

**EKDB HIGH STATIC PRESSURE DUCTED  
AIR CONDITIONING UNIT**  
**EKDB—X FRESH AIR CONDITIONING UNIT**



**EKDB High Static Pressure Ducted  
Air Conditioning Unit**

Model:	EKDB100B1~EKDB600B1
Cooling capacity:	28~178kW
Heating capacity:	31~184kW
Air volume:	5000~30600m <sup>3</sup> /h
Refrigerant:	R410A

**EKDB—X Fresh Air Conditioning Unit**

Model:	EKDB100BR1X~EKDB300BR1X
Cooling capacity:	20~80kW
Heating capacity:	29~80kW
Air volume:	2900~9000m <sup>3</sup> /h
Refrigerant:	R410A



## **EK Air Conditioner, Energy-saving and Environmentally-friendly Technology from Europe**

Founded in Italy in 1963, EUROKLIMAT Group is a famous European refrigerating and air-conditioning equipment supplier. After development for half a century, EUROKLIMAT has become the synonym of energy-saving air-conditioner in Italy, Spain or even the whole Europe through continuous innovation and pioneering.

As a joint venture of China Aerospace Science & Industry Corp. and EUROKLIMAT Group, Guangdong Euroklimat Air-Conditioning & Refrigeration Co., Ltd. is the manufacturing base and sales service agency of EUROKLIMAT Group in Asia. It established a Euroklimat industrial park with an area of nearly 100,000 m2 in Dongguan. The whole product line introduces leading design, R&D and manufacturing arts from Europe to provide high-quality products to Chinese customers.

A total of 25 service agencies of EK in China provide Chinese customers with 24-hour straight service guarantee, with the one-stop service hotline 400-188-1963. With energy efficiency and environmental friendliness as the continuing commitment, EK will keep developing comfortable and energy-saving air conditioners and join hands with partners to create a bright future.

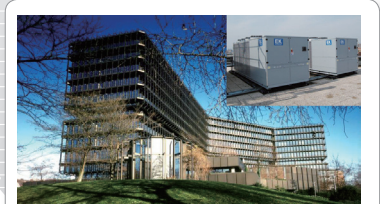


Berlin - Allianz Assurance



DLR German Aerospace Center

			
ISO9001 : 2008 Certification of Quality Management System for Enterprises	ISO14001 : 2004 Certification of Environmental Management System	Production License (XK06-015-00361)	China National Accreditation Service for Conformity Assessment Test CNAS L5123



European Patent Office (Germany)



**EK** EUROKLIMAT®  
 Fifty-two years of Air-conditioning



METRO Supermarket





EK Italia Headquarters



Fudan Software Park



Chinese Commercial Aircraft R&D Center



Nanjing R&D Center of ZTE Corporation



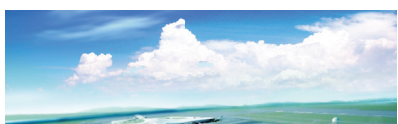
Chongqing Yuelai International Expo Center



Apple Store



Lecong Property Plaza  
(Gangmao Building)



Terminal 3 of Shenzhen Bao'an International Airport



Terminal 3 of Chongqing Jiangbei  
International Airport



Liuzhou Diwang International Commercial Center  
(Phases 1 and 2)



## ► Overview and Unit Nomenclature

EKDB high static pressure ducted air conditioning unit meets users' requirements for product efficiency, comfort, safety and intelligence as much as possible. Thanks to flexible configuration and intelligent control, product design better complies with the indoor space requirements and enables customers to enjoy comfort of central air conditioning. The low temperature cooling unit is also available. By relying on its advantages such as intelligence, efficiency, low noises, compact structure, simple operations, running safety, and convenient installation and maintenance, the unit is widely applied to business scenarios such as hotels, shopping malls, office buildings and factory buildings.



### Unit Nomenclature

**EKDB 100 B R 1 - 15 - F AA**  
 1 2 3 4 5 6 7 8

- 1、 EKDB High static pressure ducted air conditioning IDU
- 2、 100 Code of cooling capacity
- 3、 B Design SN
- 4、 R Function form: R indicates cooling and heating type; cooling-only unit by default
- 5、 1 Refrigerant code: 1 indicates R410A; R22 by default
- 6、 15 External static pressure: 15:150Pa
- 7、 F Power characteristic: F indicates 380V/3N to /50Hz; A indicates 220V to /50Hz
- 8、 AA Specific description of changes in product specification

**EKAA 100 B R 1 B - F AA**  
 1 2 3 4 5 6 7 8

- 1、 EKAA High static pressure ducted air conditioning IDU
- 2、 100 Code of cooling capacity
- 3、 B Design SN
- 4、 R Function form: R indicates cooling and heating type; cooling-only unit by default
- 5、 1 Refrigerant code: 1 indicates R410A; R22 by default
- 6、 B Corresponding IDU characteristic
- 7、 F Power characteristic: F indicates 380V/3N to /50Hz
- 8、 AA Specific description of changes in product specification

**EKAA 100 B LC 1 B - F AA**  
 1 2 3 4 5 6 7 8

- 1、 EKAA High static pressure ducted air conditioning IDU
- 2、 100 Code of cooling capacity
- 3、 B Design SN
- 4、 LC Function form: LC: Low temperate cooling type
- 5、 1 Refrigerant code: 1 indicates R410A; R22 by default
- 6、 B Corresponding IDU characteristic
- 7、 F Power characteristic: F indicates 380V/3N to /50Hz;
- 8、 AA Specific description of changes in product specification

### Unit Nomenclature





► Characteristics of IDU

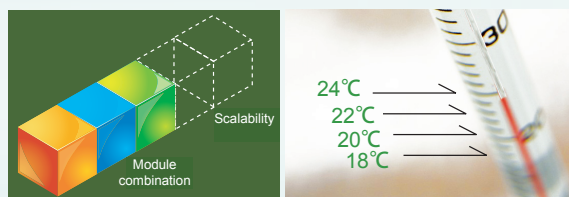
Excellent performance

- Special fan, motor and other parts for air conditioner with excellent performance ensure running balance of the unit.
- The special new antirust dustproof material is sprayed to make the outdoor shell everlastingly new.



Multi-system design (EKDB200~EKDB600)

- The ODU adopts modular design and implements progressive startup to effectively reduce impact on the power grid.
- Multi-gear cooling capacity regulation satisfies energy difference level regulation under different load conditions and reduces the operating expense.
- Average compressor wear prolongs the service life.



Convenient installation

- The IDU adopts high static pressure design to realize long distance transmission of air. The installation position can be selected flexibly, and several screws can be removed for either side of the unit to repair any part in the unit.
- The equivalent pipe length between the IDU and ODU can reach 50 m, and the maximum drop is 20 m.
- The ODU adopts the top air outlet mode; multiple ODUs can be installed neatly in parallel.



Quiet operation

- The IDU uses the highly efficient centrifugal fan with low noises, and the inner wall adopts sound-absorbing insulation material to realize quiet operation.
- The IDU can be installed in the ceiling far away from the air conditioning area to minimize indoor noises as required.
- The unique sound insulation design of compressor further improves the mute effect.
- The ODU adopts new-type spiral blades to implement smooth air suction structure, greatly reduce turbulence and make air flow noises lower.



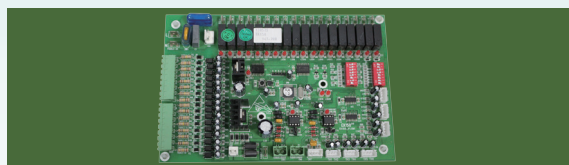
Intelligent control

- The microcomputer and intelligent controller can implement four operating modes of cooling, heating, fan and automatic modes, as well as the timed power-on/off, automatic defrosting, fault display and other functions.



Convenient IDU and ODU communication

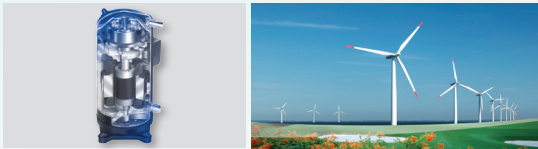
- Both the IDU and ODU are configured with a control module to realize more convenient and flexible control; a lot of connecting lines are reduced, and only two communication lines are required for communication between the IDU and ODU.



## Characteristics of ODU

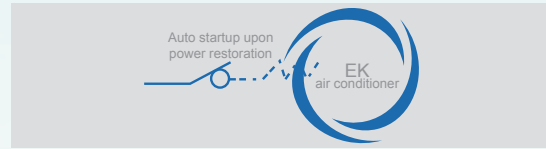
### Efficient and energy-saving

The unit adopts the highly efficient scroll compressor of world renowned brand to achieve high energy efficiency, and consume less electric power when producing the same cooling/heating capacity. The compressor of a smaller size can run more stably. The unit employs the advanced thermostatic expansion valve control technology to implement more accurate throttle control.



### Blackout restart and power-down memory function

In case of power failure during operation, the unit can start automatically once power is restored, regardless of the time length of power failure. After restarting in the case of accident power failure, the unit automatically recovers to the operating status before the power failure. (This function is not set before delivery; the DIP switch needs to be set on the field.)



