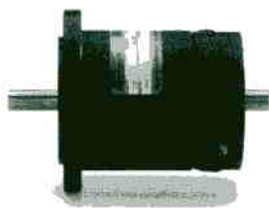


DC MOTOR ONLY

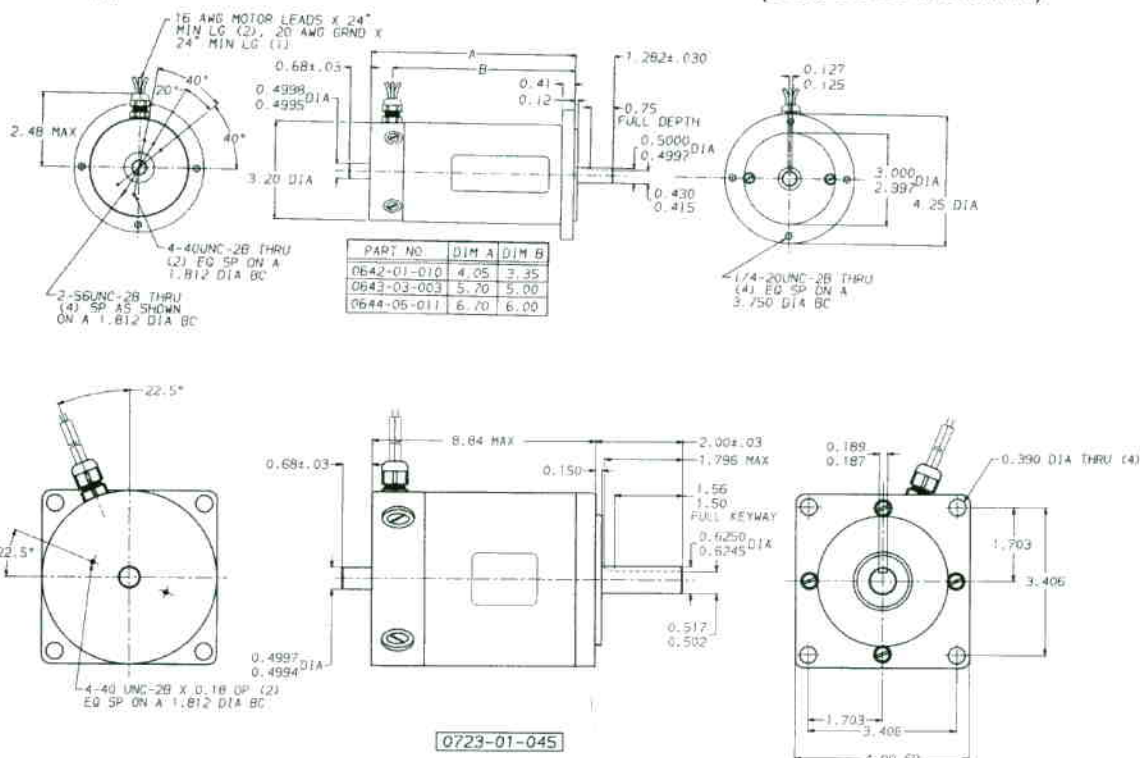
| MOTOR RATINGS (up to 155°C Armature Temp.) | 0642-01-010 NEMA 42C | 0643-03-003 NEMA 42C | 0644-06-011 NEMA 42C | 0723-01-045 |
|---|-------------------------|-------------------------|-------------------------|-------------|
| Continuous Stall Torque (oz-in) | 94 | 155 | 192 | 400 |
| Peak Torque (before demagnetization) (oz-in) | 480 | 720 | 960 | 2000 |
| Maximum Terminal Voltage (V) | 60 | 60 | 60 | 107 |
| Maximum Operating Speed (rpm) | 4800 | 4800 | 1850 | 3030 |
| MECHANICAL DATA | | | | |
| Armature Moment of Inertia (oz-in-sec ²) | .0192 | .0304 | .0368 | .2000 |
| Mechanical Time Constant (msec) | 9.4 | 7.1 | 4.7 | 12.78 |
| Damping Constant (oz-in/krpm) | 1.5 | 2.56 | 2.56 | 28.0 |
| Thermal Resistance (°C/watt) | 2.7 | 2.2 | 1.9 | 1.3 |
| Maximum Armature Temperature (°C) | 155 | 155 | 155 | 155 |
| Maximum Friction Torque (lb-in) | 0.5 | 0.5 | 0.5 | 15.0 |
| Maximum Shaft Radial Load (lbs) (1" from front bearing continuous) | 30 | 30 | 30 | 40 |
| Weight (lbs) | 7.5 | 10 | 11.5 | 12.5 |
| WINDING DATA | | | | |
| K _T Torque Constant ± 10% (oz-in/amp) | 11.84 | 16.8 | 43.8 | 48.2 |
| K _E Voltage Constant ± 10% (V/krpm) | 8.7 | 12.4 | 32.4 | 35.5 |
| Winding Resistance ± 15% @ 25°C (Ω) RA | 0.34 | 0.32 | 1.5 | 1.3 |
| Electrical Time Constant (msec) | 1.0 | 1.1 | 1.9 | 5.79 |
| Maximum Pulse Current (A) | 40 | 43 | 22 | 46 |
| Armature Inductance (mH) | 0.5 | 0.7 | 3.3 | 6.1 |

(1" from front bearing continuous)



Typical 0642/0643/0644

(0723 Series not shown)



Brushless Positioning
Servo Drive

Dedicated Position
Controllers

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Brush Type
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Handbook