F3

Increase Your Operational Efficiency and Productivity

CONVEYOR SERIES

OF **PREMIUM EFFICIENCY** GEARMOTORS

G3

brother
at your side

CONVEYOR SERIES GEARMOTORS

brother
at your side

CONVEYOR SERIES GEARMOTORS

INTRODUCING THE BROTHER

CONVEYOR SERIES

OF **PREMIUM EFFICIENCY** GEARMOTORS

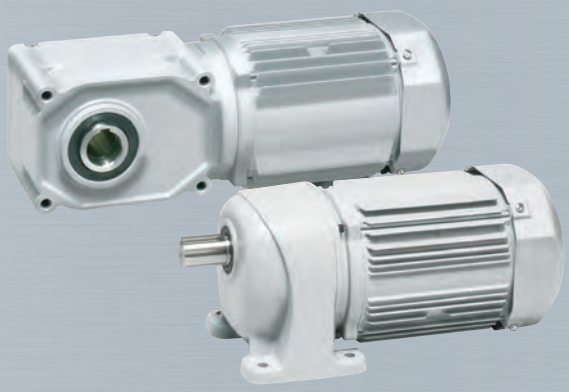
We keep your line *moving*.

Help reduce costly downtime on your conveyor line with virtually maintenance-free gearmotors that are sealed-for-life. Our universal mounting options offer maximum flexibility, so instead of designing a conveyor around a gearmotor, you can focus on the design of your machine first and have its components fit to your specification.

Brother's Conveyor Series gearmotors and reducers are ideal for eliminating chain and sprocket assemblies which are unsafe, cumbersome and difficult to maintain. And, they provide a highly efficient hypoid/helical combination that maintains a compact drive package at higher ratios.

FULL PRODUCT FEATURES:

Get faster ROI and long-term savings with Brother Premium Efficiency Gearmotors.



- Help eliminate costly downtime: All gearmotors come with high-grade grease standard, which effectively lubricates the gearmotors for life and eliminates costly downtime for lubrication changes all while helping to increase operational efficiencies and reduce maintenance and labor.
- Withstand the harshest environments: Permanently sealed motors with electrostatic application of high-quality paint assures consistently tough, water-tight, chemically-resistant units to withstand harsh conditions.
- Customizable configuration: Brother Gearmotors have multiple standard specifications, options and mounting positions to ensure compatibility.
- Replacing your chain and sprockets with a direct drive gearmotor allows you to have more flexibility in how you want to position your gearmotor.

ARE YOU **COMPLIANT?**

Brother Gearmotors in the 1-3 HP range are complaint with the new government (DOE) requirements for small electric motors that is effective June 1st, 2016.

CONVEYOR SERIES SIMPLE SELECTION CHART
CONFIGURE YOUR PART NUMBER (1/8 to 3HP)

DOE **COMPLIANT**

F3

Brother F3 RIGHT ANGLE HOLLOW TORQUE TABLE
(in-lb) Frame/Torque

Ratio	RPM	⅛HP		¼HP		½HP		1HP		2HP		3HP	
		Frame	Torque	Frame	Torque	Frame	Torque	Frame	Torque	Frame	Torque	Frame	Torque
5	360	20	19	25	40	30	81	35	159	45	300	45	451
7.5	240		28		61		123		221		460		672
10	170		38		81		168		300		619		902
12.5	144		47		106		212		380		761		1115
15	120		57		123		238		460		920		1345
20	90		76		168		327		619		1221		1796
25	72		97		212		407		761		1531		2248
30	60		115		238		486		920		1841		2699
40	45		159		327		654		1221		2442	50	3593
50	36		104		407		814		1531		3053	50	4496
60	30		221		486		982		1841		3682	50	5390

Benefits of selecting a direct mounted gearmotor over a chain and sprocket:

