

LUKQ

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JOB REFERENCE

COMPANY PROFILE



LUKO is originated from Germany. With years of experience and dedication, LUKO has been focusing on the research and development of new technologies to enhance and improve on the control of air temperature and humidity.

With its reliable technology and professional engineers, LUKO has created new direction and new solution in Temperature and Humidity Control.

Products are supplied in countries in Asia, Europe, Middle East, South America and North America, earning a worldwide reputation for our expertise, commitment to innovation and the outstanding quality of our products and services.

WE FOCUS ON YOUR NEEDS
AND CARE ABOUT YOUR CONCERNS



 * Having more than 20 overseas agents, distributors;

 * Hiring more than 30 national R&D professionals;

 * Assembling more than 100000 dehumidifiers annually;

 * Serving more than 400000 end-users;

 * Holding more than 35 global patents;

 * Selling to more than 30 countries and districts;

 * Supporting nationally with 24-hour after-service;

 * Making more than 50 types of low-energy ventilation dehumidifiers.



Introduction



Design concept

We are a company dedicated to solving temperature and humidity problems with the ecological design directive of ErP (Energy related Products). We are always striving for technological excellence and sustainable development.



Cooperation partner

With the headquarter in Germany, we have partners in more than 20 countries.



Green scheme

We have always been committed to providing the market with solutions that go beyond the traditional. The products are known for its innovativeness and low energy consumption.



Product series

We always focus on the field of fresh air dehumidification system, desiccant dehumidification system, constant temperature and humidity control system, heat pump dehumidification, fresh air dehumidification with heat recovery wheel, dehumidification with air conditioning system and many more products that are related to Temperature and Humidity Control.



Goal ambition

LUKO will continuously design, build and fine tuning all the system to have the latest Green Technology, Good Efficiency, Energy Saving and Eco-Friendly product.



Production technology

Our company is specialized in providing products that meet the strictest international standards in energy consumption.



Product innovation

LUKO strives to anticipate changes in the market, continues to make changes, and looks to the future.



High efficiency

Energy efficiency is the basis for the development of all LUKO products. Each generation of LUKO products will be better and more efficient than previous products.

Whole House Comfort Series Main Features



Easy Maintenance

LUKO electrical system adopts no PCB design, the whole electronic control system runs without electronic components, avoids flammable, explosive, poisoning, short circuit, spark and other dangers, mature technology and stable performance, safe and reliable operation, fully automatic manual operation, intelligent Control.



Measuring Level Guidance

A mini measuring level stuck on the bottom side of the unit, which can help to keep the balance during installation



Germany Intelligent Control Module

The glass panel design adopts the key-triggered operation mode to reduce false triggering. Built-in Honeywell temperature and humidity module with accuracy at 1%.



Automatic Defrost

Using the patented defrosting technique (Patent No.2009200600221), the product is fully automatic, effective defrosting, solving the problem of wind resistance and poor dehumidification performance caused by frost formation



APP Remote Control

LUKO smart APP supports real-time monitoring of indoor temperature and humidity on the Android and iOS platforms. The mobile phone APP controls the temperature, humidity, and PM2.5 values of each room anytime and anywhere.



Filter Replacement Calert

LUKO electric system is designed without PCB, and the whole electronic control system runs without the danger of flammable, explosive, intoxication, short circuit and spark that may exist in the traditional dryer. The technology is mature and stable, safe and reliable, automatic operation and intelligent control.



Positive Pressure Drainage Design

Condensate trap does not need to install because of the positive pressure drainage design. This helps to save more space during installation



High Static Pressure

Low Noise, High Static Pressure, Double Speed Centrifugal Fan, which allow fan speed adjustment.



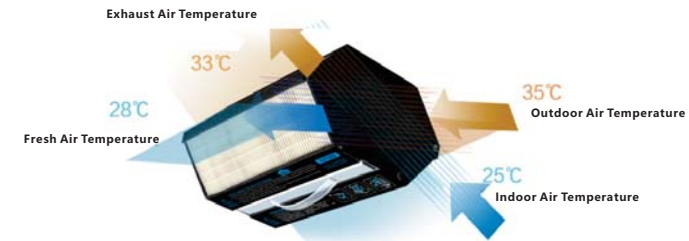
Pm2.5 Filter

It is antibacterial and deodorant, with small size, light weight.



