

## 1.5 Technical Data

### 1.5.1 Data at Nominal Conditions

#### Section one --- countries and areas except the European Union

(1) 50Hz (without the return air box), standard, 3-row pipes

Standard Type (G Series)

Type Item		Concealed ceiling type	FP-34WA/	FP-51WA/	FP-68WA/	FP-85WA/	FP-102WA/	FP-136WA/	FP-170WA/	FP-204WA/	
			G-K	G-K	G-K	G-K	G-K	G-K	G-K	G-K	
Performance	Airflow	Hi	340	510	680	850	1020	1360	1700	2040	
		Mid	248	393	510	638	788	1095	1275	1575	
		Low	213	263	340	425	525	730	850	1050	
	Cooling capacity	Hi	W	1850	2800	3600	4500	5500	7350	9200	11000
	Heating capacity	Hi	W	3050	4620	5940	7400	9000	12100	15100	18100
	Flow rate		m <sup>3</sup> /h	0.33	0.52	0.63	0.77	0.92	1.31	1.52	1.92
	Water resistance		kPa	15	30	23	25	35	40	46	40
	Noise	12pa	dB(A)	34.5	35	40	40.5	44	45	46	49
		30Pa		36	37	41	42	45.5	46	47.5	51
	External static pressure		Pa	12Pa for the standard type (with no diffuser and filter ); 30Pa for the high ESP type							
Coil	Type		Copper, high-efficiency louvered fins								
	Pressure		≤1.6MPa								
Motor	Type		Class B, capacitor start								
	Quantity	/	1				2				
	Power supply		220-240V ~ 50Hz								
	Protection class		IP20								
Input power	12pa	W	37	52	62	76	96	134	152	189	
	30Pa	W	44	59	72	87	108	156	174	212	
Power lines		mm <sup>2</sup>	0.5×3								
Protection class		I									
Fan	Type		Front-forward multi-vane low-noise centrifugal fan								
	Quantity	/	1	2			3	4			
Connection pipe		Inlet water	Rc3/4(female thread)								
		Outlet water	Rc3/4(female thread)								
		Condensate	R23/4(female thread)								
Weight	Without return air box	kg	11.2	13	14.3	15.5	16.6	23	26.2	28	
Thermostat (optional)		Mechanical	Z54352A1								
		Digit	WK-110PA0								
		Deluxe digit	WK-010PA-K-K								

Notes:

- a) The left and right modes can be switched over on site. The correction coefficient for both

- cooling and heating is 0.9.
- b) Nominal cooling conditions: (27/19.5℃) indoor dry/wet bulb temperature, (7/12℃) entering and leaving water temperature. Nominal heating conditions: 21℃ indoor dry bulb temperature, 60℃ entering water temperature.
- c) The noise is tested under the semi-anechoic chamber and the actual value will change under different environments.

Three-row type

Model		Concealed ceiling type	FP-34W AS/G-K	FP-51W AS/G-K	FP-68W AS/G-K	FP-85W AS/G-K	FP-102 WAS/G-K	FP-136 WAS/G-K	FP-170 WAS/G-K	FP-204 WAS/G-K	
Item											
Performance	Air flow	Hi	m <sup>3</sup> /h	340	510	680	850	1020	1360	1700	2040
		Mid		248	394	495	638	788	1095	1275	1575
		Low		173	263	330	425	525	730	850	1050
	Cooling capacity	Hi	W	2250	3300	4300	5000	6300	8200	9800	11250
	Heating capacity	Hi	W	3600	5300	6930	8050	10100	13200	15800	18600
	Water flow		m <sup>3</sup> /h	0.4	0.57	0.76	0.88	0.99	1.41	1.68	1.95
	Water resistance		kPa	20	21	22	30	35	40	33	40
	Noise	12pa	dB(A)	34.5	37	38.5	41	44	45	46.5	50
		30Pa		36	38	41	43	46	47	47.5	51.5
	External static pressure		Pa	12Pa for the standard type (with no diffuser and filter ); 30Pa for the high ESP type							
Coil	Type		Copper, high-efficiency louvered fins								
	Pressure		≤1.6MPa								
Motor	Type		Class B, capacitor start								
	Quantity	/	1				2				
	Power supply		220V ~ 50Hz								
	Protection class		IP20								
Input power	12pa	W	37	52	62	76	96	134	152	189	
	30Pa	W	44	59	72	87	108	156	174	212	
Power lines		mm <sup>2</sup>	0.5×3								
Protection class		I									
Fan	Type		Front-forward multi-vane low-noise centrifugal fan								
	Quantity	/	1	2				3	4		
Connection pipe		Inlet water	Rc3/4(female thread)								
		Outlet water	Rc3/4(female thread)								
		Condensate	R2c3/4(female thread)								
Weight	Without the return air box	kg	11.6	13.4	14.7	16	17.4	24	26.6	28.5	
	With the return air box	kg									
Thermostat (optional)		Mechanical	Z54352A1								
		Digit	WK-110PA0								
		Deluxe digit	WK-010PA-K-K								

Notes:

- a) The left and right modes can be switched over on site. The correction coefficient for both

- cooling and heating is 0.9.
- b) Nominal cooling conditions: (27/19.5℃) indoor dry/wet bulb temperature, (7/12℃) entering and leaving water temperature. Nominal heating conditions: 21℃ indoor dry bulb temperature, 60℃ entering water temperature.
- c) The noise is tested under the semi-anechoic chamber and the actual value will change under different environments.