- **Streamlined Design –** direct mounting on side of conveyor delivers maximum operating efficiency
- **More Efficient –** no power loss due to direct mounting to the shaft
- **Simpler Operation –** fewer wearable parts
- **Safer Operation –** elimination of pinch points and exposed moving parts
- **Easier to Mount –** minimal fabrication is required
- **Less Maintenance –** fewer parts means less items to fail and no need to tension chain
- **Easier to Clean –** better for wash-down environments

G3

Brother G3 INLINE TORQUE TABLE
(in-lb) Frame/Torque

Ratio	RPM	⅛HP		¼HP		½HP		1HP		2HP		3HP	
		Frame	Torque	Frame	Torque	Frame	Torque	Frame	Torque	Frame	Torque	Frame	Torque
5	360	18	22.5	22	45	28	89	32	167	40	338	50	494
10	180		44		89		178		335		668		980
15	120		67		134		268		502		1006		1474
20	90		86.7		178		357		669		1335		1959
25	72		113		223		446		837		1673		2454
30	60		130	22	268	28	535	32	1004	40	2003	50	2939
40	45		173	22	346	28	691	32	1296	40	2592	50	3797
50	36		217	22	432	28	864	32	1620	40	3234	50	4751
60	30	22	260	22	519	28	1037	32	1944	40	3884	50	5696

Benefits of using Premium Efficiency ie3 when compared to Standard ie1 motor:

- Improves overall plant efficiency by helping reduce energy costs
- Increases ROI and long term savings
- Minimizes maintenance and improves overall operations
- Increases flexibility due to the wide speed range (stock reduction)
- Produces less noise and runs cooler with less mechanical stresses
- Environmentally friendly - RoHS compliant

BROTHER'S eCOAT PAINT CAN HANDLE SOME OF THE TOUGHEST APPLICATIONS OUT THERE

- Assures consistently tough, water-tight, chemically-resistant units using high quality acrylic paint
- Prevents cleaners from penetrating and chipping paint and paint hardness prevents scratches and scrapes
- Provides consistent protection of the casting from all sorts of environmental conditions such as caustic washdown in food plants
- Uses the same dipping process used on most automobile frames to ensure full and complete paint coverage

ARE YOU COMPLIANT?

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BROTHER GEARMOTORS E-COAT PAINT TEST RESULTS*: ✔= PASS ✖= FAIL

		PERFORMANCE			
TEST ITEMS	CONDITIONS	COMPETITOR'S POWDERCOAT ALKYD MELAMINE	RATING	BROTHER ELECTROCOAT ACRYLIC MELAMINE	RATING
ADHESION	CROSS CUT TEST	15 PIECES CHIPPED / PEELED	✖	NO CHIPPING / NO PEELING	✔
GREASE / OIL RESISTANCE	GREASE 100°C 500 HOURS	10 PIECES CHIPPED / PEELED	✖	NO CHIPPING / NO PEELING	✔
HUMIDITY RESISTANCE	50°C ABOVE RH98% 500 HOURS	100 PIECES CHIPPED / PEELED	✖	NO CHIPPING / NO PEELING	✔
WATER RESISTANCE	BOILING WATER 1 HOURS	93 PIECES CHIPPED / PEELED	✖	NO CHIPPING / NO PEELING	✔
SALT SPRAY RESISTANCE	5% NACI 35°C 500 HOURS	NO CHANGE	✔	NO CHANGE	✔
HARDNESS RESISTANCE	ULTRAVIOLET EXPOSURE	SOFT	✖	NO CHANGE	✔
ACID RESISTANCE	ADHESION	NO CHANGE	✔	NO CHANGE	✔

*Comparative information obtained from internal paint performance testing.

