GREE
Change for life

Service Manual

Exposed fan coil unit

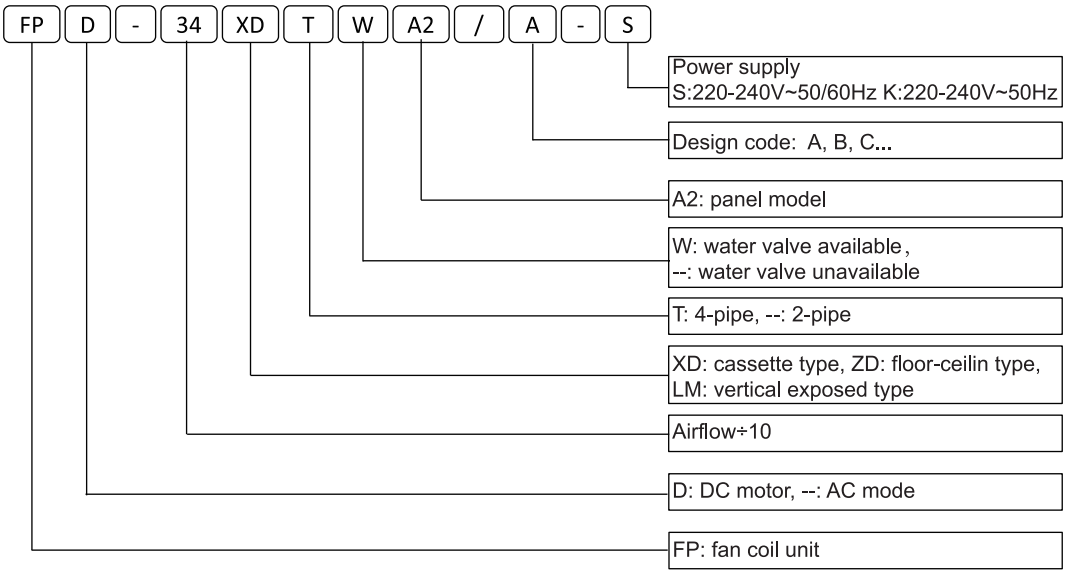
Contents

PRODUCT

1 Introduction

Gree exposed fan coil units (FCUs), including cassette type, wall-mounted type, floor-ceiling type, and vertical exposed type, can be installed in various modes. They are of wide cooling capacity, complete functions, fashionable appearance, safe and reliable operation and other characteristics. Meanwhile, CE certification, Eurovent certification and other EU certification are available. They are applicable to office buildings, libraries, airport lounges, subway stations and other occasions. Users can choose expected FCUs according to actual application.

1.1 Nomenclature



1.2 lineup

1.2.1 Vertical mounted exposed type

Type	Model	Product code	Cooling capacity (kW/ton)	Heating capacity (kW/ton)	Power supply	Appearance
Vertical mounted type	FP-22LM/D-K	EM51600300	1.4/0.40	2/0.57	220-240V 50Hz	
	FP-34LM/D-K	EM51600280	1.9/0.54	2.3/0.65		
	FP-51LM/D-K	EM51600290	2.8/0.80	3.4/0.97		
	FP-68LM/D-K	EM51600250	3.2/0.91	3.8/1.08		
	FP-85LM/D-K	EM51600270	4.25/1.21	4.9/1.39		
	FP-102LM/D-K	EM51600310	5.0/1.42	5.9/1.68		
	FP-119LM/D-K	EM51600260	5.3/1.51	6.45/1.83		
	FP-136LM/D-K	EM51600330	5.8/1.65	6.7/1.91		
	FP-170LM/D-K	EM51600320	9.2/2.62	10.7/3.04		
	FP-204LM/D-K	EM51600340	10.1/2.87	11.5/3.27		

Note: 1ton =12000Btu/h = 3.517kW

1.2.2 Cassette type (AC)

Type	Model	Product code	Cooling capacity (kW/ton)	Heating capacity (kW/ton)	Power supply	Appearance
	FP-85XD/B-T	EM520N0940	4.16/1.18	7.8/2.22	208-230V 60Hz	
	FP-102XD/B-T	EM520N0920	5.4/1.54	9/2.56		
	FP-125XD/B-T	EM520N0900	6.3/1.79	10/2.84		
	FP-140XD/B-T	EM520N0880	8/2.27	12/3.41		
	FP-160XD/B-T	EM520N0860	9/2.56	14/3.98		
	FP-180XD/B-T	EM520N0840	10/2.84	16/4.55		
	FP-200XD/B-T	EM520N0820	13/3.7	19/5.4		

Type	Model	Product code	Cooling capacity (kW/ton)	Heating capacity (kW/ton)	Power supply	Appearance
Cassette type	FP-85XD/B-T	EM520N0930	4.15/1.18	5.6/1.59	220-240V 50Hz	
	FP-102XD/B-T	EM520N0910	5/1.42	6.5/1.85		
	FP-125XD/B-T	EM520N0890	6/1.71	7.8/2.22		
	FP-140XD/B-T	EM520N0870	8/2.27	9/2.56		
	FP-160XD/B-T	EM520N0850	8.7/2.47	10/2.84		
	FP-180XD/B-T	EM520N0830	9.5/2.7	11/3.13		
	FP-200XD/B-T	EM520N0810	13/3.7	14.6/4.15		
	FP-68XDT/B-K	EM520N0990	3.5/1	5.8/1.65		
	FP-85XDT/B-K	EM520N0960	4.1/1.17	6.4/1.82		
	FP-102XDT/B-K	EM520N1460	5.4/1.54	8/2.27		
	FP-125XDT/B-K	EM520N0970	6/1.71	9/2.56		
	FP-140XDT/B-K	EM520N1480	6.4/1.82	9.5/2.7		
	FP-180XDT/B-K	EM520N0980	8/2.27	11.5/3.27		
	FP-200XDT/B-K	EM520N1440	9/2.56	12.5/3.55		
	FP-85XD/B-T(E)	EM520N1300	4.5/1.28	5.4/1.54		
	FP-102XD/B-T(E)	EM520N1310	5/1.42	6.1/1.73		
	FP-125XD/B-T(E)	EM520N1320	6/1.71	6.9/1.96		
	FP-140XD/B-T(E)	EM520N1330	7.4/2.1	8.4/2.39		
	FP-160XD/B-T(E)	EM520N1340	8.4/2.39	9/2.56		
	FP-180XD/B-T(E)	EM520N1350	9.5/2.7	10.5/2.99		
	FP-68XDT/B-K(E)	EM520N1260	3.5/1	5.8/1.65		
	FP-85XDT/B-K(E)	EM520N1270	4.5/1.28	6.8/1.93		
	FP-125XDT/B-K(E)	EM520N1280	6/1.71	9.2/2.62		
	FP-180XDT/B-K(E)	EM520N1290	8/2.27	12/3.41		
Cassette type	FP-51XD/A-K	EM520N1170	2.75/0.78	3.4/0.97	220-240V 50Hz	
	FP-68XD/A-K	EM520N1160	3.3/0.93	3.8/1.08		
	FP-238XD/C-K	EM520N1390	12/3.41	13/3.7		

Note: 1ton =12000Btu/h = 3.517kW

1.2.3 Cassette type (DC)

Type	Model	Product code	Cooling capacity (kW/ton)		Heating capacity (kW/ton)		Power supply	Appearance
			EU	Others	EU	Others		
A series cassette type	FPD-51XD/A-S	EM520N1580	3.1/0.88	3.4/0.97	3.55/1.01	5.6/1.59	220-240V~ 50/60Hz	
	FPD-68XD/A-S	EM520N1500	3.9/1.11	4.25/1.21	4/1.14	6.3/1.79		
	FPD-85XD/A-S	EM520N1570	4.75/1.35	5.1/1.45	5.65/1.61	8.4/2.39		
	FPD-102XD/A-S	EM520N1540	5.15/1.46	5.7/1.62	6.1/1.73	9/2.56		
	FPD-119XD/A-S	EM520N1550	6.7/1.91	7.3/2.08	7.6/2.16	11.5/3.27		
	FPD-136XD/A-S	EM520N1530	7.6/2.16	8.2/2.33	8.7/2.47	13/3.7		
	FPD-170XD/A-S	EM520N1510	9/2.56	9.6/2.73	10.4/2.96	15.4/4.38		
	FPD-204XD/A-S	EM520N1520	11.1/3.16	12/3.41	12.2/3.47	18.7/5.32		
	FPD-238XD/A-S	EM520N1560	11.5/3.27	12.5/3.55	12.6/3.58	19.8/5.63		

1.2.4 Wall mounted type (DC)

Type	Model	Cooling capacity (W)	Product code	Air flow (m^3/h)	Power supply	Remarks
A series wall mounted	FPD-34BB4/A-K	EM55002580	2.2/0.63	2.4/0.68	220-240V 50Hz	
	FPD-51BB4/A-K	EM55002600	2.7/0.77	2.9/0.82		
	FPD-68BB4/A-K	EM55002590	3.6/1.02	3.9/1.11		
	FPD-85BB4/A-K	EM55002610	4.3/1.22	4.7/1.34		
	FPD-34BB6/A-K	EM55002630	2.2/0.63	2.4/0.68		
	FPD-51BB6/A-K	EM55002640	2.7/0.77	2.9/0.82		
	FPD-68BB6/A-K	EM55002650	3.6/1.02	3.9/1.11		
	FPD-85BB6/A-K	EM55002660	4.3/1.22	4.7/1.34		

1.2.5 Wall mounted type (AC)

Type	Model	Cooling capacity (W)	Product code	Air flow (m^3/h)	Power supply	Remarks
Wall mounted	FP-34BA2/D-K(E)	EM55002370	2/0.57	2.3/0.65	220-240V 50Hz	
	FP-51BA2/D-K(E)	EM55002410	2.5/0.71	2.8/0.8		
	FP-68BA2/D-K(E)	EM55002450	3.6/1.02	4.1/1.17		
	FP-85BA2/D-K(E)	EM55002490	4/1.14	4.5/1.28		
	FP-34BA2/D-K	EM55001810	2/0.57	2.7/0.77		
	FP-51BA2/D-K	EM55001820	2.5/0.71	3.2/0.91		
	FP-68BA2/D-K	EM55001830	3.6/1.02	4.6/1.31		
	FP-85BA2/D-K	EM55001840	4.2/1.19	5.4/1.54		
	FP-51BWA2/A-K(E)	EM55002310	1.4/0.4	2/0.57		
	FP-85BWA2/A-K(E)	EM55002340	3.1/0.88	3.3/0.94		
	FP-34BA2/B-D	EM55000320	2.1/0.6	3.15/0.9	208-230V 60Hz	
	FP-51BA2/B-D	EM55000330	2.7/0.77	4.05/1.15		
	FP-68BA2/B-D	EM55000340	3.6/1.02	5.4/1.54		
	FP-85BA2/B-D	EM55000350	4.2/1.19	6.3/1.79		
	FP-102BA2/B-D	EM55000360	5.4/1.54	8.5/2.42		
	FP-34BA3/D-K(E)	EM55002380	2/0.57	2.3/0.65	220-240V 50Hz	
	FP-51BA3/D-K(E)	EM55002420	2.5/0.71	2.8/0.8		
	FP-68BA3/D-K(E)	EM55002460	3.6/1.02	4.1/1.17		
	FP-85BA3/D-K(E)	EM55002500	4/1.14	4.5/1.28		
	FP-34BA3/D-K	EM55002000	2/0.57	2.7/0.77		
	FP-51BA3/D-K	EM55002010	2.5/0.71	3.2/0.91		
	FP-68BA3/D-K	EM55002020	3.6/1.02	4.6/1.31		
	FP-85BA3/D-K	EM55002030	4.2/1.19	5.4/1.54		
	FP-51BWA3/A-K(E)	EM55002320	1.4/0.4	2/0.57		
	FP-85BWA3/A-K(E)	EM55002350	3.1/0.88	3.3/0.94		
	FP-51BWA3/A-K	EM55001430	1.5/0.43	2.25/0.64		
	FP-85BWA3/A-K	EM55001510	2.4/0.68	3.6/1.02		
	FP-34BA3/B-K	EM55001720	1.85/0.53	2.45/0.7		
	FP-51BA3/B-K	EM55001730	2.65/0.75	3.05/0.87		
	FP-68BA3/B-K	EM55001750	3.5/1	3.85/1.09		
	FP-85BA3/B-K	EM55001740	4.55/1.29	4.8/1.36		

Type	Model	Cooling capacity (W)	Product code	Air flow (m^3/h)	Power supply	Remarks
Wall mounted	FP-34BA3/B-D	EM55001760	2.1/0.6	3.15/0.9	208-230V 60Hz	
	FP-51BA3/B-D	EM55001800	2.7/0.77	4.05/1.15		
	FP-68BA3/B-D	EM55001770	3.6/1.02	5.4/1.54		
	FP-85BA3/B-D	EM55001780	4.2/1.19	6.3/1.79		
	FP-102BA3/B-D	EM55001790	5.4/1.54	8.5/2.42		
	FP-34BA4/D-K(E)	EM55002390	2/0.57	2.3/0.65	220-240V 50Hz	
	FP-51BA4/D-K(E)	EM55002430	2.5/0.71	2.8/0.8		
	FP-68BA4/D-K(E)	EM55002470	3.6/1.02	4.1/1.17		
	FP-85BA4/D-K(E)	EM55002510	4/1.14	4.5/1.28		
	FP-34BA4/D-K	EM55002040	2/0.57	2.7/0.77		
	FP-51BA4/D-K	EM55002050	2.5/0.71	3.2/0.91		
	FP-68BA4/D-K	EM55002060	3.6/1.02	4.6/1.31		
	FP-85BA4/D-K	EM55002070	4.2/1.19	5.4/1.54		

Note: 1ton =12000Btu/h = 3.517kW

1.2.6 Floor-ceiling type (DC)

Type	Model	Product code	Cooling capacity (kW/Ton)		Heating capacity (kW/Ton)		Power supply	Appearance
			EU	Others	EU	Others		
A series floor-ceiling type	FPD-34ZD/A-S	EM56000410	2.6/0.74	2.8/0.80	3.5/1.00	5.3/1.51	220-240V~50/60Hz	
	FPD-51ZD/A-S	EM56000400	3/0.85	3.2/0.91	3.9/1.11	5.8/1.65		
	FPD-68ZD/A-S	EM56000450	3.5/1.00	3.8/1.08	4.4/1.25	6.7/1.91		
	FPD-85ZD/A-S	EM56000420	4.1/1.17	4.5/1.28	5.2/1.48	8/2.27		
	FPD-102ZD/A-S	EM56000430	5.4/1.54	5.8/1.65	6.4/1.82	9.8/2.79		
	FPD-119ZD/A-S	EM56000440	5.7/1.62	6/1.71	7.1/2.02	10.8/3.07		
	FPD-136ZD/A-S	EM56000370	6.6/1.88	6.9/1.96	7.7/2.19	12.7/3.61		
	FPD-170ZD/A-S	EM56000470	8.6/2.45	9/2.56	10.9/3.10	16.7/4.75		
	FPD-204ZD/A-S	EM56000360	9.9/2.81	10.5/2.99	12/3.41	18.5/5.26		

1.2.7 Floor-ceiling type (AC)

Type	Model	Product code	Cooling capacity (kW/Ton)		Heating capacity (kW/Ton)		Power supply	Appearance
			EU	Others	EU	Others		
B series floor-ceiling type	FP-34ZD/B-K	EM56000340	2.4/0.68	2.6/0.74	3/0.85	5/1.42	220-240V~50Hz	
	FP-51ZD/B-K	EM56000330	2.65/0.75	2.9/0.82	3.5/1.00	5.3/1.51		
	FP-68ZD/B-K	EM56000350	3.35/0.95	3.6/1.02	4.35/1.24	6.4/1.82		
	FP-85ZD/B-K	EM56000460	3.4/0.97	3.65/1.04	4.4/1.25	6.5/1.85		
	FP-102ZD/B-K	EM56000380	5.2/1.48	5.7/1.62	6.3/1.79	9.8/2.79		
	FP-119ZD/B-K	EM56000390	5.9/1.68	6.8/1.93	7.2/2.05	11.4/3.24		
	FP-136ZD/B-K	EM56000280	6/1.71	6.9/1.96	7.3/2.08	11.5/3.27		
	FP-170ZD/B-K	EM56000300	9.4/2.67	9.9/2.81	11.6/3.30	17.4/4.95		
	FP-204ZD/B-K	EM56000310	10/2.84	10.5/2.99	12.5/3.55	19/5.40		

1.3 Specifications

1.3.1 Performance data (nominal conditions)

◆ Vertical mounted exposed type

Model			FP-22LM/D-K	FP-34LM/D-K	FP-51LM/D-K	FP-68LM/D-K
Power system	Type	V-Ph-Hz	220-240VAC, 50Hz			
	Input	W	35	46	56	66
Air flow volume	High	CFM	177	235	341	400
		m^3/h	300	400	580	680
	Medium	CFM	147	206	294	312
		m^3/h	250	350	500	530
	Low	CFM	118	177	247	224
		m^3/h	200	300	420	380
Capacity	Cooling	W	1400	1900	2800	3200
	Heating	W	2000	2300	3400	3800
Water system	Cooling water flow volume	l/s	0.07	0.09	0.14	0.16
	Heating water flow volume	l/s	0.09	0.11	0.17	0.19
	Cooling pressure drop	kPa	10	15	18	21
	Heating pressure drop	kPa	20	22	27	30
Sound pressure level		dB(A)	36	38	39	42
Coil	Type	-	Aluminum fin-copper tube			
	Operating pressure	MPa	≤1.6MPa			
Motor	Type	-	PG6E	PG6E	PG10H	PG20G
	Capacitor	uF	1	1.5	1.5	1.5
Connection pipe size	Water inlet & outlet	inch	Rc3/4			
	Condensing water	mm	22	22	22	22
Outline dimension (W×D×H)	Body	mm	895×680×230		1050×680×230	
Package dimension (W×D×H)	Body	mm	1120×690×285		1275×690×285	
Net weight	Body	kg	23	23	27	27
Gross weight	Body	kg	30	30	34	34
	20'GP		112	112	84	84
	40'GP		238	238	189	189
	40'HQ		272	272	216	216

Model			FP-85LM/D-K	FP-102LM/D-K	FP-119LM/D-K
Power system	Type	V-Ph-Hz	220-240VAC, 50Hz		
	Input	W	68	110	124
Air flow volume	High	CFM	447	589	647
		m^3/h	760	1000	1100
	Medium	CFM	353	435	506
		m^3/h	600	740	860
	Low	CFM	235	300	359
		m^3/h	400	510	610
Capacity	Cooling	W	4250	5000	5300
	Heating	W	4900	5900	6450
Water system	Cooling water flow volume	l/s	0.21	0.25	0.26
	Heating water flow volume	l/s	0.26	0.28	0.3
	Cooling pressure drop	kPa	27	18	20
	Heating pressure drop	kPa	38	25	27
Sound pressure level		dB(A)	45	48	50
Coil	Type	-	Aluminum fin-copper tube		
	Operating pressure	MPa	≤1.6MPa		
Motor	Type	-	PG30F	PG55A	PG55A
	Capacitor	uF	2.3	2.3	3.5
Connection pipe size	Water inlet & outlet	inch	Rc3/4		
	Condensing water	mm	22	22	22
Outline dimension (W×D×H)	Body	mm	1050×680×230	1350×680×230	
Package dimension (W×D×H)	Body	mm	1275×690×285	1625×690×285	
Net weight	Body	kg	28	33	33
Gross weight	Body	kg	35	41	41
	20'GP		84	70	70
	40'GP		189	147	147
	40'HQ		216	168	168

Model			FP-136LM/D-K	FP-170LM/D-K	FP-204LM/D-K
Power system	Type	V-Ph-Hz	220-240VAC, 50Hz		
	Input	W	128	155	195
Air flow volume	High	CFM	647	1000	1118
		m^3/h	1100	1700	1900
	Medium	CFM	512	750	839
		m^3/h	870	1275	1425
	Low	CFM	364	500	559
		m^3/h	620	850	950
Capacity	Cooling	W	5900	9200	10100
	Heating	W	6800	10700	11500
Water system	Cooling water flow volume	l/s	0.28	0.44	0.48
	Heating water flow volume	l/s	0.32	0.51	0.55
	Cooling pressure drop	kPa	25	45	55
	Heating pressure drop	kPa	30	55	65
Sound pressure level		dB(A)	50	49	52
Coil	Type	-	Aluminum fin-copper tube		
	Operating pressure	MPa	≤1.6MPa		
Motor	Type	-	PG55A	PG30L*2	PG40F*2
	Capacitor	uF	3.5	2.3*2	3*2
Connection pipe size	Water inlet & outlet	inch	Rc3/4		
	Condensing water	mm	22	22	22
Outline dimension (W×D×H)	Body	mm	1350×680×230	1773×680×230	1773×680×230
Package dimension (W×D×H)	Body	mm	1625×690×285	2100×690×285	2100×690×285
Net weight	Body	kg	33	47	47.5
Gross weight	Body	kg	41	57.5	58
	20'GP		70	56	56
	40'GP		147	119	119
	40'HQ		168	136	136

Notes:

Testing conditions:

(a) Rated cooling conditions—dry/wet bulb temperature: 27°C/19°C, entering/leaving water temperature: 7°C/12°C

(b) Rated heating conditions—dry bulb temperature: 20°C, wet bulb temperature: no more than 15°C, entering/leaving water temperature: 45°C/40°C

(c) The sound level is tested under the semi-anechoic chamber and the actual value will change under different conditions.

◆ Cassette type (AC)

Model			FP-85XD/B-T	FP-102XD/B-T	FP-125XD/B-T	FP-140XD/B-T
Power system	Type	V-Ph-Hz	208-230VAC, 60Hz			
	Input	W	70	130	130	140
Air flow volume	High	CFM	459	600	665	794
		m^3/h	780	1020	1130	1350
	Medium	CFM	371	599	529	647
		m^3/h	630	950	900	1100
	Low	CFM	324	529	441	588
		m^3/h	550	900	750	1000
Capacity	Cooling	W	4600	5400	6300	8000
	Heating	W	7800	9000	10000	12000
Water system	Cooling water flow volume	l/s	0.22	0.26	0.3	0.38
	Heating water flow volume	l/s	0.22	0.26	0.3	0.38
	Cooling pressure drop	kPa	27	48	27	33
	Heating pressure drop	kPa	24	47	28	29
Sound pressure level		dB(A)	39	49	43	48
Coil	Type	-	Aluminum fin-copper tube			
	Operating pressure	MPa	≤1.6MPa			
Motor	Type	-	FN35D-2	FN35D-2	FN35B-1	FN35C
	Capacitor	uF	2	3.5	2	4
Connection pipe size	Water inlet & outlet	inch	G3/4			
	Condensing water	mm	25			
Outline dimension (W×D×H)	Body	mm	840×840×190		840×840×240	
	Panel	mm	950×950×85		950×950×85	
Package dimension (W×D×H)	Body	mm	963×963×272		963×963×325	
	Panel	mm	1033×1038×133		1033×1038×133	
Net weight	Body	kg	25	25	27	27
	Panel	kg	7	7	7	7
Gross weight	Body	kg	33	33	34	35
	Panel	kg	11	11	11	11
	20'GP (with panel)		56	56	50	50
	40'GP (with panel)		131	131	117	117
	40'HQ (with panel)		147	147	133	133
Wired remote controller			XE70-17/E(M)			
Wireless remote controller			YB1FA(MOTO)			

Model			FP-160XD/B-T	FP-180XD/B-T	FP-200XD/B-T
Power system	Type	V-Ph-Hz	208-230VAC, 60Hz		
	Input	W	140	160	230
Air flow volume	High	CFM	912	1059	1176
		m^3/h	1550	1800	2000
	Medium	CFM	765	824	912
		m^3/h	1300	1400	1550
	Low	CFM	676	765	735
		m^3/h	1150	1300	1250
Capacity	Cooling	W	9000	10000	13000
	Heating	W	14000	16000	19000
Water system	Cooling water flow volume	l/s	0.43	0.48	0.62
	Heating water flow volume	l/s	0.43	0.48	0.62
	Cooling pressure drop	kPa	34	42	35
	Heating pressure drop	kPa	34	43	35
Sound pressure level		dB(A)	51	50	55
Coil	Type	-	Aluminum fin-copper tube		
	Operating pressure	MPa	≤1.6MPa		
Motor	Type	-	FN35C	FN50K-2	FN50K-2
	Capacitor	uF	6	3.5	5
Connection pipe size	Water inlet & outlet	inch	G3/4		
	Condensing water	mm	25		
Outline dimension (W×D×H)	Body	mm	840×840×240	840×840×320	
	Panel	mm	950×950×85	950×950×85	
Package dimension (W×D×H)	Body	mm	963×963×325	963×963×409	
	Panel	mm	1033×1038×133	1033×1038×133	
Net weight	Body	kg	27	32	33
	Panel	kg	7	7	7
Gross weight	Body	kg	35	41	42
	Panel	kg	11	11	11
	20'GP (with panel)		50	42	42
	40'GP (with panel)		117	98	98
	40'HQ (with panel)		133	112	112
Wired remote controller			XE70-17/E(M)		
Wireless remote controller			YB1FA(MOTO)		

Model			FP-85XD/B-T	FP-102XD/B-T	FP-125XD/B-T	FP-140XD/B-T
Power system	Type	V-Ph-Hz	220-240VAC 50Hz			
	Input	W	75	110	82	143
Air flow volume	High	CFM	471	600	694	824
		m^3/h	800	1020	1180	1400
	Medium	CFM	382	599	588	735
		m^3/h	650	950	1000	1250
	Low	CFM	324	529	529	676
		m^3/h	550	900	900	1150
Capacity	Cooling	W	4500	5000	6000	8000
	Heating	W	5600	6500	7800	9000
Water system	Cooling water flow volume	l/s	0.21	0.24	0.29	0.38
	Heating water flow volume	l/s	0.13	0.17	0.18	0.21
	Cooling pressure drop	kPa	24	36	24	30
	Heating pressure drop	kPa	8	13	9	10
Sound pressure level		dB(A)	39	49	43	50
Coil	Type	-	Aluminum fin-copper tube			
	Operating pressure	MPa	≤1.6MPa			
Motor	Type	-	FN35D-2	FN35D-2	FN35B-1	FN35C
	Capacitor	uF	2	3.5	2	4
Connection pipe size	Water inlet & outlet	inch	G3/4			
	Condensing water	mm	25			
Outline dimension (W×D×H)	Body	mm	840×840×190		840×840×240	
	Panel	mm	950×950×85		950×950×85	
Package dimension (W×D×H)	Body	mm	963×963×272		963×963×325	
	Panel	mm	1033×1038×133		1033×1038×133	
Net weight	Body	kg	25	25	27	27
	Panel	kg	7	7	7	7
Gross weight	Body	kg	33	33	34	35
	Panel	kg	11	11	11	11
	20'GP (with panel)		56	56	50	50
	40'GP (with panel)		131	131	117	117
	40'HQ (with panel)		147	147	133	133
Wired remote controller			XE70-17/E(M)			
Wireless remote controller			YB1FA(MOTO)			

Model			FP-160XD/B-T	FP-180XD/B-T	FP-200XD/B-T
Power system	Type	V-Ph-Hz	220-240V~50Hz		
	Input	W	152	160	210
Air flow volume	High	CFM	912	1059	1176
		m^3/h	1550	1800	2000
	Medium	CFM	824	853	1000
		m^3/h	1400	1450	1700
	Low	CFM	765	794	853
		m^3/h	1300	1350	1450
Capacity	Cooling	W	8700	9500	13000
	Heating	W	10000	11000	14600
Water system	Cooling water flow volume	l/s	0.42	0.45	0.62
	Heating water flow volume	l/s	0.23	0.27	0.25
	Cooling pressure drop	kPa	30	34	34
	Heating pressure drop	kPa	11	12	30
Sound pressure level		dB(A)	51	50	55
Coil	Type	-	Aluminum fin-copper tube		
	Operating pressure	MPa	≤1.6MPa		
Motor	Type	-	FN35C	FN50K-2	FN50K-2
	Capacitor	uF	4.5	3.5	5
Connection pipe size	Water inlet & outlet	inch	G3/4		
	Condensing water	mm	25		
Outline dimension (W×D×H)	Body	mm	840×840×240	840×840×320	
	Panel	mm	950×950×85	950×950×85	
Package dimension (W×D×H)	Body	mm	963×963×325	963×963×409	
	Panel	mm	1033×1038×133	1033×1038×133	
Net weight	Body	kg	27	32	33
	Panel	kg	7	7	7
Gross weight	Body	kg	35	41	42
	Panel	kg	11	11	11
	20'GP (with panel)		50	42	42
	40'GP (with panel)		117	98	98
	40'HQ (with panel)		133	112	112
Wired remote controller			XE70-17/E(M)		
Wireless remote controller			YB1FA(MOTO)		

Model			FP-68XDT/B-K	FP-85XDT/B-K
Power system	Type	V-Ph-Hz		
	Input	W	82	82
Air flow volume	High	CFM	400	500
		m^3/h	680	850
	Medium	CFM	364	450
		m^3/h	618	764
	Low	CFM	336	410
		m^3/h	571	697
Capacity	Cooling	W	3500	4100
	Heating	W	5800	6400
Water system	Cooling water flow volume	l/s	0.21	0.24
	Heating water flow volume	l/s	0.17	0.19
	Cooling pressure drop	kPa	34.14	56.71
	Heating pressure drop	kPa	76.44	86.08
Sound pressure level		dB(A)	39	40
Coil	Type	-		
	Operating pressure	MPa		
Motor	Type	-	FN35D-2	FN35D-2
	Capacitor	uF	2	3
Connection pipe size	Water inlet & outlet	inch		
	Condensing water	mm		
Outline dimension (W×D×H)	Body	mm	840×840×190	840×840×190
	Panel	mm	950×950×85	950×950×85
Package dimension (W×D×H)	Body	mm	960×960×257	960×960×257
	Panel	mm	1033×1038×133	1033×1038×133
Net weight	Body	kg	25	25
	Panel	kg	7	7
Gross weight	Body	kg	33	33
	Panel	kg	11	11
	20'GP (with panel)		56	56
	40'GP (with panel)		131	131
	40'HQ (with panel)		147	147
Wired remote controller				
Wireless remote controller				

Model			FP-102XDT/B-K	FP-125XDT/B-K	FP-140XDT/B-K
Power system	Type	V-Ph-Hz	220-240V~ 50Hz		
	Input	W	105	135	140
Air flow volume	High	CFM	600	736	824
		m^3/h	1020	1250	1400
	Medium	CFM	530	652	736
		m^3/h	900	1108	1250
	Low	CFM	471	597	647
		m^3/h	800	1014	1100
Capacity	Cooling	W	5400	6000	6400
	Heating	W	8000	9000	9500
Water system	Cooling water flow volume	l/s	0.27	0.29	0.3
	Heating water flow volume	l/s	0.2	0.27	0.23
	Cooling pressure drop	kPa	38	43.07	48
	Heating pressure drop	kPa	70	91.94	35
Sound pressure level		dB(A)	39	43	85
Coil	Type	-	Aluminum fin-copper tube		
	Operating pressure	MPa	≤1.6MPa		
Motor	Type	-	FN35B-1	FN35B-1	FN35C
	Capacitor	uF	2	4	4
Connection pipe size	Water inlet & outlet	inch	G3/4		
	Condensing water	mm	25		
Outline dimension (W×D×H)	Body	mm	840×840×240	840×840×240	840×840×240
	Panel	mm	950×950×85	950×950×85	950×950×85
Package dimension (W×D×H)	Body	mm	960×960×310	960×960×310	960×960×310
	Panel	mm	1033×1038×133	1033×1038×133	1033×1038×133
Net weight	Body	kg	28	27	28
	Panel	kg	7	7	7
Gross weight	Body	kg	35	34	36
	Panel	kg	11	11	11
	20'GP (with panel)		50	50	50
	40'GP (with panel)		121	121	121
	40'HQ (with panel)		134	134	134
Wired remote controller			XE70-17/E(M)		
Wireless remote controller			YB1FA(MOTO)		

Model			FP-180XDT/B-K	FP-200XDT/B-K
Power system	Type	V-Ph-Hz	220-240VAC 50Hz	
	Input	W	191	200
Air flow volume	High	CFM	1059	1177
		m3/h	1800	2000
	Medium	CFM	897	1000
		m3/h	1525	1700
	Low	CFM	836	883
		m3/h	1421	1500
Capacity	Cooling	W	8000	9000
	Heating	W	11500	12500
Water system	Cooling water flow volume	l/s	0.44	0.45
	Heating water flow volume	l/s	0.36	0.38
	Cooling pressure drop	kPa	39.65	50
	Heating pressure drop	kPa	102.21	108
Sound pressure level		dB(A)	50	51
Coil	Type	-	Aluminum fin-copper tube	
	Operating pressure	MPa	≤1.6MPa	
Motor	Type	-	FN50K-1	FN50K-1
	Capacitor	uF	4.5	4.5
Connection pipe size	Water inlet & outlet	inch	G3/4	
	Condensing water	mm	25	
Outline dimension (W×D×H)	Body	mm	840×840×320	840×840×320
	Panel	mm	950×950×85	950×950×85
Package dimension (W×D×H)	Body	mm	960×960×394	960×960×394
	Panel	mm	1033×1038×133	1033×1038×133
Net weight	Body	kg	32	34
	Panel	kg	7	7
Gross weight	Body	kg	41	42
	Panel	kg	11	11
	20'GP (with panel)		42	42
	40'GP (with panel)		98	98
	40'HQ (with panel)		112	112
Wired remote controller			XE70-17/E(M)	
Wireless remote controller			YB1FA(MOTO)	

Model			FP-68XDT/ B-K(E)	FP-85XDT/ B-K(E)	FP-125XDT/ B-K(E)	FP-180XDT/ B-K(E)
Power system	Type	V-Ph-Hz	220-240VAC 50Hz			
	Input	W	82	90	135	191
Air flow volume	High	CFM	400	500	736	1000
		m^3/h	680	850	1250	1700
	Medium	CFM	364	450	652	897
		m^3/h	618	764	1108	1525
	Low	CFM	336	410	597	836
		m^3/h	571	697	1014	1421
Capacity	Cooling	W	3500	4500	6000	8000
	Heating	W	5800	6800	9200	12000
Water system	Cooling water flow volume	l/s	0.21	0.24	0.29	0.44
	Heating water flow volume	l/s	0.17	0.19	0.27	0.36
	Cooling pressure drop	kPa	44	53	41	48
	Heating pressure drop	kPa	76	83	84	97
Sound pressure level		dB(A)	39	40	43	50
Coil	Type	-	Aluminum fin-copper tube			
	Operating pressure	MPa	≤1.6MPa			
Motor	Type	-	FN35D-2	FN35D-2	FN35B-1	FN50K-2
	Capacitor	uF	2	3	4	4.5
Connection pipe size	Water inlet & outlet	inch	G3/4			
	Condensing water	mm	25			
Outline dimension (W×D×H)	Body	mm	840×840×190	840×840×190	840×840×240	840×840×320
	Panel	mm	950×950×85	950×950×85	950×950×85	950×950×85
Package dimension (W×D×H)	Body	mm	960×960×257	960×960×257	960×960×310	960×960×394
	Panel	mm	1033×1038×133	1033×1038×133	1033×1038×133	1033×1038×133
Net weight	Body	kg	25	25	27	32
	Panel	kg	7	7	7	7
Gross weight	Body	kg	33	33	34	41
	Panel	kg	11	11	11	11
	20'GP (with panel)		56	56	50	42
	40'GP (with panel)		131	131	121	98
	40'HQ (with panel)		147	147	134	112
Wired remote controller			XE70-17/E(M)			
Wireless remote controller			YB1FA(MOTO)			

Model			FP-85XD/ B-T(E)	FP-102XD/ B-T(E)	FP-125XD/ B-T(E)	FP-140XD/ B-T(E)
Power system	Type	V-Ph-Hz	220-240VAC 50Hz			
	Input	W	81	110	100	143
Air flow volume	High	CFM	471	470	641	823
		m^3/h	800	940	1090	1400
	Medium	CFM	385	453	506	682
		m^3/h	665	770	860	1160
	Low	CFM	347	394	447	588
		m^3/h	590	670	760	1000
Capacity	Cooling	W	4500	5000	6000	7400
	Heating	W	5400	6100	6900	8400
Water system	Cooling water flow volume	l/s	0.22	0.24	0.29	0.35
	Heating water flow volume	l/s	0.27	0.29	0.33	0.4
	Cooling pressure drop	kPa	27	34	21	30
	Heating pressure drop	kPa	37	46	32	38
Sound pressure level		dB(A)	39	49	43	50
Coil	Type	-	Aluminum fin-copper tube			
	Operating pressure	MPa	≤1.6MPa			
Motor	Type	-	FN35D-2	FN35D-2	FN35B-1	FN35C
	Capacitor	uF	2	3.5	2	4
Connection pipe size	Water inlet & outlet	inch	G3/4			
	Condensing water	mm	25			
Outline dimension (W×D×H)	Body	mm	840*840*190	840×840×190	840×840×240	840×840×240
	Panel	mm	950×950×85	950×950×85	950×950×85	950×950×85
Package dimension (W×D×H)	Body	mm	963×963×272	963×963×272	963×963×325	963×963×325
	Panel	mm	1033×1038×133	1033×1038×133	1033×1038×133	1033×1038×133
Net weight	Body	kg	25	25	27	27
	Panel	kg	7	7	7	7
Gross weight	Body	kg	33	33	34	35
	Panel	kg	11	11	11	11
	20'GP (with panel)		56	56	50	50
	40'GP (with panel)		131	131	117	117
	40'HQ (with panel)		147	147	133	133
Wired remote controller			XE70-17/E(M)			
Wireless remote controller			YB1FA(MOTO)			

Model			FP-160XD/B-T(E)	FP-180XD/B-T(E)
Power system	Type	V-Ph-Hz	220-240VAC, 50Hz	
	Input	W	152	160
Air flow volume	High	CFM	882	964
		m^3/h	1500	1640
	Medium	CFM	706	800
		m^3/h	1200	1360
	Low	CFM	588	706
		m^3/h	1000	1200
Capacity	Cooling	W	8400	9500
	Heating	W	9000	10500
Water system	Cooling water flow volume	l/s	0.4	0.45
	Heating water flow volume	l/s	0.43	0.49
	Cooling pressure drop	kPa	30	33
	Heating pressure drop	kPa	36	41
Sound pressure level		dB(A)	51	50
Coil	Type	-	Aluminum fin-copper tube	
	Operating pressure	MPa	≤1.6MPa	
Motor	Type	-	FN35C	FN50K-2
	Capacitor	uF	4.5	3.5
Connection pipe size	Water inlet & outlet	inch	G3/4	
	Condensing water	mm	25	
Outline dimension (W×D×H)	Body	mm	840×840×240	840×840×320
	Panel	mm	950×950×85	950×950×85
Package dimension (W×D×H)	Body	mm	963×963×325	963×963×409
	Panel	mm	1033×1038×133	1033×1038×133
Net weight	Body	kg	27	32
	Panel	kg	7	7
Gross weight	Body	kg	35	41
	Panel	kg	11	11
	20'GP (with panel)		50	42
	40'GP (with panel)		117	98
	40'HQ (with panel)		133	112
Wired remote controller			XE70-17/E(M)	
Wireless remote controller			YB1FA(MOTO)	

Model			FP-51XD/A-K	FP-68XD/A-K	FP-238XD/C-K
Power system	Type	V-Ph-Hz	220-240VAC, 50Hz		
	Input	W	73	78	170
Air flow volume	High	CFM	300	388	1295
		m^3/h	510	660	2200
	Medium	CFM	235	330	1118
		m^3/h	400	560	1900
	Low	CFM	176	270	765
		m^3/h	300	460	1300
Capacity	Cooling	W	2750	3400	12000
	Heating	W	3400	3800	13000
Water system	Cooling water flow volume	l/s	0.13	0.18	0.57
	Heating water flow volume	l/s	0.16	0.2	0.62
	Cooling pressure drop	kPa	30	38	50
	Heating pressure drop	kPa	30	38	60
Sound pressure level		dB(A)	46	46	53
Coil	Type	-	Aluminum fin-copper tube		
	Operating pressure	MPa	≤1.6MPa		
Motor	Type	-	FN30L	FN30L	FN100A-ZL
	Capacitor	uF	2	2	-
Connection pipe size	Water inlet & outlet	inch	G3/4		
	Condensing water	mm	25		
Outline dimension (W×D×H)	Body	mm	592x592x240	592x592x240	910x910x239
	Panel	mm	670x670x60	670x670x60	1040x1040x85
Package dimension (W×D×H)	Body	mm	775x735x285	775x735x285	1020x990x360
	Panel	mm	760x760x90	760x760x90	1134x1134x125
Net weight	Body	kg	20	20	39.5
	Panel	kg	3.5	3.5	8
Gross weight	Body	kg	24	24	49
	Panel	kg	5	5	12
	20'GP (with panel)		120	120	100
	40'GP (with panel)		258	258	80
	40'HQ (with panel)		291	291	40
Wired remote controller			XE70-17/E(M)		
Wireless remote controller			YB1FA(MOTO)		

Notes:

Testing conditions for models connecting to power at 50Hz:

(a) Rated cooling conditions—dry/wet bulb temperature: 27°C/19°C, entering/leaving water temperature: 7°C/12°C.

(b) Rated heating conditions—for the two-row coil type, dry bulb temperature: 20°C, wet bulb temperature: no more than 15°C, entering/leaving water temperature: 45°C/40°C; for the four-row coil

type, dry bulb temperature: 20°C, wet bulb temperature: no more than 15°C, entering/leaving water temperature: 65°C/55°C

(c) The sound level is tested under the semi-anechoic chamber and the actual value will change under different conditions.

Testing conditions for models connecting to power at 60Hz:

(a) Rated cooling conditions—dry/wet bulb temperature: 27°C/19.5°C, entering/leaving water temperature: 7°C/12°C.

(b) Rated heating conditions—dry bulb temperature: 21°C, entering water temperature: 60°C; water supply amount is equivalent to the amount in the rated cooling conditions.

(c) The sound level is tested under the semi-anechoic chamber and the actual value will change under different conditions.