### Wide range of applications

- With the powerful environmental adaptability, the unit can implement normal cooling when the outdoor ambient temperature is 15°C to 48°C and implement normal heating when the outdoor ambient temperature is -10°C to 24°C.
- The ODU of low temperature cooling unit uses brushless DC motor to control speed of the condensing fan, effectively expand the unit operation range, and implement normal cooling in the outdoor ambient temperature range of -10°C to 48°C.
- Multiple types of heating units with electric heating boxes are available.



### Multiple protection

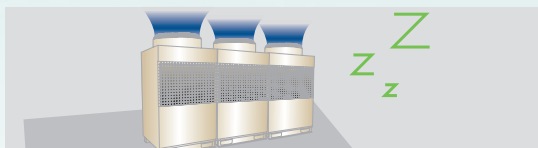
The unit provides safety guarantee including high/low voltage protection, exhaust temperature protection, overload protection, inverse/missing phase protection, and minimum shutdown and shortest operation time protection to minimize damages to the unit. The unit fault alarm (if any) can be reported and displayed in time to facilitate troubleshooting and repair.

The unit is provided with the missing phase, inverse phase, under-voltage and over-voltage protection functions. In case of inverse/missing phase fault, the protection device will protect the operating unit. (The inverse phase protection function is designed for the scroll compressor.)



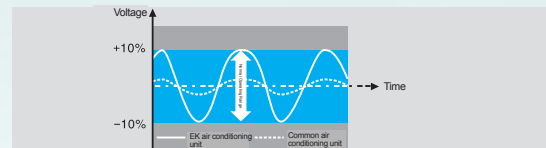
### More optimized system and more quiet operation

The ODU is characterized by low noises and quiet operation; after optimal matching design, the system can suppress vibration and noises generated during operation to make unit operation quiet and stable.



### Operation in a wide voltage range

The unit can be used safely even if the voltage is unstable. The unit can still operate normally when the voltage changes in the range of rated voltage  $\pm 10\%$ .





## ► Unit Specifications

### Unit specifications (EKDB100)

Unit model		IDU	EKDB100B1	EKDB100BR1	EKDB100B1	EKDB100BR1
		ODU	EKAA100B1B	EKAA100BR1B	EKAA100B1B	EKAA100BR1B
Nominal cooling capacity		W	28000	28000	28000	28000
Nominal heating capacity		W	--	31000	--	31000
IDU	Air volume	m <sup>3</sup> /h	5000		5000	
	External static pressure	Pa	100		150	
	Fan driving mode		Three-speed motor driving		V belt driving	
	Width × Depth × Height	mm	1890x879x420		1580 x 1020 x 520	
	Weight	kg	120		150	
ODU	Compressor type		Full hermetic scroll type			
	Width × Depth × Height	mm	990 x 840 x 1840		990 x 840 x 1840	
	Weight	kg	225	235	225	235
Power supply			380V/3N~/50Hz			
Rated input power of entire unit	Cooling	W	8890	8600	9070	8780
	Heating	W	--	8560	--	8780
Rated current of entire unit	Cooling	A	17.5	17.3	17.6	17.5
	Heating	A	--	17.8	--	17.5
Refrigerant	Type		R410A			
Connecting pipe	Connection mode		Welding + horn mouth			
	Outer diameter $\phi$ of liquid pipe	mm	12.7		12.7	
	Outer diameter $\phi$ of gas pipe	mm	22.23		22.23	
	Condensate water drain pipe		R1			
External electric heating box	Model		ACDB-EH6、ACDB-EH8、ACDB-EH10、ACDB-EH12.5、ACDB-EH15、ACDB-EH20、ACDB-EH25、ACDB-EH30、ACDB-EH38、ACDB-EH45、ACDB-EH55			
	Note		The external electric heating boxes of different heating capacities can be selected as required. For the specific parameters of external electric heating box, see P21.			

#### Notes:

- Measurement of the rated cooling capacity is based on the following working conditions: The dry bulb temperature of indoor air is 27°C, the wet bulb temperature is 19°C, and the outdoor dry bulb temperature is 35°C. Working conditions for the rated heating capacity: The indoor dry bulb temperature is 20°C, the outdoor dry bulb temperature is 7°C, and the wet bulb temperature is 6°C. However, the cooling capacity and heating capacity change along with working conditions. Customers need to select proper models in consideration of local climate conditions.
- External static pressure is static pressure under nominal air volume conditions; the static pressure value will change according to the customer's requirements. The detailed value is provided in the nameplate.
- The input power and current of the unit are parameters under the standard external static pressure. If the external static pressure changes as required by the customer, the power and current values should follow the parameters shown on the unit nameplate.
- Specification parameters will change owing to product improvement. Please refer to the parameters indicated on the nameplate label for the machine.
- The above data are parameters when the IDU and ODU connecting pipe length is 7.5 m.
- Power distribution and wiring on the unit installation site are subject to the unit nameplates and installation instructions.
- None of the units is filled with refrigerant before delivery.

## ► Unit Specifications

### Unit specifications (EKDB125 ~ EKDB200)

Unit model		IDU	EKDB125B1	EKDB125BR1	EKDB150B1	EKDB150BR1	EKDB200B1	EKDB200BR1
		ODU	EKAA125B1B	EKAA125BR1B	EKAA150B1B	EKAA150BR1B	2xEKAA100B1B	2xEKAA100BR1B
Nominal cooling capacity		W	34000	34000	47000	47000	56000	56000
Nominal heating capacity		W	--	35000	--	49000	--	60000
IDU	Air volume	m <sup>3</sup> /h	6500		7800		10800	
	External static pressure	Pa	150		150		150	
	Fan driving mode		V belt driving					
	Width × Depth × Height	mm	1719x965x 736					
	Weight	kg	188		190		193	
ODU	Compressor type		Full hermetic scroll type					
	Width × Depth × Height	mm	990 x 840 x 1840		1290 x 840 x 1840		2 x 990 x 840 x 1840	
	Weight	kg	235	245	260 270		2 x225	2 x235
Power supply			380V/3N~/50Hz					
Rated input power of entire unit	Cooling	W	10750	10460	13340	13050	18940	18360
	Heating	W	--	10570	--	12380	--	18300
Rated current of entire unit	Cooling	A	21.1	21.0	27.1	27.0	35.2	35.0
	Heating	A	--	20.0	--	25.8	--	36.1
Refrigerant	Type		R410A					
Connecting pipe	Connection mode		Welding					
	Outer diameter $\phi$ of liquid pipe	mm	12.7		12.7		2x12.7	
	Outer diameter $\phi$ of gas pipe	mm	22.23		28.6		2x22.23	
	Condensate water drain pipe		R1					
External electric heating box	Model		ACDB-EH6、ACDB-EH8、ACDB-EH10、ACDB-EH12.5、ACDB-EH15、ACDB-EH20、ACDB-EH25、ACDB-EH30、ACDB-EH38、ACDB-EH45、ACDB-EH55					
	Note		The external electric heating boxes of different heating capacities can be selected as required. For the specific parameters of external electric heating box, see P21.					

#### Notes:

- Measurement of the rated cooling capacity is based on the following working conditions: The dry bulb temperature of indoor air is 27°C, the wet bulb temperature is 19°C, and the outdoor dry bulb temperature is 35°C. Working conditions for the rated heating capacity: The indoor dry bulb temperature is 20°C, the outdoor dry bulb temperature is 7°C, and the wet bulb temperature is 6°C. However, the cooling capacity and heating capacity change along with working conditions. Customers need to select proper models in consideration of local climate conditions.
- External static pressure is static pressure under nominal air volume conditions; the static pressure value will change according to the customer's requirements. The detailed value is provided in the nameplate.
- The input power and current of the unit are parameters under the standard external static pressure. If the external static pressure changes as required by the customer, the power and current values should follow the parameters shown on the unit nameplate.
- Specification parameters will change owing to product improvement. Please refer to the parameters indicated on the nameplate label for the machine.
- The above data are parameters when the IDU and ODU connecting pipe length is 7.5 m.
- Power distribution and wiring on the unit installation site are subject to the unit nameplates and installation instructions.
- None of the units is filled with refrigerant before delivery.