Ultra Quite Operation

Using the international popular structural design, precise and consistent grinding tool forming process, in line with the principle of fluid dynamics and the use of micro-perforation noise elimination technology, ensures a perfect mute effect.



Heat Recovery

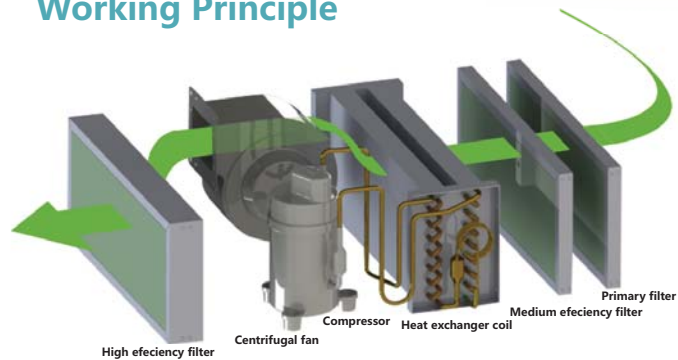
The whole-house comfort system is a kind of ventilation device that can perform heat recovery. When the indoor stale air and the fresh air cross the core of the heat exchanger respectively, the core allows some of the heat from the warmer air stream (the stale air in winter, the fresh air in summer) to be transferred to the cooler air stream. In winter, in other words, the appliance "recovers" some of the heat that would have otherwise been exhausted. This heat transfer occurs without any mixing of the two air streams.

FD-S Series

Ducted Single Flow Dehumidifier with HEPA Air Purifying System

LUKO

Working Principle



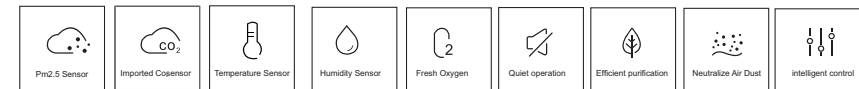
This series of dehumidification system will first capture the indoor air to pass through the first stage (G4 efficiency) and second stage (F7 efficiency) air filtration in order to remove air borne particles and contaminants. The filtered air will then pass through the direct expansion dehumidification system to remove the excess moisture. The excess moisture in the air will be condensate and turn into water. The water will then be collected at a drain pan, where it will be pushed out with the help of positive air pressure from the processed air. The dried air will then pass through the final stage of HEPA filter to remove micron size particles and airborne bacteria. The final output air will be cleaned and dried. The same process will continue to work until the ambient air reach to the set-point of the desire humidity level.

This system is suitable for area that are enclosed and do not require to introduce fresh air, for example like warehouse, storage and equipment room that require to keep the room constantly dry at all times.



Unit Information

Name:
Ducted Single Flow Dehumidifier with HEPA Air Purifying System
Series:FD-S
Test conditions: @30C,80%RH



Product Features

- The body material is made of cold-rolled sheet metal with epoxy powder coating.
- A mini measuring level stucked on the bottom side of the unit, which can help to keep the balance during installation.
- An electric heater can be mounted in the air outlet duct for further heating of the dry air.
- Built-in Centralized Fresh Air Fan with self-balancing function to exhaust excessive moisture from the indoor ambient air.
- Condensate trap does not need to install because of the positive pressure drainage design. This helps to save more space during installation. Evaporator and Condenser is epoxy-coated for better durability and corrosion resistant. It is also washable for maintenance service.
- The machine is built for 24/7 operation with automatic dehumidification and positive pressure drainage.
- Low Noise, High Static Pressure, Double Speed Centrifugal Fan, which allow fan speed adjustment.
- Blue hydrophilic-coated aluminum heat exchanger coils and SS304 condensate drain pan is made of prevent corrosion damage. Purifying spare parts replacement is mandatory, which can better improve the air quality and the machine's service life.
- Air Purifying section can be integrated freely into the system (Medium Efficiency Filter, HEPA Filter, Activated Carbon Filter, UV Sterilizing Lamp and Negative Ionizer).
- The machine uses name-brand compressor Panasonic or Embraco, with eco-friendly R410A or R134A refrigerant.
- The hinged side panel design ensure easy access to the internals for the maintenance.
- The machine can be connected and monitored with RS485 serial port and Wi-Fi App.
- Touch screen controller (integrated with temperature & humidity sensor) simplifies complex wiring and installation.