◆ A series cassette type (DC)

Model			**FPD-51XD/A-S**	**FPD-68XD/A-S**	**FPD-85XD/A-S**	**FPD-102XD/A-S**	**FPD-119XD/A-S**
Code			EM520N1580	EM520N1500	EM520N1570	EM520N1540	EM520N1550
Power system	Type	V-Ph-Hz	220-240V~50/60Hz				
	Input	W	20	27	25	35	49
Air flow volume	High	CFM	324	400	500	600	700
		m3/h	550	680	850	1020	1190
	Medium	CFM	265	318	371	471	542
		m3/h	450	540	630	800	920
	Low	CFM	224	247	306	359	412
		m3/h	380	420	520	610	700
Capacity	Cooling(EU)	W	3.1	3.9	4.75	5.15	6.7
	Heating(EU)	W	3.55	4	5.65	6.1	7.6
	Cooling(Non EU)	W	3.4	4.25	5.1	5.7	7.3
	Heating(Non EU)	W	5.6	6.3	8.4	9	11.5
Water system	Cooling water flow volume(EU)	l/s	0.15	0.19	0.23	0.25	0.32
	Heating water flow volume(EU)	l/s	0.17	0.19	0.27	0.29	0.36
	Cooling pressure drop(EU)	kPa	26	30	22	28	26
	Heating pressure drop(EU)	kPa	37	43	33	37	32
	Cooling water flow volume(Non EU)	l/s	0.16	0.2	0.24	0.27	0.35
	Heating water flow volume(Non EU)	l/s	0.16	0.2	0.24	0.27	0.35
	Cooling pressure drop(Non EU)	kPa	33	39	26	33	30
	Heating pressure drop(Non EU)	kPa	33	39	26	33	30
Sound pressure level		dB(A)	35	40	36	39	43
Coil	Type	-	Aluminum fin-copper tube				
	Operating pressure	MPa	≤1.6MPa				
Motor	Type	-	B-FN30C-ZL		B-FN35C-ZL		

Model			FPD-51XD/A-S	FPD-68XD/A-S	FPD-85XD/A-S	FPD-102XD/A-S	FPD-119XD/A-S
Connection pipe size	Water inlet & outlet	inch	Rc3/4				
	Condensing water drain	mm	25×2.5mm (OD×Wall thickness)				
Outline dimension (W×D×H)	Body	mm	570×570×260		840×840×200		
	Panel	mm	620×620×65		950×950×65		
Package dimension (W×D×H)	Body	mm	695×650×280		930×930×240		
	Panel	mm	690×690×100		1030×1017×95		
Net weight	Body	kg	16.5	16.5	20	20	20.5
	Panel	kg	3	3	6	6	6
Gross weight	Body	kg	20.5	20.5	24	24	25.5
	Panel	kg	4.5	4.5	9.5	9.5	9.5
Loading Quantity	20'GP (with panel)		168	168	100	100	100
	40'GP (with panel)		378	378	220	220	220
	40'HQ (with panel)		432	432	242	242	242
Wireless remote controller			YAP1F				
Wired remote controller			XE7B-17/E(M)				

Model			FPD-136XD/A-S	FPD-170XD/A-S	FPD-204XD/A-S	FPD-238XD/A-S
Code			EM520N1530	EM520N1510	EM520N1520	EM520N1560
Power system	Type	V-Ph-Hz	220-240V~50/60Hz			
	Input	W	69	76	105	167
Air flow volume	High	CFM	800	1000	1200	1400
		m3/h	1360	1700	2040	2380
	Medium	CFM	648	748	854	1148
		m3/h	1100	1270	1450	1950
	Low	CFM	477	571	636	942
		m3/h	810	970	1080	1600
Capacity	Cooling(EU)	W	7.6	9	11.1	11.5
	Heating(EU)	W	8.7	10.4	12.2	12.6
	Cooling(Non EU)	W	8.2	9.6	12	12.5
	Heating(Non EU)	W	13	15.4	18.7	19.8

Model			FPD-136XD/A-S	FPD-170XD/A-S	FPD-204XD/A-S	FPD-238XD/A-S
Water system	Cooling water flow volume(EU)	l/s	0.36	0.43	0.53	0.55
	Heating water flow volume(EU)	l/s	0.41	0.5	0.58	0.6
	Cooling pressure drop(EU)	kPa	32	32	33	43
	Heating pressure drop(EU)	kPa	42	42	38	55
	Cooling water flow volume(Non EU)	l/s	0.39	0.46	0.57	0.6
	Heating water flow volume(Non EU)	l/s	0.39	0.46	0.57	0.6
	Cooling pressure drop(Non EU)	kPa	32	36	39	53
	Heating pressure drop(Non EU)	kPa	32	36	39	53
Sound pressure level		dB(A)	42	45	48	47
Coil	Type	-	Aluminum fin-copper tube			
	Operating pressure	MPa	≤1.6MPa			
Motor	Type	-	B-TN60A-ZL	B-TN90A-ZL		FN100A-ZL
Connection pipe size	Water inlet & outlet	inch	Rc3/4			
	Condensing water drain	mm	25×2.5mm (OD×Wall thickness)			
Outline dimension (W×D×H)	Body	mm	840×840×240	840×840×290		910×910×293
	Panel	mm	950×950×65	950×950×65		1040×1040×85
Package dimension (W×D×H)	Body	mm	930×930×277	930×930×330		1020×990×360
	Panel	mm	1030×1017×95	1030×1017×95		1134×1134×125
Net weight	Body	kg	21	23.5	24	38
	Panel	kg	6	6	6	7.5
Gross weight	Body	kg	25.5	28	28.5	46
	Panel	kg	9.5	9.5	9.5	11.5
Loading Quantity	20'GP (with panel)		96	72	72	60
	40'GP (with panel)		192	144	144	132
	40'HQ (with panel)		216	168	168	154
Wireless remote controller			YAP1F			
Wired remote controller			XE7B-17/E(M)			

Notes:

1. Testing conditions for models used in EU countries and regions

(a) Rated cooling conditions—dry/wet bulb temperature: 27°C/19°C, entering/leaving water temperature: 7°C/12°C.

(b) Rated heating conditions—dry/wet bulb temperature: 20°C/≤15°C, entering/leaving water temperature: 45°C/40°C.

2. Testing conditions for models used in non-EU countries and regions

(a) Rated cooling conditions—dry/wet bulb temperature: 27°C/19.5°C, entering/leaving water temperature: 7°C/12°C.

(b) Rated heating conditions—dry bulb temperature: 21°C, entering water temperature: 60°C, the water flow is the same as that of the cooling condition.

3. Noise testing condition: the test condition is a semi-anechoic room, and the nominal value is the high-speed noise of the unit. The actual use changes due to changes of the environment.

◆ A series wall mounted type (DC)

Model			**FPD-34BB4/A-K FPD-34BB6/A-K**	**FPD-51BB4/A-K FPD-51BB6/A-K**
Power system	Type	V-Ph-Hz	220-240V~ 50Hz	
	Input	W	12	18
Air flow volume	High	CFM	200	300
		m^3/h	340	510
	Medium	CFM	150	225
		m^3/h	255	382
	Low	CFM	100	150
		m^3/h	170	255
Capacity	Cooling	W	2.2	2.7
	Heating	W	2.4	2.9
Water system	Cooling water flow volume	l/s	0.1	0.14
	Heating water flow volume	l/s	0.11	0.14
	Cooling pressure drop	kPa	20	30
	Heating pressure drop	kPa	24	35
Sound pressure level		dB(A)	31	37
Coil	Type	-	Aluminum fin-copper tube	
	Operating pressure	MPa	≤1.6MPa	
Motor	Type	-	FN20V-ZL	FN20V-ZL
	Capacitor	uF	-	-
Connection pipe size	Water inlet & outlet	inch	1/2"	
	Condensing water drain	mm	15.6	
Outline dimension (W×D×H)	Body	mm	845×209×289	845×209×289
Package dimension (W×D×H)	Body	mm	973×278×364	973×278×364
Net weight	Body	kg	10.5	10.5
Gross weight	Body	kg	12.5	12.5

Model		FPD-34BB4/A-K FPD-34BB6/A-K	FPD-51BB4/A-K FPD-51BB6/A-K
Loading quantity	20'GP (with panel)	291	291
	40'GP (with panel)	604	604
	40'HQ (with panel)	682	682
Wired remote controller		XE7A-17/E(M)	
Wireless remote controller		YAP1F	

Model			FPD-68BB4/A-K FPD-68BB6/A-K	FPD-85BB4/A-K FPD-85BB6/A-K
Power system	Type	V-Ph-Hz	220-240V~ 50Hz	
	Input	W	29	43
Air flow volume	High	CFM	400	500
		m^3/h	680	850
	Medium	CFM	300	375
		m^3/h	510	637
	Low	CFM	200	250
		m^3/h	340	425
Capacity	Cooling	W	3.6	4.3
	Heating	W	3.9	4.7
Water system	Cooling water flow volume	l/s	0.18	0.21
	Heating water flow volume	l/s	0.19	0.22
	Cooling pressure drop	kPa	43	52
	Heating pressure drop	kPa	55	65
Sound pressure level		dB(A)	43	48
Coil	Type	-	Aluminum fin-copper tube	
	Operating pressure	MPa	≤1.6MPa	
Motor	Type	-	FN20V-ZL	FN60B-ZL
	Capacitor	uF	-	-
Connection pipe size	Water inlet & outlet	inch	1/2"	
	Condensing water drain	mm	15.6	
Outline dimension (W×D×H)	Body	mm	845×209×289	970×224×300
Package dimension (W×D×H)	Body	mm	973×278×364	1093×380×305
Net weight	Body	kg	10.5	12.5
Gross weight	Body	kg	12.5	15.5
Loading quantity	20'GP (with panel)		291	221
	40'GP (with panel)		604	461
	40'HQ (with panel)		682	525

Model	FPD-68BB4/A-K FPD-68BB6/A-K	FPD-85BB4/A-K FPD-85BB6/A-K
Wired remote controller	XE7A-17/E(M)	
Wireless remote controller	YAP1F	

◆ A series wall mounted type (AC)

Model			FP-34BA2/D-K(E) FP-34BA3/D-K(E) FP-34BA4/D-K(E)	FP-51BA2/D-K(E) FP-51BA3/D-K(E) FP-51BA4/D-K(E)
Power system	Type	V-Ph-Hz	220-240V~ 50Hz	
	Input	W	50	50
Air flow volume	High	CFM	212	324
		m^3/h	360	550
	Medium	CFM	189	242
		m^3/h	322	413
	Low	CFM	166	215
		m^3/h	282	367
Capacity	Cooling	W	2000	2500
	Heating	W	2300	2800
Water system	Cooling water flow volume	l/s	0.1	0.12
	Heating water flow volume	l/s	0.11	0.13
	Cooling pressure drop	kPa	18	25
	Heating pressure drop	kPa	20	25
Sound pressure level		dB(A)	35	40
Coil	Type	-	Aluminum fin-copper tube	
	Operating pressure	MPa	≤1.6MPa	
Motor	Type	-	FN20J-PG	FN20J-PG
	Capacitor	uF	-	-
Connection pipe size	Water inlet & outlet	inch	1/2"	
	Condensing water drain	mm	15.6	
Outline dimension (W×D×H)	Body	mm	845×180×275	845×180×275
Package dimension (W×D×H)	Body	mm	915×255×355	915×255×355
Net weight	Body	kg	10	10
Gross weight	Body	kg	12.5	12.5
Loading quantity	20'GP (with panel)		365	365
	40'GP (with panel)		765	765
	40'HQ (with panel)		850	850
Wired remote controller			XE70-17/E(M)	
Wireless remote controller			YB1FA(MOTO)	

Model			FP-68BA2/D-K(E) FP-68BA3/D-K(E) FP-68BA4/D-K(E)	FP-85BA2/D-K(E) FP-85BA3/D-K(E) FP-85BA4/D-K(E)
Power system	Type	V-Ph-Hz	220-240V~ 50Hz	
	Input	W	60	66
Air flow volume	High	CFM	400	500
		m^3/h	680	850
	Medium	CFM	347	416
		m^3/h	591	708
	Low	CFM	312	362
		m^3/h	532	616
Capacity	Cooling	W	3600	4000
	Heating	W	4100	4500
Water system	Cooling water flow volume	l/s	0.17	0.19
	Heating water flow volume	l/s	0.2	0.21
	Cooling pressure drop	kPa	52	60
	Heating pressure drop	kPa	52	60
Sound pressure level		dB(A)	43	48
Coil	Type	-	Aluminum fin-copper tube	
	Operating pressure	MPa	≤1.6MPa	
Motor	Type	-	FN20V-PG	FN20V-PG
	Capacitor	uF	-	-
Connection pipe size	Water inlet & outlet	inch	1/2"	
	Condensing water drain	mm	15.6	
Outline dimension (W×D×H)	Body	mm	940×200×298	940×200×298
Package dimension (W×D×H)	Body	mm	1010×285×380	1010×285×380
Net weight	Body	kg	12	12
Gross weight	Body	kg	16	16
Loading quantity	20'GP (with panel)		290	290
	40'GP (with panel)		595	595
	40'HQ (with panel)		671	671
Wired remote controller			XE70-17/E(M)	
Wireless remote controller			YB1FA(MOTO)	

Model			FP-34BA2/D-K FP-34BA3/D-K FP-34BA4/D-K	FP-51BA2/D-K FP-51BA3/D-K FP-51BA4/D-K	FP-68BA2/D-K FP-68BA3/D-K FP-68BA4/D-K
Power system	Type	V-Ph-Hz	220-240V~ 50Hz		
	Input	W	50	50	60
Air flow volume	High	CFM	212	324	400
		m^3/h	360	550	680
	Medium	CFM	189	242	347
		m^3/h	322	413	591
	Low	CFM	166	215	312
		m^3/h	282	367	532
Capacity	Cooling	W	2000	2500	3600
	Heating	W	2700	3200	4600
Water system	Cooling water flow volume	l/s	0.1	0.12	0.17
	Heating water flow volume	l/s	0.13	0.15	0.22
	Cooling pressure drop	kPa	18	25	52
	Heating pressure drop	kPa	20	25	52
Sound pressure level		dB(A)	35	40	43
Coil	Type	-	Aluminum fin-copper tube		
	Operating pressure	MPa	≤1.6MPa		
Motor	Type	-	FN20J-PG	FN20J-PG	FN20V-PG
	Capacitor	uF	-	-	-
Connection pipe size	Water inlet & outlet	inch	1/2"		
	Condensing water drain	mm	15.6		
Outline dimension (W×D×H)	Body	mm	845×180×275	845×180×275	940×200×298
Package dimension (W×D×H)	Body	mm	915×255×355	915×255×355	1010×285×380
Net weight	Body	kg	10	10	12
Gross weight	Body	kg	12.5	12.5	16
Loading quantity	20'GP (with panel)		365	365	290
	40'GP (with panel)		765	765	595
	40'HQ (with panel)		850	850	671
Wired remote controller			XE70-17/E(M)		
Wireless remote controller			YB1FA(MOTO)		

Model			FP-85BA2/D-K FP-85BA3/D-K FP-85BA4/D-K
Power system	Type	V-Ph-Hz	220-240V~ 50Hz
	Input	W	66
Air flow volume	High	CFM	500
		m^3/h	850
	Medium	CFM	416
		m^3/h	708
	Low	CFM	362
		m^3/h	616
Capacity	Cooling	W	4200
	Heating	W	5400
Water system	Cooling water flow volume	l/s	0.2
	Heating water flow volume	l/s	0.26
	Cooling pressure drop	kPa	60
	Heating pressure drop	kPa	60
Sound pressure level		dB(A)	48
Coil	Type	-	Aluminum fin-copper tube
	Operating pressure	MPa	≤1.6MPa
Motor	Type	-	FN20V-PG
	Capacitor	uF	-
Connection pipe size	Water inlet & outlet	inch	1/2"
	Condensing water drain	mm	15.6
Outline dimension (W×D×H)	Body	mm	940×200×298
Package dimension (W×D×H)	Body	mm	1010×285×380
Net weight	Body	kg	12
Gross weight	Body	kg	16
Loading quantity	20'GP (with panel)		290
	40'GP (with panel)		595
	40'HQ (with panel)		671
Wired remote controller			XE70-17/E(M)
Wireless remote controller			YB1FA(MOTO)

Model			FP-34BA2/B-D FP-34BA3/B-D	FP-51BA2/B-D FP-51BA3/B-D	FP-68BA2/B-D FP-68BA3/B-D
Power system	Type	V-Ph-Hz	208-230V~ 60Hz		
	Input	W	50	50	60
Air flow volume	High	CFM	212	324	400
		m^3/h	360	550	680
	Medium	CFM	189	242	347
		m^3/h	322	413	591
	Low	CFM	166	215	312
		m^3/h	282	367	532
Capacity	Cooling	W	2100	2700	3600
	Heating	W	3150	4050	5400
Water system	Cooling water flow volume	l/s	0.1	0.13	0.17
	Heating water flow volume	l/s	0.15	0.19	0.26
	Cooling pressure drop	kPa	13	24	44
	Heating pressure drop	kPa	15	25	45
Sound pressure level		dB(A)	35	40	43
Coil	Type	-	Aluminum fin-copper tube		
	Operating pressure	MPa	≤1.6MPa		
Motor	Type	-	FN20X-PG	FN20X-PG	FN20W-PG
	Capacitor	uF	-	-	-
Connection pipe size	Water inlet & outlet	inch	1/2"		
	Condensing water drain	mm	15.6		
Outline dimension (W×D×H)	Body	mm	845×180×275	845×180×275	940×200×298
Package dimension (W×D×H)	Body	mm	915×255×355	915×255×355	1010×285×380
Net weight	Body	kg	10	10	12
Gross weight	Body	kg	12.5	12.5	15
Loading quantity	20'GP (with panel)		365	365	290
	40'GP (with panel)		765	765	595
	40'HQ (with panel)		850	850	671
Wired remote controller			XE70-17/E(M)		
Wireless remote controller			YB1FA(MOTO)		

Model			FP-85BA2/B-D FP-85BA3/B-D	FP-102BA2/B-D FP-102BA3/B-D
Power system	Type	V-Ph-Hz	208-230V~ 60Hz	
	Input	W	60	70
Air flow volume	High	CFM	500	588
		m^3/h	850	1000
	Medium	CFM	416	493
		m^3/h	708	840
	Low	CFM	362	423
		m^3/h	616	720
Capacity	Cooling	W	4200	5400
	Heating	W	6300	8500
Water system	Cooling water flow volume	l/s	0.2	0.26
	Heating water flow volume	l/s	0.3	0.4
	Cooling pressure drop	kPa	45	63
	Heating pressure drop	kPa	48	65
Sound pressure level		dB(A)	48	49
Coil	Type	-	Aluminum fin-copper tube	
	Operating pressure	MPa	≤1.6MPa	
Motor	Type	-	FN20W-PG	FN20W-PG
	Capacitor	uF	-	-
Connection pipe size	Water inlet & outlet	inch	1/2"	
	Condensing water drain	mm	15.6	
Outline dimension (W×D×H)	Body	mm	940×200×298	940×200×298
Package dimension (W×D×H)	Body	mm	1010×285×380	1010×285×380
Net weight	Body	kg	12	12
Gross weight	Body	kg	15	15
Loading quantity	20'GP (with panel)		290	290
	40'GP (with panel)		595	595
	40'HQ (with panel)		671	671
Wired remote controller			XE70-17/E(M)	
Wireless remote controller			YB1FA(MOTO)	

Model			FP-34BA3/B-K	FP-51BA3/B-K
Power system	Type	V-Ph-Hz	220-240V~ 50Hz	
	Input	W	30	30
Air flow volume	High	CFM	212	300
		m^3/h	360	510
	Medium	CFM	189	243
		m^3/h	322	413
	Low	CFM	166	216
		m^3/h	282	367
Capacity	Cooling	W	1850	2650
	Heating	W	2450	3050
Water system	Cooling water flow volume	l/s	0.09	0.13
	Heating water flow volume	l/s	0.12	0.15
	Cooling pressure drop	kPa	13	25
	Heating pressure drop	kPa	16	27
Sound pressure level		dB(A)	30	40
Coil	Type	-	Aluminum fin-copper tube	
	Operating pressure	MPa	≤1.6MPa	
Motor	Type	-	FN6B	FN9A
	Capacitor	uF	1	1
Connection pipe size	Water inlet & outlet	inch	1/2"	
	Condensing water drain	mm	15.6	
Outline dimension	Body	mm	845×180×275	845×180×275
Package dimension	Body	mm	915×255×355	915×255×355
Net weight	Body	kg	8.8	8.8
Gross weight	Body	kg	11.8	11.8
Loading quantity	20'GP (with panel)		365	365
	40'GP (with panel)		765	765
	40'HQ (with panel)		850	850
Wired remote controller			-	
Wireless remote controller			-	

Model			FP-68BA3/B-K	FP-85BA3/B-K
Power system	Type	V-Ph-Hz	220-240V~ 50Hz	
	Input	W	40	60
Air flow volume	High	CFM	400	489
		m^3/h	680	830
	Medium	CFM	347	417
		m^3/h	591	708
	Low	CFM	312	363
		m^3/h	532	616
Capacity	Cooling	W	3500	4550
	Heating	W	3850	4800
Water system	Cooling water flow volume	l/s	0.17	0.22
	Heating water flow volume	l/s	0.18	0.23
	Cooling pressure drop	kPa	40	65
	Heating pressure drop	kPa	44	68
Sound pressure level		dB(A)	43	48
Coil	Type	-	Aluminum fin-copper tube	
	Operating pressure	MPa	≤1.6MPa	
Motor	Type	-	FN13G	FN23A
	Capacitor	uF	1.5	1.5
Connection pipe size	Water inlet & outlet	inch	1/2"	
	Condensing water drain	mm	15.6	
Outline dimension	Body	mm	940×200×298	940×200×298
Package dimension	Body	mm	1010×285×380	1010×285×380
Net weight	Body	kg	10.8	10.8
Gross weight	Body	kg	14.8	14.8
Loading quantity	20'GP (with panel)		290	290
	40'GP (with panel)		595	595
	40'HQ (with panel)		671	671
Wired remote controller			-	
Wireless remote controller			-	

Model			FP-51BWA2/A-K(E) FP-51BWA3/A-K(E)	FP-85BWA2/A-K(E) FP-85BWA3/A-K(E)
Power system	Type	V-Ph-Hz	220-240V~ 50Hz	
	Input	W	43	69
Air flow volume	High	CFM	265	382
		m^3/h	450	650
	Medium	CFM	225	329
		m^3/h	383	560
	Low	CFM	190	288
		m^3/h	323	490
Capacity	Cooling	W	1400	3100
	Heating	W	2000	3300
Water system	Cooling water flow volume	l/s	0.07	0.15
	Heating water flow volume	l/s	0.1	0.16
	Cooling pressure drop	kPa	20	53
	Heating pressure drop	kPa	21	57
Sound pressure level		dB(A)	42	50
Coil	Type	-	Aluminum fin-copper tube	
	Operating pressure	MPa	≤1.6MPa	
Motor	Type	-	FN20J-PG	FN20V-PG
	Capacitor	uF	-	-
Connection pipe size	Water inlet & outlet	inch	1/2"	
	Condensing water drain	mm	15.6	
Outline dimension	Body	mm	845×180×275	940×200×298
Package dimension	Body	mm	915×255×355	1010×285×380
Net weight	Body	kg	11	13
Gross weight	Body	kg	14	17
Loading quantity	20'GP (with panel)		365	290
	40'GP (with panel)		765	595
	40'HQ (with panel)		850	671
Wired remote controller			XE70-17/E(M)	
Wireless remote controller			YB1FA(MOTO)	

Notes:

Testing conditions for models connecting to power at 50Hz:

(a) Rated cooling conditions—dry/wet bulb temperature: 27°C/19°C, entering/leaving water temperature: 7°C/12°C.

(b) Rated heating conditions—for the two-row coil type, dry bulb temperature: 20°C, wet bulb temperature: no more than 15°C, entering/leaving water temperature: 45°C/40°C

(c) The sound level is tested under the semi-anechoic chamber and the actual value will change under different conditions.

Testing conditions for models connecting to power at 60Hz:

(a) Rated cooling conditions—dry/wet bulb temperature: 27°C/19.5°C, entering/leaving water temperature: 7°C/12°C.

(b) Rated heating conditions—dry bulb temperature: 21°C, entering water temperature: 60°C; water supply amount is equivalent to the amount in the rated cooling conditions.

(c) The sound level is tested under the semi-anechoic chamber and the actual value will change under different conditions.

◆ A series floor-ceiling type (DC)

Model			FPD-34ZD/A-S	FPD-51ZD/A-S	FPD-68ZD/A-S	FPD-85ZD/A-S	FPD-102ZD/A-S
Code			EM56000410	EM56000400	EM56000450	EM56000420	EM56000430
Power system	Type	V-Ph-Hz	220-240V~50/60Hz				
	Input	W	25	25	34	65	59
Air flow volume	High	CFM	236	300	400	500	600
		m3/h	400	510	680	850	1020
	Medium	CFM	206	247	324	406	501
		m3/h	350	420	550	690	850
	Low	CFM	177	206	253	318	412
		m3/h	300	350	430	540	700
Capacity	Cooling(EU)	W	2600	3000	3500	4100	5400
	Heating(EU)	W	3500	3900	4400	5200	6400
	Cooling(Non EU)	W	2800	3200	3800	4500	5800
	Heating(Non EU)	W	5300	5800	6700	8000	9800
Water system	Cooling water flow volume(EU)	l/s	0.12	0.14	0.17	0.2	0.26
	Heating water flow volume(EU)	l/s	0.17	0.19	0.21	0.25	0.3
	Cooling pressure drop(EU)	kPa	12	13	19	26	29
	Heating pressure drop(EU)	kPa	21	20	29	37	41
	Cooling water flow volume(Non EU)	l/s	0.13	0.15	0.18	0.21	0.28
	Heating water flow volume(Non EU)	l/s	0.13	0.15	0.18	0.21	0.28
	Cooling pressure drop(Non EU)	kPa	14	12	22	30	28
	Heating pressure drop(Non EU)	kPa	14	12	22	30	28
Sound pressure level		dB(A)	50	51	55	61	58
Coil	Type	-	Aluminum fin-copper tube				
	Operating pressure	MPa	≤1.6MPa				
Motor	Type	-	FG40B-ZL				FG150A-ZL
Connection pipe size	Water inlet & outlet	inch	Rc3/4				
	Condensing water drain	mm	φ17×1.75 (OD* wall thickness)				
Outline dimension(W×D×H)		mm	870×235×665				1200×235×665
Package dimension(W×D×H)		mm	970×285×767				1300×285×767
Net weight		kg	24	24	24	24	31
Gross weight		kg	29	29	29	29	37

Model		FPD-34ZD/A-S	FPD-51ZD/A-S	FPD-68ZD/A-S	FPD-85ZD/A-S	FPD-102ZD/A-S
Loading Quantity	20'GP (with panel)	119	119	119	119	84
	40'GP (with panel)	252	252	252	252	189
	40'HQ (with panel)	288	288	288	288	216
Wireless remote controller		YAP1F				
Wired remote controller		XE7B-17/E(M)				

Model			FPD-119ZD/A-S	FPD-136ZD/A-S	FPD-170ZD/A-S	FPD-204ZD/A-S
Code			EM56000440	EM56000370	EM56000470	EM56000360
Power system	Type	V-Ph-Hz	220-240V~50/60Hz			
	Input	W	73	110	81	115
Air flow volume	High	CFM	700	800	1000	1200
		m3/h	1190	1360	1700	2040
	Medium	CFM	577	636	736	825
		m3/h	980	1080	1250	1400
	Low	CFM	518	560	618	707
		m3/h	880	950	1050	1200
Capacity	Cooling(EU)	W	5700	6600	8600	9900
	Heating(EU)	W	7100	7700	10900	12000
	Cooling(Non EU)	W	6000	6900	9000	10500
	Heating(Non EU)	W	10800	12700	16700	18500
Water system	Cooling water flow volume(EU)	l/s	0.27	0.31	0.41	0.47
	Heating water flow volume(EU)	l/s	0.34	0.37	0.52	0.57
	Cooling pressure drop(EU)	kPa	30	33	26	35
	Heating pressure drop(EU)	kPa	39	45	41	48
	Cooling water flow volume(Non EU)	l/s	0.29	0.33	0.43	0.5
	Heating water flow volume(Non EU)	l/s	0.29	0.33	0.43	0.5
	Cooling pressure drop(Non EU)	kPa	30	36	30	40
	Heating pressure drop(Non EU)	kPa	30	36	30	40
Sound pressure level		dB(A)	62	66	62	65
Coil	Type	-	Aluminum fin-copper tube			
	Operating pressure	MPa	≤1.6MPa			
Motor	Type	-	FG150A-ZL		FG250A-ZL	
Connection pipe size	Water inlet & outlet	inch	Rc3/4			
	Condensing water drain	mm	φ17×1.75 (OD* wall thickness)			
Outline dimension(W×D×H)		mm	1200×235×665		1570×235×665	

Model			FPD-119ZD/A-S	FPD-136ZD/A-S	FPD-170ZD/A-S	FPD-204ZD/A-S
Package dimension(W×D×H)		mm	1300×285×767		1666×285×767	
Net weight		kg	31	31	41	41
Gross weight		kg	37	37	48	48
Loading Quantity	20'GP (with panel)		84	84	63	63
	40'GP (with panel)		189	189	147	147
	40'HQ (with panel)		216	216	168	168
Wireless remote controller			YAP1F			
Wired remote controller			XE7B-17/E(M)			

Notes:

1. Testing conditions for models used in EU countries and regions

(a) Rated cooling conditions—dry/wet bulb temperature: 27°C/19°C, entering/leaving water temperature: 7°C/12°C.

(b) Rated heating conditions—dry/wet bulb temperature: 20°C/≤15°C, entering/leaving water temperature: 45°C/40°C.

2. Testing conditions for models used in non-EU countries and regions

(a) Rated cooling conditions—dry/wet bulb temperature: 27°C/19.5°C, entering/leaving water temperature: 7°C/12°C.

(b) Rated heating conditions—dry bulb temperature: 21°C, entering water temperature: 60°C, the water flow is the same as that of the cooling condition.

3. Noise testing condition: the test condition is a semi-anechoic room, and the nominal value is the high-speed noise of the unit. The actual use changes due to changes of the environment.

◆ B series floor-ceiling type (AC)

Model			FP-34ZD/B-K	FP-51ZD/B-K	FP-68ZD/B-K	FP-85ZD/B-K	FP-102ZD/B-K
Code			EM56000340	EM56000330	EM56000350	EM56000460	EM56000380
Power system	Type	V-Ph-Hz	220-240V~50Hz				
	Input	W	44	48	58	60	97
Air flow volume	High	CFM	235	306	400	425	600
		m3/h	400	520	680	720	1020
	Medium	CFM	195	247	323	340	488
		m3/h	330	420	550	576	830
	Low	CFM	170	200	240	260	382
		m3/h	290	340	410	440	650
Capacity	Cooling(EU)	W	2400	2650	3350	3400	5200
	Heating(EU)	W	3000	3500	4350	4400	6300
	Cooling(Non EU)	W	2600	2900	3600	3650	5700
	Heating(Non EU)	W	5000	5300	6400	6500	9800

Model			FP-34ZD/B-K	FP-51ZD/B-K	FP-68ZD/B-K	FP-85ZD/B-K	FP-102ZD/B-K
Water system	Cooling water flow volume(EU)	l/s	0.12	0.13	0.16	0.16	0.25
	Heating water flow volume(EU)	l/s	0.14	0.12	0.21	0.21	0.3
	Cooling pressure drop(EU)	kPa	12	13	17	18	30
	Heating pressure drop(EU)	kPa	17	18	26	27	40
	Cooling water flow volume(Non EU)	l/s	0.12	0.14	0.17	0.8	0.27
	Heating water flow volume(Non EU)	l/s	0.12	0.14	0.17	0.8	0.27
	Cooling pressure drop(Non EU)	kPa	12	13	18	19	34
	Heating pressure drop(Non EU)	kPa	12	13	18	19	34
Sound pressure level		dB(A)	34	35	37	38	42
Coil	Type	-	Aluminum fin-copper tube				
	Operating pressure	MPa	≤1.6MPa				
Motor	Type	-	FN30A		FN40A		FN90A
Connection pipe size	Water inlet & outlet	inch	Rc3/4				
	Condensing water drain	mm	φ17×1.75 (OD*wall thickness)				
Outline dimension(W×D×H)		mm	870×235×665				1200×235×665
Package dimension(W×D×H)		mm	970×285×767				1300×285×767
Net weight		kg	24	24	24	24	32
Gross weight		kg	29	29	29	29	37
Loading Quantity	20'GP (with panel)		119	119	119	119	84
	40'GP (with panel)		252	252	252	252	189
	40'HQ (with panel)		288	288	288	288	216
Wireless remote controller			YAP1F				
Wired remote controller			XE7B-17/E(M)				

Model			FP-119ZD/B-K	FP-136ZD/B-K	FP-170ZD/B-K	FP-204ZD/B-K
Code			EM56000390	EM56000280	EM56000300	EM56000310
Power system	Type	V-Ph-Hz	220-240V~50Hz			
	Input	W	112	118	145	182
Air flow volume	High	CFM	700	800	1000	1200
		m3/h	1190	1360	1700	2040
	Medium	CFM	577	630	824	1048
		m3/h	980	1070	1400	1780
	Low	CFM	435	494	695	795
		m3/h	740	840	1180	1350

Model			FP-119ZD/B-K	FP-136ZD/B-K	FP-170ZD/B-K	FP-204ZD/B-K
Capacity	Cooling(EU)	W	5900	6000	9400	10000
	Heating(EU)	W	7200	7300	11600	12500
	Cooling(Non EU)	W	6800	6900	9900	10500
	Heating(Non EU)	W	11400	11500	17400	19000
Water system	Cooling water flow volume(EU)	l/s	0.28	0.29	0.45	0.48
	Heating water flow volume(EU)	l/s	0.34	0.35	0.55	0.59
	Cooling pressure drop(EU)	kPa	30	31	34	38
	Heating pressure drop(EU)	kPa	42	43	47	53
	Cooling water flow volume(Non EU)	l/s	0.32	0.33	0.47	0.5
	Heating water flow volume(Non EU)	l/s	0.32	0.33	0.47	0.5
	Cooling pressure drop(Non EU)	kPa	35	36	37	41
	Heating pressure drop(Non EU)	kPa	35	36	37	41
Sound pressure level		dB(A)	47	48	47	52
Coil	Type	-	Aluminum fin-copper tube			
	Operating pressure	MPa	≤1.6MPa			
Motor	Type	-	FN90A		FN150B	FN180E
Connection pipe size	Water inlet & outlet	inch	Rc3/4			
	Condensing water drain	mm	φ17×1.75 (OD*wall thickness)			
Outline dimension(W×D×H)		mm	1200×235×665		1570×235×665	
Package dimension(W×D×H)		mm	1300×285×767		1666×285×767	
Net weight		kg	32	32	43	43
Gross weight		kg	37	37	50	50
Loading Quantity	20'GP (with panel)		84	84	63	63
	40'GP (with panel)		189	189	147	147
	40'HQ (with panel)		216	216	168	168
Wireless remote controller			YAP1F			
Wired remote controller			XE7B-17/E(M)			

1. Testing conditions for models used in EU countries and regions

(a) Rated cooling conditions—dry/wet bulb temperature: 27°C/19°C, entering/leaving water temperature: 7°C/12°C.

(b) Rated heating conditions—dry/wet bulb temperature: 20°C/≤15°C, entering/leaving water temperature: 45°C/40°C.

2. Testing conditions for models used in non-EU countries and regions

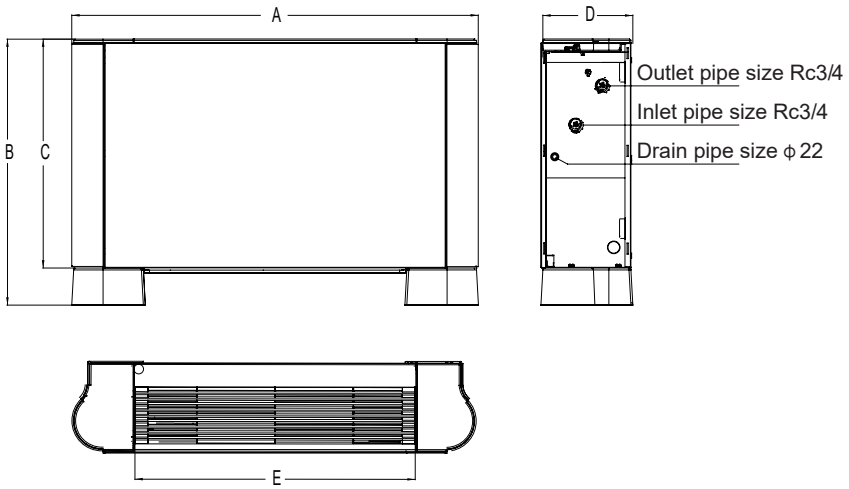
(a) Rated cooling conditions—dry/wet bulb temperature: 27°C/19.5°C, entering/leaving water temperature: 7°C/12°C.

(b) Rated heating conditions—dry bulb temperature: 21°C, entering water temperature: 60°C, the water flow is the same as that of the cooling condition.

3. Noise testing condition: the test condition is a semi-anechoic room, and the nominal value is the high-speed noise of the unit. The actual use changes due to changes of the environment.

1.3.2 Outline dimensions

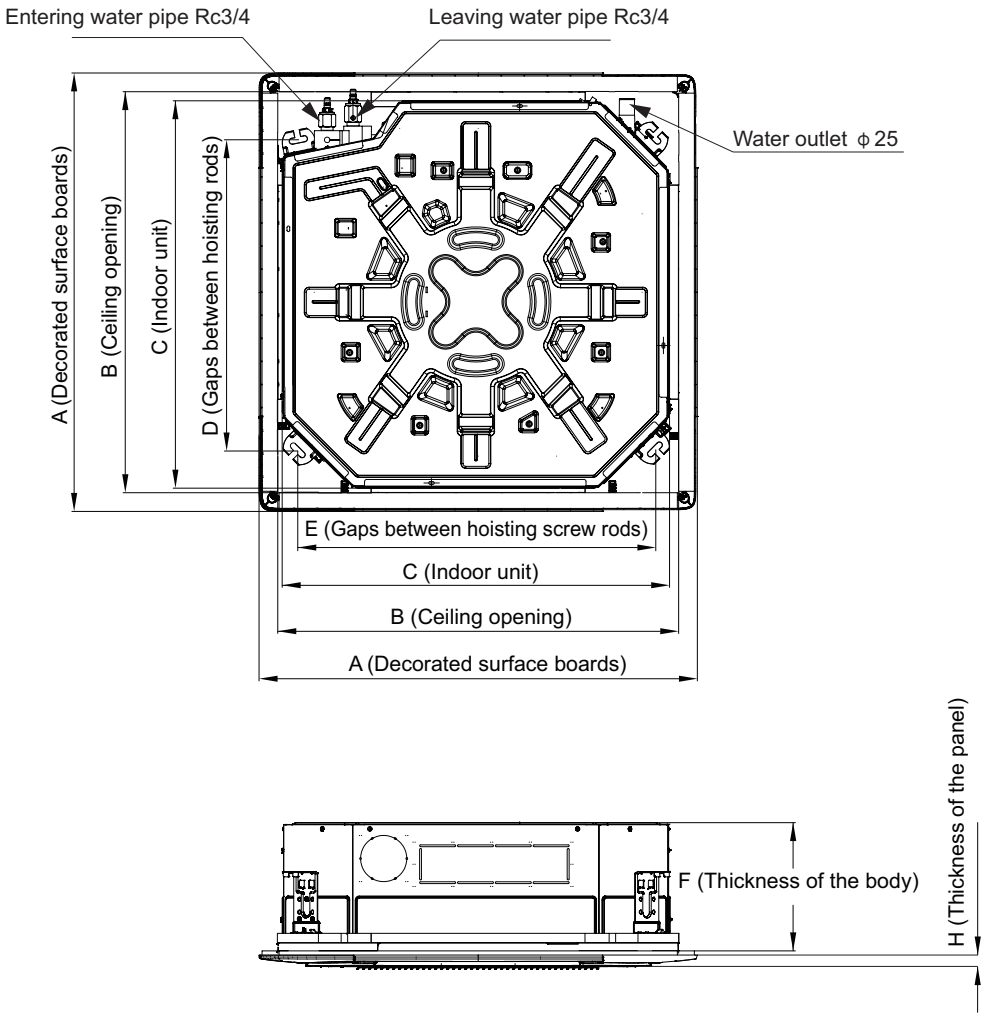
◆ Vertical mounted exposed type



Unit: mm

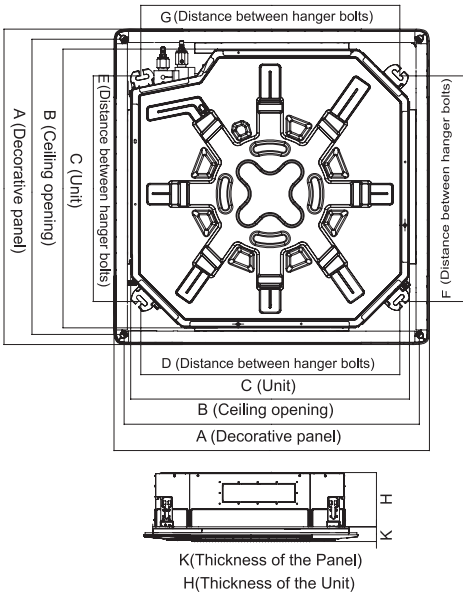
Model	A	B	C	D	E
FP-22LM/D-K	895	680	585	230	568
FP-34LM/D-K	895	680	585	230	568
FP-51LM/D-K	1050	680	585	230	723
FP-68LM/D-K	1050	680	585	230	723
FP-85LM/D-K	1050	680	585	230	723
FP-102LM/D-K	1350	680	585	230	1023
FP-119LM/D-K	1350	680	585	230	1023
FP-136LM/D-K	1350	680	585	230	1023
FP-170LM/D-K	1773	680	585	230	1446
FP-204LM/D-K	1773	680	585	230	1446

◆ Cassette type (AC)



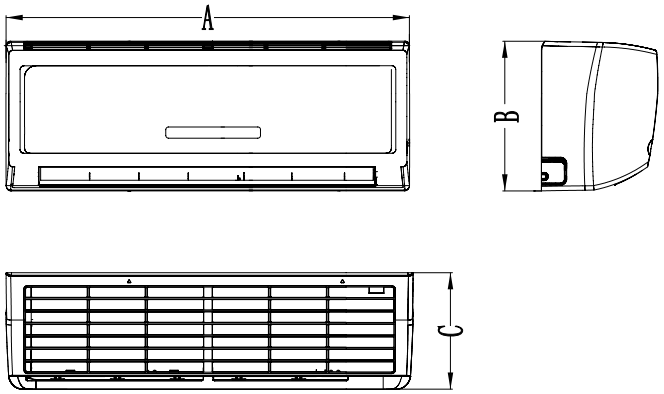
Model		A	B	C	D	E	F	H
Two-coil type	FP-51XD/A-K FP-68XD/A-K	670	596	594	570	570	240	60
	FP-85XD/B-T FP-102XD/B-T	950	890	840	680	780	190	85
	FP-125XD/B-T FP-140XD/B-T FP-160XD/B-T	950	890	840	680	780	240	85
	FP-180XD/B-T FP-200XD/B-T	950	890	840	680	780	320	85
	FP-238XD/C-K	1040	975	910	790	840	293	85
	FP-85XD/B-T(E) FP-102XD/B-T(E)	950	890	840	680	780	190	85
	FP-125XD/B-T(E) FP-140XD/B-T(E) FP-160XD/B-T(E)	950	890	840	680	780	240	85
	FP-180XD/B-T(E)	950	890	840	680	780	320	85
Four-coil type	FP-68XDT/B-K FP-85XDT/B-K	950	890	840	680	780	190	85
	FP-102XDT/B-K FP-125XDT/B-K FP-140XDT/B-K	950	890	840	680	780	240	85
	FP-180XDT/B-K FP-200XDT/B-K	950	890	840	680	780	320	85
	FP-68XDT/B-K(E) FP-85XDT/B-K(E)	950	890	840	680	780	190	85
	FP-125XDT/B-K(E)	950	890	840	680	780	240	85
	FP-180XDT/B-K(E)	950	890	840	680	780	320	85

◆ A series cassette type (DC)



Model	A	B	C	D	E	F	G	H	K
FPD-51/68XD/A-S	620	580	570	530	505	530	550	260	65
FPD-85/102/119XD/A-S	950	890	840	680	780	680	780	200	65
FPD-136XD/A-S	950	890	840	680	780	680	780	240	65
FPD-170/204XD/A-S	950	890	840	680	780	680	780	290	65
FPD-238XD/A-S	1040	975	910	790	840	790	840	293	85

◆ Wall mounted type (AC)



Model	A	B	C	Model	A	B	C
FP-34BA2/D-K(E) FP-34BA3/D-K(E) FP-34BA4/D-K(E) FP-51BA2/D-K(E) FP-51BA3/D-K(E) FP-51BA4/D-K(E)	845	275	180	FP-68BA2/D-K(E) FP-68BA3/D-K(E) FP-68BA4/D-K(E) FP-85BA2/D-K(E) FP-85BA3/D-K(E) FP-85BA4/D-K(E)	940	298	200

