

# Total Heat Exchanger

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Build a More Comfortable Energy-saving Living Space

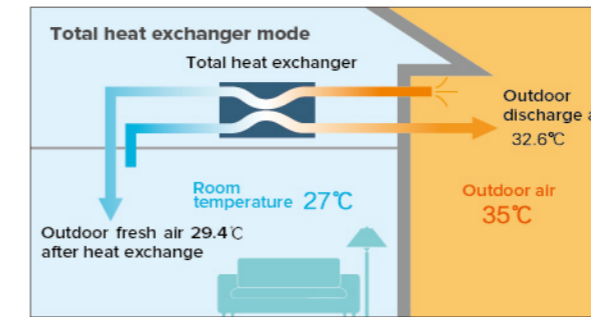
Hisense total heater exchanger adopts efficient convective transfer material to effectively recycle the heat losses due to ventilation, reduces the fresh air load, achieves the purpose of energy saving and lower running cost of air conditioning unit, and creates the most excellent environment with the lowest consumption.

### Hisense High-performance Total Heat Exchanger

Dirty indoor air is discharged to outdoors and fresh air is supplied to indoors continuously in order to make your room more comfortable and healthier.

## Energy Saving Analysis

### Summer Energy Saving Analysis



Air inlet	Total heat exchanger	Traditional ventilation fan
Dry bulb temperature °C	29.4	35
Wet bulb temperature °C	23.3	28
Moisture content g/kg	15.7	21.1
Relative humidity %	60.1	59.1
Enthalpy value kJ/kg(DA)	69.8	89.4
Recycling cold kW	1.57	0
Heat load kW	2.8	2.8

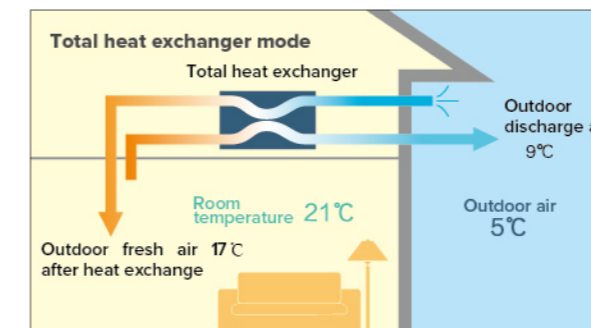
VS ordinary ventilation fan

Outdoor air	
Dry bulb temperature °C	35
Wet bulb temperature °C	28
Relative humidity %	59.1
Enthalpy value kJ/kg(DA)	89.4

Air conditioning	
Dry bulb temperature °C	27
Wet bulb temperature °C	19.5
Relative humidity %	49.8
Enthalpy value kJ/kg(DA)	55.5

In summer operation, when the cold energy of 27°C air discharged from indoor pass through the heat exchanger, the 35°C outdoor hot air is pre-cooled to 29.4°C fresh air and supplied to indoors, as shown above, the air conditioner only needs to cool the air by 2.4°C to maintain a comfortable room temperature and fresh air. In this process, the discharge air pre-cools the fresh air by total heat exchanger, take 250 model high wind for example, supply air volume is 250m<sup>3</sup>/h, the temperature recovery efficiency in cooling is 70%, and enthalpy exchange efficiency is 57%.

### Winter Energy Saving Analysis



Air inlet	Total heat exchanger	Traditional ventilation fan
Dry bulb temperature °C	17	5
Wet bulb temperature °C	9.4	2
Moisture content g/kg	4.2	6
Relative humidity %	35.3	58.5
Enthalpy value kJ/kg(DA)	27.8	12.9
Recycling cold kW	1.3	0
Heat load kW	2	2

