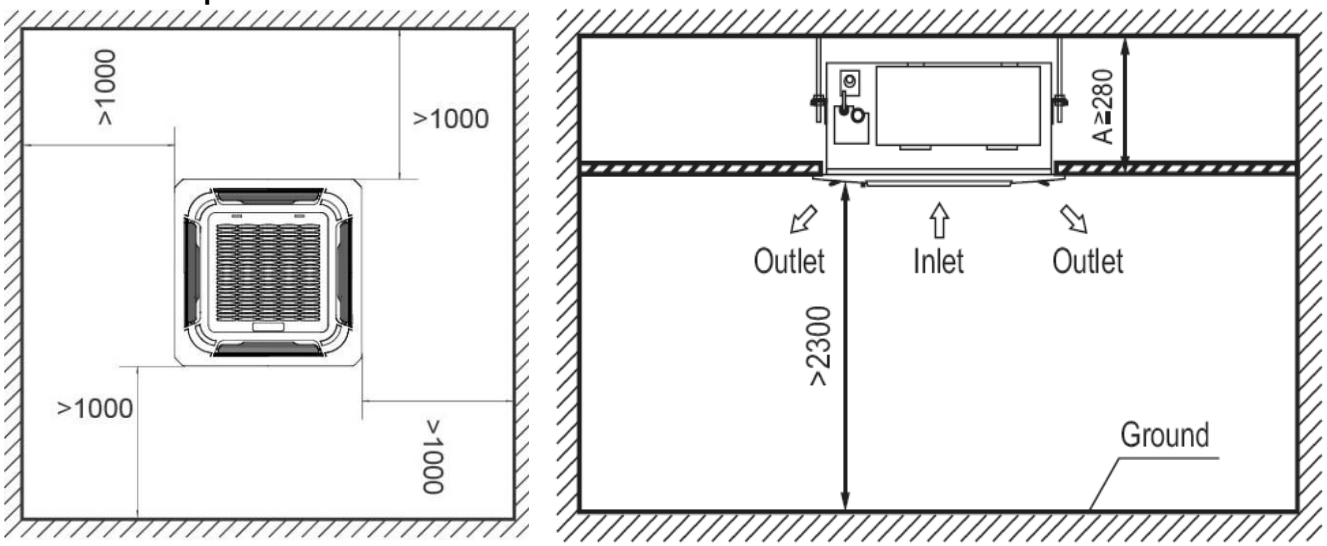
Hang the indoor unit by insert the tapping screws into the hanging arms on the main unit. (The bottom of body can touch with floor or suspended, but the body must install vertically.)



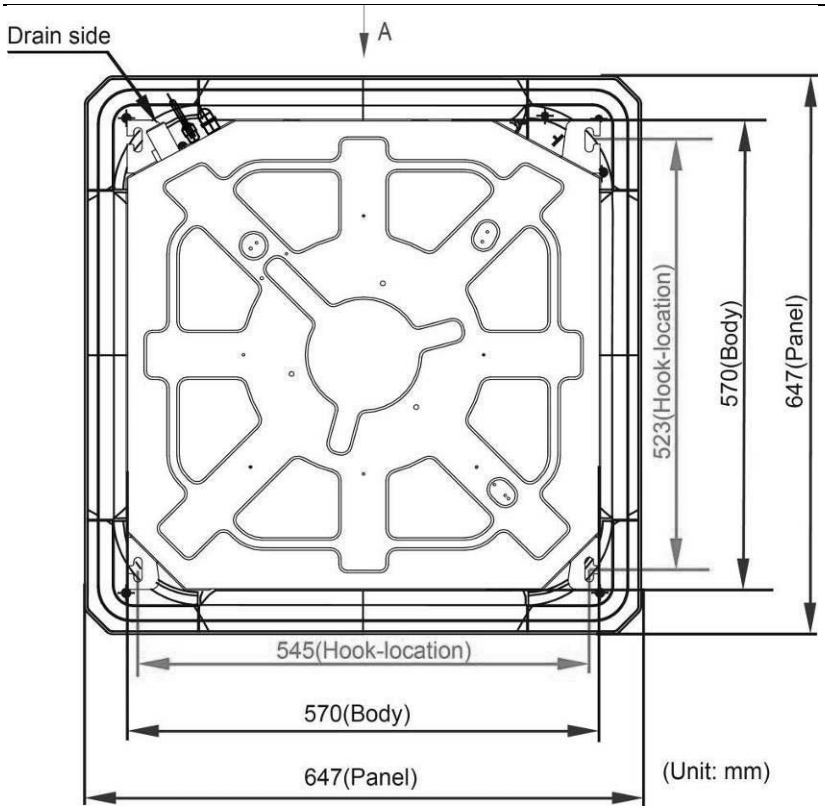


3.4 Compact cassette indoor unit installation

3.4.1 Service space for indoor unit



3.4.2 Bolt pitch



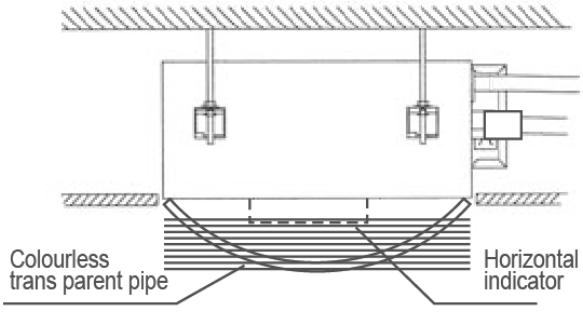
3.4.3 Install the pendant bolt

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).

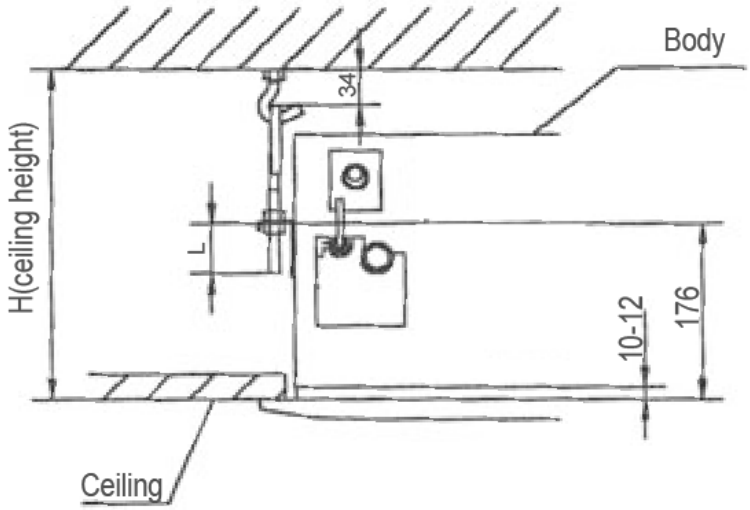
Face the concave side of the installation hooks toward the expansible hooks. Determine the length of the installation hooks from the height of ceiling, then cut off the unnecessary part.
If the ceiling is extremely high, please determine the length of the installation hook depending on the real situation.

3.4.4 Install the main body

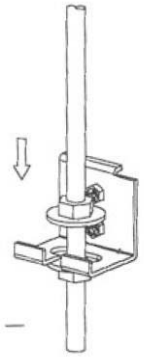
Make the 4 suspender through the 4 hanger of the main body to suspend it. Adjust the hexangular nuts on the four installation hooks evenly, to ensure the balance of the body. Use a leveling instrument to make sure the levelness of the main body is within ±1°.



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.

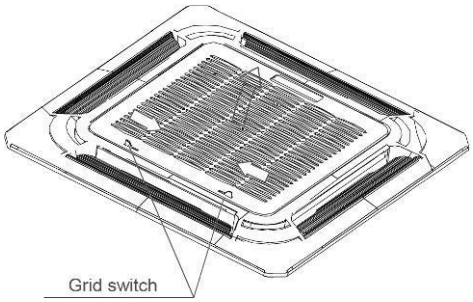


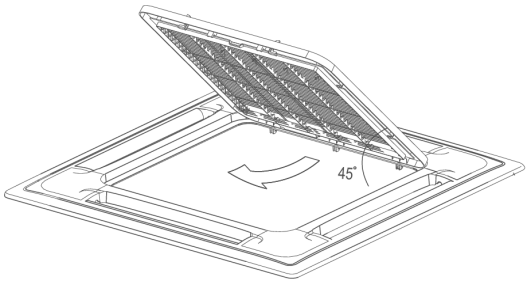
Locate the air conditioner firmly by wrenching the nuts after having adjusted the body's position well.



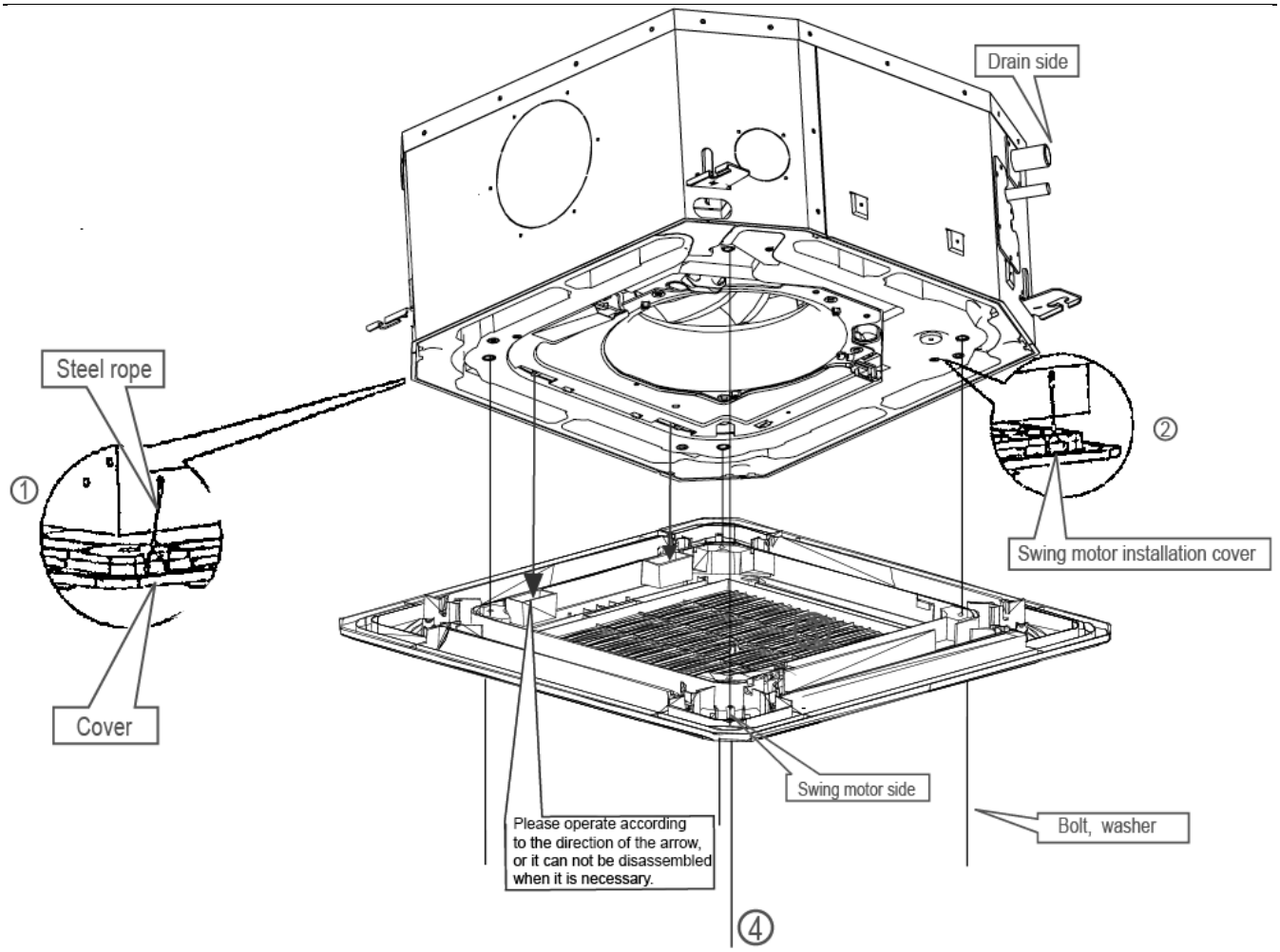
3.4.5 Install the panel

Remove the grille

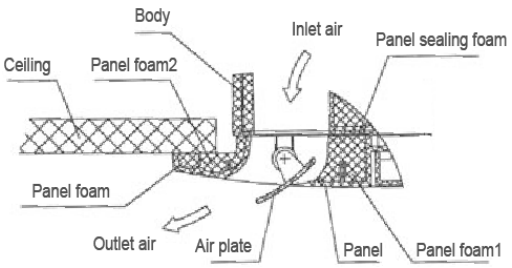


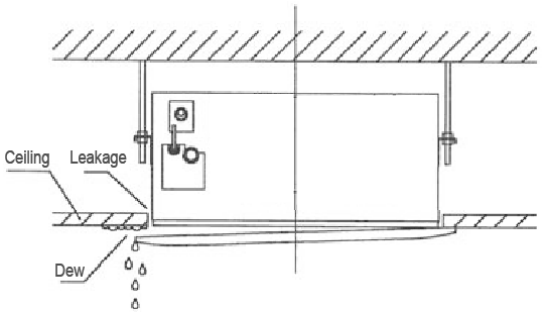


Hang the panel to the hooks on the mainbody.



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



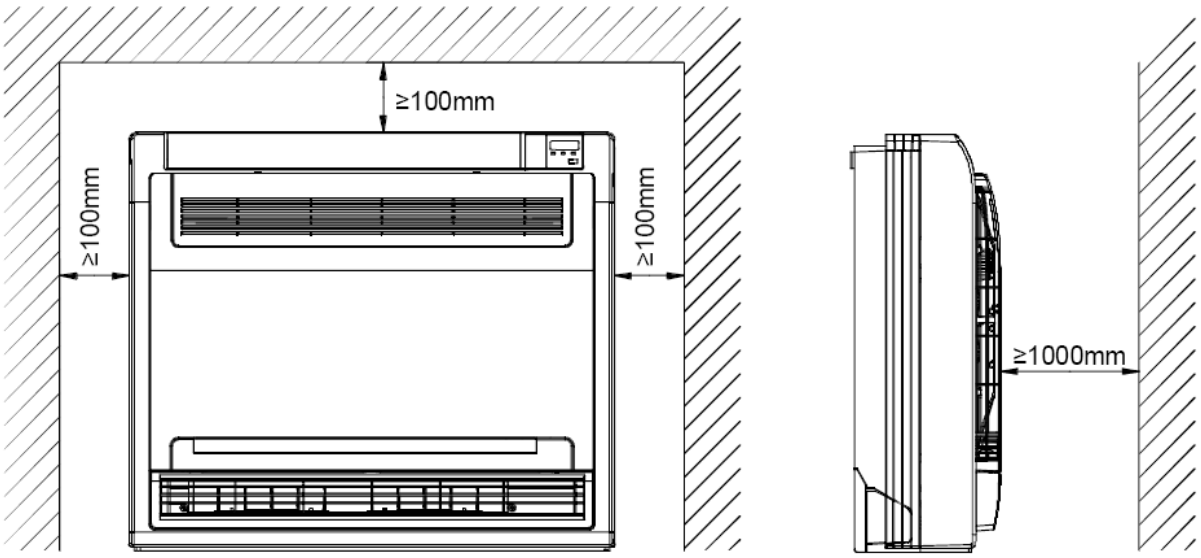


Hang the air-in grill to the panel, then connect the lead terminator of the swing motor and that of the control box with corresponding terminators on the body respectively.

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

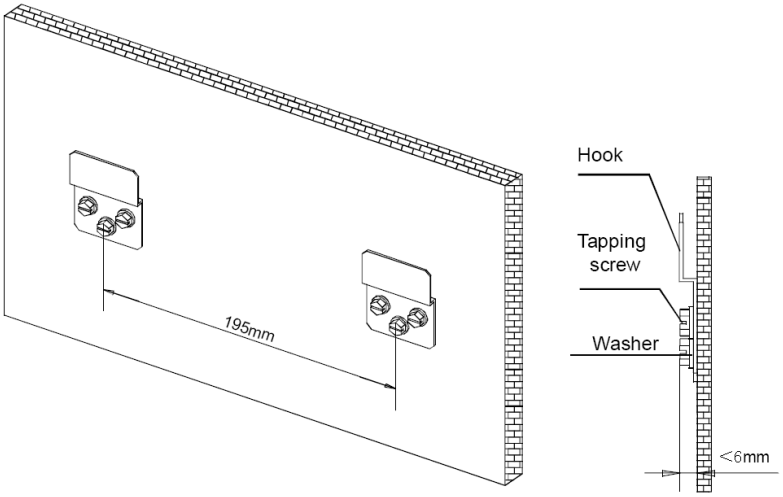
3.5 Console indoor unit installation

3.5.1 Service space for indoor unit



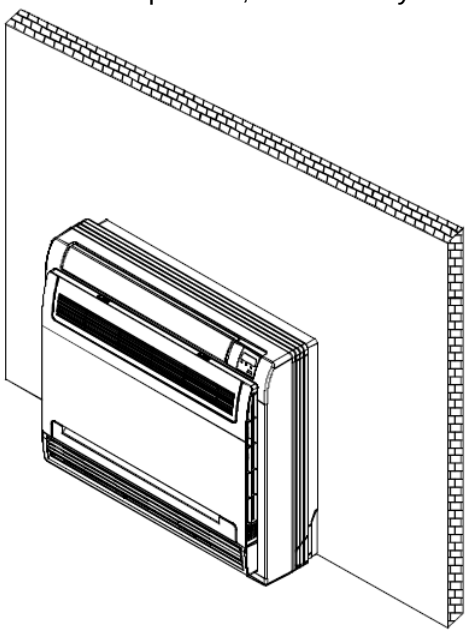
3.5.2 Install the main body

- Fix the hook with tapping screw onto the wall



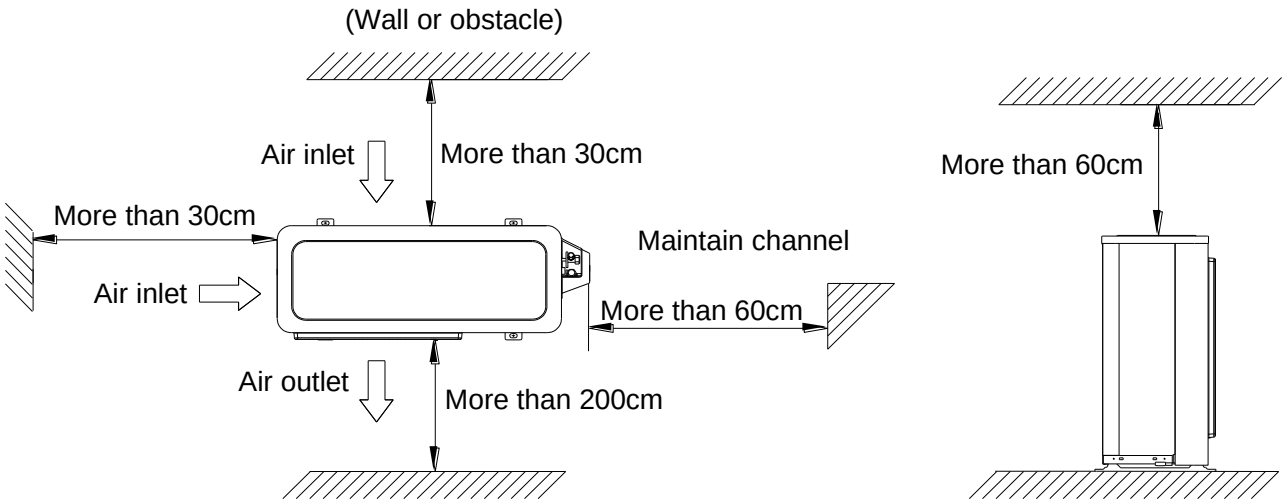
- Hang the indoor unit on the hook.

(The bottom of body can touch with floor or suspended, but the body must install vertically.)

