

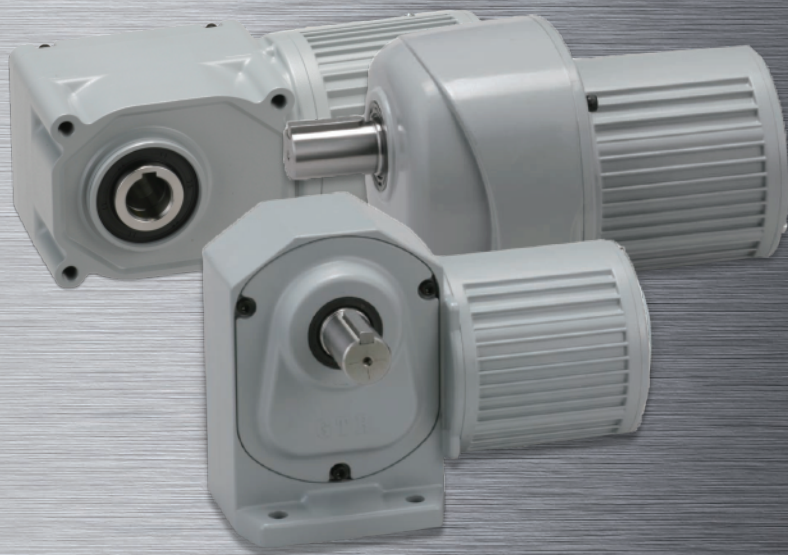
BROTHER GEARMOTORS

1/8 - 3HP (.1kW - 2.2kW)



OUR POWER. OUR PLANET. OUR PROMISE.

Making our Gearmotors even more useful, compact, reasonable, and energy efficient is the core of Brother's commitment to sustainability.

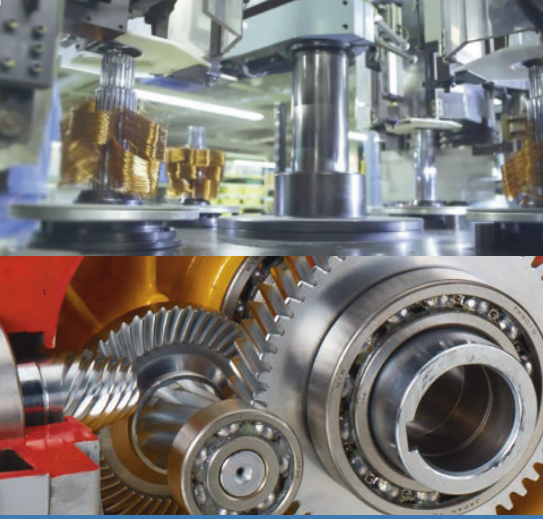


IPMax

IPM MAXIMUM PERFORMANCE

EFFICIENTLY POWERED. ENVIRONMENTALLY DRIVEN.

brother
at your side



MOTOR POWER

1/8 – 3HP (.1kW – 2.2kW)

MOTOR TYPES

- Motor (IP44, IP65)
- Brake motor (IP44, IP65 up to 1HP)
- Manual release brake motor (IP44)

GEAR RATIO

5:1 to 1500:1

WARRANTY

2-year limited warranty

IPMax

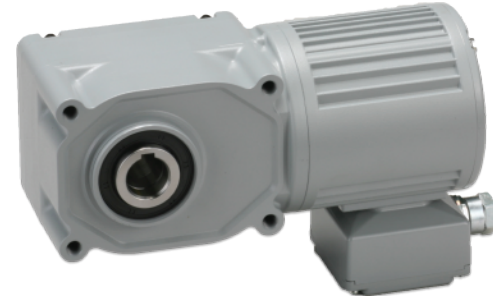
ULTRA EFFICIENCY. **MAXIMUM PERFORMANCE.**



G3 Series **Inline**



H2 Series **Right Angle**



F3 Series **Hollow Bore**

As government regulations continue to evolve, modifying your equipment down the road from ie3 to ie4 standards could be costly. Brother's IPMax line allows you to get ahead of the curve by implementing future-forward technology today.

- A high efficiency motor with hypoid gearing... the perfect all-in-one package
- Meets or exceeds the highest government-mandated standards
- ie4 performance helps save money thanks to lower run costs
- Lower operating temperatures help minimize cooling costs and prolong operating life
- 23% smaller and runs 24% cooler than comparable ie3 motors
- Gearmotors without a brake operate fanless up to and including 1 HP (all motors with a brake include a fan)

Constant torque range delivers savings and flexibility across the board. Are you planning for tomorrow? With Brother's IPMax Gearmotors, you can have the best of both worlds and true premium efficiency.