50Hz (without the return air box), 4-row pipes

Type Item		Concealed ceiling type	FP-34WA	FP-51WA	FP-68WA	FP-85WA	FP-102W	FP-136W	FP-170W	FP-204W	
			F-R	F-R	F-R	F-R	AF-R	AF-R	AF-R	AF-R	
Performance	Airflow	Hi	m <sup>3</sup> /h	340	510	680	850	1020	1360	1700	2040
		Mid		248	393	510	638	788	1095	1275	1575
		Low		213	263	340	425	525	730	850	1050
	Cooling capacity	Hi	W	2600	4000	4700	5600	7500	9200	11000	12200
	Heating capacity	Hi	W	4300	6500	7300	8600	10500	14500	18000	20000
	Flow rate		m <sup>3</sup> /h	0.464	0.729	0.893	0.981	1.318	1.615	2.042	2.229
	Water resistance		kPa	3.713	8.943	14.54	18.79	35.75	19.06	29.01	35.41
	Noise	30Pa		40	42	44	46	47	48	50	52
	External static pressure		Pa	30pa							
Coil	Type		Copper, high-efficiency louvered fins								
	Pressure		≤1.6MPa								
Motor	Type		Class B, capacitor start								
	Quantity	/	1				2				
	Power supply		220-240V ~ 50Hz								
	Protection class		IP20								
	Input power 30Pa	W	43	59	70	84	105	151	174	206	
Power lines		mm <sup>2</sup>	0.5×3								
Protection class		I									
Fan	Type		Front-forward multi-vane low-noise centrifugal fan								
	Quantity	/	1	2			3	4			
Connection pipe		Inlet water	Rc3/4(female thread)								
		Outlet water	Rc3/4(female thread)								
		Condensate	R23/4(female thread)								
Weight	Without return air box	kg	14.4	17.2	19.2	20.5	23.2	34.2	37.5	37.5	
Thermostat (optional)		Mechanical	Z54352A1								
		Digit	WK-110PA0								
		Digital (deluxe)	WK-010PA-K-K								

Notes:

- a) The left and right modes can be switched over on site. The correction coefficient for both cooling and heating is 0.9.
- b) Nominal cooling conditions: (27/19.5℃) indoor dry/wet bulb temperature, (7/12℃) entering and leaving water temperature. Nominal heating conditions: 21℃ indoor dry bulb

temperature, 60℃ entering water temperature.

- c) The noise is tested under the semi-anechoic chamber and the actual value will change under different environments.

50Hz (without the return air box), 3+1-row pipes

Type Item		Concealed ceiling type	FP-34WA	FP-51WA	FP-68WA	FP-85WA	FP-102W	FP-136W	FP-170W	FP-204	
			T-R	T-R	T-R	T-R	AT-R	AT-R	AT-R	WAT-R	
Performance	Airflow	Hi	340	510	680	850	1020	1360	1700	2040	
		Mid	248	393	510	638	788	1095	1275	1575	
		Low	213	263	340	425	525	730	850	1050	
	Cooling capacity	Hi	W	2300	3600	4350	5400	6700	8100	10350	11000
	Heating capacity	Hi	W	2100	3350	4000	4600	5350	7000	8300	8950
	Flow rate		m <sup>3</sup> /h	0.446	0.697	0.808	0.98	1.171	1.45	1.747	1.964
	Water resistance		kPa	5.83	13.50	19.86	30.81	51.67	17.20	25.24	29.34
	Noise	30Pa		40	42	44	46	47	48	50	52
	External static pressure		Pa	30pa							
Coil	Type		Copper, high-efficiency louvered fins								
	Pressure		≤1.6MPa								
Motor	Type		Class B, capacitor start								
	Quantity	/	1				2				
	Power supply		220-240V ~ 50Hz								
	Protection class		IP20								
	Input power 30Pa	W	43	59	70	84	105	151	174	206	
Power lines		mm <sup>2</sup>	0.5×3								
Protection class		I									
Fan	Type		Front-forward multi-vane low-noise centrifugal fan								
	Quantity	/	1	2				3	4		
Connection pipe		Inlet water	Rc3/4(female thread)								
		Outlet water	Rc3/4(female thread)								
		Condensate	R23/4(female thread)								
Weight	Without return air box	kg	14.4	17.2	19.2	20.5	23.2	34.2	37.5	37.5	
Thermostat (optional)		Mechanical	Z54352A1								
		Digit	WK-110PA0								
		Deluxe digit	WK-010PA-K-K								

Notes:

- a) The left and right modes can be switched over on site. The correction coefficient for both cooling and heating is 0.9.
- b) Nominal cooling conditions: (27/19.5℃) indoor dry/wet bulb temperature, (7/12℃) entering and leaving water temperature. Nominal heating conditions: 21℃ indoor dry bulb temperature, 60℃ entering water temperature.
- c) The noise is tested under the semi-anechoic chamber and the actual value will change under different environments.