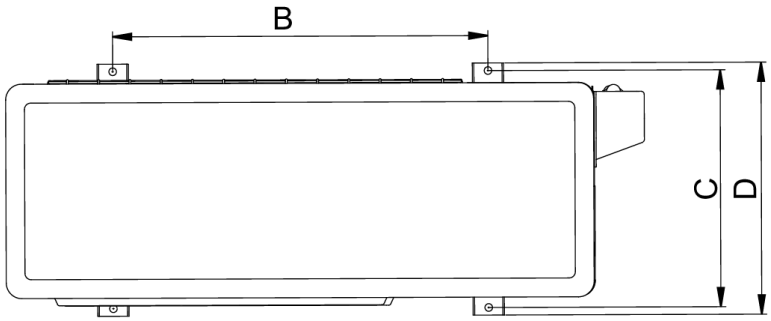


4. Outdoor unit installation (Side Discharge Unit)

4.1 Service space for outdoor unit



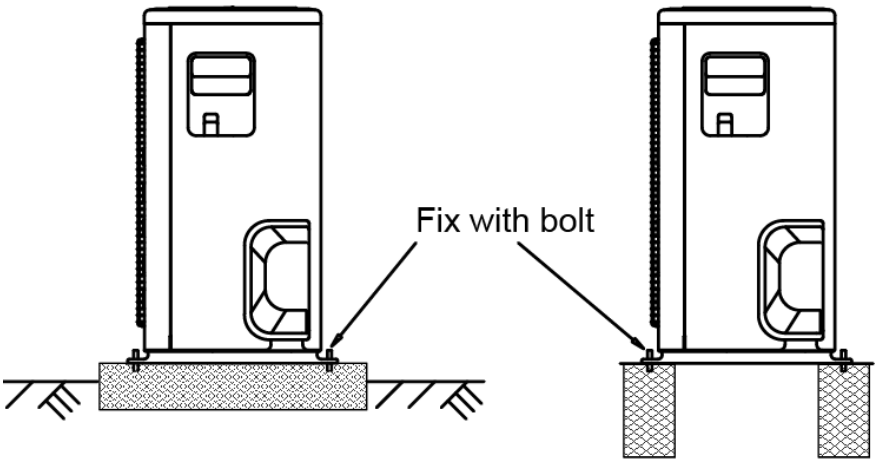
4.2 Bolt pitch



Model	B	C	D
AWAU-YLD012-H11	530	290	315
AWAU-YLD018-H11	560	335	360
AWAU-YLD024-H11	590	333	355
AWAU-YLD030-H11	590	333	355
AWAU-YLD036-H11	624	366	396
AWAU-YLD036-H13	624	366	396
AWAU-YLD048-H13	633.5	404	448
AWAU-YLD060-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	25m	10m
18,000Btu/h	30m	20m
24,000Btu/h~30,000Btu/h	50m	25m
36,000Btu/h ~60,000Btu/h	65m	30m

5.2 The procedure of connecting pipes

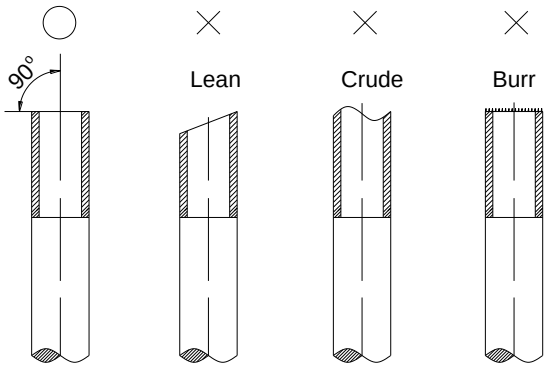
5.2.1 Choose the pipe size according to the specification table.

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.

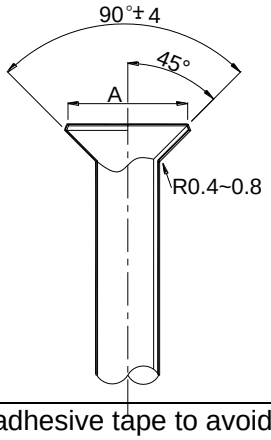


5.2.5 Insulate the copper pipe

- 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

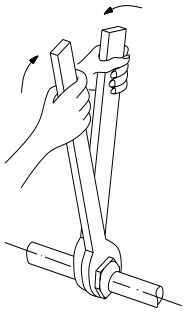
5.2.11 Set the supporter for the pipe.

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.

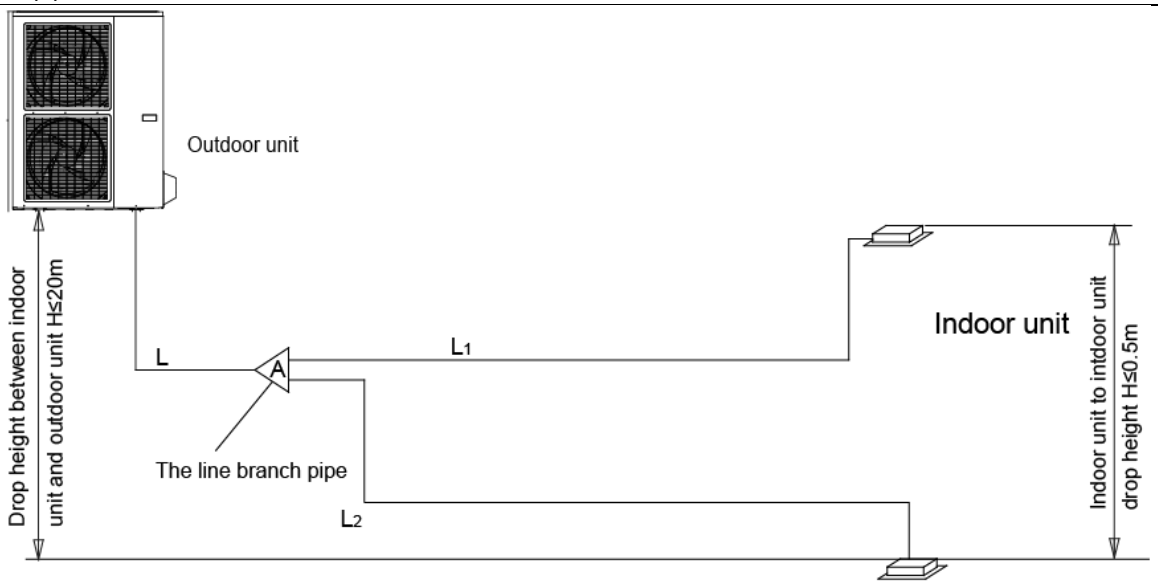
- Be sure to use two spanners and proper torque to fasten the nut, too large torque will damage the bellmouthing, and too small torque may cause leakage. Refer the following table for different pipe connection.

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	

5.3 For Units with Twins Function

5.3.1 Length and drop height permitted of the refrigerant piping

Note: Reduced length of the branching tube is the 0.5m of the equivalent length of the pipe.



Note: All used branch pipe must be produced by Airwell, otherwise it causes malfunction. The indoor units should be installed equivalently at the both side of the U type branch pipe.

		Permitted Value		Piping
Pipe Length	Total pipe length (Actual)	18K+18K	30m	L+L1+L2
		24K+24K	50m	
		30K+30K	50m	
	Max. branch pipe length		15m	L1, L2
	Max. branch pipe length difference		10m	L1-L2
Drop Height	Max. height difference between indoor unit and outdoor unit		20m	H1
	Max. height difference between indoor units		0.5m	H2

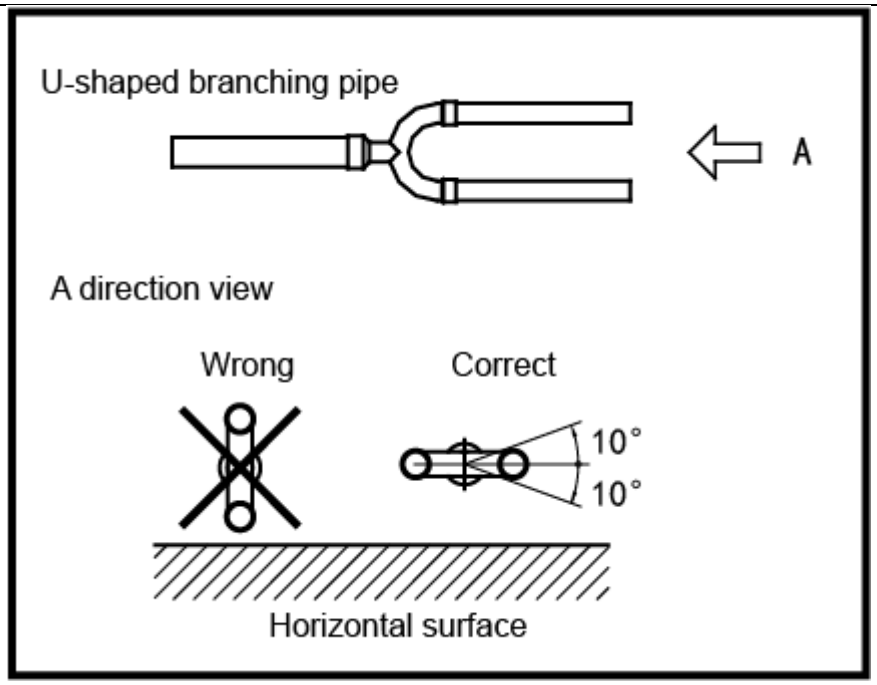
5.3.2 Size of joint pipes for indoor unit (R410a)

Capacity of indoor unit (A)	Size of main pipe(mm)		
	Gas side	Liquid side	Available branching pipe
18K	Φ12.7	Φ6.35	CE-FQZHN-01C
24K	Φ15.9	Φ9.5	CE-FQZHN-01C
30K	Φ15.9	Φ9.5	CE-FQZHN-01C

5.3.3 Size of joint pipes for outdoor unit (R410a)

Model	the size of main pipe(mm)		
	Gas side	Liquid side	The 1st branching pipe
36K	Φ15.9	Φ9.5	CE-FQZHN-01C
48K	Φ15.9	Φ9.5	CE-FQZHN-01C
60K	Φ15.9	Φ9.5	CE-FQZHN-01C

5.3.4 The branching pipe must be installed horizontally, error angle of it should not large than 10°. Otherwise, malfunction will be caused.



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	

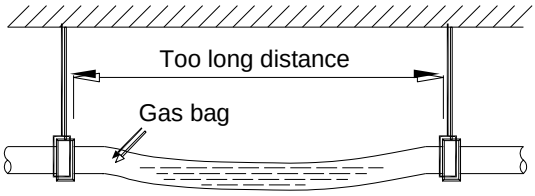
Attention: Adopt PVC40 or bigger pipe to be the main pipe.

6.2.3 Individual design of drainage pipe system

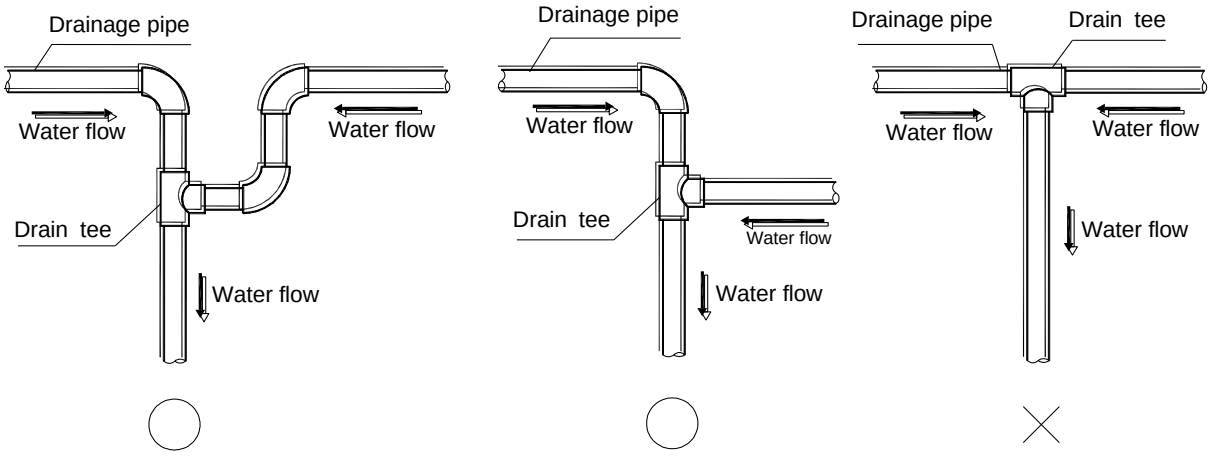
- The drainage pipe of air conditioner shall be installed separately with other sewage pipe, rainwater pipe and drainage pipe in building.
- The drainage pipe of the indoor unit with water pump should be apart from the one without water pump.

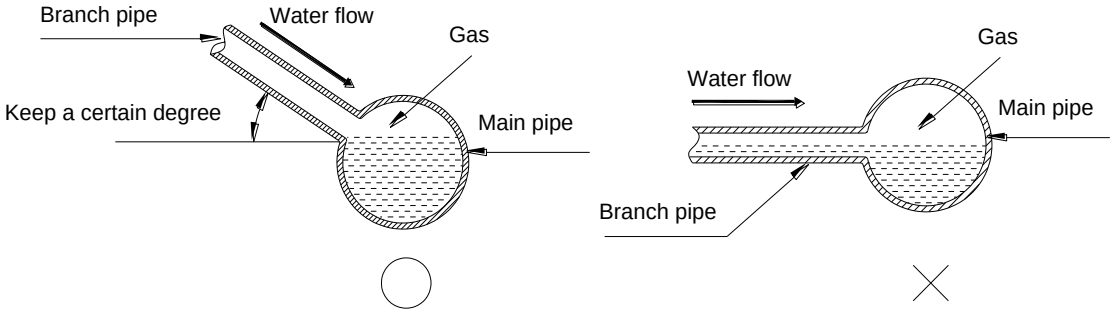
6.2.4 Supporter gap of drainage pipe

- 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

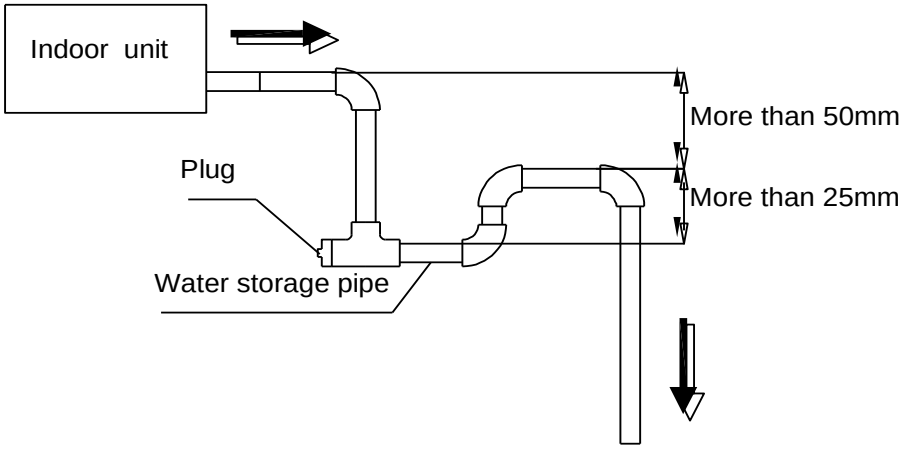




- The correct installation will not cause converse water flow and the slope of the branch pipes can be adjusted freely
- The false installation will cause converse water flow and the slope of the branch pipe can not be adjusted.

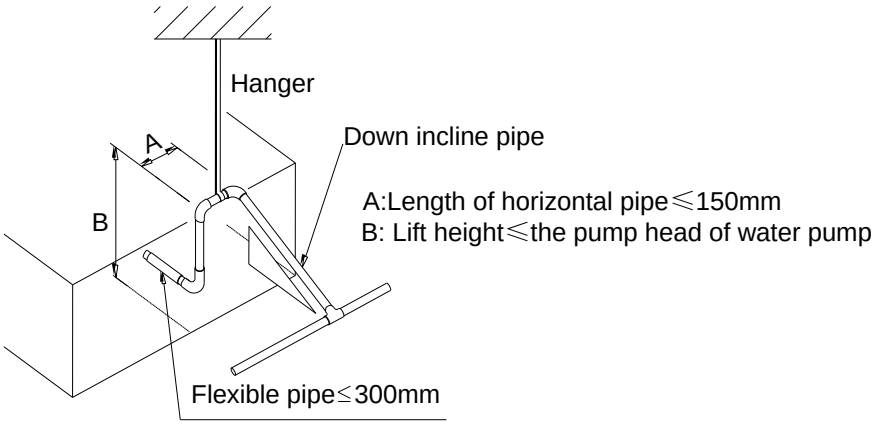
6.2.6 Water storage pipe setting

- 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

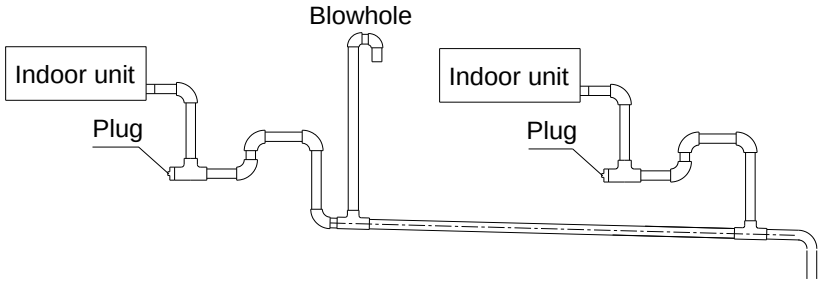
- The length of lifting pipe should not exceed the pump head of indoor unit water pump.
  Pump head of big four way cassette: 750mm
  Pump head of compact four way cassette: 500mm
- The drainage pipe should be set down inclined after the lifting pipe immediately to avoid wrong operation of water level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

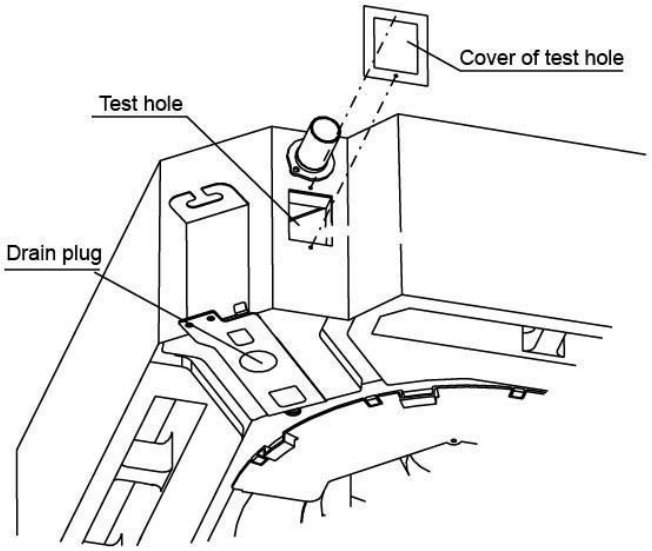
6.3.1 Water leakage test

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.

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.

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

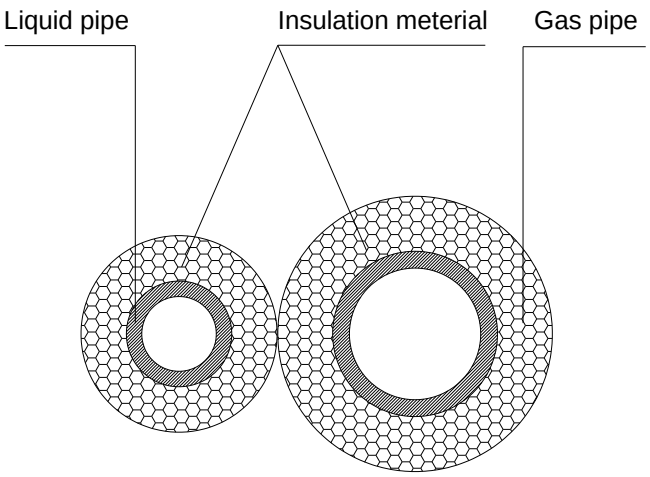
- During operation, temperature of gas pipe and liquid pipe shall be over-heating or over-cooling extremely. Therefore, it is necessary to carry out insulation; otherwise it shall debase the performance of unit and burn compressor.
- Gas pipe temperature is very low during cooling. If insulation is not 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)

T2B: Indoor Return Gas Thermistor (RGT)

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 Temperature protection of compressor top

The unit will stop working when the compressor top temp. protector cut off, and will restart after the compressor top temp. protector restart.

1.2.3 Temperature protection of compressor discharge

For 12K units:

When the compressor discharge temp. is getting higher, the running frequency will be limited as below rules:

---Compressor discharge temp. T5>115℃ for 5s, compressor stops and restarts up till T5<90℃

---110<T5<115℃, decrease the frequency to the lower level every 2 minutes.

---105<T5<110℃, keep running at the current frequency.

----T5<105℃, no limit for frequency.

For other units:

When the compressor discharge temp. is getting higher, the running frequency will be limited as below rules:

----If 102℃<T5<115℃, decrease the frequency to the lower level every 2 minutes till to F1.

---If T5>115℃ for 10 seconds, the compressor will stop and restart till T5<90℃.

1.2.4 Sensor protection at open circuit and breaking disconnection.

1.2.5 Indoor fan delayed open function

When the unit starts up, the louver will be active immediately and the indoor fan will open 10s later.

If the unit runs in heating mode, the indoor fan will be also controlled by anti-cold wind function.

1.2.6 Fan Speed is out of control

For super slim cassette: When indoor fan speed keeps too low (lower than 200RPM) for 50s, the unit will stop and the LED will display the failure.

For other models: When indoor fan speed keeps too low (lower than 300RPM) for 50s, the indoor fan will shut off and restart 30s later, if protection happened 3 times when fan motor restart continuously, the unit will stop and the LED will display the failure.

1.3 Operation Modes and Functions

1.3.1 Fan mode

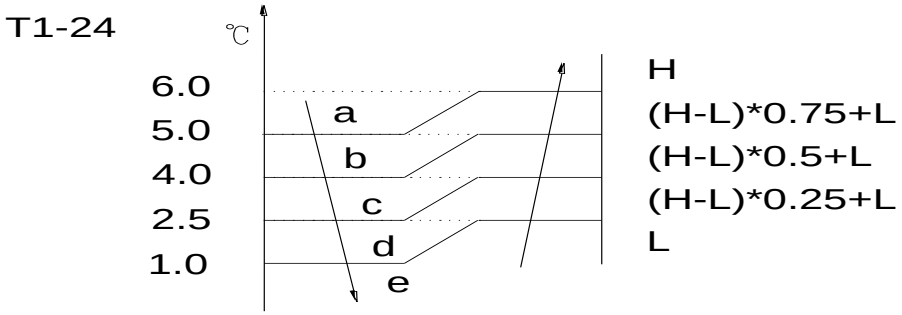
(1) Outdoor fan and compressor stop.