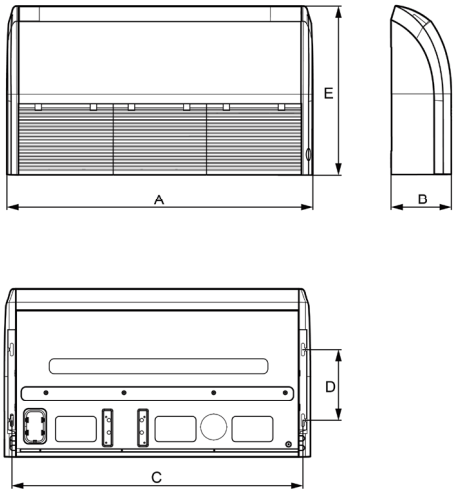
Model	A	B	C	Model	A	B	C
FP-34BA2/D-K FP-34BA3/D-K FP-34BA4/D-K FP-51BA2/D-K FP-51BA3/D-K FP-51BA4/D-K	845	275	180	FP-68BA2/D-K FP-68BA3/D-K FP-68BA4/D-K FP-85BA2/D-K FP-85BA3/D-K FP-85BA4/D-K	940	298	200
FP-34BA2/B-D FP-34BA3/B-D FP-51BA2/B-D FP-51BA3/B-D	845	275	180	FP-68BA2/B-D FP-68BA3/B-D FP-85BA2/B-D FP-85BA3/B-D FP-102BA2/B-D FP-102BA3/B-D	940	298	200
FP-34BA3/B-K FP-51BA3/B-K	845	275	180	FP-68BA3/B-K FP-85BA3/B-K	940	298	200
FP-51BWA2/A-K(E) FP-51BWA3/A-K(E)	845	275	180	FP-85BWA2/A-K(E) FP-85BWA3/A-K(E)	940	298	200

◆ A series wall mounted type (DC)

Model	A	B	C	Model	A	B	C
FPD-34BB4/A-K FPD-34BB6/A-K FPD-51BB4/A-K FPD-51BB6/A-K FPD-68BB4/A-K FPD-68BB6/A-K	845	289	209	FPD-85BB4/A-K FPD-85BB6/A-K	970	360	280

◆ A series floor-ceiling type (DC)/B series floor-ceiling type (DC)

Unit: mm



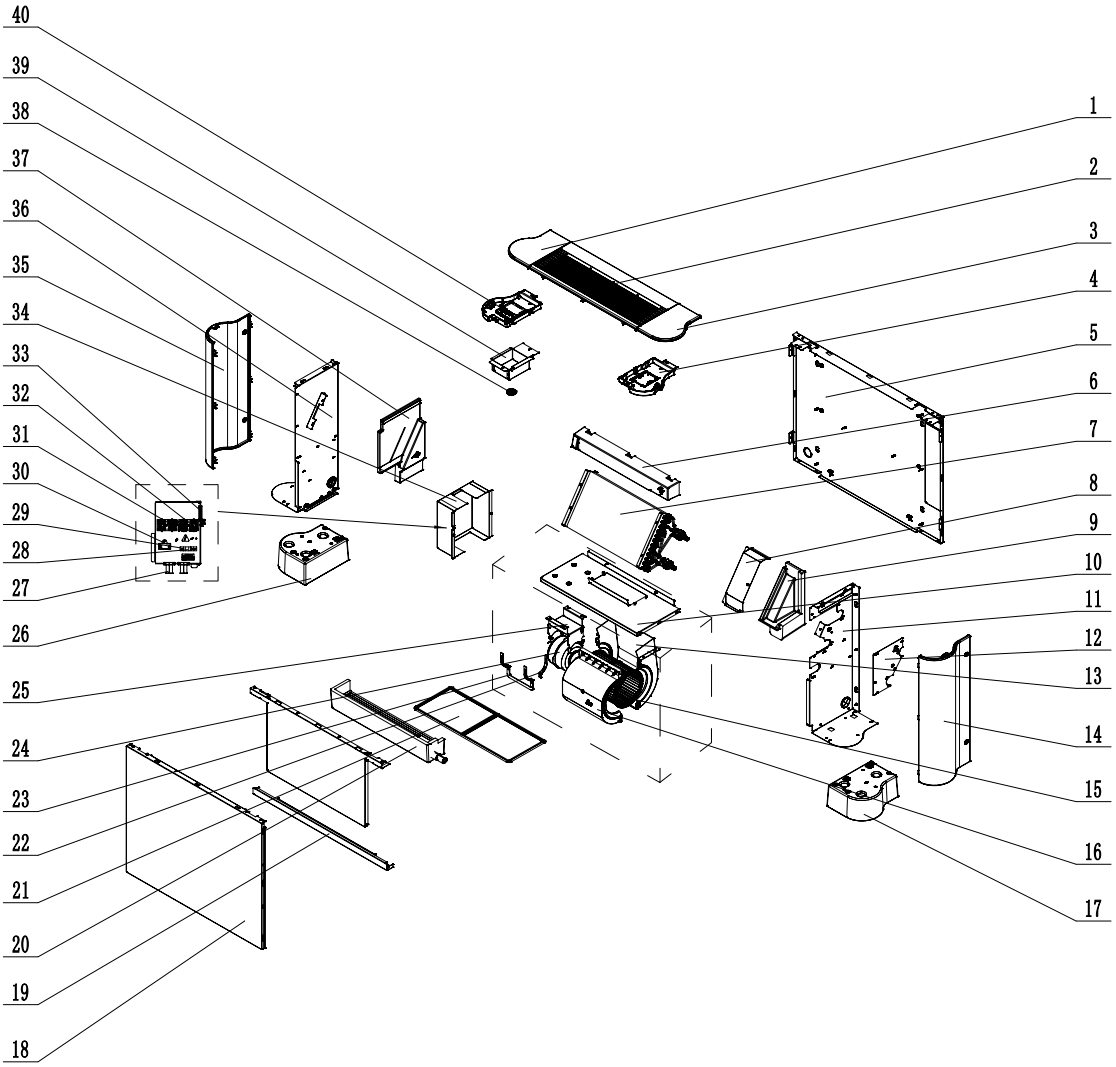
Model	A	B	C	D	E
FPD-34/51/68/85ZD/A-S FP-34/51/68/85ZD/B-K	870	235	812	280	665
FPD-102/119/136ZD/A-S FP-102/119/136ZD/B-K	1200	235	1142	280	665
FPD-170/204ZD/A-S FP-170170/204ZD/B-K	1570	235	1512	280	665

2 Exploded views and parts list

2.1 Vertical mounted exposed type

The data below is just for reference. All specifications are subject to change by the manufacturer without prior notice.

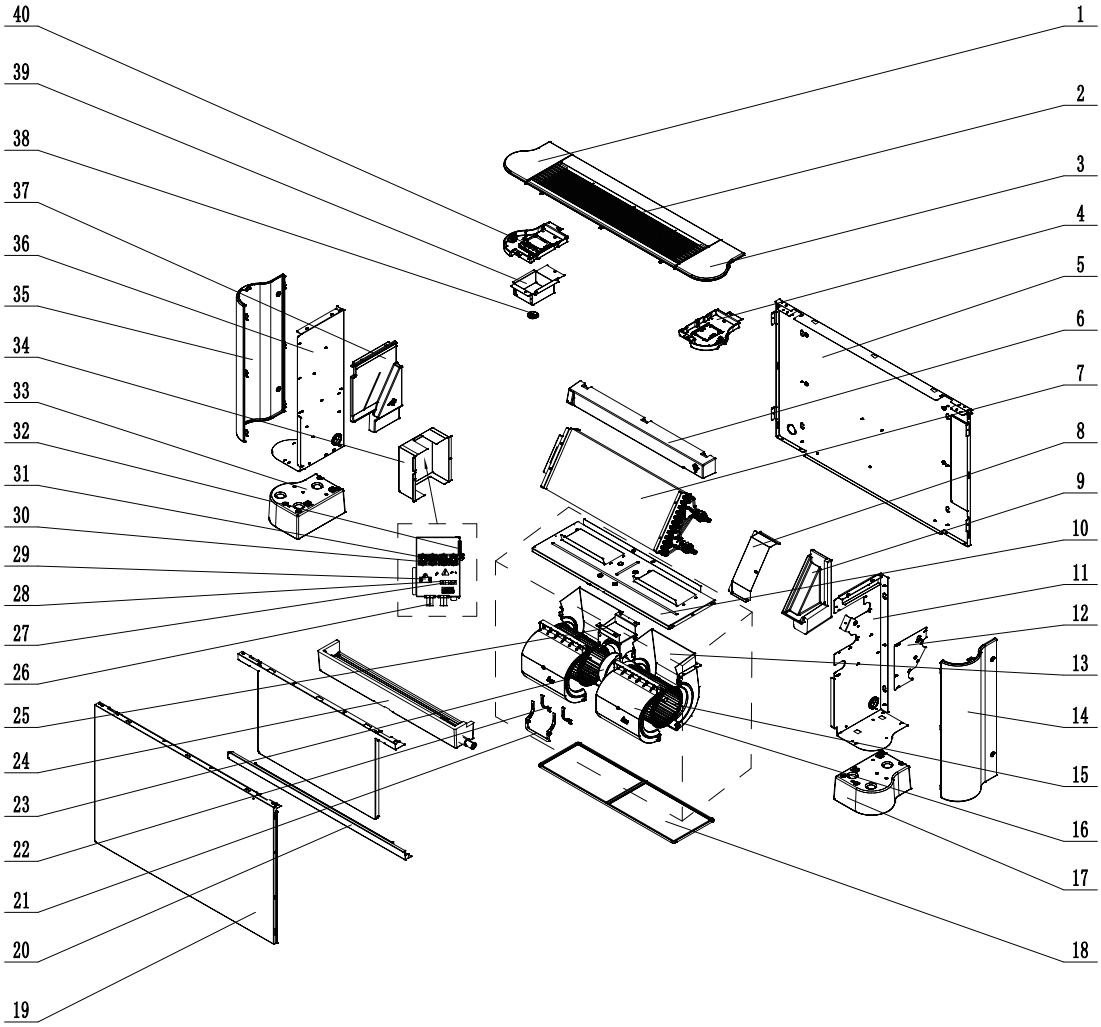
(1) FP-22LM/D-K, FP-34LM/D-K (list code: EM51600280)



No.	Name	Quantity
1	Display panel Cover	1
2	Grille	1
3	Display panel Cover	1
4	Displayer Box	1
5	Base Deck Assy	1
6	Cellular	1
7	Surface-Cooler Assy	1
8	Connection Panel	1

No.	Name	Quantity
9	Cellular	1
10	Centrifugal Fan Assy	1
11	Right Side Plate Assy	1
12	Closed Panel	1
13	Propeller Housing	1
14	Right Side Plate	1
15	Centrifugal fan blade	1
16	Propeller Housing	1
17	Base	1
18	Panel	1
19	Connection Panel	1
20	Cellular Assy	1
21	Filter Assy	1
22	Bar Clasp	2
23	Support sub-assy	1
24	Motor	1
25	Motor Support Assy	1
26	Base	1
27	Cable cross loop	2
28	Wire Clamp	1
29	Insulated Gasket	1
30	Capacitance	1
31	Terminal Board	1
32	Terminal Board	1
33	Cable cross loop	6
34	Electric Box Cover	1
35	Left Side Plate	1
36	Left Side Plate Assy	1
37	Cellular	1
38	Cable cross loop	1
39	Connection Panel	1
40	Display Panel	1

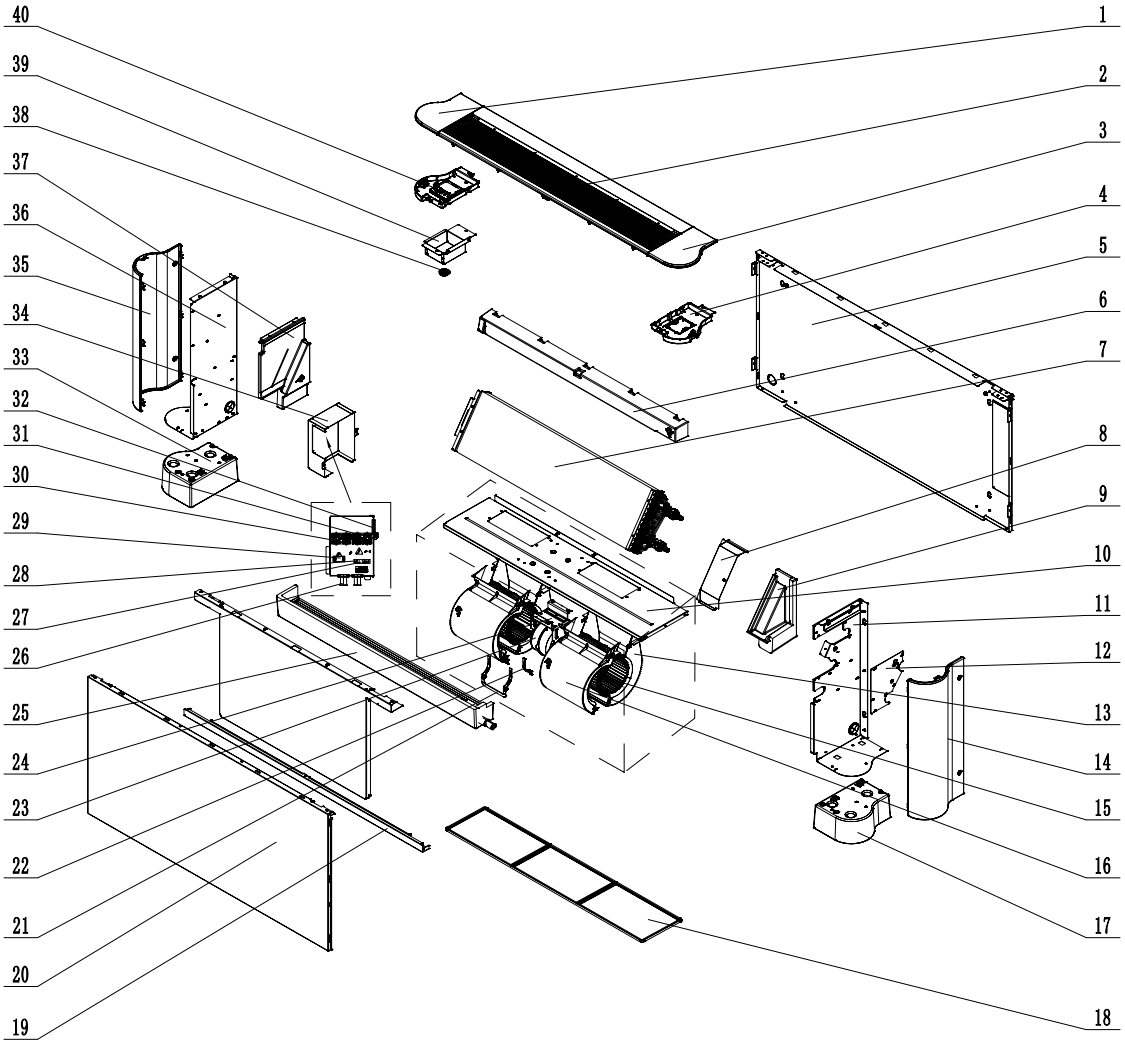
(2) FP-51LM/D-K, FP-68LM/D-K, FP-85LM/D-K (list code: EM51600250)



No.	Name	Quantity
1	Display panel Cover	1
2	Grille	1
3	Display panel Cover	1
4	Displayer Box	1
5	Base Deck Assy	1
6	Cellular	1
7	Surface-Cooler Assy	1
8	Connection Panel	1
9	Cellular	1
10	Centrifugal Fan Assy	1
11	Right Side Plate Assy	1
12	Closed Panel	1
13	Propeller Housing	2
14	Right Side Plate	1
15	Centrifugal fan blade	2

No.	Name	Quantity
16	Propeller Housing	2
17	Base	1
18	Filter Assy	1
19	Panel	1
20	Connection Panel	1
21	Support sub-assy	1
22	Bar Clasp	2
23	Motor	1
24	Cellular Assy	1
25	Motor Support Assy	1
26	Cable cross loop	2
27	Wire Clamp	1
28	Insulated Gasket	1
29	Capacitance	1
30	Terminal Board	1
31	Terminal Board	1
32	Cable cross loop	6
33	Base	1
34	Electric Box Cover	1
35	Left Side Plate	1
36	Left Side Plate Assy	1
37	Cellular	1
38	Cable cross loop	1
39	Connection Panel	1
40	Display Panel	1

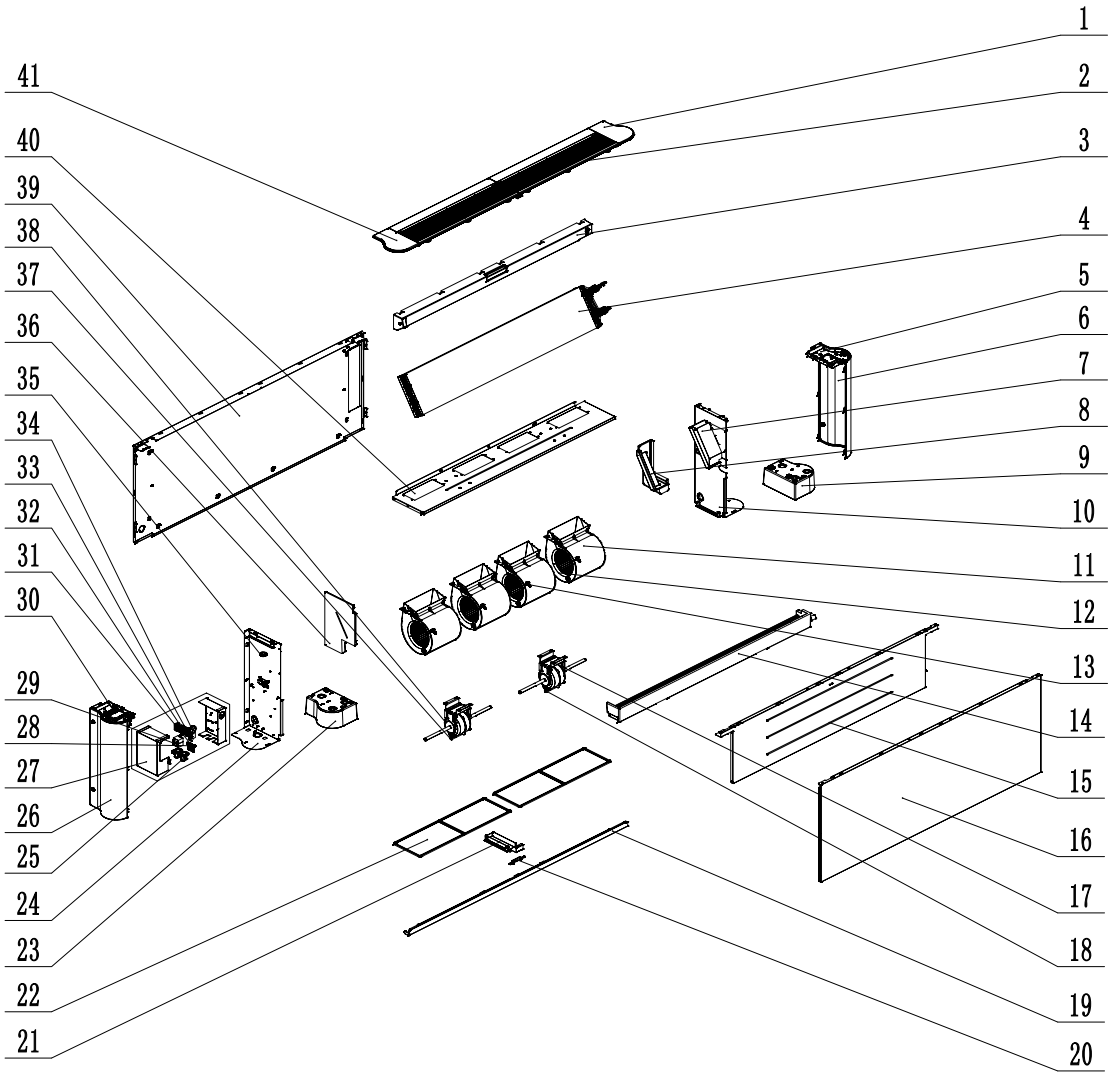
(3) FP-102LM/D-K, FP-119LM/D-K, FP-136LM/D-K (list code: EM51600310)



No.	Name	Quantity
1	Display panel Cover	1
2	Grille	1
3	Display panel Cover	1
4	Displayer Box	1
5	Base Deck Assy	1
6	Cellular	1
7	Surface-Cooler Assy	1
8	Connection Panel	1
9	Cellular	1
10	Barrier Assy	1
11	Right Side Plate Assy	1
12	Closed Panel	1
13	Propeller Housing	2
14	Right Side Plate	1

No.	Name	Quantity
15	Centrifugal fan blade	2
16	Propeller Housing	2
17	Base	1
18	Filter Assy	1
19	Connection Panel	1
20	Panel	1
21	Support sub-assy	1
22	Bar Clasp	2
23	Motor	1
24	Motor Support	1
25	Cellular Assy	1
26	Cable cross loop	2
27	Wire Clamp	1
28	Insulated Gasket	1
29	Capacitance	1
30	Terminal Board	1
31	Terminal Board	1
32	Cable cross loop	6
33	Base	1
34	Electric Box Cover	1
35	Left Side Plate	1
36	Left Side Plate Assy	1
37	Cellular	1
38	Cable cross loop	1
39	Connection Panel	1
40	Display Panel	1

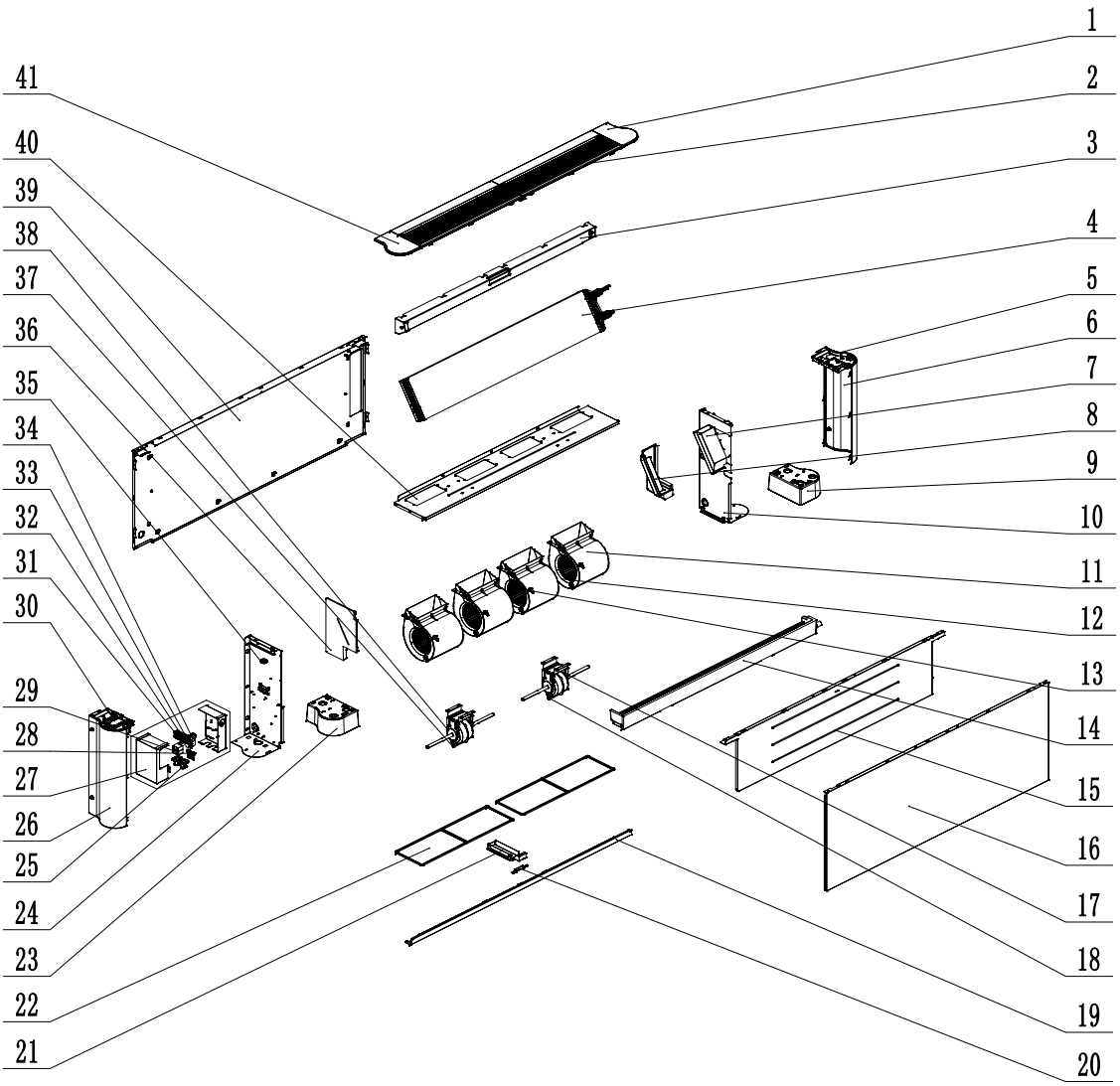
(4) FP-170LM/D-K (list code: EM51600320)



No.	Name	Quantity
1	Display Board Cover	1
2	Front Grill	2
3	Foam	1
4	Surface-Cooler Assy	1
5	Display Box	1
6	Right Side Plate	1
7	Connection Board	1
8	Foam	1
9	Rear Case	1
10	Right Side Plate Sub-Assy	1
11	Propeller Housing(Lower)	4
12	Propeller Housing(Upper)	4

No.	Name	Quantity
13	Centrifugal Fan	4
14	Foam Sub- Assy	1
15	Air Outlet Assy	1
16	Front Panel	1
17	Motor Support	2
18	Fan Motor	2
19	Connection Sheet Sub-Assy	1
20	Connection Board	1
21	Connection Sheet Sub-Assy	1
22	Filter Sub-Assy	2
23	Rear Case	1
24	Left Side Plate Sub-Assy	1
25	Cable Cross Loop	2
26	Left Side Plate	1
27	Electric Box Cover	1
28	Wire Clamp	1
29	Capacitor CBB61	2
30	Display Board Cover	1
31	Insulation Gasket	1
32	Terminal Board	1
33	Terminal Board	1
34	Cable Cross Loop	4
35	Cable Cross Loop	1
36	Foam	1
37	Support Sub-assy	2
38	Bar Clasp	4
39	Seat Board Sub-Assy	1
40	Clapboard Sub-Assy	1
41	Display Board Cover	1

(5) FP-204LM/D-K (list code: EM51600340)

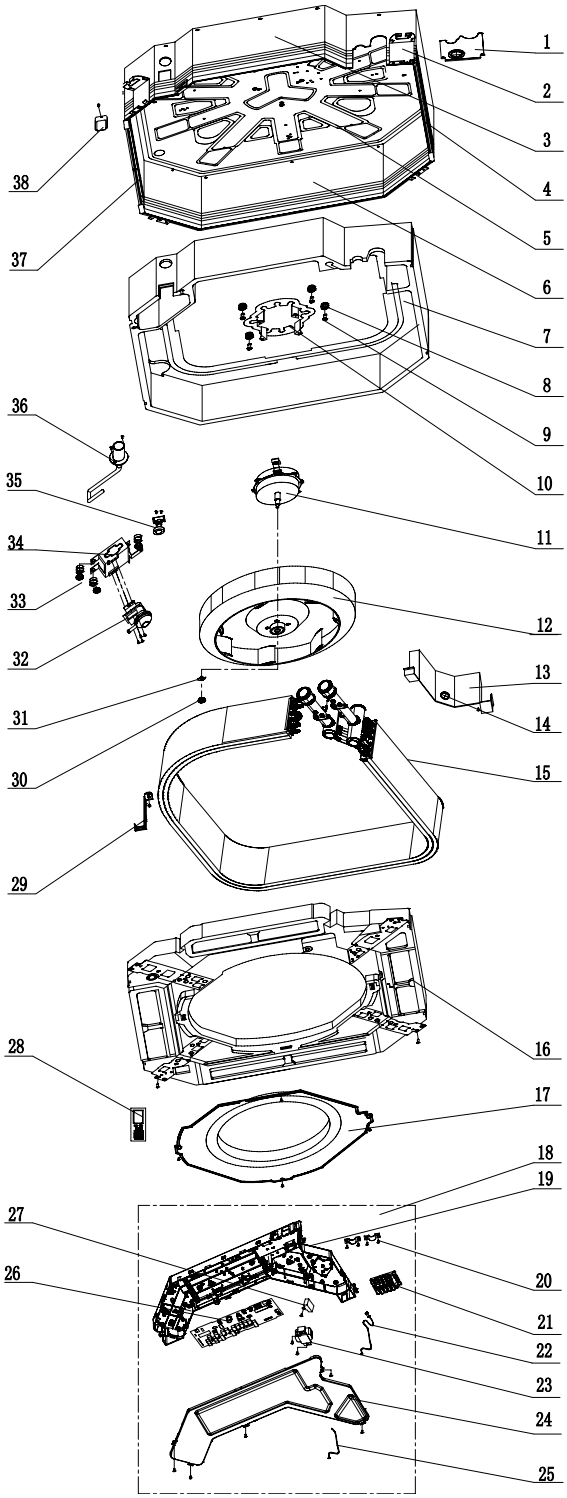


No.	Name	Quantity
1	Display Board Cover	1
2	Front Grill	2
3	Foam	1
4	Surface-Cooler Assy	1
5	Display Box	1
6	Right Side Plate	1
7	Connection Board	1
8	Foam	1
9	Rear Case	1
10	Right Side Plate Sub-Assy	1
11	Propeller Housing(Lower)	4
12	Propeller Housing(Upper)	4
13	Centrifugal Fan	4
14	Foam Sub- Assy	1
15	Air Outlet Assy	1

No.	Name	Quantity
16	Front Panel	1
17	Motor Support	2
18	Fan Motor	2
19	Connection Sheet Sub-Assy	1
20	Connection Board	1
21	Connection Sheet Sub-Assy	1
22	Filter Sub-Assy	2
23	Rear Case	1
24	Left Side Plate Sub-Assy	1
25	Cable Cross Loop	2
26	Left Side Plate	1
27	Electric Box Cover	1
28	Wire Clamp	1
29	Capacitor CBB61	2
30	Display Board Cover	1
31	Insulation Gasket	1
32	Terminal Board	1
33	Terminal Board	1
34	Cable Cross Loop	4
35	Cable Cross Loop	1
36	Foam	1
37	Support Sub-assy	2
38	Bar Clasp	4
39	Seat Board Sub-Assy	1
40	Clapboard Sub-Assy	1
41	Display Board Cover	1

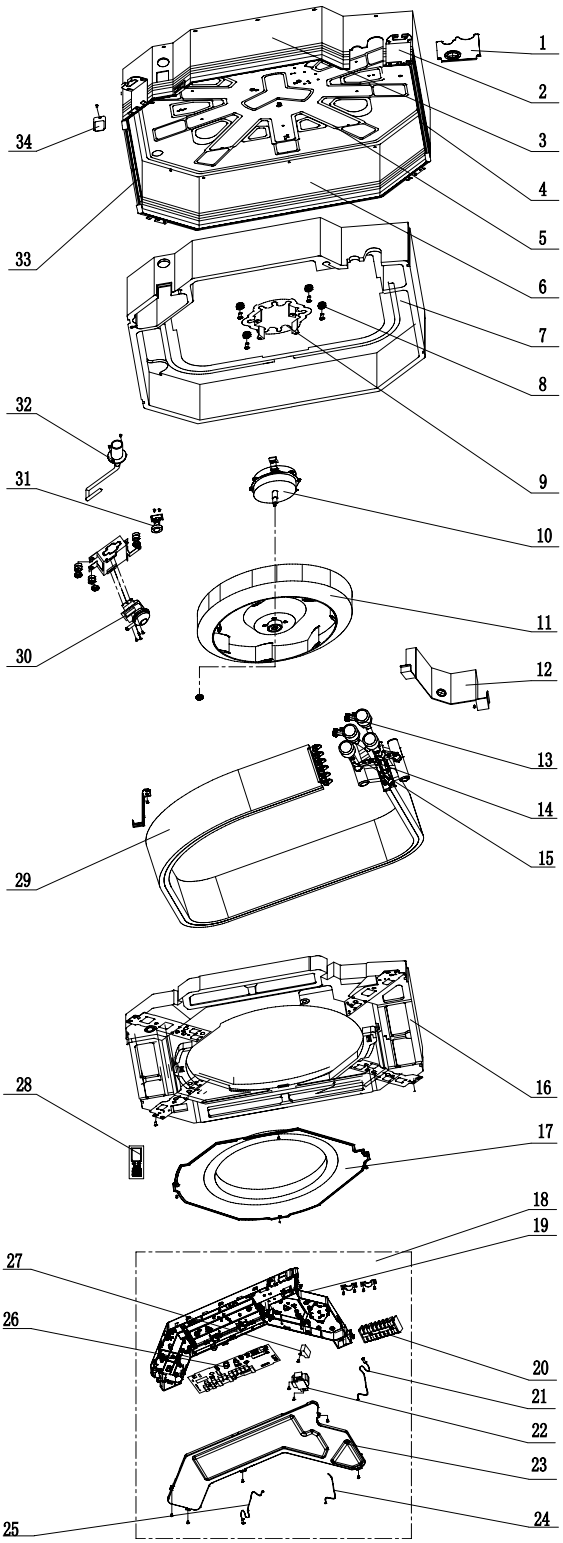
2.2 Cassette type (AC)

(1) FP-85XD/B-T, FP-102XD/B-T, FP-125XD/B-T, FP-140XD/B-T, FP-160XD/B-T, FP-180XD/B-T, FP-200XD/B-T, FP-85XD/B-T(E), FP-102XD/B-T(E), FP-125XD/B-T(E), FP-140XD/B-T(E), FP-160XD/B-T(E), FP-180XD/B-T(E)



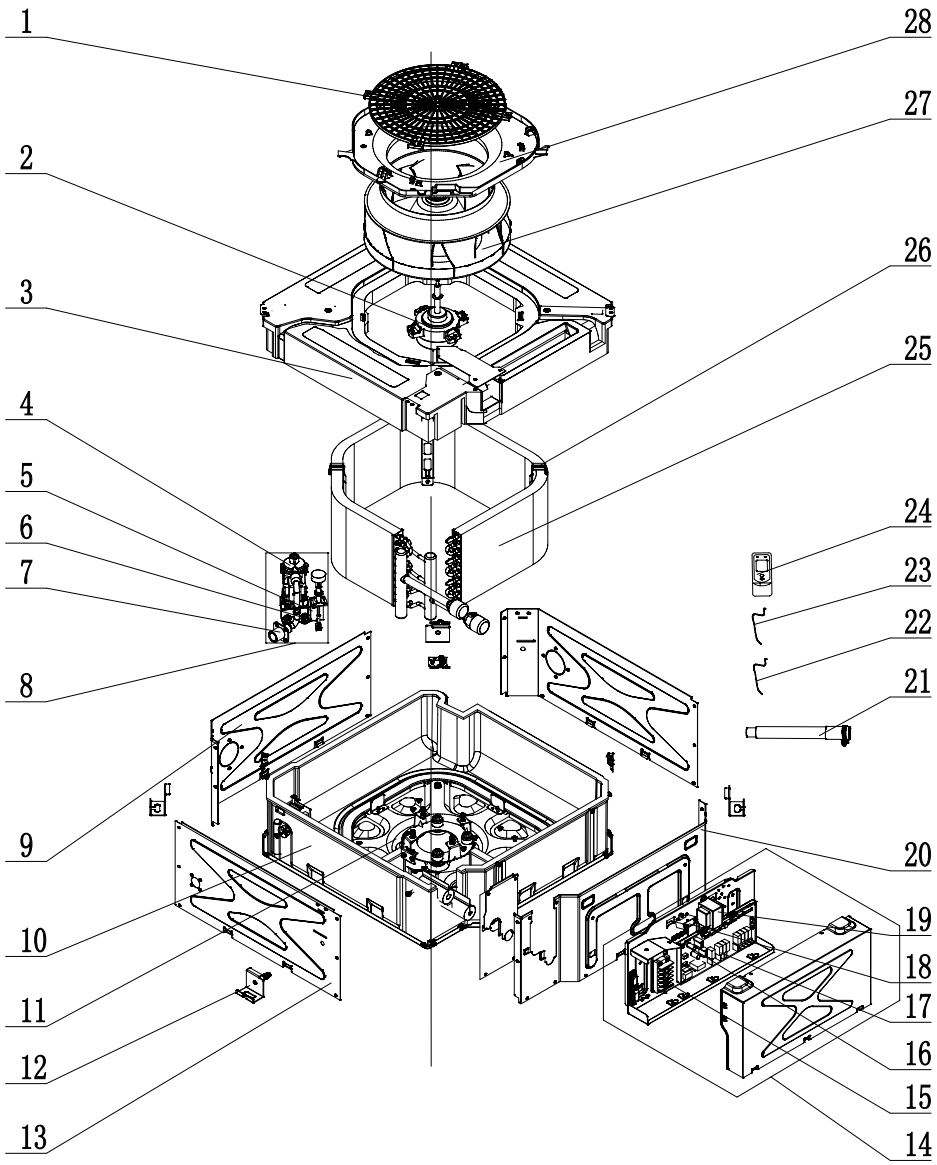
No.	Name	Quantity
1	Tube-exit Plate	1
2	Body Fixing Plate	4
3	Front Side Plate	1
4	Left Side Plate	1
5	Base Plate	1
6	Rear Side Plate	1
7	Bottom Foam	1
8	Motor Gasket	4
9	Bolt	4
10	Motor Support	1
11	Motor	1
12	Centrifugal Fan	1
13	Connected Board (Evaporator)	1
14	Cable-cross Loop	2
15	Heat exchanger	1
16	Water Tray	1
17	Flow-guide Loop	1
18	Electric Box asm	1
19	Electric Box	1
20	Wire Clamp	2
21	Terminal Board	1
22	Tube sensor	1
23	Transformer	1
24	Electric Box Cover	1
25	Room sensor	1
26	Main PCB	1
27	Capacitor	1
28	Remote Controller	1
29	Evap Support	2
30	Nut with Washer	1
31	Fixer	1
32	Water Pump	1
33	Pump Gasket	3
34	Pump Support	1
35	Water Level Switch	1
36	Pump Drainpipe	1
37	Right Side Plate	1
38	Pump Cover Board	1

(2) FP-68XDT/B-K, FP-68XDT/B-K(E), FP-85XDT/B-K, FP-85XDT/B-K(E), FP-102XDT/B-K, FP-125XDT/B-K, FP-125XDT/B-K(E), FP-140XDT/B-K, FP-180XDT/B-K, FP-180XDT/B-K(E), FP-200XDT/B-K



No.	Name	Quantity
1	Tube Exit Plate Assy	1
2	Body Fixing Plate	4
3	Front Side Plate	1
4	Left Side Plate	1
5	Base Plate	1
6	Rear Side Plate	1
7	Bottom Foam	1
8	Motor Gasket	4
9	Motor Support	1
10	Motor	1
11	Centifugal Fan	1
12	Evap Connection	1
13	Deflation Valve	2
14	Valve chest (air release valve)	2
15	Valve chest (air release valve)	2
16	Water Tray	1
17	Flow-guide Loop	1
18	Electric Box asm	1
19	Electric Box	1
20	Terminal Board	1
21	Tube sensor	1
22	Transformer	1
23	Electric Box Cover	1
24	Room sensor	1
25	Tube sensor	1
26	Main PCB	1
27	Capacitor	1
28	Remote Controller	1
29	Heat exchanger	1
30	Water Pump	1
31	Water Level Switch	1
32	Pump Drainpipe	1
33	Right Side Plate	1
34	Pump Cover Board	1

(3) FP-51XD/A-K, FP-68XD/A-K

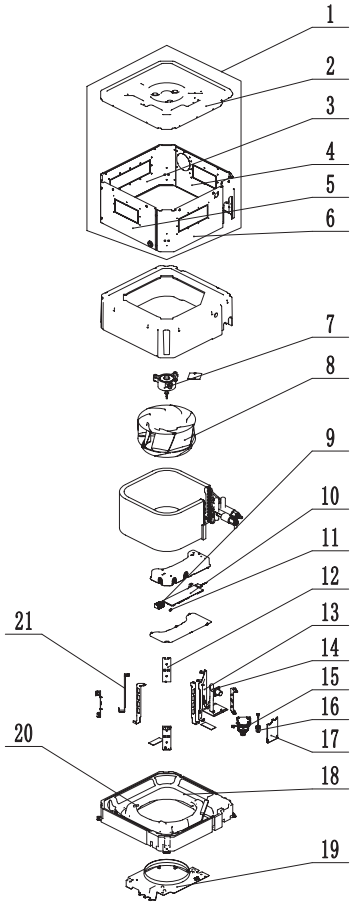


No.	Name	Quantity
1	Rear Grill	1
2	Fan Motor	1
3	Water Tray Assy	1
4	Water Pump	1
5	Supporter	1
6	Liquid Level Switch	1

No.	Name	Quantity
7	Pump Drainpipe	1
8	Water Pump Assy	1
9	Right Side Plate Sub-Assy	2
10	Bottom Foam Assy	1
11	Base Plate Assy	1
12	Body Installing Support	4
13	Left Side Plate Sub-Assy	1
14	Electric Box Assy	1
15	Terminal Board	1
16	Breadboard Holder	1
17	Main Board	1
18	Capacitor CBB61	1
19	Transformer	1
20	Front Side Plate Sub-Assy	1
21	Drain Hose Sub-Assy	1
22	Room Sensor	1
23	Temperature Sensor	1
24	Remote Controller	1
25	Surface-Cooler Assy	1
26	Supporter(Evaporator)	3
27	Centrifugal Fan	1
28	Diversion Circle	1

2.3 A series cassette type (DC)

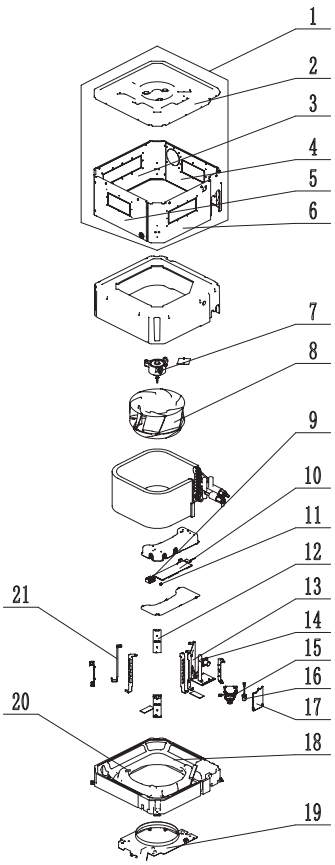
(1) FPD-51XD/A-S, FPD-68XD/A-S



No.	Name	Quantity
1	Shell Assy	1
2	Seat Board Sub-Assy	1
3	Side Plate	1
4	Side Plate	1
5	Side Plate	1
6	Side Plate	1
7	Brushless DC Motor	1
8	Centifugal Fan	1
9	Terminal Board	1
10	Main Board	1
11	Jumper	1
12	Mounting Rack Sub-Assy	4
13	Connection Sheet Sub-Assy	1
14	Drain Pipe	1
15	Water Pump	1
16	Liquid Level Switch	1
17	Sealplate	1
18	Water Tray Assy	1

No.	Name	Quantity
19	Flow Guide Loop	1
20	Temperature Sensor	1
21	Support	1

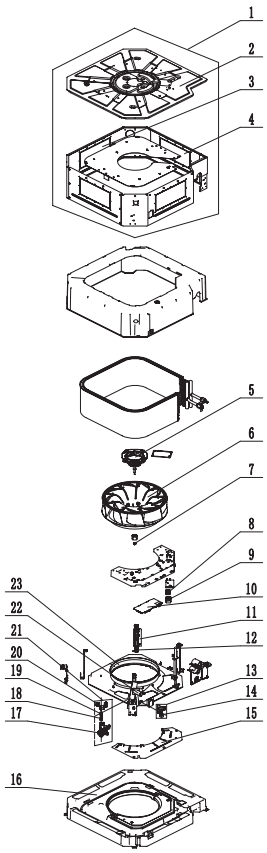
(2) FPD-85XD/A-S, FPD-102XD/A-S, FPD-119XD/A-S, FPD-136XD/A-S, FPD-170XD/A-S, FPD-204XD/A-S



No.	Name	Quantity
1	Shell Assy	1
2	Seat Board Sub-Assy	1
3	Side Plate	1
4	Side Plate	1
5	Side Plate	1
6	Side Plate	1
7	Brushless DC Motor	1
8	Centifugal Fan	1
9	Terminal Board	1
10	Main Board	1
11	Jumper	1
12	Mounting Rack Sub-Assy	4
13	Connection Sheet Sub-Assy	1
14	Drain Pipe	1
15	Water Pump	1

No.	Name	Quantity
16	Liquid Level Switch	1
17	Sealplate	1
18	Water Tray Assy	1
19	Flow Guide Loop	1
20	Temperature Sensor	1
21	Support	1

(3) FPD-238XD/A-S



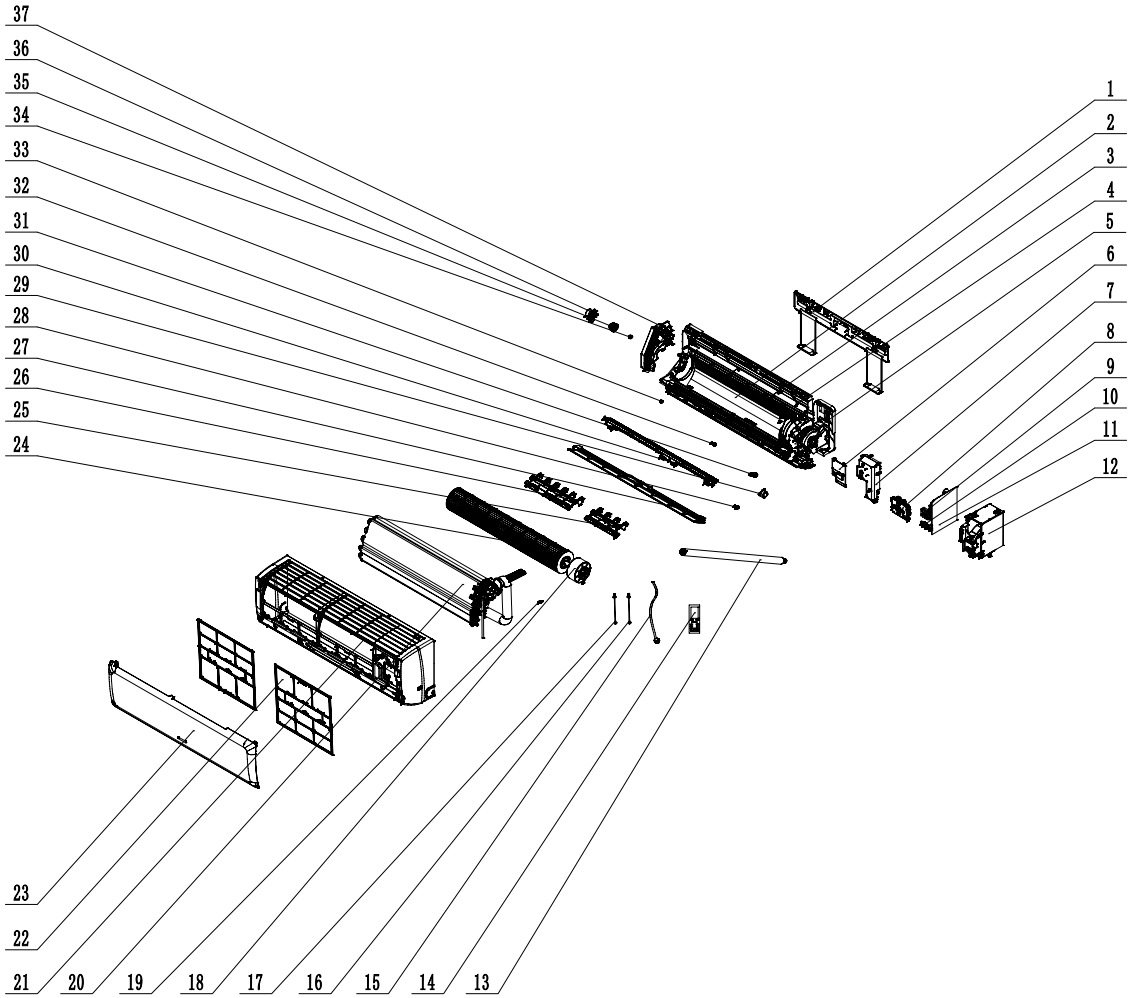
No.	Name	Quantity
1	Shell Assy	1
2	Seat Board Sub-Assy	1
3	Rear Side Plate	1
4	Right and Left Side Plate	2
5	Brushless DC Motor	1
6	Centrifugal Fan	1
7	Fan Fixer	1
8	Terminal Board	1
9	Terminal Board	1
10	Main Board	1
11	Body Installing Plate	4
12	Fixed Mount1	3
13	Liquid Level Switch Sub-assy	1

14	Water Level Switch	1
15	Electric Box Cover Plate	1
16	Water Tray Sub-Assy	1
17	Water Pump	1
18	Pump Gasket 2	1
19	Pump Gasket 1	1
20	Rubber Base	3
21	Water Pump Assy	1
22	Drainage Hose(Water Pump)	1
23	Diversion Circle	1

The above parameters are for reference only. The specific parameters shall be subject to the actual objects. If there is any change, no further notice will be given.

