

# TECHNICAL SERVICE MANUAL

## Fancoil unit

### Middle Static Pressure Duct type

#### Models:


KFKD20H0EN1  
KFKD30H0EN1  
KFKD38H0EN1  
KFKD48H0EN1  
KFKD57H0EN1  
KFKD70H0EN1  
KFKD89H0EN1  
KFKD112H0EN1  
KFKD140H0EN1



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## 1. Product Schedule

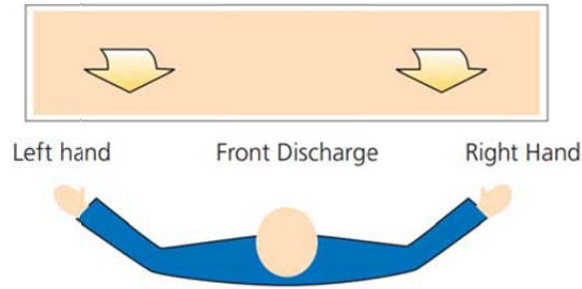
No	Model	External appearance	Net dimension	Net weight	Power supply
			(W×H×D) (unit: mm)	(kg)	
1	KFKD20H0EN1		757x241x506	16	220-240V/1ph/50Hz
2	KFKD30H0EN1		812x241x506	18.5	
3	KFKD38H0EN1		912x241x506	20	
4	KFKD48H0EN1		912x241x506	20	
5	KFKD57H0EN1		1135x241x506	24	
6	KFKD70H0EN1		1435x241x506	33	
7	KFKD89H0EN1		1540x241x506	38	
8	KFKD112H0EN1		1830x241x506	43	
9	KFKD140H0EN1		1992x241x506	47	

## 2. Features

### 1. Wide external static pressure supplying.

Two external static pressure (30Pa/50Pa) settings for added flexibility.

### 2. Left or right hand piping connections, field convertible.



### 3. Quiet operation

A patent design is able to prevent abnormal noise caused by blowing fins.

### 4. Superior air distribution

As the conditioned air can be distributed to every corner of the area by air duct, this will ensure more pleasant living environment, thus provide extra comfort to the occupants.

### 5. Fresh air supply makes life healthier and more comfortable



### 6. Air return plenum

Units with air return plenum is standard and units without air return plenum can be customized.

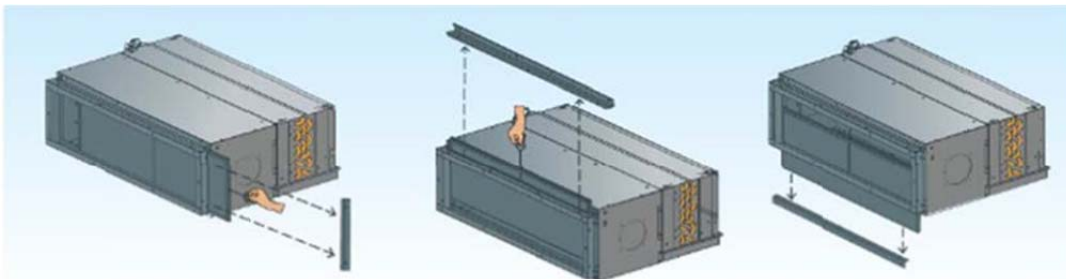
### 7. Electric heater

Safe factory-installed electric heater is an option for unit.

### 8. Washable filter

Iron frame filter is standard, and aluminum frame filter can be customized.

Air outlet flange and multi-direction pull-out filter can be customized.



### 9. Optional wired controller

Optional wired controller offers simple and flexibility in controlling the unit.

### 3. Specifications

Model KFKD_H0EN1			20	30	38	
Air flow	H/M/L	m <sup>3</sup> /h	340/255/170	510/385/255	680/510/340	
	H/M/L	CFM	200/150/100	300/225/150	400/300/200	
External Static pressure		Pa	50			
Cooling	Capacity	H/M/L	kW	2/1.74/1.52	2.7/2.31/2.03	3.6/3.11/2.66
	Water flow rate	H	l/h	344	464	619
	Water pressure drop	H	kPa	5	11	19
Heating	Capacity	H/M/L	kW	3.2/2.75/2.37	4.3/3.74/3.23	5.4/4.64/4.05
	Water pressure drop	H	kPa	4.2	9.5	15.5
Power supply		V/ph/Hz	220-240/1/50			
Power input	50Pa	H	W	45	60	67
Sound pressure level	50Pa	H/M/L	dB(A)	41/37/31	41/37/32	42/39/33
Fan motor	Type		Low noise 4-speed fan motor			
	Quantity		1	1	1	
Fan	Type		Centrifugal, forward-curved Blades			
	Quantity		1	2	2	
Coil	Row		2			
	Max. working pressure		MPa	1.6		
	Diameter		mm	Φ9.52		
Body	Dimensions	W×H×D	mm	757×241×506	812×241×506	912×241×506
	Packing	W×H×D	mm	806×265×558	871×265×558	971×265×558
	Net weight		kg	16	18.5	20
	Gross weight		kg	18	21	22.5
Pipe connection	Water inlet/outlet pipe		Inch	RC3/4		
	Drain pipe		mm	ODΦ24		

**Note:**

1. H: high fan speed; M: medium fan speed; L: low fan speed
2. Cooling conditions: entering water 7℃, temperature rise 5℃, entering air temperature 27℃ DB, 19℃WB.  
Heating conditions: entering water 50℃, enter air temperature 20℃, the same water flow as the cooling conditions.
3. Noise is tested in semi-anechoic test room.

## Specifications

Model KFKD_H0EN1				48	57	70
Air flow	H/M/L	m <sup>3</sup> /h		850/640/425	1020/765/510	1360/1020/680
	H/M/L	CFM		500/375/250	600/450/300	800/600/400
External Static pressure			Pa	50		
Cooling	Capacity	H/M/L	kW	4.4/3.74/3.25	5.5/4.58/4.09	7.5/6.33/5.68
	Water flow rate	H	l/h	757	946	1290
	Water pressure drop	H	kPa	22	14	14
Heating	Capacity	H/M/L	kW	6.8/5.78/5.07	8.1/6.77/5.92	11/9.48/8.25
	Water pressure drop	H	kPa	18.3	11.8	12.5
Power supply			V/ph/Hz	220-240/1/50		
Power input	50Pa	H	W	89	110	130
Sound pressure level	12Pa	H/M/L	dB(A)	39/36/32	40/36/33	42/37/33
	50Pa	H/M/L	dB(A)	45/41/34	46/41/35	46/41/36
Fan motor	Type			Low noise 4-speed fan motor		
	Quantity			1	1	2
Fan	Type			Centrifugal, forward-curved Blades		
	Quantity			2	2	4
Coil	Row			2		
	Max. working pressure		MPa	1.6		
	Diameter		mm	Φ9.52		
Body	Dimensions	W×H×D	mm	912×241×506	1135×241×506	1435×241×506
	Packing	W×H×D	mm	971×265×558	1185×265×558	1485×265×558
	Net weight		kg	20	24	33
	Gross weight		kg	22.5	27	36.5
Pipe connection	Water inlet/outlet pipe		Inch	RC3/4		
	Drain pipe		mm	ODΦ24		

### Note:

1. H: high fan speed; M: medium fan speed; L: low fan speed
2. Cooling conditions: entering water 7℃, temperature rise 5℃, entering air temperature 27℃ DB, 19℃ CWB.  
Heating conditions: entering water 50℃, enter air temperature 20℃, the same water flow as the cooling conditions.
3. Noise is tested in semi-anechoic test room.

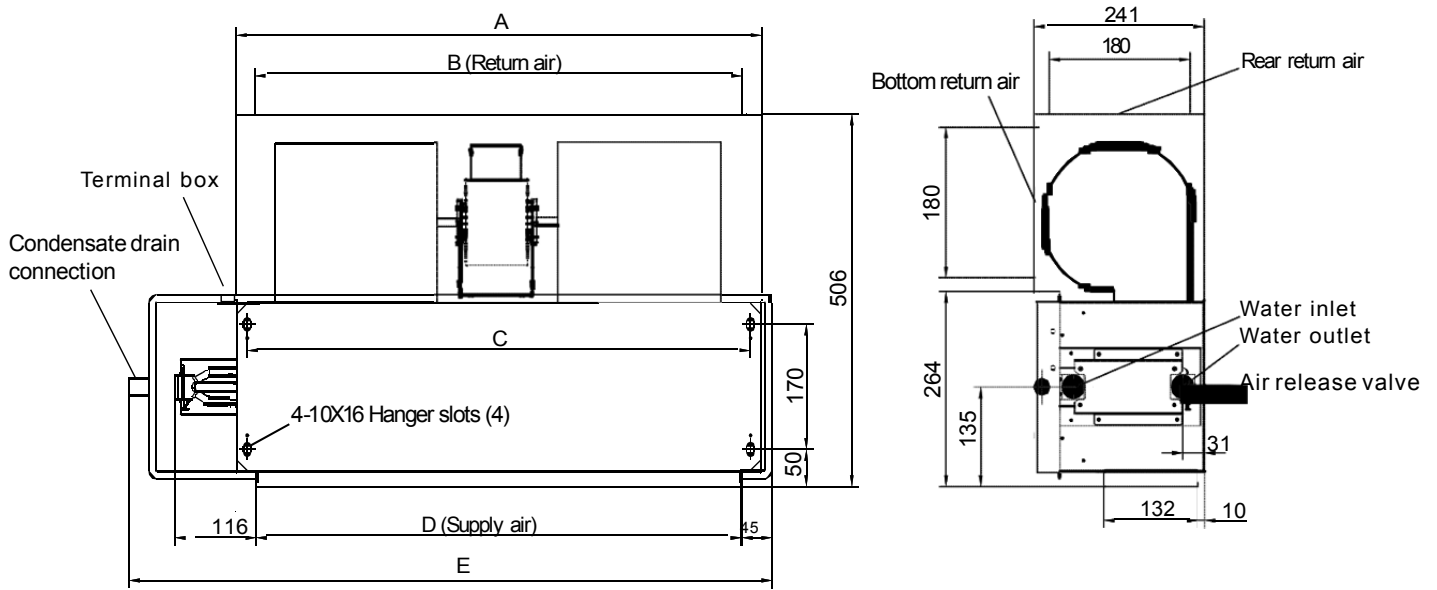
## Specifications

Model KFKD_H0EN1			89	112	140	
Air flow	H/M/L	m <sup>3</sup> /h	1700/1275/850	2040/1530/1020	2380/1785/1190	
	H/M/L	CFM	1000/750/500	1200/900/600	1400/1050/700	
External Static pressure		Pa	G12 models: 12; G30 models: 30			
Cooling	Capacity	H/M/L	kW	8.9/7.61/6.41	10.8/9.13/7.93	12.3/10.46/9.27
	Water flow rate	H	l/h	1531	1858	2116
	Water pressure drop	H	kPa	22	39	46
Heating	Capacity	H/M/L	kW	13.5/11.72/10.03	16.5/14.05/12.24	19.5/16.85/14.63
	Water pressure drop	H	kPa	19	32.6	40.1
Power supply		V/ph/Hz	220-240/1/50			
Power input	50Pa	H	W	171	212	249
Electric heater capacity		E	W	2200	3200	3200
Sound pressure level	50Pa	H/M/L	dB(A)	47/43/37	48/44/38	49/44/39
Fan motor	Type		Low noise 4-speed fan motor			
	Quantity		2	2	2	
Fan	Type		Centrifugal, forward-curved Blades			
	Quantity		4	4	4	
Coil	Row		2			
	Max. working pressure		MPa	1.6		
	Diameter		mm	Φ9.52		
Body	Dimensions	W×H×D	mm	1540×241×506	1830×241×506	1992×241×506
	Packing	W×H×D	mm	1590×265×558	1880×265×558	2046×265×558
	Net weight		kg	38	43	47
	Gross weight		kg	41.5	47	52
Pipe connection	Water inlet/outlet pipe		Inch	RC3/4		
	Drain pipe		mm	ODΦ24		

**Note:**

1. H: high fan speed; M: medium fan speed; L: low fan speed
2. Cooling conditions: entering water 7℃, temperature rise 5℃, entering air temperature 27℃ DB, 19℃ CWB.  
Heating conditions: entering water 50℃, enter air temperature 20℃, the same water flow as the cooling conditions.
3. Noise is tested in semi-anechoic test room.

### 4. Dimensions



Unit: mm

Model	20	30	38	48	57	70	89	112	140
A	547	647	747	967	1267	1372	1662	1828	
B	515	615	715	935	1235	1340	1630	1796	
C	513	613	713	933	1233	1338	1628	1794	
D	485	585	685	905	1205	1310	1600	1766	
E	757	812	912	1135	1435	1540	1830	1992	

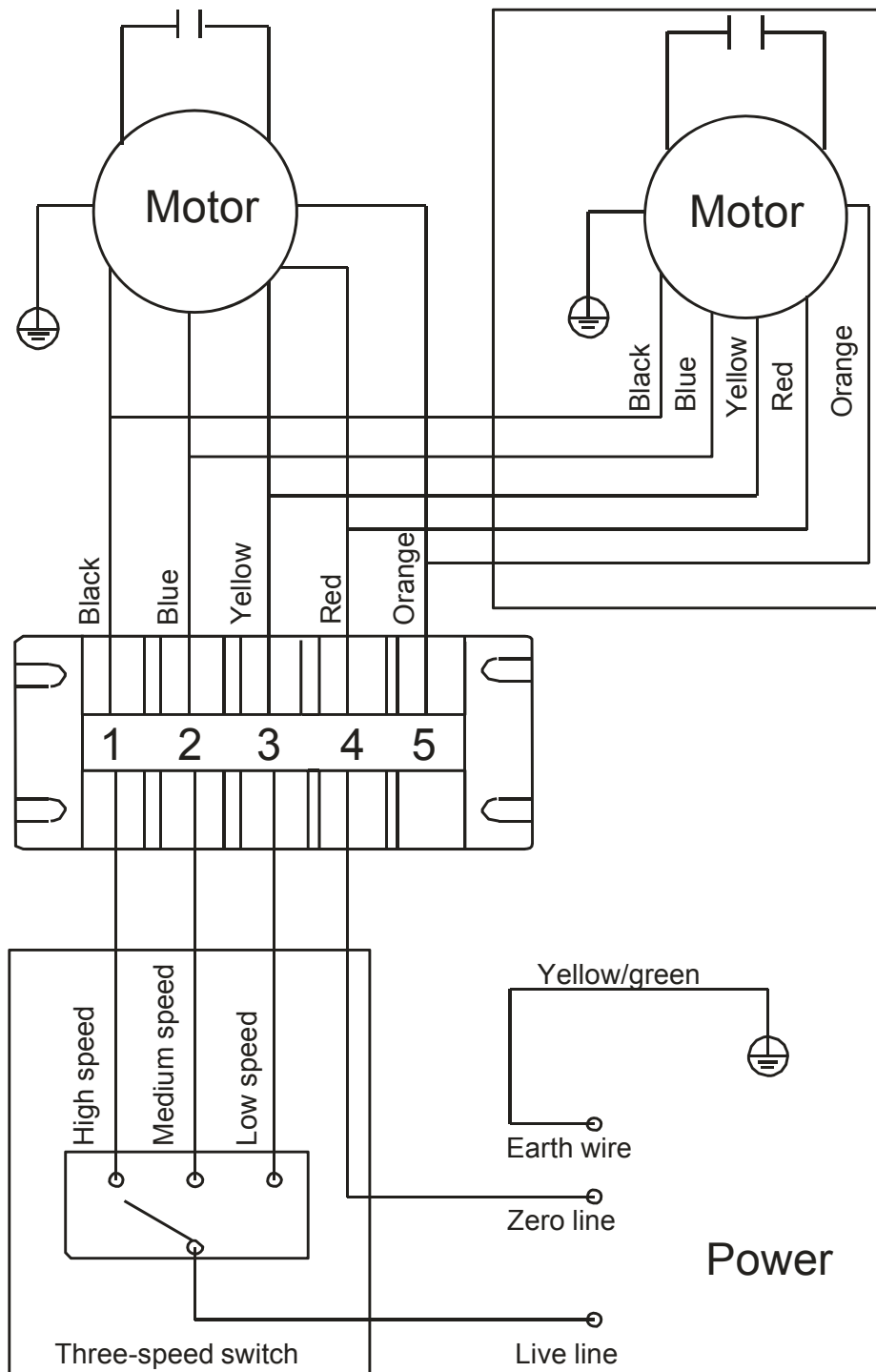
Note:

- The above figure is only an instance, which would be different from the one that you purchase.
- Units with air return plenum is standard, units without air return plenum can be customized.