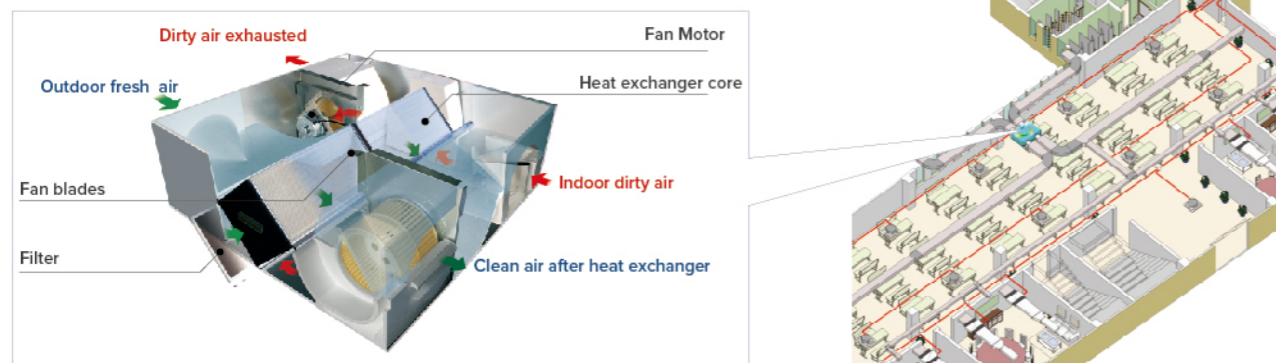
VS ordinary ventilation fan

Outdoor air	
Dry bulb temperature °C	5
Wet bulb temperature °C	2
Relative humidity %	58.5
Enthalpy value kJ/kg(DA)	12.9

Air conditioning	
Dry bulb temperature °C	21
Wet bulb temperature °C	13
Relative humidity %	39.2
Enthalpy value kJ/kg(DA)	36.5

In winter operation, when the heat energy of 21°C air discharged from indoor pass through the heat exchanger, the 5°C outdoor cold air is pre-heated to 17°C fresh air and supplied to indoors, as shown above, when outdoor 5°C air and indoor 21°C air pass through the total heat exchanger, the fresh air supplied to indoors is about 17°C, the air conditioner only needs to heat the air by 5°C to maintain a comfortable room temperature and Fresh air. Take model 250 high wind for example, supply air volume is 250m<sup>3</sup>/h, the temperature recovery efficiency in heating is 75%, and enthalpy exchange efficiency is 63%.

## Basic Structure and Operation Principle



## Airflow System



## Very Low Noise

Through a low-noise fan motor, advanced internal silencer insulation device and optimization of air passage, the units have low noises. Taking 150 Model for example, the minimum operating noise is 28dB (A), which will not affect the user's sleep and rest.



# Total Heat Exchanger



With Flexible Control, It Has Access to Centralized Control of Hisense Air Conditioning System

## Controller

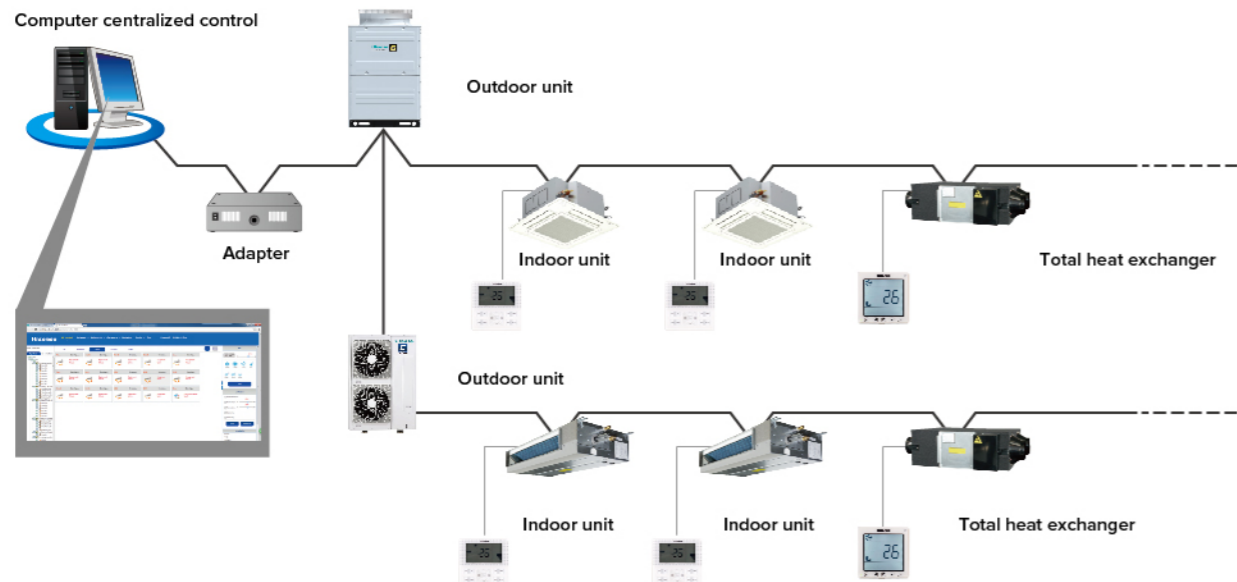
### LCD Wired Remote Controller - Standard