(2) 60Hz (without the return air box), standard, 3-row pipes  
Horizontal concealed FCU— (G series, 208-230VAC 60Hz)

Model		Unit	FP-34WA/ G-D	FP-51WA/ G-D	FP-68WA/ G-D	FP-85WA/ G-D	FP-102WA/ G-D	FP-136WA/ G-D	FP-170WA/ G-D	FP-204WA/ G-D	
Performance	Air flow	High	340	510	680	850	1020	1360	1700	2040	
		Medium	248	394	495	638	788	1095	1275	1575	
		Low	173	263	330	425	525	730	850	1050	
	Cooling capacity	High	W	1900	3000	3600	4700	5700	7350	9500	11500
	Heating capacity	High	W	3050	5000	5900	7700	9350	12100	15800	18800
	Water flow		m³/h	0.10	0.14	0.18	0.21	0.26	0.36	0.42	0.53
	Water resistance		kPa	15	30	23	25	35	40	36	40
	Noise	12pa	dB(A)	34.5	38	40	43	45	46	48	50
		30Pa		36	39	42	46	47.5	48	50	52
	ESP		Pa	12Pa for the standard type (without the air diffuser and filter) 30Pa for the high static pressure type							
Coils	Type		Copper tube with louvered fins								
	Working pressure		≤1.6MPa								
Motor	Type		Class B insulation, capacitor start								
	Quantity	Piece	1				2				
	Power supply		208-230VAC 60Hz								
	Protection class		IP20								
Input power	12pa	W	36	57	70	104	105	164	180	228	
	30Pa	W	49	58	74	105	123	165	221	273	
Power lines		mm2×piece	0.5×3								
Anti electric shock class		I									
Fan	Type		Forward multi-vane low-noise centrifugal fan								
	Quantity	piece	1	2			3	4			
Connection pipe		Inlet	Rc3/4(inner thread)								
		Outlet	Rc3/4(inner thread)								
		Condensate	Rc3/4(outer thread)								
Net weight		kg	11.2	13	14.3	15.5	16.6	23	26.2	28	
Outline dimensions	Width	mm	680	800	900	1000	1080	1380	1520	1620	
	Depth	mm	490	460	490	490	490	490	490	490	
	Height	mm	235	235	235	235	235	235	235	235	
Thermostat (optional)		Mechanical	Z54352A1								
		Digital	WK-110PA0								
		Digital (deluxe)	WK-010PA-K-K								

Notes:

- The left and right modes can be switched over on site. The correction coefficient for both cooling and heating is 0.9.
- Nominal cooling conditions: (27/19.5℃) indoor dry/wet bulb temperature, (7/12℃) entering and leaving water temperature. Nominal heating conditions: 21℃ indoor dry bulb temperature, 60℃ entering water temperature.
- The noise is tested under the semi-anechoic chamber and the actual value will change under different environments.

Horizontal concealed three-row-pipe FCU— (G series, 208-230VAC 60Hz)

Model Item		Unit	FP-34WA	FP-51WA	FP-68WA	FP-85WA	FP-102W	FP-136W	FP-170W	FP-204W	
			S/G-D	S/G-D	S/G-D	S/G-D	AS/G-D	AS/G-D	AS/G-D	AS/G-D	
Performance	Air flow	High	340	510	680	850	1020	1360	1700	2040	
		Medium	248	394	495	638	788	1095	1275	1575	
		Low	173	263	330	425	525	730	850	1050	
	Cooling capacity	High-speed	W	2250	3300	4400	5200	6600	8300	10200	12200
		Heating capacity	High-speed	W	3700	5400	7350	8500	10650	13500	17000
	Water flow		m <sup>3</sup> /h	0.11	0.16	0.21	0.24	0.28	0.39	0.47	0.54
	Water resistance		kPa	20	21	22	30	35	40	33	40
	Noise	12pa	dB(A)	35	39	41	43	46	46	48	50
		30Pa		38	40	44	46	48	49	50	52
ESP		Pa	12Pa for the standard type (without the air diffuser and filter)								
Coils	Type		Copper tube with louvered fins								
	Working pressure		≤1.6MPa								
Motor	Type		Class B insulation, capacitor start								
	Quantity	Piece	1				2				
	Power lines		208-230VAC 60Hz								
	Protection class		IP20								
Input power	12pa	W	36	63	70	104	114	182	180	228	
	30Pa	W	49	64	74	105	123	183	221	273	
Power lines		mm <sup>2</sup> ×piece	0.5×3								
Anti electric shock class		I									
Fan	Model		Forward multi-vane low-noise centrifugal fan								
	Quantity	piece	1	2			3	4			
Connection pipe	Inlet		Rc3/4(inner thread)								
	Outlet		Rc3/4(inner thread)								
	Condensate		Rc3/4(outer thread)								
Net weight		kg	11.6	13.4	14.7	16	17.4	24	26.6	28.5	
Outline dimensions	Width		mm	680	800	900	1000	1080	1380	1520	
	Depth		mm	490	460	490	490	490	490	490	
	Height		mm	235	235	235	235	235	235	235	
Thermostat (optional)	Mechanical		Z54352A1								
	Digital		WK-110PA0								
	Digital (deluxe)		WK-010PA-K-K								

Notes:

- a) The left and right modes can be switched over on site. The correction coefficient for both cooling and heating is 0.9.
- b) Nominal cooling conditions: (27/19.5℃) indoor dry/wet bulb temperature, (7/12℃) entering and leaving water temperature. Nominal heating conditions: 21℃ indoor dry bulb temperature, 60℃ entering water temperature.
- c) The noise is tested under the semi-anechoic chamber and the actual value will change under different environments.