## 5. Wiring Diagrams

### KFKD140H0EN1 (reserved high fan speed)

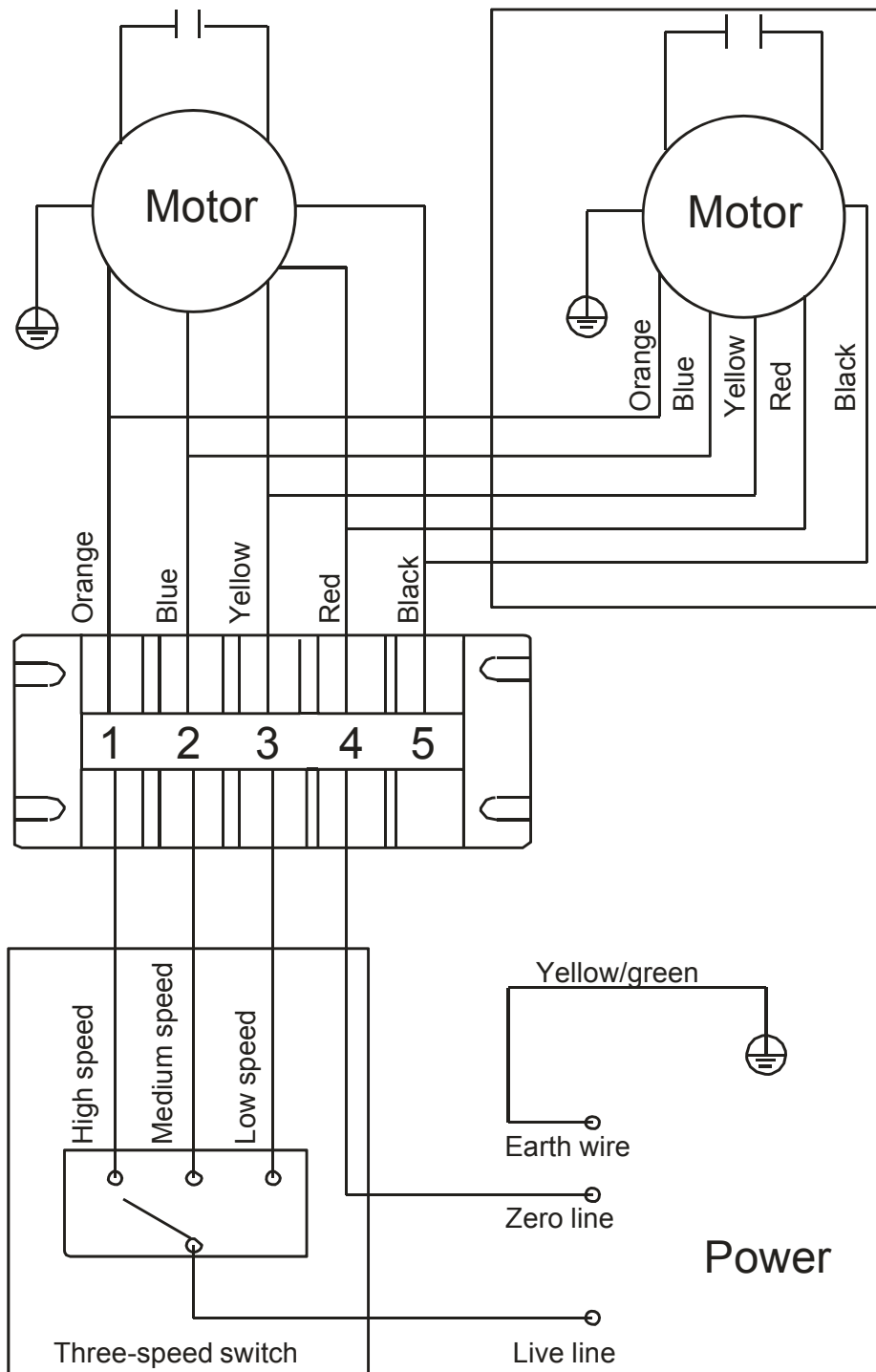


#### Note:

- Black: super high fan speed; Orange: high fan speed; Blue: medium fan speed; Yellow: low fan speed.
- Terminal 5 connects with reserved fan speed.
- Please connect wires properly, or the motor would be burned-out.

### Wiring diagrams

KFKD20H0EN1; KFKD30H0EN1; KFKD38H0EN1; KFKD48H0EN1; KFKD57H0EN1; KFKD70H0EN1;  
 KFKD89H0EN1; KFKD112H0EN1



**Note:**

- Black: supper high fan speed; Orange: high fan speed; Blue: medium fan speed; Yellow: low fan speed.
- Terminal 5 connects with reserved speed.
- Please connect wires properly, or the motor would be burned-out.

### 6. Capacity Tables

Remark:

EWT: Entering Water Temp. (°C); Δt: Temperature Difference (°C); DB: Dry Bulb Temp. (°C); WB: Wet Bulb Temp. (°C);

TC: Total Cooling Capacity (kW); SC: Sensible Cooling Capacity (kW); WF: Water Flow (m<sup>3</sup>/h); WPD: Water Pressure Drop (kPa)

#### KFKD20H0EN1

KFKD20H0EN1																					
EWT	Δt	Air inlet condition																			
		DB:21 WB:15				DB:26.7 WB:19.4				DB:27 WB:19				DB:29 WB:21				DB:33 WB:25			
		TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD
5	3	1.65	1.20	0.47	9.5	2.55	1.54	0.73	22.5	2.50	1.60	0.72	21.6	2.79	1.46	0.80	27.0	3.75	1.82	1.08	48.9
	4	1.56	1.13	0.33	4.7	2.45	1.49	0.53	11.7	2.41	1.56	0.52	11.3	2.68	1.41	0.58	14.0	3.64	1.76	0.78	25.8
	5	1.44	1.09	0.25	2.6	2.34	1.44	0.40	6.9	2.30	1.51	0.40	6.6	2.57	2.23	0.44	8.3	3.52	1.73	0.61	15.5
	6	1.31	1.04	0.19	1.5	2.24	1.40	0.32	4.4	2.20	1.45	0.31	4.2	2.46	1.31	0.35	5.3	3.43	1.67	0.49	10.2
	7	1.18	0.97	0.14	0.9	2.13	1.33	0.26	2.9	2.08	1.41	0.26	2.8	2.36	1.26	0.29	3.5	3.32	1.62	0.41	7.0
6	3	1.49	1.13	0.43	7.8	2.40	1.47	0.69	20.1	2.35	1.54	0.67	19.2	2.65	1.40	0.76	24.3	3.61	1.76	1.03	45.2
	4	1.39	1.08	0.30	3.8	2.31	1.42	0.50	10.4	2.25	1.49	0.48	9.9	2.54	1.35	0.55	12.6	3.49	1.70	0.75	23.8
	5	1.28	1.03	0.22	2.1	2.20	1.37	0.38	6.0	2.15	1.44	0.37	5.8	2.44	1.30	0.42	7.4	3.38	1.65	0.58	14.3
	6	1.15	0.98	0.17	1.2	2.09	1.33	0.30	3.8	2.04	1.39	0.29	3.6	2.32	1.24	0.33	4.7	3.29	1.59	0.47	9.4
	7	1.01	0.91	0.12	0.7	1.98	1.27	0.24	2.5	1.93	1.35	0.24	2.4	2.21	1.19	0.27	3.1	3.17	1.56	0.39	6.4
7	3	1.34	1.06	0.38	6.2	2.25	1.40	0.64	17.5	2.20	1.47	0.63	16.7	2.49	1.33	0.71	21.5	3.43	1.67	0.98	41.0
	4	1.23	1.02	0.26	2.9	2.15	1.35	0.46	9.1	2.10	1.43	0.45	8.6	2.39	1.28	0.51	11.2	3.35	1.65	0.72	21.9
	5	1.11	0.97	0.19	1.5	2.04	1.30	0.35	5.2	2	1.38	0.34	5	2.28	1.23	0.39	6.5	3.23	1.59	0.56	13.1
	6	0.98	0.92	0.14	0.8	1.94	1.27	0.28	3.3	1.90	1.33	0.27	3.1	2.17	1.18	0.31	4.1	3.15	1.53	0.45	8.6
	7	0.85	0.85	0.10	0.5	1.83	1.21	0.23	2.1	1.77	1.29	0.22	2.0	2.06	1.13	0.25	2.7	3.03	1.47	0.37	5.9
8	3	1.17	1.01	0.34	4.8	2.09	1.34	0.60	15.2	2.04	1.41	0.59	14.5	2.34	1.26	0.67	19.0	3.29	1.62	0.94	37.6
	4	1.06	0.98	0.23	2.2	2.00	1.30	0.43	7.8	1.94	1.37	0.42	7.3	2.23	1.22	0.48	9.7	3.17	1.56	0.68	19.7
	5	0.94	0.91	0.16	1.1	1.90	1.24	0.33	4.5	1.84	1.32	0.32	4.2	2.13	1.17	0.37	5.7	3.09	1.50	0.53	11.9
	6	0.84	0.84	0.12	0.6	1.77	1.20	0.25	2.7	1.74	1.27	0.25	2.6	2.03	1.11	0.29	3.6	2.97	1.47	0.43	7.7
	7	0.73	0.73	0.09	0.3	1.67	1.15	0.21	1.8	1.62	1.23	0.20	1.7	1.90	1.07	0.23	2.3	2.87	1.42	0.35	5.2
9	3	1.00	0.95	0.29	3.5	1.95	1.28	0.56	13.1	1.89	1.34	0.54	12.4	2.18	1.19	0.63	16.6	3.15	1.56	0.90	34.4
	4	0.91	0.91	0.20	1.6	1.84	1.24	0.39	6.6	1.78	1.30	0.38	6.2	2.07	1.15	0.45	8.4	3.03	1.50	0.65	17.9
	5	0.84	0.81	0.14	0.9	1.74	1.18	0.30	3.8	1.68	1.26	0.29	3.5	1.97	1.10	0.34	4.9	2.94	1.44	0.51	10.8
	6	0.74	0.74	0.11	0.5	1.62	1.14	0.23	2.3	1.56	1.22	0.22	2.1	1.87	1.05	0.27	3.0	2.82	1.41	0.40	6.9
	7	0.60	0.60	0.07	0.2	1.50	1.09	0.18	1.4	1.45	1.17	0.18	1.3	1.74	1.00	0.21	1.9	2.72	1.36	0.33	4.7
10	3	0.88	0.88	0.25	2.7	1.78	1.22	0.51	11.0	1.71	1.30	0.49	10.2	2.03	1.13	0.58	14.3	3.00	1.47	0.86	31.3
	4	0.81	0.81	0.17	1.3	1.67	1.17	0.36	5.5	1.62	1.25	0.35	5.1	1.91	1.09	0.41	7.2	2.88	1.44	0.62	16.2
	5	0.72	0.72	0.12	0.7	1.56	1.13	0.27	3.1	1.50	1.21	0.26	2.8	1.81	1.04	0.31	4.1	2.79	1.39	0.48	9.7
	6	0.62	0.62	0.09	0.3	1.46	1.08	0.21	1.8	1.39	1.17	0.20	1.7	1.69	0.99	0.24	2.5	2.67	1.35	0.38	6.2
	7	0.40	0.40	0.05	0.1	1.33	1.04	0.16	1.1	1.27	1.12	0.16	1.0	1.58	0.94	0.19	1.6	2.55	1.30	0.31	4.1
11	3	0.78	0.78	0.22	2.1	1.61	1.16	0.46	9.0	1.55	1.24	0.45	8.4	1.87	1.07	0.54	12.1	2.83	1.42	0.81	27.8
	4	0.71	0.71	0.15	1.0	1.51	1.12	0.32	4.4	1.45	1.19	0.31	4.1	1.76	1.03	0.38	6.1	2.72	1.38	0.58	14.4
	5	0.62	0.62	0.11	0.5	1.39	1.08	0.24	2.4	1.33	1.16	0.23	2.2	1.65	0.98	0.28	3.4	2.63	1.33	0.45	8.6
	6	0.49	0.49	0.07	0.2	1.27	1.03	0.18	1.4	1.22	1.11	0.17	1.3	1.53	0.93	0.22	2.0	2.51	1.30	0.36	5.5
	7	0.33	0.33	0.04	0.1	1.13	1.00	0.14	0.8	1.09	1.09	0.13	0.8	1.41	0.87	0.17	1.3	2.39	1.24	0.29	3.7
12	3	0.69	0.69	0.20	1.6	1.44	1.11	0.41	7.2	1.37	1.19	0.39	6.5	1.70	1.01	0.49	10.0	2.67	1.36	0.77	24.8
	4	0.61	0.61	0.13	0.7	1.33	1.07	0.29	3.5	1.27	1.15	0.27	3.1	1.60	0.97	0.34	5.0	2.56	1.32	0.55	12.8
	5	0.52	0.52	0.09	0.3	1.22	1.03	0.21	1.9	1.15	1.11	0.20	1.7	1.48	0.92	0.25	2.7	2.46	1.27	0.42	7.6
	6	0.31	0.31	0.05	0.1	1.08	1.00	0.16	1.0	1.07	1.05	0.15	1.0	1.36	0.87	0.19	1.6	2.34	1.24	0.34	4.8
	7	0.26	0.26	0.03	0.0	0.96	0.96	0.12	0.6	0.99	0.99	0.12	0.6	1.23	0.82	0.15	1.0	2.23	1.19	0.27	3.2
13	3	0.59	0.59	0.17	1.2	1.26	1.06	0.36	5.5	1.19	1.15	0.34	4.9	1.53	0.96	0.44	8.1	2.50	1.31	0.72	21.7
	4	0.51	0.51	0.11	0.5	1.15	1.02	0.25	2.6	1.11	1.09	0.24	2.4	1.42	0.91	0.31	3.9	2.40	1.26	0.52	11.2
	5	0.36	0.36	0.06	0.2	1.03	1.00	0.18	1.3	1.04	1.04	0.18	1.3	1.31	0.87	0.22	2.1	2.29	1.21	0.39	6.5
	6	0.24	0.24	0.03	0.1	0.94	0.94	0.13	0.8	0.97	0.97	0.14	0.8	1.18	0.82	0.17	1.2	2.17	1.18	0.31	4.1
	7	0.18	0.18	0.02	0.0	0.85	0.85	0.10	0.5	0.89	0.89	0.11	0.5	1.03	0.77	0.13	0.7	2.06	1.13	0.25	2.7

**Cooling Capacities (with fan at high speed)**

**KFKD30H0EN1**

KFKD30H0EN1																					
EWT	Δt	Air inlet condition																			
		DB:21 WB:15				DB:26.7 WB:19.4				DB:27 WB:19				DB:29 WB:21				DB:33 WB:25			
		TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD
5	3	2.23	1.62	0.64	20.9	3.44	2.07	0.99	49.6	3.37	2.16	0.97	47.6	3.76	1.98	1.08	59.4	5.06	2.45	1.45	107.5
	4	2.10	1.53	0.45	10.4	3.31	2.01	0.71	25.8	3.25	2.10	0.70	25.0	3.62	1.91	0.78	30.8	4.91	2.38	1.06	56.8
	5	1.94	1.46	0.33	5.7	3.16	1.94	0.54	15.1	3.10	2.03	0.53	14.5	3.48	3.00	0.60	18.2	4.75	2.34	0.82	34.1
	6	1.77	1.40	0.25	3.3	3.02	1.89	0.43	9.6	2.96	1.96	0.42	9.2	3.32	1.77	0.48	11.6	4.64	2.26	0.66	22.5
	7	1.59	1.31	0.20	1.9	2.88	1.80	0.35	6.4	2.81	1.90	0.35	6.1	3.18	1.70	0.39	7.8	4.48	2.18	0.55	15.5
6	3	2.02	1.53	0.58	17.1	3.25	1.99	0.93	44.1	3.17	2.08	0.91	42.2	3.57	1.89	1.02	53.5	4.87	2.38	1.40	99.4
	4	1.87	1.45	0.40	8.3	3.12	1.92	0.67	22.9	3.04	2.01	0.65	21.8	3.43	1.82	0.74	27.7	4.71	2.30	1.01	52.4
	5	1.73	1.39	0.30	4.5	2.96	1.85	0.51	13.3	2.91	1.95	0.50	12.7	3.29	1.75	0.57	16.4	4.56	2.22	0.78	31.4
	6	1.55	1.32	0.22	2.5	2.82	1.80	0.40	8.4	2.76	1.87	0.40	8.0	3.13	1.68	0.45	10.3	4.44	2.14	0.64	20.7
	7	1.37	1.23	0.17	1.4	2.68	1.71	0.33	5.5	2.61	1.82	0.32	5.2	2.99	1.61	0.37	6.9	4.29	2.10	0.53	14.1
7	3	1.80	1.43	0.52	13.6	3.03	1.89	0.87	38.5	2.96	1.99	0.85	36.8	3.36	1.79	0.96	47.4	4.64	2.26	1.33	90.1
	4	1.66	1.38	0.36	6.5	2.91	1.83	0.62	19.9	2.83	1.92	0.61	18.9	3.23	1.73	0.69	24.6	4.52	2.22	0.97	48.2
	5	1.50	1.31	0.26	3.4	2.76	1.76	0.47	11.5	2.7	1.86	0.46	11	3.07	1.66	0.53	14.3	4.36	2.14	0.75	28.7
	6	1.32	1.25	0.19	1.8	2.61	1.71	0.37	7.2	2.57	1.79	0.37	6.9	2.93	1.59	0.42	9.0	4.25	2.06	0.61	18.9
	7	1.14	1.14	0.14	1.0	2.47	1.63	0.30	4.7	2.39	1.74	0.29	4.4	2.78	1.52	0.34	5.9	4.09	1.99	0.50	12.9
8	3	1.58	1.36	0.45	10.5	2.82	1.81	0.81	33.4	2.76	1.90	0.79	31.9	3.16	1.69	0.91	41.8	4.44	2.18	1.27	82.7
	4	1.43	1.32	0.31	4.8	2.70	1.75	0.58	17.2	2.62	1.85	0.56	16.2	3.01	1.64	0.65	21.3	4.29	2.10	0.92	43.3
	5	1.26	1.24	0.22	2.4	2.56	1.68	0.44	9.9	2.49	1.78	0.43	9.3	2.88	1.58	0.50	12.5	4.17	2.03	0.72	26.2
	6	1.13	1.13	0.16	1.3	2.40	1.62	0.34	6.0	2.35	1.71	0.34	5.8	2.74	1.50	0.39	7.8	4.01	1.99	0.58	16.9
	7	0.99	0.99	0.12	0.8	2.26	1.55	0.28	3.9	2.19	1.66	0.27	3.7	2.56	1.44	0.31	5.0	3.87	1.91	0.48	11.5
9	3	1.35	1.28	0.39	7.7	2.63	1.73	0.75	28.9	2.55	1.82	0.73	27.3	2.95	1.61	0.85	36.5	4.25	2.10	1.22	75.6
	4	1.23	1.23	0.26	3.6	2.48	1.67	0.53	14.5	2.40	1.76	0.52	13.6	2.80	1.55	0.60	18.4	4.09	2.03	0.88	39.5
	5	1.13	1.10	0.20	1.9	2.35	1.60	0.40	8.3	2.27	1.70	0.39	7.8	2.66	1.48	0.46	10.7	3.97	1.95	0.68	23.8
	6	0.99	0.99	0.14	1.0	2.19	1.54	0.31	5.0	2.11	1.65	0.30	4.7	2.52	1.41	0.36	6.7	3.81	1.91	0.55	15.2
	7	0.81	0.81	0.10	0.5	2.03	1.46	0.25	3.2	1.96	1.57	0.24	2.9	2.35	1.35	0.29	4.2	3.68	1.84	0.45	10.4
10	3	1.19	1.19	0.34	6.0	2.41	1.64	0.69	24.3	2.31	1.75	0.66	22.4	2.74	1.53	0.79	31.5	4.05	1.99	1.16	68.8
	4	1.09	1.09	0.24	2.8	2.26	1.58	0.49	12.0	2.18	1.69	0.47	11.2	2.58	1.47	0.56	15.7	3.88	1.95	0.84	35.6
	5	0.98	0.98	0.17	1.4	2.11	1.53	0.36	6.7	2.02	1.64	0.35	6.2	2.45	1.40	0.42	9.0	3.76	1.88	0.65	21.4
	6	0.84	0.84	0.12	0.7	1.97	1.46	0.28	4.1	1.88	1.57	0.27	3.7	2.29	1.33	0.33	5.5	3.60	1.83	0.52	13.6
	7	0.53	0.53	0.07	0.2	1.80	1.40	0.22	2.5	1.71	1.52	0.21	2.3	2.14	1.27	0.26	3.5	3.44	1.75	0.42	9.1
11	3	1.05	1.05	0.30	4.6	2.17	1.57	0.62	19.8	2.10	1.67	0.60	18.4	2.52	1.45	0.72	26.6	3.82	1.91	1.10	61.2
	4	0.96	0.96	0.21	2.2	2.04	1.51	0.44	9.8	1.96	1.61	0.42	9.0	2.38	1.39	0.51	13.4	3.67	1.86	0.79	31.7
	5	0.83	0.83	0.14	1.0	1.88	1.45	0.32	5.3	1.80	1.57	0.31	4.9	2.22	1.32	0.38	7.5	3.55	1.80	0.61	19.0
	6	0.66	0.66	0.09	0.5	1.71	1.39	0.25	3.1	1.65	1.50	0.24	2.8	2.06	1.25	0.30	4.5	3.39	1.75	0.49	12.0
	7	0.45	0.45	0.06	0.2	1.53	1.34	0.19	1.8	1.47	1.47	0.18	1.7	1.90	1.18	0.23	2.8	3.23	1.68	0.40	8.0
12	3	0.93	0.93	0.27	3.6	1.94	1.49	0.56	15.8	1.85	1.61	0.53	14.4	2.29	1.37	0.66	22.0	3.61	1.84	1.03	54.6
	4	0.82	0.82	0.18	1.6	1.80	1.44	0.39	7.6	1.71	1.55	0.37	6.9	2.15	1.31	0.46	10.9	3.46	1.78	0.74	28.2
	5	0.71	0.71	0.12	0.8	1.64	1.39	0.28	4.1	1.56	1.50	0.27	3.7	2.00	1.25	0.34	6.0	3.32	1.71	0.57	16.7
	6	0.42	0.42	0.06	0.2	1.46	1.34	0.21	2.2	1.45	1.42	0.21	2.2	1.83	1.18	0.26	3.5	3.16	1.67	0.45	10.5
	7	0.35	0.35	0.04	0.1	1.29	1.29	0.16	1.3	1.33	1.33	0.16	1.4	1.66	1.11	0.20	2.1	3.01	1.60	0.37	7.0
13	3	0.80	0.80	0.23	2.7	1.70	1.43	0.49	12.1	1.60	1.55	0.46	10.7	2.06	1.29	0.59	17.9	3.38	1.76	0.97	47.8
	4	0.68	0.68	0.15	1.1	1.55	1.37	0.33	5.7	1.50	1.47	0.32	5.3	1.92	1.23	0.41	8.7	3.23	1.70	0.70	24.7
	5	0.49	0.49	0.08	0.4	1.39	1.36	0.24	2.9	1.40	1.40	0.24	3.0	1.76	1.17	0.30	4.7	3.09	1.63	0.53	14.4
	6	0.33	0.33	0.05	0.1	1.26	1.26	0.18	1.7	1.31	1.31	0.19	1.8	1.59	1.11	0.23	2.7	2.93	1.59	0.42	9.0
	7	0.24	0.24	0.03	0.0	1.15	1.15	0.14	1.0	1.20	1.20	0.15	1.1	1.39	1.04	0.17	1.5	2.78	1.52	0.34	5.9