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

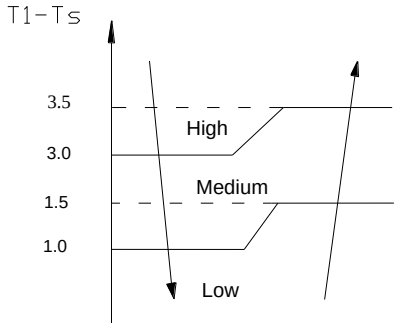
(3) For XAD012&CBD012: Indoor fan can be set to high/med/low/ breeze, for other models: Indoor fan can be set to high/(med)/low/auto;

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

(5) Auto fan:
For XAD:

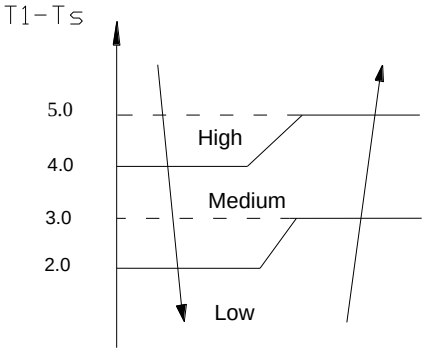


For CBD012



Ts=24

For other models:



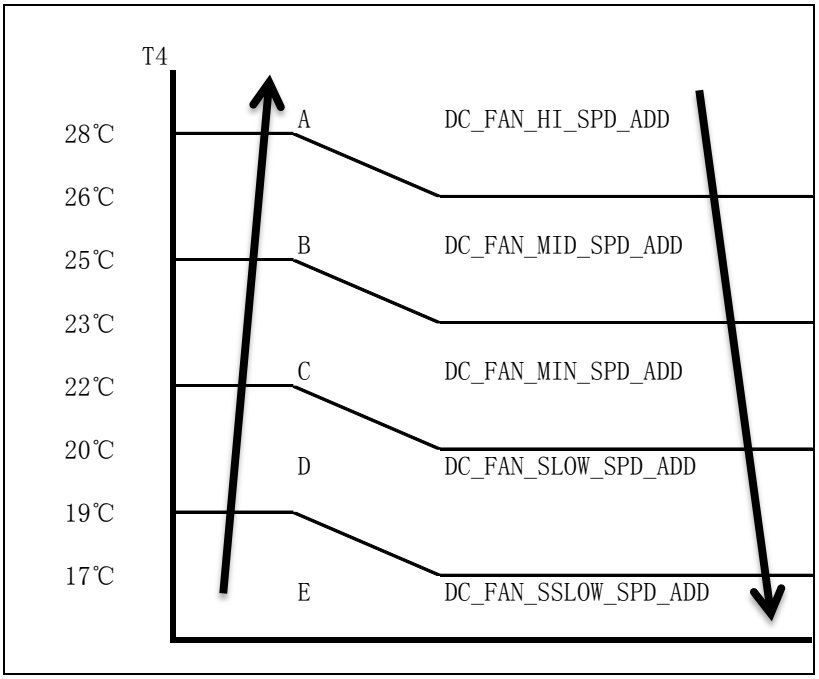
Ts=24

1.3.2 Cooling Mode

1.3.2.1 Outdoor PMW open angle control

The unit is working in cooling mode with the EXV open 300P(For 12K, it is 220P) for 3 minutes, then adjusting PMW open angle according to the temperature of compressor discharge every 2 minutes.

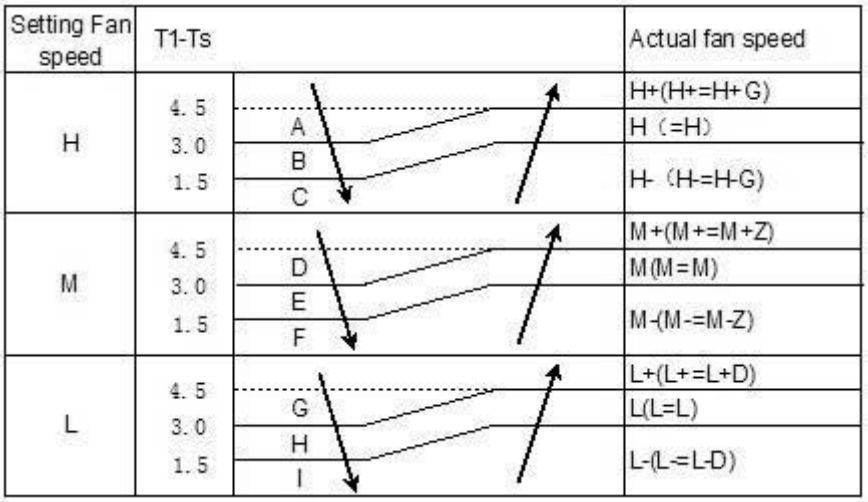
1.3.2.2 Outdoor fan running rules



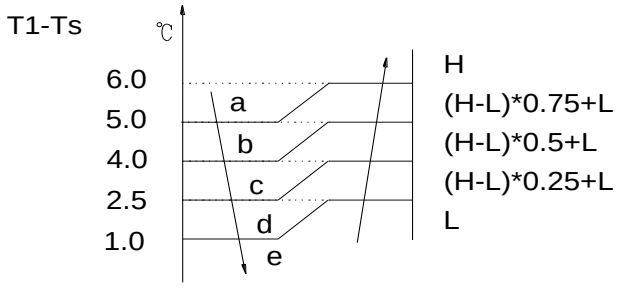
1.3.2.3 Indoor fan running rules

For XAD012:

In cooling mode, indoor fan runs all the time and the speed can be selected as high, medium, low, auto and silent. When the compressor is running, the indoor fan is controlled as below:



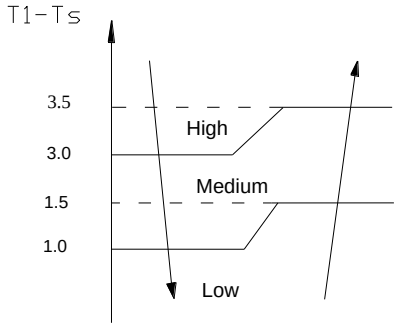
The auto fan acts as below rules:



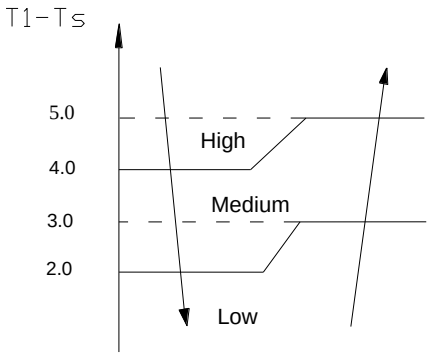
For CBD012

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

The auto fan:



For other models:



1.3.2.4 Evaporator low temperature T2 protection.

For 12K models：

---T2<0℃, the compressor will stop and restart when T2>=5℃.

---0℃≦T2<4℃, the compressor frequency will be limited and decreased to the lower level

---4℃≤T2<7℃, the compressor will keep the current frequency.

---T2>7℃, the compressor frequency will not be limited.

For FWDB18/024

- When T2<2℃ and lasts for 3 minutes, the indoor has no capacity demand and resume till T2≥7℃.
- When set point <17℃,and the T2<7℃, the indoor fan will be forced to run the speed RAFANC6 (1200 rpm for FWDB18, 1350rpm for FWDB24) till the T2>10℃

For other models: When T2<2℃ and lasts for 3 minutes, the indoor has no capacity demand and resume till T2≥7℃.

1.3.2.5 Condenser high temperature T3 protection

For 12K models :

---55℃<T3<60℃, the compressor frequency will decrease to the lower level until to F1 and then runs at F1.If T3<55℃, the compressor will keep running at the current frequency.

---T3<52℃, the compressor will not limit the frequency and resume to the former frequency.

---T3>60℃ for 5 seconds, the compressor will stop until T3<52℃.

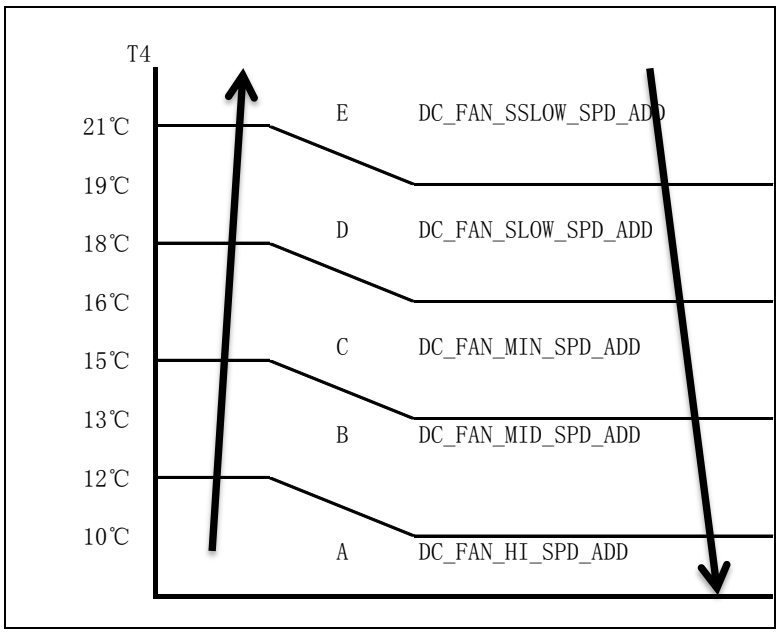
For other models: When T3≥65℃ for 3 seconds, the compressor will shut off. When T3＜52,the compressor will restart.

1.3.3 Heating Mode

1.3.2.1 Outdoor PMW open angle control

The unit is working in heating mode with the EXV open 300P(For 12K,it is 480P) for 3 minutes, then adjusting PMW open angle according to the temperature of compressor discharge every 2 minutes.

1.3.3.2 Outdoor fan running rules:



1.3.3.3 Indoor fan running rules:

For XAD012:

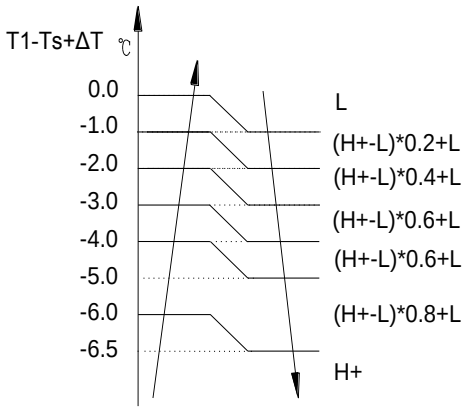
In heating mode, indoor fan can be selected as high, medium, low, auto and silent. The anti-cold- wind function has the priority.

When the compressor is running, the indoor fan is controlled as below:

Setting fan speed	T1-Ts	Actual fan speed
H	-1.5 -3.0 -4.5	H-（H=H-G) H（=H） H+(H+=H+G)
M	-1.5 -3.0 -4.5	M-(M-=M-Z) M(M=M) M+(M+=M+Z)
L	-1.5 -3.0 -4.5	L-(L-=L-D) L(L=L) L+(L+=L+D)

If the compressor stops caused by the room temperature rising, the indoor fan will be forced to run 127 seconds with breeze. During this period, the anti-cold-wind is disabled.

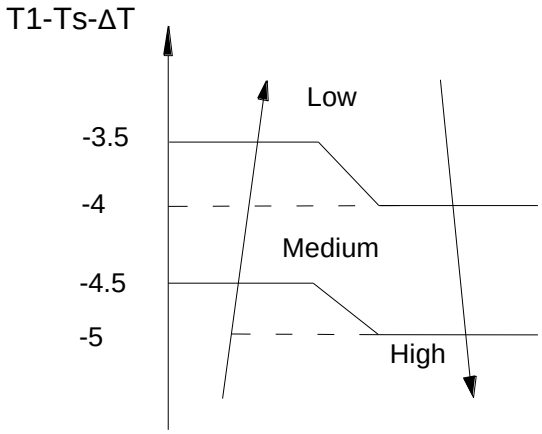
Auto fan action in heating mode:



For CBD012:

When the compressor is on, the indoor fan can be set to high, medium, low, auto and silent. And the anti-cold wind function has the priority.

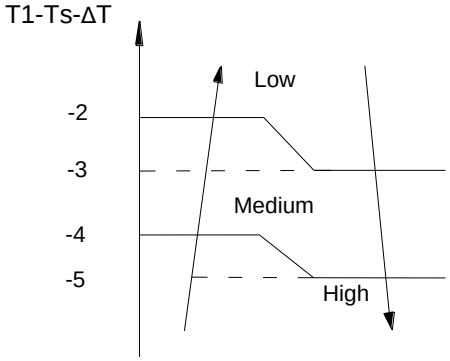
Auto fan action:



For other models:

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

Auto fan action:



1.3.3.4 Defrosting mode：

For 12K models：

Condition of defrosting:

If any one of the following items is satisfied, AC will enter the defrosting mode.

After the compressor starts up and keeps running, mark the minimum value of T3 from the 10th minutes to 15th minutes as T30.

1)If the compressor cumulate running time is up to 29 minutes and T3< TCDI1, T3＋T30SUBT3ONE≦T30.

2)If the compressor cumulate running time is up to 35 minutes and T3< TCDI2, T3＋T30SUBT3TWO≦T30.

3)If the compressor cumulate running time is up to 29 minutes and T3< TCDI3 for 3 minutes.

4)If the compressor cumulate running time is up to 120 minutes and T3<-15℃.

Condition of ending defrosting:

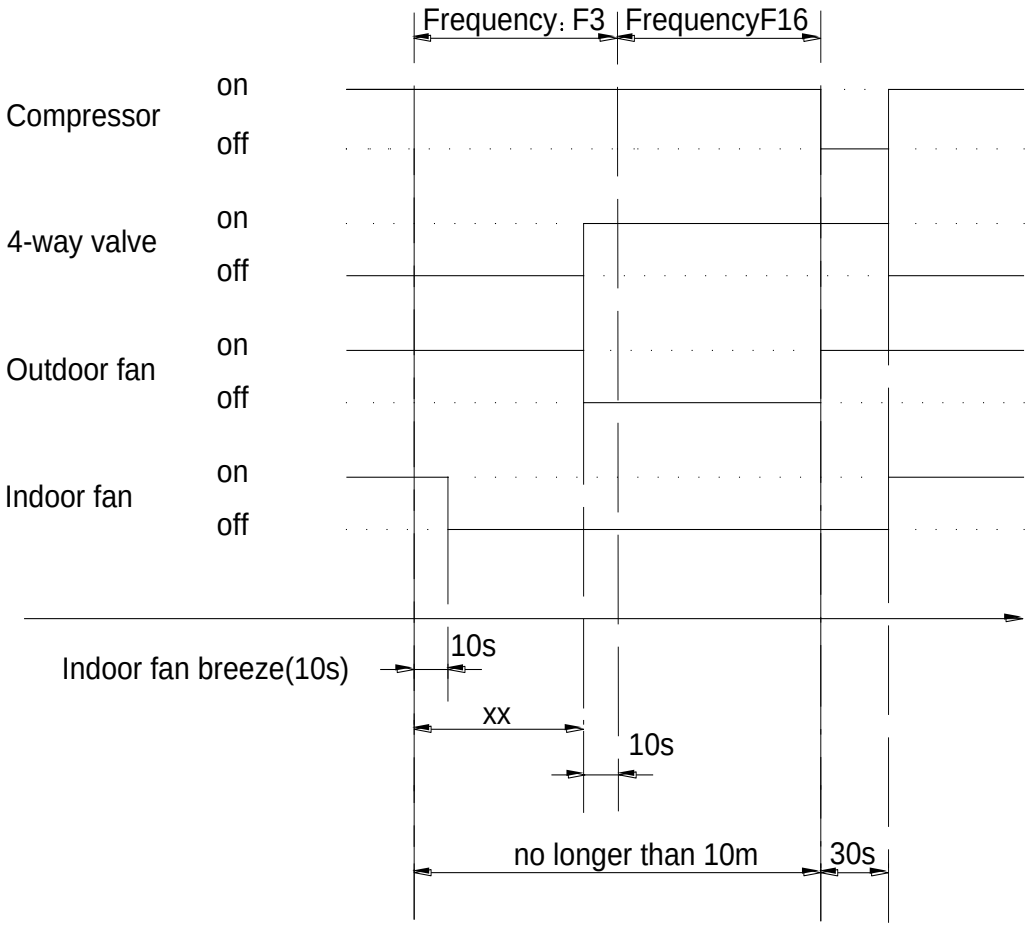
If any one of the following items is satisfied, the defrosting will finish and the machine will turn to normal heating mode.

----T3 rises to be higher than TCDE1℃.

----T3 keeps to be higher than TCDE2℃ for 80 seconds.

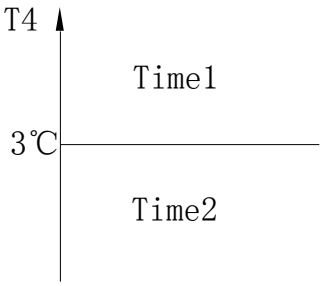
----The machine has run for 10 minutes in defrosting mode.

Defrosting action：



xx=90

The other models:
Condition of defrosting:



Time conditions:
time1
Time conditions(Meet the following conditions)
1.Running in heating mode
2. T4≥3℃
3. Compressor is on
4. T3≤TempEnterDefrost_ADD ℃
Cleared conditions (Meet any one of the following conditions)
1. Compressor is off.
2. T3＞TempEnterDefrost_ADD ℃

Time2
Time conditions(Meet the following conditions)
1.Running in heating mode
2. T4<3℃
3. Compressor is on
4. T3≤TempEnterDefrost_ADD ℃

Cleared conditions (Meet any one of the following conditions)
1. Compressor is off and T3＞TempEnterDefrost_ADD +2℃ last for 20 minutes
2. Running in cooling mode.
3. Compressor is off for 1 hour.

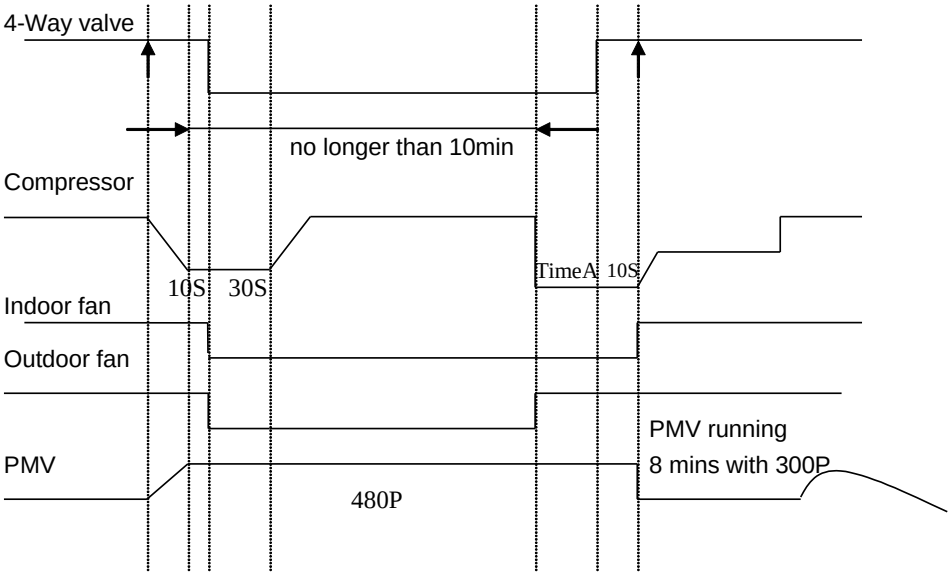
Condition of entry defrosting:
time1+ time2≥40 minutes, When defrosting is end,time1 and time2 are cleared.

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

① The defrosting time achieves 10min;

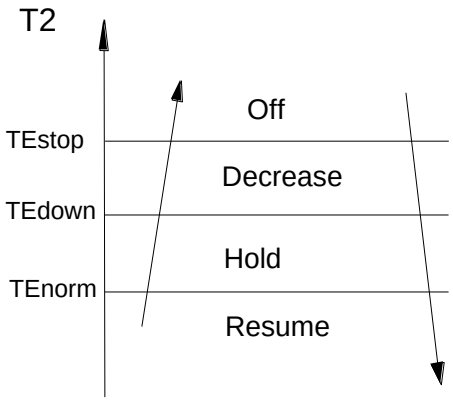
② T3 ≥TempQuitDefrost_ADD℃;
③ T3 ≥7℃ for 60seconds.

Defrosting action：



1.3.3.5 High evaporator coil temp.T2 protection:

For 12K models：



Off: Compressor stops.

Decrease: Decrease the running frequency to the lower level.

Hold: Keep the current frequency.

Resume: No limitation for frequency.

For other models:T2>60℃, the compressor will stop and restart when T2≤54℃.

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 12K models:

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

ΔT≤-1℃	Heating

For other models:

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

For 12K models:

Indoor fan speed is fixed at breeze and can't be changed. The louver angle is the same as in cooling mode.

Low indoor room temperature protection

In drying mode, if room temperature is lower than 10℃, the compressor will stop and not resume until room temperature exceeds 12℃.

