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# Safety Precaution

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## WARNING

- Installation and maintenance should be performed by qualified persons who are familiar with local code and regulation, and experienced with this type of appliance.
- All field wiring must be installed in accordance with the national wiring regulation.
- Ensure that the rated voltage of the unit corresponds to that of the name plate before commencing wiring work according to the wiring diagram.
- The unit must be **GROUND**ED to prevent possible hazard due to insulation failure.
- All electrical wiring must not touch the water piping or any moving parts of the fan motors.
- Confirm that the unit has been switched **OFF** before installing or servicing the unit.
- Risk of electric shock, can cause injury or death.
- Disconnect all remain electric power supplies before servicing.
- **DO NOT** pull out the power cord when the power is **ON**. This may cause serious electrical shocks which may result in the fire hazards.
- Keep the indoor and outdoor units, power cable and transmission wiring, at least 1m from TV's and radios, to prevent distorted pictures and static. (Depending on the type and source of the electrical waves, static may be heard even when more than 1m away).

## CAUTION

- Please take note of the following important points when installing.
- Ensure that the drainage piping is connected properly. If the drainage piping is not connected properly, it may cause water leakage which will dampen the furniture.
- Sharp edges and coil surfaces are potential locations which may cause injury hazards. Avoid from being in contact with these places.
- Tightening torque should not be too high when connecting water pipes, in order to avoid brass deformation or water-leakage by torsion split.
- Water coil not used during winter season shall be drained, or anti-freezing solution shall be added to the water circuit to avoid freezing.
- Before turning off the power supply set the remote controller's ON/OFF switch to the **OFF** position to prevent the nuisance tripping of the unit. If this is not done, the unit's fans will start turning automatically when power resumes, posing a hazard to service personnel or the user.
- Ensure the color of wires of the outdoor unit and the terminal markings are same to the indoors respectively.
- **IMPORTANT: DO NOT INSTALL OR USE THE AIR CONDITIONER UNIT IN A LAUNDRY ROOM.**

## NOTICE



### Disposal requirements

Your air conditioning product is marked with this symbol. This means that electrical and electronic products shall not be mixed with unsorted household waste. Do not try to dismantle the system yourself: the dismantling of the air conditioning system, treatment of the refrigerant, of oil and of other parts must be done by a qualified installer in accordance with relevant local and national legislation. Air conditioners must be treated at a specialized treatment facility for re-use, recycling and recovery. By ensuring this product is disposed of correctly, you will help to prevent potential negative consequences for the environment and human health. Please contact the installer or local authority for more information. Batteries must be removed from the remote controller and disposed of separately in accordance with relevant local and national legislation.

# Product Features

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## 1. General

- Fabricated with a rigid galvanized steel casing.
- The DIDW centrifugal fans have balanced, galvanized steel, and forward curved blades.
- Single skin galvanized steel casing with 10mm thickness, 25 kg/m<sup>3</sup> high-density non-flammable PE insulation.
- Optional double skin with 30mm PU construction is available.
- Optional high external static up to 200Pa is available.
- Optional controller is available.
- The unit come with optional left and right connection, refer Fig A.

## 2. Fan Motor Assembly

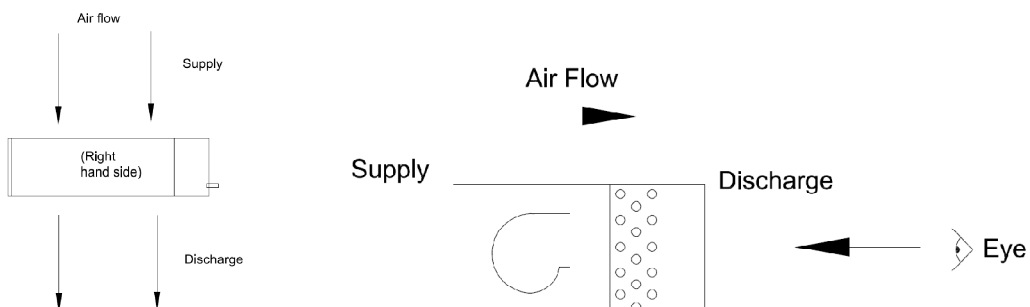
- Standard galvanized steel fan wheel.
- The motor is consisted with hermetic aluminum alloy casing and permanently lubricated ball bearing.
- The motor has grade B class insulation; with built-in thermal cutout.
- The motor lead-out wires are with sleeve, providing protection against damage.