## ► Unit Specifications

### Unit specifications (EKDB250 ~ EKDB350)

Unit model		IDU	EKDB250B1	EKDB250BR1	EKDB300B1	EKDB300BR1	EKDB350B1	EKDB350BR1
		ODU	2xEKAA125B1B	2xEKAA125BR1B	2xEKAA150B1B	2xEKAA150BR1B	2xEKAA125B1B +EKAA100B1B	2xEKAA125BR1B +EKAA100BR1B
Nominal cooling capacity		W	72000	72000	89000	89000	94000	94000
Nominal heating capacity		W	--	74000	--	92000	--	96000
IDU	Air volume	m <sup>3</sup> /h	13600		14700		17850	
	External static pressure	Pa	200		200		200	
	Fan driving mode		V belt driving					
	Width × Depth × Height	mm	2242 x 1059x 746		2242 x 1059x898		2022x 1199 x 1546	
	Weight	kg	270		315		320	
ODU	Compressor type		Full hermetic scroll type					
	Width × Depth × Height	mm	2 x 990 x 840 x 1840		2x 1290 x840 x 1840		3 x 990 x 840 x 1840	
	Weight	kg	2 x235	2 x245	2 x260	2 x270	2 x235+225	2 x245+235
Power supply			380V/3N~/50Hz					
Rated input power of entire unit	Cooling	W	22300	21720	29400	28830	32770	31910
	Heating	W	--	21530	--	26900	--	31680
Rated current of entire unit	Cooling	A	41.3	41.1	58.6	58.4	62.1	61.8
	Heating	A	--	41.7	--	56.3	--	61.2
Refrigerant	Type		R410A					
Connecting pipe	Connection mode		Welding					
	Outer diameter $\phi$ of liquid pipe	mm	2x12.7		2x12.7		3x12.7	
	Outer diameter $\phi$ of gas pipe	mm	2x22.23		2x28.6		3x22.23	
	Condensate water drain pipe		R1					
External electric heating box	Model		ACDB-EH6, ACDB-EH8, ACDB-EH10, ACDB-EH12.5, ACDB-EH15, ACDB-EH20, ACDB-EH25, ACDB-EH30, ACDB-EH38, ACDB-EH45, ACDB-EH55					
	Note		The external electric heating boxes of different heating capacities can be selected as required. For the specific parameters of external electric heating box, see P21.					

#### Notes:

- Measurement of the rated cooling capacity is based on the following working conditions: The dry bulb temperature of indoor air is 27°C, the wet bulb temperature is 19°C, and the outdoor dry bulb temperature is 35°C. Working conditions for the rated heating capacity: The indoor dry bulb temperature is 20°C, the outdoor dry bulb temperature is 7°C, and the wet bulb temperature is 6°C. However, the cooling capacity and heating capacity change along with working conditions. Customers need to select proper models in consideration of local climate conditions.
- External static pressure is static pressure under nominal air volume conditions; the static pressure value will change according to the customer's requirements. The detailed value is provided in the nameplate.
- The input power and current of the unit are parameters under the standard external static pressure. If the external static pressure changes as required by the customer, the power and current values should follow the parameters shown on the unit nameplate.
- Specification parameters will change owing to product improvement. Please refer to the parameters indicated on the nameplate label for the machine.
- The above data are parameters when the IDU and ODU connecting pipe length is 7.5 m.
- Power distribution and wiring on the unit installation site are subject to the unit nameplates and installation instructions.
- None of the units is filled with refrigerant before delivery.

## ► Unit Specifications

### Unit specifications (EKDB400 ~ EKDB600)

Unit model		IDU	EKDB400B1	EKDB400BR1	EKDB500B1	EKDB500BR1	EKDB600B1	EKDB600BR1
		ODU	4xEKAA100B1B	4xEKAA100BR1B	4xEKAA125B1B	4xEKAA125BR1B	4xEKAA150B1B	4xEKAA150BR1B
Nominal cooling capacity		W	112000	112000	134000	134000	178000	178000
Nominal heating capacity		W	--	120000	--	137000	--	184000
IDU	Air volume	m <sup>3</sup> /h	20400		25500		30600	
	External static pressure	Pa	200		250		500	
	Fan driving mode		V belt driving					
	Width × Depth × Height	mm	2174x 1466 x 1546		2174x 1466 x 1546		2174 x 1905x 1978	
	Weight	kg	330		350		999	
ODU	Compressor type		Full hermetic scroll type					
	Width × Depth × Height	mm	4 x 990 x 840 x 1840		4 x 990 x 840 x 1840		4x 1290 x840 x 1840	
	Weight	kg	4x225	4x235	4 x 235 4x 245		4x260	4 x 270
Power supply			380V/3N~/50Hz					
Rated input power of entire unit	Cooling	W	37390	36220	50340	49180	58810	57650
	Heating	W	--	36090	--	48790	--	53810
Rated current of entire unit	Cooling	A	70.5	70.1	84.3	83.9	108.8	108.5
	Heating	A	--	70.1	--	82.7	--	104.2
Refrigerant	Type		R410A					
Connecting pipe	Connection mode		Welding					
	Outer diameter $\phi$ of liquid pipe	mm	4x12.7		4x12.7		4x12.7	
	Outer diameter $\phi$ of gas pipe	mm	4x22.23		4x22.23		4x28.6	
	Condensate water drain pipe		R1					
External electric heating box	Model		ACDB-EH6、ACDB-EH8、ACDB-EH10、ACDB-EH12.5、ACDB-EH15、ACDB-EH20、ACDB-EH25、ACDB-EH30、ACDB-EH38、ACDB-EH45、ACDB-EH55					
	Note		The external electric heating boxes of different heating capacities can be selected as required. For the specific parameters of external electric heating box, see P21.					

#### Notes:

- Measurement of the rated cooling capacity is based on the following working conditions: The dry bulb temperature of indoor air is 27°C, the wet bulb temperature is 19°C, and the outdoor dry bulb temperature is 35°C. Working conditions for the rated heating capacity: The indoor dry bulb temperature is 20°C, the outdoor dry bulb temperature is 7°C, and the wet bulb temperature is 6°C. However, the cooling capacity and heating capacity change along with working conditions. Customers need to select proper models in consideration of local climate conditions.
- External static pressure is static pressure under nominal air volume conditions; the static pressure value will change according to the customer's requirements. The detailed value is provided in the nameplate.
- The input power and current of the unit are parameters under the standard external static pressure. If the external static pressure changes as required by the customer, the power and current values should follow the parameters shown on the unit nameplate.
- Specification parameters will change owing to product improvement. Please refer to the parameters indicated on the nameplate label for the machine.
- The above data are parameters when the IDU and ODU connecting pipe length is 7.5 m.
- Power distribution and wiring on the unit installation site are subject to the unit nameplates and installation instructions.
- None of the units is filled with refrigerant before delivery.



► **EKDB-X Fresh Air Conditioning Unit**

EKDB-X fresh air handling system meets users' requirements for indoor air environment comfort, intelligence, efficiency and safety as much as possible. The independent fresh air system can directly handle outdoor air to the air supply status, or to the indoor status to participate in return air circulation, making fresh air handling more flexible. Free configuration and intelligent control design of units can better match the indoor space requirement and create a comfortable and pleasant natural space for customers. By relying on its advantages such as intelligence, efficiency, low noises, compact structure, simple operations, running safety, and convenient installation and maintenance, the system is widely applied to business scenarios such as hotels, shopping malls, office buildings and factory buildings.



**Unit Nomenclature**

**EKDB 100 B R 1 X - 15 - F AA**

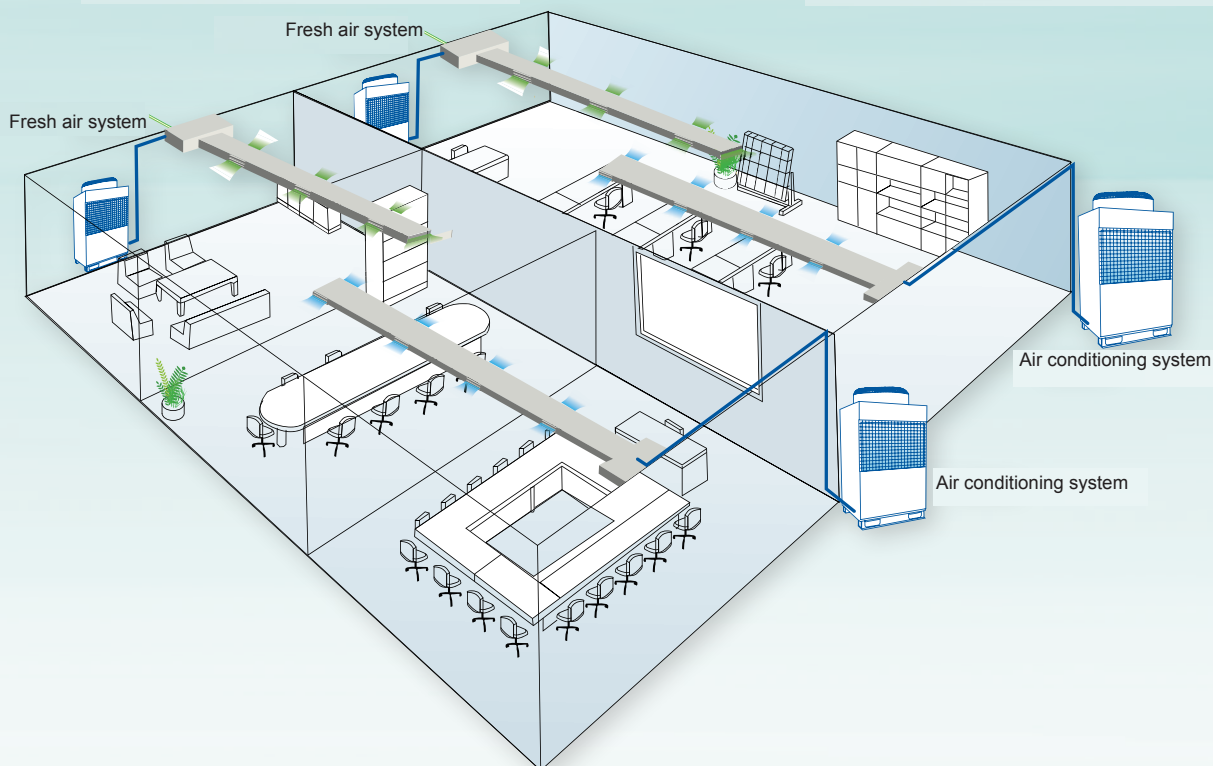
1 2 3 4 5 6 7 8 9

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- 2、 100 Code of cooling capacity
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- 4、 R Function form: R indicates cooling and heating type
- 5、 1 Refrigerant code: 1 indicates R410A; R22 by default
- 6、 X Fresh Air Conditioning Unit
- 7、 15 External static pressure: 15:150Pa
- 8、 F Power characteristic: F indicates 380V/3N to /50Hz
- 9、 AA Specific description of changes in product specification

**EKAA 100 B R 1 X - F AA**

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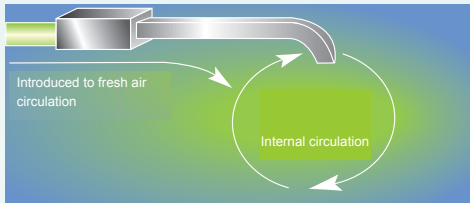
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## ► EKDB-X Fresh Air Conditioning Unit

### Intelligent fresh air

The EKDB-X fresh air Conditioning system can make fresh air handling more flexible. The independent fresh air system can directly handle outdoor air to the air supply status, or to the indoor status to participate in return air circulation.