**Cooling Capacities (with fan at high speed)**

**KFKD38H0EN1**

KFKD38H0EN1																					
EWT	Δt	Air inlet condition																			
		DB:21 WB:15				DB:26.7 WB:19.4				DB:27 WB:19				DB:29 WB:21				DB:33 WB:25			
		TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD
5	3	2.98	2.16	0.85	36.1	4.59	2.76	1.31	85.7	4.49	2.88	1.29	82.2	5.02	2.63	1.44	102.6	6.75	3.27	1.94	185.7
	4	2.80	2.04	0.60	18.0	4.41	2.68	0.95	44.6	4.34	2.80	0.93	43.1	4.82	2.55	1.04	53.2	6.55	3.17	1.41	98.1
	5	2.59	1.95	0.44	9.8	4.22	2.59	0.73	26.1	4.14	2.71	0.71	25.1	4.63	2.40	0.80	31.5	6.34	3.12	1.09	58.9
	6	2.36	1.87	0.34	5.7	4.03	2.51	0.58	16.5	3.95	2.62	0.57	15.9	4.43	2.36	0.64	20.0	6.18	3.01	0.89	38.9
	7	2.12	1.75	0.26	3.4	3.83	2.39	0.47	11.0	3.75	2.53	0.46	10.5	4.24	2.26	0.52	13.5	5.97	2.91	0.73	26.7
6	3	2.69	2.04	0.77	29.5	4.33	2.65	1.24	76.3	4.23	2.77	1.21	72.8	4.76	2.51	1.37	92.4	6.49	3.17	1.86	171.7
	4	2.50	1.94	0.54	14.3	4.16	2.56	0.89	39.6	4.06	2.68	0.87	37.7	4.57	2.43	0.98	47.9	6.29	3.06	1.35	90.5
	5	2.31	1.85	0.40	7.8	3.95	2.47	0.68	22.9	3.88	2.60	0.67	22.0	4.39	2.34	0.76	28.2	6.08	2.96	1.05	54.2
	6	2.07	1.77	0.30	4.4	3.77	2.39	0.54	14.4	3.68	2.50	0.53	13.8	4.17	2.23	0.60	17.7	5.92	2.86	0.85	35.7
	7	1.82	1.64	0.22	2.5	3.57	2.29	0.44	9.5	3.48	2.43	0.43	9.1	3.98	2.14	0.49	11.9	5.71	2.81	0.70	24.4
7	3	2.41	1.91	0.69	23.6	4.04	2.52	1.16	66.5	3.95	2.65	1.13	63.6	4.48	2.39	1.29	81.8	6.18	3.01	1.77	155.6
	4	2.21	1.84	0.47	11.2	3.88	2.44	0.83	34.4	3.77	2.57	0.81	32.6	4.31	2.31	0.93	42.5	6.03	2.96	1.30	83.2
	5	1.99	1.75	0.34	5.8	3.68	2.35	0.63	19.8	3.6	2.48	0.62	19	4.10	2.22	0.70	24.6	5.82	2.86	1.00	49.6
	6	1.76	1.66	0.25	3.1	3.49	2.28	0.50	12.4	3.42	2.39	0.49	11.9	3.91	2.12	0.56	15.6	5.66	2.75	0.81	32.6
	7	1.52	1.52	0.19	1.7	3.30	2.18	0.41	8.1	3.19	2.32	0.39	7.6	3.70	2.03	0.46	10.3	5.45	2.65	0.67	22.3
8	3	2.11	1.81	0.60	18.1	3.77	2.42	1.08	57.8	3.68	2.53	1.05	55.1	4.21	2.26	1.21	72.3	5.92	2.91	1.70	142.8
	4	1.90	1.76	0.41	8.3	3.60	2.33	0.77	29.7	3.49	2.47	0.75	27.9	4.01	2.19	0.86	36.8	5.71	2.81	1.23	74.8
	5	1.68	1.65	0.29	4.2	3.42	2.23	0.59	17.1	3.31	2.37	0.57	16.1	3.84	2.10	0.66	21.6	5.56	2.70	0.96	45.3
	6	1.51	1.51	0.22	2.3	3.19	2.17	0.46	10.4	3.13	2.29	0.45	10.0	3.65	2.01	0.52	13.5	5.35	2.65	0.77	29.1
	7	1.32	1.32	0.16	1.3	3.01	2.07	0.37	6.8	2.91	2.21	0.36	6.4	3.41	1.92	0.42	8.7	5.16	2.55	0.63	19.9
9	3	1.80	1.71	0.52	13.2	3.50	2.31	1.00	49.9	3.40	2.42	0.98	47.1	3.93	2.15	1.13	63.0	5.66	2.81	1.62	130.6
	4	1.64	1.64	0.35	6.1	3.30	2.22	0.71	25.0	3.21	2.35	0.69	23.5	3.73	2.07	0.80	31.9	5.45	2.70	1.17	68.2
	5	1.51	1.46	0.26	3.4	3.13	2.13	0.54	14.3	3.03	2.27	0.52	13.4	3.55	1.98	0.61	18.5	5.30	2.60	0.91	41.2
	6	1.32	1.32	0.19	1.8	2.92	2.05	0.42	8.7	2.82	2.20	0.40	8.1	3.36	1.89	0.48	11.5	5.08	2.54	0.73	26.2
	7	1.08	1.08	0.13	0.9	2.70	1.95	0.33	5.5	2.61	2.10	0.32	5.1	3.13	1.80	0.38	7.3	4.90	2.45	0.60	18.0
10	3	1.59	1.59	0.46	10.3	3.21	2.19	0.92	42.0	3.08	2.33	0.88	38.6	3.66	2.04	1.05	54.5	5.40	2.65	1.55	118.9
	4	1.46	1.46	0.31	4.9	3.01	2.10	0.65	20.8	2.91	2.25	0.63	19.4	3.44	1.96	0.74	27.2	5.18	2.60	1.11	61.4
	5	1.30	1.30	0.22	2.5	2.82	2.04	0.48	11.6	2.70	2.18	0.46	10.7	3.26	1.87	0.56	15.6	5.02	2.50	0.86	36.9
	6	1.12	1.12	0.16	1.3	2.62	1.95	0.38	7.0	2.50	2.10	0.36	6.4	3.05	1.78	0.44	9.5	4.80	2.44	0.69	23.5
	7	0.71	0.71	0.09	0.4	2.39	1.86	0.29	4.3	2.28	2.02	0.28	3.9	2.85	1.69	0.35	6.1	4.59	2.34	0.56	15.7
11	3	1.40	1.40	0.40	8.0	2.90	2.09	0.83	34.2	2.79	2.22	0.80	31.8	3.36	1.93	0.96	46.0	5.10	2.55	1.46	105.8
	4	1.28	1.28	0.28	3.8	2.72	2.02	0.58	16.9	2.61	2.14	0.56	15.6	3.17	1.85	0.68	23.1	4.89	2.48	1.05	54.7
	5	1.11	1.11	0.19	1.8	2.51	1.94	0.43	9.2	2.39	2.09	0.41	8.4	2.97	1.76	0.51	12.9	4.73	2.39	0.81	32.8
	6	0.88	0.88	0.13	0.8	2.29	1.86	0.33	5.3	2.20	1.99	0.31	4.9	2.75	1.67	0.39	7.7	4.51	2.33	0.65	20.7
	7	0.60	0.60	0.07	0.3	2.04	1.79	0.25	3.1	1.96	1.96	0.24	2.9	2.54	1.57	0.31	4.8	4.31	2.23	0.53	13.9
12	3	1.24	1.24	0.35	6.2	2.59	1.99	0.74	27.4	2.47	2.15	0.71	24.8	3.05	1.82	0.88	38.0	4.81	2.45	1.38	94.2
	4	1.09	1.09	0.23	2.7	2.40	1.92	0.52	13.2	2.28	2.07	0.49	11.9	2.87	1.74	0.62	18.9	4.61	2.37	0.99	48.6
	5	0.94	0.94	0.16	1.3	2.19	1.85	0.38	7.0	2.08	2.01	0.36	6.3	2.66	1.66	0.46	10.4	4.43	2.29	0.76	28.8
	6	0.57	0.57	0.08	0.3	1.95	1.79	0.28	3.9	1.93	1.89	0.28	3.8	2.44	1.57	0.35	6.1	4.22	2.22	0.60	18.1
	7	0.47	0.47	0.06	0.2	1.72	1.72	0.21	2.2	1.78	1.78	0.22	2.4	2.22	1.48	0.27	3.7	4.01	2.14	0.49	12.0
13	3	1.06	1.06	0.31	4.6	2.26	1.90	0.65	20.9	2.14	2.06	0.61	18.6	2.75	1.72	0.79	30.9	4.50	2.35	1.29	82.6
	4	0.91	0.91	0.20	1.9	2.07	1.83	0.45	9.8	2.00	1.96	0.43	9.2	2.56	1.64	0.55	15.0	4.31	2.26	0.93	42.6
	5	0.65	0.65	0.11	0.6	1.85	1.81	0.32	5.0	1.87	1.87	0.32	5.1	2.35	1.56	0.40	8.1	4.12	2.18	0.71	24.9
	6	0.44	0.44	0.06	0.2	1.68	1.68	0.24	2.9	1.74	1.74	0.25	3.1	2.12	1.48	0.30	4.6	3.91	2.12	0.56	15.5
	7	0.32	0.32	0.04	0.1	1.54	1.54	0.19	1.8	1.60	1.60	0.20	1.9	1.86	1.39	0.23	2.6	3.70	2.03	0.46	10.3

**Cooling Capacities (with fan at high speed)**

**KFKD48H0EN1**

KFKD48H0EN1																					
EWT	Δt	Air inlet condition																			
		DB:21 WB:15				DB:26.7 WB:19.4				DB:27 WB:19				DB:29 WB:21				DB:33 WB:25			
		TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD
5	3	3.64	2.64	1.04	41.8	5.61	3.38	1.61	99.2	5.49	3.52	1.57	95.2	6.13	3.22	1.76	118.7	8.25	4.00	2.37	215.1
	4	3.42	2.50	0.74	20.8	5.39	3.28	1.16	51.6	5.30	3.42	1.14	49.9	5.89	3.11	1.27	61.6	8.00	3.87	1.72	113.6
	5	3.16	2.39	0.54	11.4	5.16	3.16	0.89	30.2	5.05	3.31	0.87	29.0	5.66	4.90	0.97	36.4	7.75	3.81	1.33	68.2
	6	2.89	2.29	0.41	6.6	4.93	3.07	0.71	19.2	4.83	3.20	0.69	18.4	5.42	2.88	0.78	23.1	7.56	3.68	1.08	45.0
	7	2.59	2.14	0.32	3.9	4.69	2.93	0.58	12.7	4.58	3.09	0.56	12.1	5.19	2.77	0.64	15.6	7.30	3.56	0.90	30.9
6	3	3.29	2.49	0.94	34.1	5.29	3.24	1.52	88.3	5.17	3.38	1.48	84.3	5.82	3.07	1.67	107.0	7.94	3.87	2.28	198.8
	4	3.05	2.37	0.66	16.6	5.08	3.13	1.09	45.8	4.96	3.27	1.07	43.7	5.59	2.97	1.20	55.4	7.68	3.75	1.65	104.8
	5	2.82	2.26	0.48	9.0	4.83	3.02	0.83	26.5	4.74	3.17	0.81	25.5	5.37	2.86	0.92	32.7	7.43	3.62	1.28	62.7
	6	2.53	2.16	0.36	5.1	4.60	2.93	0.66	16.7	4.50	3.05	0.64	15.9	5.10	2.73	0.73	20.5	7.24	3.49	1.04	41.3
	7	2.23	2.01	0.27	2.9	4.36	2.79	0.54	11.0	4.25	2.97	0.52	10.5	4.87	2.62	0.60	13.7	6.98	3.43	0.86	28.3
7	3	2.94	2.34	0.84	27.3	4.94	3.09	1.42	77.0	4.83	3.24	1.39	73.7	5.48	2.92	1.57	94.8	7.56	3.68	2.17	180.2
	4	2.70	2.25	0.58	12.9	4.74	2.98	1.02	39.8	4.61	3.14	0.99	37.7	5.26	2.83	1.13	49.2	7.37	3.62	1.58	96.3
	5	2.44	2.14	0.42	6.8	4.50	2.87	0.77	23.0	4.4	3.03	0.76	22	5.01	2.71	0.86	28.5	7.11	3.49	1.22	57.5
	6	2.15	2.03	0.31	3.6	4.26	2.79	0.61	14.3	4.18	2.92	0.60	13.8	4.78	2.59	0.69	18.0	6.92	3.37	0.99	37.8
	7	1.86	1.86	0.23	2.0	4.03	2.66	0.50	9.4	3.90	2.83	0.48	8.8	4.53	2.48	0.56	11.9	6.67	3.24	0.82	25.8
8	3	2.58	2.22	0.74	21.0	4.60	2.95	1.32	66.9	4.50	3.09	1.29	63.8	5.15	2.76	1.48	83.7	7.24	3.56	2.07	165.4
	4	2.32	2.15	0.50	9.6	4.40	2.85	0.95	34.4	4.27	3.02	0.92	32.3	4.90	2.68	1.05	42.7	6.98	3.43	1.50	86.6
	5	2.06	2.01	0.35	4.8	4.18	2.73	0.72	19.8	4.05	2.90	0.70	18.6	4.69	2.57	0.81	25.0	6.79	3.30	1.17	52.4
	6	1.85	1.85	0.26	2.7	3.90	2.65	0.56	12.0	3.83	2.79	0.55	11.6	4.46	2.45	0.64	15.7	6.54	3.24	0.94	33.7
	7	1.61	1.61	0.20	1.5	3.68	2.53	0.45	7.8	3.56	2.70	0.44	7.4	4.17	2.35	0.51	10.1	6.31	3.12	0.78	23.1
9	3	2.20	2.09	0.63	15.3	4.28	2.82	1.23	57.8	4.16	2.96	1.19	54.6	4.81	2.63	1.38	72.9	6.92	3.43	1.98	151.2
	4	2.00	2.00	0.43	7.1	4.04	2.72	0.87	29.0	3.92	2.87	0.84	27.2	4.56	2.53	0.98	36.9	6.67	3.30	1.43	78.9
	5	1.85	1.79	0.32	3.9	3.82	2.60	0.66	16.6	3.70	2.77	0.64	15.6	4.34	2.42	0.75	21.4	6.48	3.17	1.11	47.7
	6	1.62	1.62	0.23	2.1	3.57	2.51	0.51	10.0	3.44	2.69	0.49	9.3	4.11	2.30	0.59	13.3	6.20	3.10	0.89	30.4
	7	1.32	1.32	0.16	1.0	3.30	2.39	0.41	6.3	3.19	2.57	0.39	5.9	3.82	2.20	0.47	8.5	5.99	2.99	0.74	20.8
10	3	1.94	1.94	0.56	11.9	3.92	2.67	1.12	48.6	3.77	2.85	1.08	44.7	4.47	2.49	1.28	63.1	6.60	3.24	1.89	137.6
	4	1.78	1.78	0.38	5.7	3.68	2.57	0.79	24.1	3.56	2.76	0.76	22.4	4.21	2.39	0.91	31.5	6.33	3.17	1.36	71.1
	5	1.59	1.59	0.27	2.9	3.44	2.49	0.59	13.5	3.30	2.67	0.57	12.3	3.99	2.29	0.69	18.1	6.13	3.06	1.05	42.7
	6	1.37	1.37	0.20	1.5	3.21	2.38	0.46	8.1	3.06	2.57	0.44	7.4	3.73	2.17	0.53	11.0	5.87	2.98	0.84	27.2
	7	0.87	0.87	0.11	0.4	2.93	2.28	0.36	5.0	2.79	2.47	0.34	4.5	3.49	2.06	0.43	7.0	5.61	2.86	0.69	18.2
11	3	1.71	1.71	0.49	9.3	3.54	2.55	1.02	39.6	3.42	2.72	0.98	36.8	4.11	2.36	1.18	53.3	6.23	3.12	1.79	122.5
	4	1.57	1.57	0.34	4.4	3.32	2.46	0.71	19.6	3.19	2.62	0.69	18.0	3.88	2.26	0.83	26.7	5.97	3.03	1.28	63.4
	5	1.36	1.36	0.23	2.1	3.07	2.37	0.53	10.7	2.93	2.55	0.50	9.7	3.63	2.15	0.62	14.9	5.78	2.93	0.99	38.0
	6	1.08	1.08	0.15	0.9	2.79	2.27	0.40	6.2	2.69	2.44	0.38	5.7	3.37	2.04	0.48	8.9	5.52	2.85	0.79	24.0
	7	0.73	0.73	0.09	0.3	2.49	2.19	0.31	3.6	2.40	2.40	0.29	3.3	3.10	1.92	0.38	5.6	5.26	2.73	0.65	16.1
12	3	1.51	1.51	0.43	7.2	3.17	2.43	0.91	31.7	3.02	2.62	0.86	28.7	3.73	2.23	1.07	44.0	5.88	3.00	1.69	109.1
	4	1.33	1.33	0.29	3.2	2.93	2.35	0.63	15.3	2.79	2.53	0.60	13.8	3.51	2.13	0.75	21.9	5.63	2.90	1.21	56.3
	5	1.15	1.15	0.20	1.5	2.68	2.27	0.46	8.2	2.54	2.45	0.44	7.3	3.26	2.03	0.56	12.1	5.42	2.79	0.93	33.3
	6	0.69	0.69	0.10	0.4	2.38	2.19	0.34	4.5	2.36	2.31	0.34	4.4	2.98	1.92	0.43	7.0	5.16	2.72	0.74	21.0
	7	0.57	0.57	0.07	0.2	2.11	2.11	0.26	2.6	2.17	2.17	0.27	2.7	2.71	1.80	0.33	4.3	4.90	2.61	0.60	13.9
13	3	1.30	1.30	0.37	5.3	2.77	2.32	0.79	24.2	2.61	2.52	0.75	21.5	3.37	2.10	0.96	35.7	5.50	2.88	1.58	95.7
	4	1.11	1.11	0.24	2.2	2.53	2.23	0.54	11.4	2.44	2.40	0.53	10.6	3.12	2.00	0.67	17.3	5.27	2.77	1.13	49.3
	5	0.80	0.80	0.14	0.7	2.26	2.21	0.39	5.8	2.29	2.29	0.39	5.9	2.88	1.90	0.49	9.4	5.03	2.66	0.87	28.8
	6	0.53	0.53	0.08	0.2	2.06	2.06	0.29	3.3	2.13	2.13	0.30	3.6	2.60	1.80	0.37	5.3	4.77	2.59	0.68	18.0
	7	0.39	0.39	0.05	0.1	1.88	1.88	0.23	2.0	1.96	1.96	0.24	2.2	2.27	1.70	0.28	3.0	4.53	2.48	0.56	11.9

