

## OVER 100 YEARS OF INNOVATION

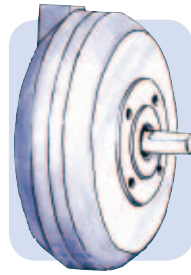
### e-TORQ™

#### UNIQUE HIGH-PERFORMANCE DRIVE SYSTEM

The e-TORQ motors employ a unique electromagnetic design to improve efficiency, minimize size, and maximize torque. They are ideal for OEM applications where high torque, very compact design, enclosed construction, and economy are necessary.

e-TORQ motors are brushless DC servo motors that can run smoothly at extremely low speeds without cogging or velocity fluctuations (ISV). Their high torque capability can eliminate costly gearboxes and remove the risk of lubricant leaks. The e-TORQ motors are available in widths of less than four inches, with diameters ranging from 7, 9 to 14 inches and larger, delivering more than 100 lb-in. at speeds of up to 6,000 rpm. Custom designs are offered with a wide range of special shaft, through hole, or custom mounting arrangements.

- Zero cogging over full speed range
- No iron saturation for maximum torque linearity
- No lamination core losses yield very high efficiency
- Ten times peak torque is available

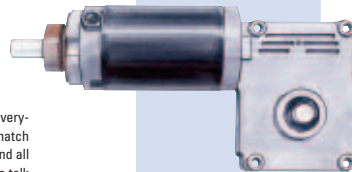
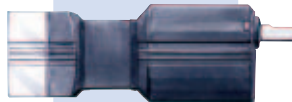


### INTEGRAmotor™

#### BRUSHLESS DC MOTOR OR GEARMOTOR WITH BUILT-IN PWM CONTROL

The INTEGRAmotor, 24V, Brushless DC products integrate three motion control components into one compact package. The perfect match of motor, speed control, and gearhead provide simplified wiring, reduced panel space, faster assembly times, and lower system costs.

- INTEGRAmotors with built-in PWM speed control. 22B/SR models for analog speed signal, and 22B/FV models for PWM speed signal input
- Integral gear reducer increases torque and reduces speed
- Helical & spur gearing for high efficiency (parallel shaft gearmotors only)
- Oil lubrication for long life; right angle gearmotors are lubricated with grease
- Unvented gearhousing for universal, horizontal mounting
- Output torque ratings chosen for long, reliable life
- cURus (UL recognized for U.S.A. and Canada), CE mark



### CUSTOM SOLUTIONS

#### YOUR SPECIFICATIONS, NO COMPROMISES.

From special performance requirements to unique mounting configurations—and everything in between—the Bodine MotionPro team can design a custom solution to match your exact specifications. Nearly half of all the motors we make are customized, and all of them come with the end-use reliability we're famous for. Call 1-800-7-BODINE to talk to an application engineer.



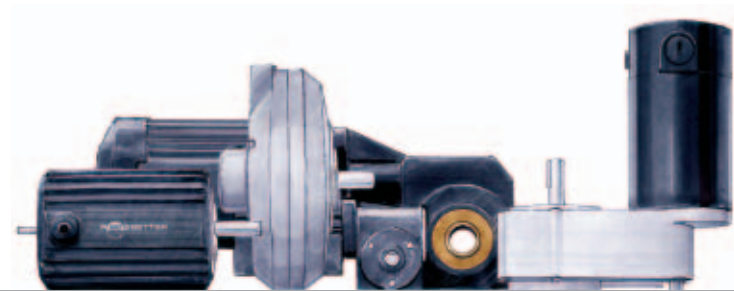
2500 WEST BRADLEY PLACE | CHICAGO, ILLINOIS U.S.A. 60618 | 1-800-7BODINE | WWW.BODINE-ELECTRIC.COM



MOTORS

GEARMOTORS

CONTROLS



## BODINE PRODUCTS AT A GLANCE

After you have determined the Bodine product that best fits your needs, be sure to visit [www.bodine-electric.com](http://www.bodine-electric.com). There you will find the most up-to-date specifications, 2-D and 3-D CAD drawings and models, list prices and ordering information for all of the over 1,000 stock and standard products we offer.

