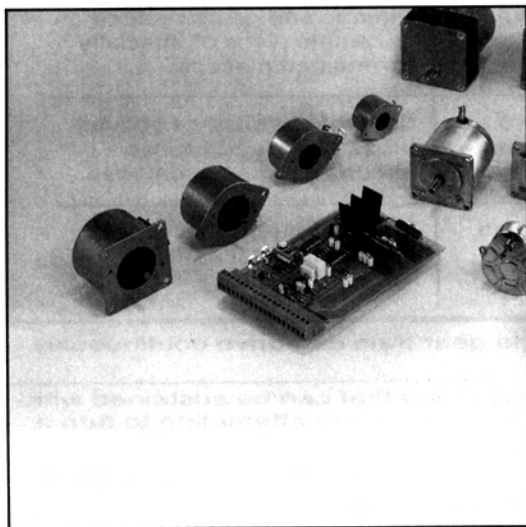


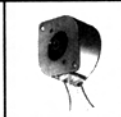
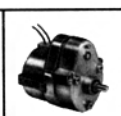
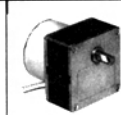
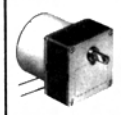
SUB-FRACTIONAL MOTORS

Synchronous Motors and Gear Motors



- ↔ High Torque
- ↔ Permanent Magnet
- ↔ Oil Impregnated Bearings
- ↔ International Standards
- ↔ Reversible or Uni-Directional
- ↔ Wide Range of Speed, Shaft and Voltage Options
- ↔ Typical Applications Include Pumps, Chart Recorders, Displays, Medical and Office Equipment

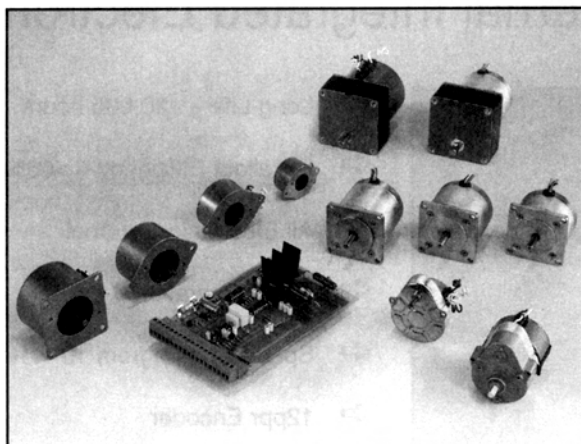
Direct Drive Motors

82510 - Synchronous - Reversible - Perm. Magnet 1.4" Diameter 300 RPM 1.9 ozin Starting Torque 2.1 ozin Running Torque		82550 - Synchronous - Reversible - Perm. Magnet 1.4" Diameter 600 RPM 1.4 ozin Starting Torque 1.7 ozin Running Torque		82520.4 - Synchronous - Reversible - Perm. Magnet 2.0" Diameter 450 RPM 3.5 ozin Starting Torque 3.9 ozin Running Torque		82530 - Synchronous - Reversible - Perm. Magnet 2.3" Diameter 300 RPM 7.3 ozin Starting Torque 8.2 ozin Running Torque	
GEARED MOTORS							
82344 - Synchronous - Unidirectional - Economical 300 ozin Static Torque 75 ozin Dynamic Torque 155 ozin Running Torque at 1 RPM		82334 - Synchronous - Unidirectional - High Torque 300 ozin Static Torque 75 ozin Dynamic Torque 580 ozin Running Torque at 1 RPM		82305 - Synchronous - Unidirectional - Heavy Duty 70 lbin Static Torque 300 ozin Dynamic Torque 580 ozin Running Torque at 1 RPM		82514 - Synchronous - Reversible - Economical 300 ozin Static Torque 75 ozin Dynamic Torque 460 ozin Running Torque at 1 RPM	
82524 - Synchronous - Reversible - High Torque 300 ozin Static Torque 75 ozin Dynamic Torque 1200 ozin Running Torque at 1 RPM		82529 - Synchronous - Reversible - Heavy Duty 70 lbin Static Torque 300 ozin Dynamic Torque 1200 ozin Running Torque at 1 RPM		80537 - Synchronous - Reversible 180 lbin Static Torque 45 lbin Dynamic Torque 120 lbin Running Torque at 1 RPM		80547 - Synchronous - Reversible 180 lbin Static Torque 45 lbin Dynamic Torque 234 lbin Running Torque at 1 RPM	

SUB-FRACTIONAL MOTORS

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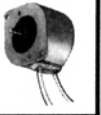
Stepping Motors and Gear Motors



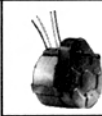
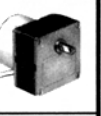
- ↔ High Torque
- ↔ Permanent Magnet
- ↔ 7.5° and 15° Bi Polar and Uni-Polar
- ↔ Oil Impregnated Bearings
- ↔ Wide Range of Gear Ratios and Shafts
- ↔ Typical Applications Include Pumps, Strip Chart Recorders, Imaging Equipment, Medical and Office Equipment