- Large LCD screen interface, elegant appearance
- Can display room temperature, fan speed and so on
- Air volume setting function, you can choose high, medium and low grades of fan speed
- Product dimension: 86 \* 86mm



## Centralized Control System

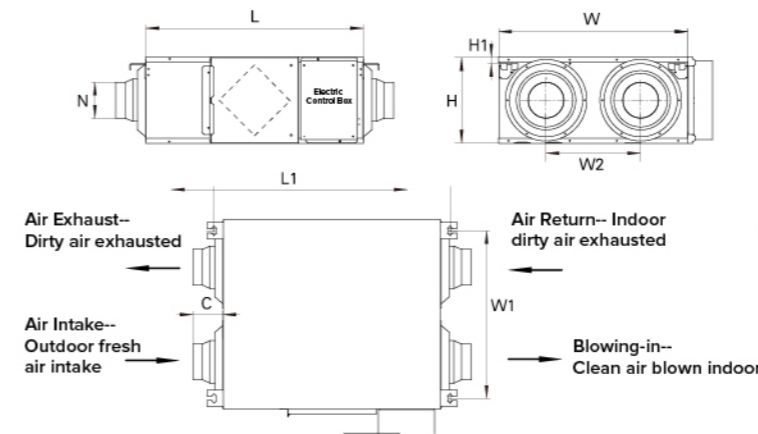
Hisense centralized control type total heat exchanger products can be connected to the centralized control system of Hisense air conditioning\*, achieve the linkage with air conditioning system and centralized control, so the operation is more convenient and more intelligent!



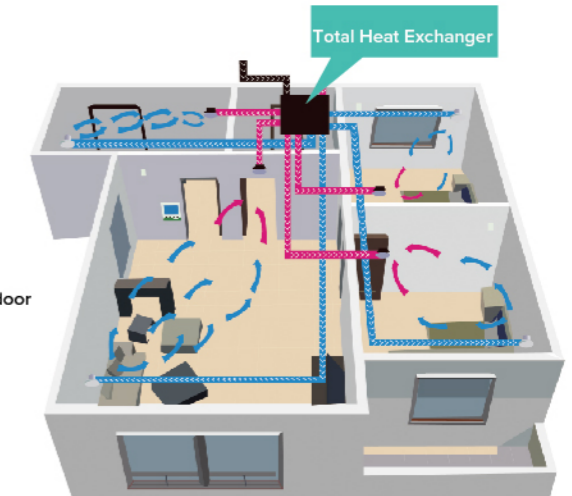
# Total Heat Exchanger

## HKF-15B2EC

### Product Dimensions



Model	L	L1	W	W1	W2	H	C	N	H1
HKF-15B2EC	665	723	580	514	290	265	90	Φ144	20



Fresh air Dirty air

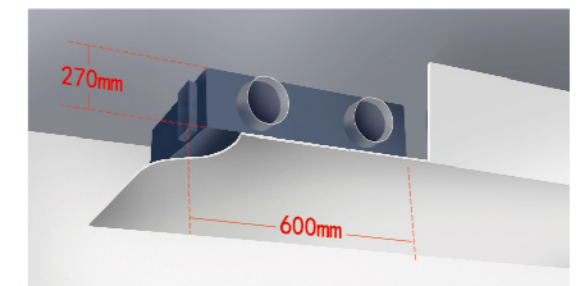
### Technical Parameters

Model	Air Volume m <sup>3</sup> /h			Enthalpy Efficiency (Summer) η <sub>1</sub>			Enthalpy Efficiency (Winter) η <sub>2</sub>			External Static Pressure Pa			Power Supply	Input Current A			Input Power(W)			Noise Level dB(A)			Weight kg
	High	Middle	Low	High	Middle	Low	High	Middle	Low	High	Middle	Low		High	Middle	Low	High	Middle	Low	High	Middle	Low	
HKF-15B2EC	150	150	110	58	58	60	65	65	69	85	70	65	220-240V/50HZ	0.38	0.36	0.31	2 × 0.041	2 × 0.038	2 × 0.029	30	29	28	25

## Product Feature

### Compact Machine, Convenient Installation.

The thickness of machine is not more than 270mm that can be easily installed in the narrow residential ceiling. The width of the machine whose volume is under 300 m<sup>3</sup>/h is less than 600mm, which is particularly suitable for very narrow spaces in the ceiling, and can save the space of installation and ceiling, it is more convenient for construction.



