| TYPE  | MITSUBISHI Pressure Ventilator (for device cooling) |  |  |  |
|-------|---|--|--|--|
| MODEL | EF-30UBS-UL   |  |  |  |

| VOLUME |  |
|--------|--|
| SIGN   |  |

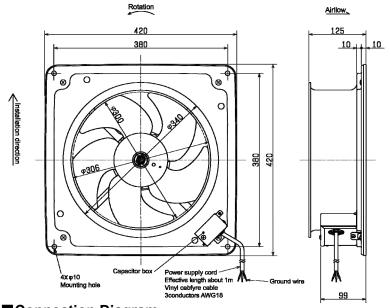
| Power supply Single-phase 100V        |   |              |  | Withstand v   | Withstand voltage     |                | 1500 V AC 1 minute                                      |   |                          |  |
|---------------------------------------|---|--------------|--|---------------|-----------------------|----------------|---|---|--------------------------|--|
| Blade type 30 cm metal propeller vane |   |              | /ane   | Insulation re | Insulation resistance |                | 10 MΩ or more (with 500 V Insulation resistance tester) |   |                          |  |
| Motor type                            | Motor type Totally enclosed type single phase induction motor A class inslation 4pole |              |  |               | Weight                |                | 4.9kg   |   |                          |  |
| Ambient operating Temp                |   |              | erature: –15°C to<br>ve humidity: 90%<br>rature)<br>· use                    |               | Material              | Material       |   | Vane: Aluminum Die Casting<br>Motor leg, Body frame, Motor:<br>Galvanized sheet steel                             |                          |  |
| Ball bearings R                       |   | Rever        | Load side: ZZ type<br>Reverse load side: DDW type<br>Grease: Urea            |               |                       | Color          |   | Vane, Orifice:7.65Y7.6/0.7 Motor leg, Motor: Galvanized sheet steel self-colored Vane, Orifice: Polyester coating |                          |  |
| SPECIFICATIONS                        | Frequ<br>(H   | iency<br>Iz) | Air volume<br>(m³/h)   | Noise<br>(dB) | Power consumption (W) | Current<br>(A) | Maximum<br>load current<br>(A)                          | Starting<br>current<br>(A)  | Nominal<br>output<br>(W) |  |
|                                       | 5   | 0            | 1920   | 46.5          | 75                    | 0.81           | 1.00  | 2.26  | 50                       |  |
| Conforming standard number (UL)       |   |              | UL 1004-1 Sta  |               | ng Electrical         | UL File No.    | E474618   |   |                          |  |
|                                       |   |              | Machines -General Requirem UL 1004-3 Standard for Thermally Protected Motors |               |                       |                |   |   |                          |  |

- ※ Air volume and power consumption are measured based on JIS C 9603.
- \* The noise, power consumption and current are measured under free air condition.
- X The value of the noise is at 1.5 m from the front and both sides of the appliance in an anechoic room. (Average of the three points)
- XThis appliance is only for exhaust-use.
- \*The nominal output is only a rough estimate. When selecting a breaker or an overload protection device, select it according to the maximum load current value. (Refer to page 2 for details.)

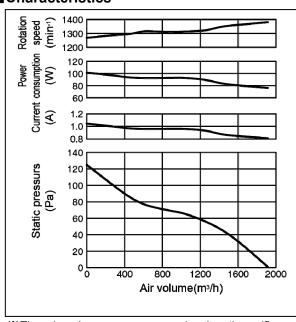
# **■**Attention

※ Refer to the precautions on page 2.

# **Drawings and Dimensions**

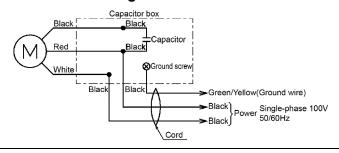


### **■**Characteristics



% The air volume was measured using the orifice chamber method.

## **■**Connection Diagram



| Third Angle                           | Dim. in Scale Date |                  | Date     |        | MITSUBISHI Pressure Ventilator (for device cooling) |               |  |
|---------------------------------------|--------------------|------------------|----------|--------|---|---------------|--|
| Projection Method                     | mm                 | Non proportional | Sep 2017 | Model  | EF-30UBS-UL   |               |  |
| MITSUBISHI ELECTRIC NAKATSUGAWA WORKS |                    |                  |          | Number | NJ015A24A-50 (1/2)                                  | Specification |  |

| TYPE  | MITSUBISHI Pressure Ventilator (for device cooling) | VOLUME |  |
|-------|---|--------|--|
| MODEL | EF-30UBS-UL   | SIGN   |  |

