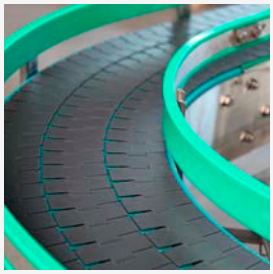
Product Overview

Drive Solutions with Bauer Geared Motors



Bauer Gear Motor®
Altra Industrial Motion

Helical-Geared Motor
Series BG

Compact and economical inline helical geared motors for long lifetime under arduous conditions.

- Motor power from 0.03 kW to 75 kW
- 13 gearbox sizes for torques from 20 Nm to 18500 Nm
- New attachment possibilities with low design height
- High efficiency through 2 stage base design
- Enclosure IP65 as standard

Parallel Shaft Geared Motor
Series BF

Shaft-mounted geared motors with integrated torque arm are easily integrated and economically applied.

- Motor power from 0.03 kW to 75 kW
- 10 gearbox sizes for torques from 90 Nm to 18500 Nm
- Gearbox housing with integral torque arm
- High efficiency through 2 stage base design
- Enclosure IP65 as standard

Bevel-Geared Motor
Series BK

Power-dense, right-angle, bevel-geared motors ensure the highest efficiency especially when used with frequency inverters.

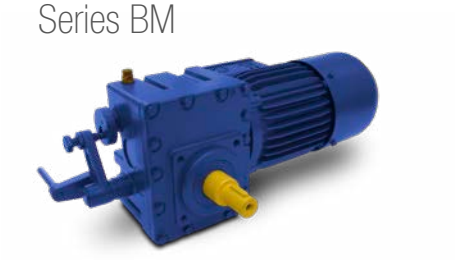
- Motor power from 0.03 kW to 75 kW
- 10 gearbox sizes for torques from 80 Nm to 18500 Nm
- The right angle gearbox with universal attachement possibilities
- High efficiency through 2 stage base design
- Enclosure IP65 as standard

Worm-Geared Motor
Series BS

Economical, right-angle, worm-geared motors install easily in the tightest applications.

- Motor power from 0.03 kW to 5.5 kW
- 8 gearbox sizes for torques from 25 Nm to 1000 Nm
- Hollow shaft version already available from 25 Nm
- High loadable worm gearing for long lifetime
- Enclosure IP65 as standard

Monorail Geared Motors
Series BM



A complete range of geared motors for light and heavy load monorail applications.

- Torques from 30 Nm up to 680 Nm
- Radial force up to 25.000 N
- Flexible mounting on the running gear
- Enclosure IP65 as standard
- Improved efficiency – lower energy consumption – ideal as travelling drives
- Reverse motion of the gearbox is possible

HiflexDRIVE
Standard Design

The HiflexDrive consists of two gear sizes BK17 and BK08.

- **Gearbox BK04** [3]
  Torque [1] 80 Nm
  Ratios [2] 7,25 - 63,33
- **Gearbox BK08**
  Torque [1] 200 Nm
  Ratios [2] 4,44 - 102,5
- **Gearbox BK17**
  Torque [1] 330 Nm
  Ratios [2] 4,54 - 108,6
- **Motors**
  Power rating [2] 0,18 kW ... 3,0 kW
  Efficiency Classes w/o, IE1 through IE4
  Mains supply 110 V ... 690 V, 50/60 Hz
  Enclosure IP65 (Standard)

[1] Torque is dependent on ratio [2] Ratio and power is dependent on the motor size [3] On request

HiflexDRIVE
Aseptic Design

Compact and space saving geared motors fullfil the highest hygiene standards through their smooth and water repellent coating.

- FDA conform Aseptic coating
- Acid and alkali resistant coating (pH 2 through pH 12)
- Rounded edges and corners
- Motor without cooling ribs and fan
- Flexible connection technology
- High enclosure IP67 as standard
- IP69K optional

HiflexDRIVE
Stainless Steel Design

The stainless steel housing provide these geared motors with the highest mechanical resilience in washdown applications.

- Stainless steel housing
- Highest mechanical resilience
- Rounded edges and corners
- Motor without cooling ribs and fan
- Flexible connection technology
- High enclosure IP67 as standard
- IP69K optional

AsepticDRIVE

Geared motors for the food & beverage industry as well as for all applications with high cleaning intensity or ambient conditions such as dust, fluff etc.