### AC INDUCTION

- Available with most common AC winding types:
  - Pacesetter™, 3-phase, inverter duty models
  - Permanent split capacitor, 1-phase; impedance protected and torque winding models available in some frame sizes
  - Split-phase models, 1-phase with starting switch
- Totally enclosed construction; fan cooled and non-fan cooled models
- UL recognized, CSA certified, and with CE mark

## MOTORS WITHOUT GEARING

- For direct drive applications
- For high speed applications
- Ball bearings
- Totally enclosed construction
- Balanced rotors or armatures
- Models with NEMA mountings
- Models with metric mountings
- 126 models available

**Horsepower**  
1/600-3/4  
**Speed Ranges (rpm)**  
120-3,600  
**Torque (oz-in.)**  
1.1-445



## PARALLEL SHAFT GEARMOTORS

- High efficiency gearing
- Fits in places where right angle gearmotors don't
- Unvented gearhousings for multiple mounting positions
- Lubricated for life of gearmotor, without maintenance
- Up to five stages of gearing for very slow speeds
- Seals on input shaft and output shaft
- 484 models available

**Horsepower**  
1/2000-3/4  
**Speed (rpm)**  
0.9-340  
**Torque (lb-in.)**  
8.9-1,000



## RIGHT ANGLE GEARMOTORS

- **Hollow shaft models available** in all right angle products
- Quiet worm gearing
- Worm gearing resists shock loads
- Many gear ratios are self-locking
- Fits in places where parallel shaft gearmotors don't
- Unvented gearhousing for multiple mounting positions
- Lubricated for life of gearmotor, without maintenance
- Seals on input shaft and output shaft
- 322 models available

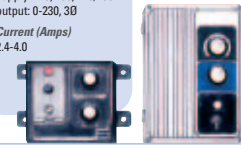
**Horsepower**  
1/17-3/4  
**Speed (rpm)**  
5.9-340 rpm  
**Torque (lb-in.)**  
8-380



## MATCHED ELECTRONIC SPEED CONTROLS

- Models for each motor type:
  - Permanent Magnet DC
  - Three phase AC Induction (inverter-duty)
  - Brushless DC
- Models with NEMA enclosures
- Open chassis models
- 2 year warranty when purchased with Bodine motors
- 50 models available

**Horsepower**  
1/2-1  
**Voltage supply:** 115, 230, 115/230  
output: 0-230, 0-30  
**Current (Amps)**  
2.4-4.0



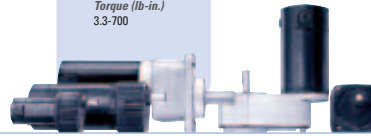
## PERMANENT MAGNET DC

- Low cost
- 24, 90/130, and 180 volt models in stock
- Adjustable speed and high starting torque
- Linear speed/torque curve
- Totally enclosed construction
- Replaceable brushes
- Different voltage and speed ratings available
- Dynamic braking
- UL recognized, CSA certified, and with CE mark
- Models with accessory shaft for mounting a brake or encoder

**Horsepower**  
1/50-1/2  
**Speed Ranges (rpm)**  
100-11,500  
**Torque (oz-in.)**  
8-180



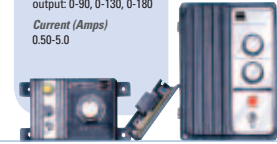
**Horsepower**  
1/25-1/2  
**Speed (rpm)**  
5.6-660  
**Torque (lb-in.)**  
3.3-700



**Horsepower**  
1/25-1/2  
**Speed (rpm)**  
0.7-500  
**Torque (lb-in.)**  
5.2-380



**Horsepower**  
1/17-7/16  
**Voltage supply:** 115, 115/230  
output: 0-230, 0-130  
**Current (Amps)**  
0.50-5.0



## BRUSHLESS DC

- For detailed information about eTORQ and INTEGRAMotor products please see back page
- Adjustable speed and high starting torque
- Linear speed/torque curve
- Totally enclosed construction
- Zero Maintenance, longest life
- Dynamic braking
- 22B and 34B models UL recognized, and CSA certified
- Models with accessory shaft for mounting a brake or encoder
- 60° built-in commutation
- Optional built-in encoder for custom models

**Horsepower**  
1/16-2  
**Speed Ranges (rpm)**  
100-10,000  
**Torque (oz-in.)**  
20-151



**Horsepower**  
1/16-3/8  
**Speed (rpm)**  
8-500  
**Torque (lb-in.)**  
5.8-350



**Horsepower**  
1/8-3/8  
**Speed (rpm)**  
42-500  
**Torque (lb-in.)**  
11-109



**Horsepower**  
1/8-3/8  
**Voltage supply:** 24VDC, 115VAC  
output: 0-24, 0-90, 0-130  
**Current (Amps)**  
3.0-22