## 3. Coil

- The coil can have 3 or 4 rows, with copper tubes mechanically bonded into corrugated aluminum fin collars.
- Copper fin or blue fin is also available.
- Water inlet / outlet connections are from 1-inch to 2-inch male pipe thread (BSTP).
- Header assembly is a one-piece casting, which enables to connect steel pipe directly.
- Coil assembly is been test over 24.6 kg/cm<sup>2</sup> (350psig).
- A water drain is located at the bottom of the coil header.

## 4. Drain Pan

- The drain pan is 45~50mm depth with 1.0mm thickness galvanized steel c/w internal epoxy polyester resin coating.
- The drain pan is sloped towards the drain pipe with a 2 deg. gradient.
- The drain pan has one 3/4-inch, 1-inch and 1-1/4-inch male pipe thread (BT) connection.
- The standard insulation material is 10mm thickness, 25kg/m<sup>3</sup> density PE foam.



# Installation

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## 1. Receiving

- \* All units leaving the factory have been inspected to ensure the shipment of high quality products and reasonable means are utilized to properly pack the fan coil units to protect them in transit.
- \* Carefully inspect all shipments immediately upon delivery. When damage is visible, request to Saiver so that we can send a representative to inspect the damage. This may be done by telephone or in person, but should always be confirmed in writing.

## 2. Location

- \* Before installation, please check the following:
  - i. There must be enough space for unit installation and maintenance. Please refer to the outline and dimensions and fig.1 for the minimum distance between the unit and obstacle.
  - ii. In case of installation in free blow, the unit must be installed at a minimum height of 2.5m to avoid contact with the appliance.
  - iii. Please ensure enough space for piping connection and electrical wiring.
  - iv. Please make sure that the hanging rods can support weight of the unit.

## 3. Installation

- \* The unit is designed for concealed ceiling installation.
- \* There are holes on the unit leg for hanging. Please refer to Fig.1, Fig.2 and Fig.3.
- \* Make sure that the top of the unit is level.

## 4. Insulation

- \* The insulation design and materials should be complying with local and national codes and regulations.
- \* Chilled water pipes and all parts on the pipes should be insulated.
- \* It is also necessary to insulate the air duct.