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

For other models: Drying mode works the same as cooling mode in low speed.

All protections are active and the same as that 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.

1.3.6.7 The setting time is relative time.

1.3.7 Economy function

1.3.7.1 The sleep function is available in cooling, heating or auto mode.

1.3.7.2. Operation process in sleep mode is as follow:

When cooling, the setting temperature rises 1℃ (be lower than 30℃) every one hour, 2 hours later the setting temperature stops rising and the indoor fan is fixed at low speed.

When heating, the setting temperature decreases 1℃ (be higher than 17℃) every one hour, 2 hours later the setting temperature stops rising and indoor fan is fixed at low speed. (Anti-cold wind function has the priority).

1.3.7.3 Operation time in sleep mode is 7 hours. After 7 hours the AC quits this mode but doesn't turns off, but for console, the unit will turn off.

1.3.7.4 Timer setting is available

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 Cassette)

Adopt the water-level switch to control the action of drain pump.

Main action under different condition :(every 5 seconds the system will check the water level one time)

1. When the A/C operates with cooling (including auto cooling) and forced cooling mode, the pump will start running immediately and continuously, till stop cooling.

2. Once the water level increase and up to the control point, LED will alarm and the drain pump open and continue checking the water level. If the water level fall down and LED disalarmed (drain pump delay close 1 minute) and operate with the last mode. Otherwise the entire system stop operating (including the pump) and LED remain alarming after 3 minutes.

1.3.10 Follow me

1) If the indoor PCB receives the signal which results from pressing the FOLLOW ME button on remote controller, the buzzer will emit a sound and this indicates the follow me function is initiated. But when the indoor PCB receives signal which sent from remote controller every 3 minutes, the buzzer will not respond. When the unit is running with follow-me function, the PCB will control the unit according to the temperature from follow-me signal, and the temperature collection function of room temperature sensor will be shielded.
2) When the follow-me function is available, the PCB will not respond according to the setting temperature from follow-me signal every 3 minutes.
3) The PCB will take action to the mode change information from remote controller signal, and the follow-me function will be turned off. (if the wired remote controller does not initiate follow me function).
4) When the unit is running with follow-me function, if the PCB doesn't receive any signal from remote controller for 7 minutes or pressing FOLLOW ME button again, the follow-me function will be turned off

automatically, and the temperature collection function of room temperature sensor will be available, the PCB will control the unit according to the room temperature detected from its own room temperature sensor and setting temperature.

5) When the indoor PCB receives the follow-me signal from wired remote controller, the control is the same as that from wireless remote controller, but buzzer will not respond. When the PCB receives turning-off follow-me signal from wired remote controller, the unit will quit follow-me function at once. The follow-me function controlled by wired remote controller prevails that by wireless remote controller.

1.3.11 Point Check Function(Excluding 12K)

There is a check switch in outdoor PCB.

Press the switch SW1 to check the states of unit when the unit is running.

Press the switch N times it will display the content corresponding to No. N. After getting into the check function, it will display No. N with 1.5s, meanwhile the low bit decimal of digit display flashing, indicated to get into the check function display. After 1.5s, it will display the content corresponding to No. N.

the digital display tube will display the follow procedure when push SW1 each time.

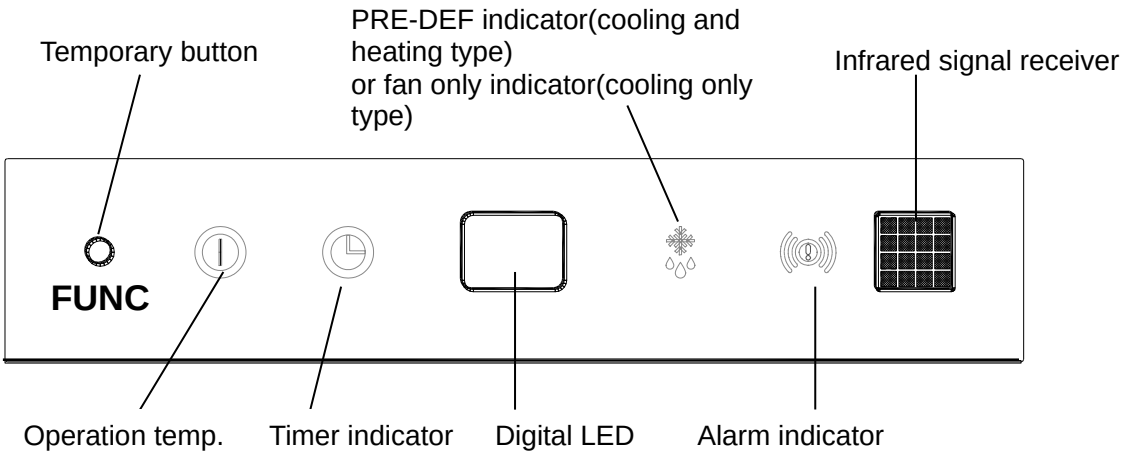
N	Display	Remark		
00	Normal display	Display running frequency, running state or malfunction code		
01	Indoor unit capacity demand code	Actual data*HP*10 If capacity demand code is higher than 99, the digital display tube will show single digit and tens digit. (For example, the digital display tube show “5.0”,it means the capacity demand is 15. the digital display tube show “60”,it means the capacity demand is 6.0)		
02	Amendatory capacity demand code			
03	The frequency after the capacity requirement transfer			
04	The frequency after the frequency limit			
05	The frequency of sending to 341			
06	Indoor unit evaporator outlet temp.(heating T2, cooling T2B)	If the temp. is lower than 0 degree, the digital display tube will show “0”.If the temp. is higher than 70 degree, the digital display tube will show “70”.		
07	Condenser pipe temp.(T3)	If the temp. is lower than -9 degree, the digital display tube will show “-9”.If the temp. is higher than 70 degree, the digital display tube will show “70”. If the indoor unit is not connected, the digital display tube will show: “——”		
08	Outdoor ambient temp.(T4)			
09	Compressor discharge temp.(T5)	The display value is between 13~129 degree. If the temp. is lower than 13 degree, the digital display tube will show “13”.If the temp. is higher than 99 degree, the digital display tube will show single digit and tens digit. (For example, the digital display tube show “0.5”,it means the compressor discharge temp. is 105 degree. the digital display tube show “1.6”,it means the compressor discharge temp. is 116 degree)		
10	AD value of current	The display value is hex number.		
11	AD value of voltage			
12	Indoor unit running mode code	Off:0, Fan only 1,Cooling:2, Heating:3		
13	Outdoor unit running mode code	Off:0, Fan only 1,Cooling:2, Heating:3, Forced cooling:4		
14	EXV open angle	Actual data/4. If the value is higher than 99, the digital display tube will show single digit and tens digit. For example ,the digital display tube show “2.0”,it means the EXV open angle is 120×4=480p.)		
15	Frequency limit symbol	Bit7	Frequency limit caused by IGBT radiator	The display value is hex number. For example, the digital display tube show 2A,then Bit5=1, Bit3=1, Bit1=1.
		Bit6	Frequency limit caused by PFC	

		Bit5	Frequency limit caused by T4.	It means frequency limit caused by T4,T3 and current.
		Bit4	Frequency limit caused by T2.	
		Bit3	Frequency limit caused by T3.	
		Bit2	Frequency limit caused by T5.	
		Bit1	Frequency limit caused by current	
		Bit0	Frequency limit caused by voltage	
16	DC fan motor speed			
17	IGBT radiator temp.	The display value is between 30~120 degree. If the temp. is lower than 30 degree, the digital display tube will show “30”.If the temp. is higher than 99 degree, the digital display tube will show single digit and tens digit. (For example, the digital display tube show “0.5”,it means the IGBT radiator temp. is 105 degree. the digital display tube show “1.6”,it means the IGBT radiator temp. is 116 degree)		
18	Indoor unit number	The indoor unit can communicate with outdoor unit well.		
19	Condenser pipe temp. of 1# indoor unit	If the temp. is lower than 0 degree, the digital display tube will show “0”.If the temp. is higher than 70 degree, the digital display tube will show “70”. If the capacity demand is 0, , the digital display tube will show “0. If the indoor unit is not connected, the digital display tube will show: “——”(heating T2，cooling T2B)		
20	Condenser pipe temp. of 2# indoor unit			
21	Condenser pipe temp. of 3# indoor unit			
22	1# Indoor unit capacity demand code	Actual data*HP*10 If capacity demand code is higher than 99, the digital display tube will show single digit and tens digit. (For example, the digital display tube show “5.0”,it means the capacity demand is 15. the digital display tube show “60”,it means the capacity demand is 6.0). If the indoor unit is not connected, the digital display tube will show: “——”		
23	2# Indoor unit capacity demand code			
24	3# Indoor unit capacity demand code			

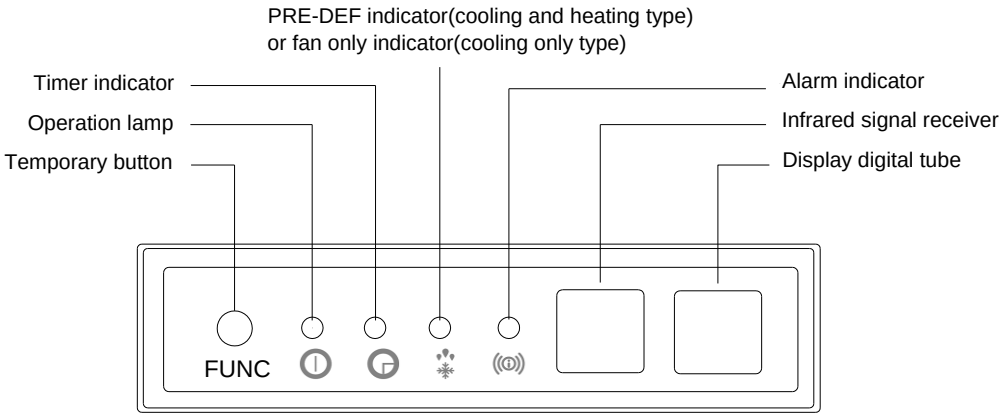
2. Troubleshooting

2.1 Display board

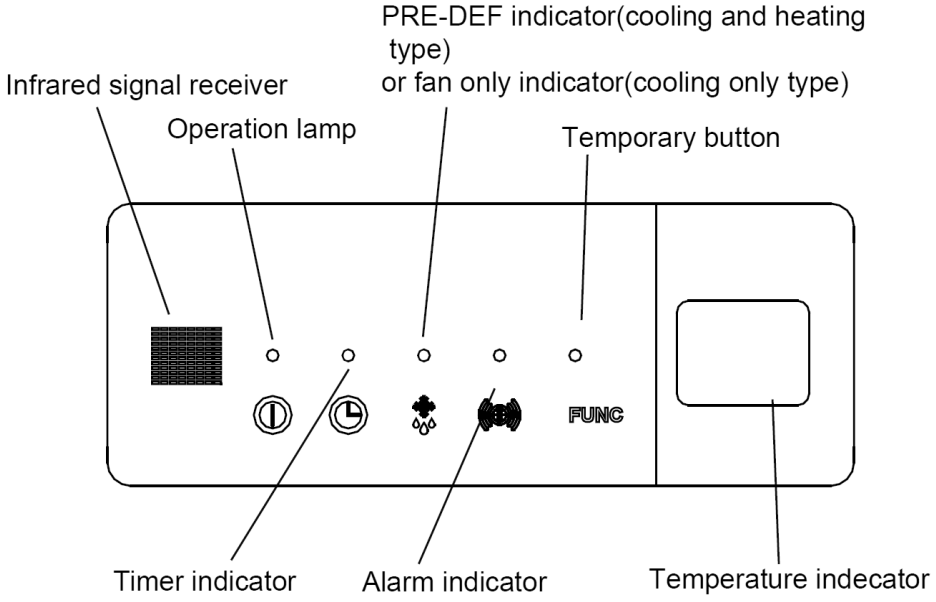
2.1.1 Icon explanation on indoor display board (Super slim cassette).



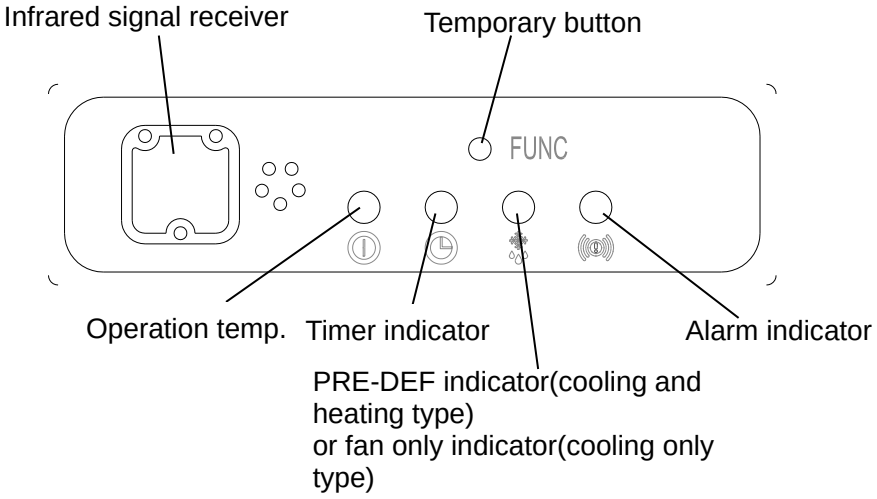
2.1.2 Icon explanation on indoor display board (Duct)



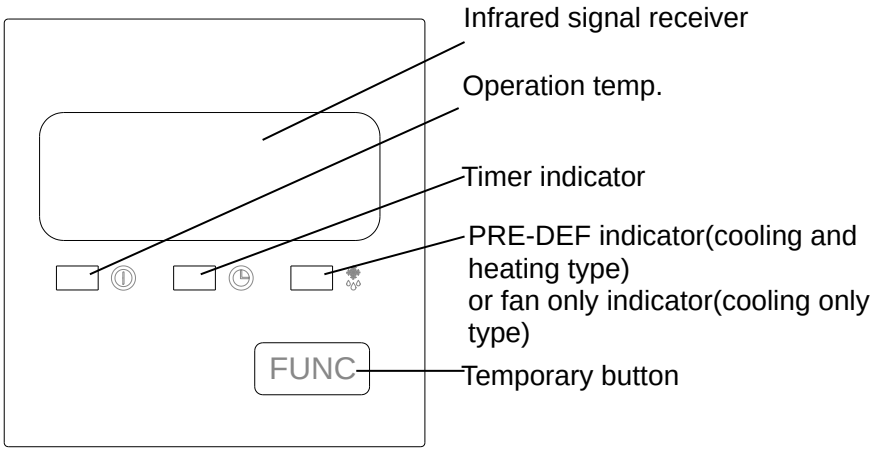
2.1.3 Display board of Ceiling-floor indoor unit



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



2.1.5 Icon explanation on indoor display board (Console)



2.2 Indoor unit malfunction

For Console(12K)

NO.	Malfunction	Running lamp	Timer lamp	Defrosting lamp
1	Refrigerant Leakage Detection	☆	☆	◎
2	Open or short circuit of T1 temperature sensor	☆	X	X
3	Open or short circuit of T2 temperature sensor	X	X	☆
4	Indoor / outdoor units communication error	X	☆	X
5	Outdoor fan speed has been out of control	X	☆	O
6	Indoor EEPROM malfunction	☆	☆	X
7	IPM module protection	☆	X	☆
8	Open or short circuit of T3 or T4 temperature sensor or Outdoor unit EEPROM parameter error	☆	☆	☆
9	Over voltage or over low voltage protection	☆	☆	O
10	Top temperature protection of compressor	☆	O	X
11	Inverter compressor drive protection	☆	◎	X
12	Indoor fan speed has been out of control.	☆	O	☆
O(light) X(off) ☆(flash at 5Hz) ◎(flash at 0.5Hz)				

For console type(18K)

NO.	Malfunction	Running lamp	Timer lamp	Defrosting lamp
1	Indoor EEPROM malfunction	☆	☆	☆
2	Indoor fan Speed has been out of control.	☆	X	☆
3	Open or short circuit of T1 or T2 temperature sensor	☆	☆	X
4	Indoor / outdoor units communication error	X	☆	X
5	Outdoor unit malfunction	X	X	◎
X(off) ☆(flash at 5Hz) ◎(flash at 0.5Hz)				

For Compact cassette(12K)、A5(12K):

NO.	Malfunction	Defrosting lamp	Alarm lamp	Running lamp	Timer lamp	Display(digital tube)
1	Open or short circuit of T1 temperature sensor	X	X	☆	X	E0
2	Open or short circuit of T2 temperature sensor	☆	X	X	X	E1
3	Indoor / outdoor units communication error	X	X	X	☆	E2
4	Full-water malfunction	X	☆	X	X	E3
5	Indoor EEPROM malfunction	X	X	☆	☆	E4
6	IPM module protection	X	O	☆	X	E5
7	Open or short circuit of T3 or T4 temperature sensor or Outdoor unit EEPROM parameter error	X	X	☆	O	E6
8	Outdoor fan speed has been out of control	☆	X	☆	O	E7
9	Refrigerant Leakage Detection	☆	☆	O	X	EC
10	Over voltage or over low voltage protection	X	O	☆	O	P0

11	Top temperature protection of compressor	O	X	☆	X	P1
12	Outdoor current protection	☆	X	☆	☆	P2
13	Inverter compressor drive error	X	◎	X	X	P4
14	Indoor fan Speed has been out of control.	O	X	☆	O	F5
O (on) X(off) ☆(flash at 5Hz) ◎(flash at 0.5Hz)						

For other models:

NO.	Malfunction	Defrosting lamp	Alarm lamp	Running lamp	Timer lamp	Display(digital tube)
1	Indoor / outdoor units communication error	X	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 T2B temperature sensor	X	X	☆	X	E4
5	Indoor EEPROM malfunction	☆	X	X	X	E7
6	Indoor fan speed is out of control	☆	☆	X	X	E8
7	Refrigerant Leakage Detection	☆	☆	O	X	EC
8	Outdoor unit malfunction	X	◎	X	X	Ed
9	Full-water malfunction	X	☆	X	X	EE
10	Communication malfunction between master unit and slave unit	X	☆	X	☆	F3
11	Other malfunction of master unit or slave unit	X	☆	☆	X	F4
O (on) X(off) ☆(flash at 5Hz) ◎(flash at 0.5Hz) F0,F1,F2 are only available for super-slim cassette F3,F4 are only available for the unit with TWINS function Note: Digital display is only available for super slim cassette & duct type.						