(3) 60 Hz (Without the return air box), 4-row pipes

Type Item		Concealed ceiling type	FP-34WAF	FP-51WAF	FP-68WAF	FP-85WAF	FP-102WA	FP-136WA	FP-170WA	FP-204W	
			-R	-R	-R	-R	F-R	F-R	F-R	AF-R	
Performance	Airflow	Hi	m <sup>3</sup> /h	340	590	690	820	1040	1490	1850	2160
		Mid		248	393	510	638	788	1095	1275	1575
		Low		213	263	340	425	525	730	850	1050
	Cooling capacity	Hi	W	2650	4080	4800	5800	7600	9300	11200	12500
	Heating capacity	Hi	W	4350	6550	7400	8800	11500	14700	18200	20800
	Flow rate		m <sup>3</sup> /h	0.464	0.729	0.893	0.981	1.318	1.615	2.042	2.229
	Water resistance		kPa	8	9	18	21	41	21	32	34
	Noise	30Pa		40	42	44	46	47	48	50	52
	External static pressure		Pa	30pa							
Coil	Type		Copper, high-efficiency louvered fins								
	Pressure		≤1.6MPa								
Motor	Type		Class B, capacitor start								
	Quantity	/	1				2				
	Power supply		220-240V ~ 50Hz								
	Protection class		IP20								
	Input power 30Pa	W	49	80	82	103	140	192	217	277	
Power lines		mm <sup>2</sup>	0.5×3								
Protection class			I								
Fan	Type		Front-forward multi-vane low-noise centrifugal fan								
	Quantity	/	1	2			3	4			
Connection pipe		Inlet water	Rc3/4(female thread)								
		Outlet water	Rc3/4(female thread)								
		Condensate	R23/4(female thread)								
Weight	Without return air box	kg	14.4	17.2	19.2	20.5	23.2	34.2	37.5	37.5	
Thermostat (optional)		Mechanical	Z54352A1								
		Digit	WK-110PA0								
		Deluxe digit	WK-010PA-K-K								

(4) 60 Hz (Without the return air box), 3+1-row pipes

Type Item		Concealed ceiling type	FP-34WAT	FP-51WAT	FP-68WAT	FP-85WAT	FP-102WA	FP-136WA	FP-170WA	FP-204WA	
			-R	-R	-R	-R	T-R	T-R	T-R	T-R	
Performance	Airflow	Hi	360	630	690	890	1040	1490	1850	2160	
		Mid	248	393	510	638	788	1095	1275	1575	
		Low	213	263	340	425	525	730	850	1050	
	Cooling capacity	Hi	W	2350	3800	4400	5600	6800	8200	10500	11200
	Heating capacity	Hi	W	2150	3400	4100	4700	5600	7200	8400	9100
	Flow rate		m <sup>3</sup> /h	0.446	0.697	0.808	0.98	1.171	1.45	1.747	1.964
	Water resistance		kPa	8	15	24	35	56	17	32	31
	Noise	30Pa		40	42	44	46	47	48	50	52
	External static pressure		Pa	30pa							
Coil	Type		Copper, high-efficiency louvered fins								
	Pressure		≤1.6MPa								
Motor	Type		Class B, capacitor start								
	Quantity	/	1				2				
	Power supply		220-240V ~ 50Hz								
	Protection class		IP20								
	Input power 30Pa	W	49	80	82	112	140	192	217	277	
Power lines		mm <sup>2</sup>	0.5×3								
Protection class		I									
Fan	Type		Front-forward multi-vane low-noise centrifugal fan								
	Quantity	/	1	2			3	4			
Connection pipe		Inlet water	Rc3/4(female thread)								
		Outlet water	Rc3/4(female thread)								
		Condensate	R23/4(female thread)								
Weight	Without return air box	kg	14.4	17.2	19.2	20.5	23.2	34.2	37.5	37.5	
Thermostat (optional)		Mechanical	Z54352A1								
		Digit	WK-110PA0								
		Deluxe digit	WK-010PA-K-K								



**Section two --- countries and areas within the European Union**

Horizontal concealed FCU, standard (G series, 220~240VAC, 50Hz, EU)