## 5. AIR DUCT CONNECTION

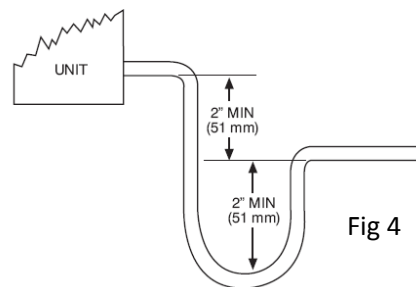
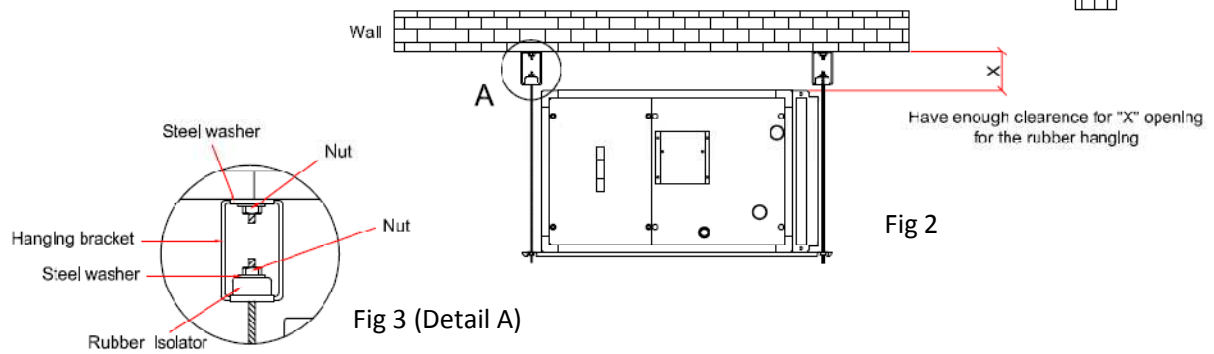
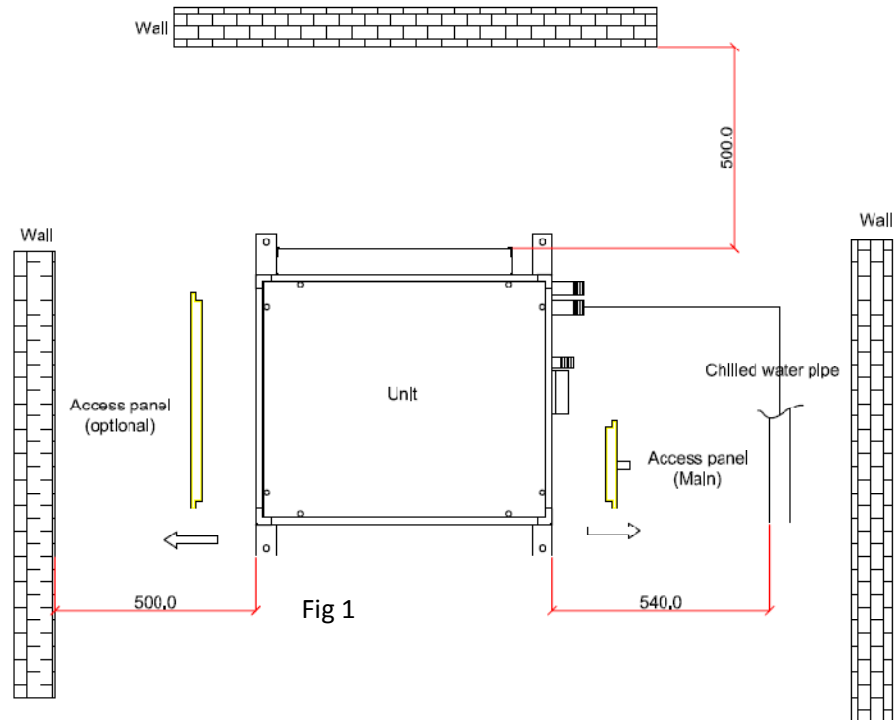
- \* Circulatory air pressure drop should be within External Static Pressure.
- \* Galvanized steel air ducts are suitable.
- \* Make sure there is no leak of air.
- \* Air duct should be fire-proof, refer to concerned country national and local regulations.

## 6. PIPE CONNECTION

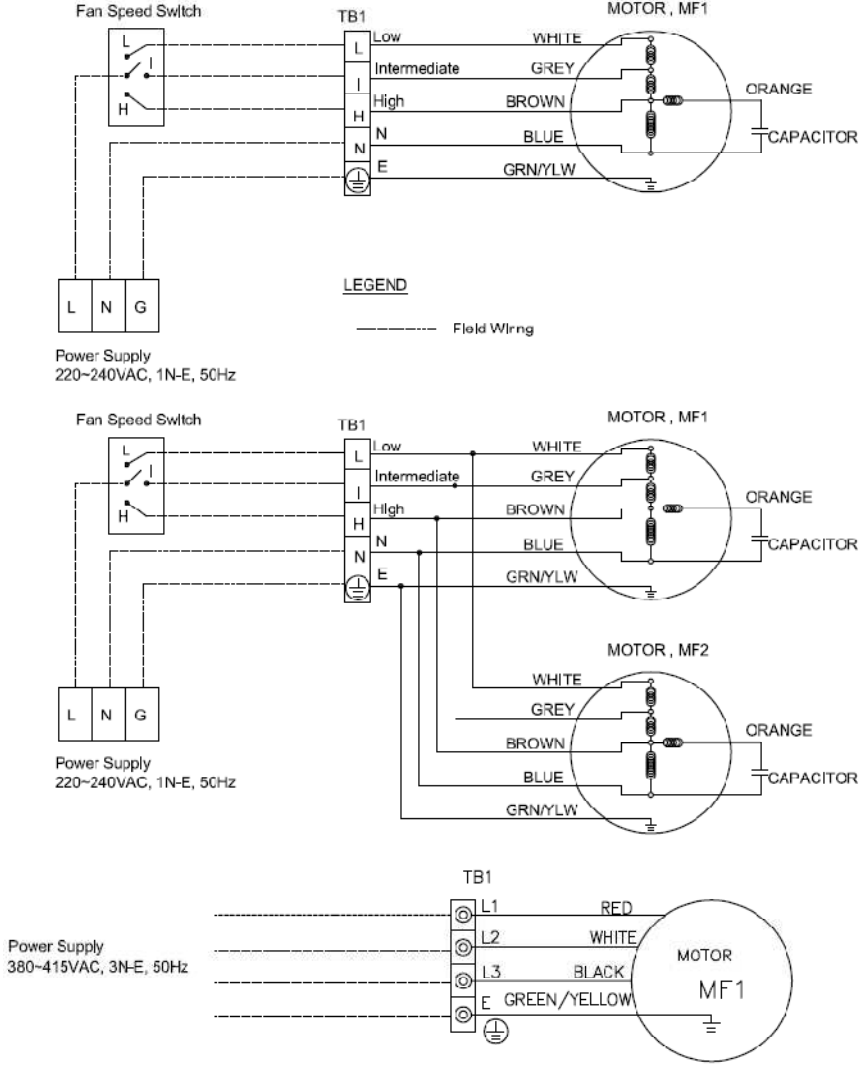
- \* Use suitable fittings at the water pipe connections. The reference can get from the outline and dimensions.
- \* The water inlet at the bottom while outlet on top.
- \* The connection must be concealed with rubberized fabric to avoid leakage.
- \* Drain pipe can be PVC or steel.
- \* Tightening torque should not be too high when connecting water pipes, in order to avoid deformation or water-leakage by torsion split at the header connection side.
- \* The suggested slope of the drain pipe is at least 2deg C.
- \* Water drainage must have a U-Trap to ensure the water can drain out. Refer Fig.4.