- Motor without fan and cooling fins
- Motor power
  DA08 0.25 kW - 0.55 kW
  DA09 0.37 kW - 1.5 kW
  DA11 1.1 kW - 2.2 kW
- Available with helical, parallel shaft, bevel and worm gears
- Motor winding in Iso Class F with thermistors as standard
- Enclosure IP67 and IP69K with acid and alkali resistant coating as standard
- Motor connection through standard stainless steel plug connector

CleanDRIVE

Geared motors for the food & beverage industry in enclosure IP 66 with acid and alkali resistant coating as standard.

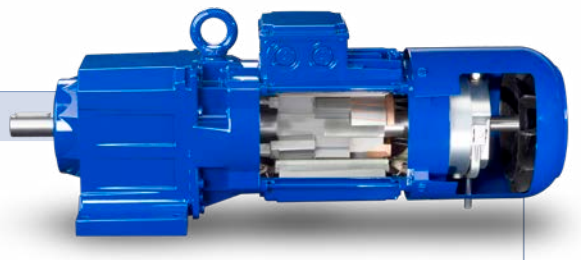
- Motor without fan and cooling fins
- Motor power
  DA05 0,06 kW - 0,25 kW
  DA08 0,25 kW - 0,55 kW
- Motor winding in Iso Class F with thermistors as standard
- Motor connection through standard terminal box or stainless steel cable gland

Surface Protection
C1 to C5-M

Maximum corrosion protection for motors that are exposed to extreme environmental conditions.

- **C1** Indoor areas, very low environmental pollution
- **C2** Outdoor areas, low environmental pollution
- **C3** Indoor and outdoor areas, medium environmental pollution (Production area with low humidity and air pollution)
- **C4** Indoor and outdoor areas, very high environmental pollution (Production area with high humidity and air pollution)
- **C5-I** Outdoor areas, very high environmental pollution, in aggressive atmospheres
- **C5-M** Coast and Offshore areas with high salt concentration
- **Im2** Brackwater

Energy Saving Geared Motors



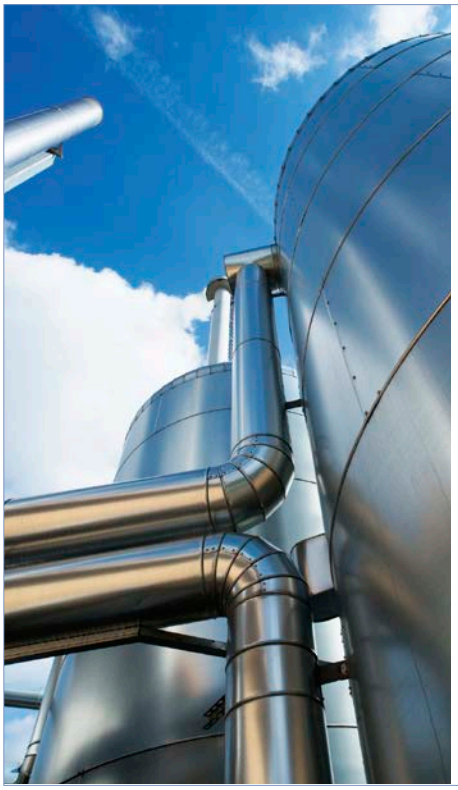
η	Advantages	Your benefits
without	• Motor design according to duty • Small installation volume and minimum weight • Higher motor powers	• Economical • Small installation space • Efficient motor utilisation • Smaller motor frame size • Tailored to customer application
IE1	• Standard efficiency in continuous operation • Small installation volume and minimum weight	• Economical • Small installation space • Can still be used under certain conditions
IE2	• Higher efficiency in continuous operation • Higher start-up torque	• Economical • Small installation space • Up to 34% more energy savings compared to IE1 • Lower rated motor power than IE1 for dynamic load applications • Short amortisation period
IE3	• Premium efficiency in continuous operation • Higher start-up torque	• Up to 18% more energy savings compared to IE2 • Meets global minimum efficiency requirements
IE4	• Super Premium efficiency • Speed control with highest possible efficiency • Small installation volume and minimum weight • Considerably better efficiency than IE2 motors, even under partial load conditions • High torque and power density • High overload capacity	• Up to 39% more energy savings compared to IE2 • Short amortisation period • Small installation space • Compact drive unit • More torque with same size motor frame • Requires smaller installation space with same power • Reduced number of variants thanks to higher efficiency over the entire torque range • Design security thanks to spare drive unit capacity • Technology leader • Already meets the efficiency requirements of future standards