2.4 Wall mounted type (DC)

(1) FPD-34BB4/A-K, FPD-34BB6/A-K, FPD-51BB4/A-K, FPD-51BB6/A-K, FPD-68BB4/A-K, FPD-68BB6/A-K

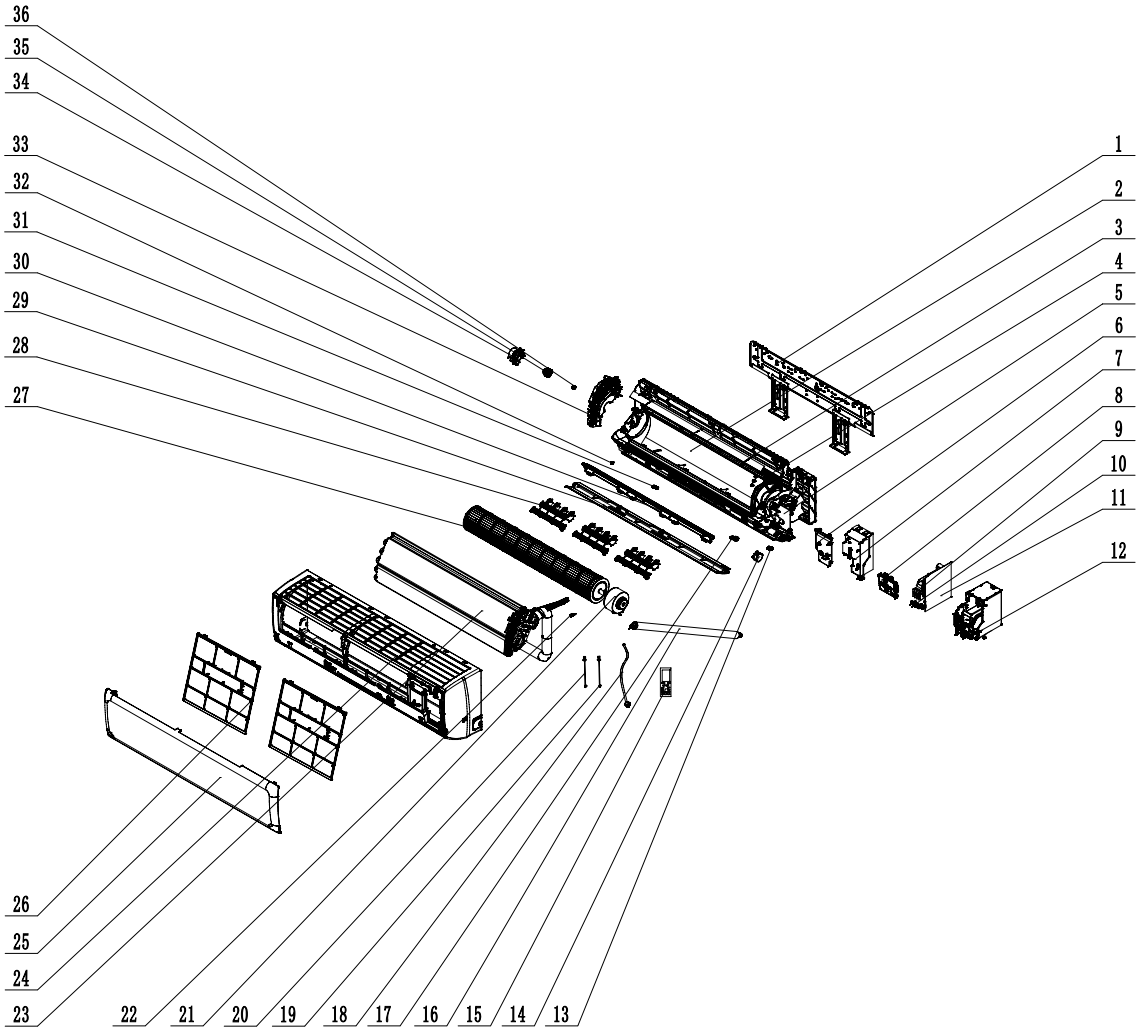


No.	Name	Quantity
1	Wall Mounting Frame	1

No.	Name	Quantity
2	Rear Case assy	1
3	Stainless steel clasp	3
4	Sensor Insert	1
5	Shield Cover of Electric Box Cover 2	1
6	Electric Box Cover2	1
7	Shield Cover of Electric Box Cover	1
8	Display Board	1
9	Terminal Board	1
10	Cable Clamp 2	1
11	Main Board	1
12	Electric Box	1
13	Drainage Hose	1
14	Remote Controller	1
15	Power Cord	1
16	Temperature Sensor	1
17	Temperature Sensor	1
18	Fan Motor	1
19	Air relief valve core	1
20	Surface-Cooler Assy	1
21	Front Case Assy	1
22	Filter Sub-Assy	2
23	Front Panel	1
24	Cross Flow Fan	1
25	Air Louver 2	1
26	Air Louver 1	1
27	Guide Louver	1
28	Crank	1
29	Stepping Motor	1
30	Helicoid Tongue	1
31	Rubber Plug (Water Tray)	1
32	Axile Bush	1
33	Left Axile Bush	1
34	Fan Bearing	1
35	O-Gasket of Cross Fan Bearing	1
36	Ring of Bearing	1
37	Evaporator Support	1

Note: The data in the table above is just for reference. We reserve the right to change design and construction specifications at any time without notice.

(2) FPD-85BB4/A-K, FPD-85BB6/A-K

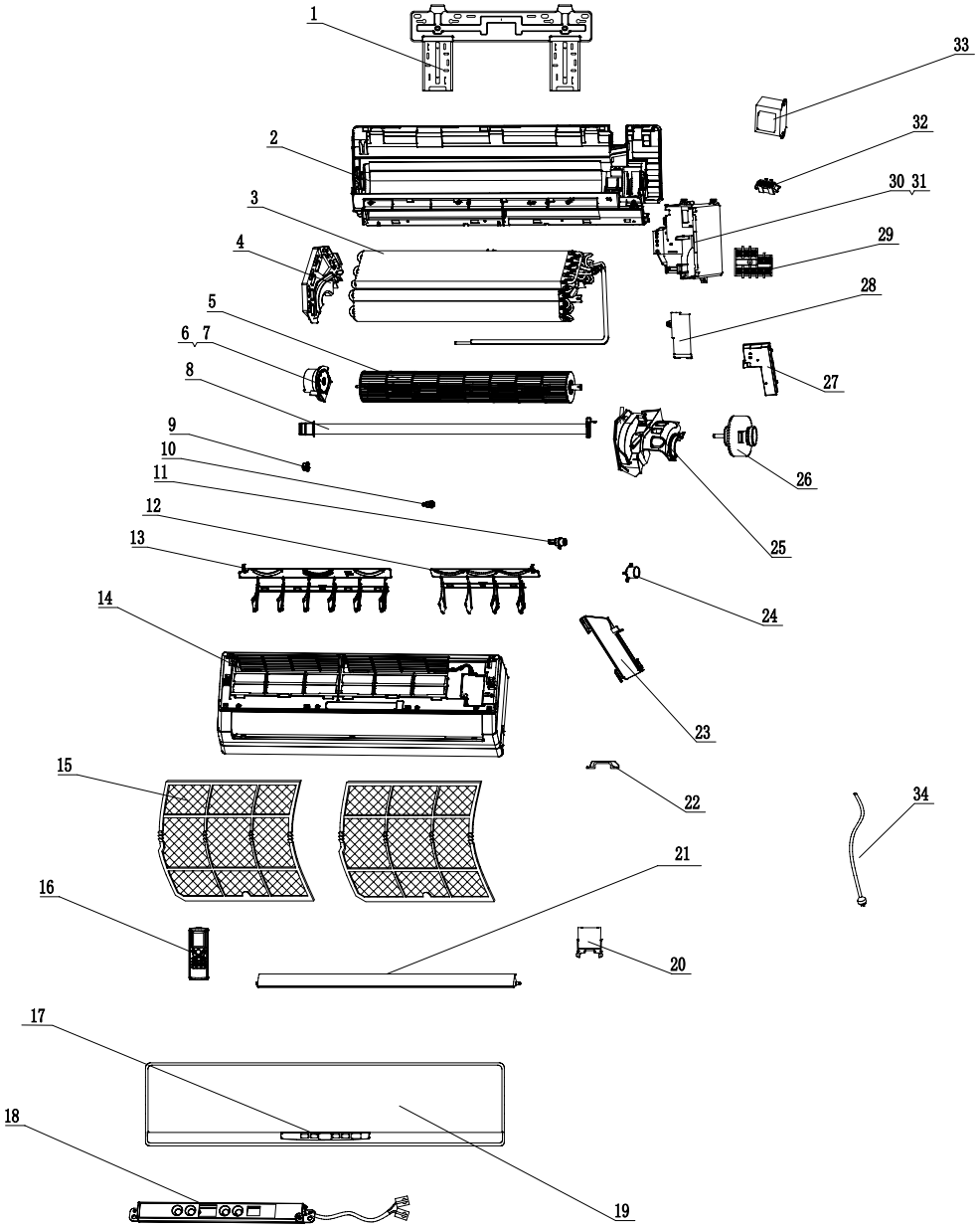


No.	Name	Quantity
1	Wall Mounting Frame	1
2	Rear Case	1
3	Stainless steel clasp	3
4	Sensor Insert	1
5	Shield Cover of Electric Box Cover 2	1
6	Electric Box Cover2	1
7	Shield Cover of Electric Box Cover	1
8	Display Board	1
9	Terminal Board	1
10	Cable Clamp 2	1
11	Main Board	1
12	Electric Box	1
13	Crank	1
14	Stepping Motor	1

No.	Name	Quantity
15	Remote Controller	1
16	Drainage Hose	1
17	Rubber Plug (Water Tray)	1
18	Power Cord	1
19	Temperature Sensor	1
20	Temperature Sensor	1
21	Fan Motor	1
22	Air relief valve core	1
23	Surface-Cooler Assy	1
24	Front Case Assy	1
25	Front Panel	1
26	Filter Sub-Assy	2
27	Cross Flow Fan	1
28	Air Louver(Manual)	3
29	Guide Louver	1
30	Helicoid Tongue	1
31	Axile Bush	2
32	Left Axile Bush	1
33	Evaporator Support	1
34	Ring of Bearing	1
35	O-Gasket of Cross Fan Bearing	1
36	Fan Bearing	1

2.5 Wall mounted type (AC)

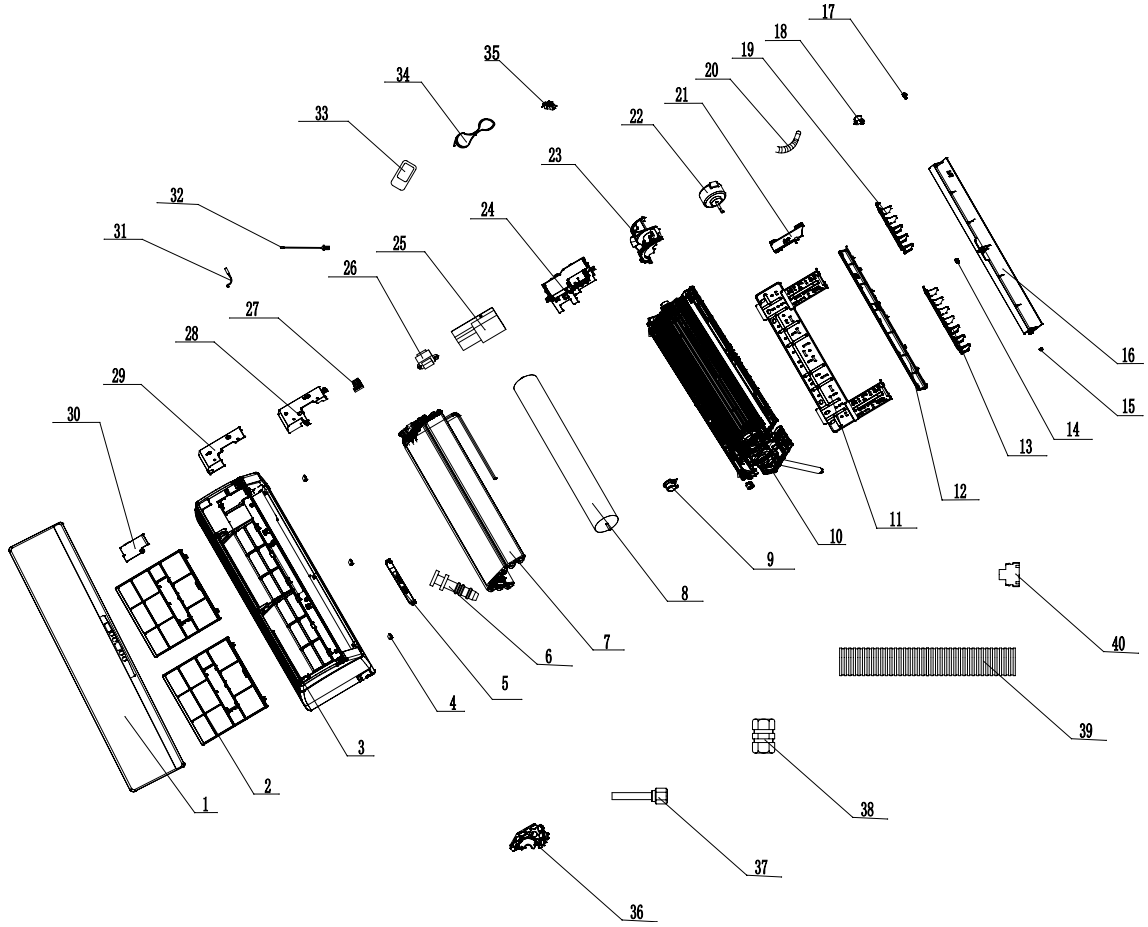
(1) FP-34BA2/D-K(E), FP-34BA3/D-K(E), FP-34BA4/D-K(E), FP-51BA2/D-K(E), FP-51BA3/D-K(E), FP-51BA4/D-K(E), FP-34BA2/D-K, FP-34BA3/D-K, FP-34BA4/D-K, FP-51BA2/D-K, FP-51BA3/D-K, FP-51BA4/D-K, FP-34BB3/A-K(E), FP-51BB3/A-K(E), FP-34BA2/B-D, FP-34BA3/B-D, FP-51BA2/B-D, FP-51BA3/B-D



No.	Name	Quantity
1	Wall-Mounting Frame	1
2	Rear Case	1
3	Evaporator Assy	1
4	Evaporator Support	1
5	Cross Flow Fan	1

No.	Name	Quantity
6	Ring of Bearing	1
7	Bearing cushion rubber base	1
8	Volute tongue	1
9	Left Axile Bush	1
10	Crank	1
11	Axile Bush	1
12	Swing Louver1	1
13	Swing Louver2	1
14	Front Case	1
15	Filter	2
16	Remote Control	1
17	Decorate Piece	1
18	Display Board	1
19	Front Panel	1
20	Screw Cover	1
21	Guide Louver	1
22	Wire Clamp	1
23	Rear Clamp	1
24	Motor MP24AA	1
25	Motor Clamp	1
26	Motor	1
27	Electric Box Cover 1	1
28	Covering Plate2	1
29	Terminal Board	1
30	Electric Box	1
31	Main PCB Z5P251A	1
32	Jumping Connector	1
33	Transformer 48X26G	1
34	Power Cable	1

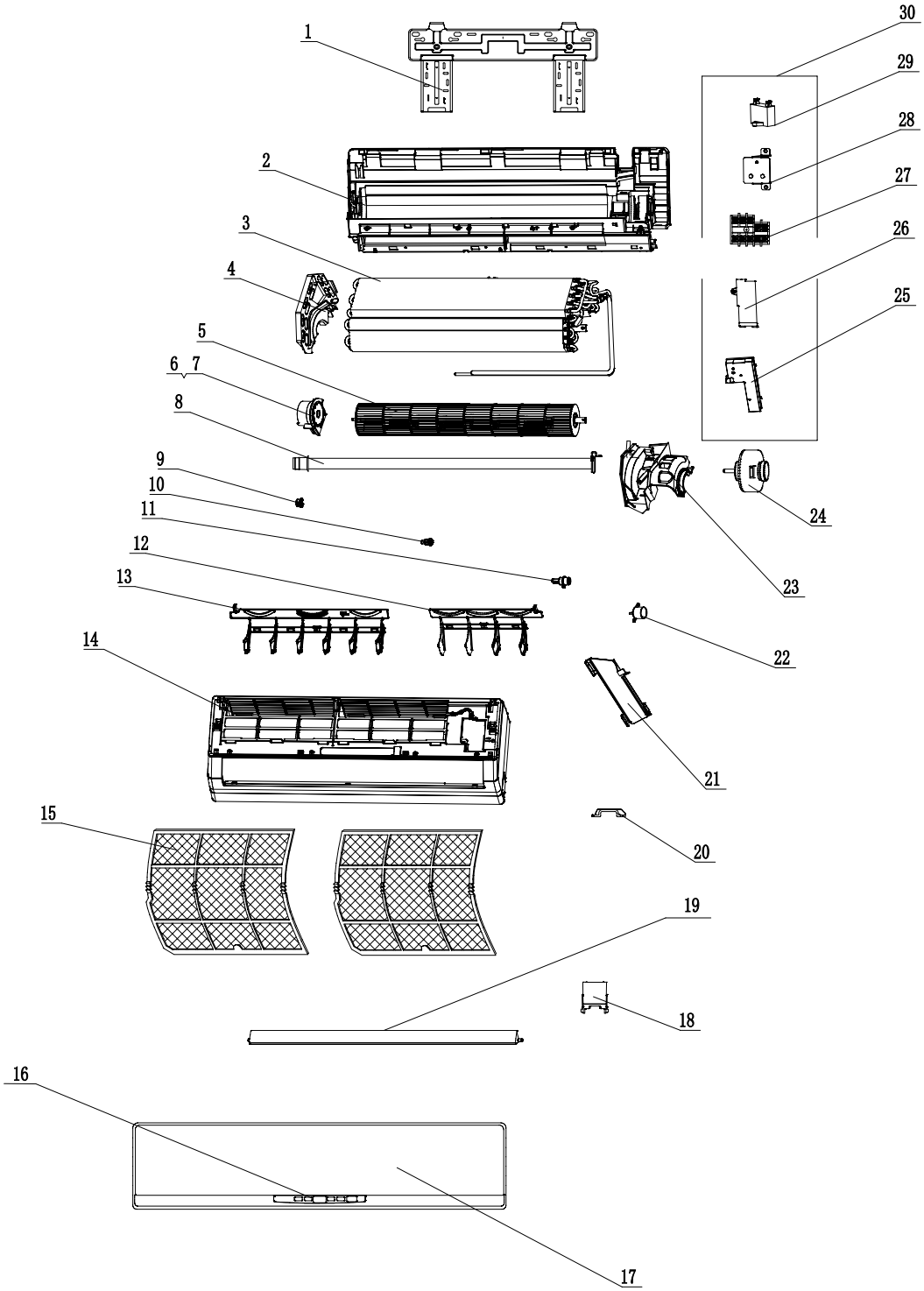
(2) FP-68BA2/D-K(E), FP-68BA3/D-K(E), FP-68BA4/D-K(E), FP-85BA2/D-K(E), FP-85BA3/D-K(E), FP-85BA4/D-K(E), FP-68BA2/D-K, FP-68BA3/D-K, FP-68BA4/D-K, FP-85BA2/D-K, FP-85BA3/D-K, FP-85BA4/D-K, FP-68BB3/A-K(E), FP-85BB3/A-K(E), FP-68BA2/B-D, FP-68BA3/B-D, FP-85BA2/B-D, FP-85BA3/B-D, FP-102BA2/B-D, FP-102BA3/B-D



No.	Name	Quantity
1	Front Panel Assy	1
2	Filter Sub-Assy	2
3	Front Case	1
4	Screw Cover	1
5	Display Board	1
6	Rubber Plug (Water Tray)	1
7	Evaporator Assy	1
8	Cross Flow Fan	1
9	Ring of Bearing	1
10	Rear Case Assy	1
11	Wall Mounting Frame	1
12	Helicoid tongue	1
13	Air Louver 1	1
14	Axile Bush	1
15	Left Axile Bush	1
16	Guide Louver	1
17	crank	1
18	Step Motor	1

No.	Name	Quantity
19	Air Louver 2	1
20	Drainage hose	1
21	Pipe Clamp	1
22	Fan Motor	1
23	Motor Press Plate	1
24	Electric Box	1
25	Main Board	1
26	Transformer	1
27	Terminal Board	1
28	Electric Box Cover1	1
29	Shield cover of Electric Box	1
30	Electric Box Cover2	1
31	Tube Sensor	1
32	Ambient Temperature Sensor	1
33	Remote Controller	1
34	Power Cord	1
35	Jumping Connector	1

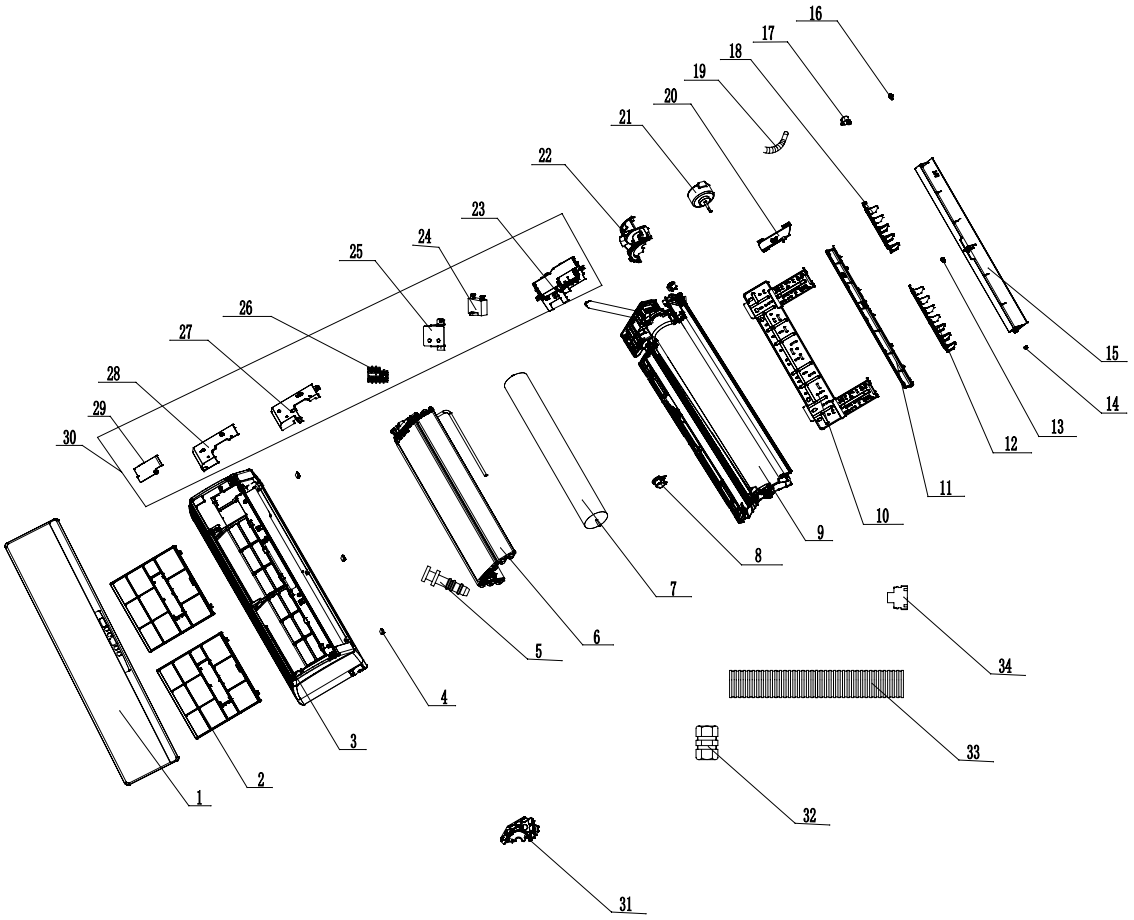
(3) FP-34BA3/B-K, FP-51BA3/B-K



No.	Name	Quantity
1	Wall-Mounting Frame	1
2	Rear Case	1
3	Surface-Cooler Assy	1

No.	Name	Quantity
4	Evaporator Support	1
5	Cross Flow Fan	1
6	Ring of Bearing	1
7	Bearing cushion rubber base	1
8	Volute Tongue	1
9	Left Axile Bush	1
10	Crank	1
11	Axile Bush	1
12	Swing Louver1	1
13	Swing Louver2	1
14	Front Case	1
15	Filter Assy	2
16	Decorate Piece	1
17	Front Panel	1
18	Guide Louver	1
19	Screw Cover	1
20	Wire Clamp	1
21	Rear Clamp	1
22	Stepping Motor	1
23	Motor Clamp	1
24	Motor	1
25	Electric Box Cover 1	1
26	Electric Box Cover 2	1
27	Terminal Board	1
28	Installation Supporting Frame	1
29	Capacitor	1
30	Electric Box	1

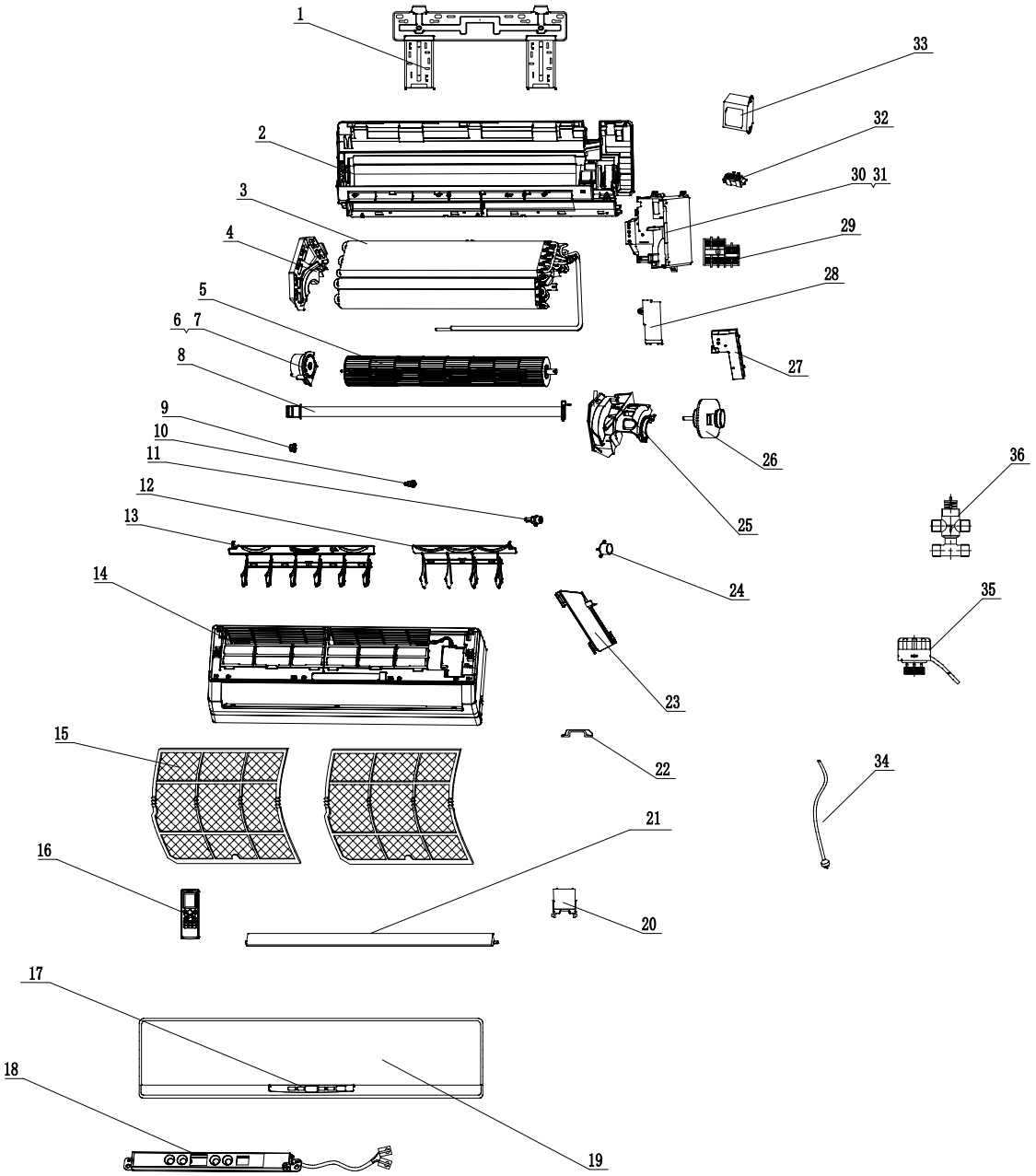
(4) FP-68BA3/B-K, FP-85BA3/B-K



No.	Name	Quantity
1	Front Panel Assy	1
2	Filter Sub-Assy	1
3	Front Case	1
4	Screw Cover	1
5	Rubber Plug (Water Tray)	1
6	Surface Cooler Assy	1
7	Cross Flow Fan	1
8	Ring of Bearing	1
9	Rear Case assy	1
10	Wall Mounting Frame	1
11	Volute tongue	1
12	Air Louver 1	1
13	Axile Bush	1
14	Left Axile Bush	1
15	Guide Louver	2
16	Crank	1
17	Stepping Motor	1
18	Swing Louver2	1

No.	Name	Quantity
19	Drainage hose	1
20	Rear Clamp	1
21	Motor	1
22	Motor Press Plate	1
23	Electric Box	1
24	Capacitor	1
25	Installation Supporting Frame	1
26	Terminal Board	1
27	Electric Box Cover 1	1
28	Shield cover of Electric Box	1
29	Electric Box Cover 2	1
30	Electric Box Assy	1
31	Evaporator Angular	1
32	Pipe Connection Assembly	1
33	Blow Molding Drainage Pipe	1

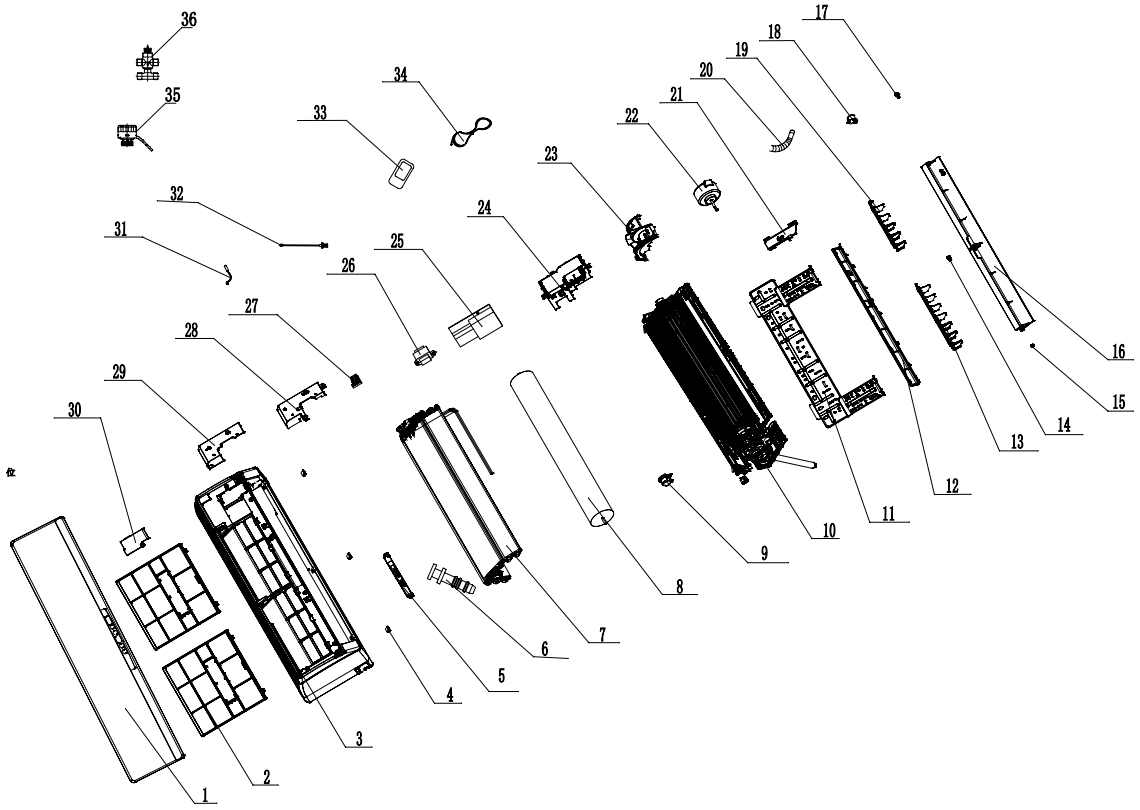
(5) FP-51BWA2/A-K(E), FP-51BWA3/A-K(E)



No.	Name	Quantity
1	Wall-Mounting Frame	1
2	Rear Case	1
3	Evaporator Assy	1
4	Evaporator Support	1
5	Cross Flow Fan	1
6	Ring of Bearing	1
7	Bearing cushion rubber base	1
8	Volute tongue	1

No.	Name	Quantity
9	Left Axile Bush	1
10	Crank	1
11	Axile Bush	1
12	Swing Louver1	1
13	Swing Louver2	1
14	Front Case	1
15	Filter	2
16	Remote Control	1
17	Decorate Piece	1
18	Display Board	1
19	Front Panel	1
20	Screw Cover	1
21	Guide Louver	1
22	Wire Clamp	1
23	Rear Clamp	1
24	Motor MP24AA	1
25	Motor Clamp	1
26	Motor	1
27	Electric Box Cover 1	1
28	Covering Plate2	1
29	Terminal Board	1
30	Electric Box	1
31	Main PCB Z5P251A	1
32	Jumping Connector	1
33	Transformer 48X26G	1
34	Power Cable	1

(6) FP-85BWA2/A-K(E), FP-85BWA3/A-K(E)



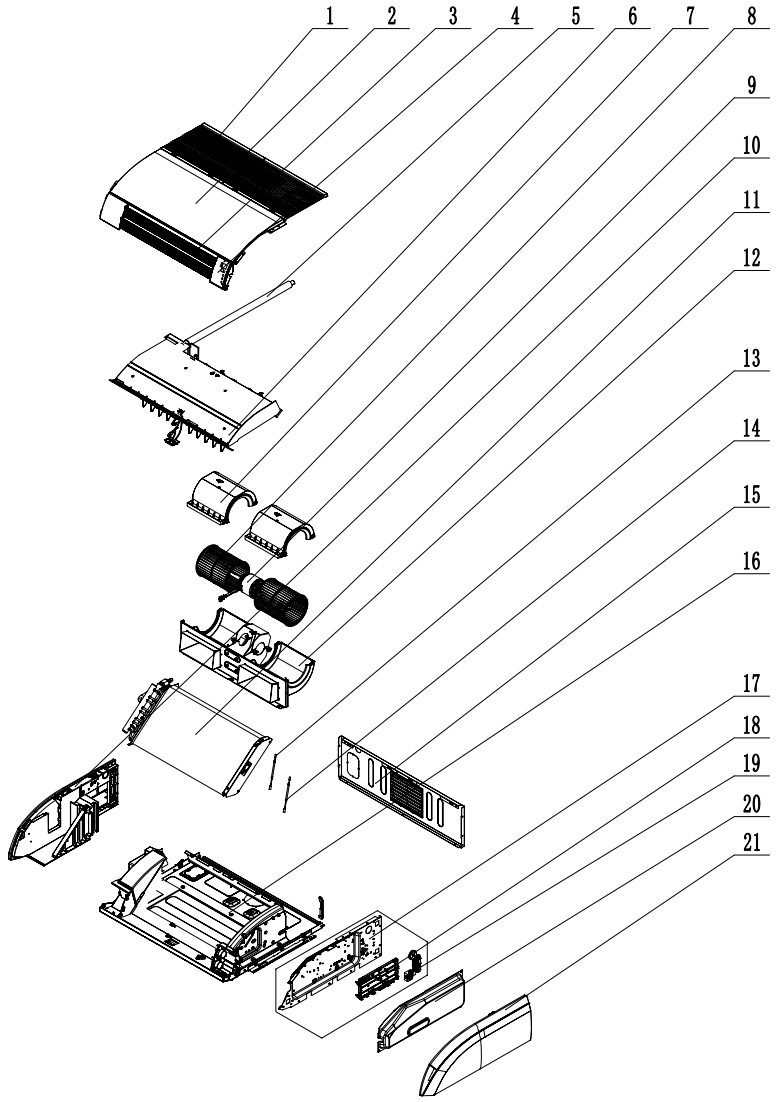
No.	Name	Quantity
1	Front Panel Assy	1
2	Filter Sub-Assy	2
3	Front Case	1
4	Screw Cover	1
5	Display Board	1
6	Rubber Plug (Water Tray)	1
7	Evaporator Assy	1
8	Cross Flow Fan	1
9	Ring of Bearing	1
10	Rear Case Assy	1
11	Wall Mounting Frame	1
12	Helicoid tongue	1
13	Air Louver 1	1
14	Axile Bush	1
15	Left Axile Bush	1
16	Guide Louver	1
17	crank	1
18	Stepping Motor	1
19	Air Louver 2	1
20	Drainage hose	1

No.	Name	Quantity
21	Pipe Clamp	1
22	Fan Motor	1
23	Motor Press Plate	1
24	Electric Box	1
25	Main Board	1
26	Transformer	1
27	Terminal Board	1
28	Electric Box Cover1	1
29	Shield cover of Electric Box	1
30	Electric Box Cover2	1
31	Tube Sensor	1
32	Ambient Temperature Sensor	1
33	Remote Controller	1
34	Power Cord	1

Note: The data in the table above is just for reference. We reserve the right to change design and construction specifications at any time without notice.