Model Item		Unit	FP-34WA	FP-51WA	FP-68WA	FP-85WA	FP-102W	FP-136W	FP-170W	FP-204W	
			/GHL-K	/GHL-K	/GHL-K	/GHL-K	A/GHL-K	A/GHL-K	A/GHL-K	A/GHL-K	
Performance	Air flow	High	m³/h	370	570	720	870	1020	1360	1600	1900
		Medium		260	400	504	610	788	1095	1120	1330
		Low		180	280	353	426	525	730	784	931
	Cooling	High	W	1750	2900	3400	4300	4900	6700	7000	10000
	Heating	High	W	2200	3400	4200	4700	6000	8000	9000	18900
	Water flow		m³/h	0.10	0.14	0.18	0.21	0.26	0.36	0.42	0.53
	Water resistance		kPa	15	30	23	25	35	40	36	40
	Noise		dB(A)	37	38	40.5	44	46	46	47	50.5
	External static pressure		Pa	0Pa							
Coils	Type		Copper tube and louvered fins								
	Working pressure		≤1.6MPa								
Motor	Type		Class B insulation, capacitor start								
	Quantity	piece	1				2				
	Power lines		220-240V ~ 50Hz								
	Protection class		IP20								
Input power		W	35	54	66	84	101	150	154	198	
Power lines		mm²×piece	0.5×3								
Anti electric shock class			I								
Fan	Type		Forward multiple-vane low-noise centrifugal fan								
	Quantity	piece	1	2			3		4		
Connection pipe		inlet	Rc3/4(inner thread)								
		outlet	Rc3/4(inner thread)								
		condensate	Rc3/4(external thread)								
Net weight		kg	14.5	17	18.9	20.8	21.9	31.5	34.1	38	
Outline dimensions	Width	mm	680	800	900	1000	1080	1380	1520	1620	
	Depth	mm	500	500	500	500	500	500	500	500	
	Height	mm	235	235	235	235	235	235	235	235	
Thermostat (optional)		Mechanical	Z54352A1								
		Digital	WK-110PA0								
		Digital (deluxe)	WK-010PA-K-K								

Notes:

- The left and right modes can be switched over on site. The correction coefficient for both cooling and heating is 0.9.
- Nominal cooling conditions: (27/19.5℃) indoor dry/wet bulb temperature, (7/12℃) entering and leaving water temperature. Nominal heating conditions: 20℃ indoor dry bulb temperature, 45℃ entering water temperature and 40℃ leaving water temperature.
- The noise is tested under the semi-anechoic chamber and the actual value will change under different environments.

Horizontal concealed FCU, standard (G series, 220~240VAC, 50Hz, EU)

Model Item			Unit	FP-34WA H/GHL-K	FP-51WA H/GHL-K	FP-68WA H/GHL-K	FP-85WA H/GHL-K	FP-102W AH/GHL- K	FP-136W AH/GHL- K	FP-170W AH/GHL- K	FP-204W AH/GHL- K	
Performance	Air flow	High	M <sup>3</sup> /h	450	590	750	930	1100	1400	1700	2000	
		Medium		315	413	525	651	770	980	1190	1400	
		Low		220	290	367	455	539	686	833	980	
	Cooling capacity	High	W	2000	3100	3550	4500	5200	6900	7200	10200	
	Heating capacity	High	W	2300	3500	4500	4900	6300	8200	9200	12000	
	Water flow		m <sup>3</sup> /h	0.10	0.14	0.18	0.21	0.26	0.36	0.42	0.53	
	Water resistance		kPa	15	30	23	25	35	40	36	40	
	Noise		dB(A)	39	39	41	46	49	48	49	52	
	External static pressure		Pa	0Pa								
Coils	Type		Copper tube and louvered fins									
	Working pressure		≤1.6MPa									
Motor	Type		Class B insulation, capacitor start									
	Quantity	piece	1					2				
	Power supply		220-240VAC 50Hz									
	Protection class		IP20									
Input power		W	48	57	72	90	111	152	185	222		
Power lines		mm <sup>2</sup> ×piece	0.5×3									
Anti electric shock class			I									
Fan	Type		Forward multiple-vane low-noise centrifugal fan									
	Quantity	piece	1	2				3	4			
Connection pipe		Inlet	Rc3/4(inner thread)									
		Outlet	Rc3/4(inner thread)									
		Condensate	Rc3/4(external thread)									
Net weight		kg	14.5	17	18.9	20.8	21.9	31.5	34.1	38		
Outline dimensions	Width	mm	680	800	900	1000	1080	1380	1520	1620		
	Depth	mm	500	500	500	500	500	500	500	500		
	Height	mm	235	235	235	235	235	235	235	235		
Thermostat (optional)		Mechanical	Z54352A1									
		Digital	WK-110PA0									
		Digital (deluxe)	WK-010PA-K-K									

Notes:

- The left and right modes can be switched over on site. The correction coefficient for both cooling and heating is 0.9.
- Nominal cooling conditions: (27/19℃) indoor dry/wet bulb temperature, (7/12℃) entering and leaving water temperature. Nominal heating conditions: 20℃ indoor dry bulb temperature, 45℃ entering water temperature and 40℃ leaving water temperature.
- The noise is tested under the semi-anechoic chamber and the actual value will change under different environments.

Horizontal concealed FCU, 3-row-pipes (G series, 220~240VAC, 50Hz, EU)