## 7. WIRING

- \* Wiring connection must be done according to the wiring diagram on the unit.
- \* The unit must be GROUNDED well.
- \* An appropriate strain relief device must be used to attach the power wires to the terminal box.
- \* Field wiring must be complied with the national security regulations.
- \* A main switch or other means for disconnection, having a contact separation in all poles, must be incorporated in the fixed wiring in accordance with the relevant local and national legislation.



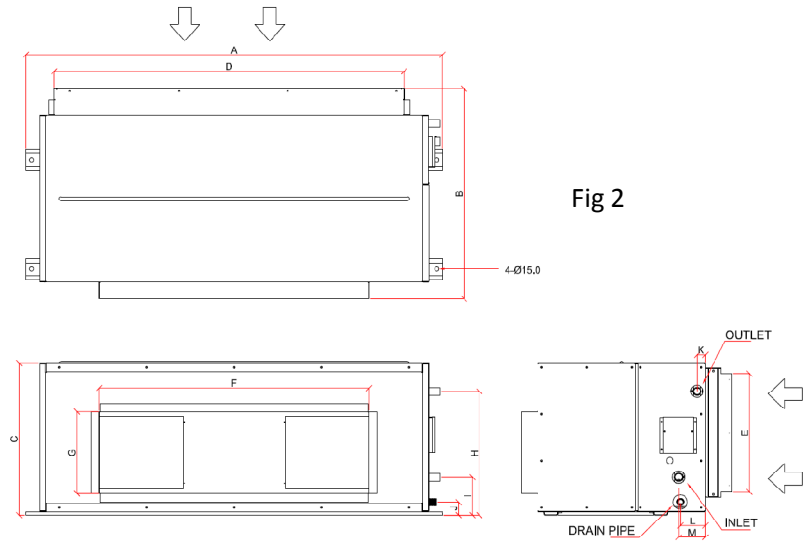
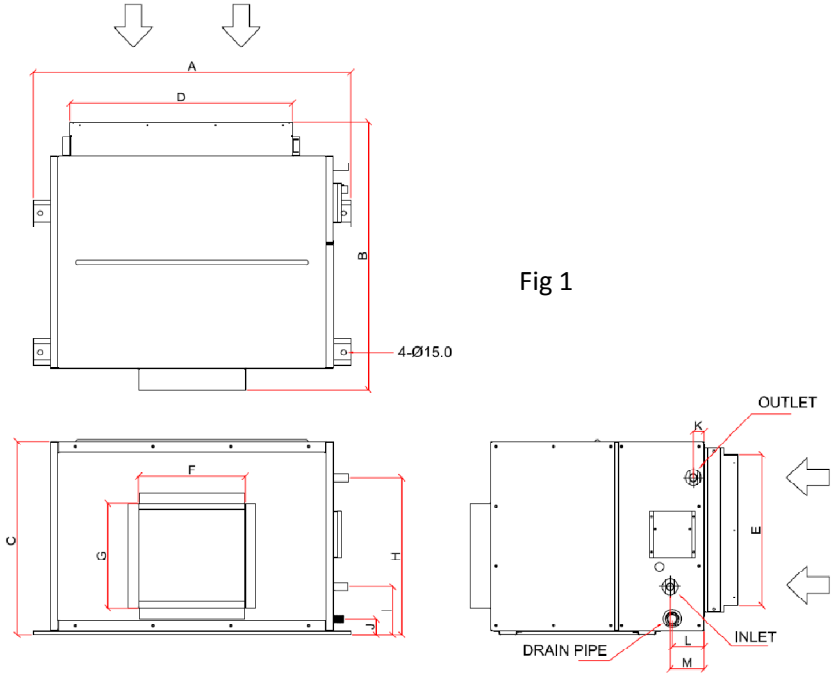
# Electrical Wiring Diagram