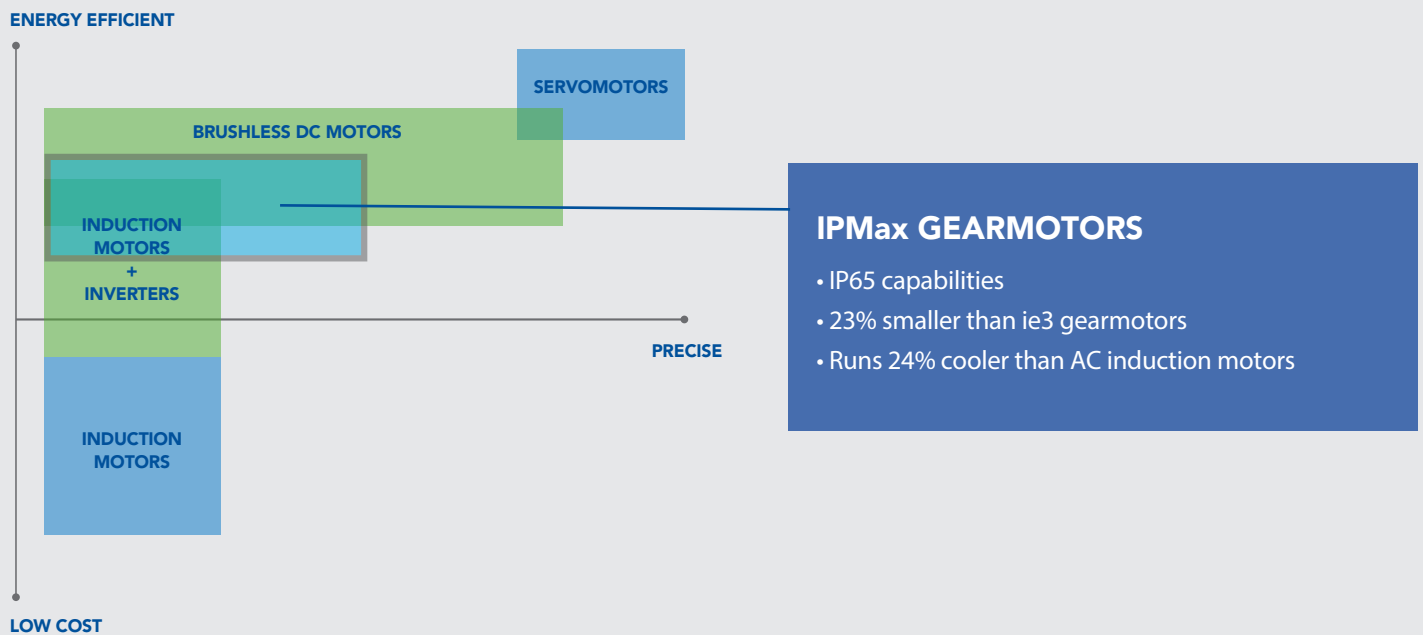
- No induction motor means improved efficiency
- More torque at lower speed helps saves money vs buying a large motor at a bigger expense
- Automatic restriction of non-instantaneous torque helps to protect the mechanical system
- Torque limit value can be switched in two steps via the input terminal
- Wider speed range and standardization of models provides flexibility for:
 - Fewer SKUs
 - Lower inventory
 - Less transactional costs
 - More efficient supply chain

GEARMOTORS

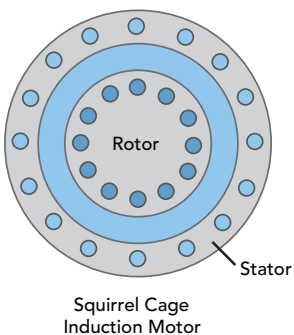
Brother is excited to introduce IPMax, which now completes Brother's full suite of solutions and further ensures that Brother has a Gearmotor to meet any need. In response to growing demand for ultra-efficient gearmotors, Brother proudly offers a line of interior permanent magnet (IPM) motors engineered specifically to meet tomorrow's challenges today.