FD-S Series

MODEL	FD-S28L	FD-S40L	FD-S60L	FD-S100L	FD-S140L	FD-S160L	FD-S180L	FD-S250L	FD-S380L	FD-S500L	FD-S750L	FD-S1000L
Capacity(30°C,80%RH)	28L/D	40L/D	60L/D	100L/D	140L/D	160L/D	180L/D	250L/D	380L/D	500L/D	750L/D	1000L/D
Supply air flow(m3/h)	280-350	500-670	650-780	1000-1200	1200-1350	1600-2000	1800-2200	2500-2900	3500-3850	4800-5300	7500-9000	9000-11000
Fan speed	2-speed/variable speed											
Static pressure	100 Pa	100 Pa	100 Pa	100 Pa	100 Pa	200 Pa	200 Pa	200Pa	200 Pa	200 Pa	400 Pa	400 Pa
Return air flow(m3/h)	280-350	500-670	650-780	1000-1200	1200-350	1600-2000	1800-2200	2500-2900	3500-3850	4800-5300	7500-9000	9000-11000
Power	400W	620 W	700 W	920 W	1160 W	2400 W	2800 W	4000 W	5500W	9000 W	15000W	21000 W
Current	1.8A	2.8A	3.3A	4.3A	5.4A	11A	5.4A	7 A	10A	16 A	26 A	37A
Voltage	220V/50Hz	220V/50Hz	220V/50Hz	220V/50Hz	220V/50Hz	220V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz
Control	touch screen LCD / button type controller											
Noiselevel	<35DB	<45DB	<45DB	<45DB	<45DB	<55DB	<55DB	<55DB	<55DB	<55DB	<55DB	<55DB
Compressor	Embraco			Panasonic				Daikin				
Refrigerant	R134A			R410A								
Condenser	copper tubes with blue hydrophilic-coated aluminum fins											
Drainpan	SUS304											
Drainhole size	DN20						DN32					
Filter	G4(+F7/Carbon+H13)											
Purification	UV Air Sanitizer + Anion Generator											
Return air duct	Φ100mm	Φ150mm	Φ150mm	Φ200mm	Φ200mm	300*500mm	500*400mm	500*400 mm	750*450mm	750*450mm	1200*450 mm	1200*450 mm
Supplyairduct	Φ100mm	Φ150mm	Φ150mm	Φ200 mm	Φ200mm	310*310mm	350*350 mm	350*350mm	818*313mm	818*313mm	1058*348mm	1058*348mm
Body size	830*433*285mm	950*539*265mm	950*539*265mm	1030*639*375mm	1030*639*375mm	1040*819*550mm	1160*820*600mm	1160*820*600mm	1370*1120*720mm	1370*1120*720mm	1700*1642*720mm	1700*1642*720mm
Net weight	40kg	45kg	47kg	68kg	71kg	100kg	119kg	146kg	270kg	300kg	500kg	560kg

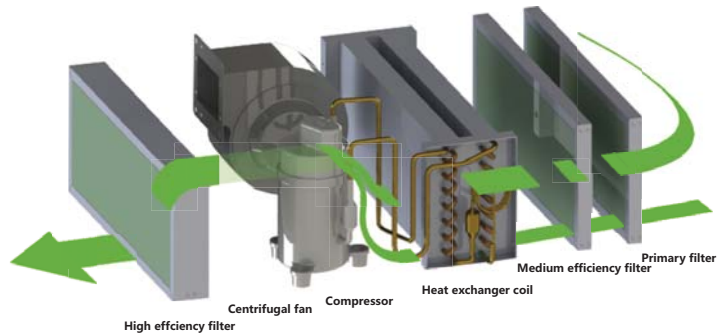
*Technical Specifications and dimensions are subject to change without prior notice