2.6 A series floor-ceiling type (DC)

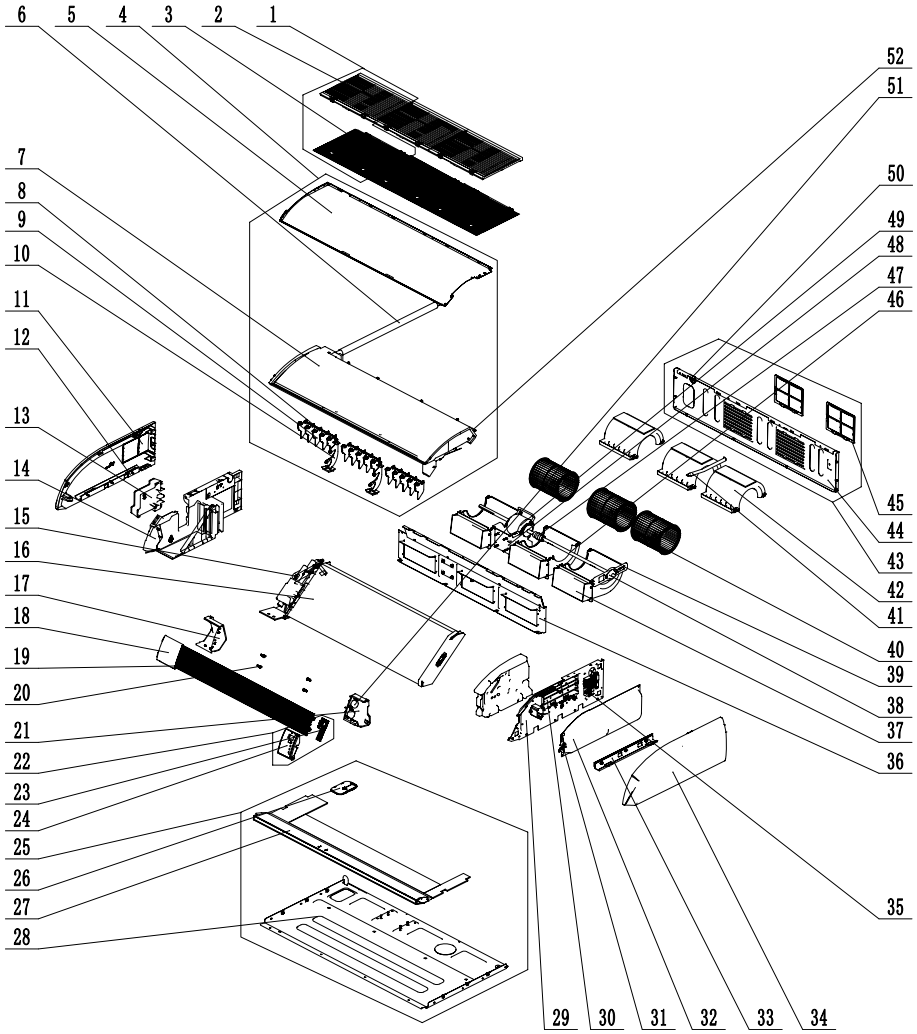
(1) FPD-34ZD/A-S, FPD-51ZD/A-S, FPD-68ZD/A-S, FPD-85ZD/A-S



No.	Name	Quantity
1	FrontGrill	2
2	TopCover	1
3	GuideLouver	2
4	DisplayBoardAssy	1
5	DrainagePipeSub-assy	1
6	WaterTray	1
7	PropellerHousing(Upper)	2
8	CentifugalFan	2
9	Brushless DC Motor	1
10	FrontPanel	1
11	Surface-CoolerAssy	1
12	PropellerHousing(Lower)	2

No.	Name	Quantity
13	TemperatureSensor	1
14	TemperatureSensor	1
15	RearSidePlateSub-Assy	1
16	BasePlateAssy	1
17	ElectricBoxSub-Assy	1
18	MainBoard	1
19	TerminalBoard	1
20	ElectricBoxCover	1
21	LeftSidePlate	1

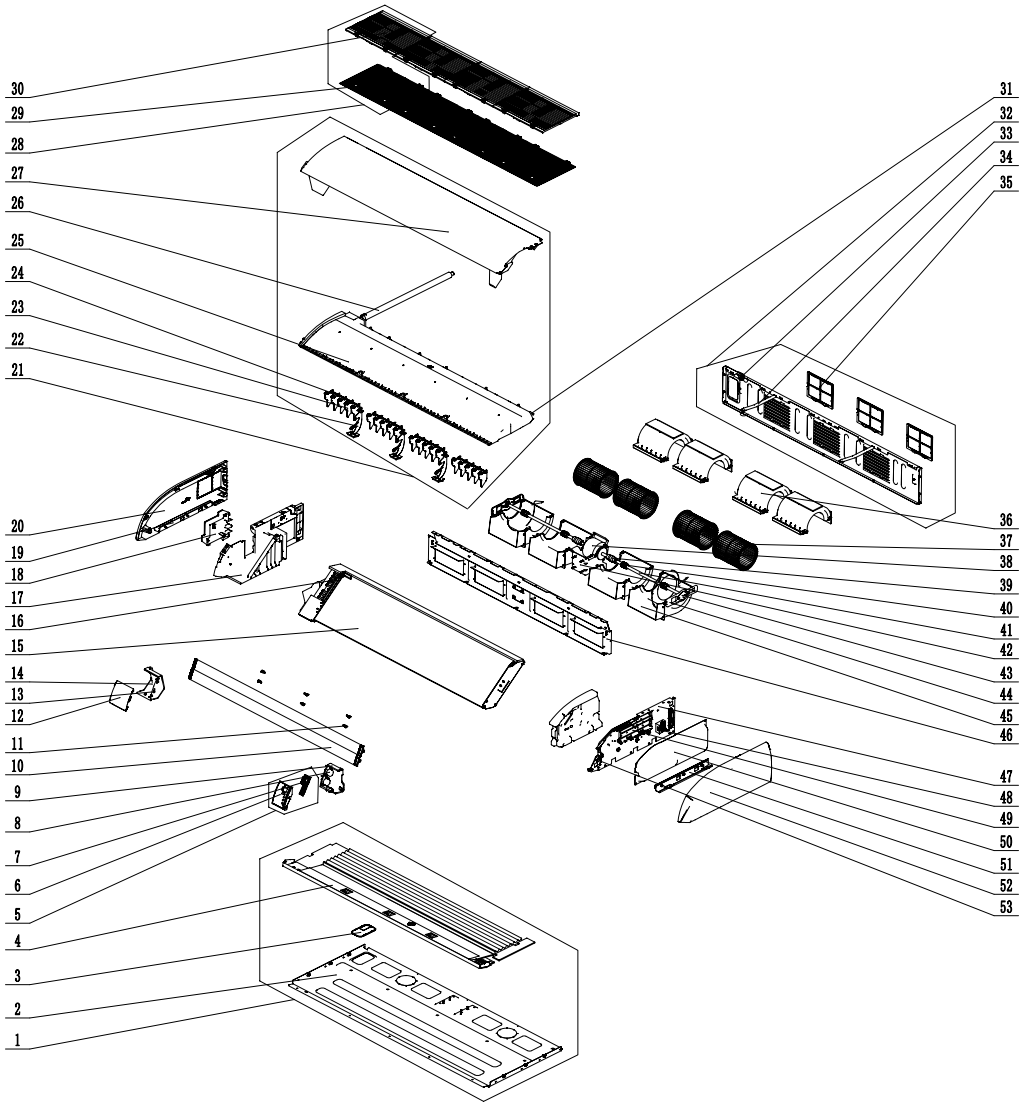
(2) PD-102ZD/A-S, FPD-119ZD/A-S, FPD-136ZD/A-S



No.	Name	Quantity
1	Front Grill	3
2	Front Grill	3
3	Filter Sub-Assy	3
4	Water Tray Assy	1
5	Top Cover	1

No.	Name	Quantity
6	Drainage Pipe Sub-assy	1
7	Water Tray	1
8	Swing Lever	3
9	Air Louver	15
10	Support	2
11	Right Side Plate	1
12	Installation Supporting Frame(right)	1
13	Cover Plate(Inlet and outlet Pipe)	1
14	Right Side Plate	1
15	Temperature Sensor	1
16	Surface-Cooler Assy	1
17	Mounting Rack Sub-Assy	1
18	Front Panel	1
19	Guide Louver	2
20	Rotating Shaft 3	4
21	Mounting Rack Sub-Assy	1
22	Display Board Assy	1
23	Display Board	1
24	Membrane	1
25	Base Plate Assy	1
26	Cover Plate(Inlet and outlet Pipe)	1
27	Connection Sheet	1
28	Seat Board Sub-Assy	1
29	Electric Box Sub-Assy	1
30	Main Board	1
31	Location Limited Plate	1
32	Electric Box Cover	1
33	Installation Supporting Frame(left)	1
34	Left Side Plate	1
35	Terminal Board	1
36	Clapboard Sub-Assy	1
37	Propeller Housing(Lower)	3
38	Support Of Motor Bearing	1
39	Supporter	1
40	Centifugal Fan	3
41	Location Limited Plate	1
42	Propeller Housing(Upper)	3
43	Rear Side Plate Sub-Assy	1
44	Base plate 2	1
45	Filter Sub-Assy	2
46	Roller Wheel	1
47	Joint Slack	1
48	Motor Support Sub-Assy	1
49	Brushless DC Motor	1
50	Adhesive Cover (Drainage Pipe)	1
51	Stepping Motor	2
52	Temperature Sensor	1

(3) FPD-170ZD/A-S, FPD-204ZD/A-S



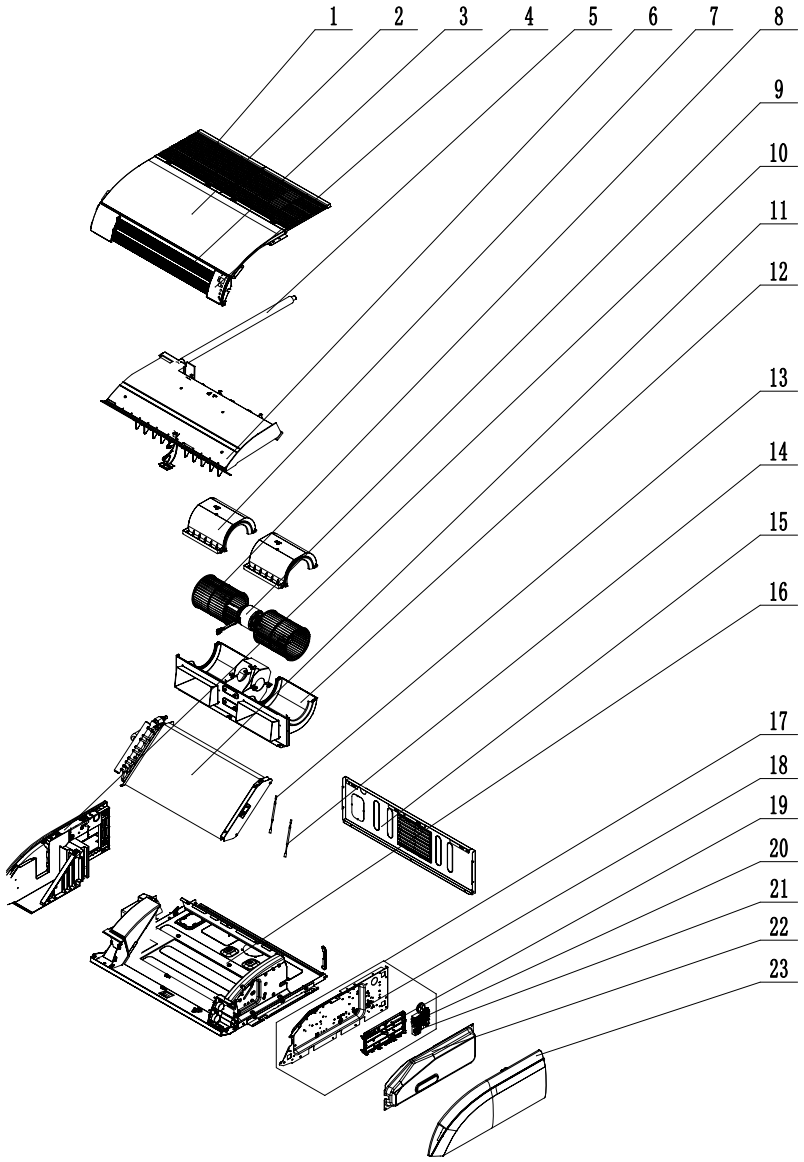
No.	Name	Quantity
1	Base Plate Assy	1
2	Seat Board Sub-Assy	1
3	Cover Plate(Inlet and outlet Pipe)	1
4	Connection Sheet	1
5	Display Board Assy	1
6	Membrane	1
7	Display Board	1
8	Stepping Motor	2
9	Mounting Rack Sub-Assy	1
10	Guide Louver	2
11	Rotating Shaft 3	6
12	Front Panel	1
13	AXILE BUSH	2
14	Mounting Rack Sub-Assy	1

No.	Name	Quantity
15	Surface-Cooler Assy	1
16	Temperature Sensor	1
17	Right Side Plate	1
18	Cover Plate(Inlet and outlet Pipe)	1
19	Installation Supporting Frame(right)	1
20	Right Side Plate	1
21	Water Tray Assy	1
22	Support	3
23	Air Louver	20
24	Swing Lever	4
25	Water Tray	1
26	Drainage Pipe Sub-assy	1
27	Top Cover	1
28	Front Grill	4
29	Filter Sub-Assy	4
30	Front Grill	4
31	Temperature Sensor	1
32	Rear Side Plate Sub-Assy	1
33	Adhesive Cover (Drainage Pipe)	1
34	Location Limited Plate	2
35	Filter Sub-Assy	3
36	Propeller Housing(Upper)	4
37	Centifugal Fan	4
38	Brushless DC Motor	1
39	Joint Slack	2
40	Fan Nesting	4
41	Roller Wheel	2
42	Motor Support Sub-Assy	1
43	Support Of Motor Bearing	2
44	Supporter	2
45	Propeller Housing(Lower)	4
46	Clapboard Sub-Assy	1
47	Electric Box Sub-Assy	1
48	Terminal Board	1
49	Main Board	1
50	Electric Box Cover	1
51	Installation Supporting Frame(left)	1
52	Left Side Plate	1
53	Location Limited Plate	1

The above parameters are for reference only. The specific parameters shall be subject to the actual objects. If there is any change, no further notice will be given.

2.7 B series floor-ceiling type (AC)

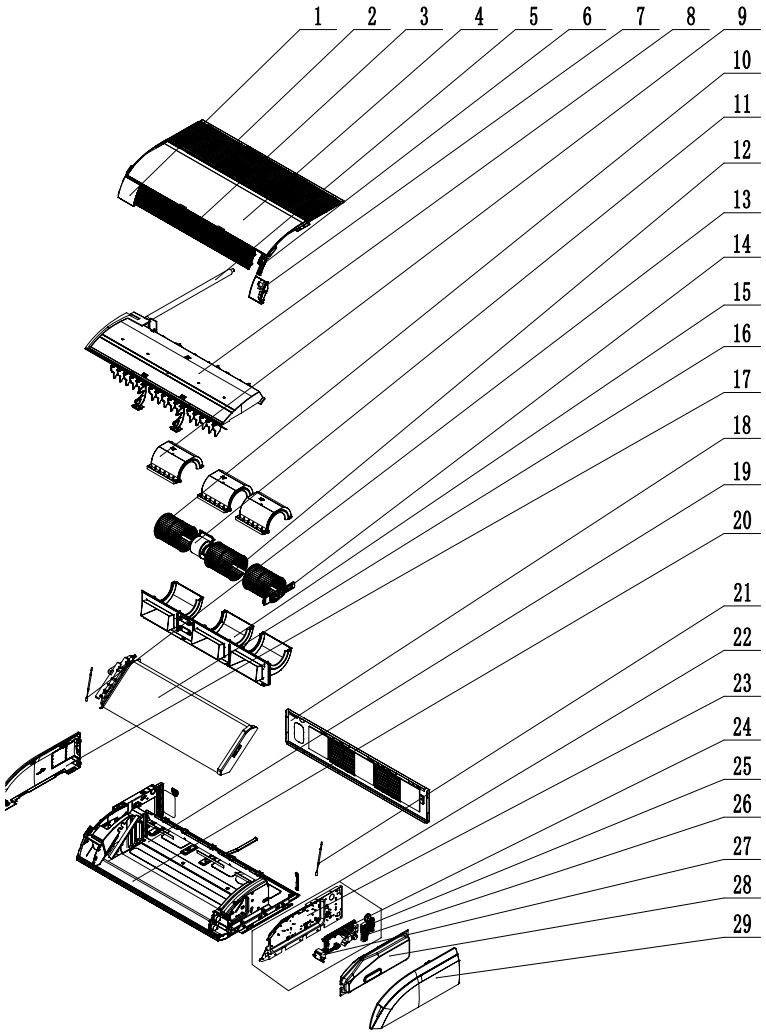
(1) FP-34ZD/B-K, FP-51ZD/B-K, FP-68ZD/B-K, FP-85ZD/B-K



No.	Name	Quantity
1	FrontGrill	2
2	TopCover	1
3	GuideLouver	2
4	DisplayBoardAssy	1
5	DrainagePipeSub-assy	1
6	WaterTray	1
7	PropellerHousing(Upper)	2
8	CentifugalFan	2
9	FanMotor	1
10	FrontPanel	1

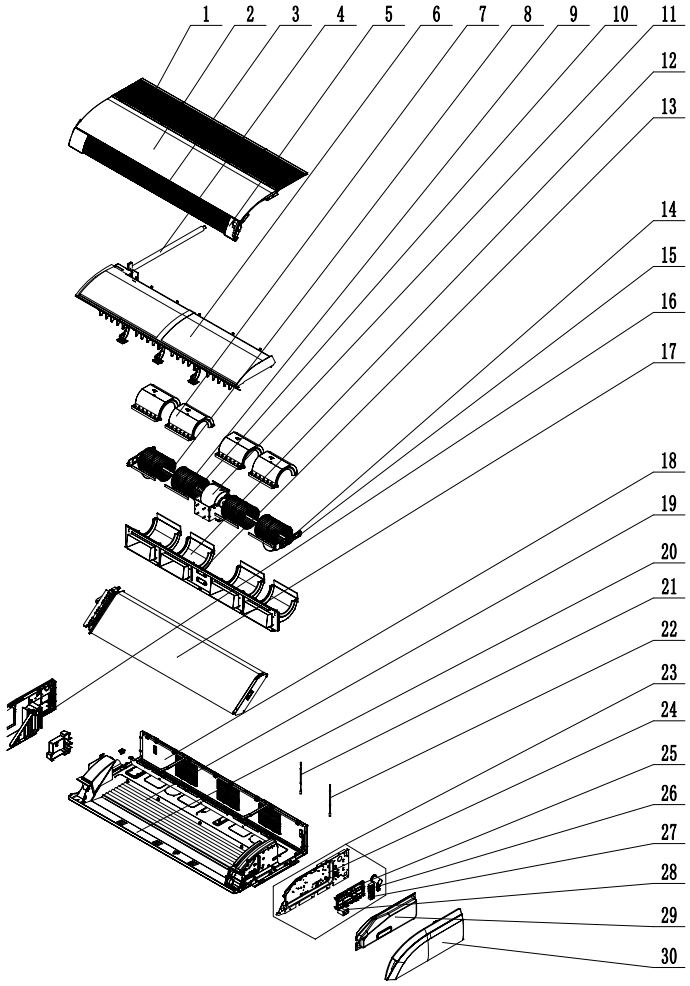
No.	Name	Quantity
11	Surface-CoolerAssy	1
12	PropellerHousing(Lower)	2
13	TemperatureSensor	1
14	TemperatureSensor	1
15	RearSidePlateSub-Assy	1
16	BasePlateAssy	1
17	ElectricBoxAssy	1
18	ElectricBoxSub-Assy	1
19	MainBoard	1
20	TerminalBoard	1
21	TerminalBoard	1
22	ElectricBoxCover	1
23	LeftSidePlate	1

(2) FP-102ZD/B-K, FP-119ZD/B-K, FP-136ZD/B-K



No.	Name	Quantity
1	Front Panel	1
2	Front Grill	3
3	Guide Louver	2
4	Top Cover	1
5	Drainage Pipe Sub-assy	1
6	Display Board	1
7	Display Board Assy	1
8	Water Tray Assy	1
9	Propeller Housing(Upper)	3
10	Centifugal Fan	3
11	Stepping Motor	2
12	Roller Wheel	1
13	Temperature Sensor	1
14	Bearing Holder Sub-assy	1
15	Propeller Housing(Lower)	3
16	Surface-Cooler Assy	1
17	Right Side Plate	1
18	Rear Side Plate Sub-Assy	1
19	Seat Board Sub-Assy	1
20	Connection Sheet	1
21	Temperature Sensor	1
22	Electric Box Assy	1
23	Electric Box Sub-Assy	1
24	Main Board	1
25	Terminal Board	1
26	Terminal Board	1
27	Capacitor CBB61S	1
28	Electric Box Cover	1
29	Left Side Plate	1

(3) FP-170ZD/B-K, FP-204ZD/B-K



No.	Name	Quantity
1	Front Grill	4
2	Top Cover	1
3	Guide Louver	2
4	Drainage Pipe Sub-assy	1
5	Display Board Assy	1
6	Water Tray Assy	1
7	Propeller Housing(Upper)	4
8	Roller Wheel	2
9	Centifugal Fan	4
10	Joint Slack	2
11	Fan Motor	1
12	Propeller Housing(Lower)	4
13	Clapboard Sub-Assy	1
14	Support Of Motor Bearing	2
15	Bearing Holder Sub-assy	2
16	Front Panel	1

No.	Name	Quantity
17	Surface-Cooler Assy	1
18	Rear Side Plate Sub-Assy	1
19	Seat Board Sub-Assy	1
20	Connection Sheet	1
21	Temperature Sensor	1
22	Temperature Sensor	1
23	Electric Box Assy	1
24	Electric Box Sub-Assy	1
25	Main Board	1
26	Terminal Board	1
27	Terminal Board	1
28	Capacitor	1
29	Electric Box Cover	1
30	Left Side Plate	1

The above parameters are for reference only. The specific parameters shall be subject to the actual objects. If there is any change, no further notice will be given.

UNIT INSTALLATION

1 Precautions for engineering work

(1) The unit should be installed in accordance with instructions covered in the user's manual and make sure enough maintenance space is reserved around the unit. The air inlet and outlet should be far away from obstacles, so that air flow can go through everywhere of the room. When the heat exchanging room is too small, it would lead to decreased capacity.

(2) The unit should be installed where no smog, corrosive and inflammable gases are present, otherwise the unit would fail to run normally or its service life would be shortened.

(3) Fit valves to entering and leaving water pipes and wrap units with a dust-proof cover.

(4) The flexible connectors or the movable joints should be used for connection of the water inlet and outlet pipes. Moreover, the water filters should be installed at the water inlet pipe.

(5) The condensate pipe should not be blocked with a grade of slope no less than 5%.

(6) A filter should be installed at the return air inlet and cleaned periodically so as to not affect the heat exchanging efficiency.

(7) For initial operation, open the exhaust valve at the return water pipe to expel air inside coils. Then, close it until water flows out.

(8) The unit should be entirely maintained every 2~3 years. Water scale inside coils should be removed by chemical method so as to guarantee the heat exchanging performance.

(9) The air outlet and the duct should be connected with the flexible connector and shall not bear the weight of valves, pipes and other devices.

(10) Wiring arrangement should be performed in accordance with the safety standards for electric devices and local relative regulations. Special electric circuits should be used. When capacity of the electric circuits is poor or electric operation is improper, it would lead to electric shocks or fire hazards etc.

(11) The earth leakage circuit breaker should be installed for each installation location. The unit should be grounded; otherwise it would lead to electric shocks.

Warning
Installation and commissioning work must be performed by professional personnel. Improper installation would cause water leaks, electric shock and fire accidents.

2 Tools


Level meter

Measuring tape


Screw driver


Impact drill


Drill head


Electric drill


Electroprobe


Pipe pliers


Torque wrench


Open-end wrench


Inner hexagon spanner


Soldering appliance


Pipe cutter


Pipe expander


Pipe pliers


Pipe bender

Moreover, it is necessary to prepare commonly accessible tools including pipe pliers, screw drivers, rubber pads, rubber hammers, scissors, spanners, level bars, measuring tape, angle square, glue guns, brushes, ladders, pulleys.

3 Installation

3.1 Installation conditions

(1) There should be no direct sunlight.

(2) The hanger, ceiling and the building structure should be capable of supporting the weight of the unit.

(3) The drain pipe can be easily led out.

(4) The inlet and outlet air flow will not be blocked.

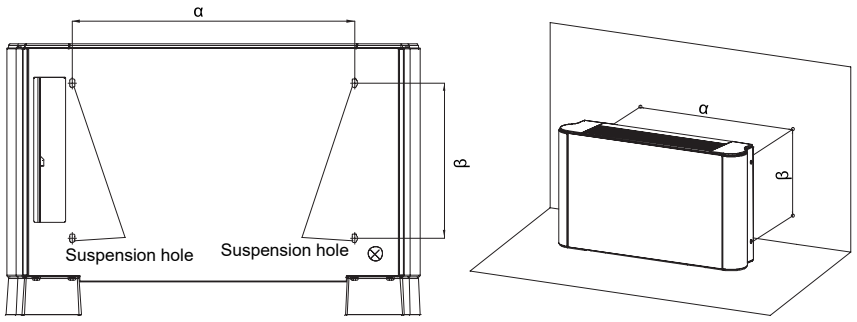
(5) There should be no inflammable and explosive substances.

(6) There should be no corrosive gas, heavy dust, salt fog, smog or moisture.

3.2 Unit installation

3.2.1 Vertical mounted exposed type

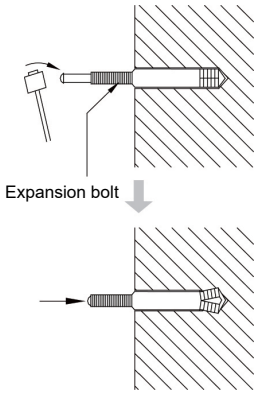
Drill four holes on the wall accordance with the piture and the table below.



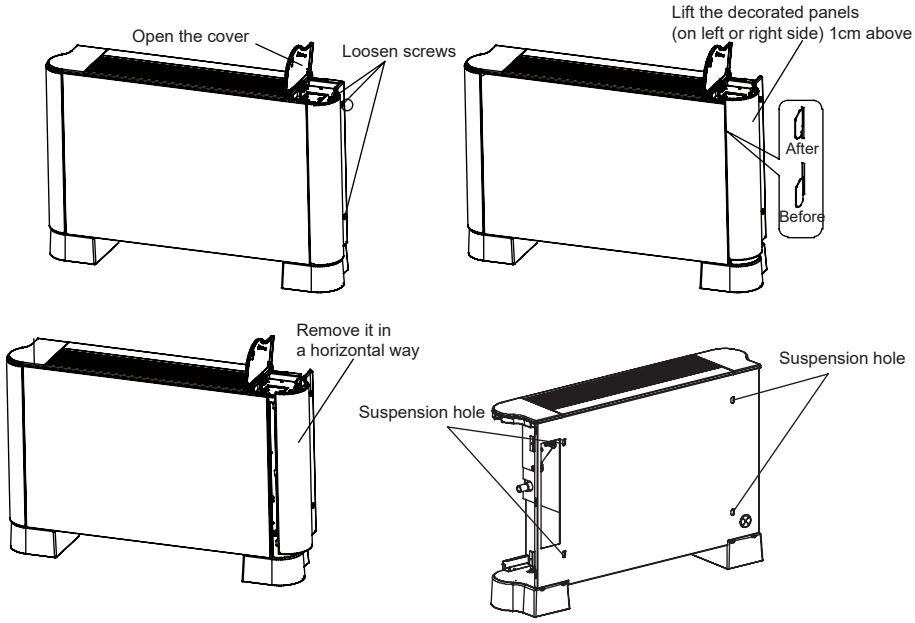
Unit: mm

Model	α	β
FP-22LM/D-K	555	390
FP-34LM/D-K		
FP-51LM/D-K	710	
FP-68LM/D-K		
FP-85LM/D-K		
FP-102LM/D-K	1010	
FP-119LM/D-K		
FP-136LM/D-K		
FP-170LM/D-K	1433	
FP-204LM/D-K		

Insert user-provided M10 expansion bolts into the holes on the wall and fix them as shown in the picture below.



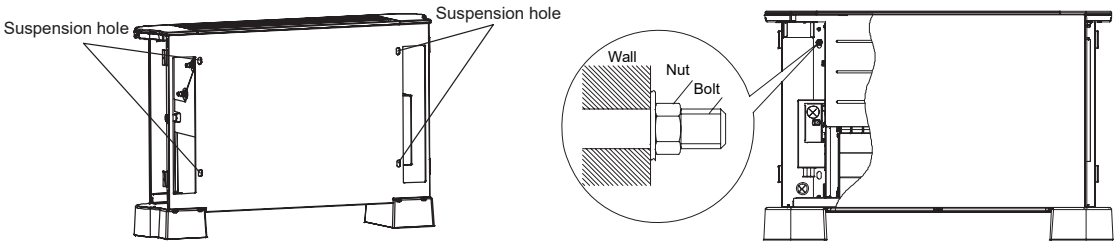
Open the cover. Loosen three screws and lift the decorated panels (on left or right side) 1cm above and remove them in a horizontal way.

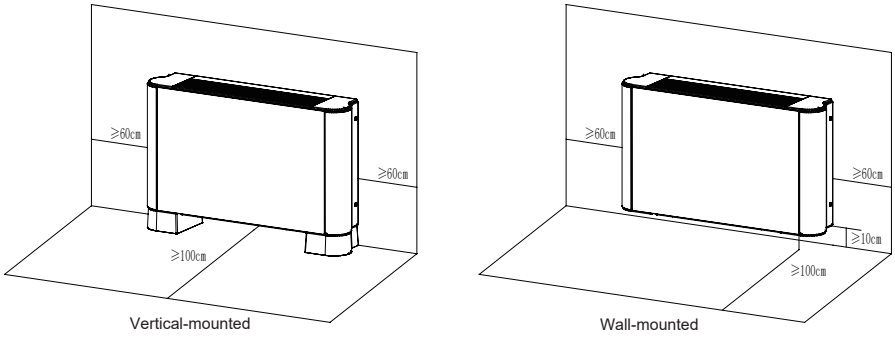


Let the suspension holes fit the expansion bolts so that the unit can be hung.

Regulate the unit position to slightly tilt the drain pipe and tighten bolts with nuts.

Use a level to indicate that the unit is flush with the ground.



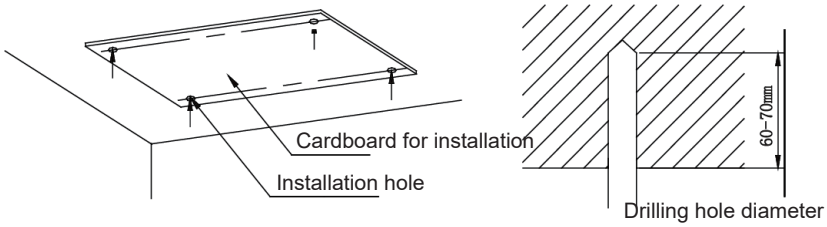


3.2.2 Cassette type

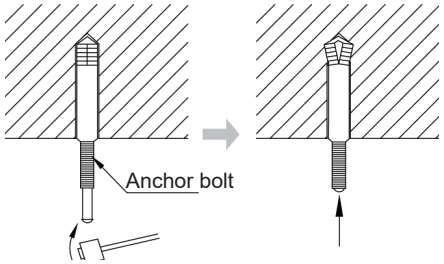
◆ Hanging on the ceiling

(1) Hole drilling and bolt installation

1) Firstly, place the cardboard template at the installation location and drill four holes as per the hole site at the cardboard template. The hole depth should be 60~70mm.



2) Put the M10 anchor bolt into the hole and then hammer the iron nail into the bolt. Length of the anchor bolt depends on the height of the room. The anchor bolts should be prepared by the user themselves.



(2) Put the hoisting stand to the hanger bolt. Nuts and washers should be used at both the lower and upper ends of the hoisting stand so as to secure the locating board and prevent the washers from falling out.

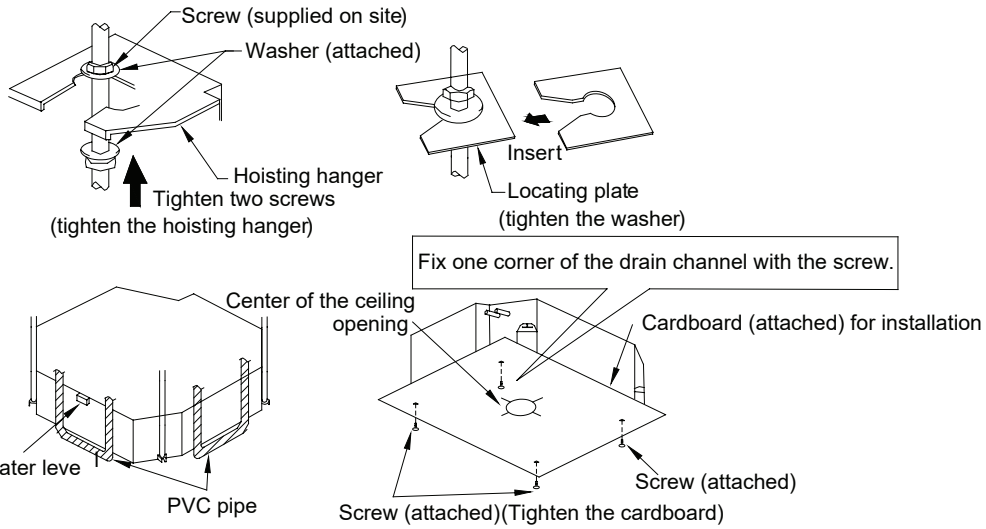
(3) The sizing of the ceiling opening depends on the template cardboard. The center of the ceiling opening is labeled at the template cardboard. Use three screws to fix the template cardboard to the unit and also use other screws to fix the corners of the drain channel.

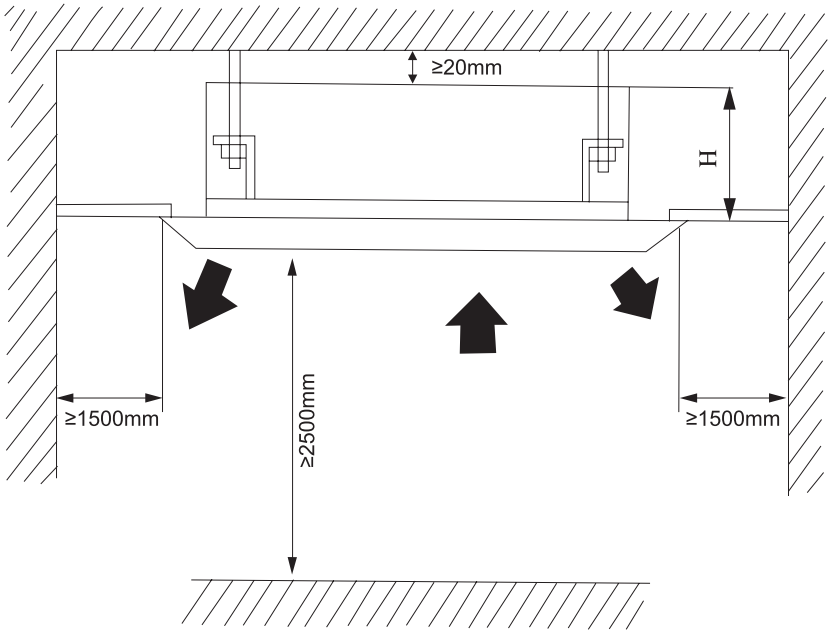
(4) Adjust the unit rightly to the installation location.

(5) See if the unit is horizontal or not by checking the four corners one by one with a water level. The drain pump and float valve are built inside the unit. When the unit is inclined towards the opposite direction of the condensate flow, the float switch may fail to work normally and even lead to water drops.

(6) Remove the locating plate for the washer and tighten the screw above it.

(7) Remove the cardboard template.





◆ Installation of panels

Align the “PIPING SIDE” on the panel with the piping position of the main body.

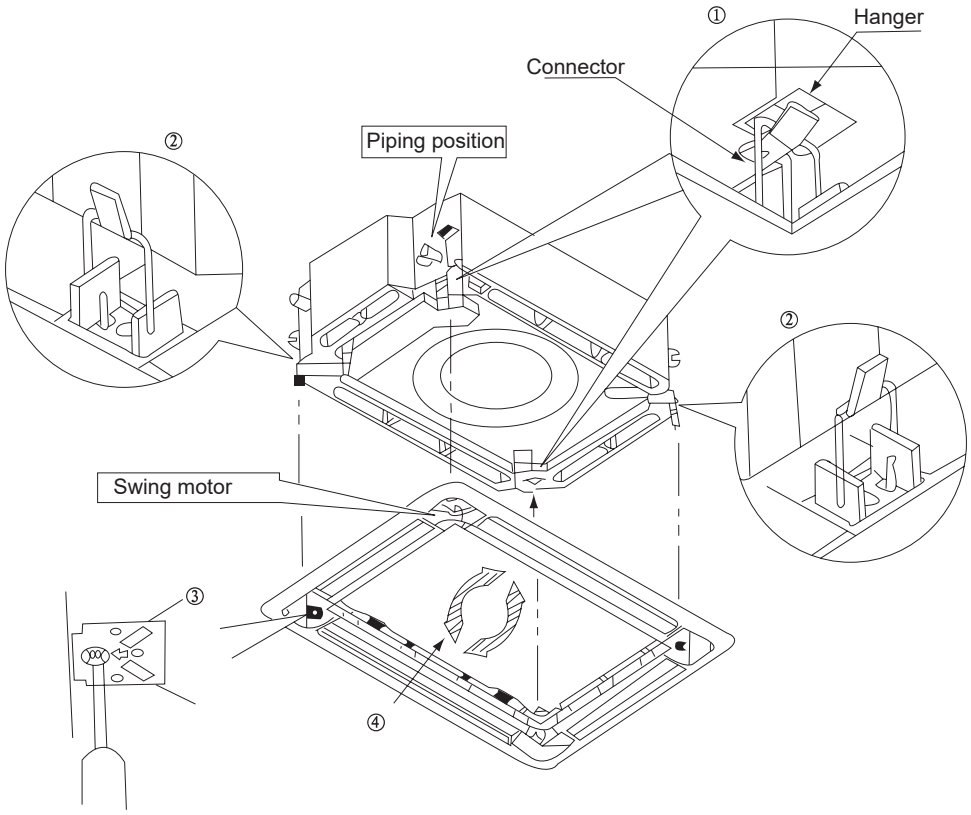
(1) Connect the panel to the unit body by joining the two connectors to the hangers at the back of the swing motors.

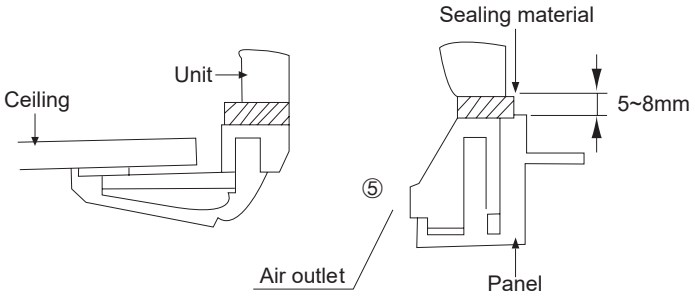
(2) Join the other two connectors to the hangers of the unit body. (Note that the conductor of the swing motor should not get caught in the sealing material.)

(3) Turn all 4 hexagon head screws located right beneath the connectors until the screws move about 15mm in depth. Then the panel is closer to the unit body.

(4) Turn the panel as the arrows indicate to properly connect the rear panel to the ceiling.

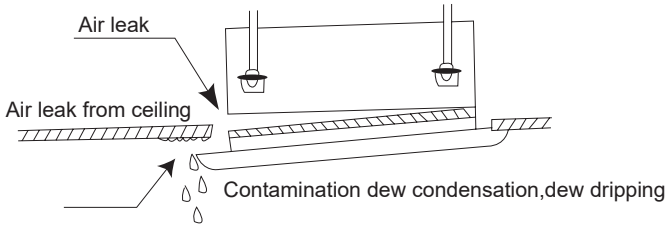
(5) Tighten the screws until the distance of the sealing material between the panel and the unit body is reduced to 5~8 mm.



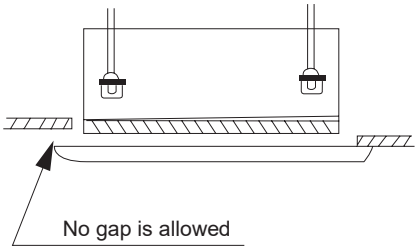


◆ Precautions

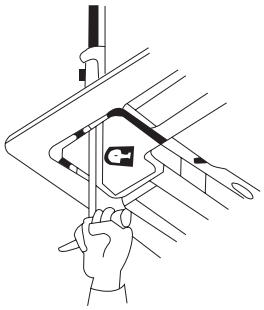
Improper screwing of the screws may cause the troubles.



If gap is still left between the ceiling and the panel after screwing the screws, readjust the height of the unit body.

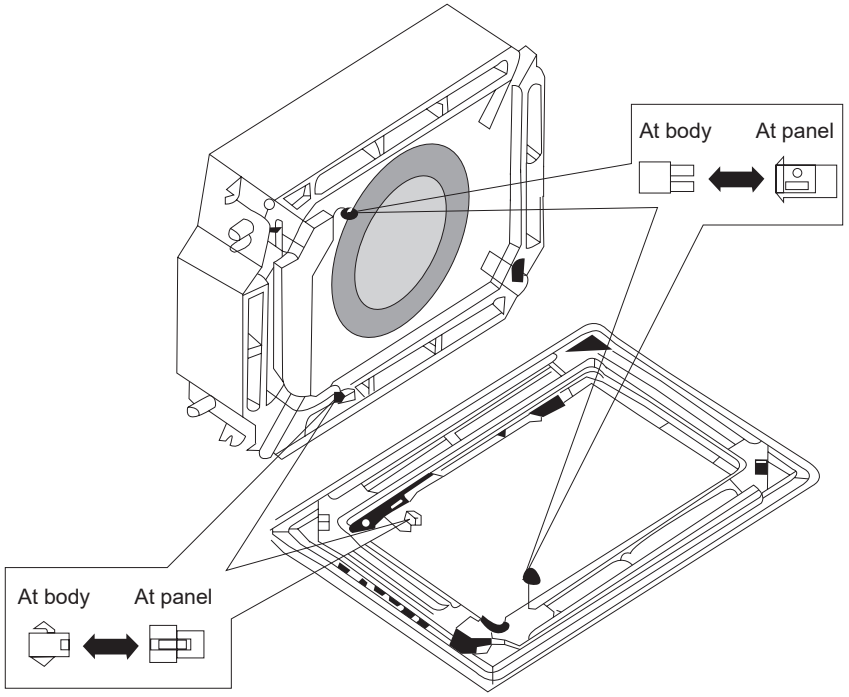


Adjustment of the indoor unit body from the holes in the corner of the panel is possible if the indooor unit is kept leveled and the drainage pipe piping etc is unaffectecd.