## Cooling Capacities (with fan at high speed)

## KFKD57H0EN1

KFKD57H0EN1																						
EWT	Δt	Air inlet condition																				
		DB:21 WB:15				DB:26.7 WB:19.4				DB:27 WB:19				DB:29 WB:21				DB:33 WB:25				
		TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	
5	3	4.55	3.30	1.30	26.6	7.01	4.22	2.01	63.1	6.87	4.40	1.97	60.6	7.67	4.02	2.20	75.6	10.32	5.00	2.96	136.9	
	4	4.28	3.12	0.92	13.2	6.74	4.10	1.45	32.8	6.63	4.28	1.42	31.8	7.37	3.89	1.58	39.2	10.00	4.84	2.15	72.3	
	5	3.95	2.98	0.68	7.2	6.44	3.95	1.11	19.2	6.32	4.14	1.09	18.5	7.08	6.12	1.22	23.2	9.68	4.76	1.67	43.4	
	6	3.61	2.86	0.52	4.2	6.16	3.84	0.88	12.2	6.04	4.00	0.87	11.7	6.77	3.60	0.97	14.7	9.44	4.60	1.35	28.7	
	7	3.24	2.67	0.40	2.5	5.86	3.66	0.72	8.1	5.72	3.87	0.70	7.7	6.48	3.46	0.80	9.9	9.13	4.44	1.12	19.7	
6	3	4.11	3.11	1.18	21.7	6.61	4.06	1.90	56.2	6.46	4.23	1.85	53.7	7.28	3.84	2.09	68.1	9.92	4.84	2.84	126.5	
	4	3.82	2.96	0.82	10.5	6.35	3.91	1.37	29.2	6.20	4.09	1.33	27.8	6.98	3.71	1.50	35.3	9.60	4.68	2.06	66.7	
	5	3.52	2.83	0.61	5.7	6.04	3.77	1.04	16.9	5.92	3.97	1.02	16.2	6.71	3.57	1.15	20.8	9.29	4.52	1.60	39.9	
	6	3.17	2.70	0.45	3.2	5.75	3.66	0.82	10.6	5.62	3.82	0.81	10.1	6.37	3.41	0.91	13.1	9.05	4.37	1.30	26.3	
	7	2.79	2.51	0.34	1.8	5.45	3.49	0.67	7.0	5.32	3.71	0.65	6.7	6.09	3.27	0.75	8.7	8.73	4.29	1.07	18.0	
7	3	3.67	2.92	1.05	17.4	6.17	3.86	1.77	49.0	6.04	4.06	1.73	46.9	6.85	3.65	1.96	60.3	9.44	4.60	2.71	114.7	
	4	3.37	2.81	0.73	8.2	5.92	3.72	1.27	25.3	5.76	3.92	1.24	24.0	6.58	3.53	1.41	31.3	9.21	4.52	1.98	61.3	
	5	3.05	2.67	0.52	4.3	5.62	3.59	0.97	14.6	5.5	3.79	0.95	14	6.26	3.39	1.08	18.1	8.89	4.37	1.53	36.6	
	6	2.68	2.54	0.38	2.3	5.33	3.48	0.76	9.1	5.23	3.65	0.75	8.8	5.98	3.24	0.86	11.5	8.65	4.21	1.24	24.1	
	7	2.33	2.33	0.29	1.3	5.04	3.33	0.62	6.0	4.87	3.54	0.60	5.6	5.66	3.10	0.70	7.6	8.33	4.05	1.02	16.4	
8	3	3.22	2.77	0.92	13.3	5.75	3.69	1.65	42.6	5.62	3.87	1.61	40.6	6.44	3.45	1.85	53.3	9.05	4.44	2.59	105.2	
	4	2.90	2.68	0.62	6.1	5.50	3.56	1.18	21.9	5.33	3.78	1.15	20.6	6.13	3.35	1.32	27.1	8.73	4.29	1.88	55.1	
	5	2.57	2.52	0.44	3.1	5.22	3.41	0.90	12.6	5.06	3.62	0.87	11.9	5.87	3.21	1.01	15.9	8.49	4.13	1.46	33.4	
	6	2.31	2.31	0.33	1.7	4.88	3.31	0.70	7.7	4.79	3.49	0.69	7.4	5.57	3.06	0.80	10.0	8.17	4.05	1.17	21.5	
	7	2.02	2.02	0.25	1.0	4.60	3.16	0.56	5.0	4.45	3.37	0.55	4.7	5.21	2.94	0.64	6.4	7.89	3.90	0.97	14.7	
9	3	2.75	2.61	0.79	9.8	5.35	3.52	1.53	36.8	5.20	3.70	1.49	34.7	6.01	3.29	1.72	46.4	8.65	4.29	2.48	96.2	
	4	2.50	2.50	0.54	4.5	5.05	3.40	1.09	18.4	4.90	3.59	1.05	17.3	5.70	3.17	1.23	23.5	8.33	4.13	1.79	50.2	
	5	2.31	2.24	0.40	2.5	4.78	3.25	0.82	10.6	4.63	3.47	0.80	9.9	5.42	3.02	0.93	13.6	8.10	3.97	1.39	30.3	
	6	2.02	2.02	0.29	1.3	4.46	3.13	0.64	6.4	4.30	3.36	0.62	5.9	5.13	2.88	0.74	8.5	7.75	3.88	1.11	19.3	
	7	1.65	1.65	0.20	0.6	4.13	2.98	0.51	4.0	3.98	3.21	0.49	3.7	4.78	2.75	0.59	5.4	7.49	3.74	0.92	13.3	
10	3	2.43	2.43	0.70	7.6	4.90	3.34	1.41	30.9	4.71	3.56	1.35	28.5	5.59	3.11	1.60	40.1	8.25	4.05	2.37	87.6	
	4	2.23	2.23	0.48	3.6	4.60	3.21	0.99	15.3	4.44	3.44	0.96	14.3	5.26	2.99	1.13	20.0	7.91	3.97	1.70	45.3	
	5	1.99	1.99	0.34	1.8	4.30	3.11	0.74	8.6	4.12	3.33	0.71	7.9	4.98	2.86	0.86	11.5	7.67	3.83	1.32	27.2	
	6	1.71	1.71	0.24	0.9	4.01	2.98	0.57	5.2	3.83	3.21	0.55	4.7	4.66	2.71	0.67	7.0	7.33	3.72	1.05	17.3	
	7	1.09	1.09	0.13	0.3	3.66	2.85	0.45	3.2	3.48	3.09	0.43	2.9	4.36	2.58	0.54	4.5	7.01	3.57	0.86	11.6	
11	3	2.14	2.14	0.61	5.9	4.43	3.19	1.27	25.2	4.27	3.40	1.22	23.4	5.13	2.94	1.47	33.9	7.79	3.90	2.23	77.9	
	4	1.96	1.96	0.42	2.8	4.15	3.08	0.89	12.5	3.98	3.27	0.86	11.5	4.85	2.83	1.04	17.0	7.47	3.79	1.61	40.3	
	5	1.70	1.70	0.29	1.3	3.83	2.96	0.66	6.8	3.66	3.19	0.63	6.2	4.53	2.69	0.78	9.5	7.23	3.66	1.24	24.2	
	6	1.35	1.35	0.19	0.6	3.49	2.84	0.50	3.9	3.36	3.05	0.48	3.6	4.21	2.56	0.60	5.7	6.90	3.56	0.99	15.3	
	7	0.91	0.91	0.11	0.2	3.11	2.74	0.38	2.3	3.00	3.00	0.37	2.1	3.87	2.40	0.48	3.5	6.58	3.41	0.81	10.2	
12	3	1.89	1.89	0.54	4.6	3.96	3.04	1.14	20.2	3.77	3.28	1.08	18.3	4.67	2.79	1.34	28.0	7.35	3.75	2.11	69.4	
	4	1.67	1.67	0.36	2.0	3.67	2.94	0.79	9.7	3.48	3.17	0.75	8.8	4.39	2.66	0.94	13.9	7.04	3.63	1.51	35.8	
	5	1.44	1.44	0.25	1.0	3.35	2.83	0.58	5.2	3.17	3.06	0.55	4.7	4.07	2.54	0.70	7.7	6.77	3.49	1.16	21.2	
	6	0.87	0.87	0.12	0.2	2.98	2.74	0.43	2.8	2.94	2.89	0.42	2.8	3.73	2.40	0.53	4.5	6.44	3.40	0.92	13.3	
	7	0.71	0.71	0.09	0.1	2.63	2.63	0.32	1.6	2.71	2.71	0.33	1.7	3.39	2.25	0.42	2.7	6.13	3.26	0.75	8.9	
13	3	1.63	1.63	0.47	3.4	3.46	2.90	0.99	15.4	3.26	3.15	0.94	13.7	4.21	2.63	1.21	22.7	6.88	3.60	1.97	60.9	
	4	1.39	1.39	0.30	1.4	3.17	2.79	0.68	7.3	3.06	3.00	0.66	6.8	3.90	2.50	0.84	11.0	6.59	3.46	1.42	31.4	
	5	1.00	1.00	0.17	0.5	2.83	2.76	0.49	3.7	2.86	2.86	0.49	3.8	3.60	2.38	0.62	6.0	6.29	3.33	1.08	18.3	
	6	0.67	0.67	0.10	0.1	2.57	2.57	0.37	2.1	2.66	2.66	0.38	2.3	3.25	2.25	0.47	3.4	5.97	3.24	0.86	11.4	
	7	0.49	0.49	0.06	0.1	2.35	2.35	0.29	1.3	2.44	2.44	0.30	1.4	2.84	2.13	0.35	1.9	5.66	3.10	0.70	7.6	

**Cooling Capacities (with fan at high speed)**

**KFKD70H0EN1**

KFKD70H0EN1																						
EWT	Δt	Air inlet condition																				
		DB:21 WB:15				DB:26.7 WB:19.4				DB:27 WB:19				DB:29 WB:21				DB:33 WB:25				
		TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	
5	3	6.20	4.50	1.78	26.6	9.56	5.76	2.74	63.1	9.36	6.01	2.68	60.6	10.45	5.49	3.00	75.6	14.07	6.82	4.03	136.9	
	4	5.83	4.25	1.25	13.2	9.19	5.58	1.98	32.8	9.04	5.83	1.94	31.8	10.04	5.30	2.16	39.2	13.64	6.60	2.93	72.3	
	5	5.39	4.07	0.93	7.2	8.79	5.39	1.51	19.2	8.61	5.65	1.48	18.5	9.65	8.34	1.66	23.2	13.20	6.49	2.27	43.4	
	6	4.92	3.90	0.71	4.2	8.40	5.24	1.20	12.2	8.24	5.45	1.18	11.7	9.23	4.91	1.32	14.7	12.88	6.28	1.85	28.7	
	7	4.42	3.65	0.54	2.5	7.99	4.99	0.98	8.1	7.80	5.27	0.96	7.7	8.84	4.72	1.09	9.9	12.45	6.06	1.53	19.7	
6	3	5.61	4.24	1.61	21.7	9.02	5.53	2.58	56.2	8.81	5.77	2.53	53.7	9.92	5.24	2.84	68.1	13.53	6.60	3.88	126.5	
	4	5.21	4.04	1.12	10.5	8.66	5.34	1.86	29.2	8.45	5.57	1.82	27.8	9.52	5.06	2.05	35.3	13.10	6.39	2.82	66.7	
	5	4.81	3.85	0.83	5.7	8.24	5.14	1.42	16.9	8.07	5.41	1.39	16.2	9.15	4.87	1.57	20.8	12.66	6.17	2.18	39.9	
	6	4.32	3.68	0.62	3.2	7.85	4.99	1.12	10.6	7.66	5.21	1.10	10.1	8.69	4.65	1.25	13.1	12.34	5.95	1.77	26.3	
	7	3.80	3.42	0.47	1.8	7.44	4.76	0.91	7.0	7.25	5.06	0.89	6.7	8.30	4.46	1.02	8.7	11.90	5.84	1.46	18.0	
7	3	5.01	3.98	1.44	17.4	8.42	5.26	2.41	49.0	8.24	5.53	2.36	46.9	9.34	4.98	2.68	60.3	12.88	6.28	3.69	114.7	
	4	4.60	3.83	0.99	8.2	8.07	5.08	1.74	25.3	7.86	5.35	1.69	24.0	8.97	4.82	1.93	31.3	12.55	6.17	2.70	61.3	
	5	4.16	3.65	0.71	4.3	7.66	4.89	1.32	14.6	7.5	5.16	1.29	14	8.54	4.62	1.47	18.1	12.12	5.95	2.08	36.6	
	6	3.66	3.46	0.52	2.3	7.26	4.75	1.04	9.1	7.13	4.98	1.02	8.8	8.15	4.42	1.17	11.5	11.80	5.74	1.69	24.1	
	7	3.17	3.17	0.39	1.3	6.87	4.53	0.84	6.0	6.65	4.83	0.82	5.6	7.72	4.23	0.95	7.6	11.36	5.52	1.40	16.4	
8	3	4.39	3.78	1.26	13.3	7.85	5.03	2.25	42.6	7.66	5.27	2.20	40.6	8.78	4.71	2.52	53.3	12.34	6.06	3.54	105.2	
	4	3.96	3.66	0.85	6.1	7.50	4.86	1.61	21.9	7.27	5.15	1.56	20.6	8.35	4.57	1.80	27.1	11.90	5.84	2.56	55.1	
	5	3.51	3.43	0.60	3.1	7.12	4.65	1.22	12.6	6.90	4.94	1.19	11.9	8.00	4.38	1.38	15.9	11.58	5.63	1.99	33.4	
	6	3.15	3.15	0.45	1.7	6.66	4.51	0.95	7.7	6.53	4.76	0.94	7.4	7.60	4.18	1.09	10.0	11.15	5.52	1.60	21.5	
	7	2.75	2.75	0.34	1.0	6.27	4.31	0.77	5.0	6.07	4.60	0.75	4.7	7.11	4.00	0.87	6.4	10.76	5.31	1.32	14.7	
9	3	3.76	3.56	1.08	9.8	7.29	4.81	2.09	36.8	7.09	5.04	2.03	34.7	8.19	4.48	2.35	46.4	11.80	5.84	3.38	96.2	
	4	3.41	3.41	0.73	4.5	6.88	4.63	1.48	18.4	6.68	4.89	1.44	17.3	7.77	4.32	1.67	23.5	11.36	5.63	2.44	50.2	
	5	3.15	3.05	0.54	2.5	6.52	4.44	1.12	10.6	6.31	4.73	1.09	9.9	7.39	4.12	1.27	13.6	11.04	5.41	1.90	30.3	
	6	2.76	2.76	0.40	1.3	6.08	4.27	0.87	6.4	5.87	4.58	0.84	5.9	7.00	3.93	1.00	8.5	10.57	5.29	1.52	19.3	
	7	2.25	2.25	0.28	0.6	5.63	4.07	0.69	4.0	5.43	4.37	0.67	3.7	6.52	3.76	0.80	5.4	10.22	5.10	1.26	13.3	
10	3	3.31	3.31	0.95	7.6	6.69	4.56	1.92	30.9	6.42	4.86	1.84	28.5	7.62	4.24	2.18	40.1	11.26	5.52	3.23	87.6	
	4	3.04	3.04	0.65	3.6	6.28	4.38	1.35	15.3	6.06	4.70	1.30	14.3	7.18	4.08	1.54	20.0	10.79	5.41	2.32	45.3	
	5	2.72	2.72	0.47	1.8	5.87	4.24	1.01	8.6	5.62	4.55	0.97	7.9	6.80	3.90	1.17	11.5	10.45	5.22	1.80	27.2	
	6	2.33	2.33	0.33	0.9	5.47	4.06	0.78	5.2	5.22	4.37	0.75	4.7	6.35	3.70	0.91	7.0	10.00	5.08	1.43	17.3	
	7	1.48	1.48	0.18	0.3	4.99	3.89	0.61	3.2	4.75	4.21	0.58	2.9	5.94	3.52	0.73	4.5	9.56	4.87	1.17	11.6	
11	3	2.92	2.92	0.84	5.9	6.04	4.35	1.73	25.2	5.82	4.63	1.67	23.4	7.00	4.02	2.01	33.9	10.62	5.31	3.04	77.9	
	4	2.67	2.67	0.57	2.8	5.66	4.20	1.22	12.5	5.43	4.46	1.17	11.5	6.61	3.85	1.42	17.0	10.18	5.17	2.19	40.3	
	5	2.32	2.32	0.40	1.3	5.23	4.04	0.90	6.8	4.99	4.35	0.86	6.2	6.18	3.67	1.06	9.5	9.86	4.99	1.70	24.2	
	6	1.84	1.84	0.26	0.6	4.76	3.87	0.68	3.9	4.58	4.16	0.66	3.6	5.74	3.48	0.82	5.7	9.40	4.86	1.35	15.3	
	7	1.24	1.24	0.15	0.2	4.24	3.73	0.52	2.3	4.09	4.09	0.50	2.1	5.28	3.28	0.65	3.5	8.97	4.65	1.10	10.2	
12	3	2.58	2.58	0.74	4.6	5.40	4.15	1.55	20.2	5.14	4.47	1.47	18.3	6.36	3.80	1.82	28.0	10.02	5.11	2.87	69.4	
	4	2.27	2.27	0.49	2.0	5.00	4.00	1.08	9.7	4.75	4.32	1.02	8.8	5.98	3.63	1.29	13.9	9.60	4.95	2.06	35.8	
	5	1.96	1.96	0.34	1.0	4.57	3.86	0.79	5.2	4.33	4.18	0.74	4.7	5.55	3.46	0.95	7.7	9.23	4.76	1.59	21.2	
	6	1.18	1.18	0.17	0.2	4.06	3.73	0.58	2.8	4.02	3.94	0.58	2.8	5.09	3.27	0.73	4.5	8.79	4.63	1.26	13.3	
	7	0.97	0.97	0.12	0.1	3.59	3.59	0.44	1.6	3.70	3.70	0.45	1.7	4.62	3.07	0.57	2.7	8.35	4.45	1.03	8.9	
13	3	2.22	2.22	0.64	3.4	4.72	3.96	1.35	15.4	4.45	4.30	1.28	13.7	5.74	3.58	1.64	22.7	9.38	4.90	2.69	60.9	
	4	1.89	1.89	0.41	1.4	4.32	3.81	0.93	7.3	4.17	4.09	0.90	6.8	5.32	3.41	1.14	11.0	8.98	4.72	1.93	31.4	
	5	1.36	1.36	0.23	0.5	3.85	3.77	0.66	3.7	3.90	3.90	0.67	3.8	4.90	3.25	0.84	6.0	8.58	4.53	1.48	18.3	
	6	0.91	0.91	0.13	0.1	3.51	3.51	0.50	2.1	3.63	3.63	0.52	2.3	4.43	3.07	0.63	3.4	8.14	4.42	1.17	11.4	
	7	0.67	0.67	0.08	0.1	3.20	3.20	0.39	1.3	3.33	3.33	0.41	1.4	3.87	2.90	0.48	1.9	7.72	4.23	0.95	7.6	