FD-X Series

Ducted Whole-house Dehumidifier with Fresh Air System

LUKO ©

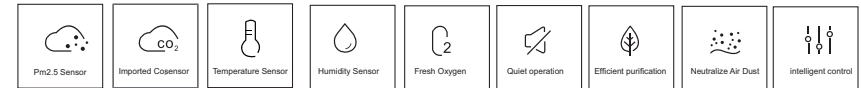
Working Principle



This system introduces partial fresh air from outdoors and mixes it with indoor return air. The mixed air then passes through the first stage (G4 efficiency), second stage (F7 efficiency) air filtration in order to remove air-borne particles and contaminants. The partial filtered air then enters the direct expansion dehumidification system to remove excess moisture. The excess moisture in the air will be condensed and turn into water. The water will then be collected at a drain pan, where it will be pushed out with the help of positive air pressure from the processed air. The dried air will then pass through the final stage of HEPA filter to remove micron-size particles and airborne bacteria. The final output of the processed air will be dried and cleaned. This system is suitable for applications that require the introduction of fresh air into the room and also that require to create positive air pressure. This system can also be the replacement of the traditional ventilation fan that is used to keep the room filled with fresh air. With this system, the supplied fresh air would help to prevent issues that may affect the well-being of occupants due to lack of oxygen. Besides, it also helps to reduce the growth of air-borne bacteria with the built-in air purification, ensuring a continuous supply of fresh, clean, and dry air is supplied into the room.

Unit Information

Name: Ducted whole-house dehumidifier with fresh air system
 Series: FD-X
 Test conditions: @30C,80%RH



Product Features

- The body material is made of cold-rolled sheet metal with epoxy powder coating.
- A mini measuring level is stuck on the bottom side of the unit, which can help to keep the balance during installation.
- An electric heater can be mounted in the air outlet duct for further heating of the dry air.
- Built-in Centralized Fresh Air Fan with self-balancing function to exhaust excessive moisture from the indoor ambient air.
- Condensate trap does not need to be installed because of the positive pressure drainage design. This helps to save more space during installation.
- Evaporator and Condenser are epoxy-coated for better durability and corrosion resistant. It is also washable for maintenance service.
- The machine is built for 24/7 operation with automatic dehumidification and positive pressure drainage.
- Low Noise, High Static Pressure, Double Speed Centrifugal Fan, which allow fan speed adjustment.
- Blue hydrophilic-coated aluminum heat exchanger coils and SS304 condensate drain pan is made of prevent corrosion damage.
- Purifying spare parts replacement is mandatory, which can better improve the air quality and the machine's service life.
- Air Purifying section can be integrated freely into the system (Medium Efficiency Filter, HEPA Filter, Activated Carbon Filter, UV Sterilizing Lamp and Negative Ionizer).
- The machine uses name-brand compressor Panasonic or Embraco, with eco-friendly R410A or R134A refrigerant.
- The hinged side panel design ensures easy access to the internals for the maintenance.
- The machine can be connected and monitored with RS485 serial port and Wi-Fi App.
- Touch screen controller (integrated with temperature & humidity sensor) simplifies complex wiring and installation.



FD-X Series

MODEL	FD-X28L	FD-X40L	FD-X60L	FD-X100L	FD-X140L	FD-X180L	FD-X250L	FD-X380L	FD-X500L	FD-X750L	FD-X1000L	
Capacity(30°C,80%RH)	28L/D	40L/D	60L/D	100L/D	140L/D	180L/D	250L/D	380L/D	500L/D	750L/D	1000L/D	
Supply air flow(m3/h)	280-350	500-670	650-780	1000-1200	1200-1350	1800-2200	2500-2900	3500-3850	4800-5300	7500-9000	9000-11000	
Fan speed	2-speed/variable speed											
Static pressure	100 Pa	100 Pa	100 Pa	100 Pa	100 Pa	200 Pa	200 Pa	200 Pa	200 Pa	400 Pa	400 Pa	
Return air flow(m3/h)	140-175	350-460	470-550	680-800	750-850	1200-1450	1850-2050	2600-2850	3530-3900	5500-6500	6800-8100	
Fresh air flow(m3/h)	140-175	150-210	180-230	320-400	400-500	600-750	650-850	900-1000	1250-1450	2000-2500	2200-2900	
Power	420W	670 W	740 W	1050 W	1300 W	3000 W	4200 W	6600 W	10000 W	17000 W	23500 W	
Current	1.9A	3A	3.5A	4.9A	6.2A	5.4 A	7.5 A	11.8 A	18 A	30 A	40 A	
Voltage	220V/50Hz						380V/50Hz					
Control	touch screen LCD / button type controller											
Noise level	<35DB	<45DB	<45DB	<45DB	<45DB	<55DB	<55DB	<55DB	<55DB	<55DB	<55DB	
Compressor	Embraco			Panasonic			Daikin					
Refrigerant	R134A	R134A	R134A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	
Condenser	copper tubes with blue hydrophilic-coated aluminum fins											
Drain pan	SUS304											
Drain hole size	DN20						DN32					
Filter	G4 +F7 (Carbon)+ H13											
Purification	UV Air Sanitizer + Anion Generator											
Fresh air duct	Φ100 mm	Φ100 mm	Φ100 mm	Φ150 mm	Φ150 mm	230*230 mm	230*230 mm	280*280 mm	280*280 mm	320*320 mm	320*320 mm	
Return air duct	Φ100 mm	Φ150 mm	Φ150 mm	Φ200 mm	Φ200 mm	300*350 mm	300*350 mm	460*460 mm	750*450 mm	1200*450 mm	1200*450 mm	
Supply air duct	Φ100 mm	Φ150 mm	Φ150 mm	Φ200 mm	Φ200 mm	350*350 mm	350*350 mm	818*313 mm	818*313 mm	1058*348 mm	1058*348 mm	
Body size	830*433*285mm	950*539*265mm	950*539*260mm	1030*639*375mm	1030*639*375mm	1160*820*600mm	1160*820*600mm	1370*1120*720 mm	1370*1120*720 mm	1700*1642*720 mm	1700*1642*720 mm	
Net weight	45kg	50kg	55kg	75kg	78kg	125kg	156kg	286kg	310kg	528kg	585kg	

