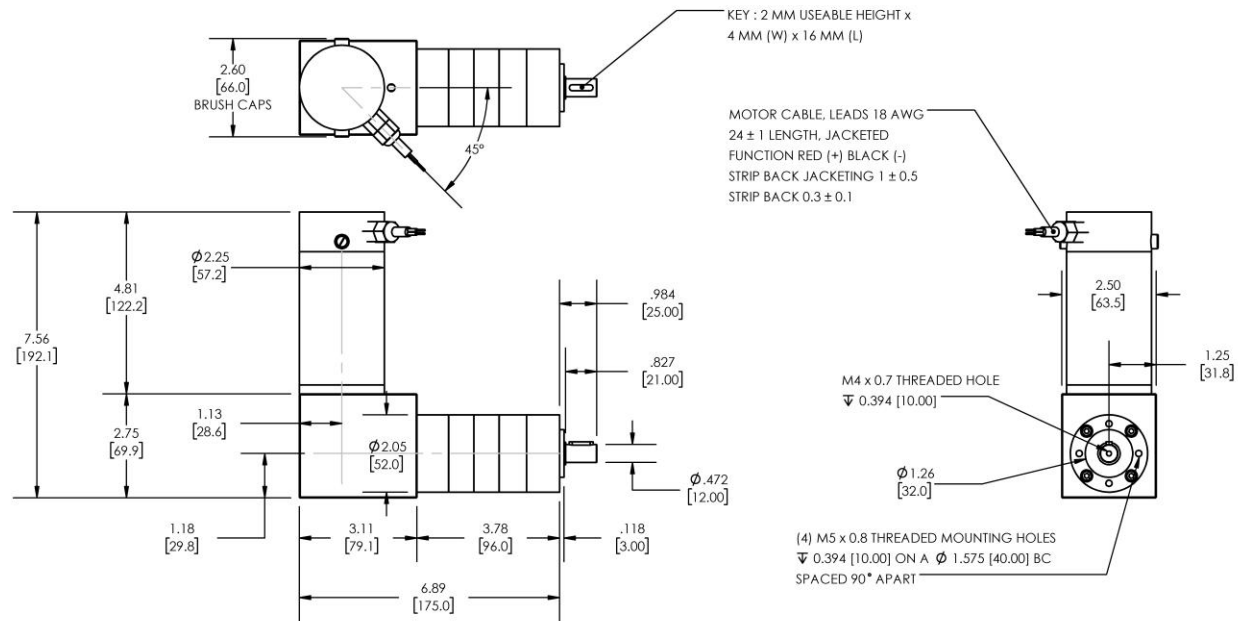




# REVERSIBLE BRUSHED DC RIGHT-ANGLED GEARMOTOR

**Model Number:**

**MMP D22-490A-12V GRA52-1140**



DIMENSIONS ARE INCHES [MM] UNLESS OTHERWISE STATED

| PLANETARY GEARMOTOR OUTPUT PARAMETERS:     | VALUE       | UNITS       | TOLERANCE |
|--------------------------------------------|-------------|-------------|-----------|
| Gearhead Ratio (exact)                     | 1139.73 : 1 |             |           |
| Gearhead Shaft Output Speed (at full-load) | 2.8         | RPM         | MAX       |
| Gearmotor Rated Continuous Torque          | 443         | In-Lbs      | MAX       |
| Gearmotor Rated Peak Torque                | 443++       | In-Lbs      | ----      |
| Gearhead Standard Backlash                 | 51          | Arc Minutes | MAX       |
| Gearhead Efficiency                        | 65%         | ----        | ----      |
| Output Shaft Radial Load Capacity          | 113         | Lbs         | MAX       |
| Output Shaft Axial Load Capacity           | 45          | Lbs         | MAX       |
| Gearmotor Total Weight                     | 7.3         | Lbs         | MAX       |

++ All Peak Torque values are dependent upon duty. Contact our sales office for details.

| DC MOTOR PERFORMANCE PARAMETERS: | VALUE | UNITS     | TOLERANCE |
|----------------------------------|-------|-----------|-----------|
| Rated DC Voltage                 | 12    | DC VOLTS  | ----      |
| Rated Continuous Current         | 3.0   | AMPERES   | ----      |
| No-Load Speed                    | 3529  | RPM       | MAX       |
| Rated Speed                      | 3196  | RPM       | +/- 15%   |
| Rated Continuous Power Out       | 23    | WATTS     | +/- 15%   |
| Rated Continuous Torque          | 9.6   | OZ-IN     | ----      |
| Peak Torque (motor only)         | 99    | OZ-IN     | ----      |
| No-Load Current                  | 0.94  | AMPERES   | MAX       |
| Back EMF Constant (Ke)           | 3.4   | V/KRPM    | +/- 10%   |
| Torque Constant (Kt)             | 4.7   | OZ-IN/AMP | +/- 10%   |
| DC Armature Resistance           | 0.38  | OHMS      | +/- 15%   |
| Armature Inductance              | 0.31  | mH        | +/- 15%   |
| Armature temperature             | 155   | DEG. C    | MAX       |

**NOTES:**

- ENCODER & BRAKE OPTIONS AVAILABLE – [FOLLOW THIS LINK FOR DETAILS](#)
- NEMA MOUNTING FLANGE OPTION AVAILABLE – [FOLLOW THIS LINK FOR DETAILS](#)

**MIDWEST MOTION PRODUCTS, INC**

**DESIGN, MANUFACTURING & DISTRIBUTION - MOTION CONTROL EQUIPMENT**

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