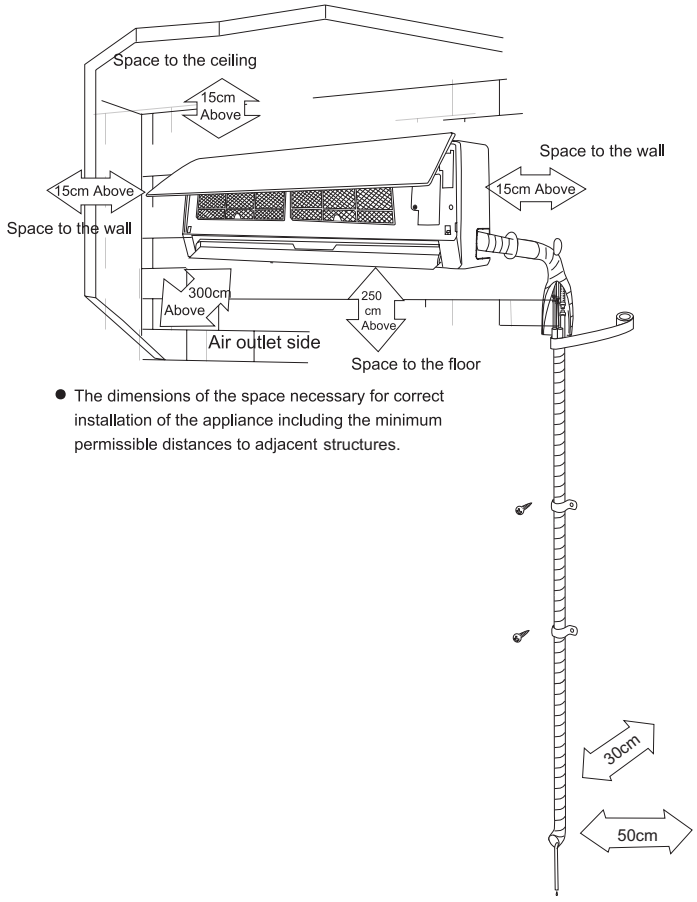
No gap should be left between the ceiling and the panel.

Connect the joints for the conductors of swing motors (at two positions).



3.2.3 Wall mounted type

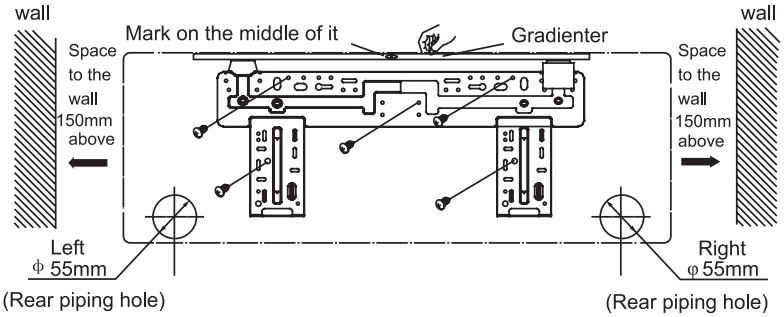
◆ Clearance



● The dimensions of the space necessary for correct installation of the appliance including the minimum permissible distances to adjacent structures.

◆ Installation of the rear panel

(1) Always mount the rear panel horizontally. Due to the water tray of the unit has been adopted the both-way drainage design, the outlet of water tray should be adjusted slightly down when installing, that is to take the outlet of the water tray as the center of a circle, the included angle between the evaporator and level should be 0 or more, that is good for condensing water drainage.



(2) Fix the rear panel on the wall with screws. (Where is pre-covered with plastic granula)

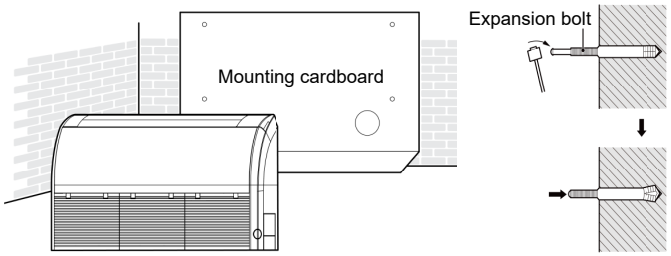
(3) Be sure that the rear panel has been fixed firmly enough to withstand the weight of an adult of 60kg, further more, the weight should be evenly shared by each screw.

3.2.4 Floor-ceiling type

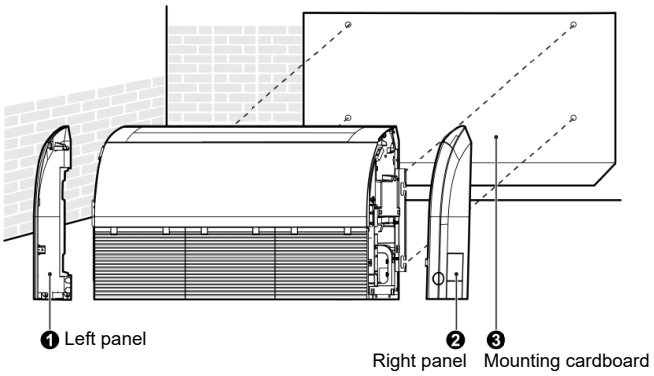
◆ Installation instructions

(1) Use a cardboard to locate the positions of brackets. Then the cardboard can be removed.

(2) Insert the expansion bolt into the hole and hammer at it.

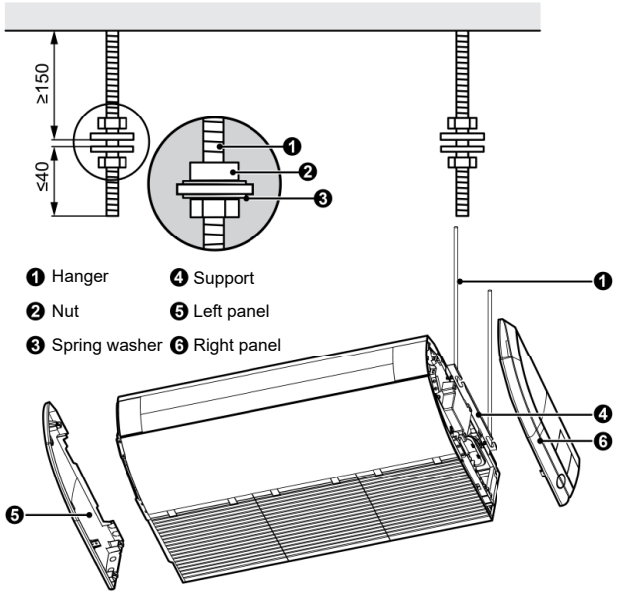


(3) Dispatch the left and right panels.



Floor standing mounted

(4) Put the bolt inside the suspension hole and tighten the bolt to prevent the unit moving.
(5) Install the left and right panels.
(6) Regulate the unit position to slightly tilt condensate drain pipes to facilitate discharging.
(7) Use a level to indicate that the unit is flush with the ground.



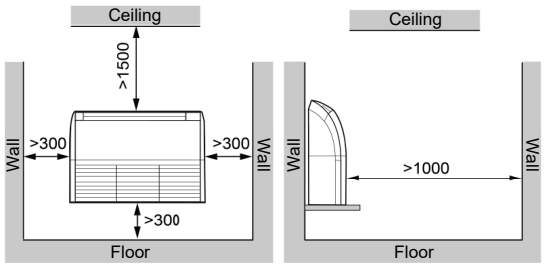
Ceiling mounted

◆ Clearance

Make sure that enough service space is preserved.

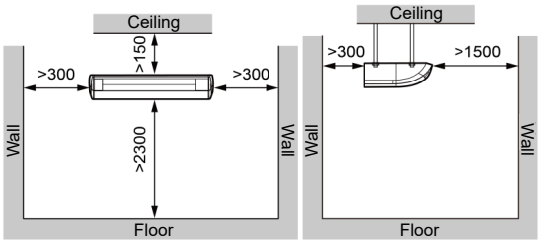
(1) Floor standing mounted type

Unit: mm



(2) Ceiling mounted type

Unit: mm



3.3 Installation of water pipes

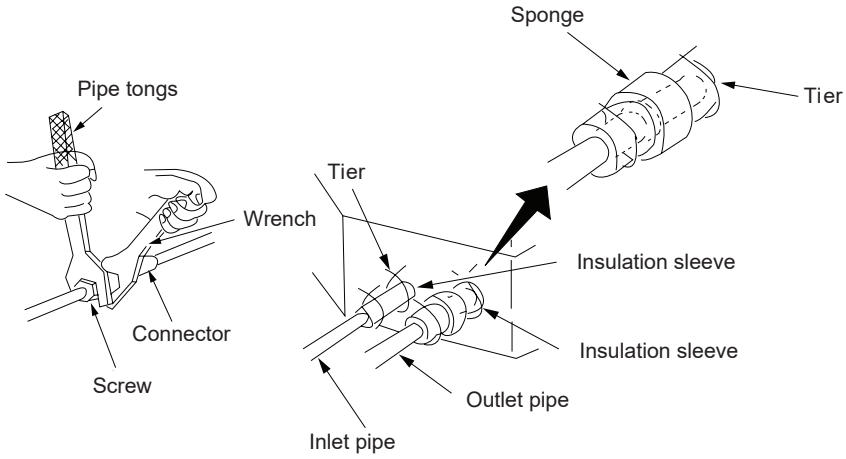
◆ Threaded connection

(1) Both the torque wrench and ordinary wrench should be used for installing and uninstalling the water pipes, as shown in the figure below.

(2) The inlet and outlet pipes both are G3/4 threaded. Before connection, wrap the thread for 2-3 cycles with the Teflon tape for better sealing.

(3) After the inlet and outlet pipes have been connected, start the water pump to check if they leak or not. Then, expel air inside the pipe system through the exhaust valve and insulate it properly as shown in the figure below.

(4) Wrap the connectors with sponge and insulate the exhaust valve.



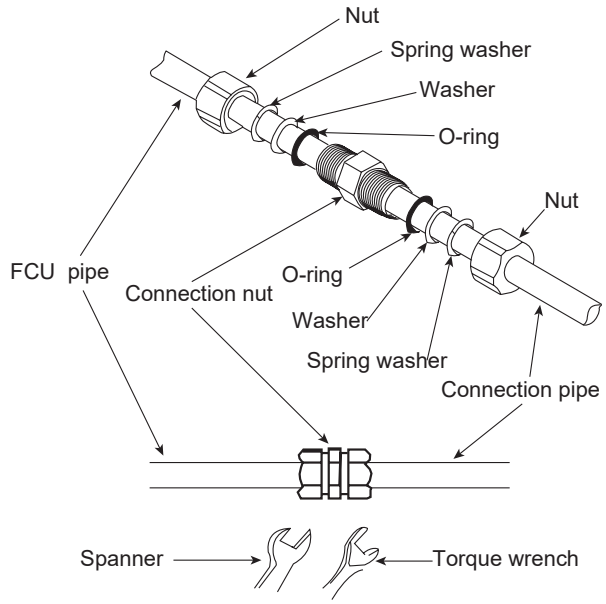
◆ Pipe joint connecting

(1) Align the center of the piping pipe with the relevant valve.

(2) Place the nut, spring washer, washer, O-ring cross the pipe sequentially, and keep them tightly close to each other with a distance of 6-7mm from the O-ring to the pipe end.

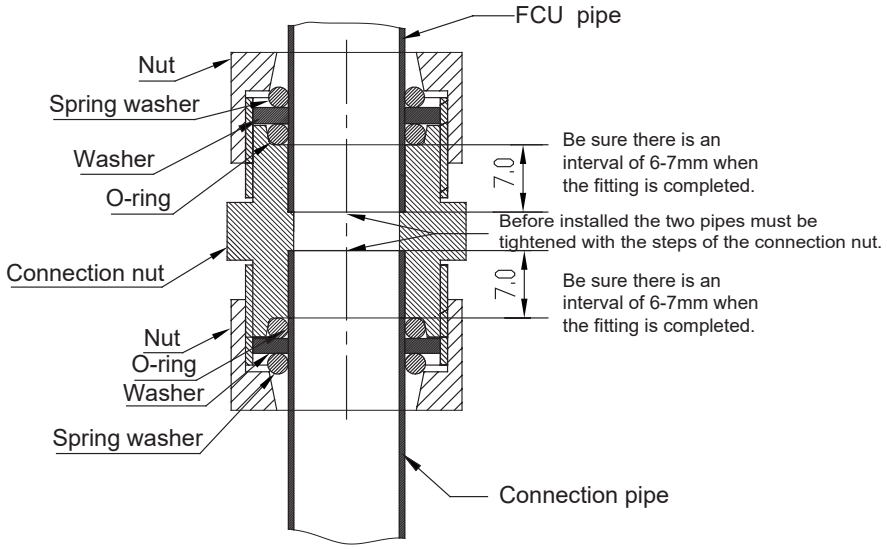
(3) Screw in the pipe nut by hand and then tighten the nut with spanner.

(4) If supplied by the manufacturer, the connection pipe shall be installed in place so as to guarantee the reliable connection.



⚠ NOTE

Firstly connect the connection pipe to the FCU pipe, then to the connection pipe; pay attention to the piping bending, do not damage the connection pipe; the joint nut couldn't tighten too much, otherwise it may cause leakage.



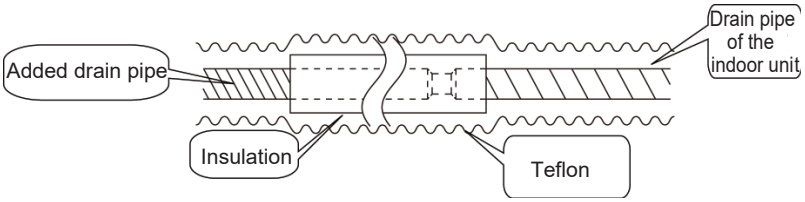
3.4 Installation of drain pipes

◆ Precautions

(1) The drain pipe should be as short as possible, with at least an inclination degree of 1%~2%, so that the condensate can be drained out smoothly. If the inclination degree fails to meet this requirement, a raising pipe is required.

(2) The drain hose should be sized equal or larger than the drain pipe.

(3) The drain pipe should be installed in accordance with the figure below and also insulated properly. Incorrect installation and insulation would lead to generation of condensate or water drop which would damage the ceiling and decoration.

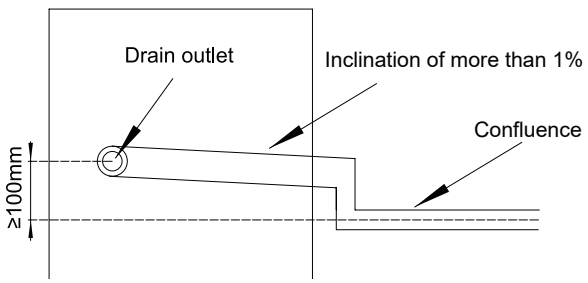


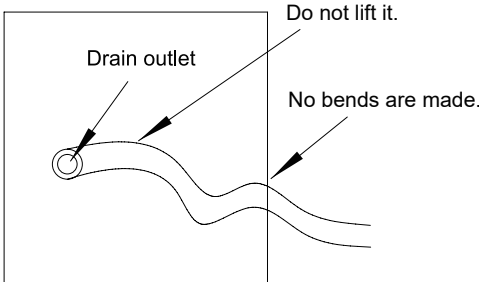
(4) Insert one end of the drain pipe to the drain hole and tighten it with the drain hose and tiers. The drain hose cannot be connected to the drain hole with adhesive.

(5) When the drain pipe is used for multiple sets of equipment, it should be placed 10mm lower than the drain outlet of each equipment. For this special purpose, the pipe with quite thick pipe wall should be used.

◆ Installation steps

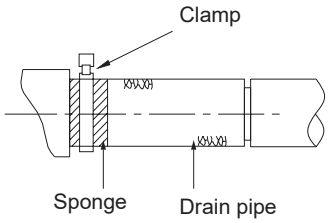
(1) The drain pipe should be straight and mounted lower than the dain outlet. No bends should be made.

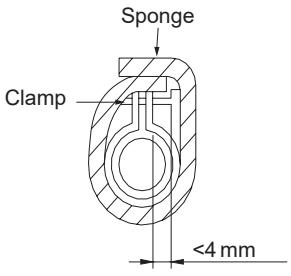




(2) Insert the drain hose to the water outlet and fix it with the clamp.

(3) For better insulation, the sponge should be wrapped around the clamp.

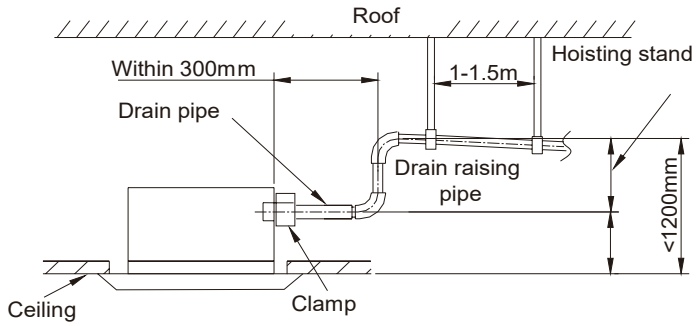




◆ Precautions for the raising pipe

(1) The height of the raising pipe should be less than 280mm.

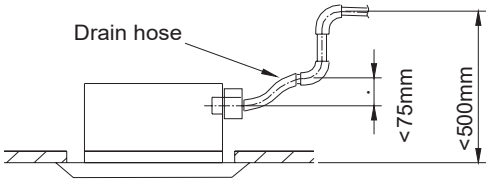
(2) The raising pipe should be at a right angle to the unit and keep a distance with the unit within 300mm.



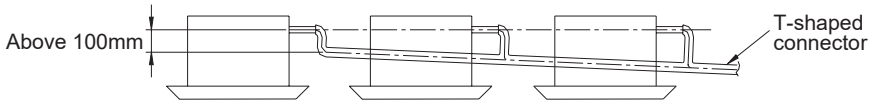
Notes:

(a) The inclination degree of the attached drain hose should be kept within 75mm.

(b) Do not apply outer force to the drain pipe.

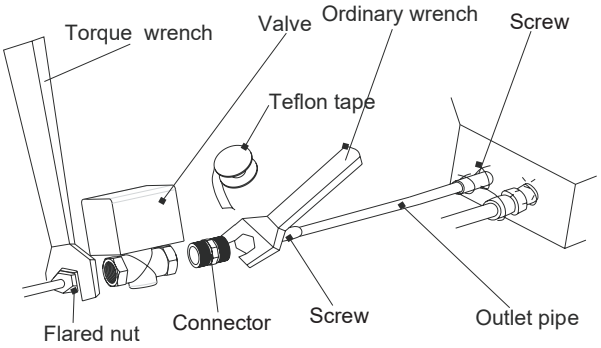


(c) When multiple drain pipes will join together, connect them as the figure below. The T-shaped joint should be sized properly.



3.5 Installation of water valves

Precautions:

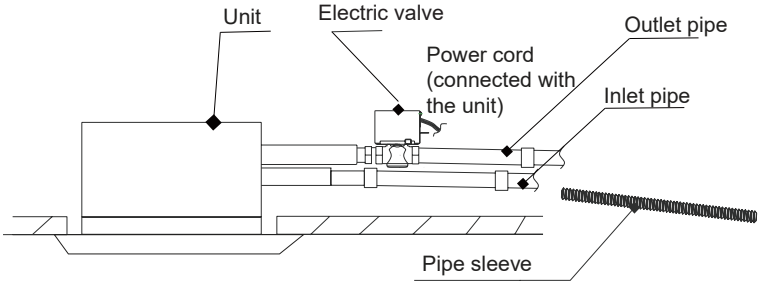


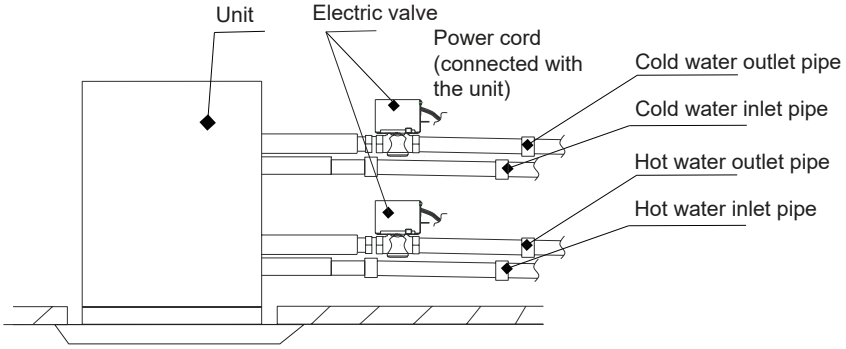
(1) See the figure above for installation of the water valve. Firstly, connect one end of the water pipe to the water inlet of the unit, and then connect the other end to water valve. During installation, both the torque wrench and ordinary wrench should be used. For the former, the torque should be less than 90N.m. Tighten connectors.

(2) In order for better sealing effect, before connection they should be wrapped with Teflon tape.

(3) After the connector, the water valve and the water pipes have been finished, you may start the water pump and see if they leak or not.

(4) Insulate the water valve and the pipe with sponge.



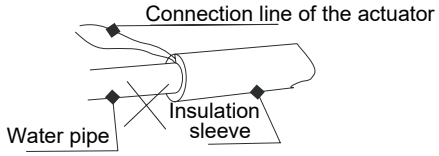
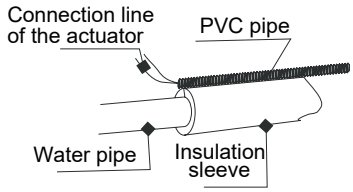
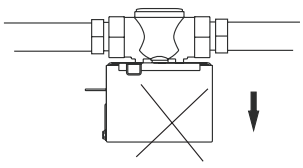
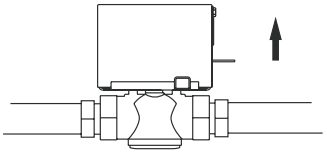


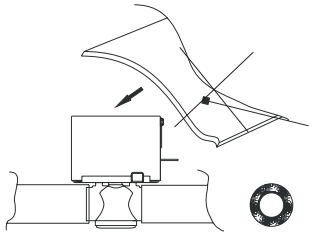
(5) When the water pipe and water valve have been installed, connect the connection line of the valve to the wiring board of the unit. See the wiring diagram of the unit for on-site wiring.

(6) Check the wiring carefully and then start the water pump and unit to see if they work normally.

Notices:

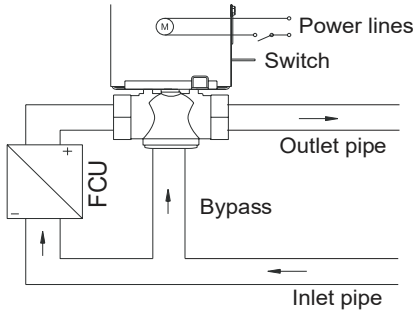
(1) The water valve should be installed as the following statement; otherwise it would affect the normal operation.

<table>
<tr>
<td>⃠ It is not allowed to directly insulate the connection line of the actuator and the water pipe together, otherwise it would lead to shortcutting of the water valve which would affect its service life.
 
</td>
<td>❗ Put the connection line through the PVC pipe and then bind them with the insulation sleeve.
 
</td>
</tr>
<tr>
<td>⃠Never install the valve downwards, otherwise the condensate would flow into the valve and damage the valve or then would lead to shortcutting or fire hazards.
  </td>
<td>❗ The main body of the valve should be installed upwards and the power lines should be arranged above the water pipe.
  </td>
</tr>
</table>



Do not cover fully the valve with the insulation sponge; otherwise it would lead to poor heat radiation and even fire hazards.

(2) There are direct pass and bypass for the water valve and they can be selected based on actual conditions. See the figure below for the working principle for the water valve.



(3) Pipe joints and electric valves are mounted by threaded connection. Tapes should be winded into the threads.

4 Electrical connection

4.1 Precautions

(1) All electric wiring should be performed by the qualified technical in accordance with local standards, regulations and this manual.

(2) The specialized electric circuit with rated voltage should be used for the power supply.

(3) Do not pull the power lines by force.

(4) The power lines should be sized sufficiently. The damaged power lines and connection lines should be replaced by specialized lines.

(5) The unit should be connected to the specialized grounding device by the qualified servicemen. For the fixed lines, there should be the breaker and air switch with sufficient capacity. The air switch should be of the magnetic or electric trip-off functions so as for shortcutting and overloading protection.

(6) The unit should be earthed reliably. The yellow-green line is the grounding line. Do not put it into other use, or cut it. The grounding line cannot be fixed with self-tapping screws; otherwise it would lead to electric shock. The grounding line cannot be connected to the running water line, the gas line, the drain line and where it is not approved.

(7) User power should be soundly earthed rather then be connected to these positions including water pipes, gas lines, drain pipes and others proved unsecure by professionals.

4.2 Wiring steps

(1) Open the electric box and pull the power lines and connection lines of the electric water valve through the rubber rings to the terminal board. After connection, be sure to fix the power and water

valve cables with clamps.

(2) When matching the optional accessories, connect the signal line through the rubber ring to the terminal board of the controller. After connection, be sure to secure the cable with clamps.

(3) When connecting the optional cable, power must be cut off first, and then power on after connection has been finished.

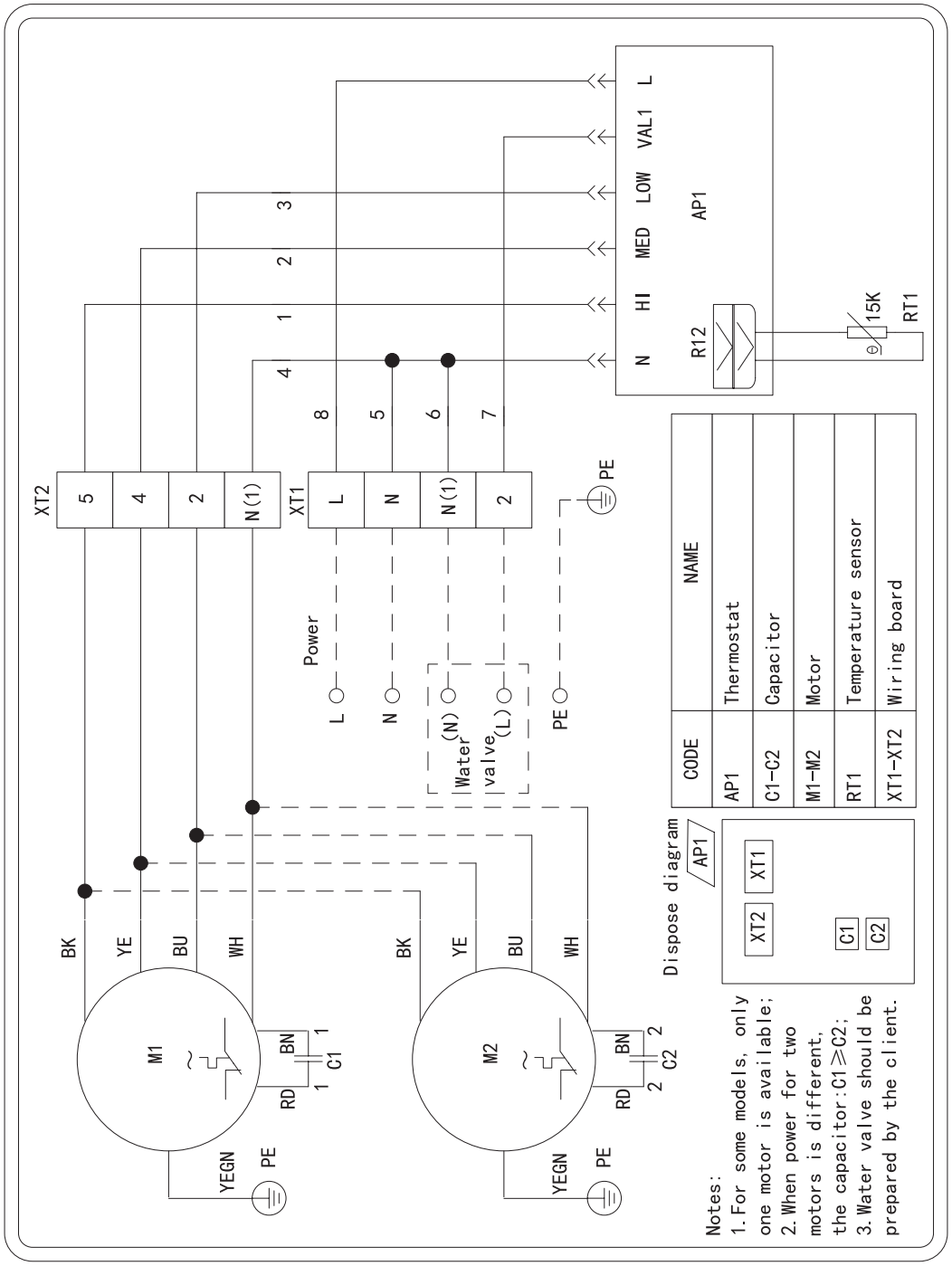
(4) Be sure to perform wiring in accordacne with the wiring diagram at the unit.

(5) After the test run is qualified, place the electrical box cover back.

4.3 External wiring diagram

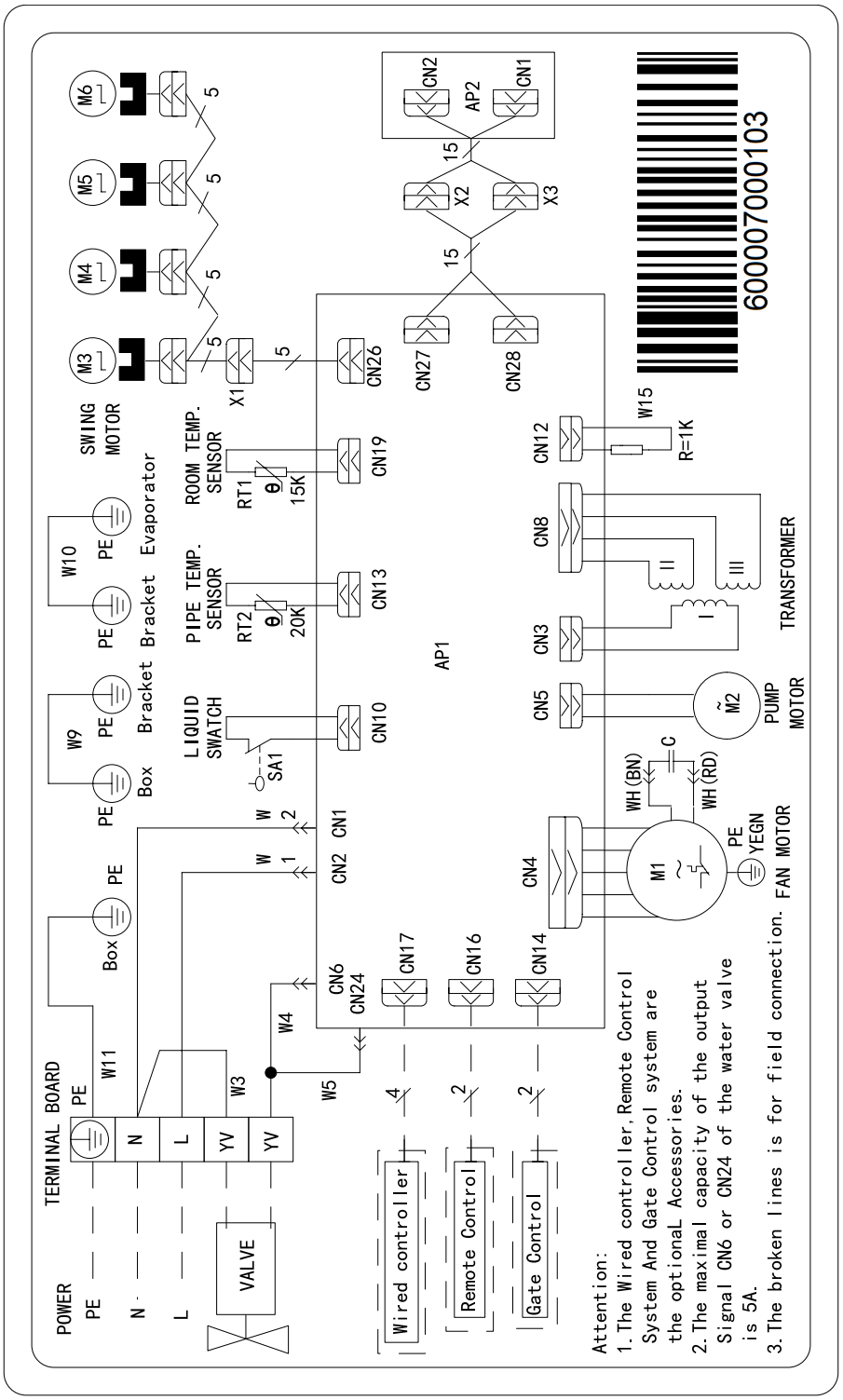
The wiring diagram is for reference, and the actual wiring is subject to the diagram posted on the unit.

4.3.1 Vertical mounted exposed type

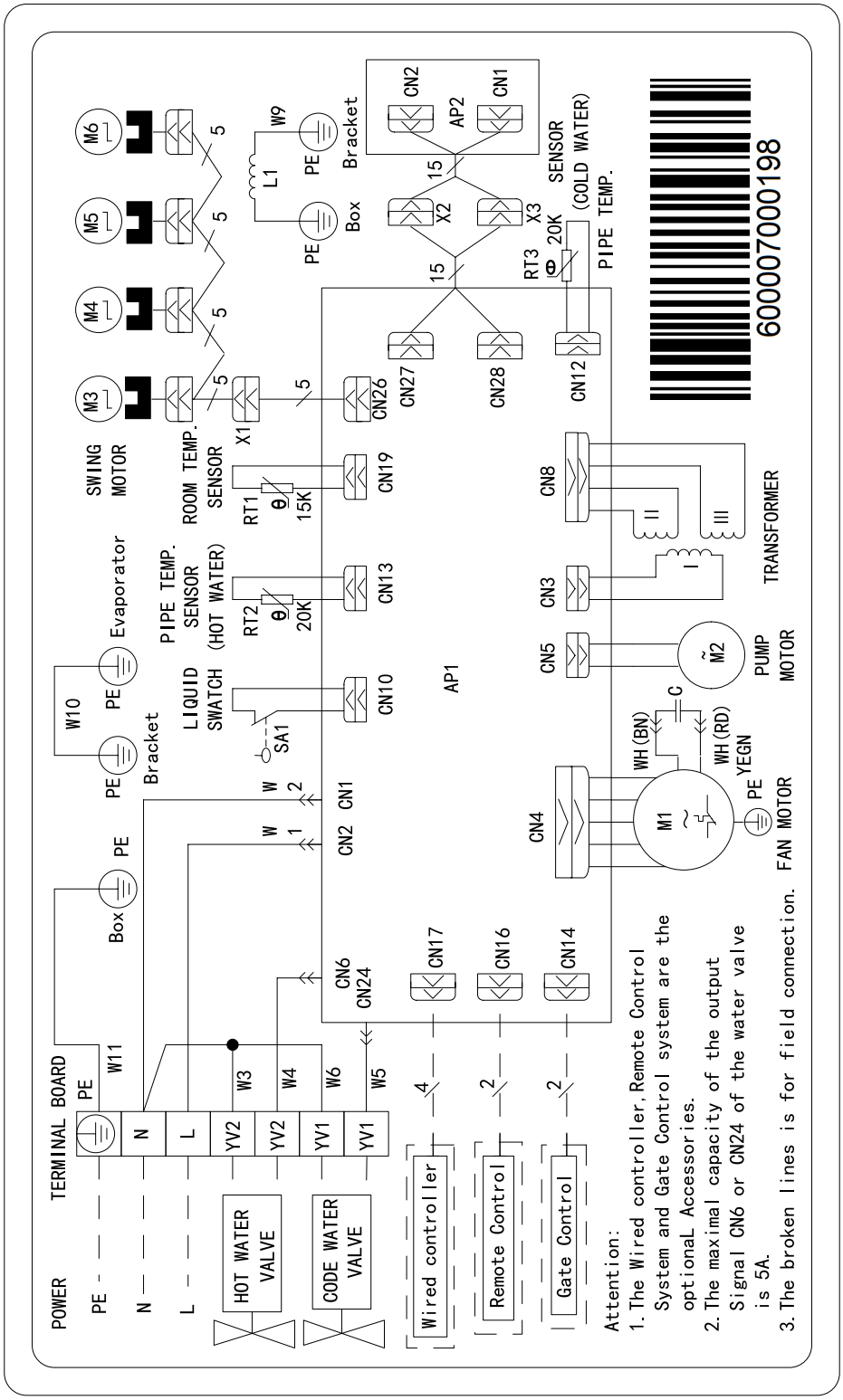


4.3.2 Cassette type (AC)

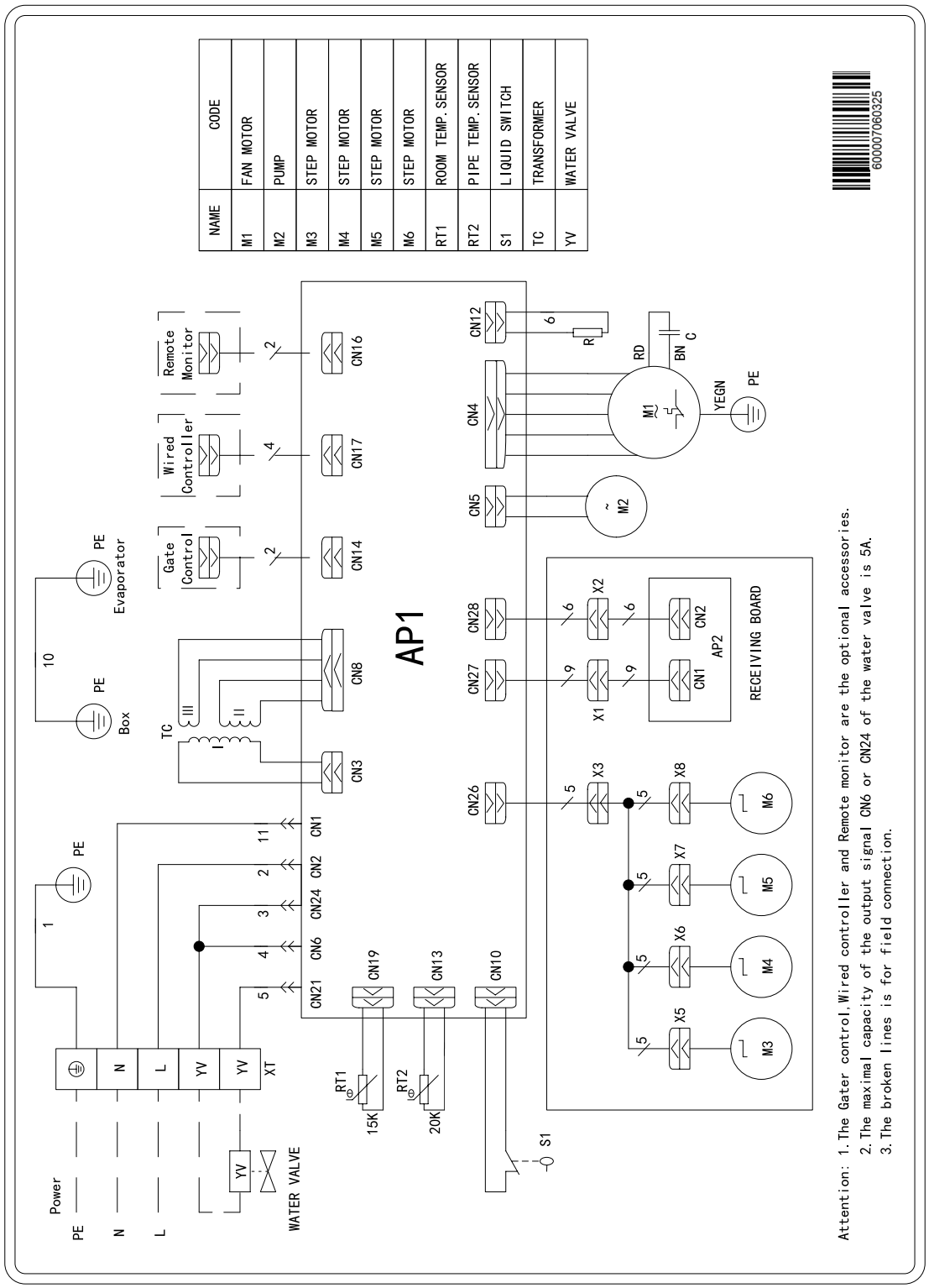
(1) FP-85XD/B-T, FP-102XD/B-T, FP-125XD/B-T, FP-140XD/B-T, FP-160XD/B-T, FP-180XD/B-T, FP-200XD/B-T, FP-85XD/B-T(E), FP-102XD/B-T(E), FP-125XD/B-T(E), FP-140XD/B-T(E), FP-160XD/B-T(E), FP-180XD/B-T(E) (electric specification: 50Hz/60Hz)



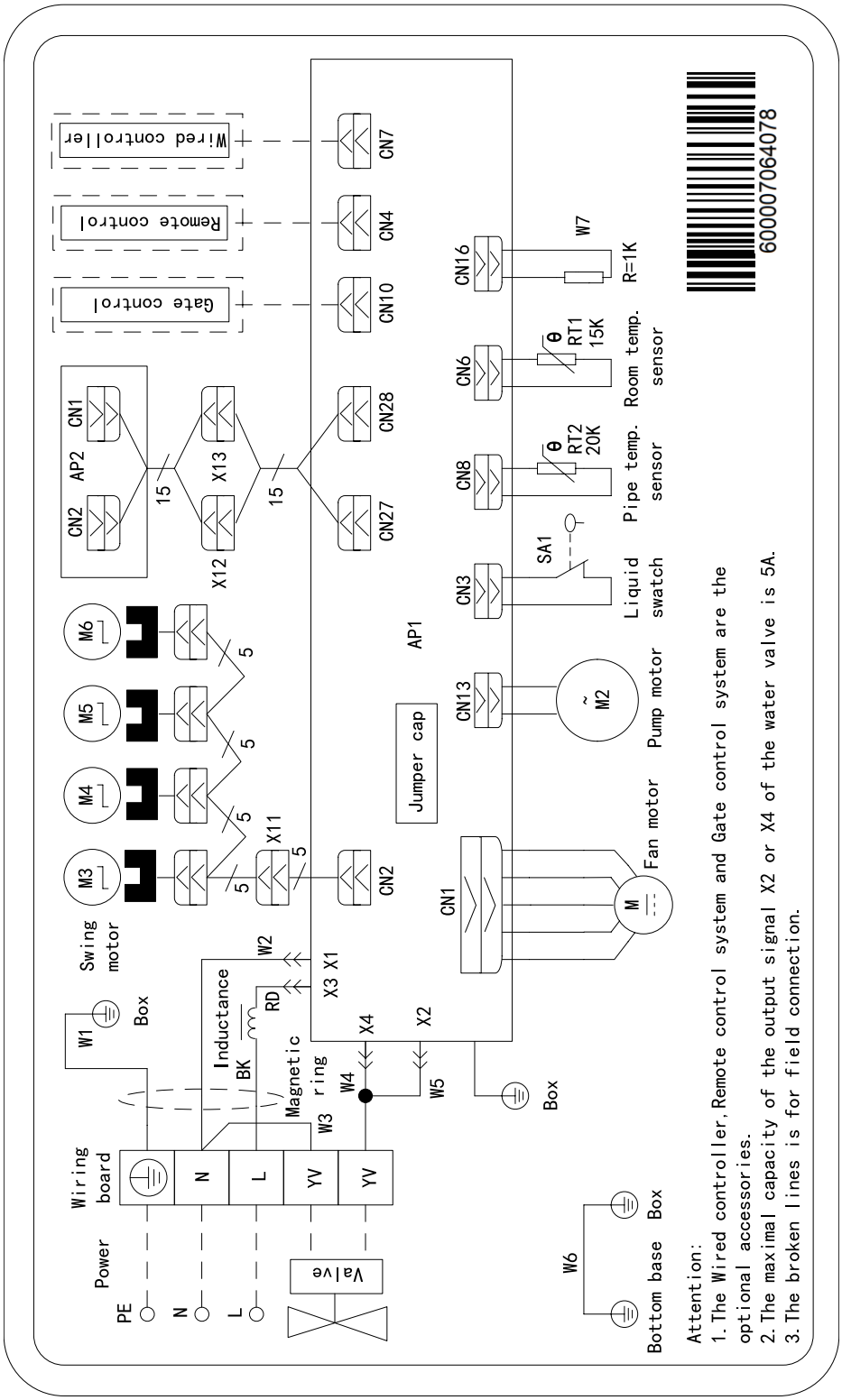
(2) FP-68XDT/B-K, FP-68XDT/B-K(E), FP-85XDT/B-K, FP-85XDT/B-K(E), FP-102XDT/B-K, FP-125XDT/B-K, FP-125XDT/B-K(E), FP-140XDT/B-K, FP-180XDT/B-K, FP-180XDT/B-K(E), FP-200XDT/B-K