2.3 Outdoor unit malfunction

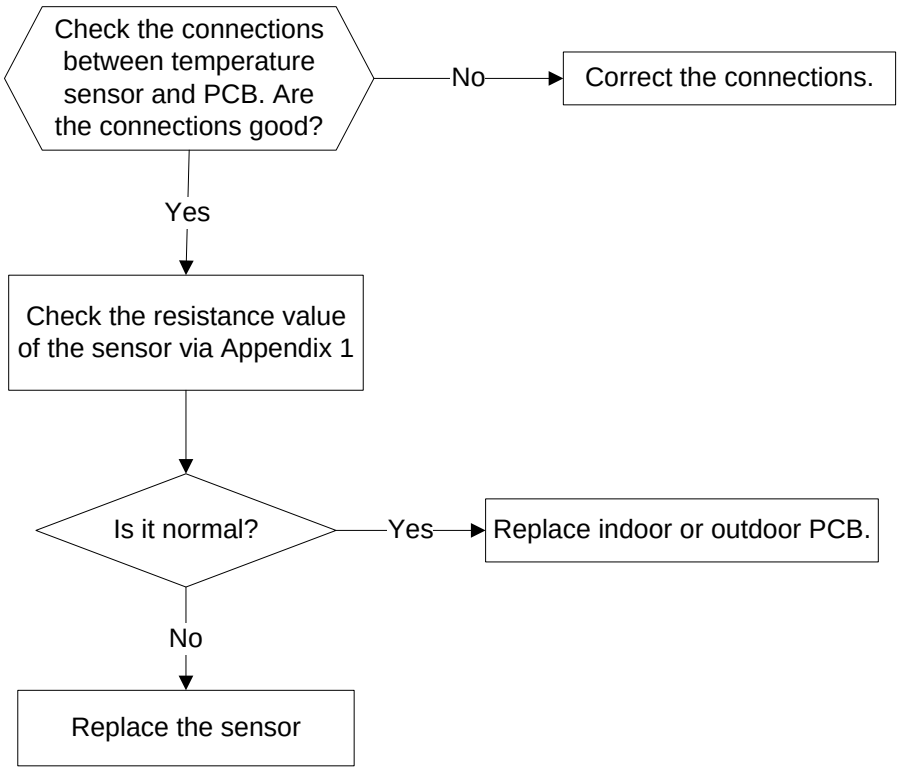
Display	Malfunction or Protection
E0	Outdoor EEPROM malfunction
E2	Indoor / outdoor units communication error
E3	Communication malfunction between IPM board and outdoor main board
E4	Open or short circuit of T3 or T4 temperature sensor
E5	Voltage protection of compressor
E6	PFC module protection (For 36K 1-Phase model)
E8	Outdoor fan speed is out of control
P0	Top temperature protection of compressor
P1	High pressure protection (For 36K~60K models)
P2	Low pressure protection(For 36K~60K models)
P3	Current protection of compressor
P4	Discharge temperature protection of compressor
P5	High temperature protection of condenser
P6	IPM module protection
P7	High temperature protection of evaporator

In low ambient cooling mode, the LED displays "LC" or alternative displays between running frequency and "LC"(each displays 0.5s)

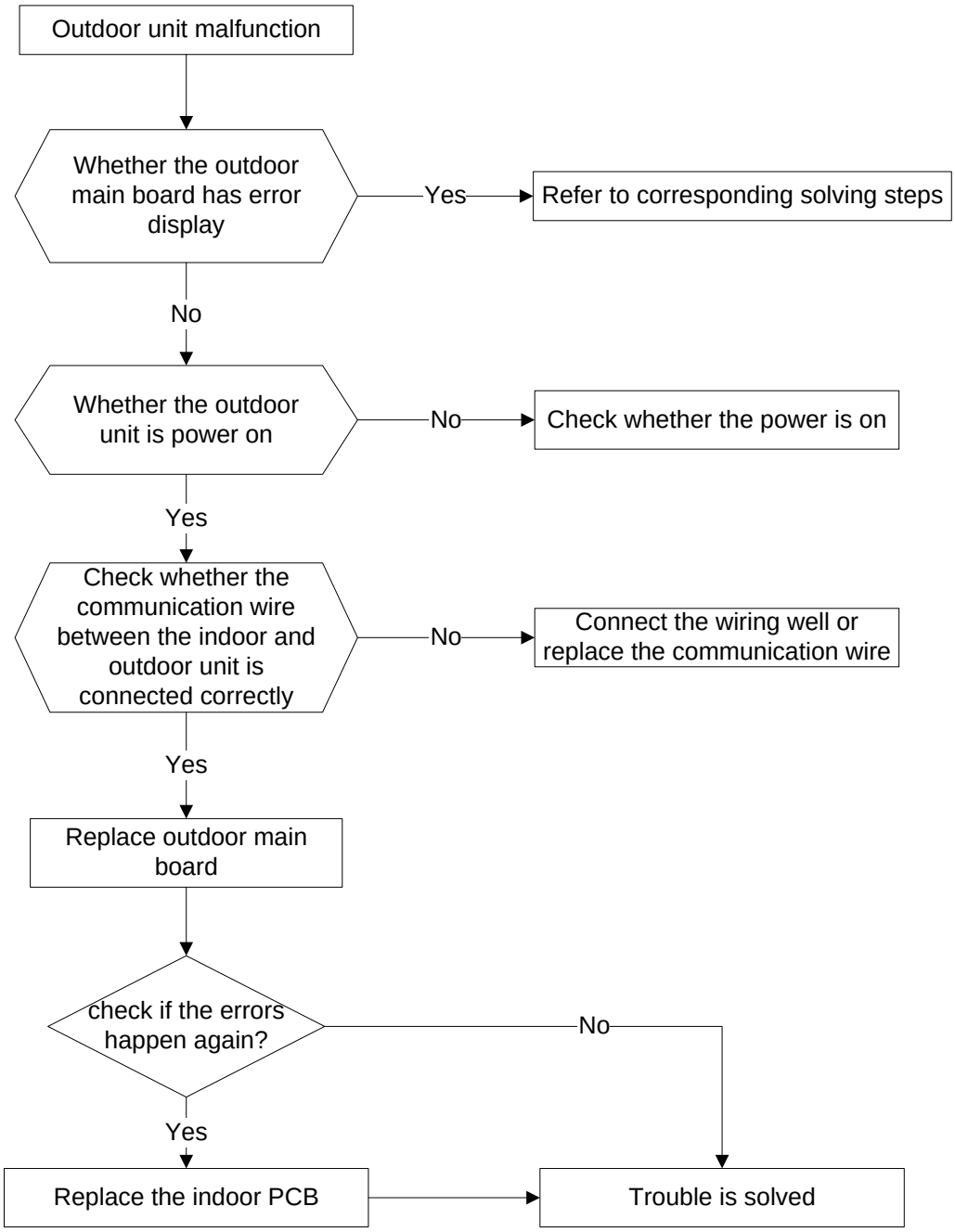
2.4 Solving steps for typical malfunction

2.4.1 For the indoor unit

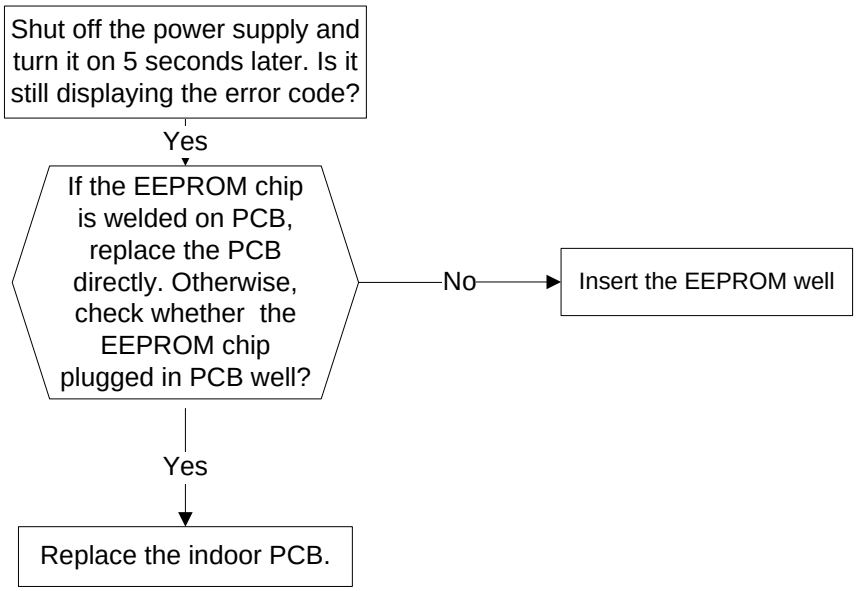
2.4.1.1 Open or short circuit of temperature sensor



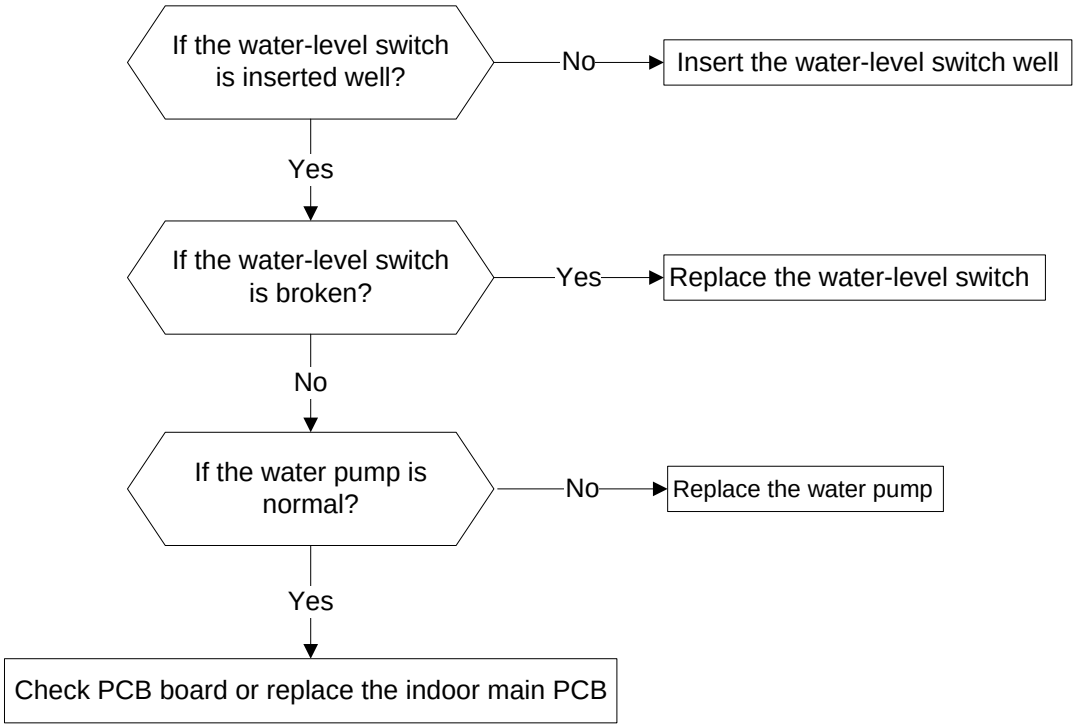
2.4.1.2. Outdoor unit malfunction



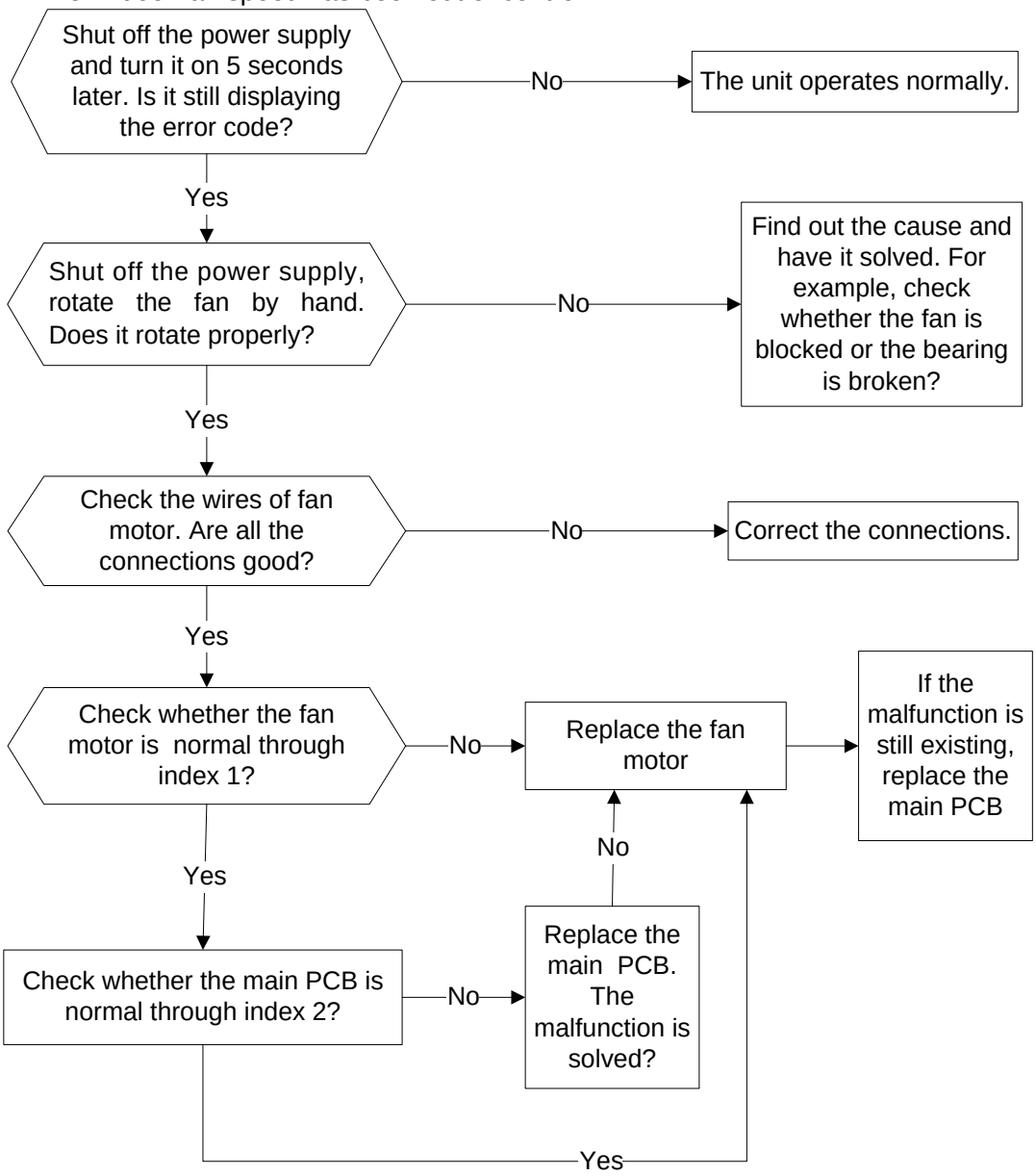
2.4.1.3. Indoor EEPROM malfunction



2.4.1.4. Full-water malfunction



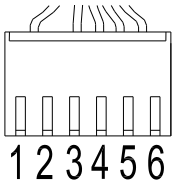
2.4.1.5. Indoor fan speed has been out of control.



Index 1:

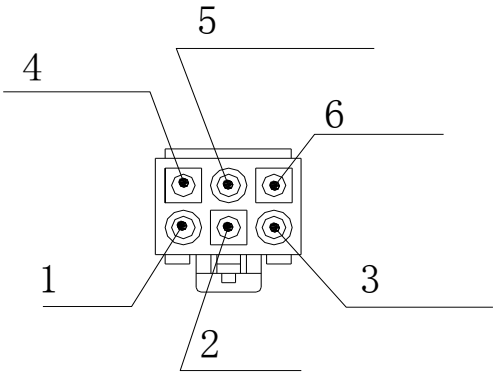
1.Indoor DC fan motor(control chip is inside fan motor)

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.
For other models:



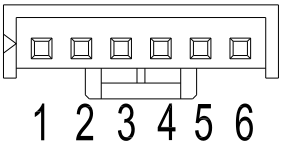
NO.	Color
1	Red
2	---
3	Black
4	White
5	Yellow
6	Blue

For console:



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

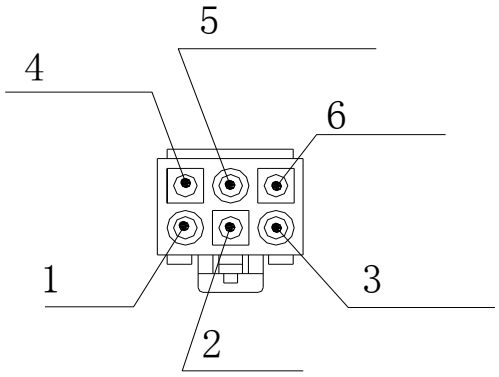
Index2:
1. Indoor DC fan motor(control chip is inside fan motor)
Power on and when the unit is in standby, measure the voltage of pin1-pin3, pin4-pin3 in fan motor connector. If the value of the voltage is not in the range showing in below table, the PCB must have problems and need to be replaced.
For other models:



DC motor voltage input and output

NO.	Color	Signal	Voltage
1	Red	Vs/Vm	192V~380V
2	---	---	---
3	Black	GND	0V
4	White	Vcc	13.5-16.5V
5	Yellow	Vsp	0~6.5V
6	Blue	FG	15V

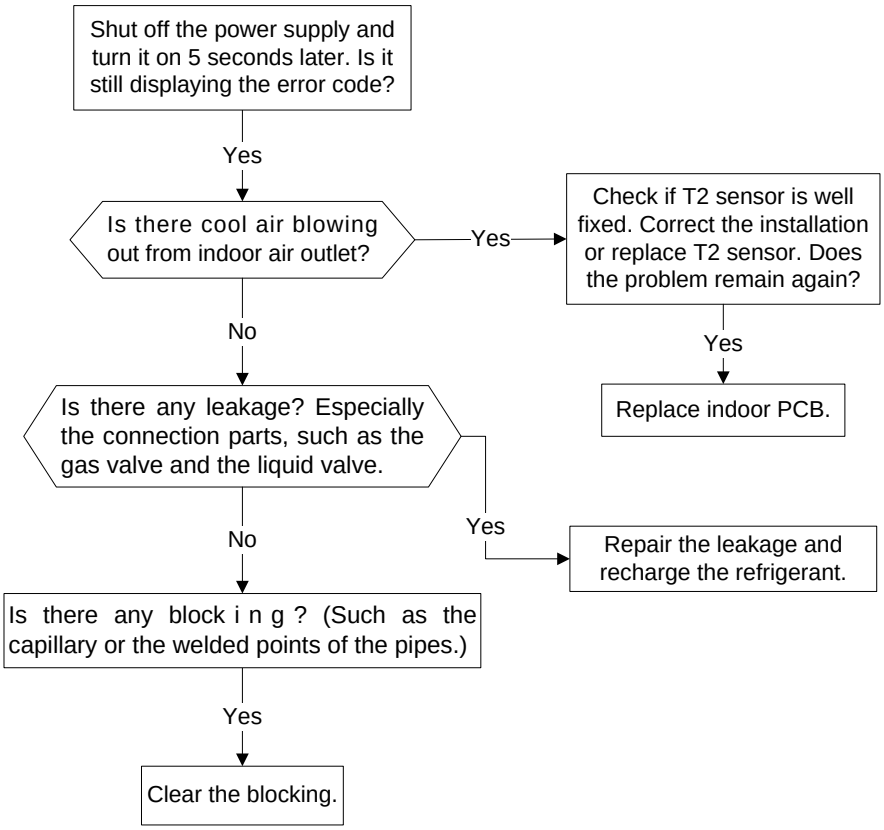
For console:



DC motor voltage input and output

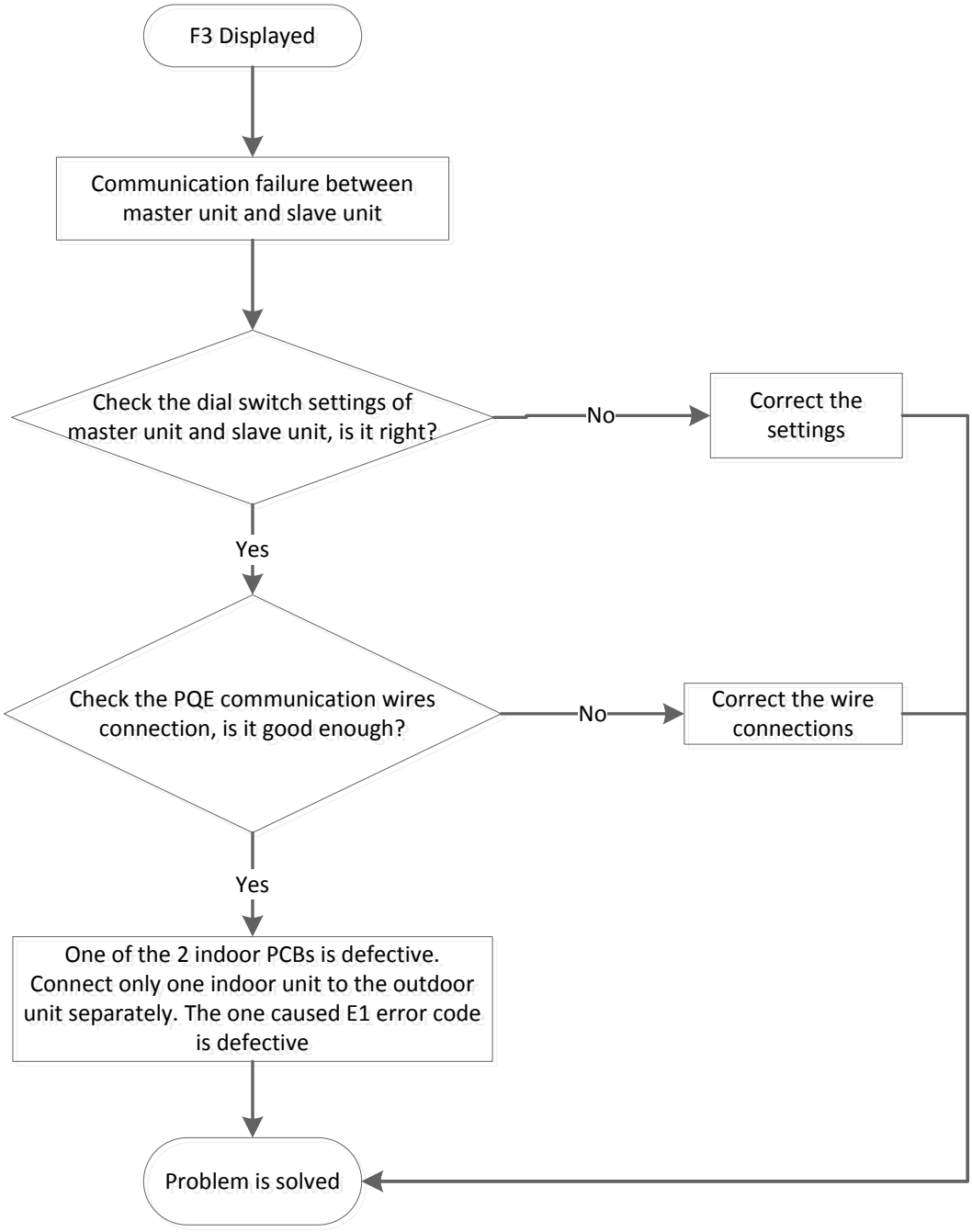
NO.	Color	Signal	Voltage
1	Red	V_{DC}	310V
2	---	---	---
3	White	Vcc	15V
4	Blue	FG	15V
5	Yellow	Vsp	0-7.5V
6	Black	GND	0V