**Note:**

- \* Power wiring and grounding should be checked and selected to comply with local and national codes and regulations. They are also subject to the type of installation and size of conductors.
- \* The appropriate voltage range should be checked with label data on the unit. A main switch or other means for disconnection, having a contact separation in all poles, must be incorporated in the fixed wiring in accordance with relevant local and national legislation.

# Outlines and Dimensional





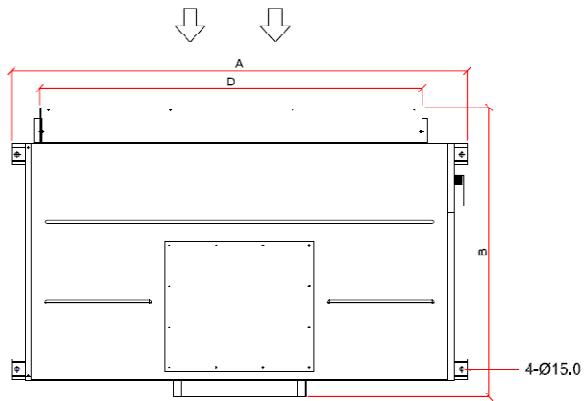
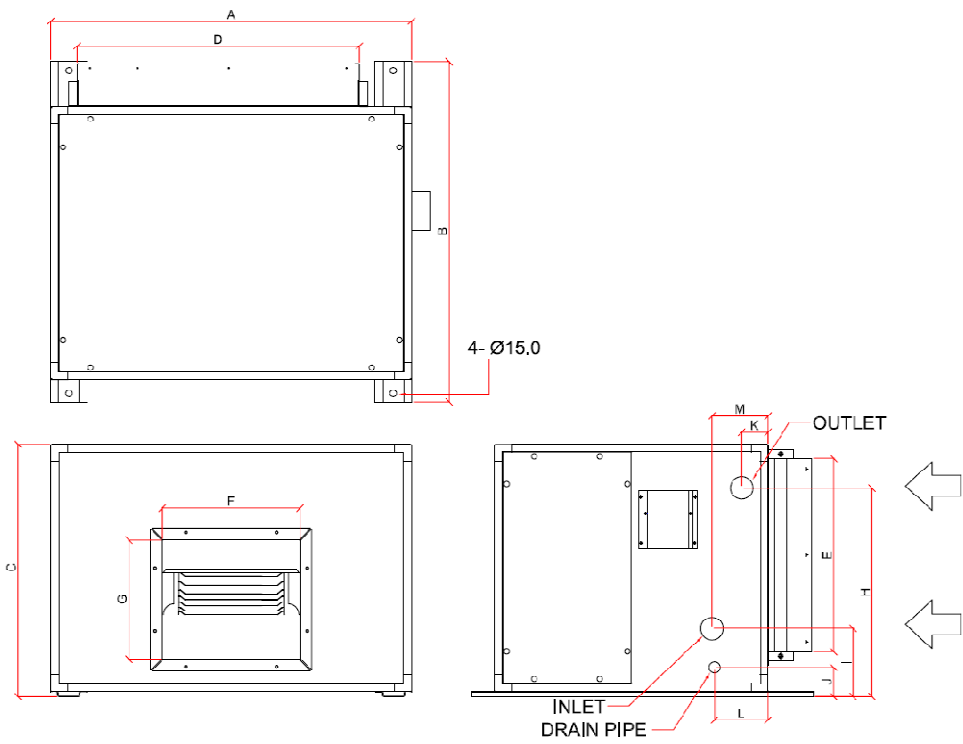
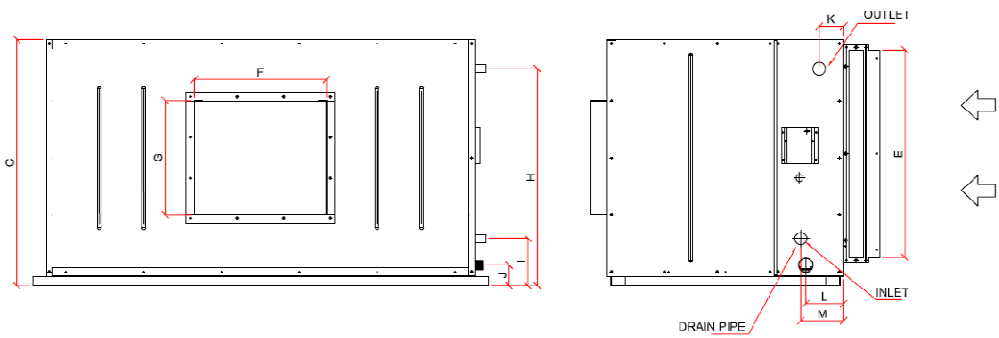
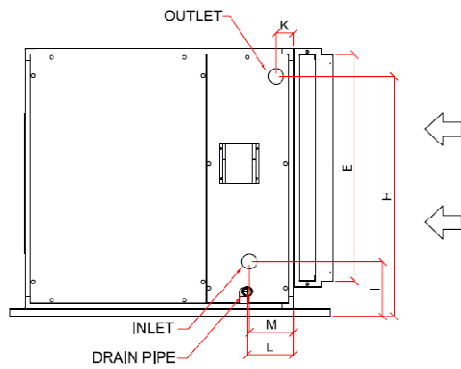
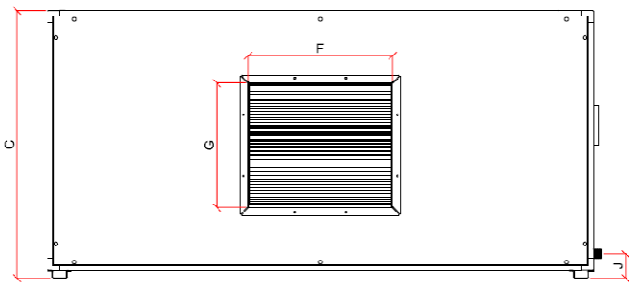
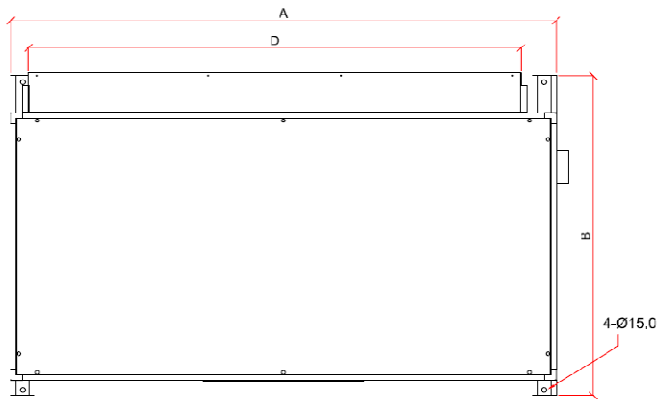
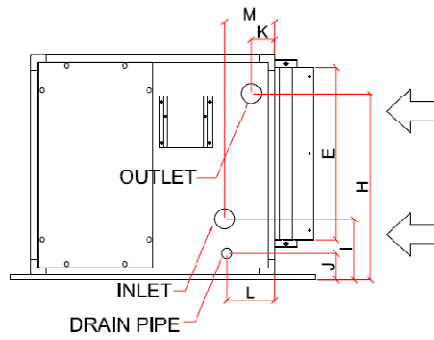
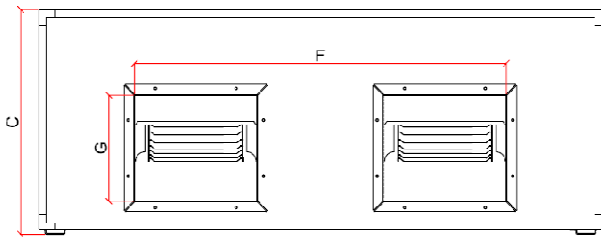
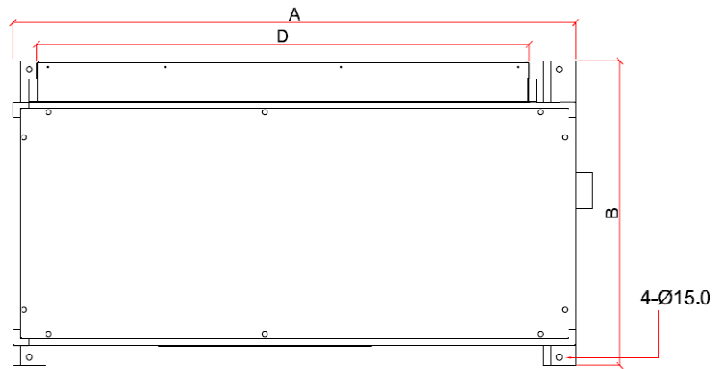
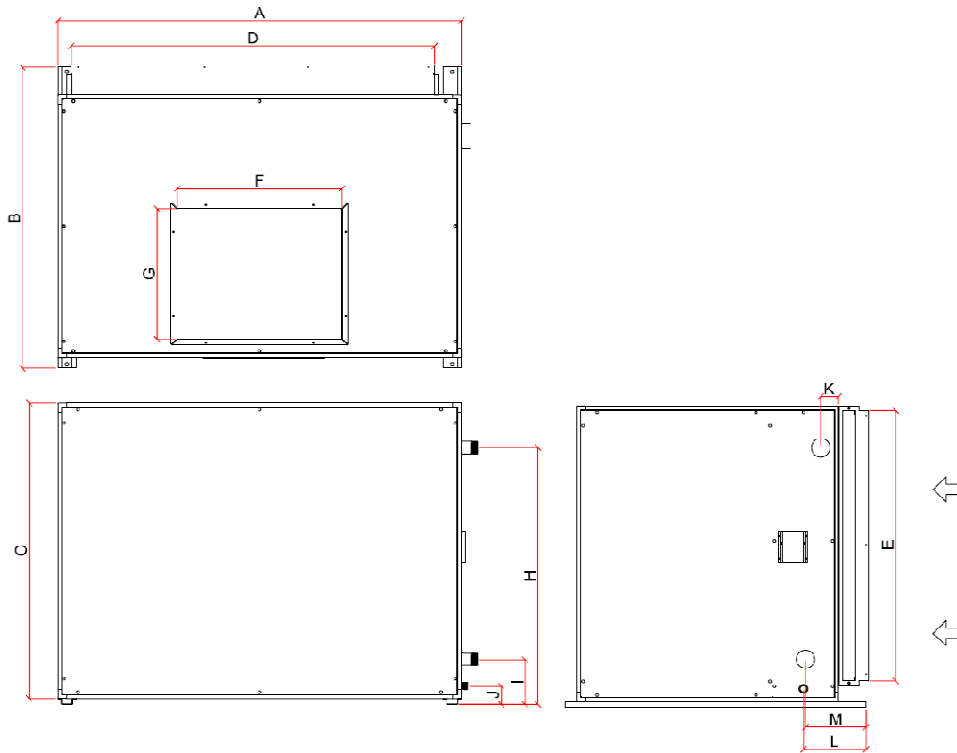