FD-E Series

Ducted Double Flow Heat Recovery Dehumidifier with HEPA Air Purifying System

LUKO ©

This system combines high efficiency heat recovery to dehumidification. It will first draw in fresh air from outdoor and direct the air to pass through the cross low heat recovery core before entering into the direct expansion dehumidification system. The exhaust air transfers some of its sensible heat to the fresh air through the heat recovery core before discharged to the outside. This is a great way to improve humid indoor air quality by introducing outside air, while recovering much of the energy in exhaust air.

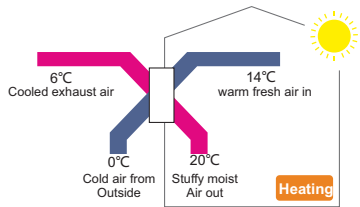


Working principle

Cross-flow counter-current heat exchanger. It uses the temperature of outgoing air to moderate the temperature of incoming air, thus saving the energy for providing fresh air to the whole house.

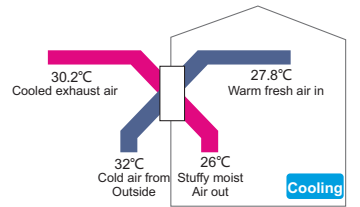
Heat Recovery Concept

Operation in winter



Heat-exchange calculating equation
 winter: indoor supply air temperature(°C) = (indoor temperature(°C) - outdoor temperature(°C)) * temp exchange efficiency(%) + outdoor temperature(°C)
 Calculation example: (20°C - 0°C) * 70% + 0°C = 14°C

Operation in summer



Heat-exchange calculating equation
 summer: indoor supply air temperature(°C) = outdoor temperature(°C) - (indoor temperature(°C) - outdoor temperature(°C)) * temp exchange efficiency(%)
 Calculation example: 32°C - (32°C - 26°C) * 70% = 27.8°C

Unit Information

Name: Ducted Double Flow Heat Recovery Dehumidifier with HEPA Air Purifying System
 Series: FD-E
 Test conditions: @30C, 80%RH



- PM2.5 Sensor
- Imported Copenser
- Temperature Sensor
- Humidity Sensor
- Fresh Oxygen
- Quiet operation
- Efficient purification
- Neutralize Air Dust
- Intelligent control