## Cooling Capacities (with fan at high speed)

## KFKD89H0EN1

KFKD89H0EN1																						
EWT	Δt	Air inlet condition																				
		DB:21 WB:15				DB:26.7 WB:19.4				DB:27 WB:19				DB:29 WB:21				DB:33 WB:25				
		TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	
5	3	7.36	5.34	2.11	41.8	11.34	6.83	3.25	99.2	11.11	7.13	3.18	95.2	12.41	6.51	3.56	118.7	6.70	8.09	4.79	215.1	
	4	6.92	5.05	1.49	20.8	10.90	6.63	2.34	51.6	10.72	6.92	2.31	49.9	11.92	6.29	2.56	61.6	6.18	7.83	3.48	113.6	
	5	6.40	4.83	1.10	11.4	10.43	6.40	1.79	30.2	10.22	6.70	1.76	29.0	11.46	9.90	1.97	36.4	5.67	7.71	2.69	68.2	
	6	5.84	4.62	0.84	6.6	9.97	6.22	1.43	19.2	9.77	6.47	1.40	18.4	10.95	5.83	1.57	23.1	5.28	7.45	2.19	45.0	
	7	5.24	4.33	0.64	3.9	9.48	5.92	1.16	12.7	9.26	6.25	1.14	12.1	10.49	5.60	1.29	15.6	4.77	7.19	1.81	30.9	
6	3	6.65	5.03	1.91	34.1	10.70	6.56	3.07	88.3	10.45	6.85	3.00	84.3	11.78	6.22	3.38	107.0	6.05	7.83	4.60	198.8	
	4	6.18	4.79	1.33	16.6	10.27	6.33	2.21	45.8	10.03	6.61	2.16	43.7	11.30	6.01	2.43	55.4	5.54	7.58	3.34	104.8	
	5	5.70	4.57	0.98	9.0	9.77	6.10	1.68	26.5	9.58	6.42	1.65	25.5	10.85	5.78	1.87	32.7	5.03	7.32	2.58	62.7	
	6	5.12	4.37	0.73	5.1	9.31	5.92	1.33	16.7	9.09	6.18	1.30	15.9	10.31	5.52	1.48	20.5	4.64	7.06	2.10	41.3	
	7	4.51	4.06	0.55	2.9	8.82	5.65	1.08	11.0	8.60	6.01	1.06	10.5	9.85	5.29	1.21	13.7	4.13	6.94	1.74	28.3	
7	3	5.95	4.73	1.70	27.3	9.99	6.24	2.86	77.0	9.77	6.56	2.80	73.7	11.08	5.91	3.18	94.8	5.28	7.45	4.38	180.2	
	4	5.46	4.55	1.17	12.9	9.58	6.02	2.06	39.8	9.32	6.34	2.00	37.7	10.65	5.72	2.29	49.2	4.90	7.32	3.20	96.3	
	5	4.93	4.33	0.85	6.8	9.09	5.80	1.56	23.0	8.9	6.13	1.53	22	10.13	5.48	1.74	28.5	4.38	7.06	2.47	57.5	
	6	4.34	4.11	0.62	3.6	8.62	5.64	1.24	14.3	8.46	5.91	1.21	13.8	9.67	5.24	1.39	18.0	4.00	6.81	2.01	37.8	
	7	3.76	3.76	0.46	2.0	8.16	5.38	1.00	9.4	7.89	5.73	0.97	8.8	9.16	5.02	1.12	11.9	13.48	6.55	1.66	25.8	
8	3	5.21	4.48	1.49	21.0	9.31	5.97	2.67	66.9	9.09	6.25	2.61	63.8	10.42	5.59	2.99	83.7	4.64	7.19	4.20	165.4	
	4	4.70	4.34	1.01	9.6	8.90	5.77	1.91	34.4	8.63	6.11	1.86	32.3	9.91	5.42	2.13	42.7	4.13	6.94	3.04	86.6	
	5	4.16	4.07	0.72	4.8	8.45	5.52	1.45	19.8	8.19	5.86	1.41	18.6	9.49	5.20	1.63	25.0	3.74	6.68	2.36	52.4	
	6	3.74	3.74	0.54	2.7	7.90	5.36	1.13	12.0	7.74	5.65	1.11	11.6	9.02	4.96	1.29	15.7	3.23	6.55	1.90	33.7	
	7	3.26	3.26	0.40	1.5	7.44	5.11	0.91	7.8	7.20	5.46	0.89	7.4	8.44	4.75	1.04	10.1	12.77	6.31	1.57	23.1	
9	3	4.46	4.23	1.28	15.3	8.66	5.70	2.48	57.8	8.41	5.98	2.41	54.6	9.72	5.32	2.79	72.9	4.00	6.94	4.01	151.2	
	4	4.05	4.05	0.87	7.1	8.17	5.50	1.76	29.0	7.92	5.80	1.70	27.2	9.22	5.12	1.98	36.9	3.48	6.68	2.90	78.9	
	5	3.74	3.62	0.64	3.9	7.73	5.27	1.33	16.6	7.49	5.61	1.29	15.6	8.77	4.89	1.51	21.4	3.10	6.42	2.25	47.7	
	6	3.27	3.27	0.47	2.1	7.22	5.07	1.03	10.0	6.96	5.43	1.00	9.3	8.31	4.66	1.19	13.3	12.55	6.28	1.80	30.4	
	7	2.67	2.67	0.33	1.0	6.68	4.83	0.82	6.3	6.45	5.19	0.79	5.9	7.73	4.46	0.95	8.5	12.12	6.05	1.49	20.8	
10	3	3.93	3.93	1.13	11.9	7.94	5.41	2.28	48.6	7.62	5.77	2.18	44.7	9.04	5.03	2.59	63.1	3.36	6.55	3.83	137.6	
	4	3.61	3.61	0.78	5.7	7.45	5.20	1.60	24.1	7.19	5.57	1.55	22.4	8.51	4.84	1.83	31.5	2.80	6.42	2.75	71.1	
	5	3.22	3.22	0.55	2.9	6.96	5.03	1.20	13.5	6.67	5.39	1.15	12.3	8.07	4.62	1.39	18.1	12.41	6.19	2.13	42.7	
	6	2.76	2.76	0.40	1.5	6.49	4.82	0.93	8.1	6.19	5.19	0.89	7.4	7.54	4.39	1.08	11.0	11.87	6.02	1.70	27.2	
	7	1.76	1.76	0.22	0.4	5.92	4.61	0.73	5.0	5.64	5.00	0.69	4.5	7.05	4.17	0.87	7.0	11.34	5.78	1.39	18.2	
11	3	3.47	3.47	0.99	9.3	7.17	5.16	2.05	39.6	6.91	5.50	1.98	36.8	8.31	4.76	2.38	53.3	2.60	6.31	3.61	122.5	
	4	3.17	3.17	0.68	4.4	6.72	4.98	1.44	19.6	6.45	5.29	1.39	18.0	7.85	4.57	1.69	26.7	12.08	6.14	2.60	63.4	
	5	2.75	2.75	0.47	2.1	6.20	4.79	1.07	10.7	5.92	5.16	1.02	9.7	7.33	4.35	1.26	14.9	11.70	5.92	2.01	38.0	
	6	2.18	2.18	0.31	0.9	5.65	4.60	0.81	6.2	5.43	4.93	0.78	5.7	6.81	4.14	0.98	8.9	11.16	5.77	1.60	24.0	
	7	1.48	1.48	0.18	0.3	5.03	4.43	0.62	3.6	4.85	4.85	0.60	3.3	6.27	3.89	0.77	5.6	10.65	5.52	1.31	16.1	
12	3	3.06	3.06	0.88	7.2	6.41	4.92	1.84	31.7	6.10	5.30	1.75	28.7	7.55	4.51	2.16	44.0	1.89	6.06	3.41	109.1	
	4	2.70	2.70	0.58	3.2	5.93	4.75	1.28	15.3	5.64	5.12	1.21	13.8	7.10	4.30	1.53	21.9	11.39	5.87	2.45	56.3	
	5	2.32	2.32	0.40	1.5	5.42	4.58	0.93	8.2	5.14	4.96	0.88	7.3	6.59	4.11	1.13	12.1	10.95	5.65	1.88	33.3	
	6	1.40	1.40	0.20	0.4	4.82	4.43	0.69	4.5	4.76	4.67	0.68	4.4	6.04	3.88	0.87	7.0	10.43	5.50	1.49	21.0	
	7	1.16	1.16	0.14	0.2	4.26	4.26	0.52	2.6	4.39	4.39	0.54	2.7	5.48	3.65	0.67	4.3	9.91	5.28	1.22	13.9	
13	3	2.63	2.63	0.75	5.3	5.60	4.70	1.61	24.2	5.28	5.10	1.51	21.5	6.81	4.25	1.95	35.7	11.13	5.82	3.19	95.7	
	4	2.25	2.25	0.48	2.2	5.12	4.52	1.10	11.4	4.94	4.85	1.06	10.6	6.32	4.05	1.36	17.3	10.66	5.60	2.29	49.3	
	5	1.62	1.62	0.28	0.7	4.57	4.47	0.79	5.8	4.62	4.62	0.80	5.9	5.82	3.85	1.00	9.4	10.18	5.38	1.75	28.8	
	6	1.08	1.08	0.15	0.2	4.16	4.16	0.60	3.3	4.30	4.30	0.62	3.6	5.25	3.65	0.75	5.3	9.66	5.24	1.38	18.0	
	7	0.80	0.80	0.10	0.1	3.80	3.80	0.47	2.0	3.96	3.96	0.49	2.2	4.60	3.44	0.56	3.0	9.16	5.02	1.12	11.9	

**Cooling Capacities (with fan at high speed)**

**KFKD112H0EN1**

KFKD112H0EN1																						
EWT	Δt	Air inlet condition																				
		DB:21 WB:15				DB:26.7 WB:19.4				DB:27 WB:19				DB:29 WB:21				DB:33 WB:25				
		TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	
5	3	8.93	6.48	2.56	74.1	13.76	8.29	3.94	175.9	13.48	8.65	3.86	168.8	15.05	7.90	4.32	210.5	20.26	9.82	5.81	381.2	
	4	8.40	6.12	1.81	36.9	13.23	8.04	2.84	91.5	13.01	8.40	2.80	88.5	14.46	7.64	3.11	109.3	19.64	9.51	4.22	201.4	
	5	7.76	5.86	1.33	20.1	12.65	7.76	2.18	53.5	12.41	8.14	2.13	51.5	13.90	12.02	2.39	64.6	19.01	9.35	3.27	120.9	
	6	7.09	5.61	1.02	11.7	12.09	7.54	1.73	34.0	11.86	7.85	1.70	32.7	13.29	7.08	1.91	41.0	18.55	9.04	2.66	79.9	
	7	6.36	5.25	0.78	6.9	11.50	7.18	1.41	22.6	11.24	7.59	1.38	21.5	12.73	6.79	1.56	27.7	17.92	8.73	2.20	54.8	
6	3	8.07	6.11	2.31	60.5	12.98	7.96	3.72	156.5	12.69	8.31	3.64	149.5	14.29	7.54	4.10	189.7	19.48	9.51	5.58	352.5	
	4	7.50	5.81	1.61	29.4	12.47	7.68	2.68	81.2	12.17	8.03	2.62	77.4	13.71	7.29	2.95	98.3	18.86	9.19	4.05	185.8	
	5	6.92	5.55	1.19	16.0	11.86	7.40	2.04	47.0	11.63	7.79	2.00	45.2	13.17	7.01	2.27	58.0	18.23	8.88	3.14	111.2	
	6	6.22	5.30	0.89	9.0	11.30	7.18	1.62	29.6	11.03	7.50	1.58	28.3	12.51	6.70	1.79	36.4	17.77	8.57	2.55	73.3	
	7	5.47	4.92	0.67	5.1	10.71	6.86	1.32	19.6	10.44	7.29	1.28	18.6	11.95	6.42	1.47	24.4	17.14	8.42	2.11	50.1	
7	3	7.22	5.74	2.07	48.4	12.12	7.57	3.48	136.5	11.86	7.96	3.40	130.6	13.45	7.17	3.86	168.0	18.55	9.04	5.32	319.4	
	4	6.62	5.52	1.42	22.9	11.63	7.31	2.50	70.6	11.31	7.70	2.43	66.9	12.92	6.94	2.78	87.2	18.08	8.88	3.89	170.7	
	5	5.98	5.25	1.03	12.0	11.03	7.04	1.90	40.7	10.8	7.43	1.86	39	12.30	6.65	2.11	50.6	17.45	8.57	3.00	101.9	
	6	5.27	4.99	0.76	6.4	10.46	6.84	1.50	25.4	10.27	7.17	1.47	24.5	11.74	6.36	1.68	32.0	16.99	8.26	2.43	67.0	
	7	4.57	4.57	0.56	3.6	9.90	6.53	1.22	16.7	9.57	6.95	1.18	15.6	11.11	6.09	1.37	21.1	16.36	7.95	2.01	45.7	
8	3	6.33	5.44	1.81	37.2	11.30	7.25	3.24	118.6	11.03	7.59	3.16	113.1	12.64	6.78	3.62	148.4	17.77	8.73	5.09	293.2	
	4	5.70	5.27	1.23	17.0	10.80	7.00	2.32	60.9	10.47	7.42	2.25	57.3	12.03	6.58	2.59	75.6	17.14	8.42	3.69	153.5	
	5	5.05	4.94	0.87	8.5	10.25	6.70	1.76	35.2	9.94	7.11	1.71	33.1	11.52	6.31	1.98	44.3	16.68	8.10	2.87	93.0	
	6	4.54	4.54	0.65	4.8	9.58	6.50	1.37	21.3	9.40	6.86	1.35	20.5	10.94	6.02	1.57	27.8	16.05	7.95	2.30	59.8	
	7	3.96	3.96	0.49	2.7	9.02	6.20	1.11	13.9	8.74	6.62	1.07	13.0	10.24	5.77	1.26	17.9	15.49	7.65	1.90	40.9	
9	3	5.41	5.13	1.55	27.2	10.50	6.92	3.01	102.5	10.21	7.26	2.93	96.8	11.80	6.45	3.38	129.3	16.99	8.42	4.87	268.0	
	4	4.91	4.91	1.06	12.6	9.91	6.67	2.13	51.3	9.62	7.04	2.07	48.3	11.19	6.22	2.41	65.4	16.36	8.10	3.52	139.9	
	5	4.54	4.39	0.78	6.9	9.38	6.39	1.61	29.4	9.09	6.81	1.56	27.6	10.64	5.94	1.83	37.9	15.90	7.79	2.73	84.5	
	6	3.97	3.97	0.57	3.7	8.76	6.16	1.26	17.8	8.45	6.59	1.21	16.6	10.08	5.66	1.45	23.6	15.23	7.62	2.18	53.8	
	7	3.24	3.24	0.40	1.8	8.10	5.86	1.00	11.2	7.82	6.30	0.96	10.4	9.38	5.41	1.15	15.0	14.71	7.34	1.81	36.9	
10	3	4.77	4.77	1.37	21.1	9.63	6.56	2.76	86.2	9.24	7.00	2.65	79.3	10.97	6.11	3.15	111.8	16.21	7.95	4.65	244.0	
	4	4.38	4.38	0.94	10.0	9.04	6.31	1.94	42.7	8.73	6.76	1.88	39.8	10.33	5.88	2.22	55.8	15.54	7.79	3.34	126.1	
	5	3.91	3.91	0.67	5.1	8.45	6.11	1.45	23.9	8.09	6.55	1.39	21.9	9.79	5.61	1.68	32.0	15.05	7.51	2.59	75.8	
	6	3.35	3.35	0.48	2.6	7.87	5.84	1.13	14.4	7.51	6.30	1.08	13.1	9.15	5.33	1.31	19.4	14.40	7.31	2.06	48.1	
	7	2.14	2.14	0.26	0.8	7.18	5.59	0.88	8.8	6.84	6.06	0.84	8.0	8.56	5.06	1.05	12.5	13.76	7.01	1.69	32.3	
11	3	4.21	4.21	1.21	16.4	8.70	6.26	2.49	70.2	8.38	6.67	2.40	65.3	10.08	5.78	2.89	94.4	15.29	7.65	4.38	217.1	
	4	3.85	3.85	0.83	7.7	8.15	6.05	1.75	34.7	7.82	6.42	1.68	32.0	9.52	5.55	2.05	47.4	14.66	7.45	3.15	112.4	
	5	3.34	3.34	0.57	3.7	7.53	5.81	1.29	18.9	7.18	6.26	1.24	17.3	8.90	5.28	1.53	26.5	14.20	7.18	2.44	67.4	
	6	2.65	2.65	0.38	1.6	6.86	5.58	0.98	10.9	6.59	5.98	0.94	10.1	8.26	5.02	1.18	15.8	13.54	7.00	1.94	42.6	
	7	1.79	1.79	0.22	0.5	6.11	5.38	0.75	6.4	5.89	5.89	0.72	5.9	7.61	4.72	0.93	9.9	12.92	6.70	1.59	28.5	
12	3	3.71	3.71	1.06	12.8	7.78	5.97	2.23	56.2	7.40	6.44	2.12	50.9	9.16	5.47	2.63	78.0	14.43	7.36	4.14	193.4	
	4	3.27	3.27	0.70	5.6	7.20	5.77	1.55	27.1	6.84	6.22	1.47	24.5	8.62	5.22	1.85	38.8	13.82	7.12	2.97	99.8	
	5	2.82	2.82	0.49	2.7	6.58	5.56	1.13	14.5	6.23	6.02	1.07	13.0	7.99	4.99	1.38	21.4	13.29	6.86	2.29	59.1	
	6	1.70	1.70	0.24	0.7	5.84	5.38	0.84	7.9	5.78	5.67	0.83	7.8	7.32	4.71	1.05	12.5	12.65	6.67	1.81	37.2	
	7	1.40	1.40	0.17	0.3	5.17	5.17	0.64	4.6	5.33	5.33	0.65	4.8	6.65	4.43	0.82	7.6	12.03	6.41	1.48	24.7	
13	3	3.19	3.19	0.92	9.5	6.79	5.70	1.95	42.9	6.41	6.19	1.84	38.1	8.26	5.16	2.37	63.4	13.51	7.06	3.87	169.6	
	4	2.73	2.73	0.59	3.9	6.22	5.49	1.34	20.2	6.00	5.89	1.29	18.8	7.67	4.91	1.65	30.7	12.94	6.79	2.78	87.4	
	5	1.96	1.96	0.34	1.3	5.55	5.42	0.95	10.3	5.61	5.61	0.96	10.5	7.06	4.68	1.21	16.7	12.36	6.53	2.13	51.1	
	6	1.31	1.31	0.19	0.4	5.05	5.05	0.72	5.9	5.22	5.22	0.75	6.3	6.37	4.43	0.91	9.4	11.72	6.36	1.68	31.9	
	7	0.97	0.97	0.12	0.2	4.61	4.61	0.57	3.6	4.80	4.80	0.59	3.9	5.58	4.18	0.69	5.3	11.11	6.09	1.37	21.1	