Motor Technologies IE1• IE2 • IE3 • IE4 • IE5

IE-Class \ kW	0.12	0.18	0.25	0.37	0.55	0.75	1.1	1.5	2.2	3	4	5.5	7.5	9.5	11	15	18.5	22	30	37	45
IE1 Asynchronous	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
IE2 Asynchronous	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
IE3 Asynchronous	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
IE4 Asynchronous					●	●	●	●	●	●	●	○	○	○	○	○	○	○			
IE3 PMSM								●	●	●	●	●	●	●	●	●					
IE4 PMSM		○	○	○	●	●	●	●	●	●	●	●	●	●	●						
IE5 PMSM							●	●	●	●	●	●									

● = in planning

Explosion-proof BAUER Geared Motors



Geared motors suitable for use in explosive areas:

GAS Zones 1, 2
DUST Zones 21, 22

DXD	Zone 1	II 2 G Ex d(e) IIC T3…T4 Gb	0.12	… 75	kW
DXE	Zone 1	II 2 G Ex e IIC T1…T4 Gb	0.12	… 11	kW
SXE	Zone 1	II 2 G Ex e IIC T1…T4 Gb	0.55	… 15	kW
DXN	Zone 2	II 3 G Ex nA IIC T3 Gc	0.03	… 30	kW
DXC	Zone 21	II 2 D Ex tb IIIC T160°C IP66 Db	0.03	… 30	kW
DXC	Zone 21	II 2 D Ex tb IIIC T120°C IP66 Db	0.03	… 22	kW
SXC	Zone 21	II 2 D Ex tb IIIC T120°C…160°C IP66 Db			
DXS	Zone 22	II 3 D Ex tc IIIC T120°C…160°C IP65 Dc	0.03	… 30	kW
DXD	Zone 1/21	II 2 G Ex d(e) IIC T3…T4 Gb			
		II 2 D Ex tb IIIC T120°C…160°C IP65 Db	0.12	… 75	kW
DXE	Zone 1/21	II 2 G Ex e IIC T1…T4 Gb			
		II 2 D Ex tb IIIC T120°C…160°C IP66 Db	0.12	… 11	kW
SXE	Zone 1/21	II 2 G Ex e IIC T1…T4 Gb			
		II 2 D Ex tb IIIC T120°C…160°C IP66 Db	0.55	… 15	kW
DXS	Zone 2/22	II 3 G Ex nA IIC T1…T3 Gc			
		II 3 D Ex tc IIIC T120°C…160°C IP65 Dc	0.03	… 30	kW

Series S in IE4* for explosion hazardous areas

Design torque M_N:	5 Nm – 48 Nm
Rated power P_N:	0,75 kW – 15 kW
Protection type: Increased Safety Zone 1 Ex II 2 G Ex e IIC T1 - T3 Gb	S.XE.08MA4 S.XE.08LA4 S.XE.09SA4 S.XE.09XA4 S.XE.11SA6 S.XE.11MA6 S.XE.11LA6
Dust explosion protection Zone 21 Ex II 2 D Ex tb IIIC T 160°C ... 120° Db	S.XC.08MA4 S.XC.08LA4 S.XC.09SA4 S.XC.09XA4 S.XC.11SA6 S.XC.11MA6 S.XC.11LA6

*Individual motor designs can show lower efficiency levels as IE4 at the nominal operating point.

IP68 gear motor for submersible operation

IP68 geared motors are most suitable where it is required to convey or transport foul, waste, river or rain water, and all types of sludge-containing waters in communal or industrial areas. They are frequently used in agitators for mixing, homogenising, etc. or in extremely wet areas or completely submersed under water.