- Synchronous no slip motor provides superior control
- Wide speed range can reduce need for multiple ratios
- Extreme high efficiency – class ie4 motor PLUS hypoid gearing
- High start and stop capabilities
- More torque in a compact and lighter package

Brother Gearmotor Functionality Analysis

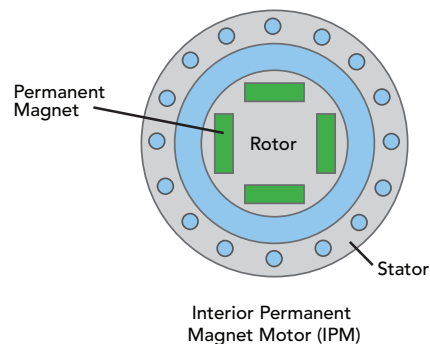


Construction of IPMax Gearmotor vs. AC Induction Gearmotor



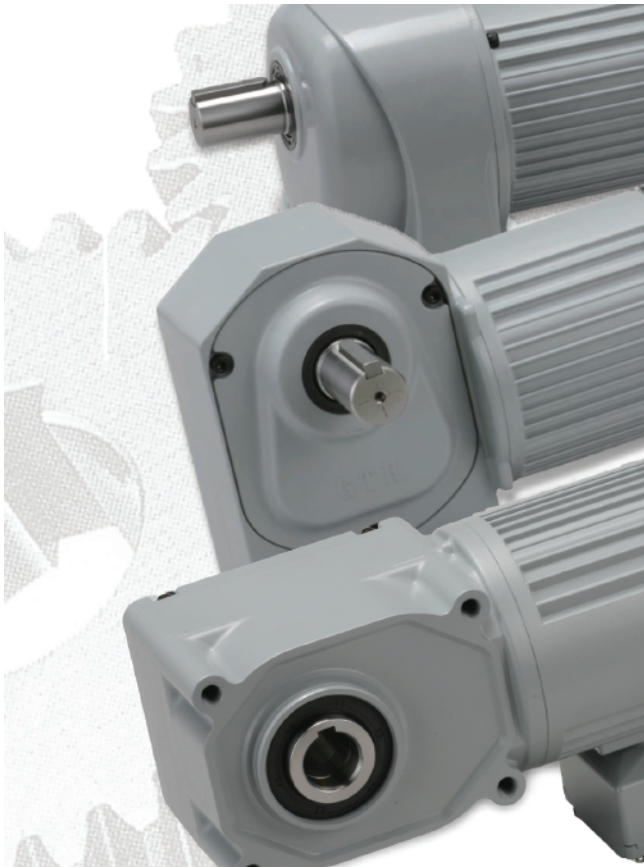
AC Induction Gearmotor

In an induction gearmotor, the magnetic field of the motor is induced by the rotation of the stator. High copper losses are incurred in the stator windings.



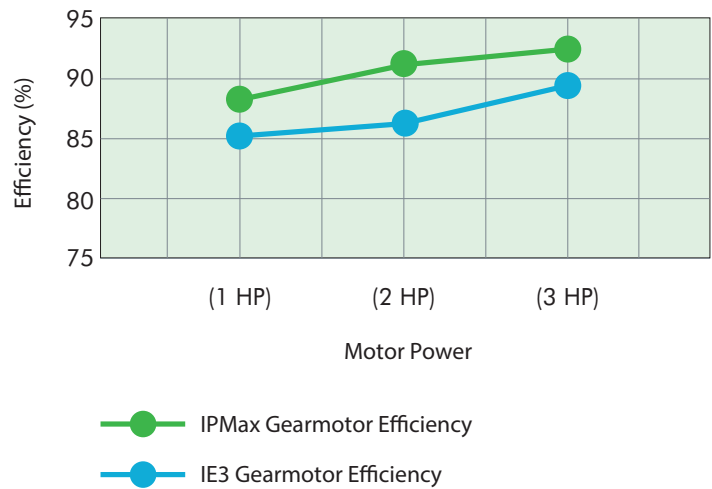
IPMax Gearmotor

The series of IPMax maximum performance gearmotors incorporate magnets embedded within the rotor, as opposed to on the surface. No losses are experienced in the rotor and considerably less copper losses occur in stator windings.



IPMax Gearmotor Efficiency Chart

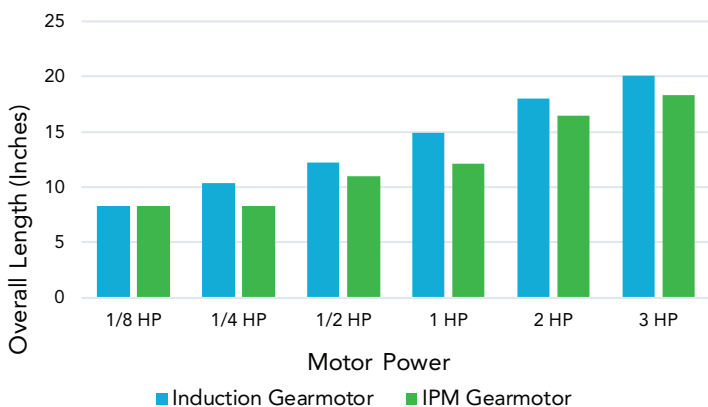
Brother's IPMax Gearmotors deliver superior efficiency to ensure that productivity and motor capacity are optimized across a range of power levels.



