

Orientalmotor

Watertight, dust-resistant brushless motors that achieve compactness, lightweight and energy-saving effect



Here are watertight, dust-resistant motors that are more compact, lighter and more energy-efficient compared to AC motors to perform speed control. Electricity charges and CO2 emissions can be reduced, contributing to carbon neutrality.

Energy-saving effect

When replacing an AC motor with a brushless motor.



Yearly power consumption (Comparison between output power 200 W types)

| | Power consumption (kWh/year) | CO ₂ emissions (kg/year) | Electricity Cost (SGD/year) |
|---------------------|------------------------------|-------------------------------------|-----------------------------|
| AC Motor / Inverter | 1108.8 | 575 | 165 |
| Brushless Motor | 820.8 | 425.9 | 122 |

*Calculated at 12 hours of drive time per day, 300 operating days per year, a power-CO₂ emissions conversion coefficient of 0.519 kg-CO₂/kWh and electricity fee 15 yen/kWh

Power consumption

288

Reduced by kWh/year

CO₂ emissions

149.5

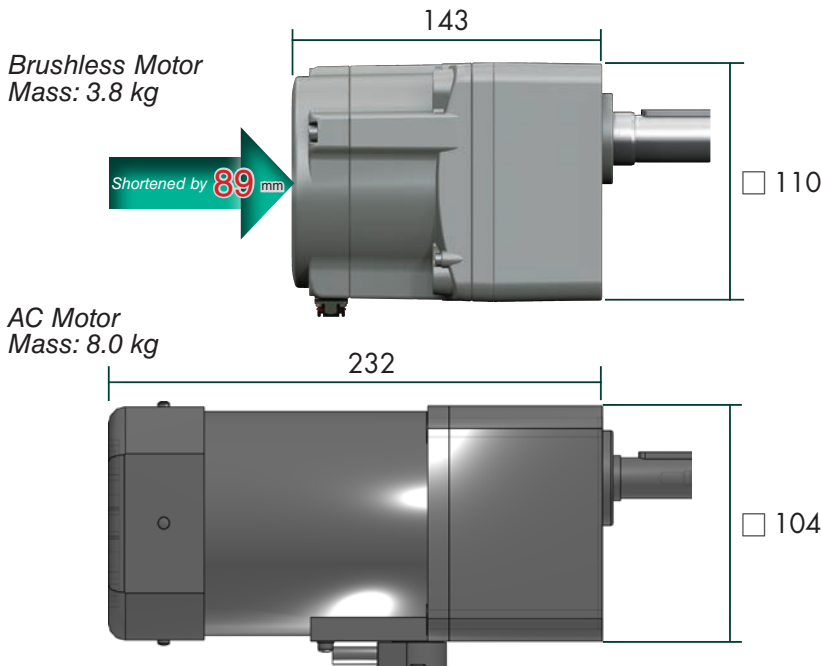
Reduced by kg/year

CO₂ emissions (Power consumption)

**25%
Reduced**

Resource is saved

Even 200 W type has shorter total motor length and compact mass.



Volume

**31%
Reduced**

The features of watertight, dust-resistant motors

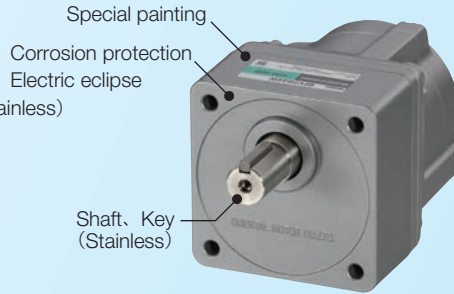
As factories become more and more automated, use applications where motors are covered with dust or splashed with water are increasing.

ORIENTAL MOTOR's watertight, dust-resistant brushless motors offer a higher level speed control while achieving compactness and high output.

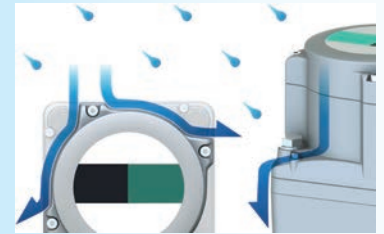
Improved dust and corrosion resistances

● Since there is no cooling fan, dust is not scattered around.

● Adopts special coating which hardly rusts, and stainless steel material

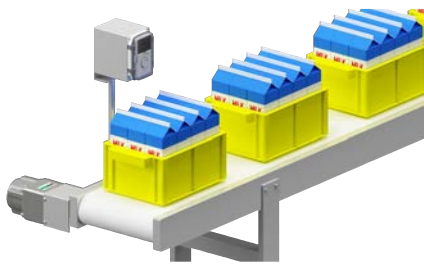


Curved structure to allow water flow down



Application Example

Transferring/conveyor



Point

- Stable speed even when the loads vary
- Operates with the set speed
- The variation in stopping position is small.

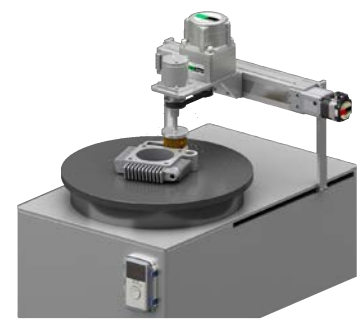
Stirring, pumping, dispenser



Point

- Keeps stable speed even when the viscosity (load) varies
- Instantaneous bi-directional operation

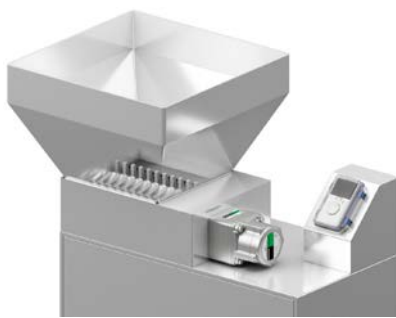
Grinding/brushing



Point

- Torque limiting prevents from damages
- Monitors the load factor

Screw



Point

- Stable speed even when the loads vary
 - Operates with the set speed
- Downsizing and lightening of the equipment is achieved.

Pizza roller



Point

- Since the torque is constant, the pizza dough spreads evenly.
- Downsized equipment (portable)
- Easy to clean

Coffee mill



Point

- Uniform stirring (flat torque)
- Desktop type (Downsized)
- Easy to clean as it can be washed as a whole

Contact