Model Item		Unit	FP-34WA	FP-51WA	FP-68WA	FP-85WA	FP-102W	FP-136W	FP-170W	FP-204W	
			S/GHL-K	S/GHL-K	S/GHL-K	S/GHL-K	AS/GHL-K	AS/GHL-K	AS/GHL-K	AS/GHL-K	
Performance	Air flow	High	370	570	720	870	1020	1360	1600	1900	
		Mediu	260	400	504	610	788	1095	1120	1330	
		Low	180	280	353	426	525	730	784	931	
	Cooling capacity	High	W	2100	3200	4100	4800	5900	7600	8800	10400
		Heating capacity	High	W	2400	3700	4800	5500	6600	8900	10200
	Water flow		M <sup>3</sup> /h	0.11	0.16	0.21	0.24	0.28	0.39	0.47	0.54
	Water resistance		kPa	20	21	22	30	35	40	33	40
	Noise		dB(A)	37	39	40.5	44	48	47	48	50.5
External static pressure		Pa	0Pa								
Coils	Type		Copper tube and loured fins								
	Working pressure		≤1.6MPa								
Motor	Type		Class B insulation, capacitor start								
	Quantity	piece	1				2				
	Power supply		220-240V ~ 50Hz								
	Protection class		IP20								
Input power		W	35	58	66	78	102	161	150	192	
Power lines		mm <sup>2</sup> ×piece	0.5×3								
Anti-electric shock class		I									
Fan	Type		Forward multiple-vane low noise centrifugal fan								
	Quantity	Piece	1	2				3	4		
Connection pipe	Inlet		Rc3/4(inner thread)								
	Outlet		Rc3/4(inner thread)								
	Condensate		Rc3/4(external thread)								
Net weight		kg	14.9	17.4	19.3	21.3	22.7	30.9	34.5	38	
Outline dimensions	Width		mm	680	800	900	1000	1080	1380	1520	
	Depth		mm	500	500	500	500	500	500	500	
	Height		mm	235	235	235	235	235	235	235	
Thermostat (optional)	Mechanical		Z54352A1								
	Digital		WK-110PA0								
	Digital (Deluxe)		WK-010PA-K-K								

Notes:

- The left and right modes can be switched over on site. The correction coefficient for both cooling and heating is 0.9.
- Nominal cooling conditions: (27/19℃) indoor dry/wet bulb temperature, (7/12℃) entering and leaving water temperature. Nominal heating conditions: 20℃ indoor dry bulb temperature, 45℃ entering water temperature and 40℃ leaving water temperature.
- The noise is tested under the semi-anechoic chamber and the actual value will change under different environments.

Horizontal concealed FCU, 3-row-pipe (G series, 220~240VAC, 50Hz, EU)

Model Item		Unit	FP-34WA HS/GHL- K	FP-51WA HS/GHL- K	FP-68WA HS/GHL- K	FP-85WA HS/GHL- K	FP-102WA HS/GHL-K	FP-136WA HS/GHL-K	FP-170WA HS/GHL-K	FP-204WA HS/GHL-K	
Performance	Air flow	High	450	590	750	930	1100	1400	1700	2000	
		Mediu	315	413	525	651	770	980	1190	1400	
		Low	220	290	367	455	539	686	833	980	
	Cooling capacity	High	W	250	3300	4200	4900	6100	7800	9000	10500
		Heating capacity	High	W	2800	3800	5100	5700	6900	9000	10900
	Water flow	M <sup>3</sup> /h	0.11	0.16	0.21	0.24	0.28	0.39	0.47	0.54	
	Water resistance	kPa	20	21	22	30	35	40	33	40	
	Noise	dB(A)	39	40	42	46	49	49	49	52	
External static pressure	Pa	0Pa									
Coils	Type	Copper tube with loured fins									
	Working pressure	≤1.6MPa									
Motor	Type	Class B insulation, capacitor start									
	Quantity	piece	1				2				
	Power supply	220-240VAC 50Hz									
	Protection class	IP20									
Input power	W	46	57	72	83	108	164	185	221		
Power lines	mm <sup>2</sup> ×piece	0.5×3									
Anti electric shock class	I										
Fan	Type	Forward multi-vane low-noise centrifugal fan									
	Quantity	↑	1	2			3	4			
Connection pipe	Inlet	Rc3/4(inner thread)									
	Outlet	Rc3/4(inner thread)									
	Condensat	Rc3/4(external thread)									
Net weiht	kg	14.9	17.4	19.3	21.3	22.7	30.9	34.5	38		
Outline dimensions	Width	mm	680	800	900	1000	1080	1380	1520		
	Depth	mm	500	500	500	500	500	500	500		
	Height	mm	235	235	235	235	235	235	235		
Thermostat (optional)	Mechanical	Z54352A1									
	Digital	WK-110PA0									
	Digital (Deluxe)	WK-010PA-K-K									

Notes:

- The left and right modes can be switched over on site. The correction coefficient for both cooling and heating is 0.9.
- Nominal cooling conditions: (27/19℃) indoor dry/wet bulb temperature, (7/12℃) entering and leaving water temperature. Nominal heating conditions: 20℃ indoor dry bulb temperature, 45℃ entering water temperature and 40℃ leaving water temperature.
- The noise is tested under the semi-anechoic chamber and the actual value will change under different environments.