**Cooling Capacities (with fan at high speed)**

**KFKD140H0EN1**

KFKD112H0EN1																					
EWT	Δt	Air inlet condition																			
		DB:21 WB:15				DB:26.7 WB:19.4				DB:27 WB:19				DB:29 WB:21				DB:33 WB:25			
		TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD	TC	SC	WF	WPD
5	3	10.17	7.38	2.92	87.4	15.67	9.44	4.49	207.4	15.35	9.85	4.40	199.1	17.15	9.00	4.92	248.3	23.07	11.18	6.61	449.7
	4	9.57	6.98	2.06	43.5	15.07	9.16	3.24	107.9	14.82	9.57	3.19	104.3	16.47	8.70	3.54	128.9	22.36	10.83	4.81	237.6
	5	8.84	6.67	1.52	23.8	14.41	8.84	2.48	63.2	14.13	9.26	2.43	60.7	15.83	13.68	2.72	76.2	21.65	10.65	3.72	142.6
	6	8.08	6.39	1.16	13.8	13.77	8.59	1.97	40.1	13.51	8.95	1.94	38.5	15.14	8.06	2.17	48.4	21.12	10.29	3.03	94.2
	7	7.24	5.98	0.89	8.1	13.10	8.18	1.61	26.6	12.80	8.64	1.57	25.4	14.50	7.74	1.78	32.6	20.41	9.94	2.51	64.6
6	3	9.19	6.96	2.64	71.4	14.78	9.07	4.24	184.6	14.45	9.46	4.14	176.3	16.28	8.59	4.67	223.7	22.19	10.83	6.36	415.7
	4	8.54	6.62	1.84	34.6	14.20	8.75	3.05	95.8	13.86	9.14	2.98	91.3	15.62	8.31	3.36	115.9	21.48	10.47	4.62	219.1
	5	7.88	6.32	1.36	18.9	13.51	8.43	2.32	55.5	13.24	8.87	2.28	53.3	15.00	7.99	2.58	68.4	20.77	10.12	3.57	131.1
	6	7.08	6.03	1.02	10.6	12.87	8.18	1.84	35.0	12.57	8.54	1.80	33.3	14.25	7.63	2.04	42.9	20.23	9.76	2.90	86.4
	7	6.23	5.61	0.77	6.0	12.19	7.81	1.50	23.1	11.89	8.31	1.46	21.9	13.61	7.31	1.67	28.7	19.52	9.58	2.40	59.1
7	3	8.22	6.53	2.36	57.0	13.81	8.63	3.96	161.0	13.51	9.07	3.87	154.1	15.32	8.16	4.39	198.2	21.12	10.29	6.05	376.8
	4	7.54	6.28	1.62	27.0	13.24	8.32	2.85	83.3	12.89	8.77	2.77	78.9	14.71	7.90	3.16	102.9	20.59	10.12	4.43	201.4
	5	6.82	5.98	1.17	14.1	12.57	8.02	2.16	48.0	12.3	8.47	2.12	46	14.00	7.58	2.41	59.6	19.88	9.76	3.42	120.2
	6	6.00	5.68	0.86	7.6	11.91	7.79	1.71	29.9	11.70	8.16	1.68	28.9	13.36	7.24	1.92	37.7	19.35	9.41	2.77	79.0
	7	5.20	5.20	0.64	4.2	11.27	7.44	1.38	19.7	10.90	7.92	1.34	18.4	12.65	6.94	1.55	24.8	18.64	9.05	2.29	53.9
8	3	7.21	6.19	2.07	43.9	12.87	8.25	3.69	139.9	12.57	8.64	3.60	133.4	14.39	7.72	4.13	175.0	20.23	9.94	5.80	345.8
	4	6.50	6.00	1.40	20.0	12.30	7.97	2.64	71.9	11.93	8.45	2.56	67.6	13.70	7.49	2.95	89.2	19.52	9.58	4.20	181.1
	5	5.75	5.63	0.99	10.1	11.68	7.63	2.01	41.5	11.32	8.09	1.95	39.0	13.12	7.19	2.26	52.3	18.99	9.23	3.27	109.7
	6	5.16	5.16	0.74	5.6	10.92	7.40	1.56	25.2	10.70	7.81	1.53	24.2	12.46	6.85	1.79	32.8	18.28	9.05	2.62	70.6
	7	4.51	4.51	0.55	3.2	10.28	7.06	1.26	16.4	9.96	7.54	1.22	15.4	11.66	6.57	1.43	21.1	17.64	8.71	2.17	48.3
9	3	6.16	5.84	1.77	32.0	11.96	7.88	3.43	120.9	11.63	8.27	3.33	114.1	13.44	7.35	3.85	152.5	19.35	9.58	5.55	316.1
	4	5.59	5.59	1.20	14.9	11.29	7.60	2.43	60.5	10.95	8.02	2.35	57.0	12.74	7.08	2.74	77.2	18.64	9.23	4.01	165.0
	5	5.16	5.01	0.89	8.1	10.68	7.28	1.84	34.7	10.35	7.76	1.78	32.6	12.12	6.76	2.09	44.7	18.10	8.87	3.11	99.7
	6	4.53	4.53	0.65	4.3	9.97	7.01	1.43	21.0	9.62	7.51	1.38	19.5	11.48	6.44	1.65	27.8	17.34	8.68	2.49	63.5
	7	3.69	3.69	0.45	2.1	9.23	6.67	1.13	13.2	8.91	7.17	1.09	12.3	10.68	6.16	1.31	17.7	16.75	8.36	2.06	43.5
10	3	5.43	5.43	1.56	24.9	10.97	7.47	3.14	101.6	10.53	7.97	3.02	93.6	12.50	6.96	3.58	131.9	18.46	9.05	5.29	287.8
	4	4.99	4.99	1.07	11.8	10.29	7.19	2.21	50.3	9.94	7.70	2.14	46.9	11.77	6.69	2.53	65.8	17.70	8.87	3.80	148.8
	5	4.45	4.45	0.77	6.0	9.62	6.96	1.65	28.1	9.21	7.45	1.58	25.8	11.15	6.39	1.92	37.8	17.15	8.55	2.95	89.4
	6	3.82	3.82	0.55	3.1	8.96	6.66	1.28	17.0	8.55	7.17	1.23	15.5	10.42	6.07	1.49	22.9	16.40	8.32	2.35	56.8
	7	2.43	2.43	0.30	0.9	8.18	6.37	1.01	10.4	7.79	6.90	0.96	9.4	9.74	5.77	1.20	14.7	15.67	7.99	1.93	38.1
11	3	4.79	4.79	1.37	19.4	9.90	7.14	2.84	82.8	9.55	7.60	2.74	77.0	11.48	6.58	3.29	111.4	17.41	8.71	4.99	256.1
	4	4.38	4.38	0.94	9.1	9.28	6.89	2.00	40.9	8.91	7.31	1.92	37.7	10.84	6.32	2.33	55.9	16.70	8.48	3.59	132.5
	5	3.80	3.80	0.65	4.4	8.57	6.62	1.47	22.3	8.18	7.14	1.41	20.4	10.13	6.02	1.74	31.2	16.17	8.18	2.78	79.5
	6	3.02	3.02	0.43	1.9	7.81	6.35	1.12	12.9	7.51	6.82	1.08	11.9	9.41	5.72	1.35	18.7	15.42	7.97	2.21	50.2
	7	2.04	2.04	0.25	0.6	6.96	6.12	0.85	7.5	6.71	6.71	0.82	7.0	8.66	5.38	1.06	11.6	14.71	7.63	1.81	33.6
12	3	4.22	4.22	1.21	15.1	8.86	6.80	2.54	66.3	8.43	7.33	2.42	60.0	10.44	6.23	2.99	92.0	16.44	8.38	4.71	228.1
	4	3.73	3.73	0.80	6.6	8.20	6.57	1.76	31.9	7.79	7.08	1.68	28.8	9.82	5.95	2.11	45.8	15.74	8.11	3.38	117.7
	5	3.21	3.21	0.55	3.1	7.49	6.34	1.29	17.1	7.10	6.85	1.22	15.3	9.11	5.68	1.57	25.2	15.14	7.81	2.60	69.7
	6	1.93	1.93	0.28	0.8	6.66	6.12	0.95	9.4	6.58	6.46	0.94	9.2	8.34	5.36	1.20	14.7	14.41	7.60	2.07	43.9
	7	1.60	1.60	0.20	0.4	5.89	5.89	0.72	5.4	6.07	6.07	0.75	5.7	7.58	5.04	0.93	8.9	13.70	7.29	1.68	29.1
13	3	3.64	3.64	1.04	11.2	7.74	6.50	2.22	50.6	7.29	7.05	2.09	44.9	9.41	5.87	2.70	74.7	15.39	8.04	4.41	200.0
	4	3.11	3.11	0.67	4.6	7.08	6.25	1.52	23.8	6.83	6.71	1.47	22.2	8.73	5.59	1.88	36.2	14.73	7.74	3.17	103.1
	5	2.24	2.24	0.38	1.5	6.32	6.18	1.09	12.1	6.39	6.39	1.10	12.4	8.04	5.32	1.38	19.7	14.07	7.44	2.42	60.2
	6	1.49	1.49	0.21	0.5	5.75	5.75	0.82	7.0	5.95	5.95	0.85	7.5	7.26	5.04	1.04	11.1	13.35	7.24	1.91	37.6
	7	1.10	1.10	0.14	0.2	5.25	5.25	0.65	4.3	5.47	5.47	0.67	4.6	6.35	4.76	0.78	6.3	12.65	6.94	1.55	24.8

Cooling capacity modification coefficient table:

Speed	20		30		38		48		57		70		89		112		140	
	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
High	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mid	0.87	0.84	0.86	0.82	0.86	0.83	0.85	0.81	0.83	0.79	0.84	0.8	0.86	0.82	0.85	0.81	0.85	0.81
Low	0.76	0.73	0.75	0.71	0.74	0.7	0.74	0.7	0.74	0.7	0.76	0.72	0.72	0.68	0.73	0.69	0.75	0.71

### Heating Capacities (with fan at high speed)

Remark:

$\Delta t$ : Water Temperature Difference ( $^{\circ}\text{C}$ ); **TH**: Total Heating Capacity (kW); **WF**: Water Flow ( $\text{m}^3/\text{h}$ ); **WPD**: Water Pressure Drop (kPa)

Model	$\Delta t$	Air inlet temp. (20 $^{\circ}\text{C}$ DB)																	
		Water inlet temp. ( $^{\circ}\text{C}$ )																	
		30			40			50			60			70			80		
		TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD	TH	WF	WPD
20	10	0.50	0.04	0.1	1.76	0.15	1.0	3.08	0.26	2.9	4.37	0.38	5.9	5.63	0.48	9.8	6.86	0.59	14.5
	8	0.62	0.07	0.2	1.94	0.21	1.8	3.24	0.35	5.1	4.49	0.48	9.7	5.75	0.62	16.0	6.98	0.75	23.5
	6	0.78	0.11	0.5	2.10	0.30	3.8	3.38	0.48	9.8	4.65	0.67	18.5	5.91	0.85	30.0	7.13	1.02	43.6
30	10	0.68	0.06	0.2	2.38	0.20	2.0	4.16	0.36	6.2	5.91	0.51	12.5	7.62	0.66	20.8	9.28	0.80	30.9
	8	0.84	0.09	0.4	2.62	0.28	3.8	4.38	0.47	10.7	6.07	0.65	20.7	7.78	0.84	33.9	9.44	1.01	49.9
	6	1.06	0.15	1.1	2.84	0.41	8.0	4.57	0.66	20.8	6.29	0.90	39.3	7.99	1.15	63.6	9.64	1.38	92.6
38	10	0.85	0.07	0.3	2.96	0.25	3.2	5.17	0.44	9.6	7.35	0.63	19.5	9.47	0.81	32.3	11.53	0.99	47.9
	8	1.05	0.11	0.6	3.26	0.35	6.0	5.44	0.58	16.7	7.55	0.81	32.1	9.67	1.04	52.6	11.73	1.26	77.5
	6	1.32	0.19	1.7	3.53	0.51	12.5	5.68	0.81	32.3	7.81	1.12	61.1	9.93	1.42	98.7	11.98	1.72	143.8
48	10	1.07	0.09	0.3	3.75	0.32	4.2	6.55	0.56	12.7	9.31	0.80	25.7	12.00	1.03	42.6	14.62	1.26	63.2
	8	1.32	0.14	0.8	4.13	0.44	7.9	6.90	0.74	22.0	9.57	1.03	42.3	12.25	1.32	69.4	14.87	1.60	102.2
	6	1.67	0.24	2.3	4.47	0.64	16.4	7.20	1.03	42.6	9.90	1.42	80.6	12.59	1.80	130.2	15.19	2.18	189.7
57	10	1.29	0.11	0.2	4.51	0.39	2.8	7.87	0.68	8.6	11.19	0.96	17.4	14.42	1.24	28.8	17.56	1.51	42.7
	8	1.59	0.17	0.5	4.96	0.53	5.3	8.29	0.89	14.9	11.49	1.24	28.6	14.72	1.58	46.9	17.86	1.92	69.1
	6	2.01	0.29	1.6	5.37	0.77	11.1	8.65	1.24	28.8	11.90	1.71	54.5	15.12	2.17	88.0	18.25	2.62	128.2
70	10	1.73	0.15	0.3	6.04	0.52	3.3	10.55	0.91	10.1	14.99	1.29	20.3	19.32	1.66	33.7	23.53	2.02	50.0
	8	2.13	0.23	0.6	6.65	0.71	6.2	11.10	1.19	17.4	15.40	1.66	33.5	19.72	2.12	54.9	23.93	2.57	80.8
	6	2.69	0.39	1.8	7.20	1.03	13.0	11.59	1.66	33.7	15.94	2.28	63.7	20.26	2.90	103.0	24.45	3.51	150.0
89	10	2.13	0.18	0.3	7.45	0.64	4.2	13.02	1.12	12.8	18.50	1.59	25.9	23.83	2.05	43.0	29.03	2.50	63.8
	8	2.63	0.28	0.8	8.20	0.88	8.0	13.70	1.47	22.2	19.00	2.04	42.7	24.33	2.62	70.0	29.53	3.17	103.1
	6	3.32	0.48	2.3	8.88	1.27	16.6	14.30	2.05	43.0	19.67	2.82	81.3	25.00	3.58	131.4	30.17	4.32	191.4
112	10	2.59	0.22	0.5	9.05	0.78	6.5	15.82	1.36	19.9	22.48	1.93	40.2	28.97	2.49	66.8	35.28	3.03	99.1
	8	3.20	0.34	1.3	9.97	1.07	12.4	16.65	1.79	34.5	23.09	2.48	66.3	29.57	3.18	108.8	35.89	3.86	160.2
	6	4.03	0.58	3.6	10.80	1.55	25.8	17.38	2.49	66.8	23.90	3.43	126.3	30.38	4.36	204.2	36.67	5.26	297.4
140	10	3.09	0.27	0.7	10.82	0.93	8.5	18.90	1.63	26.0	26.86	2.31	52.4	34.60	2.98	87.0	42.14	3.62	129.1
	8	3.82	0.41	1.7	11.90	1.28	16.1	19.89	2.14	44.9	27.58	2.97	86.4	35.33	3.80	141.7	42.87	4.61	208.7
	6	4.82	0.69	4.7	12.90	1.85	33.6	20.76	2.98	87.0	28.55	4.09	164.6	36.29	5.20	265.9	43.80	6.28	387.3