### Adjustable Air Volume, Quiet Operation.

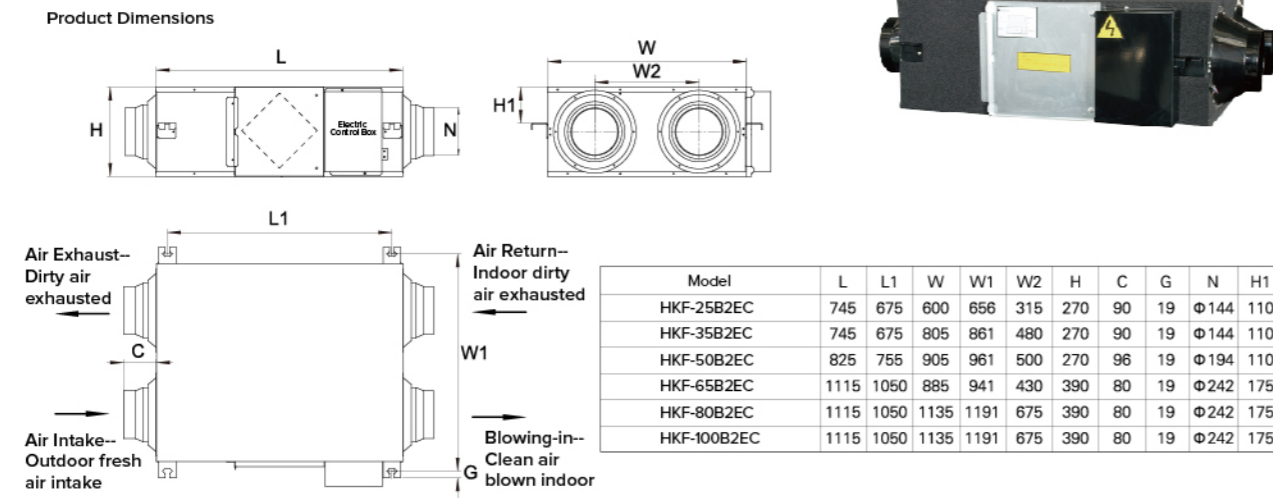
The air volume can be adjusted at a range of high, medium, or low level, the lowest noise in low level is only 28 dB(A) (HKF-15B1(2)EC\* in low level), which reaches the lowest level in the industry.



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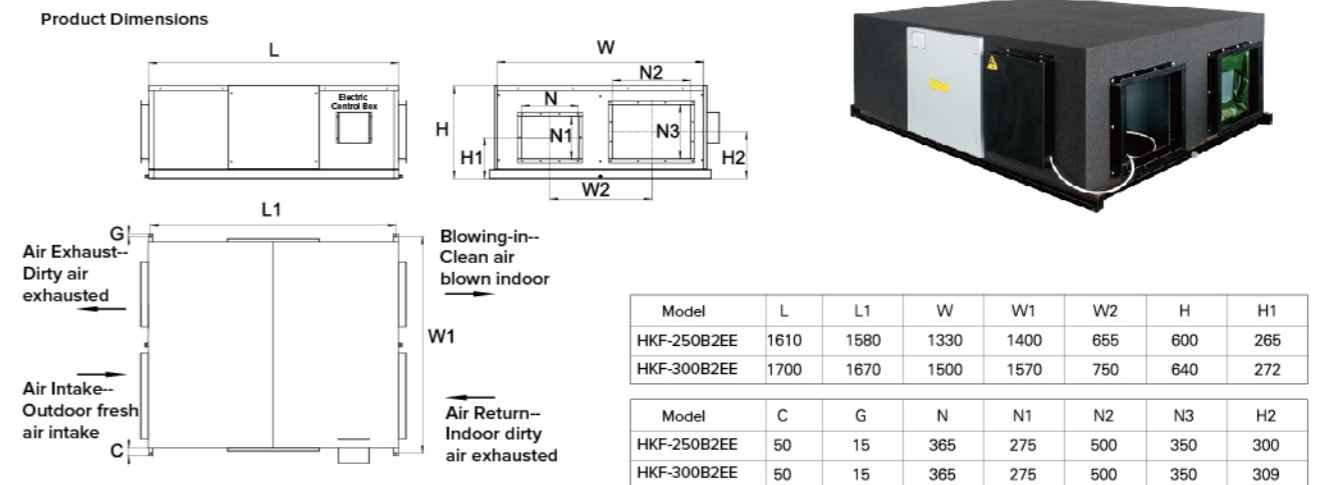
## HKF-25B2EC ~ HKF-100B2EC



