FD-SS Series Inverter Ducted Dehumidifier

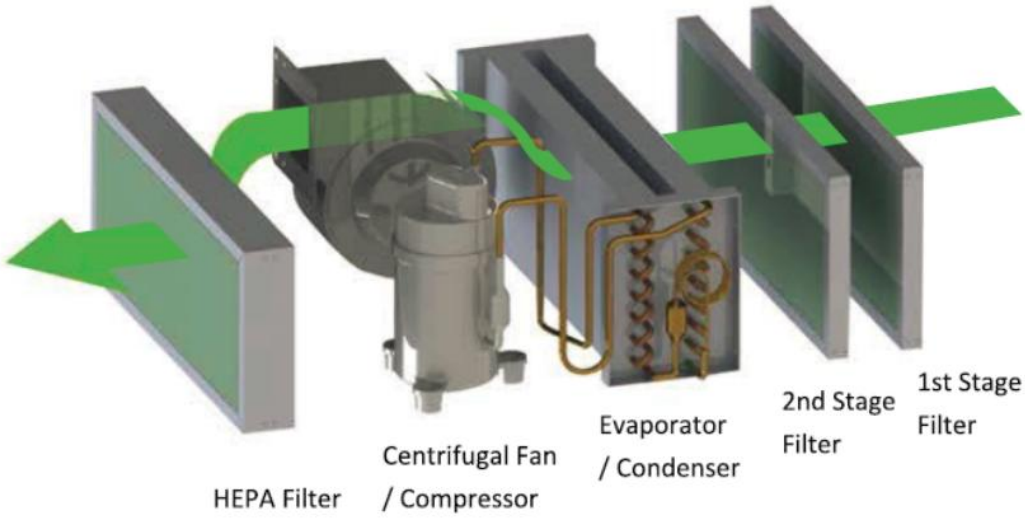
Model:FD-SS380L

Dehumidifying Capacity: 380L/D

PHOTO

FD-SS Series Inverter Ducted Dehumidifier

WORKING PRINCIPLE



FD-SS series is the company's self-developed recirculated air dehumidification system. The 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 partial filtered air will then enter into 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 enclose and 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.

With LUKO FD-SS system, the recirculated air dehumidification system would help to constantly keep the treated room dry without loss of energy, as the dry air is contain within the room. Hence, this would help to constantly maintain the humidity level without affecting the stored goods or production process that are highly sensitive to moisture.

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KEY FEATURES

*The body material is made of cold-rolled sheet metal with epoxy powder coating

*A mini measuring level sticked 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-fin 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,with eco-friendly R410A 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.

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COMPARISON WITH LUKO STANDARD FD-S SERIES

Comparison		
Section	Standard type	Inverter type
Fan	AC fan:FD-S/X28L,FD-S/X380L~FD-S/X1000L EC fan: FD-S/X40L~FD-S/X250L	EC fan for all the models
Compressor	Non-inverter	Inverter
Throttling way	Capillary tube	EEV(electronic expansion valve)
Controller	Black controller with Smart App Control,TUYA ,RS485 support	Touch screen controller with Smart App Control,TUYA ,RS485 support
Compressor drive module	NO	YES
HP sensor	NO	YES
LP sensor	only with LP switch	YES
5 in 1 multi-sensor	NO	YES
Fresh air sensor	NO	YES
Defrost	Timing / hotgas defrost	Automatic defrost (compressor frequency regulate)

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INVERTER TYPE FEATURES

Powerful

Inverter dehumidifiers operate at maximum capacity as soon as they start up. As a result, the set humidity can be reached more quickly.

Energy saving

After the indoor humidity approaches the set value,inverter control adjusts to low capacity operation to maintain this humidity. This makes inverter models more energy saving than non-inverter models, which must repeatedly start or stop their compressors to maintain the room humidity.

Comfortable

Inverter dehumidifiers finely adjust capacity according to changes in the dehumidifiers load and the difference between the indoor humidity and set humidity is small. This gives higher comfort level than the non-inverter dehumidifiers.

Greater lifespan

Inverter dehumidifiers are known to have a longer lifespan than non-inverter dehumidifiers for several reasons. Because inverter dehumidifiers need to operate at high and low speeds, the materials used in their components are typically of a higher standard compared to non-inverter dehumidifiers . The lifespan of an inverter dehumidifiers can vary depending on brand, model, and usage, but on average, they have a lifespan of around 10 years.

Noise levels

Inverter dehumidifiers are known to have lower noise levels compared to non-inverter dehumidifiers. The compressor used in inverter dehumidifiers runs at a lower speed than non-inverter dehumidifiers, which results in less noise. Inverter dehumidifiers are typically made with higher-quality components than non-inverter dehumidifiers, which can also lead to quieter operation.

Life cycle cost

Although inverter dehumidifiers typically have a higher initial cost than non-inverter dehumidifiers, long-term savings can make up for the price difference. With Inverter-topped dehumidifiers, save up to 70%* more of your energy consumption than with non-inverter dehumidifiers. These savings include lower energy bills and less wear and tear on unit components, requiring less maintenance and fewer repairs over time.

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CONTROL

Smart App Control,TUYA ,RS485 support

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TECHNICAL DATAS

Name	Whole-house inverter type dehumidifier
Voltage/Frequency	380V/50HZ
Model	FD-SS380L
Dehumidifier capacity (27℃,60%RH)	300-420L/D
Supply air flow	3500-3850m³/h
Fresh air flow	none
Return air flow	3500-3850m³/h
Fan type	EC motor,variable speed control
Pressure drop	250Pa
Compressor	Inverter type/R410A/R32
Compressor on/off logic	absolute humidity value
VFD module (Variable Frequency Drive)	air cooled
Power factor	PFC waveform
Rated power	4580W-6246W
Rated current	6.9A-11.6A
Drain hole size	φ32mm
Filtration	Primary filter G4 + HEPA filter H13

Purification	UV air sanitizer + Anion generator
Noise	<50db(A)
Unit dimension	1370mmX1120mmX720mm
Fresh air damper	none
Exhaust fan	Signal linkage
Supply air duct	818*313mm
Fresh air duct	none
Return air duct	750*450mm
Sensor	5 in 1 sensor (CO2,PM2.5,TVOC,RH,Temp)
Water proof protection	IPX4
Net weight	189KG
Gross weight	245KG
Refrigerant charge	2500G
Electricity proof protection	Class I

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

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UNIT DIMENSION