CONFIGURE YOUR PART NUMBER

PART NUMBER CONFIGURATION FOR BROTHER CONVEYOR SERIES

TYPE	MOUNTING STYLE	FRAME	SHAFT / MATERIAL	GEAR RATIO	ENCLOSURE
G3: G3 SERIES F3: F3 SERIES	**L:** FOOT MOUNT *(G3)* **F:** FLANGE MOUNT *(G3 above 32 Frame)* **K:** FLANGE MOUNT *(G3 up to and including 32 Frame)* **S:** HOLLOW SHAFT *(F3)*	G3 F3 18 20 22 25 28 30 32 35 40 45 50 50 55	G3 AND F3 SERIES **N:** COMMON CODE STAINLESS STEEL (IP 65) G3 AND F3 SERIES **S:** COMMON CODE	7 = 7.5:1 10 = 10:1 12 = 12.5:1 120 = 120:1 12X = 1200:1	**M:** STANDARD *(IP44)* **W:** WASHDOWN *(IP-65)*
G3 F3	K S	28 45	N N	25 60	M M

MOTOR SPECIFICATION	MOTOR POWER	SUPPLY VOLTAGE	TERMINAL BOX	BRAKE & OPTIONS	SPECIAL SPEC.
F: IE1 *(1/8)* *(F CLASS INSULATION AND INVERTER DUTY)* **V:** IE3 *(1 TO 3 HP)* *(F CLASS INSULATION AND INVERTER DUTY)*	1: 1/8 HP *(100W)* 2: 1/4 HP *(200 W)* 4: 1/2 HP *(400 W)* 6: 1HP *(750W)* 8: 2HP *(1500W)* 9: 3HP *(2200W)*	**A:** 208, 230, 400, 460 / V60 60 / 50 / 60Hz	**E:** DIE CAST BOX	**N:** No Brake **B2:** 200V Brake **B4:** 400V Brake **J2:** Manual Release 200V Brake **J4:** Manual Release 400V Brake **V2:** Washdown 200V Brake **V4:** Washdown 400V Brake	Blank: Standard Spec. **X:** Special Spec
V V	6 9	A A	E E	N J4	X

WHAT SETS BROTHER GEARMOTORS APART:

STRENGTH

- Superior industry knowledge with decades of real-world experience
- Rugged products manufactured on state-of-the-art equipment
- Innovative research and development teams in multiple locations

RESPONSIVENESS

- Dedicated US manufacturing and assembly facility in Tennessee for enhanced support
- Quick delivery available with shipping of small lots in as little as 3-5 days
- Over 27,000 unique SKUs available at US Manufacturing Facility
- On-site manufacturing technologies and best-in-class equipment
- Emergency same or next day delivery available

CONVENIENCE

- All of your gearmotor needs easily fulfilled by one respected company
- Integrated fields of global support, from engineering and manufacturing to sales and customer service
- Enhanced convenience with 3D Models available for download on BrotherGearmotors.com

INNOVATION

- Global leader in gearmotor manufacturing committed to providing complete satisfaction by delivering today's finest power transmission products
- Dedication and long-term partnership with our customers worldwide
- Expertise with over 50 years of gear manufacturing experience
- 90% of our gearmotor components are manufactured in-house on state-of-the-art equipment
- Best in class warranty – 2 years limited warranty

WHAT MAKES THE **BROTHER CONVEYOR** SERIES THE BETTER CHOICE

GEARING
100% hardened steel helical gearing: helical gearing runs quieter and provides greater torque and shock load capacity than competitive spur/helical selectively hardened combinations.

BEARINGS
Premium ball bearings provide quiet and efficient torque transfer and high overhung load capacity.

LUBRICANT
High grade grease standard.

SHAFT SEALS
Triple lip seal, spring loaded shaft seal over a wider range of operating temperatures.

HOUSING SEALS
O ring seals provide a longer and more reliable housing seal compared to competitive gasket sealed housings.

MOUNTING
Universal and flexible mounting in any direction without fear of oil leakage, dangerous factory conditions or poor gearbox lubrication.

HOUSING
Die cast aluminum which is light weight, corrosion resistant and provides good heat dissipation, strength and durability.

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brother
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CONVEYOR SERIES GEARMOTORS

Contact your Brother Representative today for more information.

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Check out our website for updates.
BrotherGearmotors.com

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