Fig 3







SINGLE SKIN

MODEL		A	B	C	D	E	F	G	H	I	J	K	L	M
SDF013AW	Figure 1	902	761	549	632	429	305	296	447	137	47	31	91	75
SDF016AW	Figure 1	902	761	549	632	429	305	296	447	137	47	31	91	97
SDF020AW	Figure 1	1122	761	549	852	429	305	296	447	137	47	31	91	97
SDF024AW	Figure 2	1502	761	549	1262	296	973	296	447	137	47	31	91	75
SDF032AW	Figure 2	1502	761	549	1262	429	973	296	447	137	47	31	91	97
SDF040AW	Figure 3	1640	1040	885	1376	745	476	412	780	170	74	88	136	154
SDF048AW	Figure 3	1640	1040	885	1376	745	476	412	780	170	74	88	136	154
SDF064AW	Figure 3	1894	1040	885	1630	745	746	412	780	170	74	88	136	154

DOUBLE SKIN

MODEL		A	B	C	D	E	F	G	H	I	J	K	L	M
SDFD013AW	Figure 4	799	756	559	625	429	305	264	462	151	65	58	119	102
SDFD016AW	Figure 4	799	756	559	625	429	305	264	462	151	65	58	119	124
SDFD020AW	Figure 4	1019	756	559	845	429	305	264	462	151	65	58	119	124
SDFD024AW	Figure 5	1399	756	559	1275	429	924	264	462	151	65	58	119	102
SDFD032AW	Figure 5	1399	756	559	1275	429	924	264	462	151	65	58	119	124
SDFD040AW	Figure 6	1546	1057	881	1372	747	476	410	790	180	80	108	154	174
SDFD048AW	Figure 6	1546	1057	881	1372	747	476	410	790	180	80	108	154	174
SDFD064AW	Figure 6	1799	1057	881	1625	747	476	410	790	180	80	108	154	174
SDFD080AW	Figure 7	1757	1310	1315	1583	1181	718	568	1128	208	80	78	273	264
SDFD096AW	Figure 7	1757	1310	1315	1583	1181	718	568	1128	208	80	78	273	264

# Service and Maintenance

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Items	Maintenance Procedures	Frequency
Fan Coil Unit Air Filter	<ul style="list-style-type: none"> <li>Remove any dust adhered on the filter by using a vacuum cleaner or wash in lukewarm water (below 40°C) with neutral cleaning detergent.</li> <li>Rinse well and dry the filter before placing it back onto the unit.</li> <li>Do not use gasoline, volatile substances or chemical to clean the filter.</li> </ul>	Once every 2 weeks. More frequently if necessary.
External panel surface	<ul style="list-style-type: none"> <li>Clean any dust or dirt on the grille or panel by wiping it using soft cloth soaked in lukewarm water (below 40°C) with neutral cleaning detergent.</li> <li>Do not use gasoline, volatile substances or chemical to clean the indoor unit.</li> </ul>	Once every 2 weeks. More frequently if necessary.
Cooling / Heating Coil	<ul style="list-style-type: none"> <li>Check and remove any dirt clogged between fins.</li> <li>Check and remove any obstacles that hinder air flowing into and out of the indoor unit.</li> </ul>	Once every month.
Power supply	<ul style="list-style-type: none"> <li>Check the voltage and current of the indoor unit.</li> <li>Check the electrical wiring for any faulty contacts caused by loose connections, foreign matters, etc. Tighten the wires onto the terminal block if necessary.</li> </ul>	Once every 2 months.
Condense drain pan & pipe	<ul style="list-style-type: none"> <li>Check its cleanliness and clean it if necessary.</li> </ul>	Once every 3 months
Fan & Fan Motor	<ul style="list-style-type: none"> <li>Check for any abnormal noise.</li> </ul>	Only when necessary.

# Troubleshooting

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When any malfunction of the air conditioner unit is noted, immediately switch off the power supply to the unit. Check for the following fault conditions and causes for some simple troubleshooting tips.

Fault	Causes / Action
The fan coil unit does not operate	<ul style="list-style-type: none"><li>• Power failure or the fuse blown and need to be replaced.</li><li>• The power plug is disconnected.</li><li>• Check the delay timer setting.</li><li>• If the fault persist after all these verifications, please contact the air conditioner unit installer.</li></ul>
The air flow is too low.	<ul style="list-style-type: none"><li>• The air filter is dirty.</li><li>• The doors and windows are open.</li><li>• The air suction and discharge are clogged.</li><li>• The regulated temperature is not high enough.</li></ul>
The remote control display is dim (if applicable).	<ul style="list-style-type: none"><li>• Battery flat.</li><li>• The batteries are placed incorrectly.</li></ul>
Discharge air flow has bad odor.	<ul style="list-style-type: none"><li>• Odors may be caused by cigarettes, smoke particles, perfume etc. which might have adhered onto the coil.</li></ul>
Condensation on the front air grille of the fan coil unit.	<ul style="list-style-type: none"><li>• This is caused by air humidity after an extended long period of operation.</li><li>• The set temperature is too low, increase the temperature setting and operate the unit at high fan speed.</li></ul>
Water flowing out from the fan coil unit.	<ul style="list-style-type: none"><li>• Check the condensate evacuation.</li><li>• Switch off the unit and call dealer / installer.</li></ul>

**If the fault persists, please call your local dealer / serviceman.**

## NOTE

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## NOTE

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