MOTORS

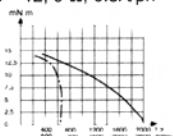
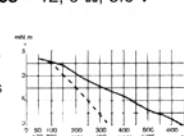
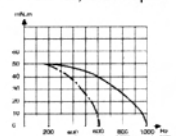
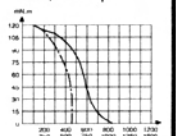
Direct Drive Motors

82910 • 7.5° • Bi Polar • Uni Polar • 5 Watt • 1.4" Diameter • Holding Torque 2ph 3.5 ozin • 4 ph 2.8 ozin • Voltages 5-12-24		82950 • 15° • Bi Polar • Uni Polar • 5 Watt • 1.4" Diameter • Holding Torque 2ph 2.8 ozin • 4 ph 2.1 ozin • Voltages 5-12-24		82920 • 7.5° • Bi Polar • Uni Polar • 7.5 Watt • 2.0" Diameter • Holding Torque 2ph 9.9 ozin • 4 ph 8.1 ozin • Voltages 5-12-24		82930 • 7.5° • Bi Polar • Uni Polar • 10 Watt • 2.25" Diameter • Holding Torque 2 ph 25.5 ozin • 4 ph 21.5 ozin • Voltages 5-12-24	
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GEARED MOTORS

82914 • Bi Polar • Uni Polar • 300 ozin Static Torque • 75 ozin Dynamic Torque • Various Gear Ratio and Shaft Options		82924 • Bi Polar • Uni Polar • 300 ozin Static Torque • 75 ozin Dynamic Torque • Various Gear Ratio and Shaft Options		82929 • Bi Polar • Uni Polar • 70 lbin Static Torque • 300 ozin Dynamic Torque • Various Gear Ratio and Shaft Options		82937 • Bi Polar • Uni Polar • 180 lbin Static Torque • 45 lbin Dynamic Torque • Various Gear Ratios Available	
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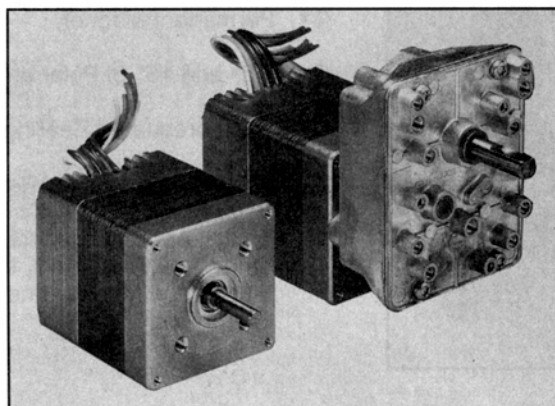
PERFORMANCE CURVES $\text{mNM} \times .1416 = \text{ozin}$

82910 2 phases – 12, 9 Ω , 0.3A/ph Constant current with Ericsson PBL 3717 	82950 2 phases – 12, 9 Ω , 5.6 V Constant voltage with SGS L297 298 chips inertia 9.53 gcm ² 	82920 2 phases – 10.7 Ω , 0.54A/ph Constant current with Ericsson PBL 3717 	82930 2 phases – 9 *, .53A/ph Constant current with Ericsson PBL 3717 
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SUB-FRACTIONAL MOTORS

New!!!!

Brushless DC Motor with Internal Integrated Electronics


800300
800320

- ⇨ Long Life – +20,000 hours
- ⇨ Excellent Efficiency – >66%
- ⇨ All Electronics Internal
- ⇨ Silent Operation – <40dB
- ⇨ Speed Control from 10 – 100%
- ⇨ 12ppr Encoder
- ⇨ 30 to 90W Available

DC Motors: Direct Drive and Gear Motor

82840 82860 • 32 MM Diameter • 1-4 Watt • Varistor Filter • QC Terminals		82810 • 42 MM Diameter • 9 Watt • Replaceable Brushes • Encoder Available • QC Terminals		82800 • 42 MM Diameter • 15 Watt • Replaceable Brushes • Encoder Available • QC Terminals		82830 • 62 MM Diameter • 27 Watt • 2 Ball Bearings • QC Terminals	
GEARED MOTORS							
82862 • Speed Range 1 to 441 RPM • 75 ozin Dynamic Torque • 300 ozin Static Torque • 82860 Motor		82861 • Speed Range 1 to 430 RPM • 75 ozin Dynamic Torque • 300 ozin Static Torque • 82860 Motor		82869 • Speed Range 1 to 108 RPM • 300 ozin Dynamic Torque • 1200 ozin Static Torque • 82860 Motor		80813 80803 • Speed Range 60 to 400 RPM • 18 lbin Dynamic Torque • 70 lbin Static Torque • 82810 or 82800 Motor	
80814 80804 • Speed Range 1 to 40 RPM • 18 lbin Dynamic Torque • 70 lbin Static Torque • 82810 or 82800 Motor		80817 80807 • Speed Range 1 to 208 RPM • 45 lbin Dynamic Torque • 180 lbin Static Torque • 82810 or 82800 Motor		80835 • Speed Range 4 to 144 RPM • 45 lbin Dynamic Torque • 180 lbin Static Torque • 82830 Motor		80838 • Speed Range 5 to 375 RPM • 180 lbin Dynamic Torque • 700 lbin Static Torque • Ball Bearings	