Heating capacity modification coefficient table:

Speed	20	30	38	48	57
	TH	TH	TH	TH	TH
High	1	1	1	1	1
Medium	0.86	0.87	0.86	0.85	0.84
Low	0.74	0.75	0.75	0.75	0.73
Speed	70	89	112	140	
	TH	TH	TH	TH	
High	1	1	1	1	
Medium	0.86	0.87	0.85	0.86	
Low	0.75	0.74	0.74	0.75	

Altitude modification coefficient table:

Altitude (m)	TC	SC	TH
500	0.98	0.95	0.95
1000	0.97	0.91	0.91
1500	0.95	0.86	0.86
2000	0.94	0.82	0.82
2500	0.93	0.78	0.78
3000	0.91	0.74	0.7

#### Operating limits

Mode	Outdoor temp.	Room temp.	Entering water temp.
Cooling	0~43 $^{\circ}\text{C}$	17~32 $^{\circ}\text{C}$	3~20 $^{\circ}\text{C}$
Heating	-15~24 $^{\circ}\text{C}$	0~30 $^{\circ}\text{C}$	30~80 $^{\circ}\text{C}$

## 7. Static Pressure Graphs

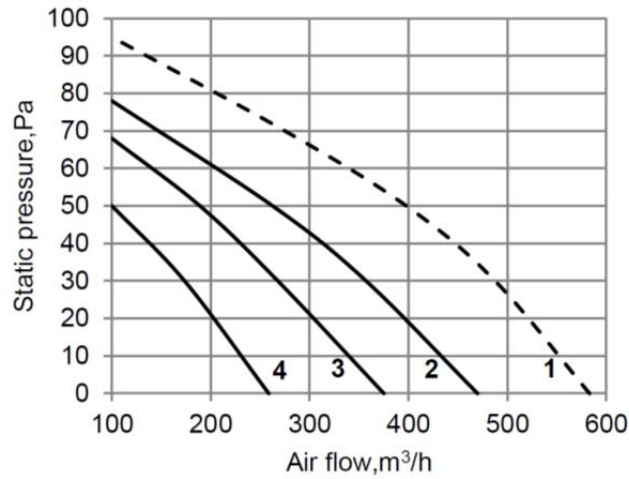
How to read the diagram:

The vertical axis is the External Static Pressure (Pa) while the horizontal axis represents the Air Flow ( $m^3/h$ ).

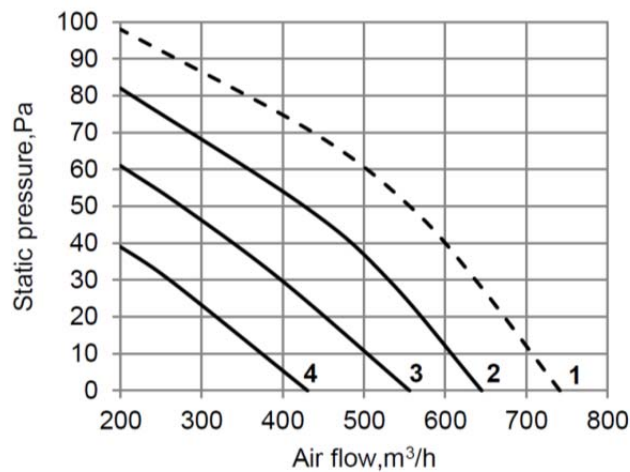
The fan performance curves are for the "1-Super High", "2-High", "3-Medium" and "4-Low" fan speed.

The dotted line stands for reserved fan speed.

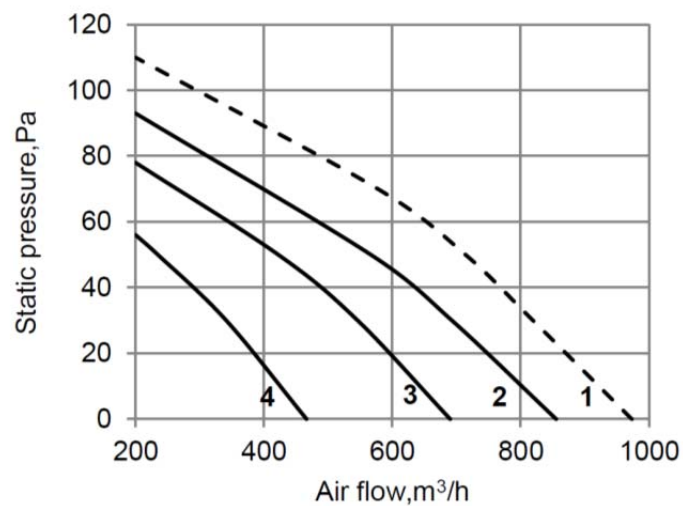
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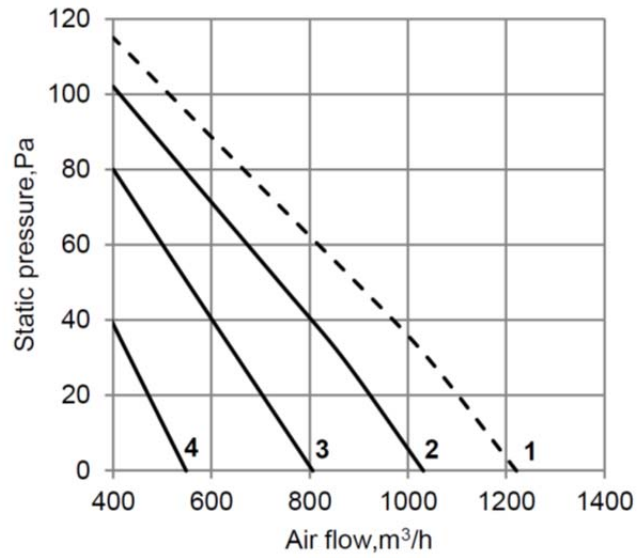
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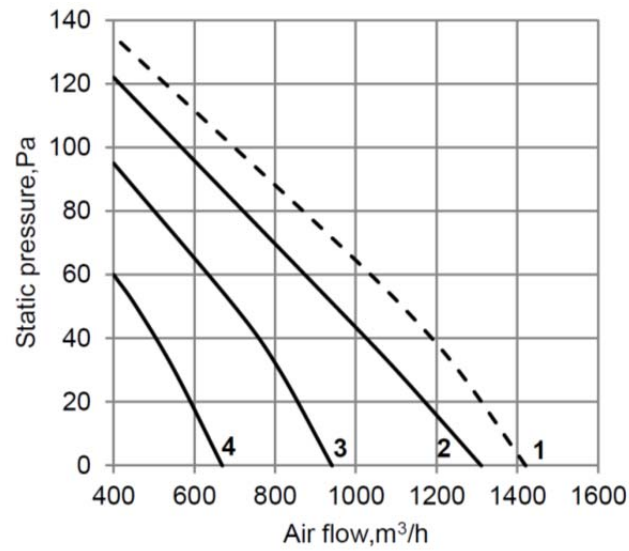
**KFKD38H0EN1**



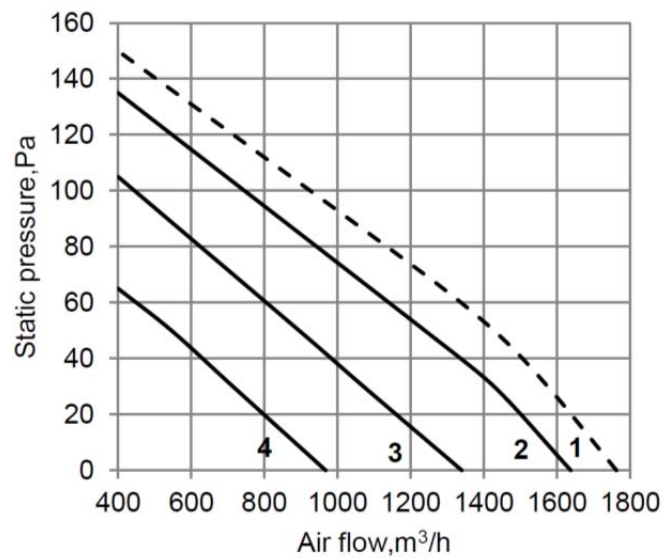
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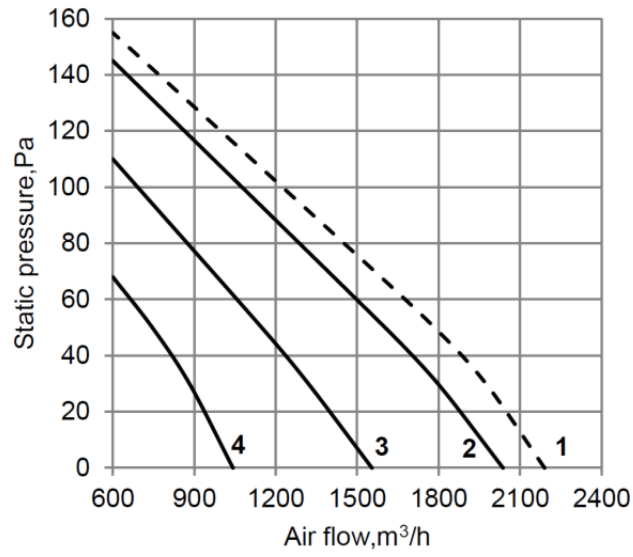
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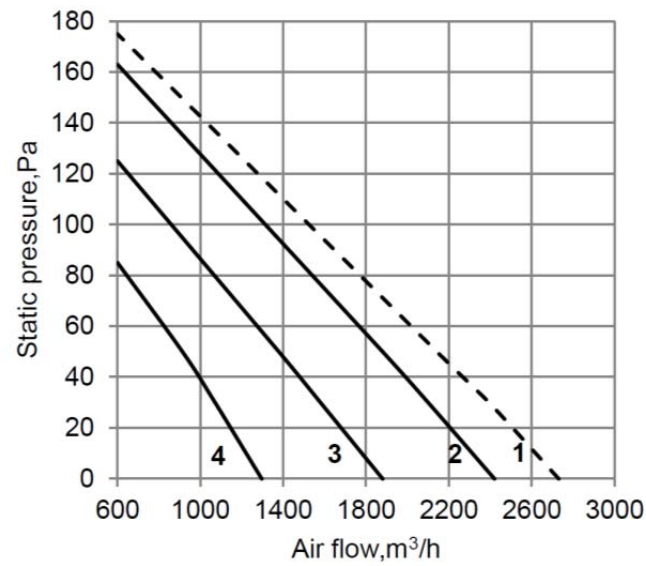
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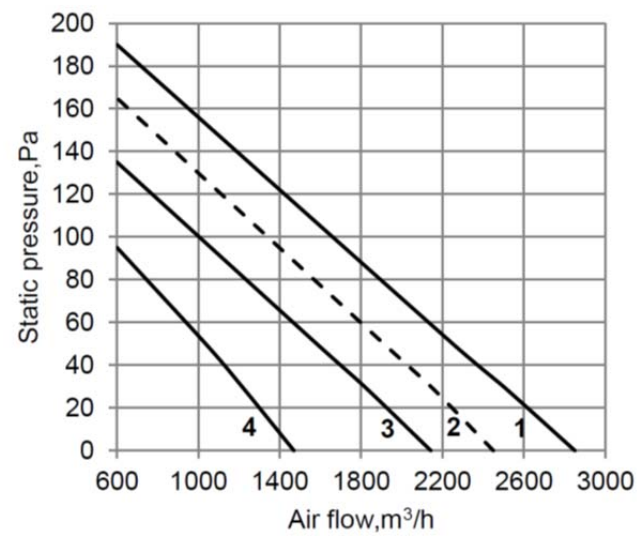
**KFKD89H0EN1**



**KFKD112H0EN1**



**KFKD140H0EN1**



## 8. Installation

### 8.1 Installing site

- Install the unit where installation and maintenance space is enough.
- Install the unit where the ceiling is horizontal and enough to bear the weight of the indoor unit.
- Install the unit where the air inlet and outlet are not baffled and are the least affected by external air.
- Install the unit where the supply air flow can be sent to all parts in the room.
- Install the unit where it is easy to lead out the connective pipe and the drain pipe.
- Install the unit where connotative heat is emitted from a heat source directly.

#### Caution:

Installing the equipment in any of the following places may lead to faults of the equipment (if that is inevitable, consult the supplier):

- The site contains mineral oils such as cutting lubricant.
- Seaside where the air contains much salt.
- Hot spring area where corrosive gases exist, e.g., sulfide gas.
- Factories where the supply voltage fluctuates seriously.
- Inside a car or cabin.
- Place like kitchen where oil permeates.
- Place where strong electromagnetic waves exist.
- Place where flammable gases or materials exist.
- Place where acid or alkali gases evaporate.
- Other special environments.

#### Precautions before installation:

- Decide the correct way of conveying the equipment.
- Try to transport this equipment with the original package.
- If the air conditioner needs to be installed on a metal part of the building, electric insulation must be performed, and the installation must meet the relevant technical standards of electric devices.

### 8.2 Installing body

Confirm the dimensions of the indoor unit against the following figure.

Install  $\Phi 10$  pendant bolts (4 bolts)

The intervals of the pendant bolts are shown in the following figure.

Use the  $\Phi 10$  pendant bolts.

The treatment of the ceiling varies between buildings. For detailed measures, negotiate with the construction and fit-out staff.

Scope of dismantling the ceiling. Please keep the ceiling horizontal. Reinforce the beams and girders of the ceiling lest vibration of the ceiling.

Cut off the beams and girders of the ceiling.

Reinforce the cut-off part, beams and girders of the ceiling.

After the main body is suspended, work on the pipes and wires in the ceiling. Decide the lead-out direction of the pipes after selecting the installation site. Especially, in a circumstance where a ceiling is available, extend the refrigerant pipe, drain pipe, indoor/outdoor connection wires and wire controller lines to the connection position before suspending the unit.

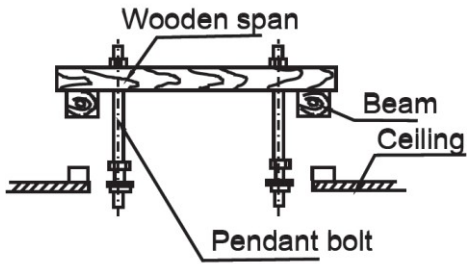
#### 8.2.1 Procedure of installing the pendant bolts.

1) Base on the unit structure, please set the screw-pitch according to the size of the following figures:

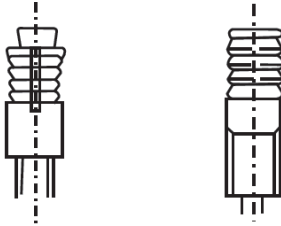
- Wooden structure:

Put rectangular sticks across the beams, and set pendant bolts.

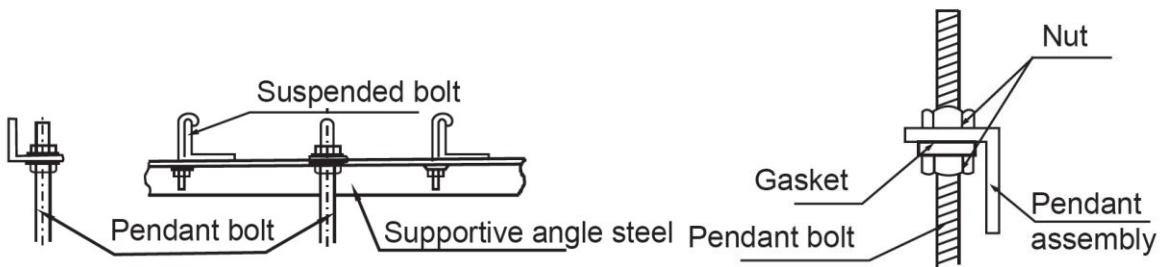




- Old concrete roughcast:  
Use embedded bolts and embedded pulling plugs.



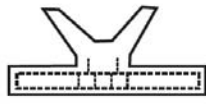
- Steel beam and girder structure:  
Set and use supportive angle steel.



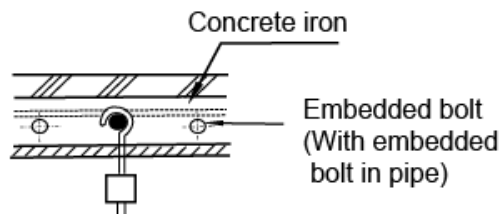
- New concrete roughcast:  
Set it with embedded bushes or embedded bolts.



Flap type inser



Slide type inser



## 2) Suspending the indoor unit

- Use tools such as pulleys to hoist the indoor unit to the pendant bolt.
- Use tools such as gradient to settle the indoor unit horizontally. Lack of horizontality may cause water leak.

## 3) Connect the duct

The duct length is determined according to the external static pressure.

## 4) Install the wire control switch

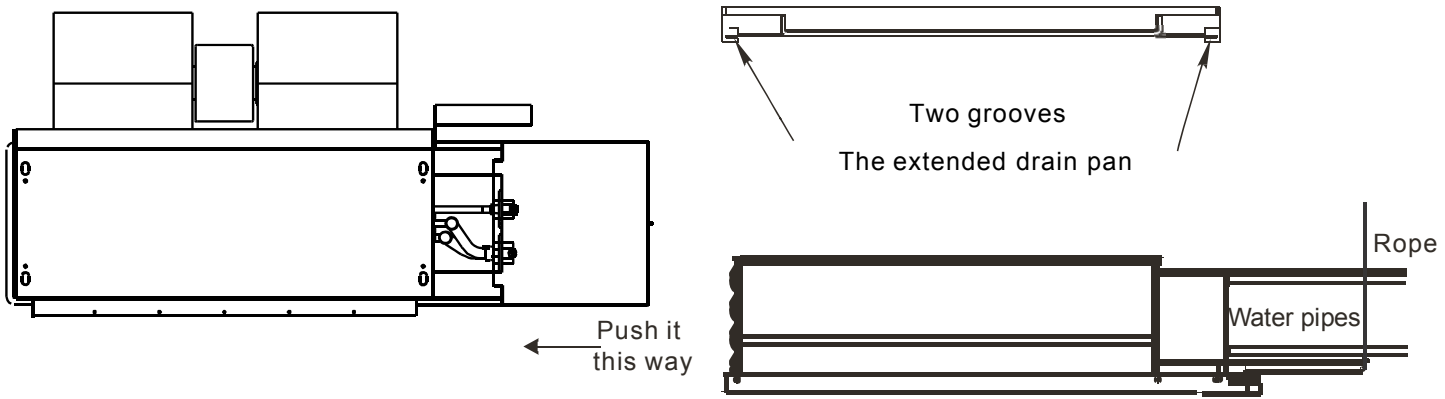
For installation of the wire control switch, see the installation manual of the wire controller.