50Hz (with the return air box), 4-row pipes

Type Item			Concealed ceiling type	FP-34W AHF/BH L-K	FP-51W AHF/BH L-K	FP-68W AHF/BH L-K	FP-85W AHF/BH L-K	FP-102 WAHF/B HL-K	FP-136 WAHF/B HL-K	FP-170 WAHF/B HL-K	FP-34W AHF/BH L-K	
Performance	Airflow	Hi	m <sup>3</sup> /h	340	510	680	850	1020	1360	1700	2040	
		Mid		248	393	510	638	788	1095	1275	1575	
		Low		213	263	340	425	525	730	850	1050	
	Cooling capacity	Hi	W	2600	4000	4700	5600	7500	9200	11000	12200	
	Heating capacity	Hi	W	4300	6500	7300	8600	10500	14500	18000	20000	
	Flow rate			m <sup>3</sup> /h	0.464	0.729	0.893	0.981	1.318	1.615	2.042	2.229
	Water resistance			kPa	3.713	8.943	14.54	18.79	35.75	19.06	29.01	35.41
	Noise	30Pa			40	42	44	46	47	48	50	52
	External static pressure			Pa	30pa							
Coil	Type		Copper, high-efficiency louvered fins									
	Pressure		≤1.6MPa									
Motor	Type		Class B, capacitor start									
	Quantity	/	1					2				
	Power supply		220-240V ~ 50Hz									
	Protection class		IP20									
	Input power 30Pa	W	43	59	70	84	105	151	174	206		
Power lines		mm <sup>2</sup>	0.5×3									
Protection class		I										
Fan	Type		Front-forward multi-vane low-noise centrifugal fan									
	Quantity	/	1	2			3		4			
Connection pipe		Inlet water	Rc3/4(female thread)									
		Outlet water	Rc3/4(female thread)									
		Condensate	R23/4(female thread)									
Weight	Without return air box	kg	14.4	17.2	19.2	20.5	23.2	34.2	37.5	37.5		
Thermostat (optional)		Mechanical	Z54352A1									
		Digit	WK-110PA0									
		Deluxe digit	WK-010PA-K-K									

50Hz (with the return air box), 3+1-row pipes

Type Item		Concealed ceiling type	FP-34W	FP-51W	FP-68W	FP-85W	FP-102	FP-136	FP-170	FP-204	
			AHT/BH L-K	AHT/BH L-K	AHT/BH L-K	AHT/BH L-K	WAHT/B HL-K	WAHT/B HL-K	WAHT/B HL-K	WAHT/B HL-K	
Performance	Airflow	Hi	340	510	680	850	1020	1360	1700	2040	
		Mid	248	393	510	638	788	1095	1275	1575	
		Low	213	263	340	425	525	730	850	1050	
	Cooling capacity	Hi	W	2300	3600	4350	5400	6700	8100	10350	11000
	Heating capacity	Hi	W	2100	3350	4000	4600	5350	7000	8300	8950
	Flow rate		m <sup>3</sup> /h	0.446	0.697	0.808	0.98	1.171	1.45	1.747	1.964
	Water resistance		kPa	5.83	13.50	19.86	30.81	51.67	17.20	25.24	29.34
	Noise	30Pa		40	42	44	46	47	48	50	52
	External static pressure		Pa	30pa							
Coil	Type		Copper, high-efficiency louvered fins								
	Pressure		≤1.6MPa								
Motor	Type		Class B, capacitor start								
	Quantity	/	1				2				
	Power supply		220-240V ~ 50Hz								
	Protection class		IP20								
	Input power	30Pa	W	43	59	70	84	105	151	174	206
Power lines		mm <sup>2</sup>	0.5×3								
Protection class			I								
Fan	Type		Front-forward multi-vane low-noise centrifugal fan								
	Quantity	/	1	2			3	4			
Connection pipe		Inlet water	Rc3/4(female thread)								
		Outlet water	Rc3/4(female thread)								
		Condensate	R23/4(female thread)								
Weight	Without return air box	kg	14.4	17.2	19.2	20.5	23.2	34.2	37.5	37.5	
Thermostat (optional)		Mechanical	Z54352A1								
		Digit	WK-110PA0								
		Deluxe digit	WK-010PA-K-K								

**1.5.2 Temperature at Nominal Conditions**

Item	Water Side		Air Side	
	Entering water temperature (℃)	Leaving water temperature (℃)	DB Temperature (℃)	WB Temperature (℃)
Cooling	7	12	27	19.5
Heating	60	-	21	-

**1.5.3 Operation Range**

Item	Water Side	Air Side
	Leaving water temperature (℃)	Environment DB Temperature (℃)
Cooling	>5	16 ~ 40
Heating	<80	10 ~ 35

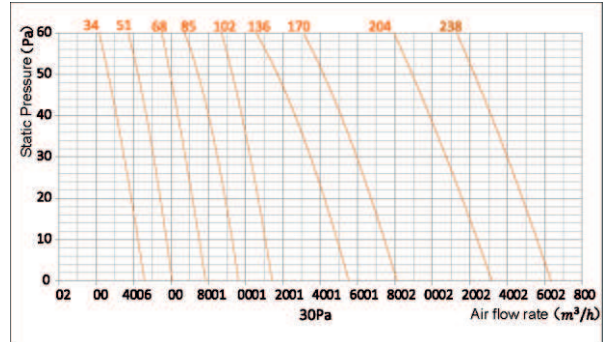
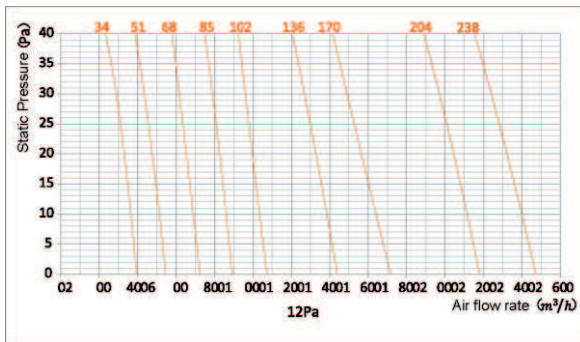
Note: when conditions are out of the range, please contact GREE.