- Special design for continuous submersible operation
- Gear housing and motor are completely waterproof
- Maximum leakage protection
- Special seals available for the output shaft
- Electronic leakage detection is available as an option for early recognition of errors
- Energy-saving asynchronous and permanent magnet motors up to IE4
- IP68 motors with brake available
- Gear motor can be operated at constant power in air or in a medium
- Fully cast cable to ensure maximum level of sealing
- Usable down to water depths of 5 m (greater depths also possible)
- Special coating allows extreme underwater conditions (coating resistant against many aggressive chemicals)
- Optionally also available with plug version of the cable
- Power classes: 0.37 – 11 kW (in Ex version on request)
- Use in potentially explosive atmospheres possible (e.g. Atex Zone 1)

Compact geared motor solution

EtaK2.0

- **Adapted motor windings** matched to VFD for optimised efficiency
- **Optimised motor parameters** over the entire speed and torque range
- Motor and VFD **combinations surpass** IES 2 system efficiency class according to EN 50598-2 and IEC 61800-9-2
- **All necessary options** integrated very compactly, including safety functions

Motor combinations

Permanent magnet synchronous motors (PMSM)

P_N [kW]	Type	n_N [rpm]	P_{VFD} [kW]
0,55	S08MA4	3000	0,55
0,55	S08MA4	1500	0,55
0,75	S08MA4	3000	0,75
0,75	S08MA4	1500	0,75
1,1	S08MA4	3000	1,1
1,1	S08LA4	1500	1,1
1,5	S08MA4	3000	1,5
1,5	S08LA4	1500	1,5
1,5	S09SA4	1500	1,5
2,2	S08MA4	3000	2,2
2,2	S08LA4	3000	2,2
2,2	S09SA4	1500	2,2
2,2	S09XA4	1500	2,2
3	S08LA4	3000	3
3	S09XA4	1500	3
3	S11SA6	1500	3
4	S09SA4	3000	4
4	S11SA6	1500	4
4	S11MA6	1500	4
5,5	S09XA4	3000	5,5
5,5	S11MA6	1500	5,5
5,5	S11LA6	1500	5,5
7,5	S11SA6	3000	7,5
7,5	S11MA6	3000	7,5
7,5	S11LA6	1500	7,5

Asynchronous motors (ASM)

		Base frequency 50 Hz Motor: 350V/50Hz/Y		Base frequency 87 Hz Motor: 202V/50Hz/D	
P_N 50Hz [kW]	Typ	P_{FU} [kW]	I_N [A]	P_{FU} [kW]	I_N [A]
0,12	DHE06LA4	0,37	1,3	0,37	1,3
0,18	DHE06LA4	0,37	1,3	0,37	1,3
0,25	DHE07LA4	0,37	1,3	0,55	1,8
0,37	DHE08MA4	0,37	1,3	0,75	2,4
0,55	DHE08LA4	0,55	1,8	1,1	3,2
0,75	DHE08XA4	0,75	2,4	1,5	3,9
1,1	DHE09LA4	1,1	3,2	2,2	5,6
1,5	DHE09XA4	1,5	3,9	3	7,3
2,2	DHE09XB4	2,2	5,6	4	9,5
3	DHE11MA4	3	7,3	5,5	13
4	DHE11LA4	4	9,5	7,5	16,5
5,5	DHE11LB4	5,5	13	-	-
7,5	DHE13LA4	7,5	16,5	-	-

The motor combinations listed here are subject to change. Please contact our staff for more information.

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125464 Moscow - Russia
+7 495 6420468

The Brands of Altra Industrial Motion

Couplings

Ameridrives
www.ameridrives.com

Bibby Turboflex
www.bibbyturboflex.com

Guardian Couplings
www.guardiancouplings.com

Huco
www.huco.com

Lamiflex Couplings
www.lamiflexcouplings.com

Stromag
www.stromag.com

TB Wood's
www.tbwoods.com

Geared Cam Limit Switches

Stromag
www.stromag.com

Electric Clutches & Brakes

Inertia Dynamics
www.idicb.com

Matrix
www.matrix-international.com

Stromag
www.stromag.com

Warner Electric
www.warnerelectric.com

Linear Products

Warner Linear
www.warnerlinear.com

Engineered Bearing Assemblies

Kilian
www.kilianbearings.com

Heavy Duty Clutches & Brakes

Industrial Clutch
www.indclutch.com

Twiflex
www.twiflex.com

Stromag
www.stromag.com

Svendborg Brakes
www.svendborg-brakes.com

Wichita Clutch
www.wichitaclutch.com

Belted Drives

TB Wood's
www.tbwoods.com

Gearing

Bauer Gear Motor
www.bauergears.com

Boston Gear
www.bostongear.com

Delroyd Worm Gear
www.delroyd.com

Nuttall Gear
www.nuttallgear.com

Overrunning Clutches

Formsprag Clutch
www.formsprag.com

Marland Clutch
www.marland.com

Stieber
www.stieberclutch.com

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