### 8.2.2 Body dimension

Please refer to chapter 7.

### 8.3 Installing extended drain pan

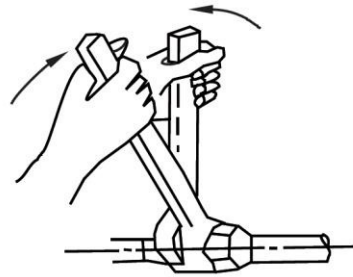
The grooves of the extended drain pan can be locked at the brim of the main drain pan.



- Please hang up the extended drain pan to the pipes or ceiling by a rope.

### 8.4 Installing water pipe

- With air release valve, the other side is water inlet pipe.
- When connect water collector, set the tightening torque to 6180~7540N.cm (630~770kgf.cm), and use a spanner to tighten it as shown in Figure.
- The diameter of connective junction in water inlet pipe and water outlet pipe is RC3/4 taper pipe thread inside.
- The diameter of condensate pipe is ZG3/4 taper pipe thread outside.



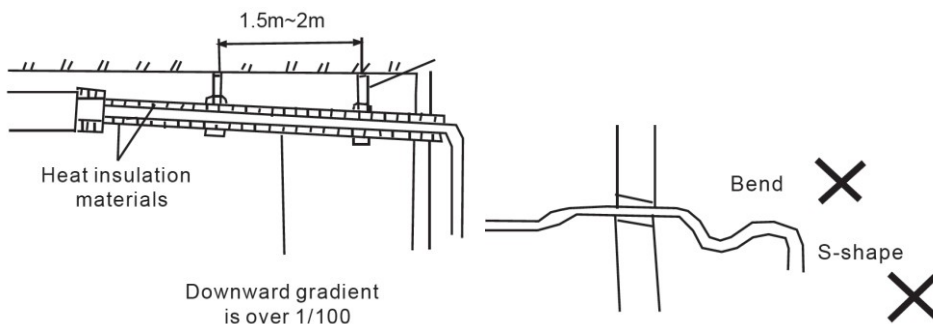
### 8.5 Installing drain pipe

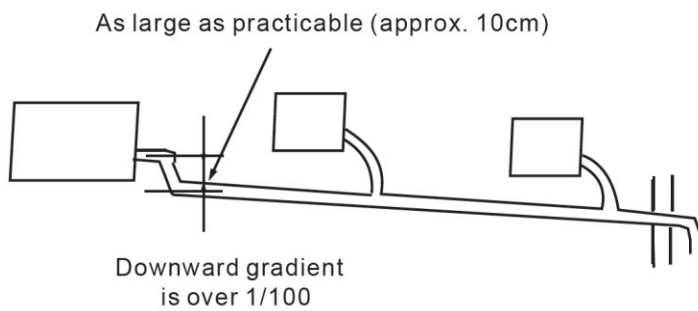
1. Install the drain pipe of the fan coil unit

Before out from factory, the scupper adopts the pipe thread.

#### CAUTIONS:

- Be sure to perform heat insulation for the drain pipe of the indoor unit. Otherwise, condensate will occur. The joint of the indoor unit should also undergo heat insulation treatment.
- When performing the pipes connection, use the rigid PVC binder, and make sure that no leak exists.
- Same as the joint of the indoor unit. Be careful not to apply force at the pipe side of the indoor unit.
- The downward gradient of the drain pipe should be higher than (1/100), without bend in the middle.
- The total length of the drain pipe should not exceed 20m, when the pipe is over long, a prop stand must be installed to prevent winging.
- The centralized pipes should be distributed against the figure shown on the right side.





## 2. Drain test

- Before the test, ensure that the drain pipes are smooth and the adapters are sealed.
- Newly built rooms should undergo the drain test before the ceiling is laid.

## 8.6 Wiring installation

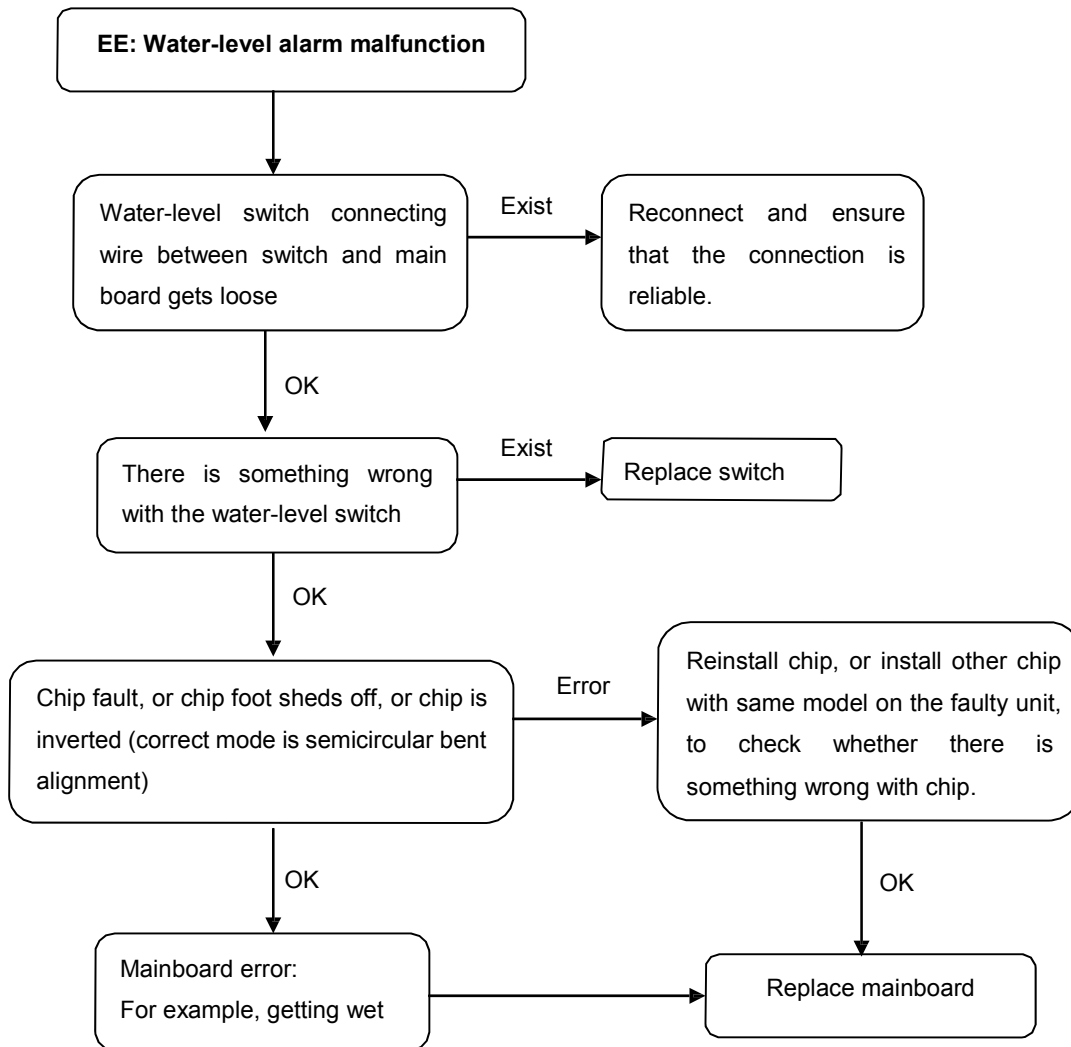
### CAUTIONS:

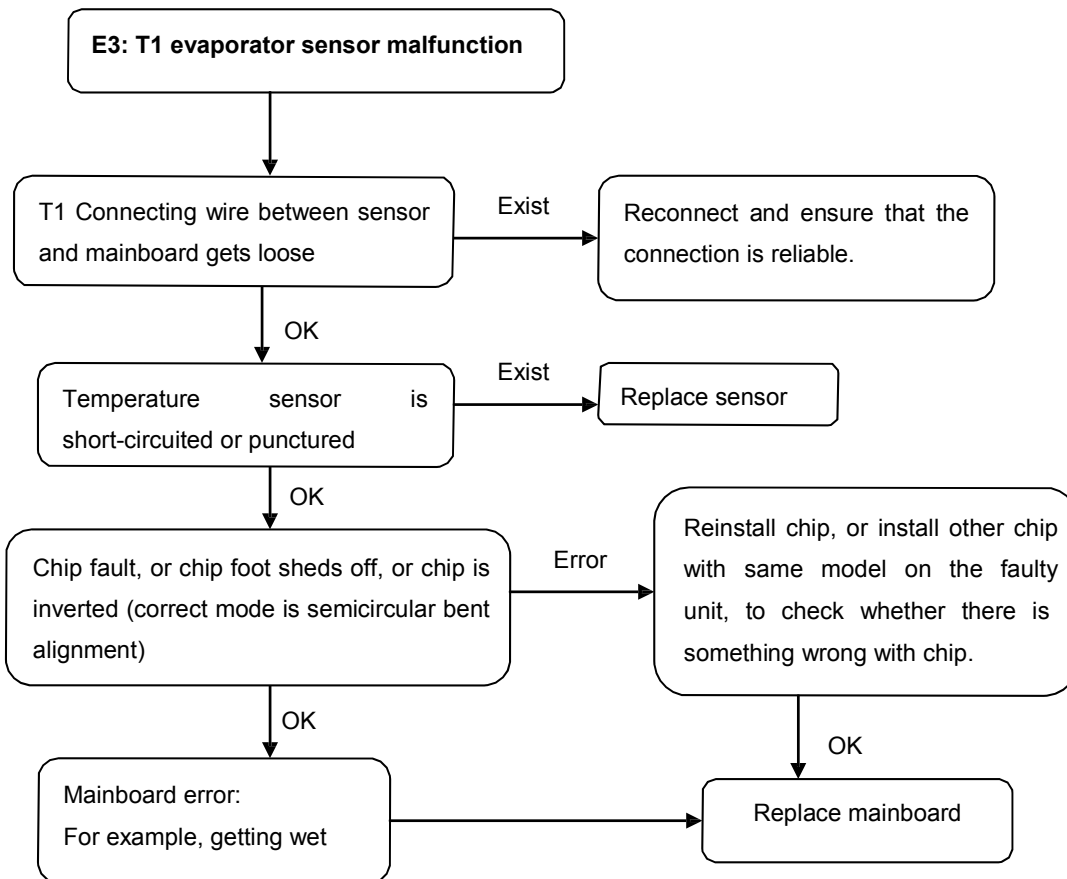
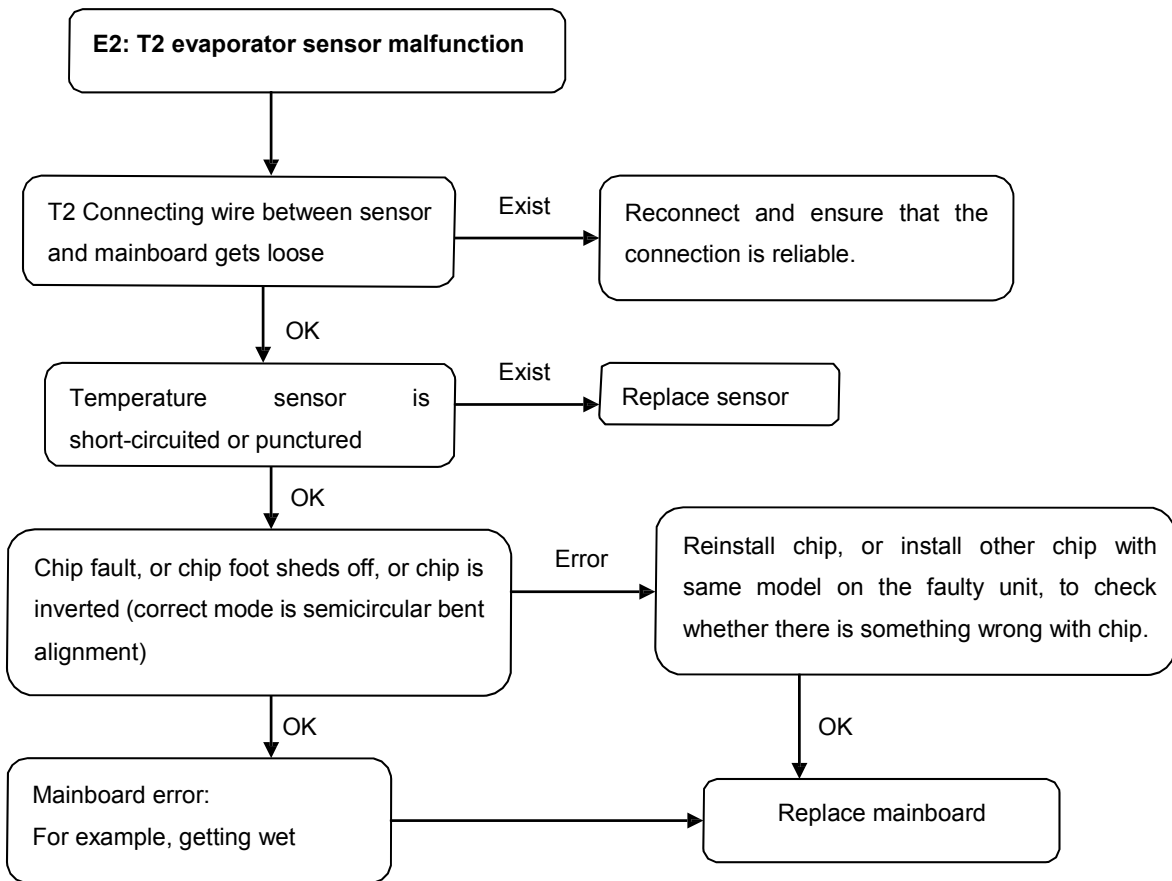
- The air conditioner should use separate power supply with rated voltage.
- The external power supply to the air conditioner should have ground wiring, which is linked to the ground wiring of the indoor and outdoor unit.
- The wiring work should be done by qualified persons according to circuit drawing.
- An all-pole disconnection device which has at least 3mm separation distance in all pole and a residual current device(RCD)with the rating of above 10mA shall be incorporated in the fixed wiring according to the national rule.
- The appliance shall be installed in accordance with national wiring regulations.
- Be sure to locate the power wiring and the signal wirings well to avoid cross-disturbance.
- Do not turn on the power until you have checked carefully after wiring.

**The wiring connection please refers to chapter 5.**

### 8.7 Trouble-shooting

Malfunction code	Malfunction
EE	Water-level alarm malfunction
E2	T2 evaporator sensor malfunction
E3	T1 evaporator sensor malfunction





### 8.8. Optional wired controller for ducted units without electric heater : KFC-12



#### 1. Model

KFC-12 is a thermostat that has developed into 4 types. Each type has its own features to suit different environment.

Models	Features
KFC-12	Control motorized valve and 3-speed fan, when the temperature reaches the set-point, it will close the motorized valve with the fan still running

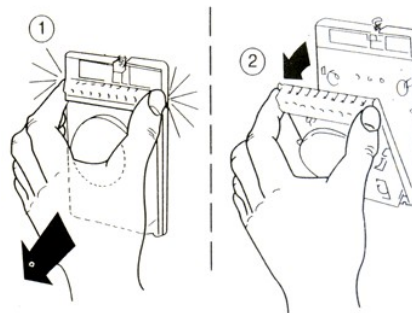
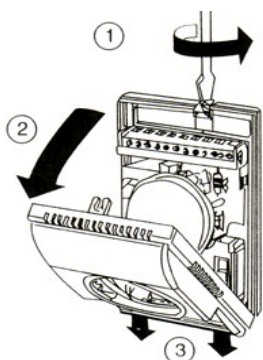
#### 2. Specifications

Model	KFC-12
Available appliance	Ducted FCU without electrical heater
Power supply	AC220V±10%-1Ph-50/60Hz
Operating temperature	0~45°C
Operating Humidity	5~90%RH
Temperature controlling range	10~30°C
Temperature controlling precision	±1°C
Dimension (H×W×D)	130×85×43mm

#### 3. Installation

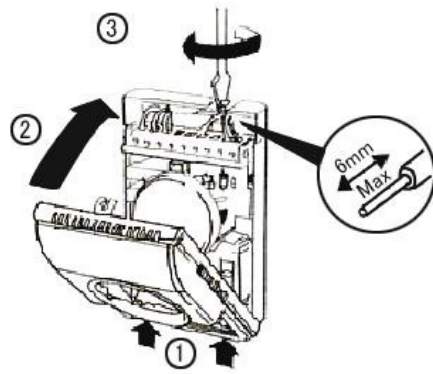
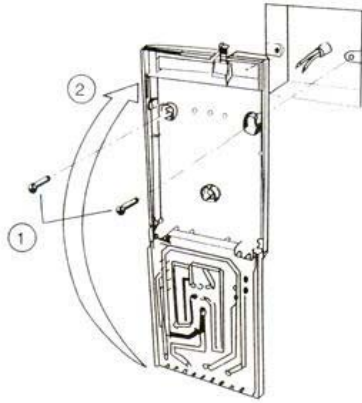
1) Dismantle the front panel

2) Dismantle the middle part



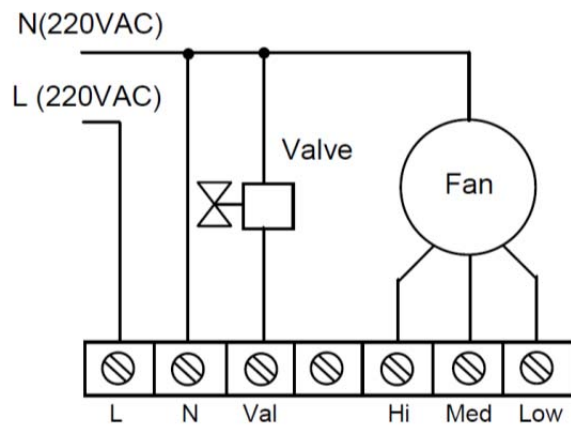
3) Install the back base

4) Wire Connection



**4. Wiring diagrams :**

KFC-12



2-wireNCvalve system

