

Cooling Fans

Fans and Thermal Management

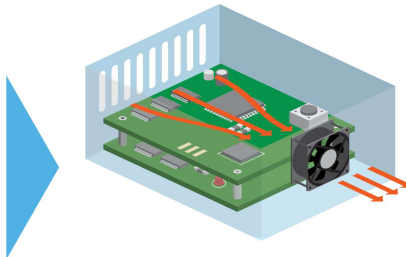
Today's fans are designed to move air allowing for cooling, controlling an area of space or for protecting electronics. Many of our fans come with alarm features designed for warning or for preventative maintenance. Oriental Motor helps make selecting the appropriate type of fan for today's applications simple.

Axial Flow Fans

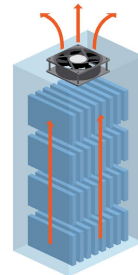
- AC or DC Input



Device Ventilation and Cooling



Cooling Densely Mounted Devices

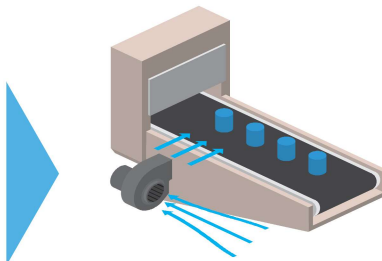


Centrifugal Blowers

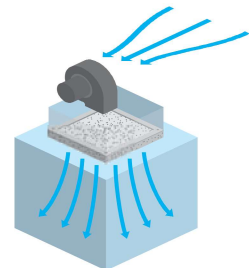
- AC or DC Input



Air-Blow Cooling or Drying



Cooling with High Static Pressure

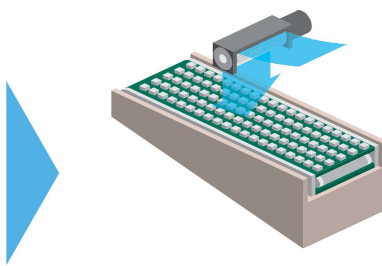


Cross Flow Fans

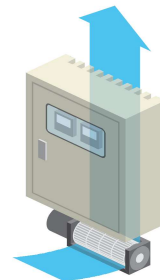
- AC or DC Input



Uniform Cooling or Drying



Cooling for Long or Thin Spaces



Thermostat

- Centigrade (°C)



Automatically turning it ON/Off with a Set Timer

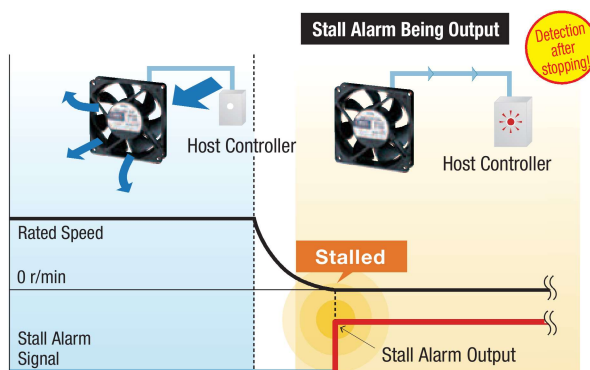


Alarm Types

Cooling fans with alarms allow for prevention of unexpected problems or malfunctions.

● Locked Rotor Alarm

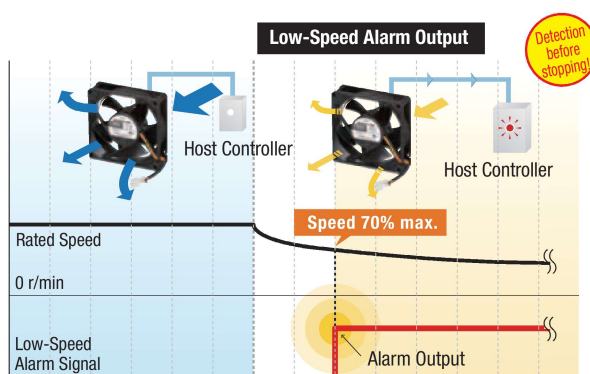
The fan will emit an alarm when the fan rotation has stopped. This will alert you to interruptions immediately, so that action / replacement can be made.