### Ultra long distance air supply

The ultra high external static pressure enables fresh air to be sent to a further distance and reach every room. The maximum circulating air volume of IDU is 9000m<sup>3</sup>/h and can easily meet the comfortable fresh air requirement of large space.



## ► EKDB-X Fresh Air Conditioning Unit

### Table of Unit Performance Parameters

Model	IDU		EKDB100BR1X	EKDB125BR1X	EKDB150BR1X	EKDB200BR1X	EKDB250BR1X	EKDB300BR1X
	ODU		EKAA100BR1X	EKAA125BR1X	EKAA150BR1X	2xEKAA100BR1X	2xEKAA125BR1X	2xEKAA150BR1X
Rated cooling capacity	W		27000	32500	40000	54000	65000	80000
Rated heating capacity	W		29000	34000	40000	58000	68000	80000
Air volume	m <sup>3</sup> /h		2900	3800	4500	5800	7000	9000
Standard external static pressure	Pa		150	200	200	200	200	250
Power supply			380V/3N~/50Hz					
Fan driving mode			V belt driving					
Total input power of cooling	W		9000	11280	11800	17420	22060	25930
Total input power of heating	W		9500	10870	11800	17340	21240	25630
Rated operating current of cooling	A		17.8	21.5	23.2	32.9	40.7	47.5
Rated operating current of heating	A		17.2	20.0	23.0	31.7	39.7	47.1
External dimensions (W x D x H)	IDU	mm	1580x1020x520	1719x965x736	1719x965x736	1719x965x736	1719x965x736	2242x1059x735
	ODU	mm	990x840x1840	990x840x1840	1290x840x1840	2x990x840x1840	2x990x840x1840	2x1290x840x1840
Weight	IDU	kg	140	168	178	188	198	250
	ODU	kg	235	245	270	2x235	2x245	2x270
Specification of condensed water drain pipe			R1					
Refrigerant type			R410A					
IDU and ODU connection mode			Welding + horn mouth		Welding	Welding + horn mouth		Welding
Connecting pipe specification	Outer diameter $\phi$ of liquid pipe	mm	12.7	12.7	12.7	2x12.7	2x12.7	2x12.7
	Outer diameter $\phi$ of gas pipe	mm	22.23	22.23	28.6	2x22.23	2x22.23	2x28.6

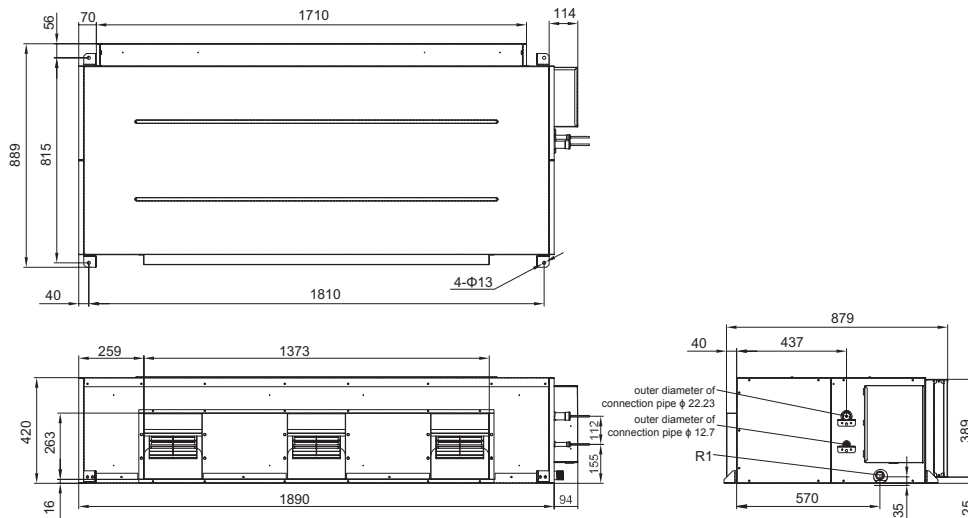
#### Notes:

- Working conditions of cooling capacity: The dry bulb temperature of air is 34°C, and the wet bulb temperature is 28°C. Working conditions of heating capacity: The dry bulb temperature is 7°C, and the wet bulb temperature is 6°C. However, the cooling capacity and heating capacity change along with working conditions. Customers need to select proper models in consideration of local climate conditions.
- The external static pressure in the above table is external static pressure for standard unit. The static pressure value will change according to the customer's requirements. The detailed value is provided in the nameplate.
- The input power and current of the unit are parameters under the standard external static pressure. If the external static pressure changes as required by the customer, the power and current values should follow the parameters shown on the unit nameplate.
- The noise value is a value measured before delivery. Due to environmental noises or other reasons during actual use, the measured noise value may differ from the value listed in the table.
- Specification parameters will change owing to product improvement. Please refer to the parameters indicated on the nameplate label for the machine.
- Power distribution and wiring on the unit installation site are subject to the unit nameplates and installation instructions.
- None of the units is filled with refrigerant before delivery.