2.4.1.6. Refrigerant Leakage Detection



2.4.2 For the unit with TWINS function(For the super-slim cassette & A5 duct)

2.4.2.1 Communication malfunction between master unit and indoor unit

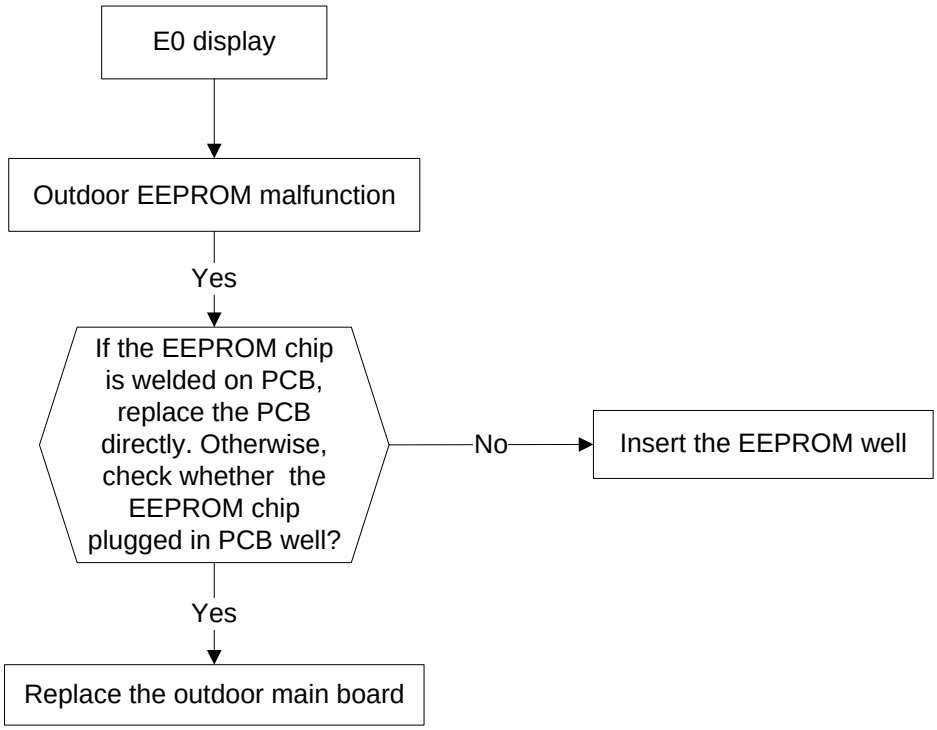


2.4.2.2 Other malfunction between master unit and indoor unit

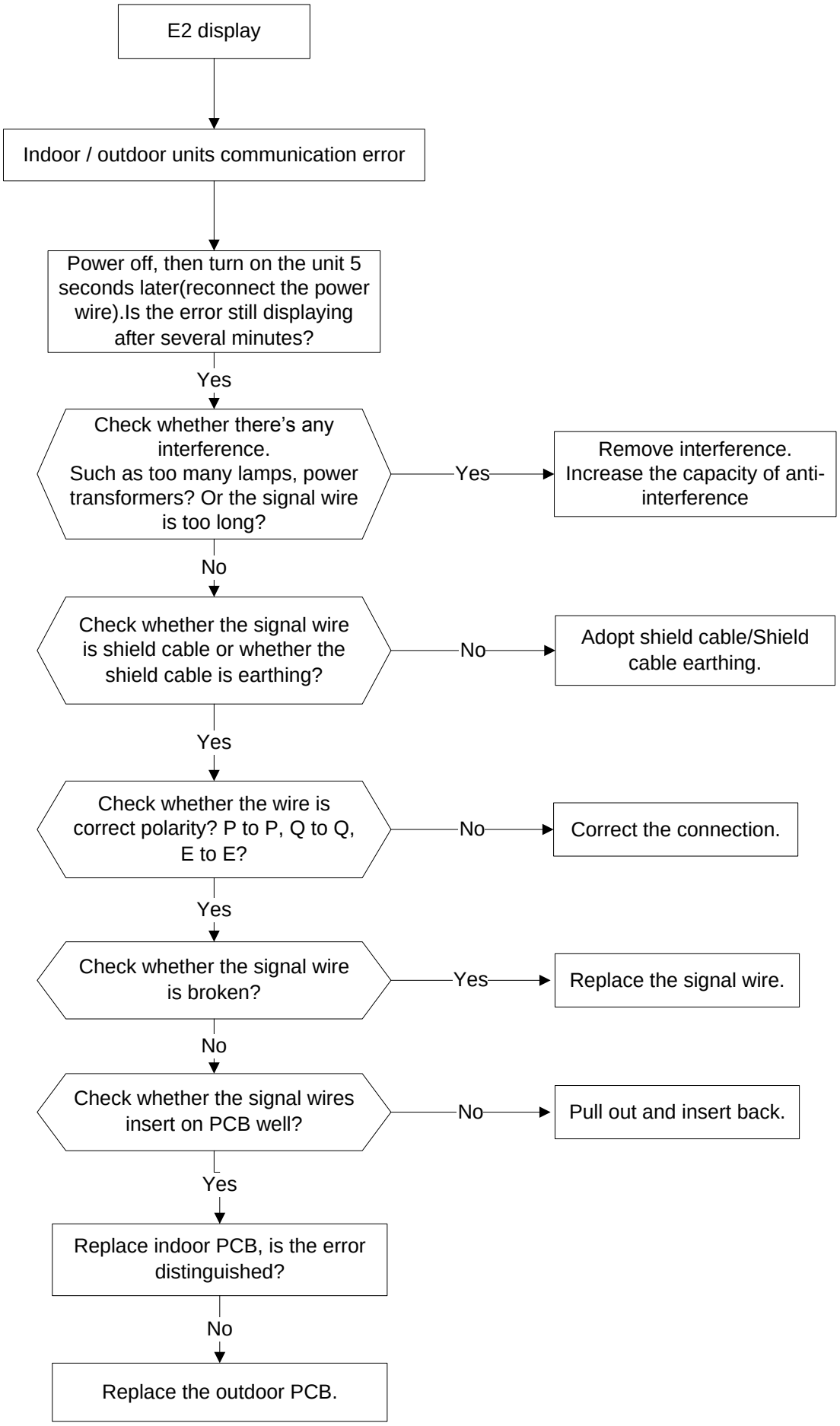
One indoor unit displays ”F4”, which means another indoor unit is faulty. Check another indoor unit’s error code and then follow the appropriate solutions to solve the malfunction.