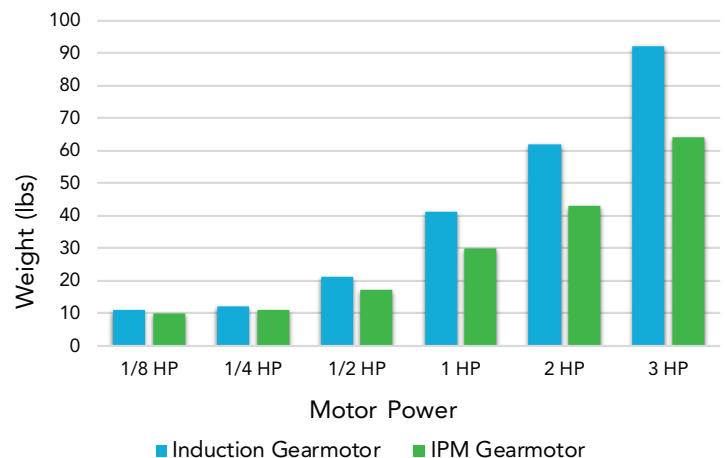
IPMax Gearmotor Size and Weight Comparisons

For the majority of motor capacities, Brother's IPMax Gearmotors are smaller in length and lighter in weight when measured against typical Induction Gearmotors.

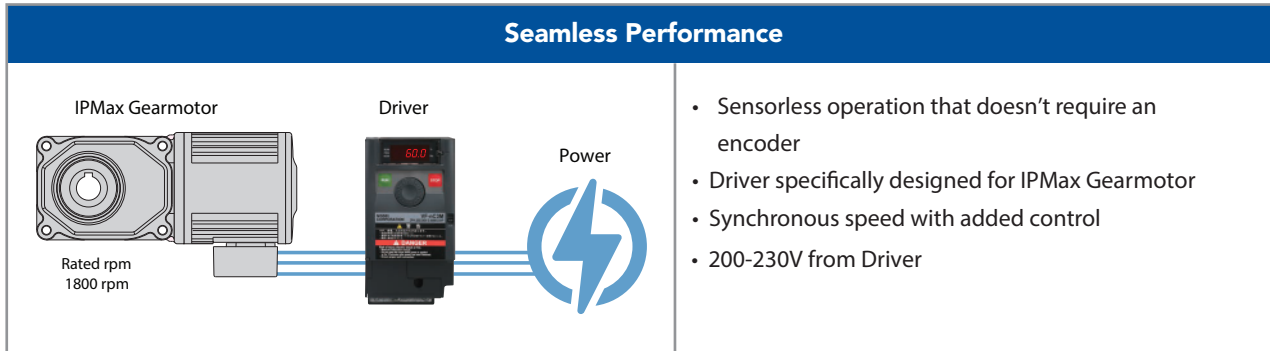
Overall Length Comparison



Overall Weight Comparison



IPMax Gearmotor and Driver... One powerful, integrated solution



Communications – Programmable I/O Terminals

- Flexibility to change I/O terminals based on application and external circuits
- Multiple functions can be assigned to input and output terminals simultaneously
- Simple and easy to use external circuit
- RS485 included as standard
- Modbus RTU supported

Protects the Mechanics by Limiting Torque

- Protection of the mechanical system by restricting the amount of torque generated by the motor
- A cycle loop for deceleration, contact stop, and constant sequence can be performed easily with an input signal

Brother's Premium-Efficiency Gearmotors... Synchronous speed and lightweight design for the most challenging applications

Wide synchronous speed range

- Helps save money with no encoder
- Constant speed with varying loads - speed remains the same no matter how it's loaded

Servo lock (electronic brake)

- Saves on the mechanical brake
- Holds the motor in position so it does not run
- Position holding torque of 60% can be generated continuously or at 150% if it is for a short period of time
- Can return to a previous position even if it is moved externally
 - Up to 10 electrical turns, 5 revolutions

IPMax

IPM MAXIMUM PERFORMANCE

EFFICIENTLY POWERED. ENVIRONMENTALLY DRIVEN.

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brother
at your side

Test and prototype an IPMax Gearmotor today.
Brother has a wealth of knowledge with sales, engineering, and
manufacturing support and the stability of a company with
100+ years in business.

Brother International Corporation, Gearmotor Division

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