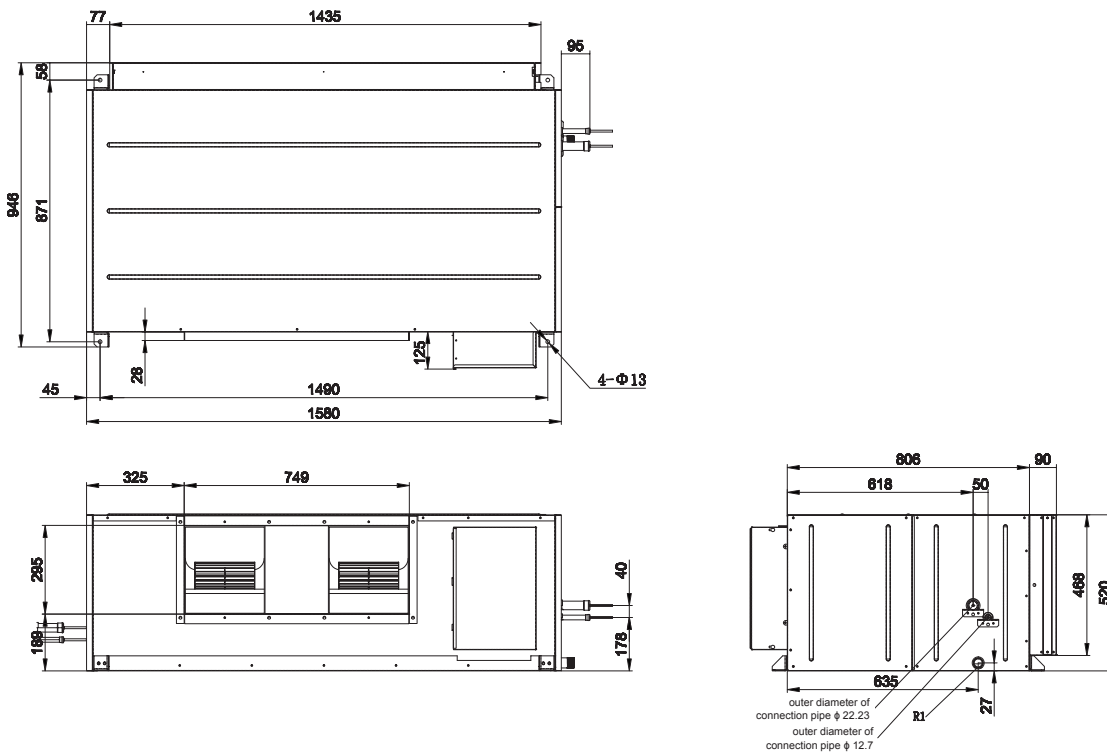
## ▶ Unit Dimension

### Model: EKDB100B1/EKDB100BR1 (three-speed motor driving)



### Model: EKDB100B1 / EKDB100BR1 / EKDB100BR1X (V belt driving)

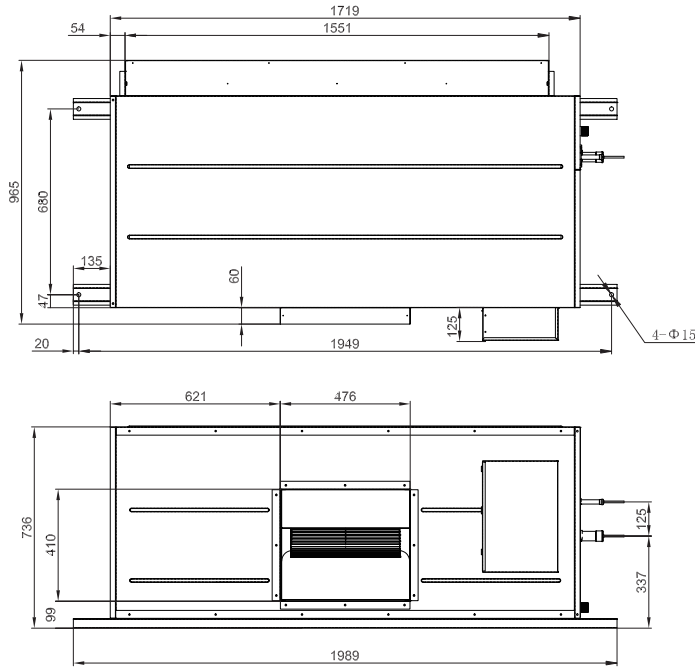
Unit: mm



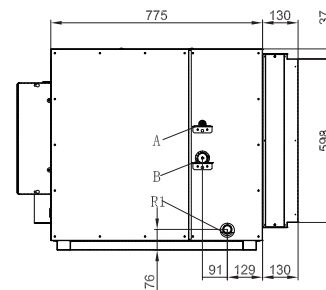
Unit: mm

► Unit Dimension

**Model: EKDB125B1 / EKDB125BR1, EKDB150B1 / EKDB150BR1**

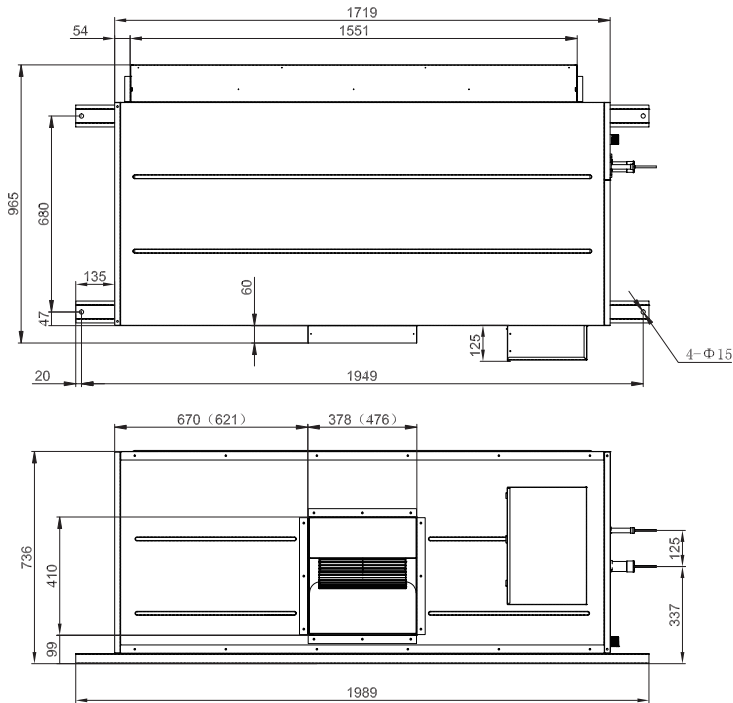


Model	A	B
EKDB125B1 / EKDB125BR1	φ12.7	φ22.23
EKDB150B1 / EKDB150BR1	φ12.7	φ28.6

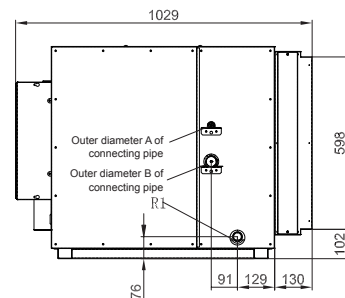


**Model: KDB125BR1X, EKDB150BR1X**

Unit: mm



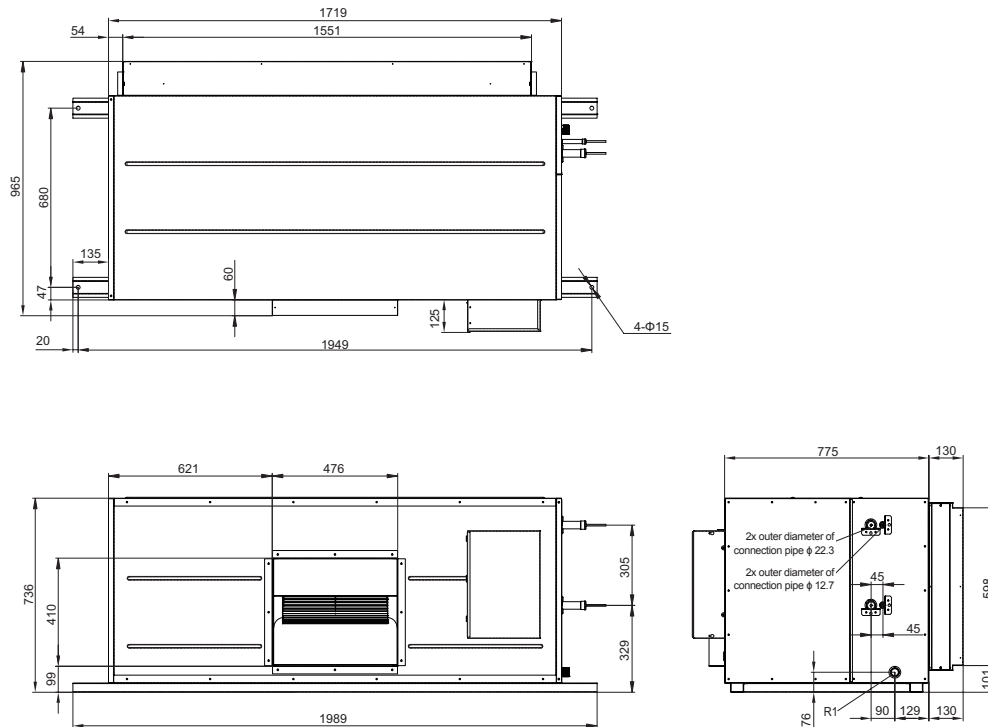
Model	A	B
EKDB125BR1X	φ12.7	φ22.23
EKDB150BR1X	φ12.7	φ28.6