Product features

- * The body material is made of cold-rolled sheet metal with epoxy powder coating.
- * Built-in Centralized Fresh Air Fan with self-balancing function to exhaust excessive moisture from the indoor ambient air.
- * The machine is built for 24/7 operation with automatic dehumidification and ventilation.
- * A mini measuring level stuck on the bottom side of the unit, which can help to keep the balance during installation.
- * An electric heater can be mounted in the air outlet duct for further heating of the dry air.
- * Evaporator and Condenser is epoxy-coated for better durability and corrosion resistant. It is also washable for maintenance service.
- * Condensate trap does not need to install because of the positive pressure drainage design. This helps to save more space during installation.
- * Cross eow heat recovery core is made of hydrophilic coating aluminum foil with high efficiency 70%.
- * Low Noise, High Static Pressure, Double Speed Centrifugal Fan, which allow fan speed adjustment.
- * Blue hydrophilic-coated aluminum-en heat exchanger coils and SS304 condensate drain pan is made of prevent corrosion damage.
- * Air Purifying section can be integrated freely into the system (Medium Efficiency Filter, HEPA Filter, Activated Carbon Filter, UV Sterilizing Lamp and Negative Ionizer).
- * Purifying spare parts replacement is mandatory, which can better improve the air quality and the machine's service life.
- * The machine uses name-brand compressor Panasonic or Embraco, with eco-friendly R410A or R134A refrigerant.
- * The hinged side panel design ensure easy access to the internals for the maintenance.
- * The machine can be connected and monitored with RS485 serial port and Wi-Fi App.
- * Air eow is designed with a streamline to effectively prevent dust, eliminating the need for periodic cleaning of cross-eow heat exchanger core.
- * Touch screen controller (integrated with temperature & humidity sensor) simplifies complex wiring and installation.
- * LUKO's original patented design allows supply air temperature almost the same as indoor air temperature, which can help to save energy.
- * Positive pressure design or negative pressure version both available based on clients' requirement.

FD-E Series

MODEL	FD-E28L	FD-E40L	FD-E60L	FD-E100L	FD-E140L	FD-E180L	FD-E250L
Capacity(30°C,80%RH)	28L/D	40L/D	60L/D	100L/D	140L/D	180L/D	250L/D
Supply air flow(m3/h)	320~420 m3/h	650~780 m3/h	730~850 m3/h	1000~1200 m3/h	1200~1380 m3/h	1800~2200 m3/h	2500~2900 m3/h
Fan speed	2-speed/variable speed						
Static pressure	100 Pa	150 Pa	150 Pa	150 Pa	150 Pa	150 Pa	150 Pa
Fresh air flow(m3/h)	100~150 m3/h	180~250 m3/h	280~360 m3/h	430~550 m3/h	580~720 m3/h	600~750 m3/h	850~1000 m3/h
Return air flow(m3/h)	220~420 m3/h	400~780 m3/h	450~850 m3/h	570~1200 m3/h	770~1380 m3/h	1200~2200 m3/h	1650~2900 m3/h
Exhaust air flow(m3/h)	80 m3/h	120 m3/h	200 m3/h	300 m3/h	420 m3/h	550 m3/h	750 m3/h
Power	550W	720 W	850 W	1100 W	1380 W	3300 W	5500 W
Current	2.5A	3.2A	3.7A	5A	6.2A	6A	9.3A
Voltage	220V/50Hz	220V/50Hz	220V/50Hz	220V/50Hz	220V/50Hz	380V/50Hz	38
Control	touch screen LCD / button type controller						
Noise level	<35DB	<45DB	<45DB	<45DB	<45DB	<60DB	<60DB
Compressor	Embraco					Daikin	Daikin
Refrigerant	R134A					R410A	R410A
Condenser	copper tubes with blue hydrophilic-coated aluminum fins						
Drain pan	SUS304						
Drain hole size	DN20						
Filter	G4 +F7 (Carbon)+H13						
Purification	UV Air Sanitizer + Anion Generator						
Fresh air duct	Φ150 mm	Φ150 mm	Φ150 mm	Φ200 mm	Φ200 mm	Φ350*350 mm	Φ350*350 mm
Return air duct	Φ150 mm	Φ150 mm	350*350 mmΦ150 mm	Φ200 mm	Φ200 mm	Φ350*350 mm	Φ350*350 mm
Supply air duct	Φ150 mm	Φ150 mm	350*350 mmΦ150 mm	Φ200 mm	Φ200 mm	Φ350*350 mm	Φ350*350 mm
Exhaust air duct	Φ150 mm	Φ150 mm	Φ150 mm	Φ200 mm	Φ200 mm	Φ350*350 mm	Φ350*350 mm
Body size	1205*699*283 mm	1205*699*283 mm	1205*699*283 mm	1330*749*325 mm	1330*749*325 mm	1830*1149*620 mm	1830*1149*620 mm
Net weight	55kg	60kg	68kg	85kg	92kg	150kg	170kg

CERTIFICATE

LUKO