### 1.5.4 Electric Data

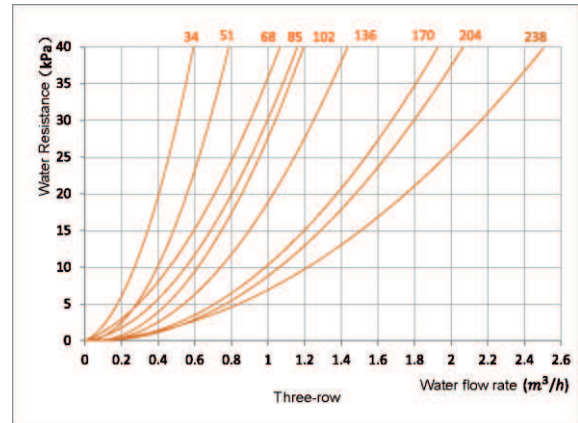
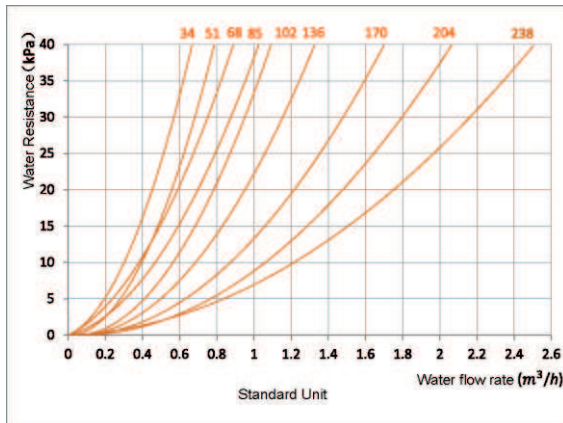
Model	Power Supply	Fan Quantity
FP-34	220-240 1 Ph 50Hz	1
FP-51	220-240 1 Ph 50Hz	2
FP-68	220-240V 1 Ph 50Hz	2
FP-85	220-240V 1 Ph 50Hz	2
FP-102	220-240 1 Ph 50Hz	2
FP-136	220-240 1 Ph 50Hz	3
FP-170	220-240 1 Ph 50Hz	4
FP-204	220-240 1 Ph 50Hz	4

### 1.5.5 Capacity Correction

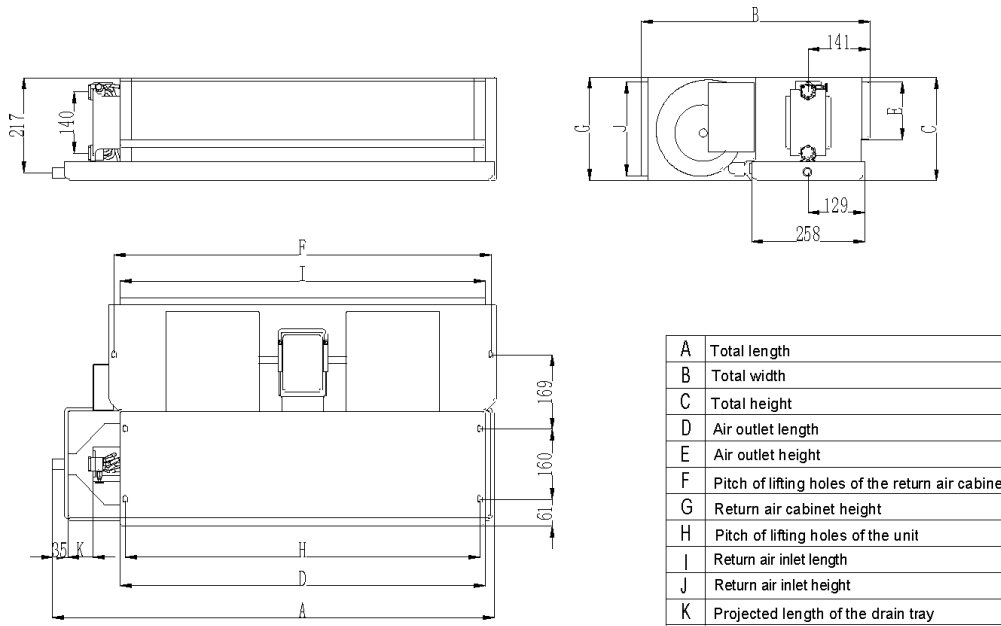
Air Flow Rate and External Static Pressure Curve



Water Flow Rate and Water Resistance Pressure Curve



## 2. Dimensions of the Unit



### Standard, 3-row pipes

Model Legend	FP-34	FP-51	FP-68	FP-85	FP-102	FP-136	FP-170	FP-204	FP-238
A	680	800	900	1000	1080	1380	1520	1620	1820
B	490	460	490	490	490	490	490	490	485
C	235	235	235	235	235	235	235	235	276
D	512	632	732	832	912	1212	1352	1452	1652
E	132	132	132	132	132	132	132	132	194
F	512	682	782	882	962	1262	1402	1502	1652
G	235	235	235	235	235	235	235	235	276
H	486	606	706	806	886	1186	1326	1426	1626
I	512	632	732	832	912	1212	1352	1452	1652
J	214	214	214	214	214	214	214	214	255
K	57	57	57	57	57	57	57	57	57

K for the extended drain tray is 300mm.