Unit: mm

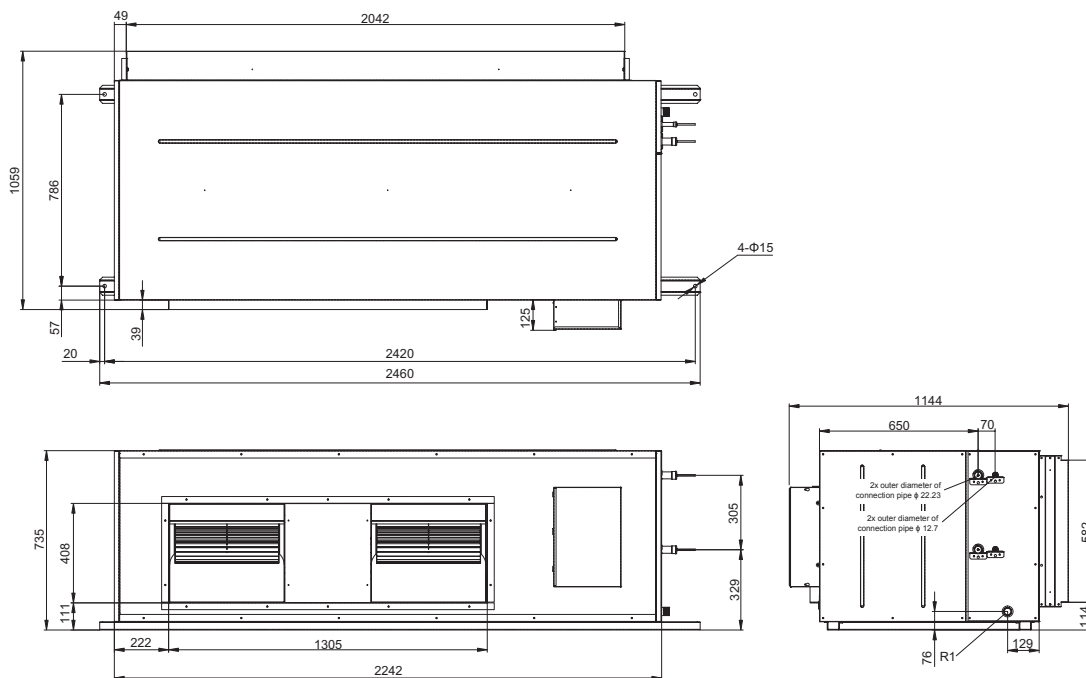
## Unit Dimension

### Model: EKDB200B1 / EKDB200BR1



Unit: mm

### Model: EKDB250B1 / EKDB250BR1

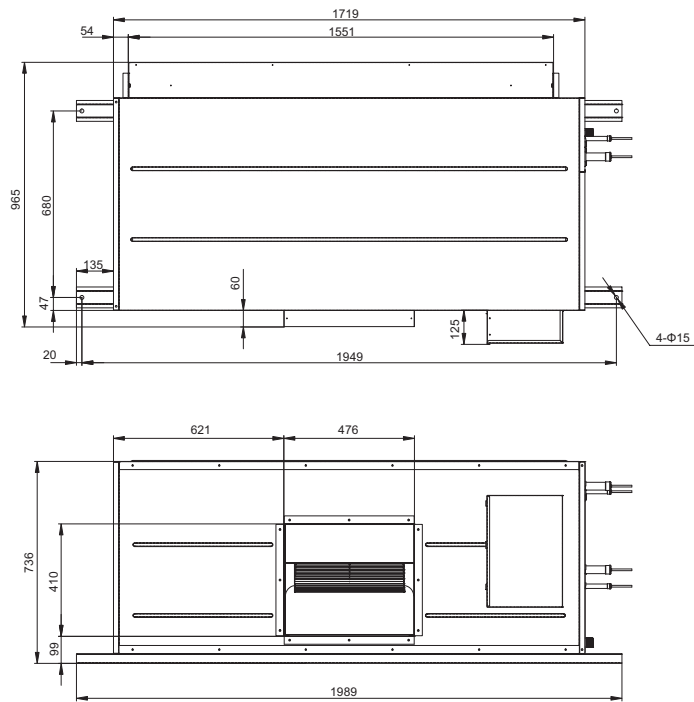


Unit: mm



► Unit Dimension

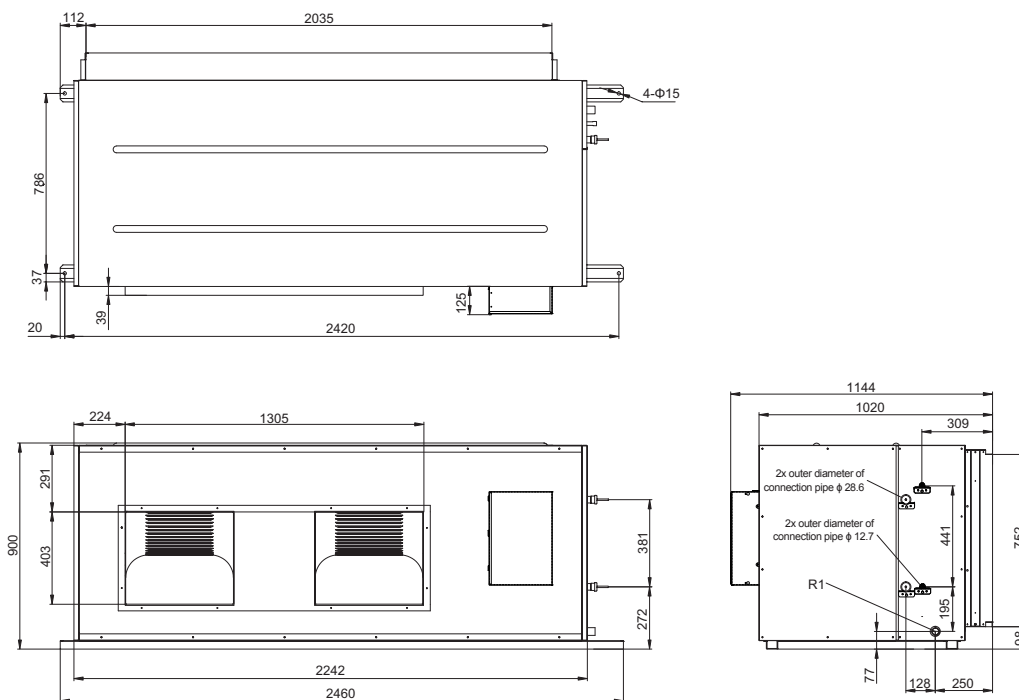
**Model: EKDB200BR1X / EKDB250BR1X**



Model	A	B
EKDB200BR1X	Φ12.7	Φ22.23
EKDB250BR1X	Φ12.7	Φ22.23

Unit: mm

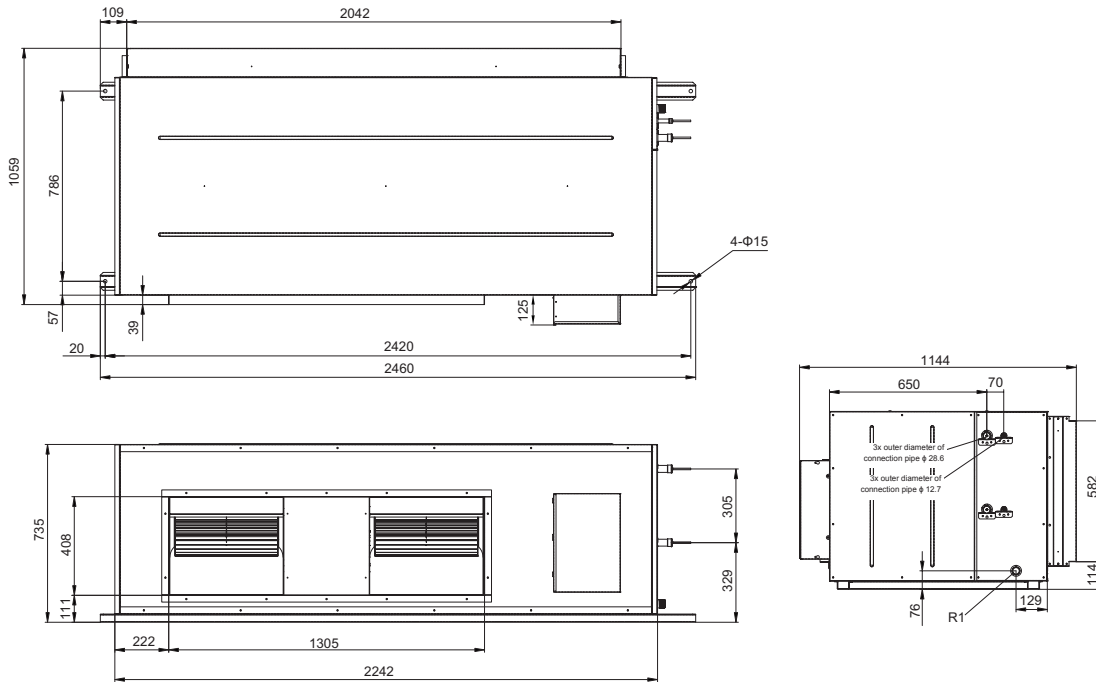
**Model: EKDB300B1 / EKDB300BR1**



Unit: mm

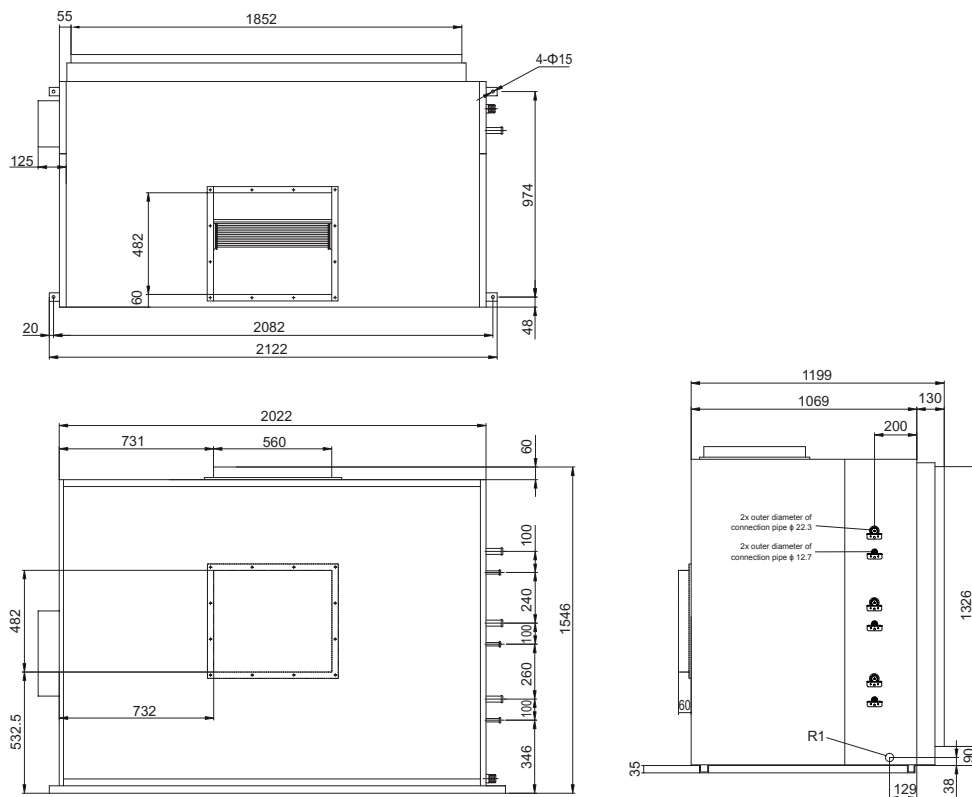
## ► Unit Dimension

### Model: EKDB300BR1X



Unit: mm

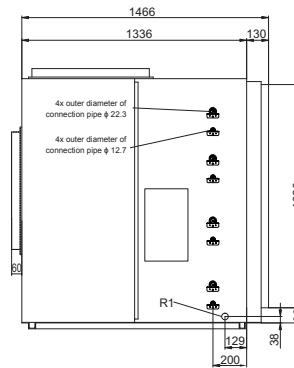
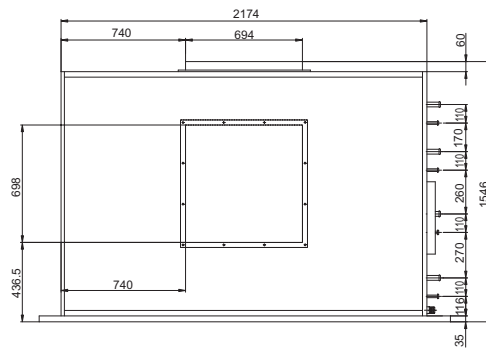
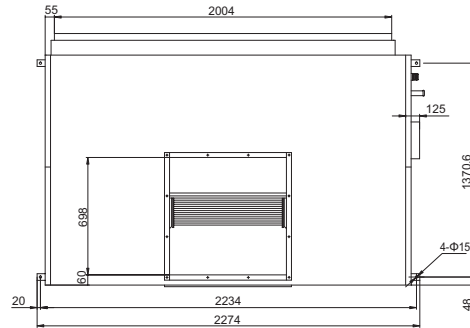
### Model: EKDB350B1 / EKDB350BR1



Unit: mm