**Technical Parameters**

Model	Air Volume m <sup>3</sup> /h			Enthalpy Efficiency (Summer) η <sub>1</sub>			Enthalpy Efficiency (Winter) η <sub>2</sub>			External Static Pressure Pa			Power Supply	Input Current A			Input Power kW			Noise Level dB(A)			Weight kg
	High	Middle	Low	High	Middle	Low	High	Middle	Low	High	Middle	Low		High	Middle	Low	High	Middle	Low	High	Middle	Low	
HKF-25B2EC	250	250	190	57	57	59	63	63	68	85	65	60	220~240V/50Hz	0.66	0.56	0.52	2×0.069	2×0.065	2×0.049	32	31	28	30
HKF-35B2EC	350	350	270	55	55	57	62	62	65	100	75	65		0.76	0.75	0.71	2×0.083	2×0.079	2×0.075	34	33	31	35
HKF-50B2EC*	500	500	400	56	56	58	63	63	65	130	110	100		1.82	1.71	1.52	2×0.189	2×0.157	2×0.124	39	38	36	40
HKF-65B2EC	650	650	550	57	57	59	63	63	68	130	100	100		1.75	1.62	1.51	2×0.193	2×0.178	2×0.164	40	38	35	62
HKF-80B2EC	800	800	650	58	58	59	66	66	68	130	100	90		1.98	1.88	1.75	2×0.211	2×0.196	2×0.18	42	40	37	72
HKF-100B2EC	1000	1000	700	56	56	58	63	63	66	165	120	60		4.68	4.18	3.47	2×0.510	2×0.450	2×0.363	44	42	38	79