● Low-Speed Alarm

The fan will emit an alarm when the fan slows down possibly due to the introduction of foreign particles or other problems. This helps with predictive maintenance.

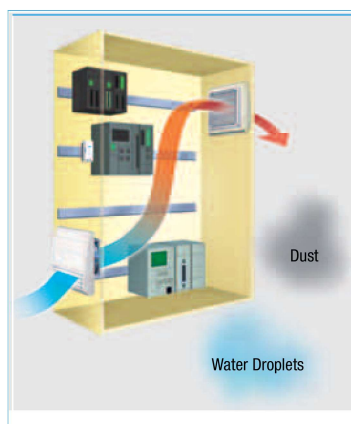
If multiple fans are running, it will also allow for replacement of only the fans experiencing a reduced cooling capacity.



Enclosure Types



- AC or DC Input
- Complete Assembly
- IP2X, IP4X or IP55 Models
- Suction or Exhaust Type



Accessories



- Finger Guards
- Filters
- Screens
- Plug Cords

Environmental Efforts

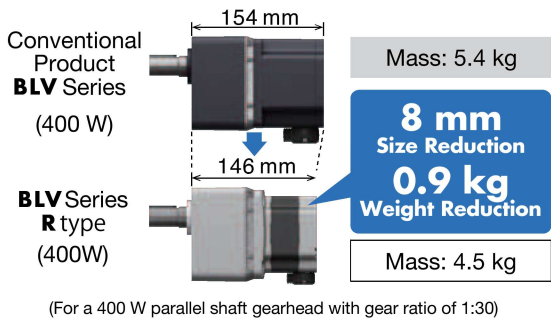
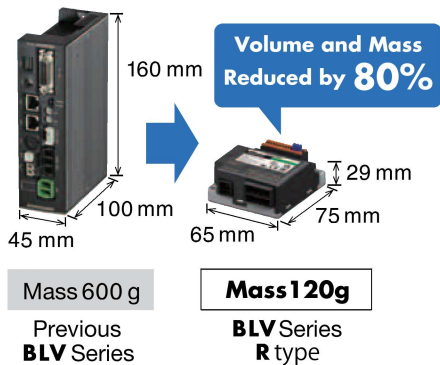
Oriental Motor has proactively supported activities that give consideration to global environmental conservation. Energy savings, conservation of natural resources and reduction of waste and carbon dioxide are implemented at various stages of the product lifecycle. By providing beneficial products that feature high efficiency, compact size, high power and long life, Oriental Motor hopes to achieve the various needs that our customers require, while contributing to environmental conservation activities.

High-efficiency Motors for Compact and Lightweight Delivery Robots

The **BLV Series R Type** is a brushless motor with DC power input intended to facilitate equipment downsizing and weight reductions. Decreasing product size and weight enables reduced CO₂ emissions during transport and other applications. Furthermore, these brushless motors use permanent magnets in their rotors to reduce loss and achieve high-efficiency operations.

Save Resources

We have achieved major size and weight reductions for both the motor and the driver.



Save Power

By redesigning the motor structure to mitigate loss, this motor achieves lower power consumption compared with our conventional product. This extends the battery life and allows for the motor to run longer.

Low Power Consumption EC Fan and Thermostats that Save Energy

By using brushless motors in the **EMU Series**, power consumption is reduced by approximately 70% compared with the conventional product.

(Conventional Product **MU Series**)

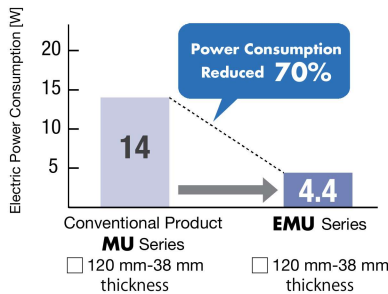
The mass of the fan has been lightened by approximately 45% by using resin in the frame, which reduces CO₂ emissions during transport and saves resources.

In addition, the use of a thermostat cuts down on power consumption of the cooling fan, thus making equipment more energy-efficient overall.