(3) FP-51/68XD/A-K

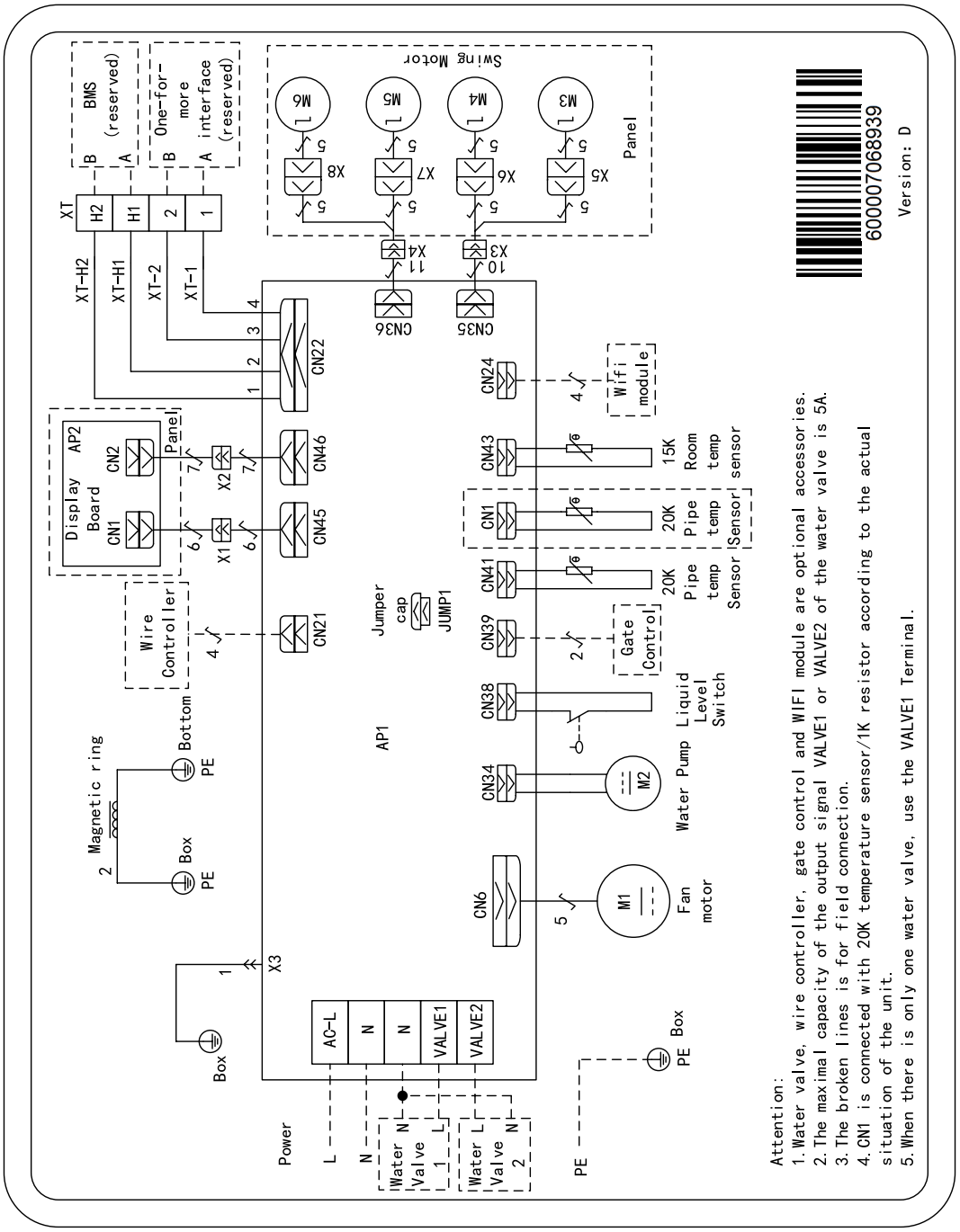


(4) FP-238XD/C-K

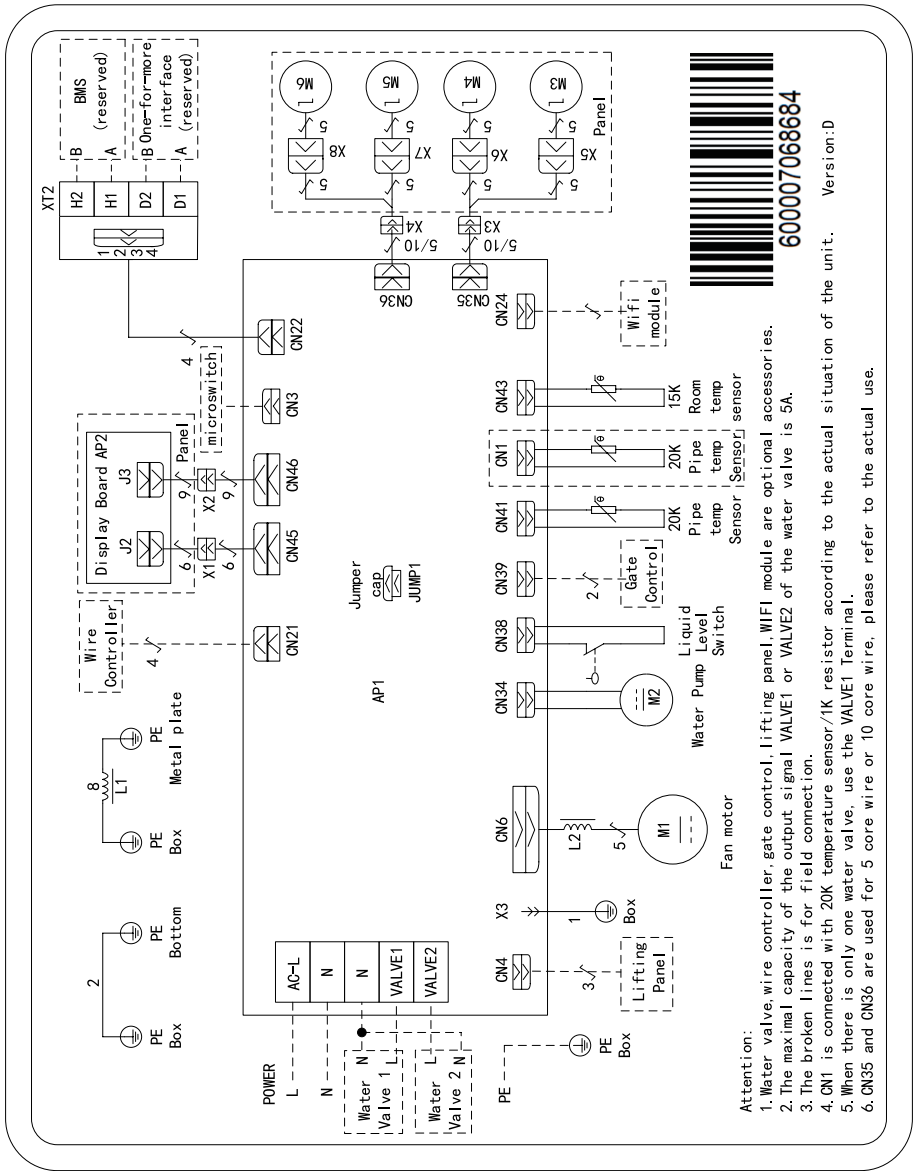

Wired controller
Remote control
Gate control
CN7
CN4
CN10
CN16
W7
R=1K
CN6
RT1 15K
Room temp. sensor
CN8
RT2 20K
Pipe temp. sensor
CN3
SA1
Liquid swatch
CN13
M2
Pump motor
CN1
M
Fan motor
CN2
AP2
CN1
CN27
CN28
X12
X13
15
15
M6
M5
M4
M3
5
5
5
5
X11
5
Swing motor
Box
W1
W2
X3 X1
X4
X2
W4
W5
W3
Inductance
BK
RD
Magnetic ring
Box
Jumper cap
AP1
Wiring board
Power
PE
N
L
N
L
YV
YV
Valve
W6
Bottom base
Box
600007064078
Attention:
1. The Wired controller, Remote control system and Gate control system are the optional accessories.
2. The maximal capacity of the output signal X2 or X4 of the water valve is 5A.
3. The broken lines is for field connection.

4.3.3 A series cassette type (DC)

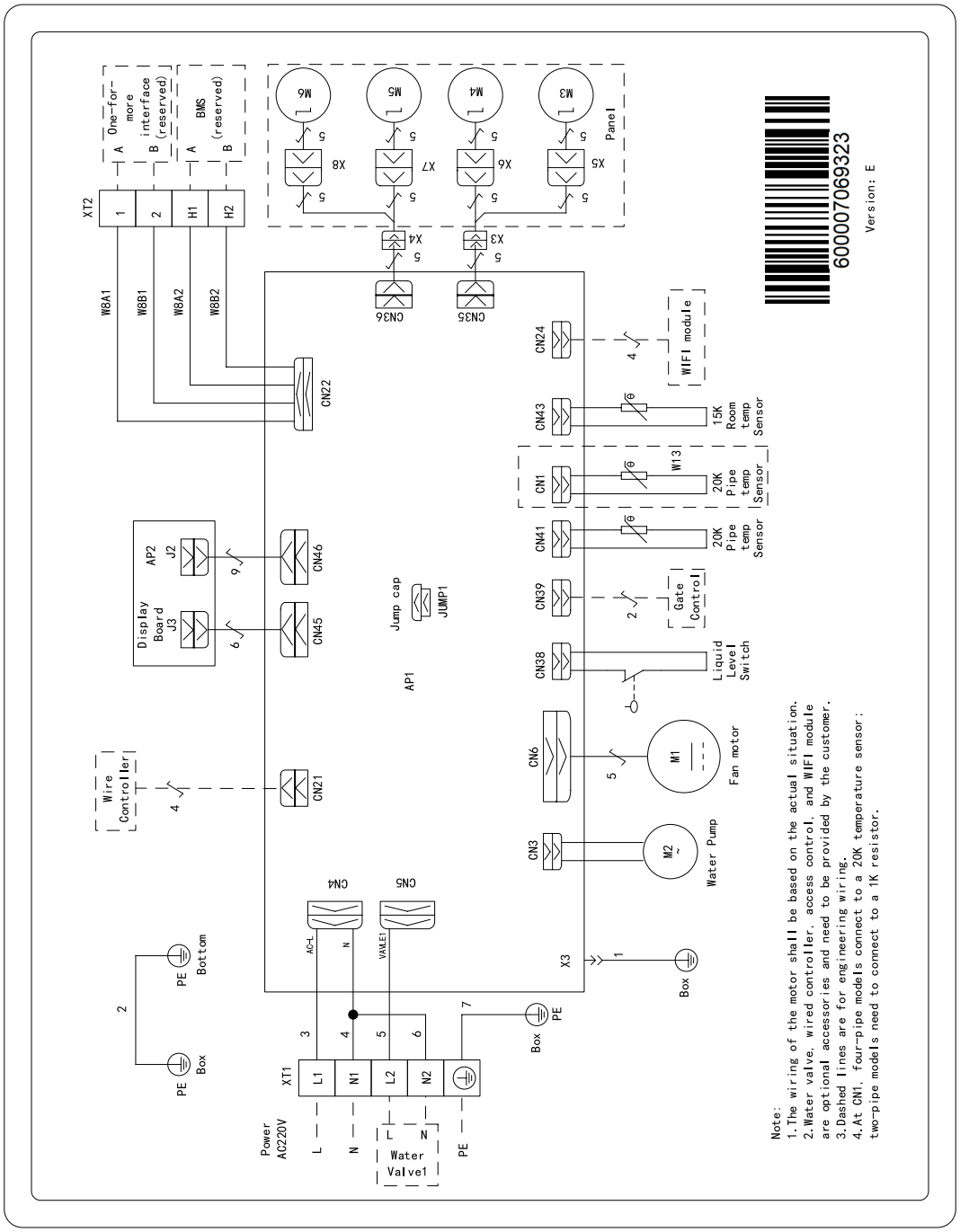
(1) FPD-51XD/A-S, FPD-68XD/A-S



(2) FPD-85XD/A-S, FPD-102XD/A-S, FPD-119XD/A-S, FPD-136XD/A-S, FPD-170XD/A-S, FPD-204XD/A-S

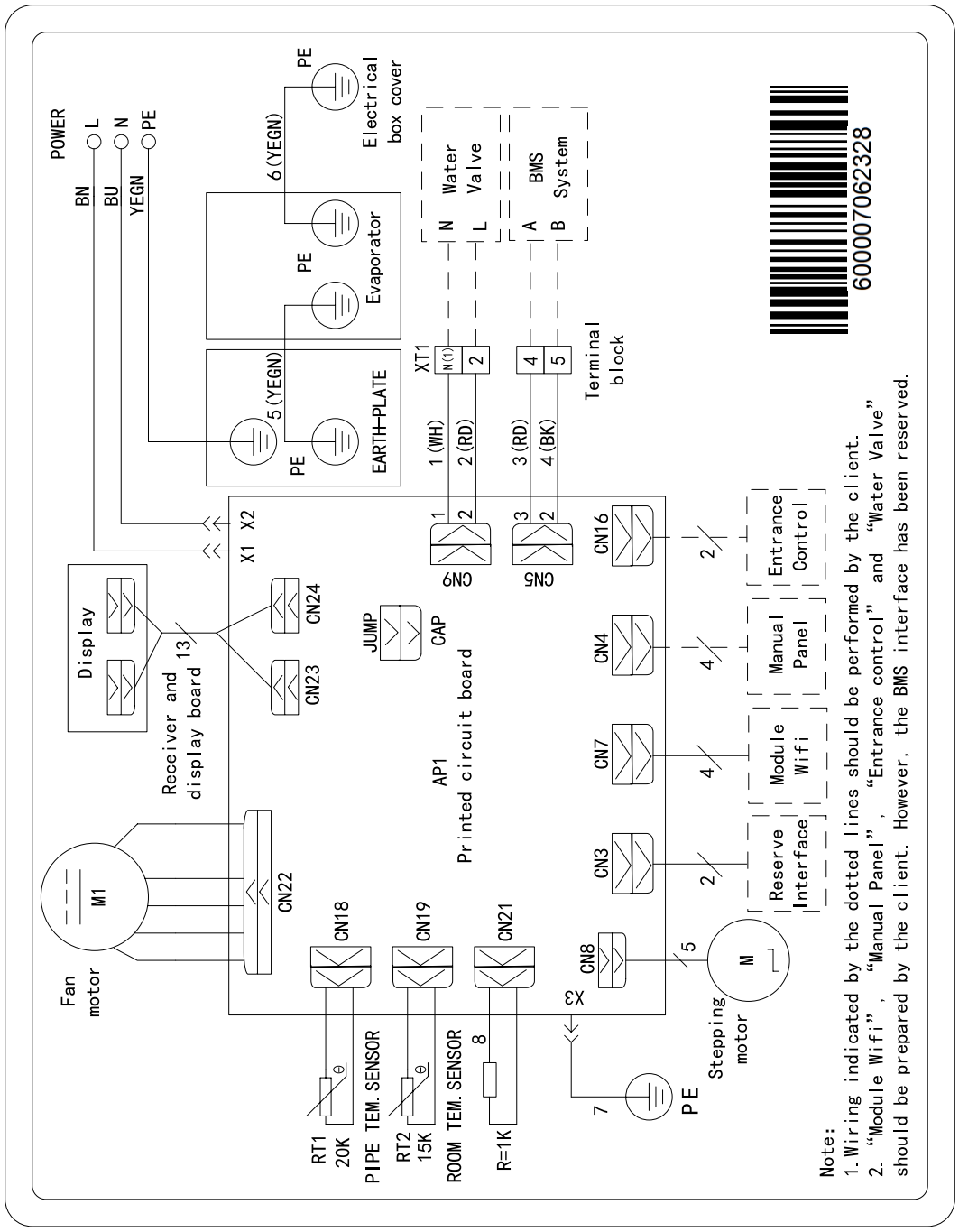


(3) FPD-238XD/A-S



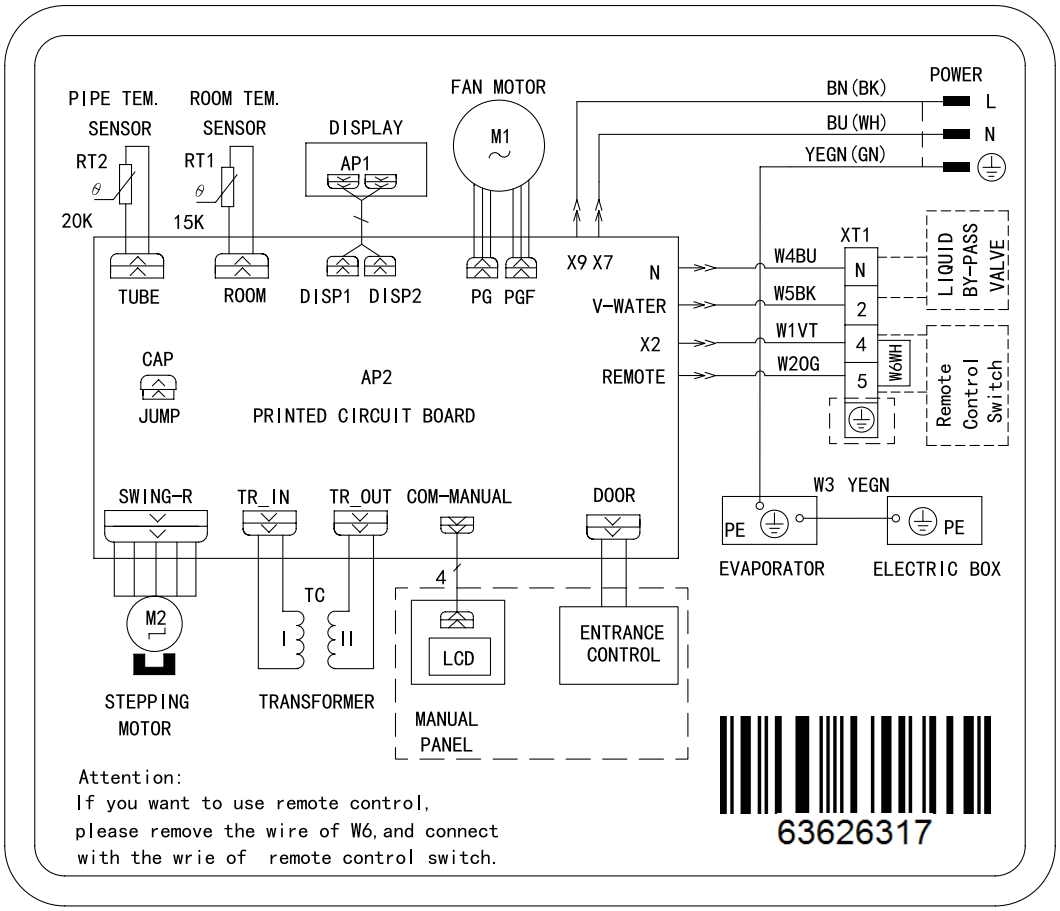
4.3.4 Wall-mounted type (DC)

(1) FPD-34BB4/A-K, FPD-51BB4/A-K, FPD-68BB4/A-K, FPD-85BB4/A-K, FPD-34BB6/A-K, FPD-51BB6/A-K, FPD-68BB6/A-K, FPD-85BB6/A-K

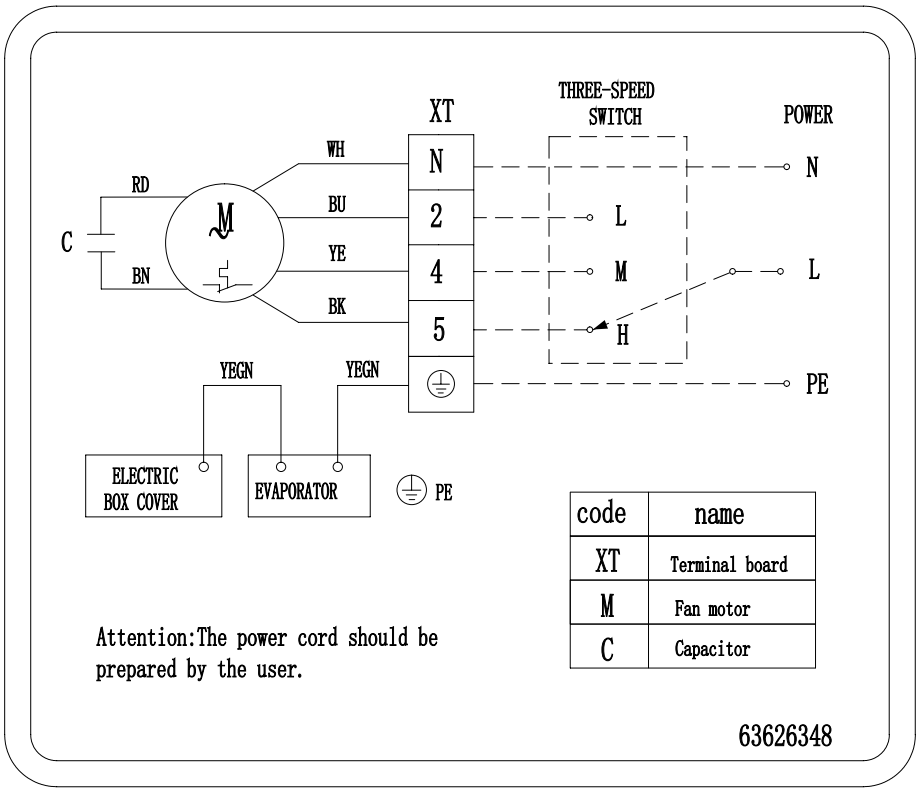


4.3.5 Wall-mounted type (AC)

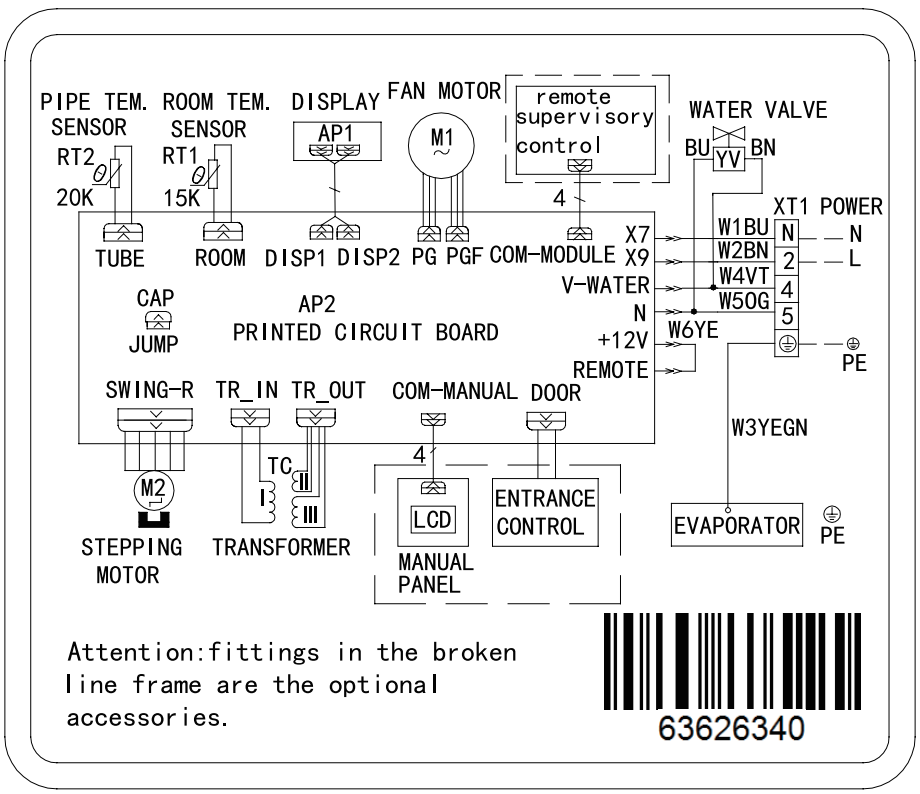
(1) FP-34BA2/D-K(E), FP-51BA2/D-K(E), FP-68BA2/D-K(E), FP-85BA2/D-K(E), FP-34BA3/D-K(E), FP-51BA3/D-K(E), FP-68BA3/D-K(E), FP-85BA3/D-K(E), FP-34BA4/D-K(E), FP-51BA4/D-K(E), FP-68BA4/D-K(E), FP-85BA4/D-K(E), FP-34BA2/D-K, FP-51BA2/D-K, FP-68BA2/D-K, FP-85BA2/D-K, FP-34BA3/D-K, FP-51BA3/D-K, FP-68BA3/D-K, FP-85BA3/D-K, FP-34BA4/D-K, FP-51BA4/D-K, FP-68BA4/D-K, FP-85BA4/D-K, FP-34BA2/B-D, FP-51BA2/B-D, FP-68BA2/B-D, FP-85BA2/B-D, FP-102BA2/B-D, FP-34BA3/B-D, FP-51BA3/B-D, FP-68BA3/B-D, FP-85BA3/B-D, FP-102BA3/B-D



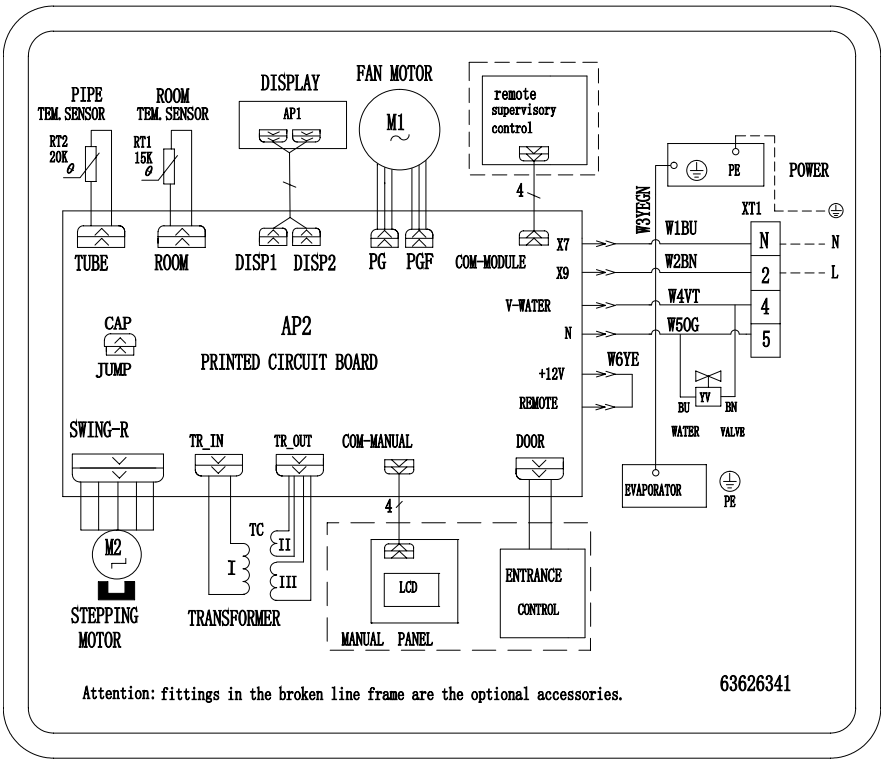
(2) FP-34BA3/B-K, FP-51BA3/B-K, FP-68BA3/B-K, FP-85BA3/B-K



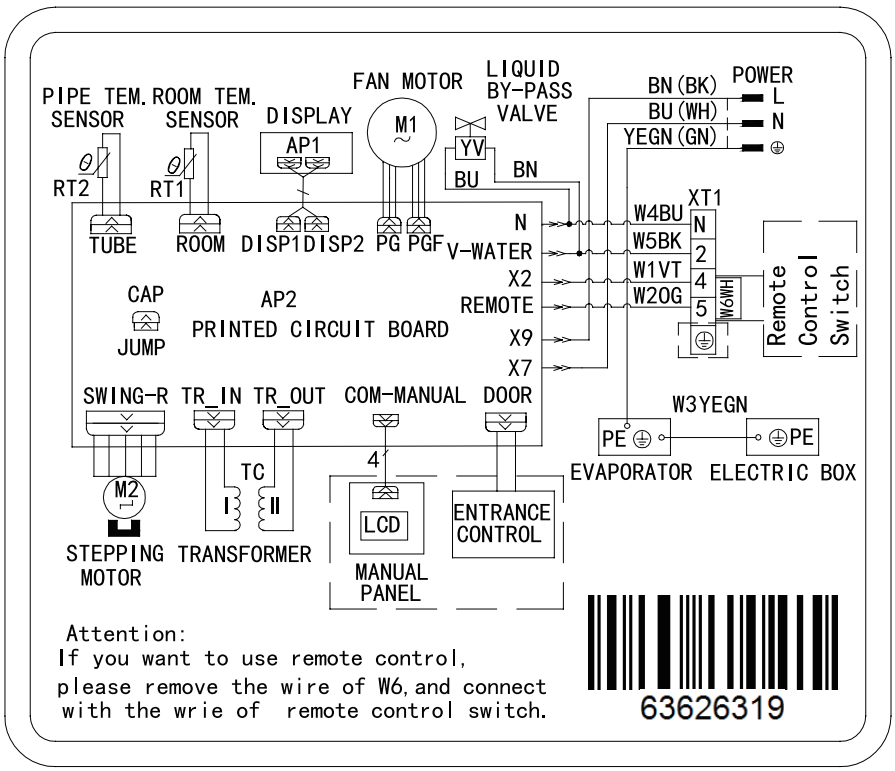
(3) FP-51BWA2/A-K(E)



(4) FP-85BWA2/A-K(E)

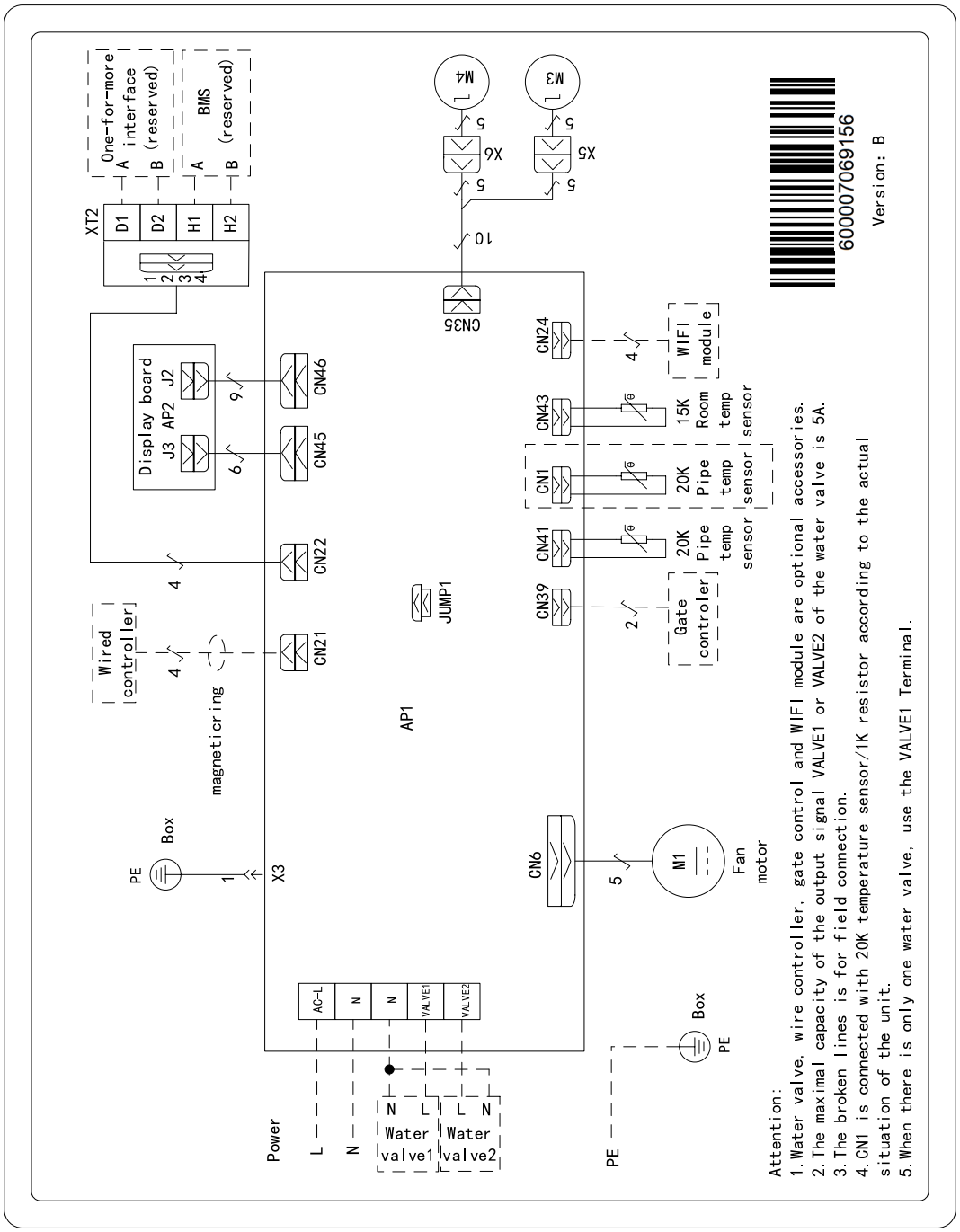


(5) FP-51BWA3/A-K(E), FP-85BWA3/A-K(E)



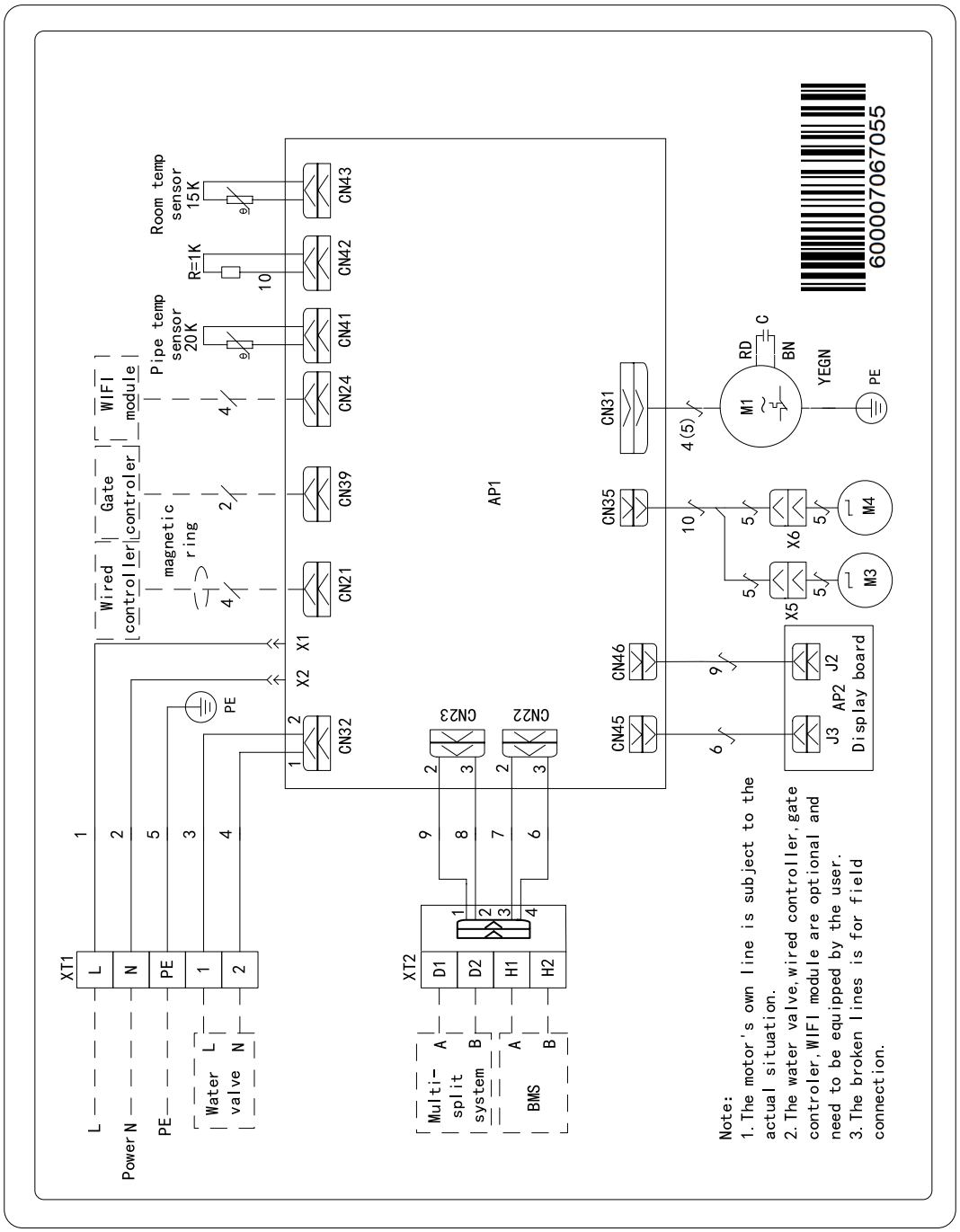
4.3.6 A series floor-ceiling type (DC)

(1) FPD-34ZD/A-S, FPD-51ZD/A-S, FPD-68ZD/A-S, FPD-85ZD/A-S, FPD-102ZD/A-S, FPD-136ZD/A-S, FPD-170ZD/A-S, FPD-204ZD/A-S



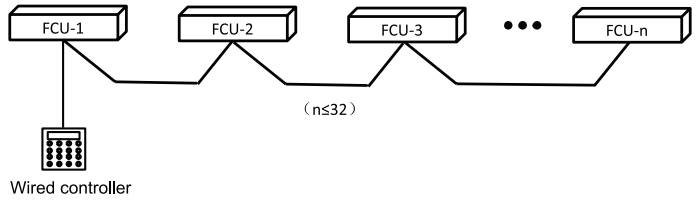
4.3.7 A series floor-ceiling type (AC)

(1) FP-34ZD/B-K, FP-51ZD/B-K, FP-68ZD/B-K, FP-85ZD/B-K, FP-102ZD/B-K, FP-136ZD/B-K, FP-170ZD/B-K, FP-204ZD/B-K



4.3.8 One-to-more Control

Up to 32 FCUs can be controlled at the same time by a wired controller.



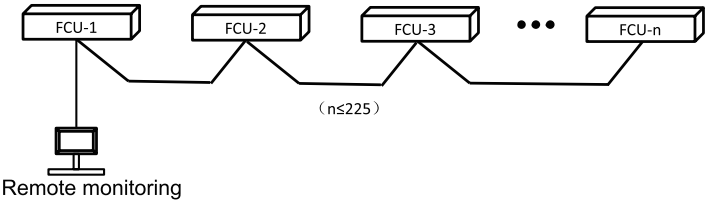
Notes:

(1) Refer to the circuit diagram for specific wiring.

(2) One-to-more control requires a wired controller which is able to control all FCUs at the same time but cannot control a separate one alone.

4.3.9 Remote monitoring (RS485)

The connection method for remote monitoring is as follows. Up to 255 FUCs can be controlled at the same time. For specific connection method, please refer to the circuit diagram and relevant agreements.

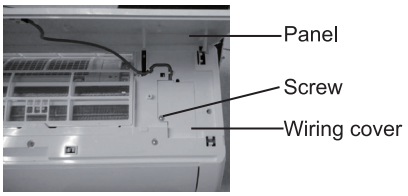


4.3.10 WiFi

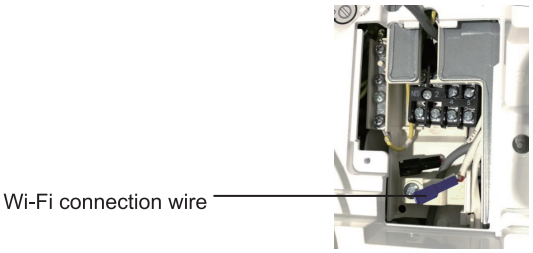
◆ A series wall-mounted type (DC)

(1) Open the panel of indoor unit as show in the fig and unscrew the screw on the electric box cover.

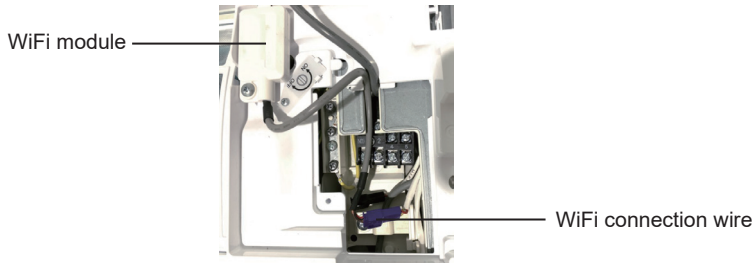
NOTICE:Actual product may be different from above graphics, please refer to actual product.



(2) Open the electric box cover and you can see the WiFi connection wire. (The color of WiFi connection wire is the same as the color of connection port in WiFi module)



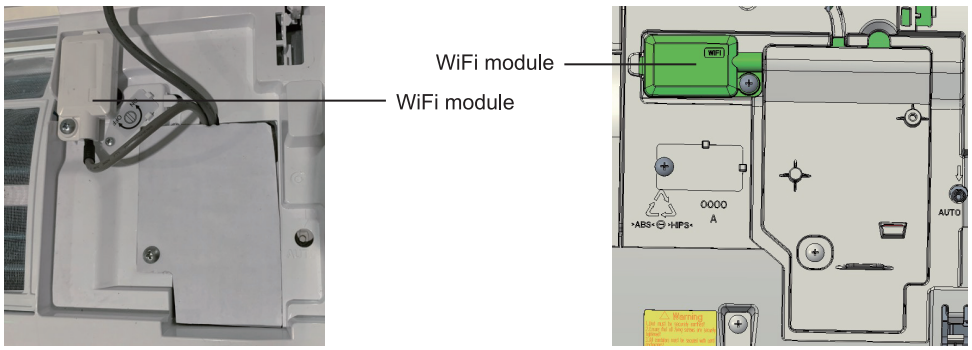
(3) Remove the wire clip,pull out the WiFi connection wire from the electric box and then connect it with the port in WiFi module.



NOTICE:the WiFi connection wire shall go through the wire groove.otherwise thelectric box cannot be closed.

(4) Place the WiFi module beside the electric box. After confirming the position, please fix the WiFi module with screws.

NOTICE:the position for placing WiFi module may be different for different models; actual position please refer to the actual situation.



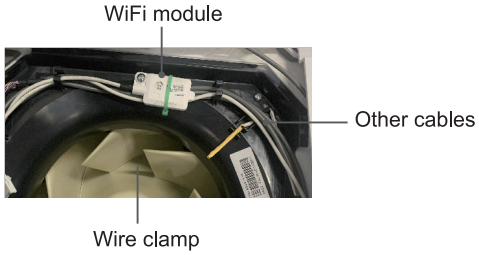
(5) Neaten the WiFi connection wire, close the electric box cover and then tighten the screws.