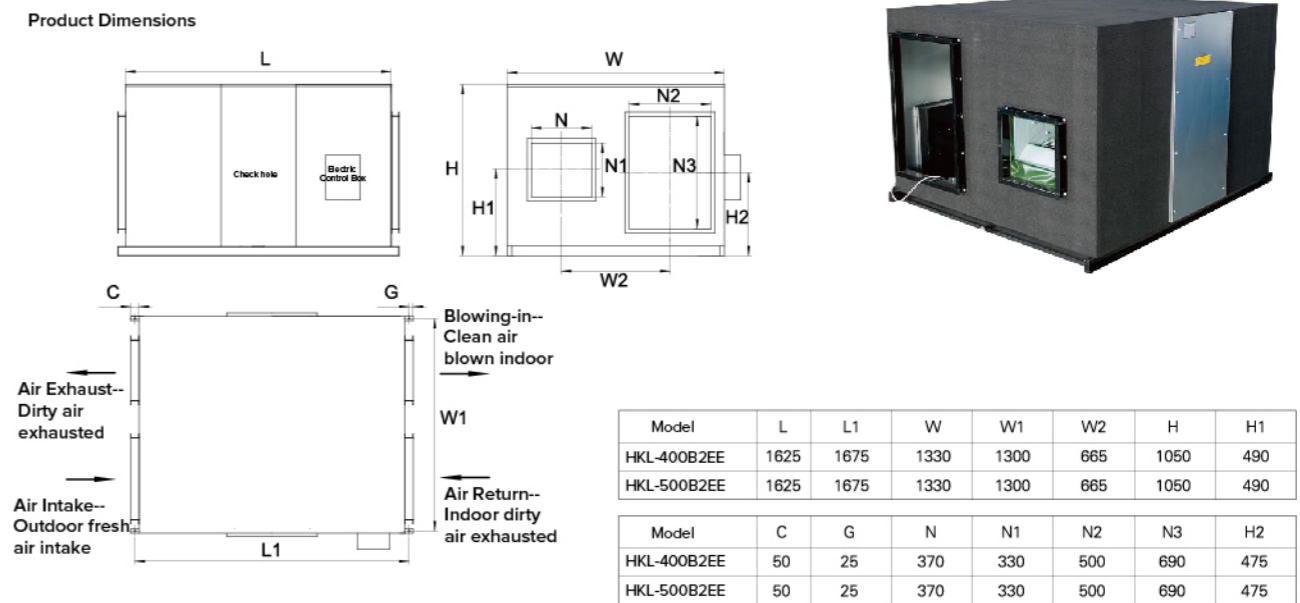
## HKF-250B2EE ~ HKF-300B2EE



**Technical Parameters**

Model	Air Volume m <sup>3</sup> /h	Enthalpy Efficiency (Summer) η <sub>1</sub>	Enthalpy Efficiency (Winter) η <sub>2</sub>	External Static Pressure Pa	Power Supply	Input Current A	Input Power kW	Noise Level dB(A)	Weight kg
HKF-250B2EE	2500	54	62	180	380~415V/50Hz	3.86	2 × 0.72	53	185
HKF-300B2EE	3000	55	63	200		5.12	2 × 1.16	56	222

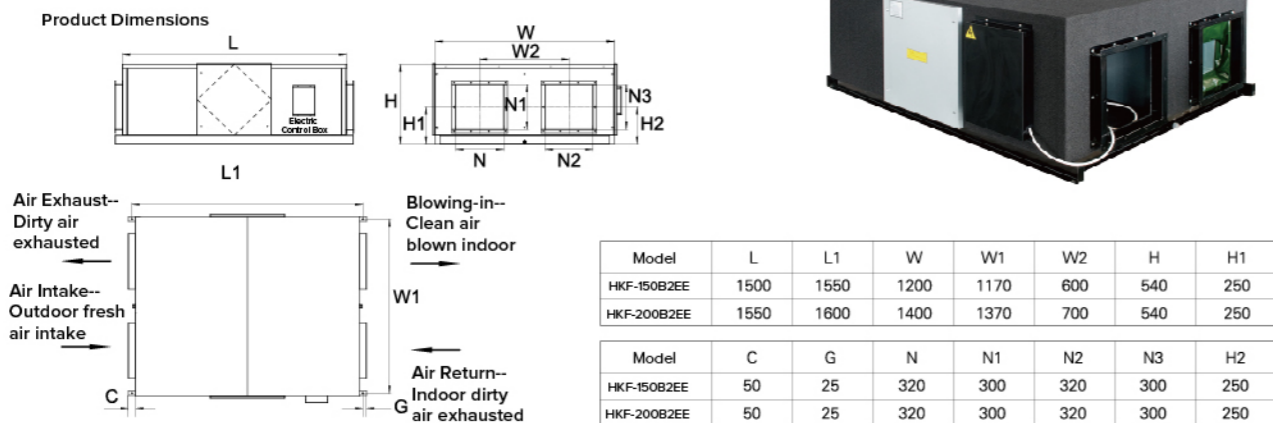
## HKL-400B2EE ~ HKL-500B2EE



**Technical Parameters**

Model	Air Volume m <sup>3</sup> /h	Enthalpy Efficiency (Summer) η <sub>1</sub>	Enthalpy Efficiency (Winter) η <sub>2</sub>	External Static Pressure Pa	Power Supply	Input Current A	Input Power kW	Noise Level dB(A)	Weight kg
HKL-400B2EE	4000	55	63	220	380~415V/50Hz	5.89	2 × 1.71	57	312
HKL-500B2EE	5000	53	61	240		8.78	2 × 2.2	58	321

## HKF-150B2EE ~ HKF-200B2EE



**Technical Parameters**

Model	Air Volume m <sup>3</sup> /h	Enthalpy Efficiency (Summer) η <sub>1</sub>	Enthalpy Efficiency (Winter) η <sub>2</sub>	External Static Pressure Pa	Power Supply	Input Current A	Input Power kW	Noise Level dB(A)	Weight kg
HKF-150B2EE	1500	55	63	180	380~415V/50Hz	2.78	2 × 0.41	48	151
HKF-200B2EE	2000	54	62	160		2.89	2 × 0.52	49	172