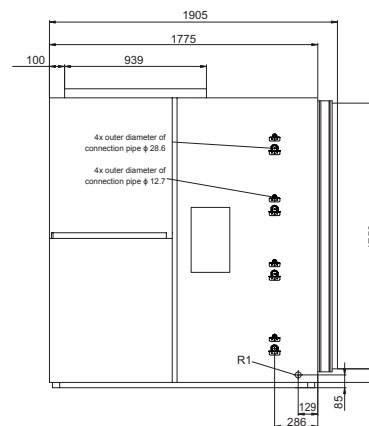
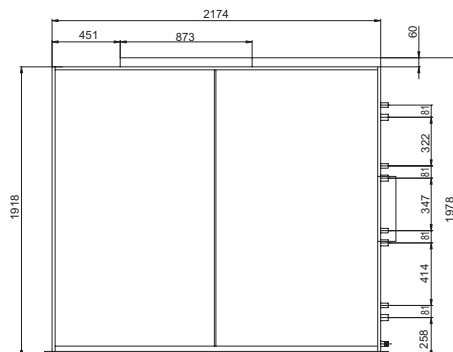
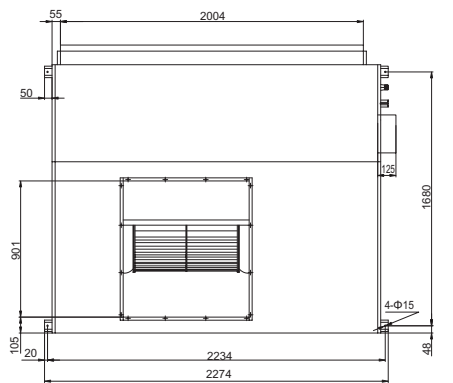
► Unit Dimension

**Model: EKDB400B1 / EKDB400BR1, EKDB500B1 / EKDB500BR1**



Unit: mm

**Model: EKDB600B1 / EKDB600BR1**

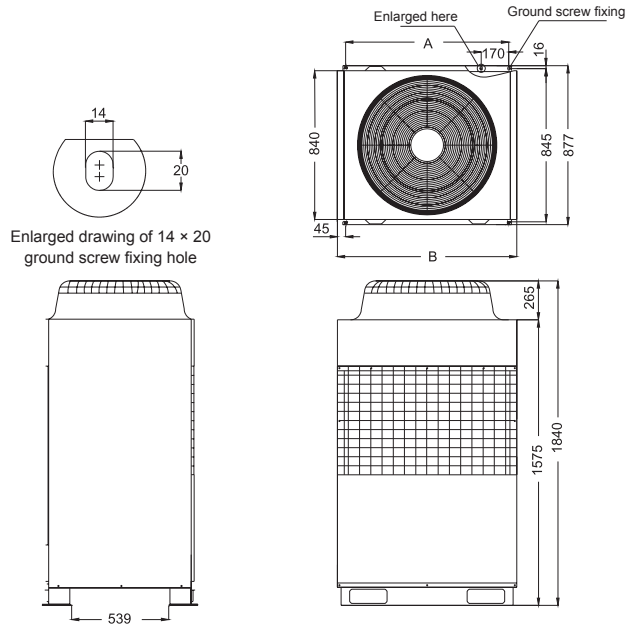


Unit: mm



## Unit Dimension

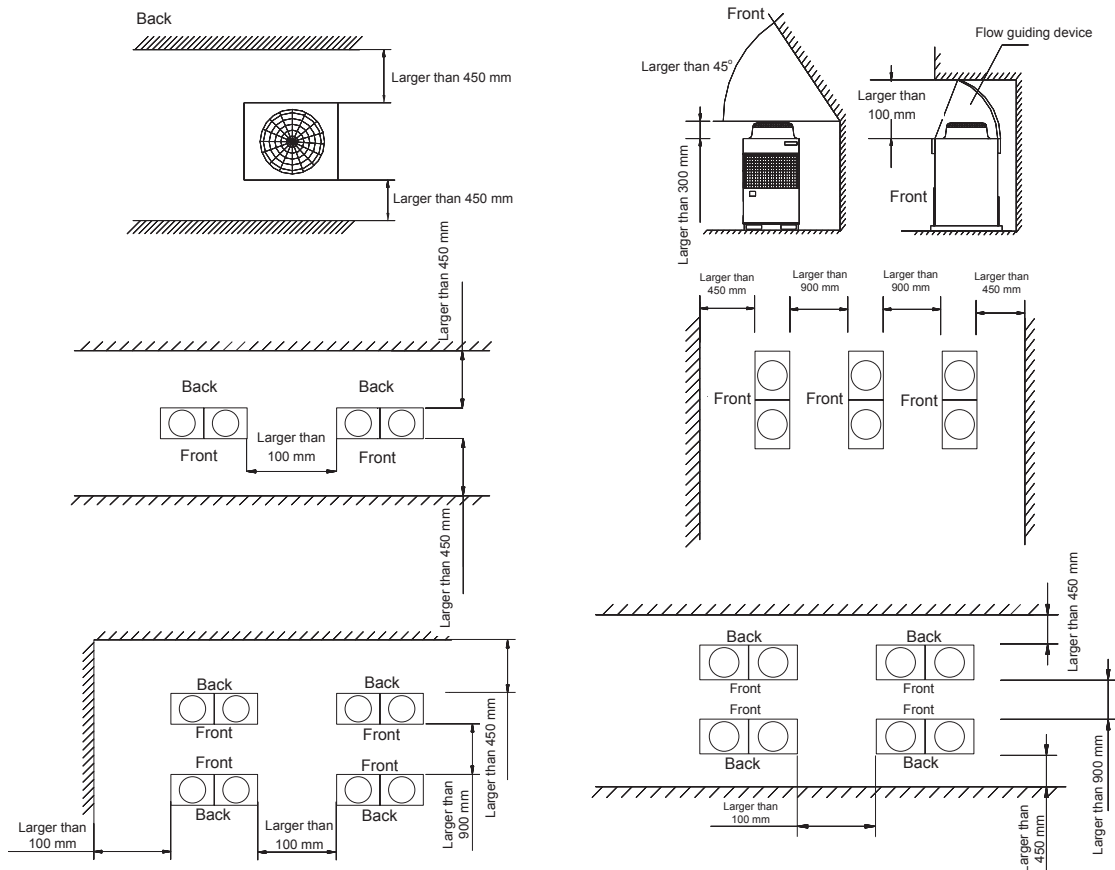
### ODU Dimension Diagrams for EKAA100, EKAA125 and EKAA150



Unit: mm

Model	A	B
EKAA100B1B / EKAA100BR1B / EKAA100BR1X	900	990
EKAA125B1B / EKAA125BR1B / EKAA125BR1X	900	990
EKAA150B1B / EKAA150BR1B / EKAA150BR1X	900	1290

### ODU: EKAA100B1B / EKAA100BR1B / EKAA100BR1X EKAA125B1B / EKAA125BR1B / EKAA125BR1X EKAA150B1B / EKAA150BR1B / EKAA150BR1X