EMU Series EC Fan

Save Power

- Power Consumption: 4.4 W
- Expected life: 60,000 hours (2.2 times longer than the conventional product)
- Mass: 0.29 kg (45% reduction compared with the conventional product)
- Wide-ranging voltage specifications: single-phase 100–240 V (50/60 Hz)



Thermostat for Fan

Save Power

- This thermostat saves power and energy by only operating the cooling fan when internal equipment temperature is high and cooling is required.



Before Selecting a Product

■ Scope of Intended Applications

Our products are designed and manufactured for use in general industrial applications. They are not intended for use in nuclear power generation, aerospace, railway, vehicle, entertainment machinery, safety equipment, medical equipment or any other application having a significant effect on human life or property.

■ Safety Precautions

Before using any product, carefully read the “operating manual” to ensure correct operation.

■ Return, Replacement and Repair After Delivery

- ORIENTAL MOTOR U.S.A. CORP. is confident that you will be completely satisfied with your purchase. In the unlikely event that a delivered product has been damaged during shipping or if you receive an incorrect order, ORIENTAL MOTOR U.S.A. CORP. will correct the problem. Please contact your local sales office or distributor where the product was purchased.
- If you need to return a product because of a technical issue, please contact ORIENTAL MOTOR U.S.A. CORP. technical support at 1-800-468-3982 (847-871-5931 or 310-715-3303 if outside the USA & Canada) to try to determine the cause of the problem. If your problem cannot be resolved, you will receive instructions on how to obtain an RMA number and how to return the product.

■ Warranty and Limitation of Liability

● Warranty

Oriental Motor U.S.A. Corporation (the “Company”) warrants to the first end user Buyer that the products and parts thereof, when shipped will be free from defects in materials comprising the same and in the Company’s workmanship. If any such defects exist or later appear, the Company shall undertake, at its sole expense, prompt remedial action as stated herein to correct the same; provided however, that the Company shall have no obligation or liability under this warranty unless it shall have received written notice specifying such defects no later than two (2) years from the date of shipment.

■ Lead Time

Oriental Motor’s lead time is characterized by best in class, with many of our catalog products available to ship in 3 to 9 business days (for orders placed before 12pm PST). Your order is shipped using only reputable carriers or any carrier of your choice to ensure on-time and damage free-delivery. Our manufacturing processes support our fast delivery and short lead time to allow us to support your needs. Our Just-In-Time production system allows the manufacturing of an order with little notice, in any quantity requested. Additionally, our one-by-one process allows us to manufacture one product as easily as one thousand.

In addition, Oriental Motor will quote “Available to Ship” shipping dates for guaranteed quantities on our website for most products. For larger quantities please contact your local sales office.

● LIMITATION OF LIABILITY

THE COMPANY SHALL HAVE NO LIABILITY WHATSOEVER IN ANY EVENT FOR PAYMENT OF ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION, DAMAGES FOR INJURY TO ANY PERSON OR PROPERTY. BY ACCEPTING THE PRODUCTS AND/OR PARTS THEREOF, THE FIRST END USER BUYER OR SUBSEQUENT USER AGREES THAT THE COMPANY SHALL NOT BE LIABLE FOR INDEMNIFICATION OR CONTRIBUTION (IN WHOLE OR IN PART) EITHER EXPRESSLY OR BY IMPLICATION. IF FOR ANY REASON OF THE FOREGOING PROVISIONS SHALL BE INEFFECTIVE, THE COMPANY’S LIABILITY FOR DAMAGES ARISING OUT OF ITS MANUFACTURE OR SALE OF ITS PRODUCTS OR PARTS, OR USE THEREOF, WHETHER SUCH LIABILITY IS BASED ON WARRANTY, CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT OR OTHERWISE, SHALL NOT IN ANY EVENT EXCEED THE FULL PURCHASE PRICE OF SUCH PRODUCTS AND PARTS THEREOF.

Any action against the Company based upon any liability or obligation arising hereunder any law applicable to the sale or its products or parts thereof, or the use thereof, must be commenced within two (2) years after the cause of such actions arises.