2.4.3 For the outdoor unit

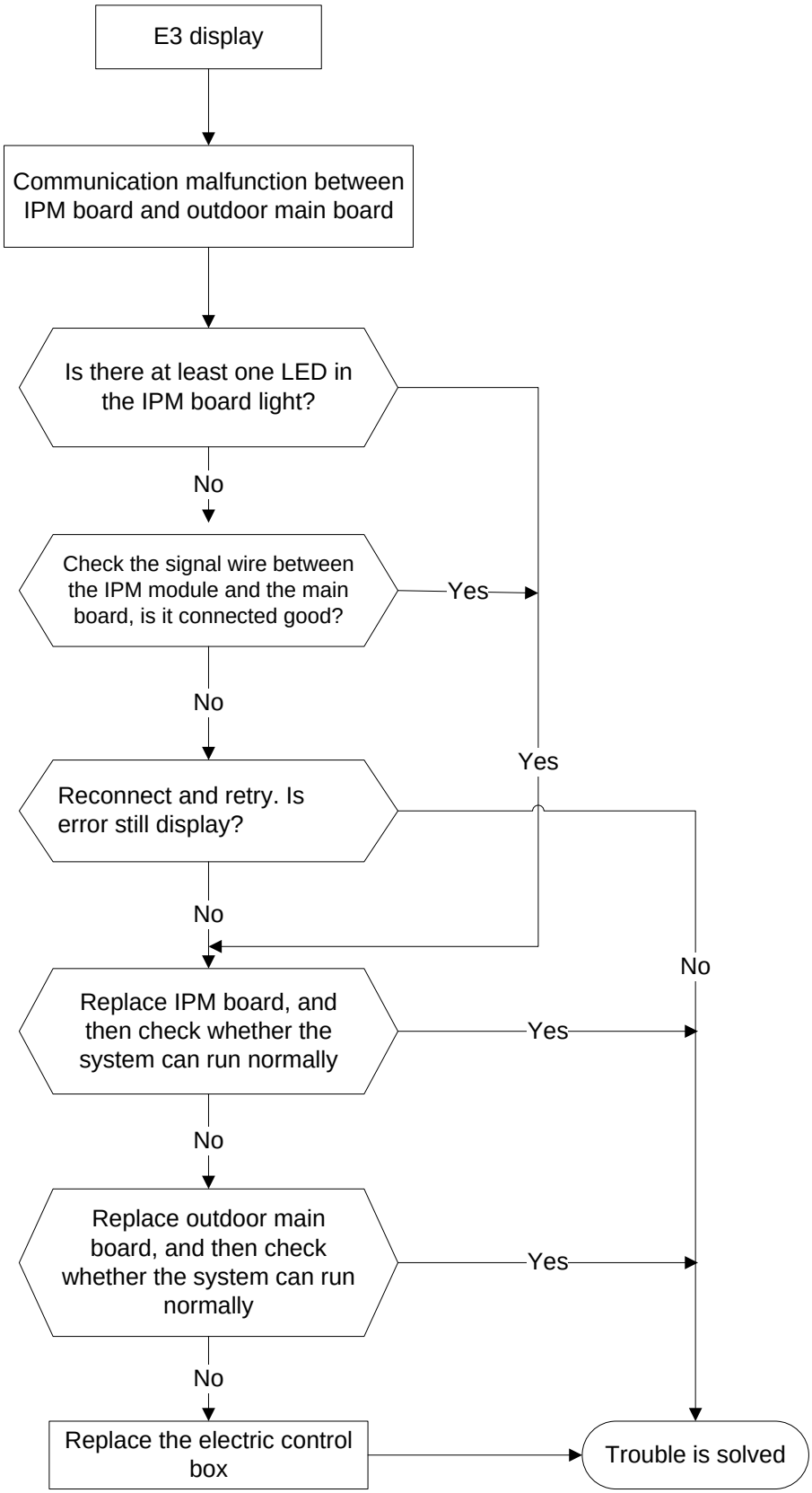
2.4.3.1. E0 malfunction



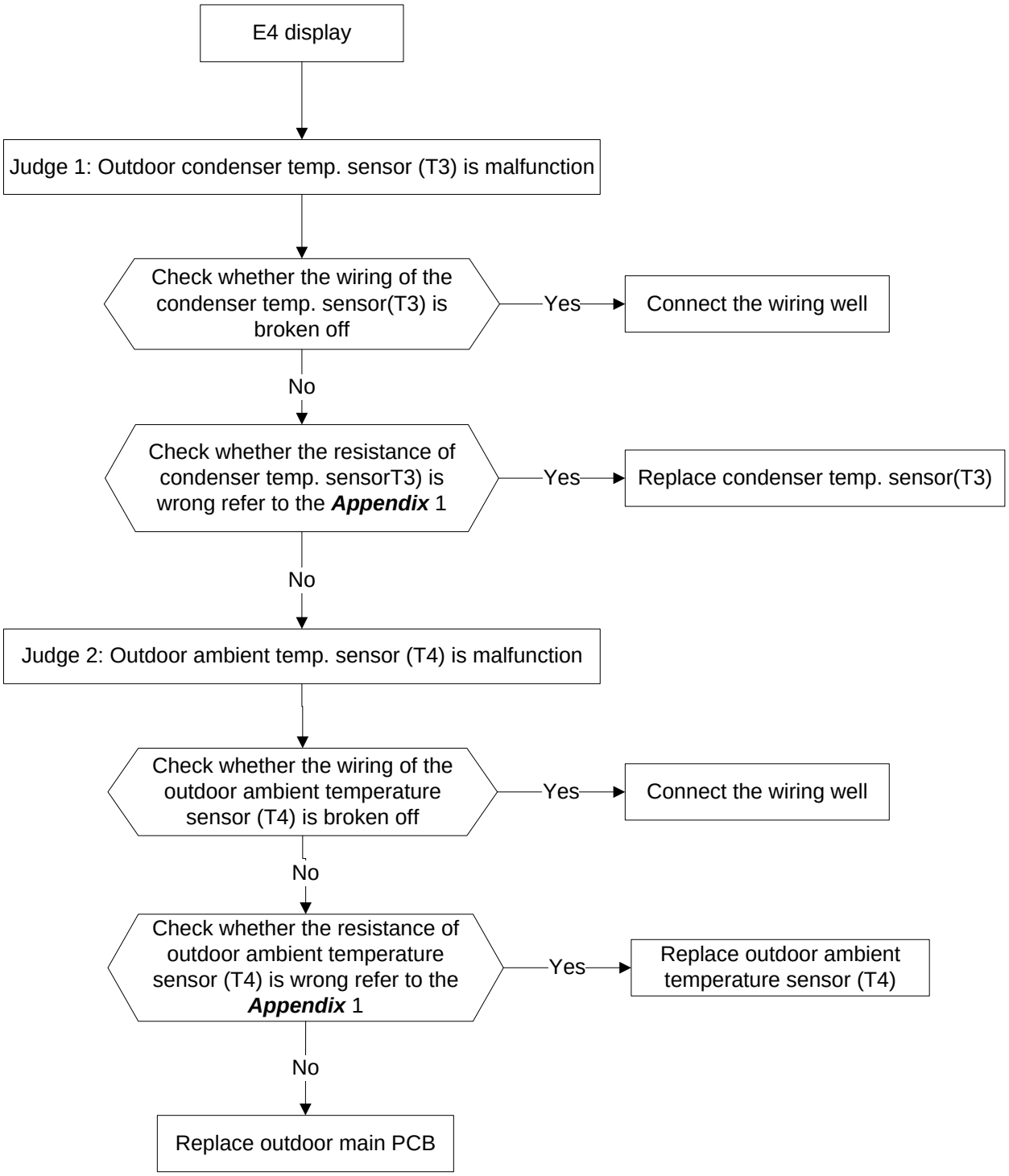
2.4.3.2. E2 malfunction



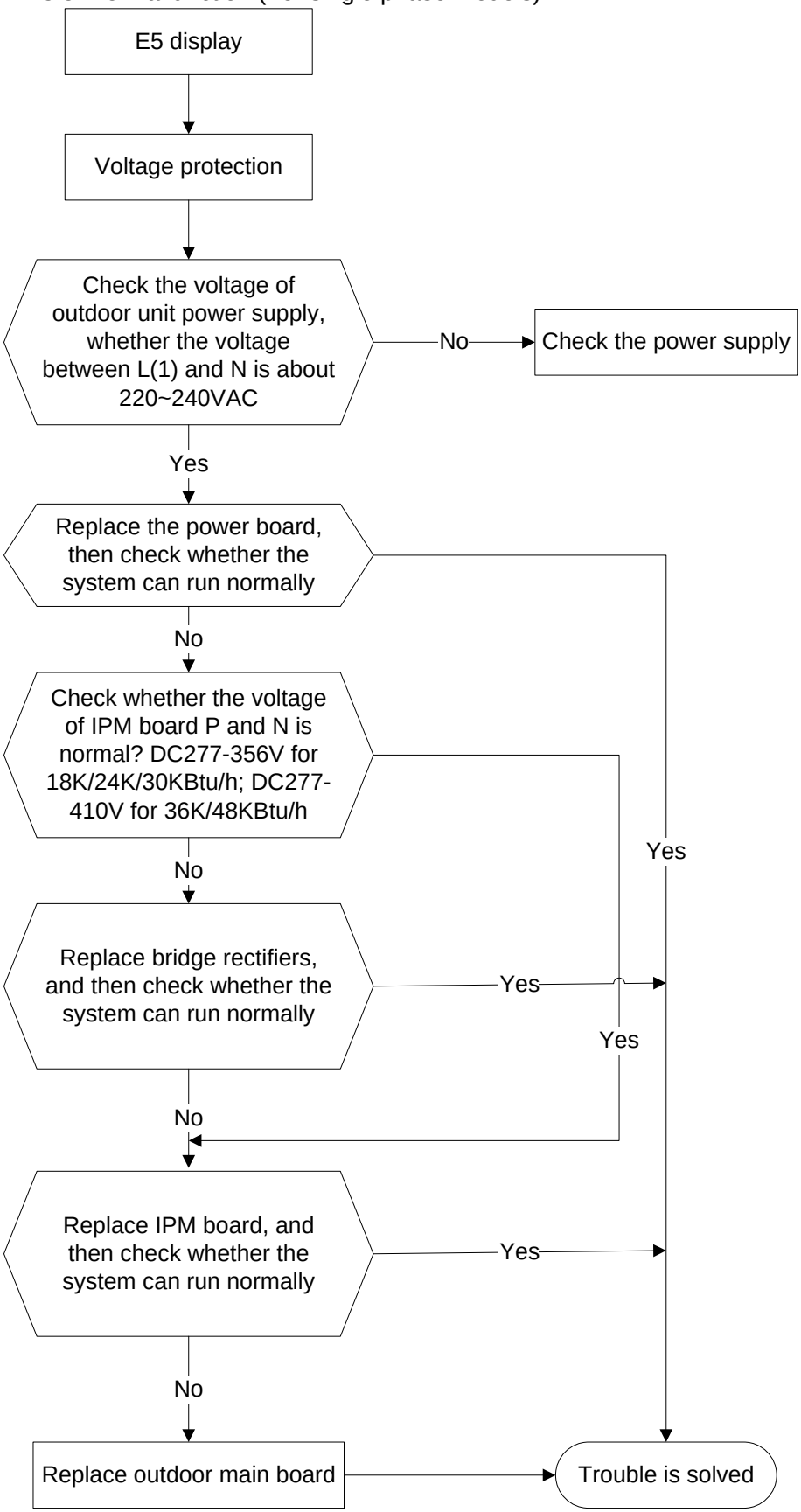
2.4.3.3. E3 malfunction



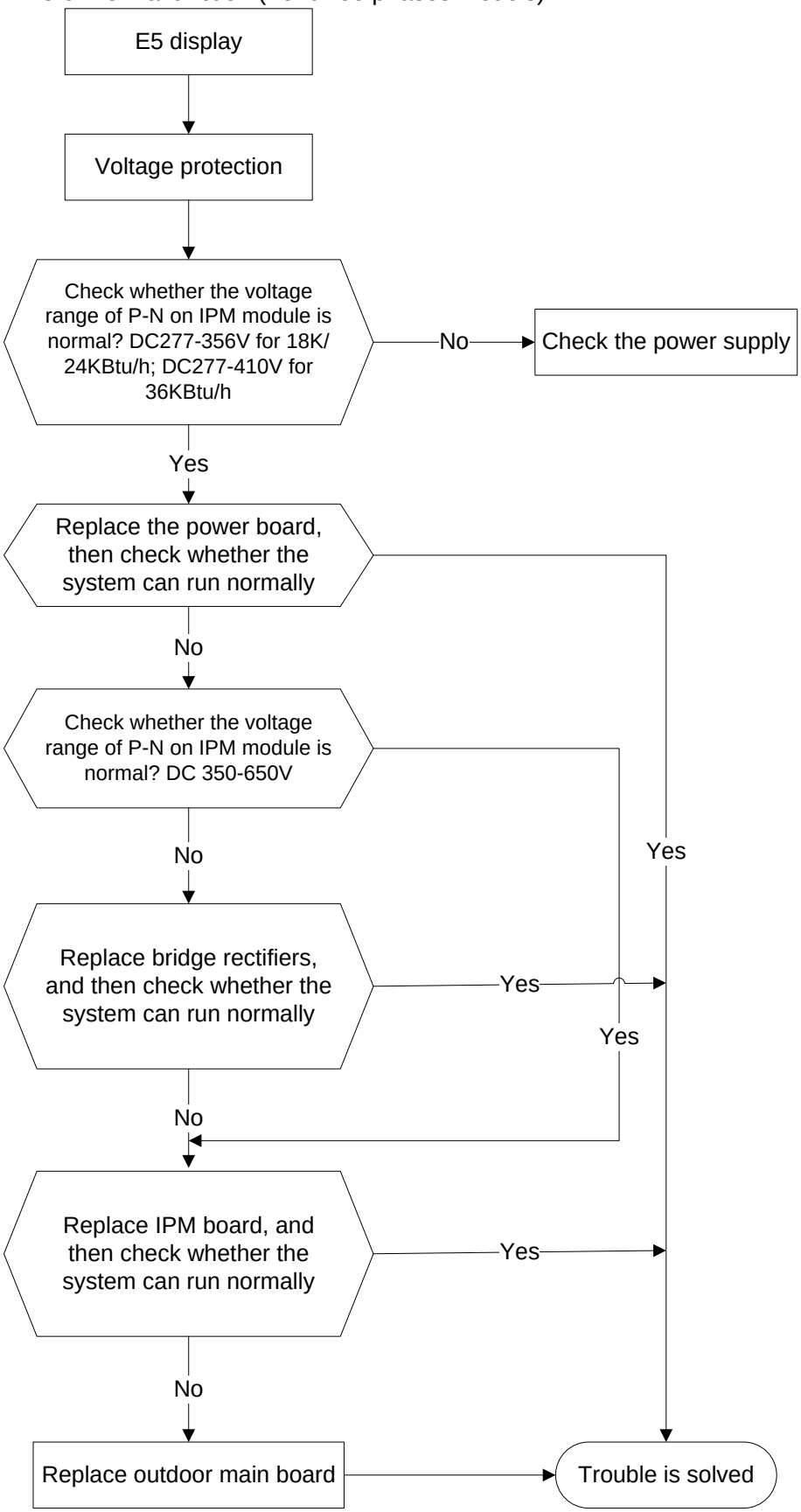
2.4.3.4. E4 malfunction



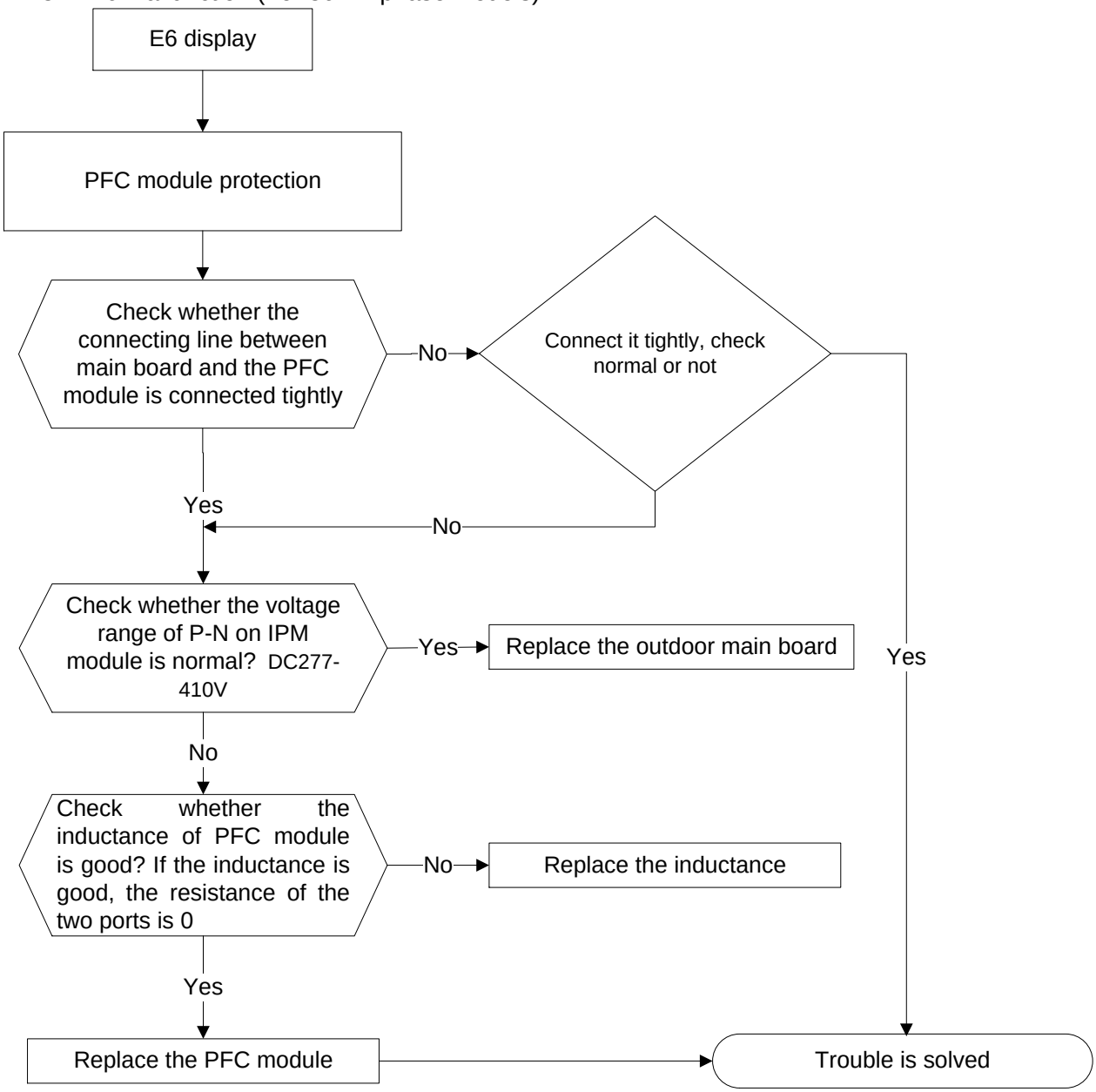
2.4.3.5. E5 malfunction (For single phase models)



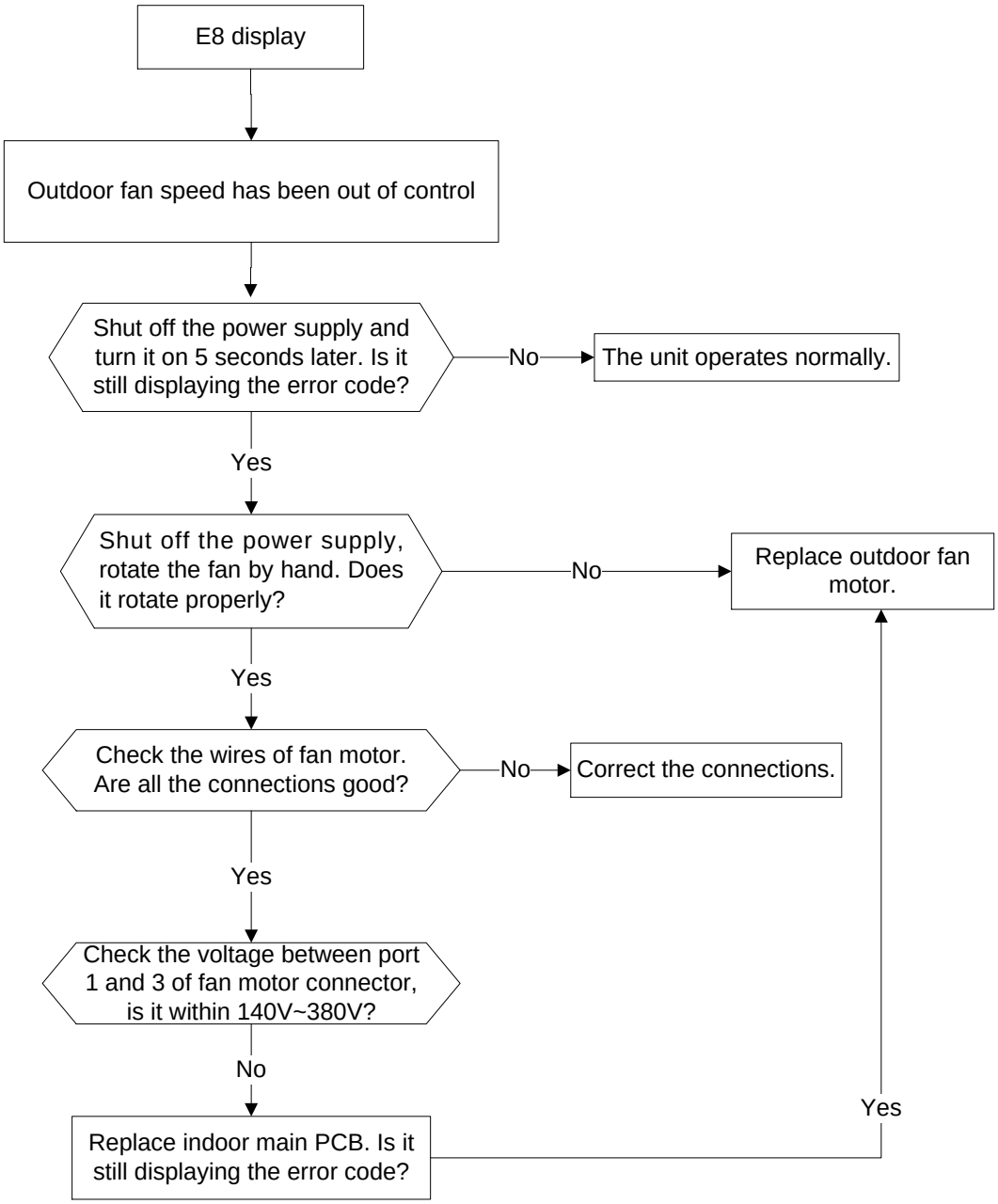
2.4.3.6. E5 malfunction (For three phases models)

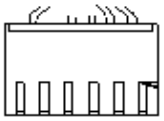


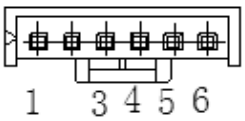
2.4.3.7. E6 malfunction (For 36K 1-phase models)



2.4.3.8. E8 malfunction



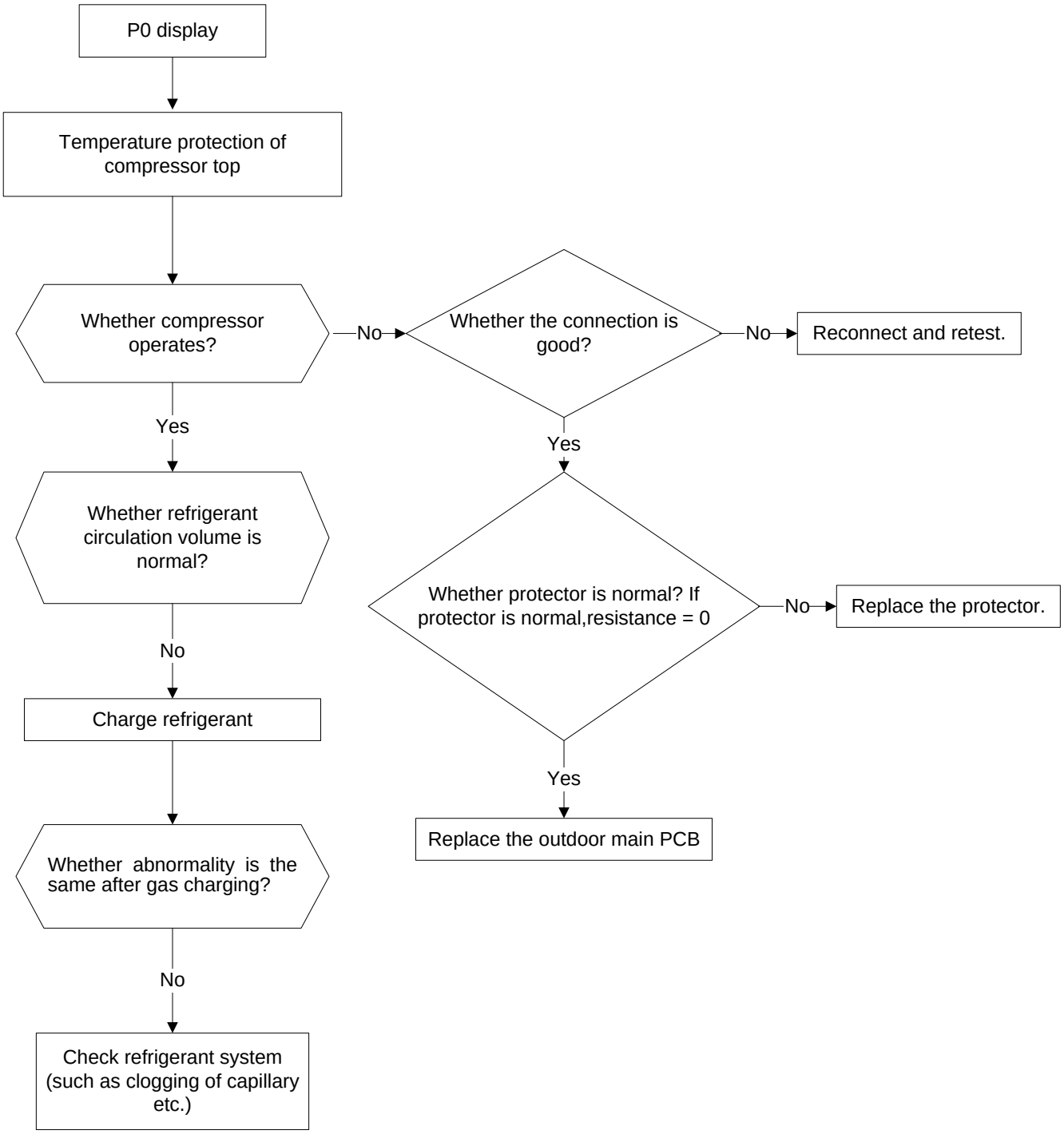




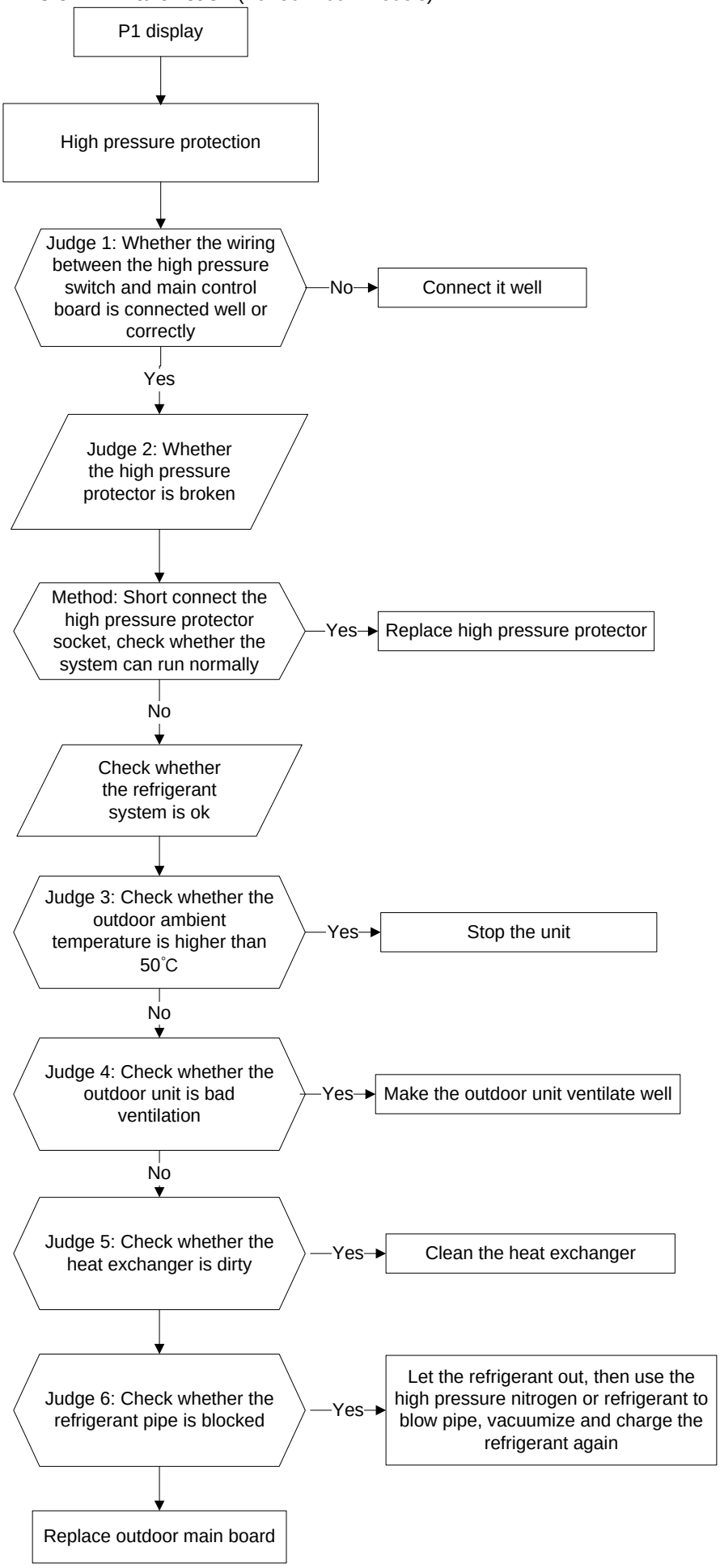
DC motor voltage input and output

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

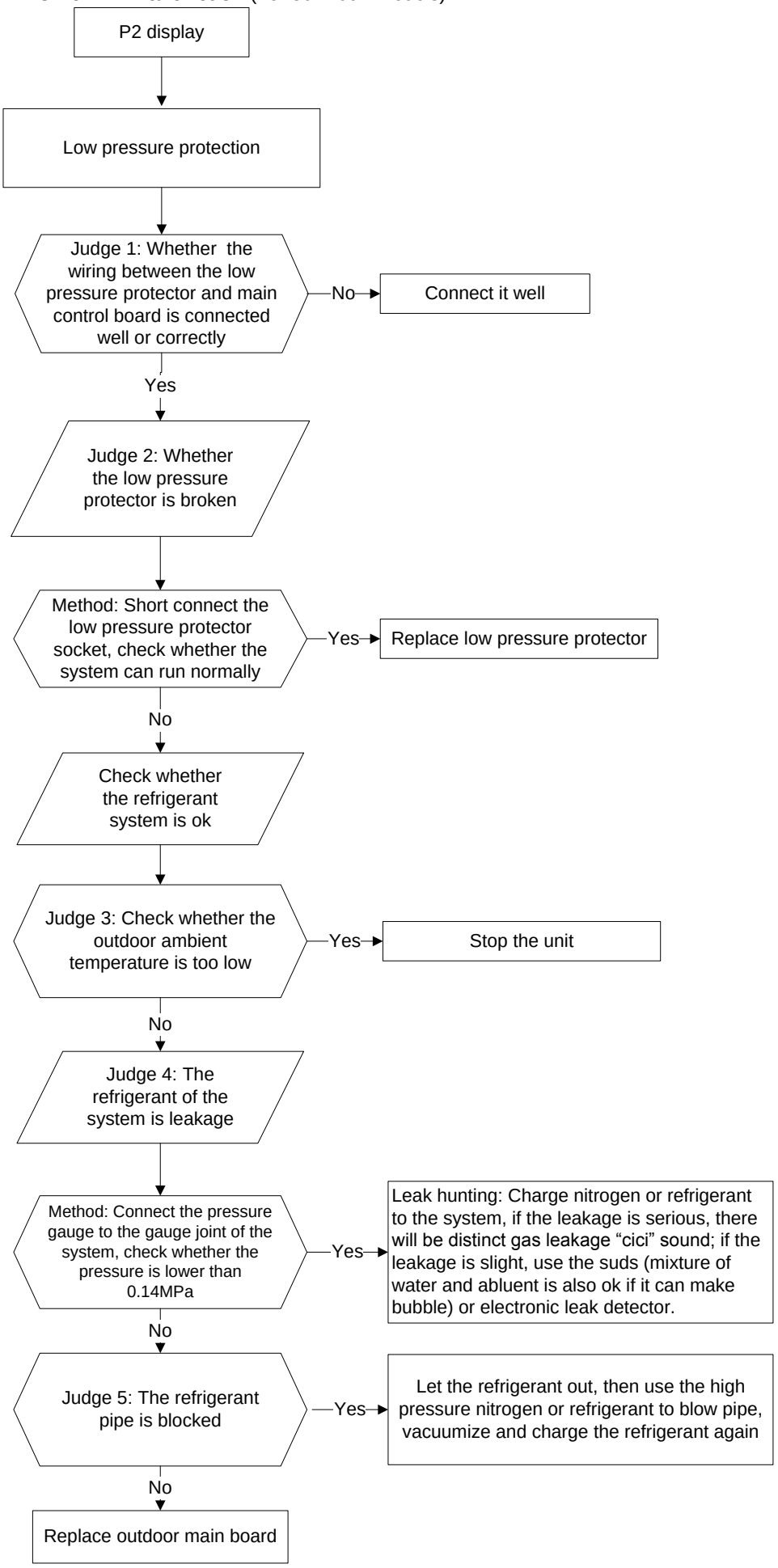
2.4.3.8. P0 malfunction



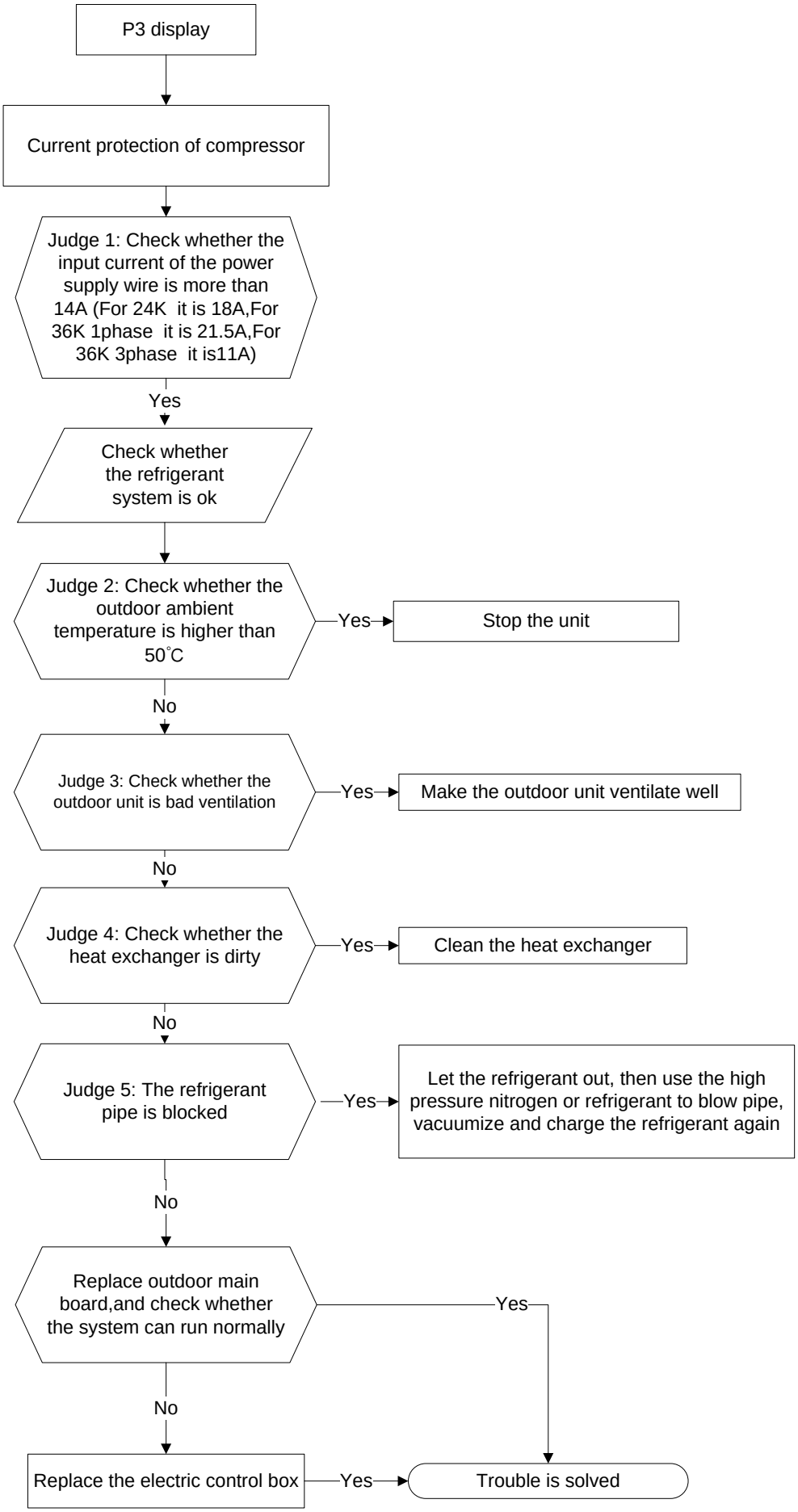
2.4.3.9. P1 malfunction (For 36K~60K models)