► External Electric Heating Box

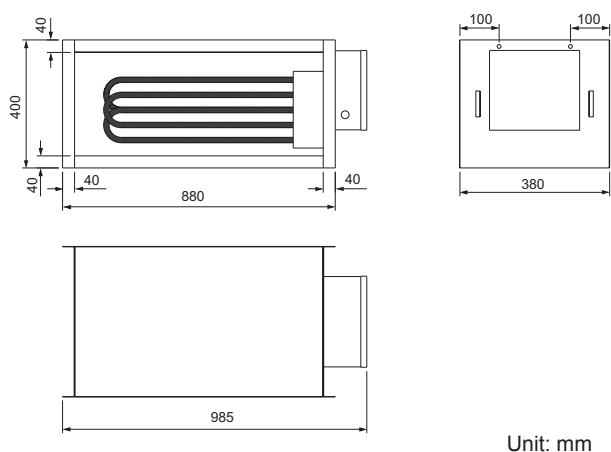
**Table of Specifications**

Model	ACDB-EH6	ACDB-EH8	ACDB-EH10	ACDB-EH12.5	ACDB-EH15	ACDB-EH20	ACDB-EH25	ACDB-EH30	ACDB-EH38	ACDB-EH45	ACDB-EH55	
Heating capacity (W)	6000	8000	10000	12500	15000	20000	25000	30000	38000	45000	55000	
Power supply	380V/3N~/50Hz											
Rated input power (W)	6000	8000	10000	12500	15000	20000	25000	30000	38000	45000	55000	
Rated current (A)	9.1	12.2	15.2	19	22.8	30.4	38	45.6	57.8	68.4	83.6	
External dimension (mm)	985x380x400		985x380x480			985x760x480			985x760x830			
Weight (kg)	27	27	30	30	30	60	60	60	80	80	80	
Power cord of electric heating box	Cross-sectional area (mm <sup>2</sup> )	2.5	2.5	4	4	6	4	4	6	6	10	10
	Qty	5					2x5					

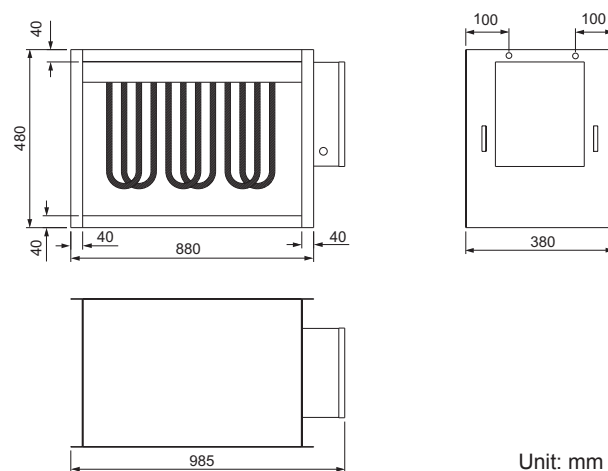
**Notes:**

- The air duct design must comply with the national specification for HVAC pipeline design, and the joints between the electric heating box and the unit and duct should be sealed.
- The electric heating box is placed at the unit air outlet; the under-construction duct joint and external electric heating box need to be thermal-insulated to prevent condensation on the surface.

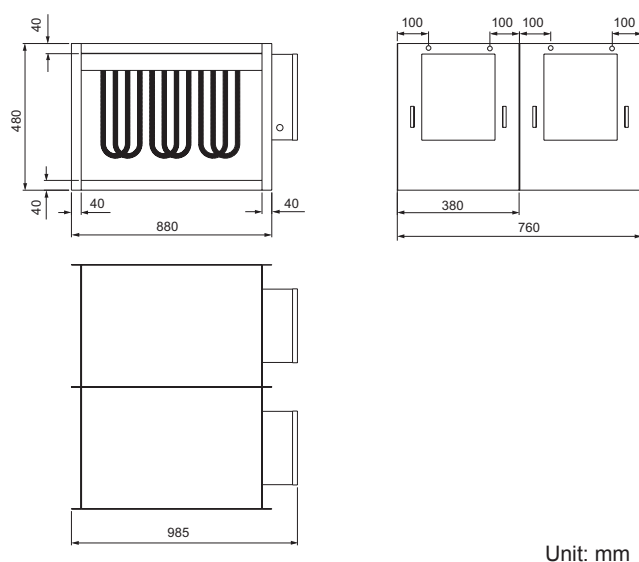
**Dimension diagrams for ACDB-EH6 / ACDB-EH8**



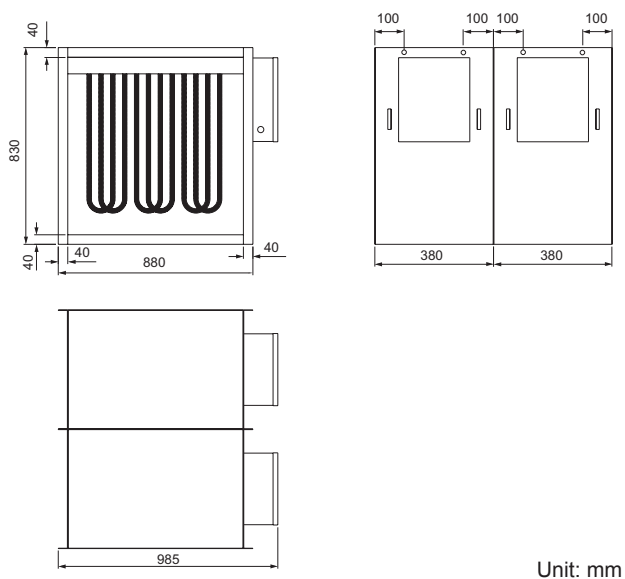
**Dimension diagrams for ACDB-EH10 / ACDB-EH12.5 / ACDB-EH15**



**Dimension diagrams for ACDB-EH20 / ACDB-EH25 / ACDB-EH30**



**Dimension diagrams for ACDB-EH38 / ACDB-EH45 / ACDB-EH55**



## ► Unit Installation

### Selecting a position for installation

- The selected position must ensure convenient wire connection and pipe connection.
- For the unit installed in the ceiling, determine a position that can ensure shorter duct and less pipe connection work, ensure position of the hanging rod, adjust the unit to keep it horizontal, and check whether the hanging rod is safe and reliable.
- For the floor type unit, the foundation must be solid and horizontal to fully bear the unit weight.
- During IDU installation, note to ensure a fixed spacing between the air return inlet and air supply outlet to prevent forming short circuit of the air flow. Soft connection should be adopted for the duct and unit to reduce noise transfer and vibration of the unit.

### Maximum connecting pipe length and maximum number of elbows

To bring into full play the unit performance, use connecting pipe as short as possible. If the connecting pipe between the ODU and IDU is too long, required refrigerant will be increased, thus reducing the cooling (heating) capacity. Similarly, too many pipe elbows will increase the flow resistance of refrigerant in the pipeline, thus increasing the compressor load and reducing the cooling (heating) capacity. It is advised to determine the unit installation position according to the values in the following table.

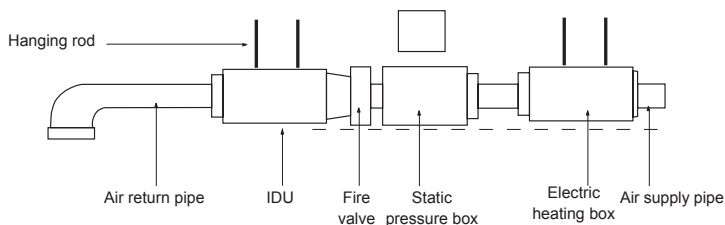
Model	Connecting pipe specification $\phi$ mm(in)	
	Liquid pipe	Gas pipe
EKAA100B1B / EKAA100BR1B	12.7 (1/2)	22.23 (7/8)
EKAA125B1B / EKAA125BR1B	12.7 (1/2)	22.23 (7/8)
EKAA150B1B / EKAA150BR1B	12.7 (1/2)	28.6 (9/8)

Maximum equivalent pipe length	Maximum drop (m)	Maximum number of elbows (m)	Filling quantity (g/m) added for connecting pipe exceeding 7.5 m	Oil (ml/m) added for connecting pipe exceeding 7.5 m
50	5	10	200	10
40	10			
30	15			
25	20			

Note:

- In pipeline shaping, a large diameter (the radius is above 100 mm) is preferred; the pipeline should be horizontal and vertical, and the pipe wall should be flat, without significant dent and damage by crushing.
- An oil return bend must be prepared when the installed ODU is higher than the IDU.
- Field installation of the unit must comply with requirements of the installation instructions.

### Installation diagram of the electric heating box



Note: For the unit installed with an electric heating box, connect the wire from the electric heating control terminal and access the electric heating control circuit.





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#### **EK Iran's Distributor**

##### **Tahviah Sam Industrial Group**

Add: Tahviah Sam Bldg., NO.26, East 14th St., Beyhaghi Blv.,Arjantin Sq., Tehran, Iran

Tel: +9821 88526010

Fax: +9821 88526034

Email: [info@tahvihsam.com](mailto:info@tahvihsam.com)

#### **EK China**

##### **Guangdong EuroKlimat Air-Conditioning & Refrigeration Co.,Ltd.**

Add: EuroKlimat Industrial Park, Huangjiang Dongguan Guangdong

China 523766

Tel: +86 769 8366 0888

Fax: +86 769 8362 2528

#### **EK Italy**

Add: Euroklimat S.p.A. via Liguria, 8 - 127010 Siziano (PV)

Tel: (39).0382610282

Fax: (39).0382617782

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