(6) After closing the panel of indoor unit, the installation of WiFi module is done.

◆ A series cassette type (DC)

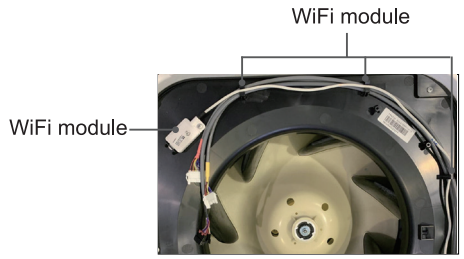
FPD-51/68XD model

After the WiFi module connecting the wire from the electric box, the cable is routed from the wire clamp and then fixed at the position as shown in the below figure with screws, and then the cable tie is used to bind the module and other cables together as shown in below figure.



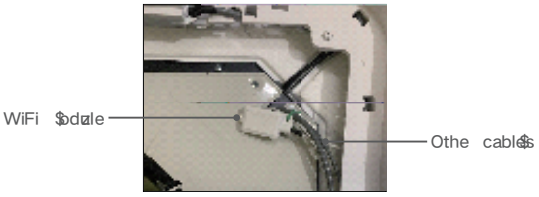
FPD-85/102/119/136/170/204XD model

After the WiFi module connecting the wire from the electric box, the cable is routed from the wire clamp and then fixed at the position as shown in the below figure with screws.



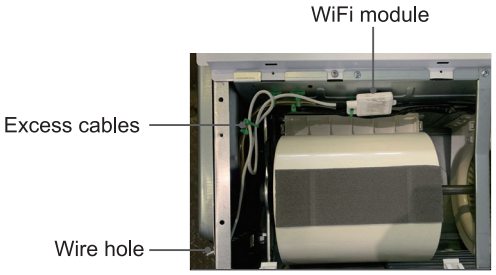
FPD-238XD model

After the WiFi module connecting the wires from the electric box, use the cable tie to bind the module and other cables together at the wire hole as shown in below figure. The excess cable should be neatly arranged and placed in the idle space inside the electric box.



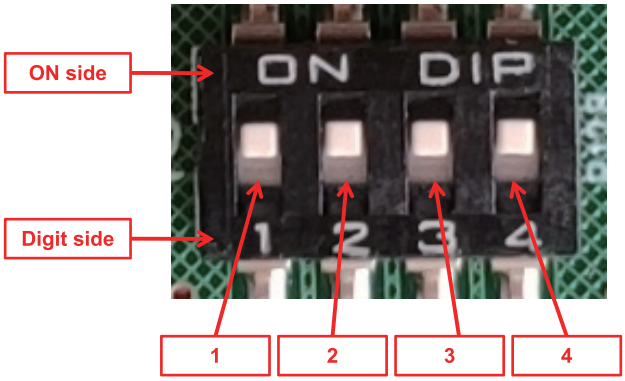
◆ A series floor-ceiling type (DC)

The terminals of the WiFi Module passe through the wire hole and connect to the corresponding terminals inside the electric box. The wiring of the WiFi Module is the same as other cables. After arranging the cables, use cable ties to bind the module and other cables together. Excess cables should be tidied up and secured with cable ties along with other cables.



4.3.11 DIP setting

◆ Function DIP setting



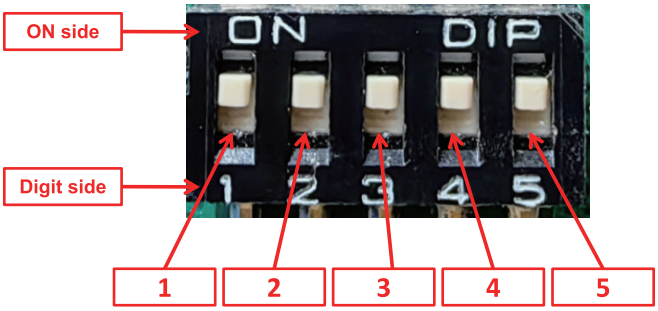
“1”: it is used to determine whether to stop the fan when the ambient temperature reaches the set temperature point. When it is set to the "ON side", it means that the fan will be stopped when the ambient temperature reaches the set point; when it is set to the "OFF side", it means that the fan will not be stopped when the ambient temperature reaches the set point.

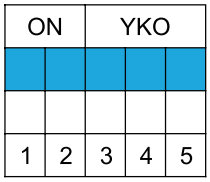
“2”, “3” and “4: they are used to distinguish models of the units (do not dial operate it, otherwise the unit would be abnormal).

Note: the wired controller can also set whether to stop the fan when the ambient temperature reaches the set point. If this function has been activated by the wired controller, the DIP setting goes invalid but the setting of the wired controller works.

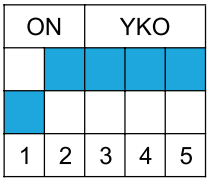
◆ Address DIP setting (switching type)

Five-digit DIP setting: it is the address setting for one-to-more control function. Up to 32 settings are available, that is, 32 addresses.

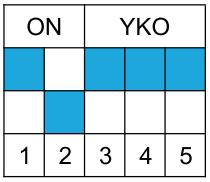




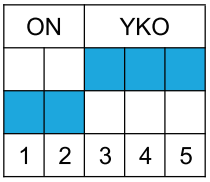
Setting 1



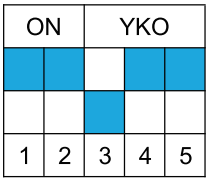
Setting 2



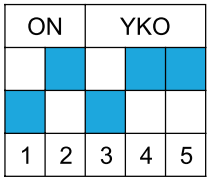
Setting 3



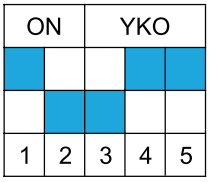
Setting 4



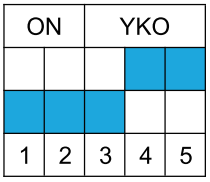
Setting 5



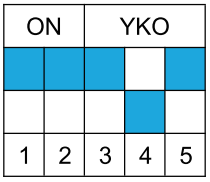
Setting 6



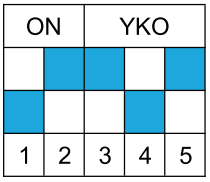
Setting 7



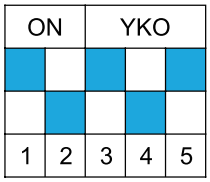
Setting 8



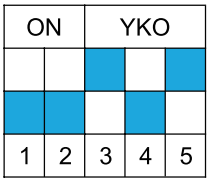
Setting 9



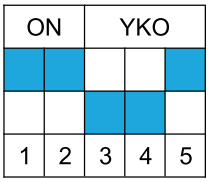
Setting 10



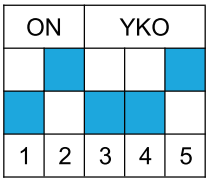
Setting 11



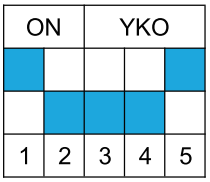
Setting 12



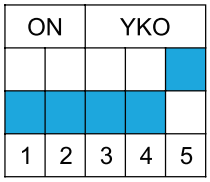
Setting 13



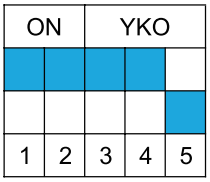
Setting 14



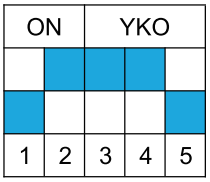
Setting 15



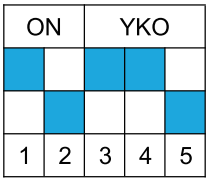
Setting 16



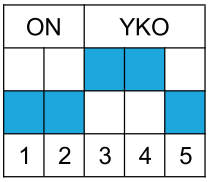
Setting 17



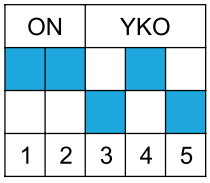
Setting 18



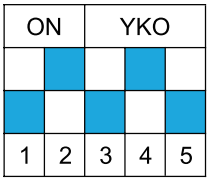
Setting 19



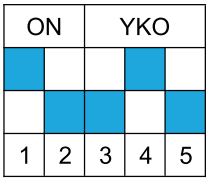
Setting 20



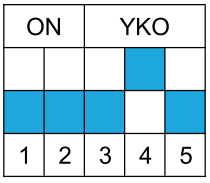
Setting 21



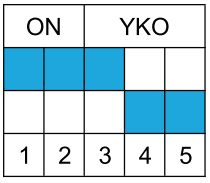
Setting 22



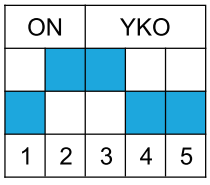
Setting 法 23



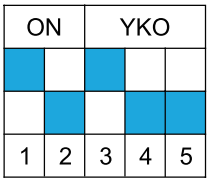
Setting 24



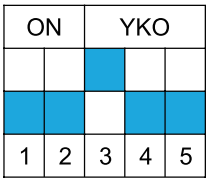
Setting 25



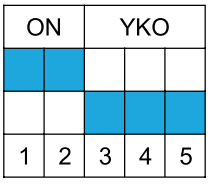
Setting 26



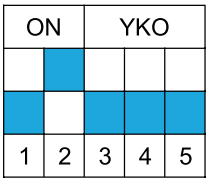
Setting 27



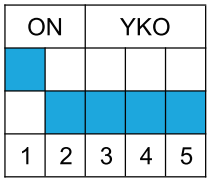
Setting 28



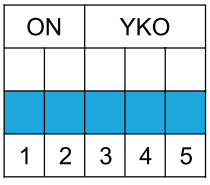
Setting 29



Setting 30



Setting 31



Setting 32

Note: One-to-more control function can control 1~32 units. When there are more than 2 units in control, each unit must be set to a different address, otherwise the unit will operate abnormally.

◆ Address DIP setting (rotary type)

Up to 10 settings are available, that is, the arrow pointing to different numbers represents different addresses (a total of 10 numbers from 0 to 9).

Note: One-to-more control function can control 1~10 units. When there are more than 2 units in control, each unit must be set to a different address, otherwise the unit will operate abnormally.

5 Diagnostics

Error code	Error name	Equipment status
F0	Return air temperature sensor error	It is in normal operation, but fails to detect the ambient temperature.
F5	Wired controller temperature sensor error	It is in normal operation, but fails to detect the ambient temperature.
F1	Coils temperature sensor error for two-pipe units Cold water coils temperature sensor error for four-pipe units	It is in normal operation, but fails to detect the coil temperature.
FE	Hot water coils temperature sensor error for the four-pipe units	It is in normal operation, but fails to detect the coil temperature.
E0	Water pump error	It stops.
E6	Communication error	It stops.
E9	Water full protection	It stops,but the water pump starts or keeps in operation.
E8	DC motor error	It stops.
C5	Jumper error	It stops.
HF	WIFI communication error	It is in normal operation, but fails to connect the WiFi.

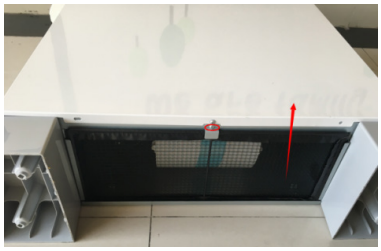
MAINTENANCE

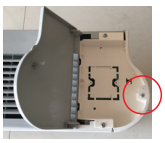
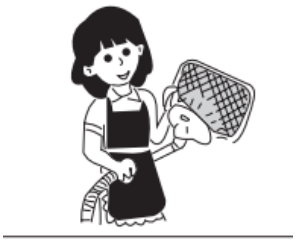
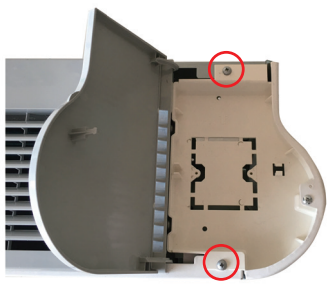
1 Servicing

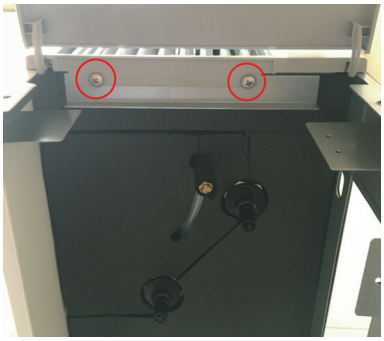
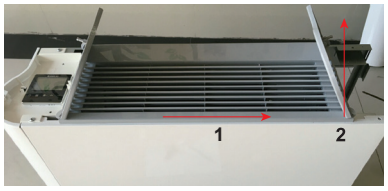
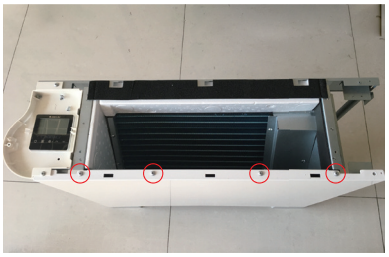
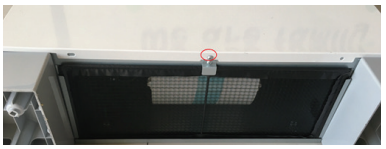
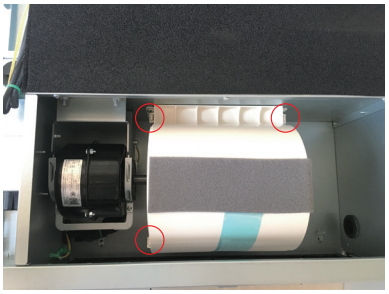
(1) Power supply must be cut off before any maintenance.

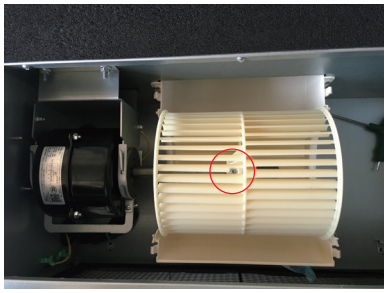
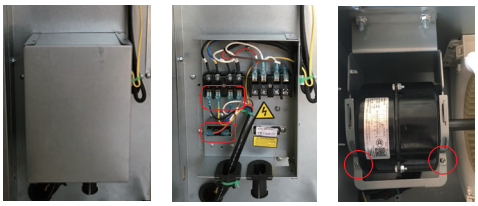
(2) Maintenance must be operated by qualified servicemen.

1.1 Vertical mounted exposed type

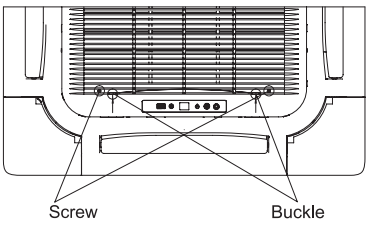
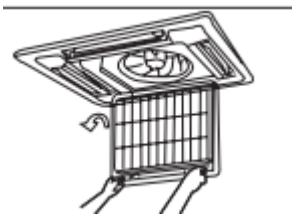
Step	Picture	Work instruction
(1) Detach the filter.		Pull up the filter.
(2) Clean the filter screen.	 	• Use the dust collector or water to clean the filter screen. When the filter screen is quite dirty, warm (less than 45°C) detergent solution can be used. Then, dry it in the shade. Notes: (a) Do not use the hot water higher than 45°C, otherwise the filter screen would be de-colored or deformed. (b) Do not bake it above the fire, otherwise the filter screen would catch fire or be deformed.

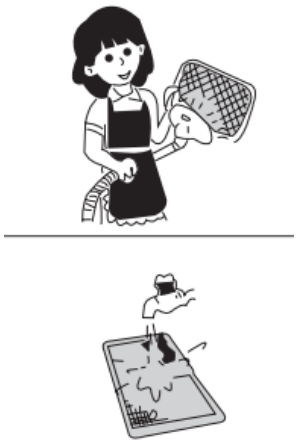
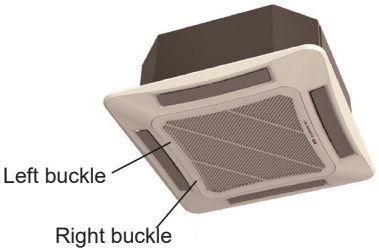
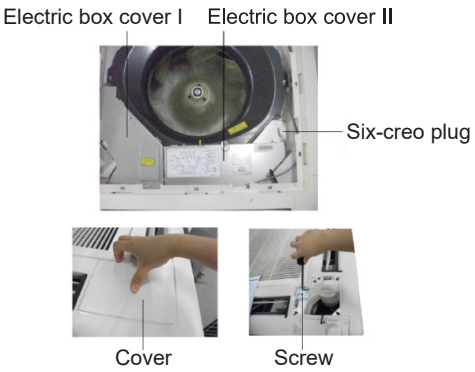
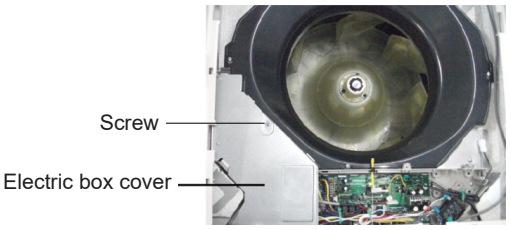
Step	Picture	Work instruction
(3)Take off decorated panels.	   	• Open up the two display top covers. • Take out the screws from the left, right and top of the unit. • Lift up its decorated panels (on left or right side) and remove them in a horizon direction.
(4) Clean the filter screen.	 	• Use the dust collector or water to clean the filter screen. When the filter screen is quite dirty, warm (less than 45°C) detergent solution can be used. Then, dry it in the shade. Notes: (a) Do not use the hot water higher than 45°C, otherwise the filter screen would be de-colored or deformed. (b) Do not bake it above the fire, otherwise the filter screen would catch fire or be deformed.
(5)Take off the display bottom cover (right).		Take out the screws from the display bottom cover.

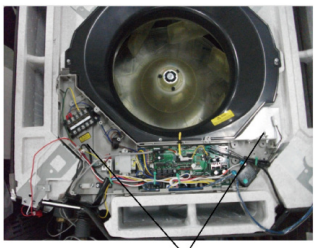
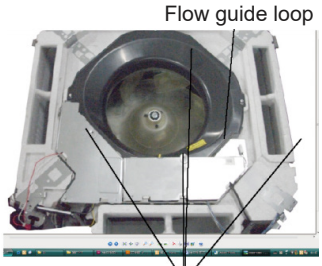
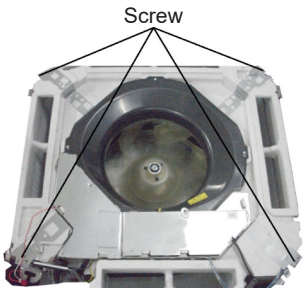
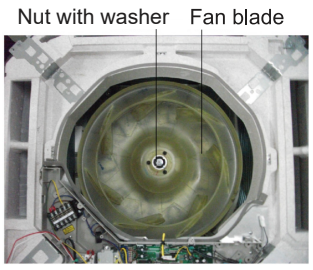
Step	Picture	Work instruction
(6) Take off the grille.	 	Unscrew the grille and move it towards right and then up.
(7) Detach the front panel.	 	Take out the screws from the front panel.
(8) Detach the volute casing.		Press clasps hard to take out the volute casing.

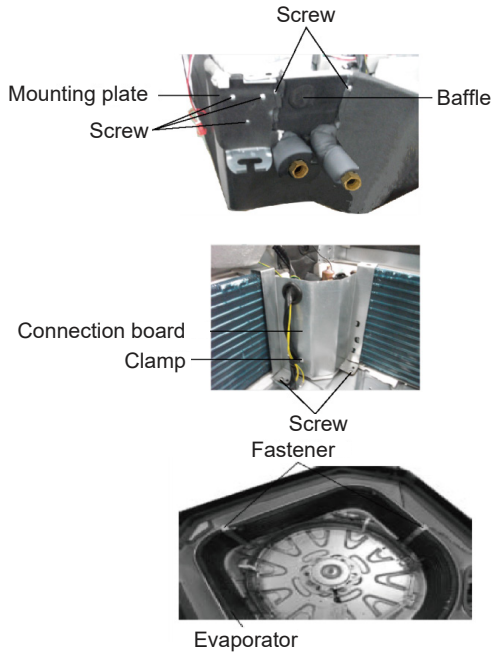
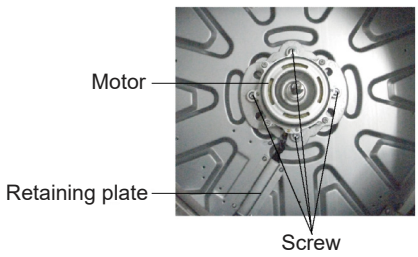
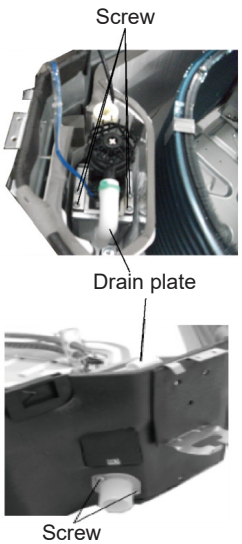
Step	Picture	Work instruction
(9) Detach fan blades.		Use an inner hexagonal spanner to unscrew fan blades from the motor.
(10) Detach wires.		• Unscrew the electric box cover. • Take out connecting tabs between terminal blocks and capacitors. • Cut off fixing clamps to take away motor wires. Take the screws out of the motor to remove bar clasps and loops. • Unscrew the earth wire to take away the motor.

1.2 Cassette type (AC)

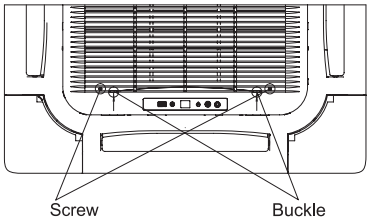
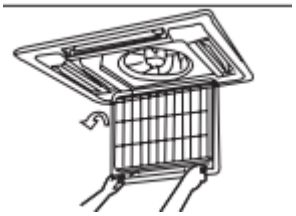
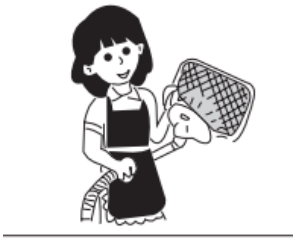
Step	Picture	Work instruction
(1) Take the screws out of the grille.		Remove the screw and pull the buckle to open the panel.
(2) Remove the filter screen.		Pull the filter screen down wards to make it away from the buckles and take out the filter screen。

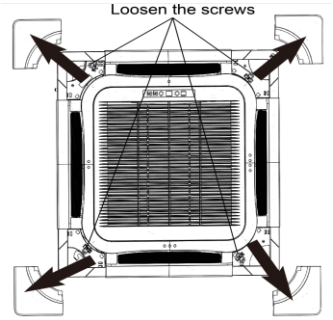
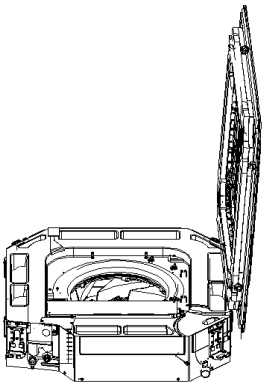
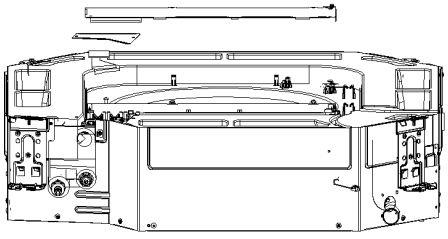
Step	Picture	Work instruction
(3) Clean the filter screen.		Use the dust collector or water to clean the filter screen. When the filter screen is quite dirty, warm (less than 45°C) detergent solution can be used. Then, dry it in the shade. Notes: (a) Do not use the hot water higher than 45°C, otherwise the filter screen would be de-colored or deformed. (b) Do not bake it above the fire, otherwise the filter screen would catch fire or be deformed.
(4) Detach the grille of the front panel.		Push the left and right buckles on the grille of the front panel toward the center and meanwhile pull it upward until it forms a 45℃ angle, after that pull the grille backward.
(5) Detach the front panel.		• Disconnect the power cord of the fan motor and the plug of the limit switch. • Open the cover II of the electric box and disconnect the six-cord plug, then remove covers on four corners away, after that, loosen the screws to the right position and turn the front panel counter clockwise and lastly pull it out upward.
(6) Detach the drain pan.		Unscrew cover I of the electrical box and then open the cover.

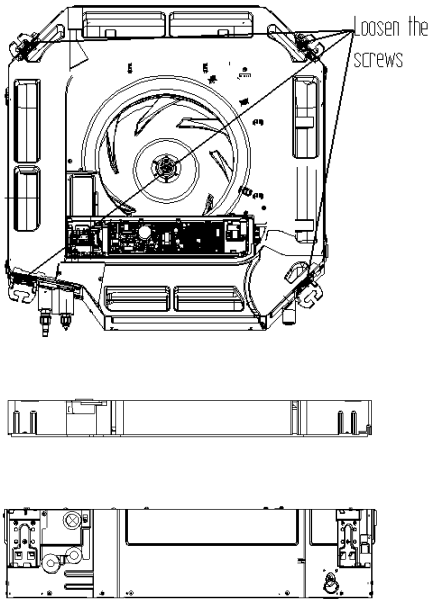
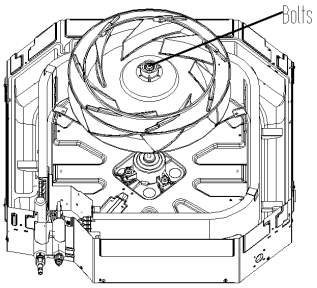
Step	Picture	Work instruction
(7) Detach the electrical box.		Take out two screws from the electric box and then disconnect each wiring terminals, after that take the electric box out upward.
(8) Detach the flow-guide loop.		Unscrew the flow-guide loop and then turn it counter clockwise.
(9) Detach the drain pan.		Unscrew drain pan and take it out upward.
(10) Detach the fan blade.		Unscrew the fan blade and then take it out upward.

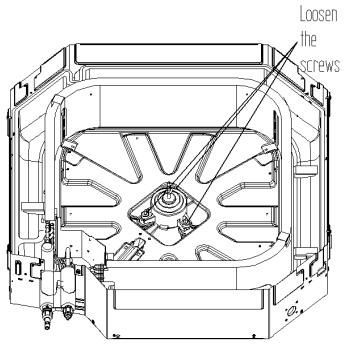
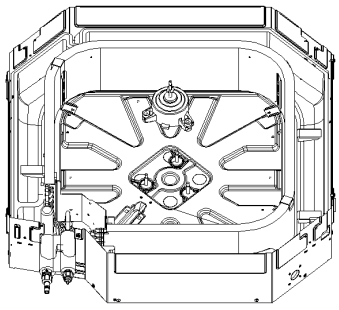
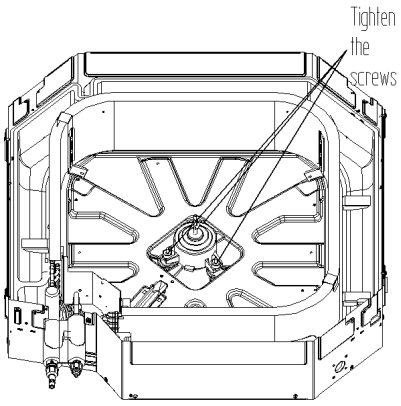
Step	Picture	Work instruction
(11) Detach the evaporator		• Unscrew the mounting plate and take it out. • Unscrew the baffle of the pipe outlet, and then press it downward to pull out the buckles on both side, after that, take the baffle away. • Unscrew the clamps from the connection board of the evaporator, disconnect the earth lead, and then take the power cord of the motor, electric heater and earth lead out through the wire-cross hole. • Unscrew the fasteners and remove them away. • Take the evaporator out upward.
(12) Detach the motor		Unscrew the retaining plate and the motor to take the motor out.
(13) Detach the water pump and the drain pipe		• Take out four screws from the water pump. • Disconnect the water pipe of the pump. • Take the mounting bracket away • Unscrew the water pipe to take it away.

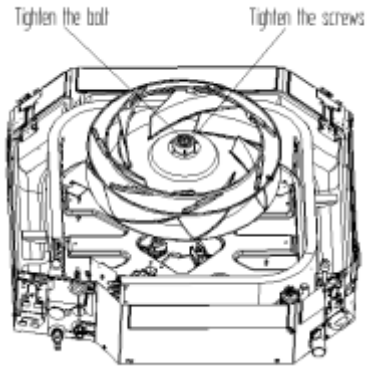
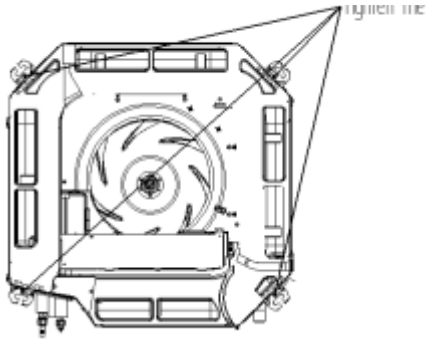
1.3 A series cassette type (DC)

Step	Picture	Work instruction
(1) Take the screws out of the grille.		Remove the screw and pull the buckle to open the panel.
(2) Remove the filter screen.		Pull the filter screen down wards to make it away from the buckles and take out the filter screen。
(3) Clean the filter screen.	 	Use the dust collector or water to clean the filter screen. When the filter screen is quite dirty, warm (less than 45°C) detergent solution can be used. Then, dry it in the shade. Notes: (a) Do not use the hot water higher than 45°C, otherwise the filter screen would be de-colored or deformed. (b) Do not bake it above the fire, otherwise the filter screen would catch fire or be deformed.

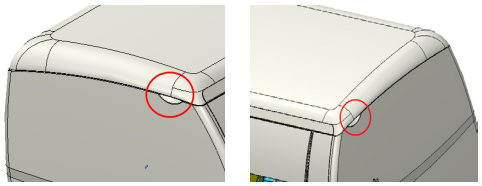
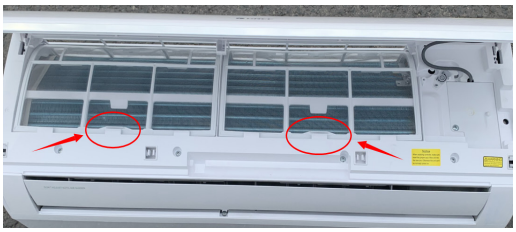
Step	Picture	Work instruction
(4) Remove the front panel.	 	• Turn off the power supply of indoor unit. • Push the 4 corner plates in the directions shown by the arrows. • Loosen the screws and remove the front panel.
(5) Remove the cover of electric box and the clamp of power cord.		• Remove the motor wire and water pump of the electric box.

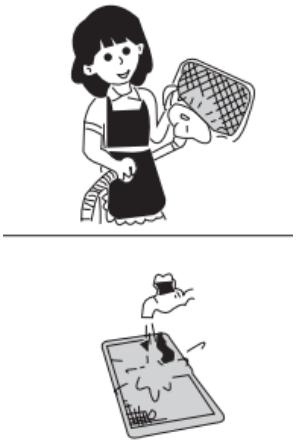
Step	Picture	Work instruction
(6) Remove the water tray.		• Loosen the screws in the 4 corners and then remove the water tray.
(7) Remove the fan.		• Use a screwdriver to remove the clamping band of motor. Then remove the fan.

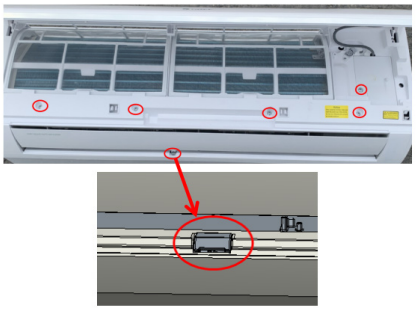
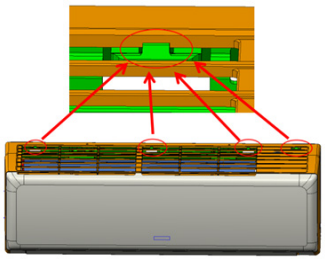
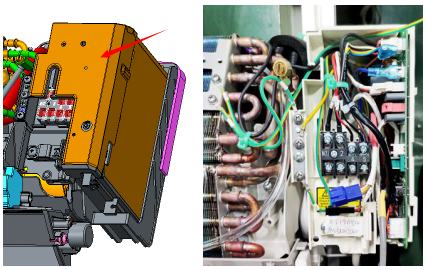
Step	Picture	Work instruction
(8) Remove motor.	 	• Use a screwdriver to unscrew the 4 screws of motor. Then remove the motor.
(9) Replace and install the motor.		• Remove the motor from motor support and then replace with a new motor. • Tighten the 4 screws of motor with a screwdriver.

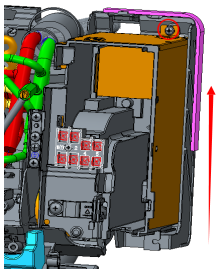
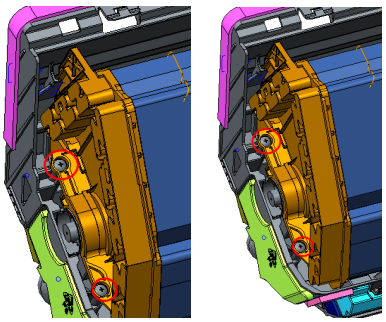
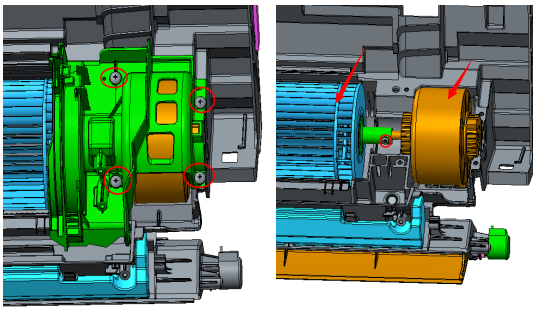
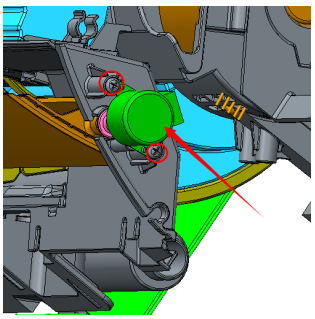
Step	Picture	Work instruction
(10) Install the fan.		• Direct the hole of fan to the motor shaft and then mount on the fan. • Tighten the clamping band of motor with a wrench.
(11) Install the water tray and electric box.		• Direct the 4 corners of water tray to the 4 corners of the unit and then press them. Use a screwdriver to tighten the screws in the 4 corners. • Connect the power cord and water pump wire. • Place back the cover of electric box and the clamp of power cord. Then tighten the screws with a screwdriver.

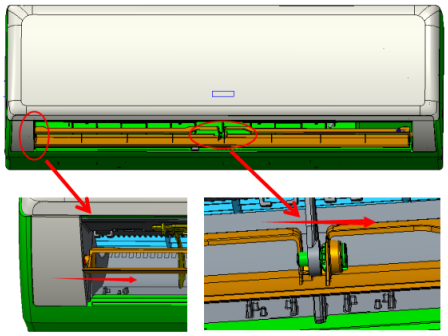
1.4 A series wall mounted type (DC)

Step	Picture	Work instruction
(1) Remove filters.	 **The concavity at two sides**  **The clasp of filters**	• Pull up the front panel with sufficient equal force by your hands at the two-side concavities. • Grip the clasp of a filter and push it ahead lightly. Lift it to pull out the filter.

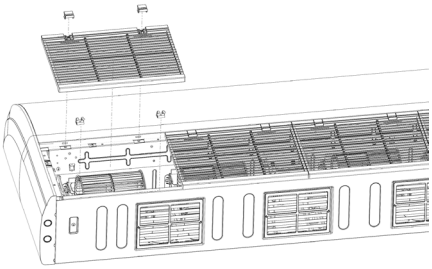
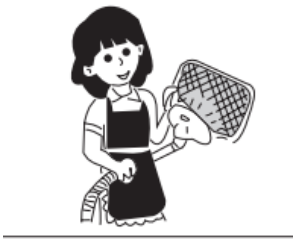
Step	Picture	Work instruction
(2) Clean the filter screen.		• Use the dust collector or water to clean the filter screen. When the filter screen is quite dirty, warm (less than 45°C) detergent solution can be used. Then, dry it in the shade. Notes: (a) Do not use the hot water higher than 45°C, otherwise the filter screen would be de-colored or deformed. (b) Do not bake it above the fire, otherwise the filter screen would catch fire or be deformed.

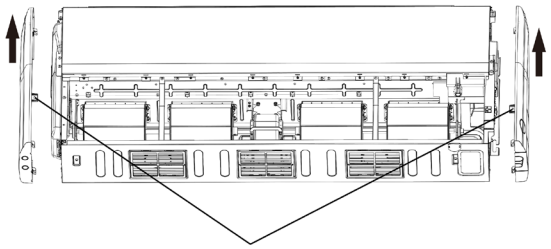
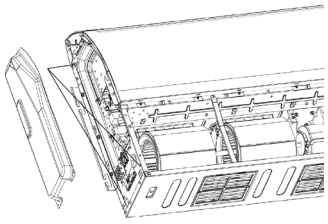
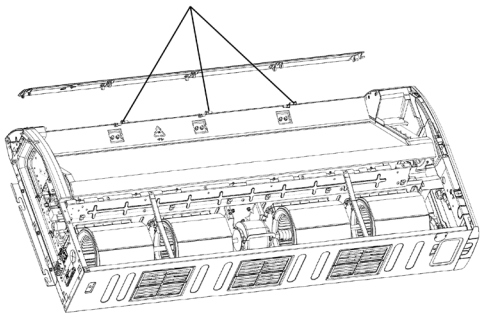
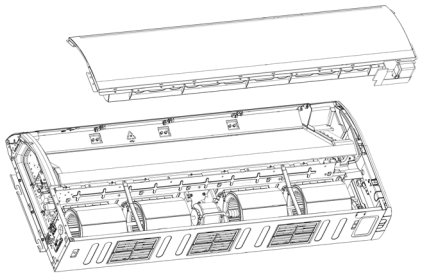
Step	Picture	Work instruction
(3) Remove the inner panel.	 **Screws and the screw cover**  **The light panel and screws**  **Clasps**	• Open the screw cover and loosen the set screws. • Unscrew the light panel and the inner panel.
(4) Remove the mainboard.	 **Electric box and wires**	• Take the cover off the electric box. • Cut the wire clamps. And pull out all terminals to remove the mainboard.

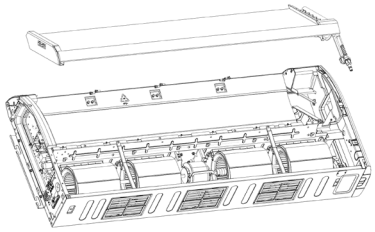
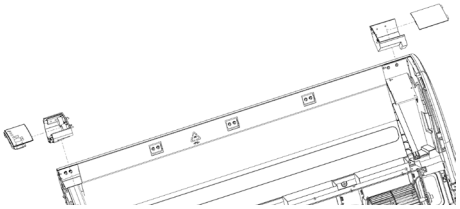
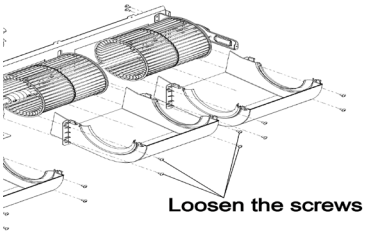
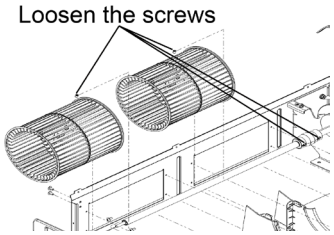
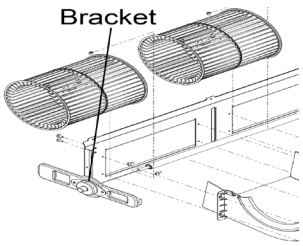
Step	Picture	Work instruction
(5) Remove the electric box.		Unscrew the electric box and pull it in the direction of the arrow.
(6) Remove the cooling coil.		Unscrew the cooling coil and take it off.
(7) Remove the motor and fans.		• Unscrew plates and clamps that fix motors to take them apart. • Unscrew the axial sleeve and then pull up the motor and fan.
(8) Remove the motor of the swing louver.		Take out the set screws from the motor.

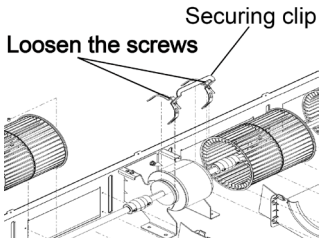
Step	Picture	Work instruction
(9) Remove the swing louver.	 Clasps	Take off the clasp in the middle and slightly bend the swing louver to take out the other clasps on both sides of the louver.

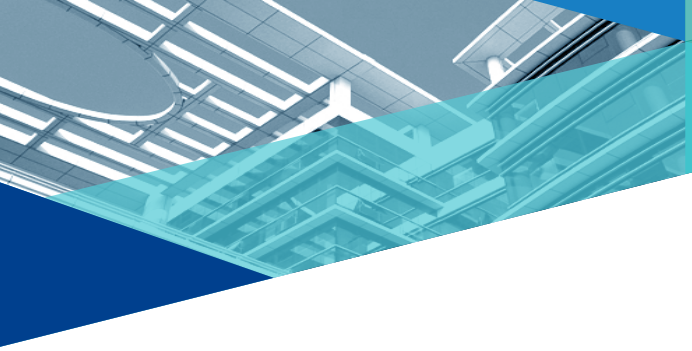
1.5 A series floor-ceiling type (DC)/B series floor-ceiling type type (AC)

Step	Picture	Work instruction
(1) Remove filters.		• Twist off the 2 hooks of the grill and the screws of the hooks. • Open the grill and remove 2 lower clamps. Then remove the grill.
(2) Clean the filter screen.	 	• Use the dust collector or water to clean the filter screen. When the filter screen is quite dirty, warm (less than 45°C) detergent solution can be used. Then, dry it in the shade. Notes: (a) Do not use the hot water higher than 45°C, otherwise the filter screen would be de-colored or deformed. (b) Do not bake it above the fire, otherwise the filter screen would catch fire or be deformed.

Step	Picture	Work instruction
(3) Remove the left and right panels.		• Use a screwdriver to loosen the screws, as shown in the picture. Then pull the right and left panels upward(Lines in the picture indicate the positions of screws)
(4) Remove the electric box.		• Unscrew 34 screws as shown in the left picture and then remove the electric box.
(5) Remove the air guide louver assembly.		Remove the air guide louver from its supporting assembly. Then take off the connectors from the swing motor (As shown in the picture, the lines indicate the supporting assembly).
(6) Remove the water tray.		Remove the water tray.

Step	Picture	Work instruction
(7) Remove the evaporator assembly.		• Twist off the 6 screws of the evaporator, 3 screws of the plate board of water releasing flume, and 2 screws of the water tray. Then remove the evaporator.
(8) Remove the display panel and fan assembly.		●First remove the display panel, next the bracket and then the swing motor mounting plate.
(9) Remove the volutes.		●Press the retaining ring at the joint of front and rear volutes. Then pull up the front volute. Then loosen the screws of the rear volute. Lift up the retaining ring of the rear volute and take it off. (As shown in the picture, the lines indicate the screws on both sides of the volutes).
(10) Remove the fan.		●Loosen the 2 screws of the coupler. Take out the shaft and axial flow fan. Loosen the screws of axial flow fan and remove the axial flow fan.
(11) Remove the bearing fixed plate.		●Twist off the screws and nuts of bracket. Then remove the bracket.

Step	Picture	Work instruction
(12) Remove the motor.		●Loosen the 2 screws of the motor securing clip. Remove the motor securing clip and its assembly.



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