#### ■Precautions

- 1. Follow the ambient operating conditions.
  - The installation must meet the requirements for ambient temperature and humidity.
- 2. Avoid turning the appliance off and on more than 50 times a day. Otherwise, blade or motor breakages will occur.
- 3. Do not install the appliance in a place where it will be directly exposed to oily smoke or steam, such as a kitchen.
- 4. Do not use the appliance in a place where the ambient temperature exceeds 50°C, such as a kitchen. The appliance could stop operating due to the built-in overload protection device. Besides, deterioration of electric parts including the motor could result, or deterioration of bearing grease could result in burnt bearing section.
- 5. Do not install the appliance in a freezer or a place where freezing is anticipated.
- 6. Install the appliance in a secure manner in a firm and steady place free from vibrations. Otherwise, resonance could develop, resulting in noises or chipped blades. Reinforce any unstable parts of the mounting location before installing the appliance.
- 7. The appliance is designed for overhead installation. Install the appliance at a place 2.3m or higher from the floor. Otherwise, injury or accident could result.
- 8. It is possible to install the appliances close together. However, be aware that vibration and/or noises could occur on the appliances or the shutter, or the overload protection device could activate depending on the installing condition.
- 9. Do not install the product in the places where obstacles exist on the intake side, places where intake airflow might experience an extreme curvature as shown below. Resultant drift may cause noises or blade breakage.



- 10. Insulate the frame between the appliance and the wooden structure containing metal lath, wire lath, or metal sheets to prevent the structure from contacting directly with the metal part of the appliance. Otherwise, fault current, electric shock, or fire could result. In such a case, the optional insulation frame must be used. (Referring, 'Technical Standards for Electric Systems')
- 11. Always install a circuit breaker. Failure to heed this warning may result in fire or electric shock.
- 12. To protect against overload on the motor, use overload protection equipment that employs a magnetic switch (magnetic contact + thermal relay).

  Overload protection equipment must be attached for every unit. Choose the overload protection device with 1.2 times the maximum load current as a rule of thumb when selecting it.
- 13. The fan has a built-in thermal fuse for protection against the damage by a fire. The above overload protection equipment will activate automatically to stop rotation in the case of locked operation, overloading, application of incorrect voltage, or an ambient temperature in excess of the rated level. If this should occur, turn OFF the power and eliminate the cause of the problem.

  \*If the thermal fuse is blown, the motor must be changed.
- 14. Secure grounding when installing the appliance.
- 15. Electrical wiring must be done by a certified electrician in accordance with local standards and regulations. Never twist the stranded wires by hand to connect them. Additionally, connect the power source wires within a metal box for electrical conduits.
- 16. Connecting the power source improperly could hinder correct operation, and could result in a burnt motor or other problem. Securely connect the appliance to the device such as a switch or plug.
- 17. To discharge unclean air, the appliance requires an opening that takes in fresh air. On the other side of the appliance, provide an air intake opening whose size is the same as or more than that of the frame for the appliance.
- 18. The appliance tends to become dirty. If dirt left intact for a long time, it will become hard to remove. Clean the appliance ahead of time. (Handle the blade with care.)
- 19. Modification of the appliance is prohibited as this could result in failure.
- 20. The appliance cannot be used in a place where it is vulnerable to salt corrosion. Otherwise, rust could develop at an early date.
- 21. The appliance cannot be used outside (where it may directly be exposed to rain). Otherwise, rust could develop at an early date.
- 22. If any flammable substance such as oil or dust accumulates on the appliance, a spark could cause a fire. Always clean the appliance at regular intervals (about 1 year).
- 23. Operating the appliance in a dusty place could result in increased vibration or shorter bearing life depending on the dust, even though the configuration of the blade and shaft pass, and the use of sealed bearings are designed to prevent dust from entering the bearing. Also, dust that has come in through the shaft pass or the drain hole in the motor bracket could shorten the life of the bearings. Inspect and/or replace the bearings ahead of time
- 24. When operating the appliance in a humid place, install the appliance as follows: One of the drain plugs (or caps) must be placed on the underside of the motor, and the drain plug (or cap) must be removed. (However, the drain plug (or cap) should be attached when the appliance is installed in a dusty and humid place. In such a case, Inspect it at intervals with the plug (or cap) removed.)
- 25. When the appliance is to be installed to run as part of equipment, the appliance should be installed in such a way that it can be readily maintained. If the appliance failure or ending its service life could cause another failure, a Fail-safe configuration (such as an alarm) must be provided. (Fail-safe: design that prevents another failure to occur.)
- 26. Using any weather covers other than the designated cover may cause resultant drift due to their size or shape, resulting in abnormal noises or damages on the appliance. To avoid this, be sure to use the designated weather cover.
- 27. The appliance used for a long period of time may have some deterioration in the motor or cord of electric parts, resulting in fume or fire. Check for any abnormalities on the appliance before use or during the use. If any abnormalities are found, stop using the appliance immediately.
- 28. The fan cannot operate by using inverters.
- 29. This appliance is specialized for indirect export. Thus, it cannot be sold outside Japan and cannot be used in Japan. No servicing is available outside of Japan.

| Ī                                     | Third Angle              | Dim. in | Scale            | Date     |        | MITSUBISHI Pressure Ventilator (for device cooling) |               |  |
|---------------------------------------|--------------------------|---------|------------------|----------|--------|---|---------------|--|
|                                       | <b>Projection Method</b> | mm      | Non proportional | Sep 2017 | Model  | EF-30UBS  | -UL           |  |
| MITSUBISHI ELECTRIC NAKATSUGAWA WORKS |                          |         |                  | A WORKS  | Number | NJ015A24A-50 (2/2)                                  | Specification |  |