2.4.3.10. P2 malfunction (For 36K~60K models)

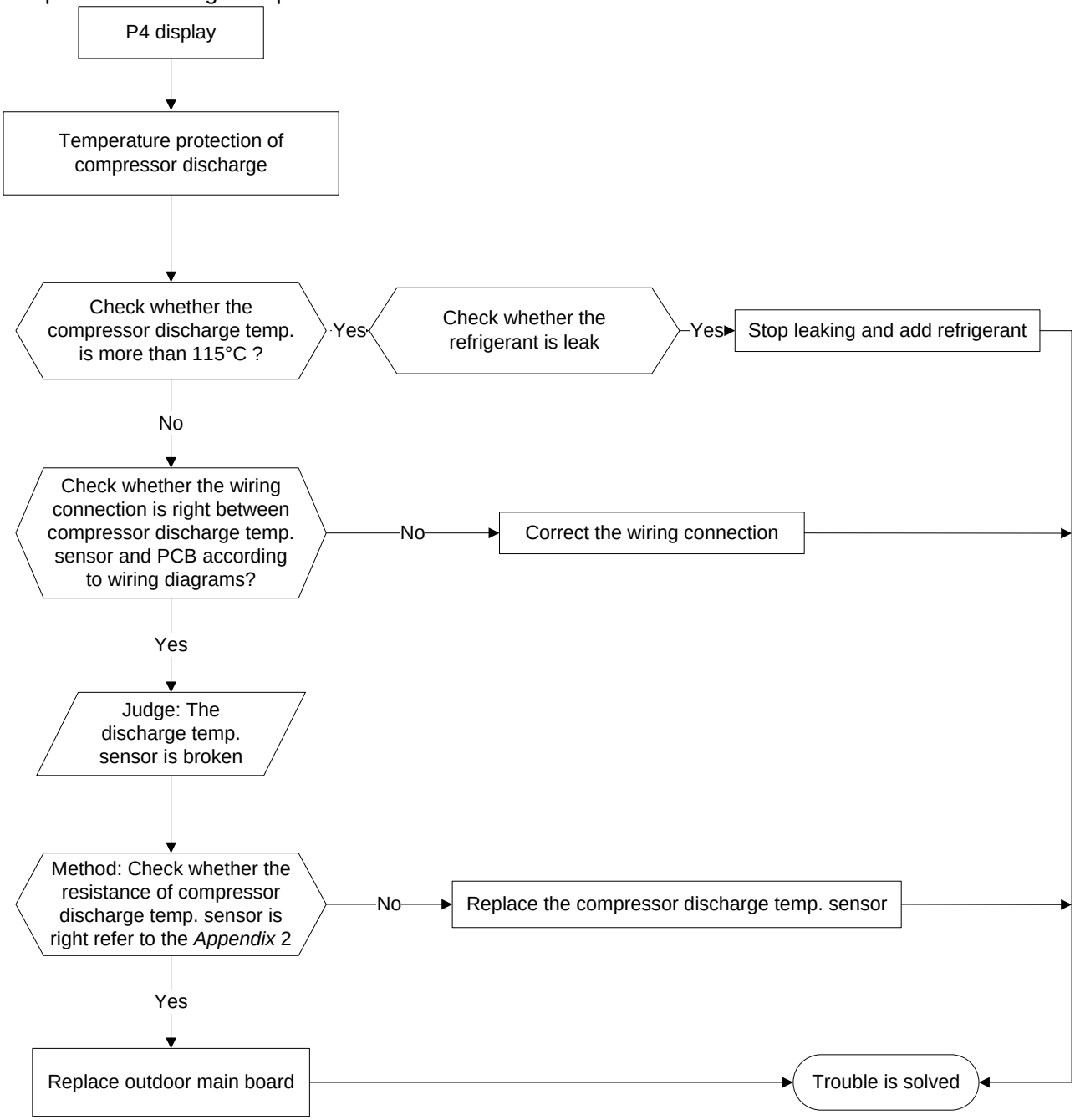


2.4.3.11. P3 malfunction



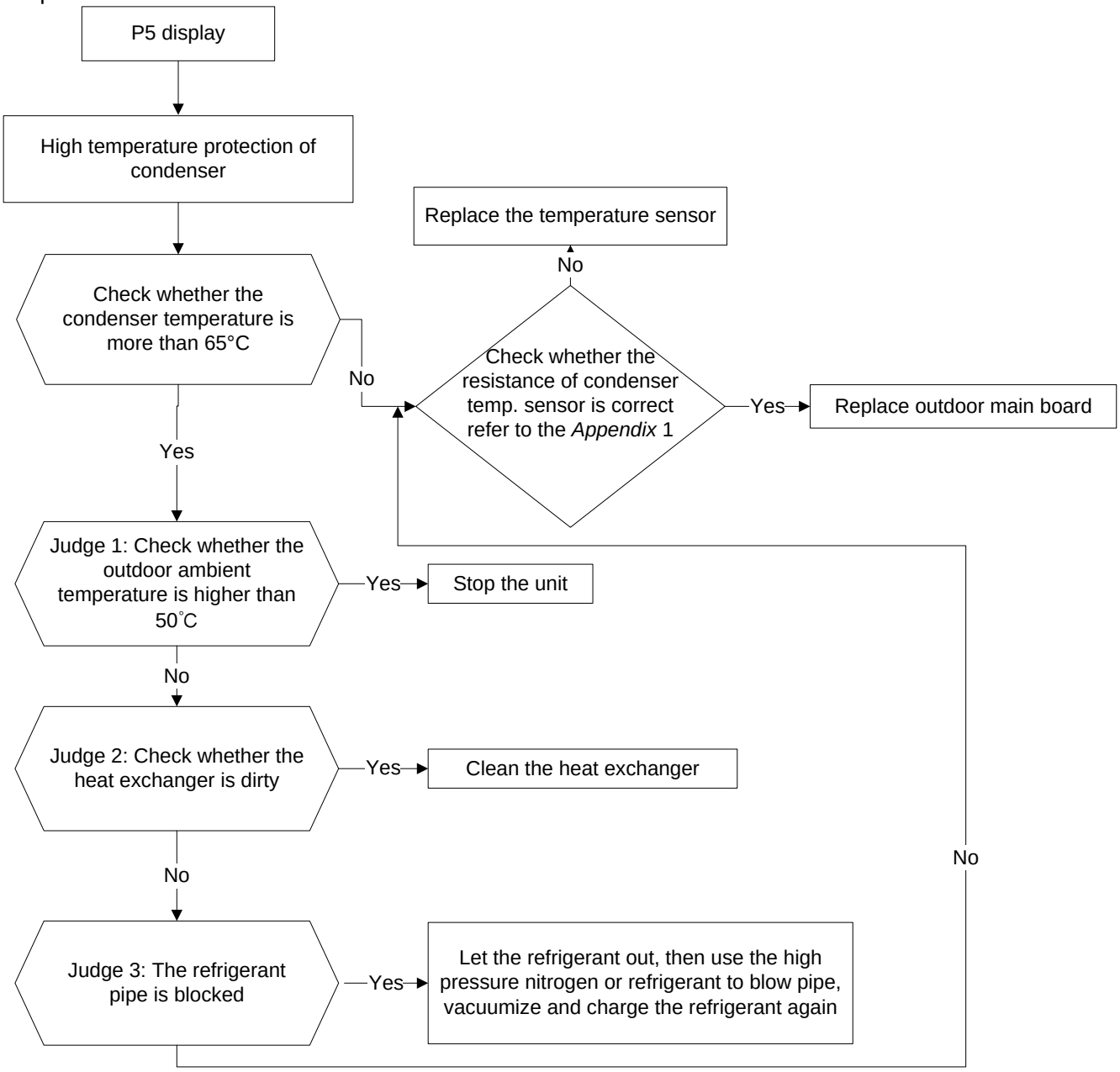
2.4.3.12. P4 malfunction

When compressor discharge temperature is higher than 115°C, the unit will stop, and unit runs again when compressor discharge temperature is lower than 90°C.



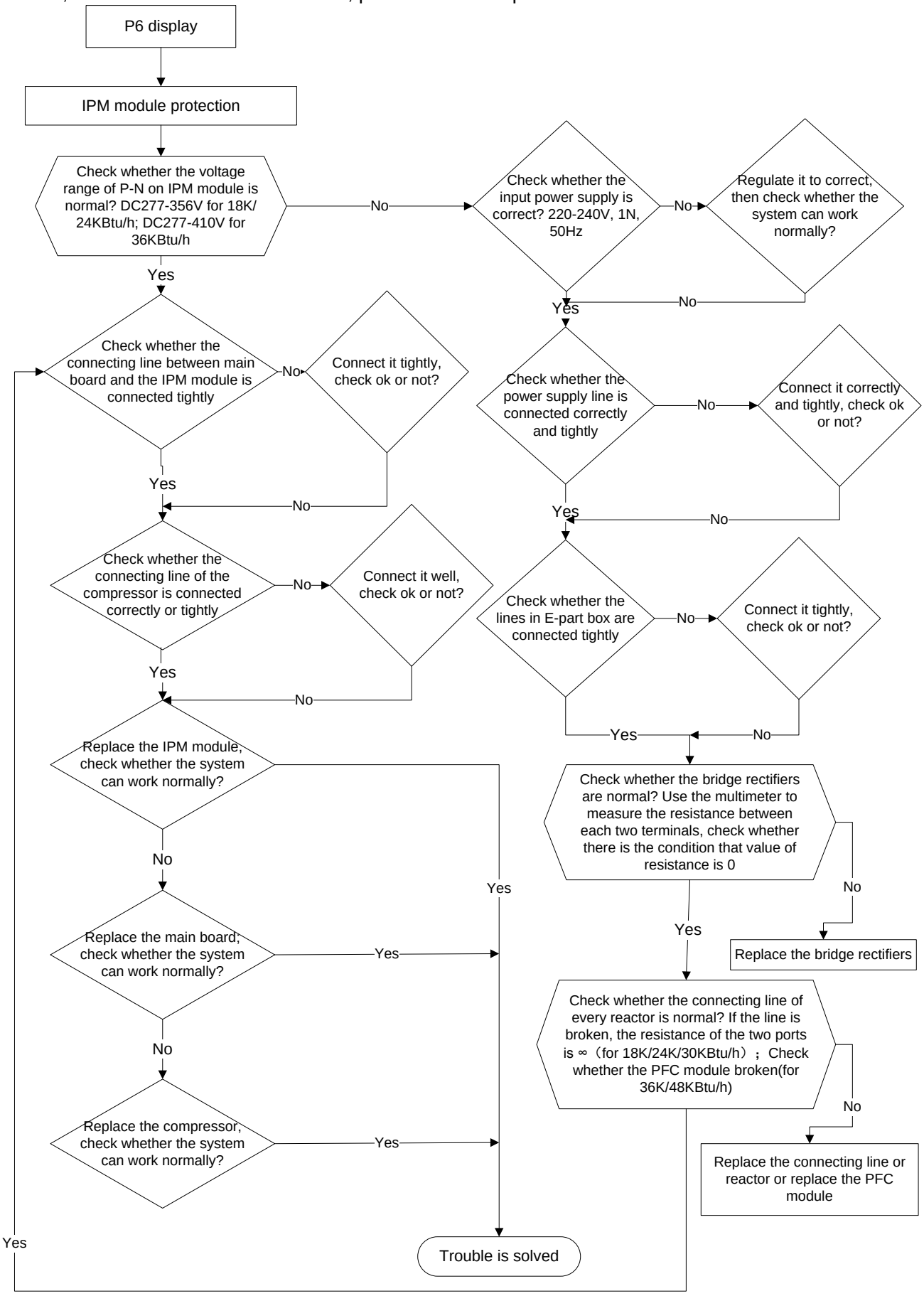
2.4.3.13. P5 malfunction

When condenser high temp. is more than 65°C, the unit will stop, and unit runs again when outdoor pipe temp. less than 52°C.



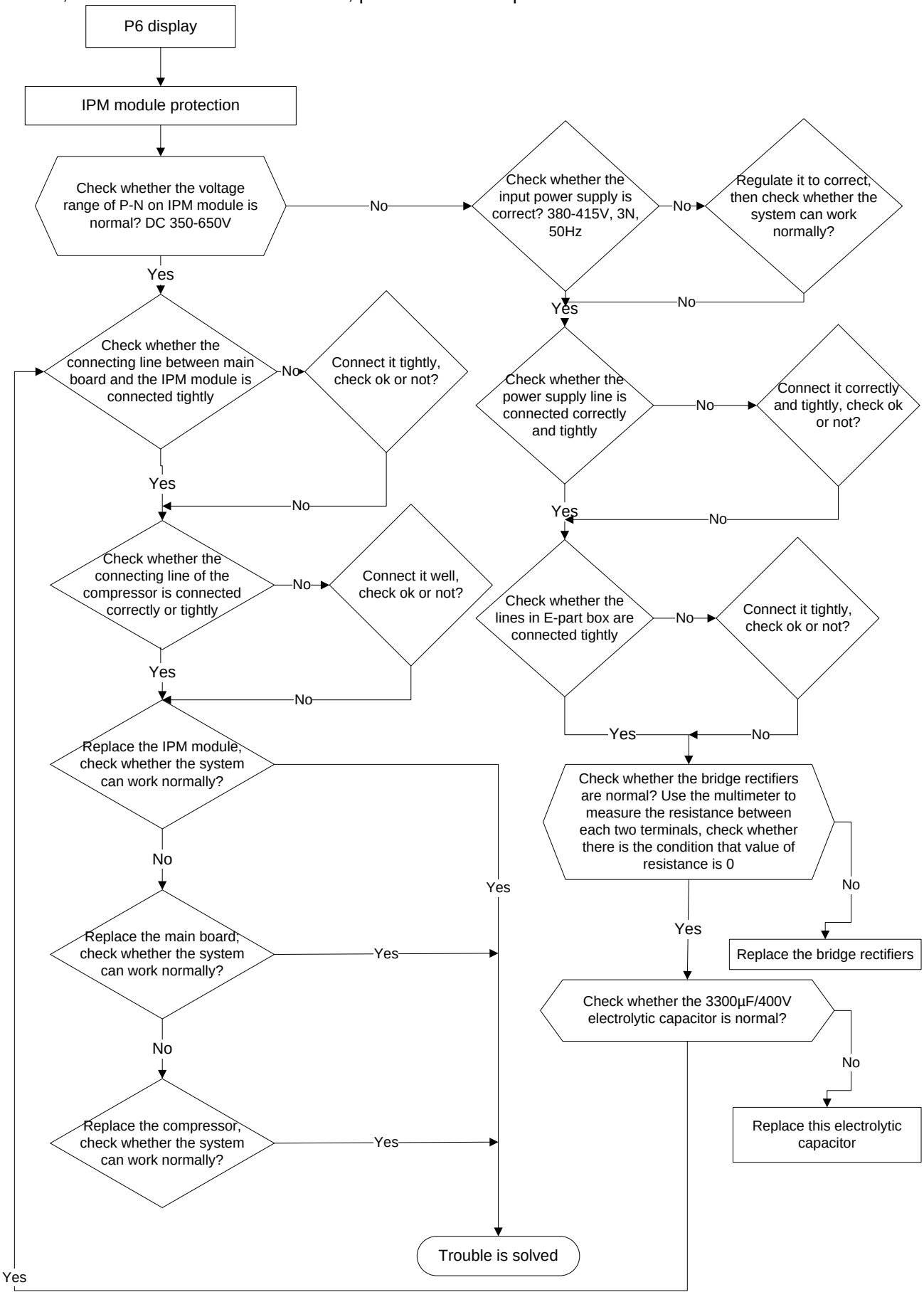
2.4.3.14. P6 malfunction (For single phase models)

At first test the resistance between every two ports of U, V, W of IPM and P, N. If any result of them is 0 or close to 0, the IPM is defective. Otherwise, please follow the procedure below:

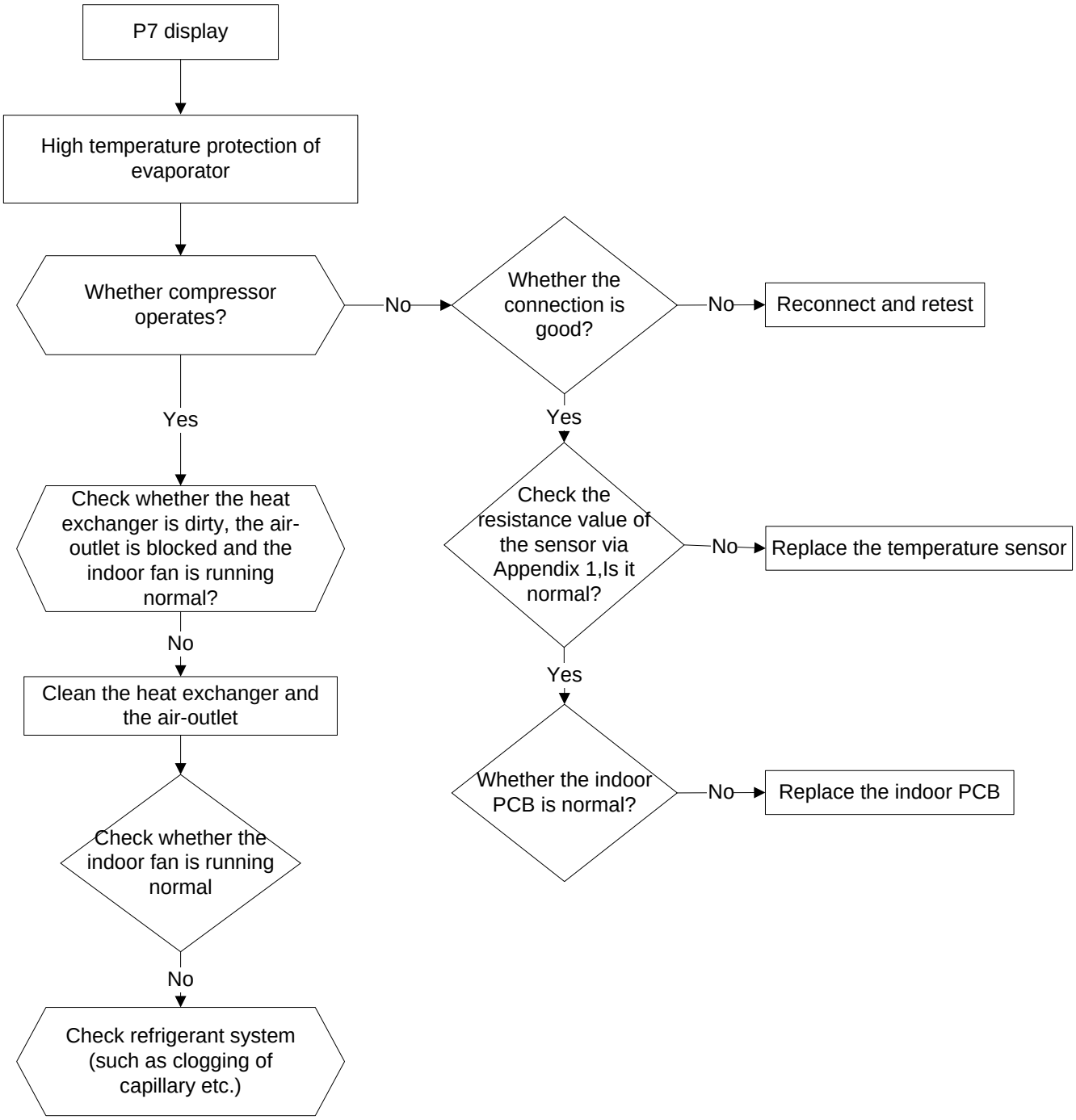


2.4.3.15. P6 malfunction (For three phases models)

At first test the resistance between every two ports of U, V, W of IPM and P, N. If any result of them is 0 or close to 0, the IPM is defective. Otherwise, please follow the procedure below:



2.4.3.16. P7 malfunction



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

DCI Light Commercial Series

Residential