


26M SERIES

SMALL BUT POWERFUL

**GENERAL SPECIFICATIONS**

| | |
|---------------------------------|----------------------|
| Step Angle | 7.5° / 15° |
| Step Accuracy | ± 0.5° / ± 1° |
| Operating Temperature | 100°C Max |
| Ambient Temperature Range | -20°C ~ +70°C |
| Insulation Resistance at 500Vdc | 100MΩ |
| Dielectric Withstanding Voltage | 650 ± 50 VRMS, 2 sec |

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The specifications in this publication are believed to be accurate and reliable. However, it is the responsibility of the product user to determine the suitability of Portescap products for a specific application. While defective products will be replaced without charge if promptly returned, no liability is assumed beyond such replacement.

Portescap Danaher Motion motors will not be CE marked where the Low Voltage Directive, the Electro-Magnetic Compatibility or other appropriate EU directives are not applicable - this is an EU legal requirement.

TECHNICAL SPECIFICATIONS

| | UNIPOLAR | | | |
|---|------------------------|------------------------|------------------------|------------------------|
| Part Number | 26M024B1U | 26M024B2U | 26M048B1U | 26M048B2U |
| DC Operating Voltage | 5 | 12 | 5 | 12 |
| Resistance per Winding (ohms) | 19.6 | 110 | 19.6 | 110 |
| Inductance per Winding (mH) | 4.1 | 29.9 | 5.3 | 36.5 |
| Holding Torque* (mNm/oz-in) | 6.3 / 0.9 | 6.3 / 0.9 | 9.2/ 1.3 | 9.2/ 1.3 |
| Rotor Moment of Inertia (g.m ²) | 1.1 x 10 ⁻⁴ | 1.1 x 10 ⁻⁴ | 1.1 x 10 ⁻⁴ | 1.1 x 10 ⁻⁴ |
| Detent Torque (mNm/oz-in) | 1.34 / 0.19 | 1.34 / 0.19 | 1.34 / 0.19 | 1.34 / 0.19 |
| Step Angle | 15° | 15° | 7.5° | 7.5° |
| Step Angle Tolerance* | ± 1° | ± 1° | ± 0.5° | ± 0.5° |
| Steps per Revolution* | 24 | 24 | 48 | 48 |
| Max. Operating Temperature | 100°C | 100°C | 100°C | 100°C |
| Ambient Temperature Range | | | | |
| Operating | -20°C to 70°C | -20°C to 70°C | -20°C to 70°C | -20°C to 70°C |
| Storage | -40°C to 85°C | -40°C to 85°C | -40°C to 85°C | -40°C to 85°C |
| Bearing Type | Sintered bronze sleeve | Sintered bronze sleeve | Sintered bronze sleeve | Sintered bronze sleeve |
| Insulation Resistance at 500Vdc | 100 megohms | 100 megohms | 100 megohms | 100 megohms |
| Dielectric Withstanding Voltage | 650 ± 50 VRMS, 2 sec | 650 ± 50 VRMS, 2 sec | 650 ± 50 VRMS, 2 sec | 650 ± 50 VRMS, 2 sec |
| Weight (g/oz) | 34 / 1.2 | 34 / 1.2 | 34 / 1.2 | 34 / 1.2 |
| Leadwires | 28 AWG, UL Style 1429 | 28 AWG, UL Style 1429 | 28 AWG, UL Style 1429 | 28 AWG, UL Style 1429 |

* Measured with 2 phases energized

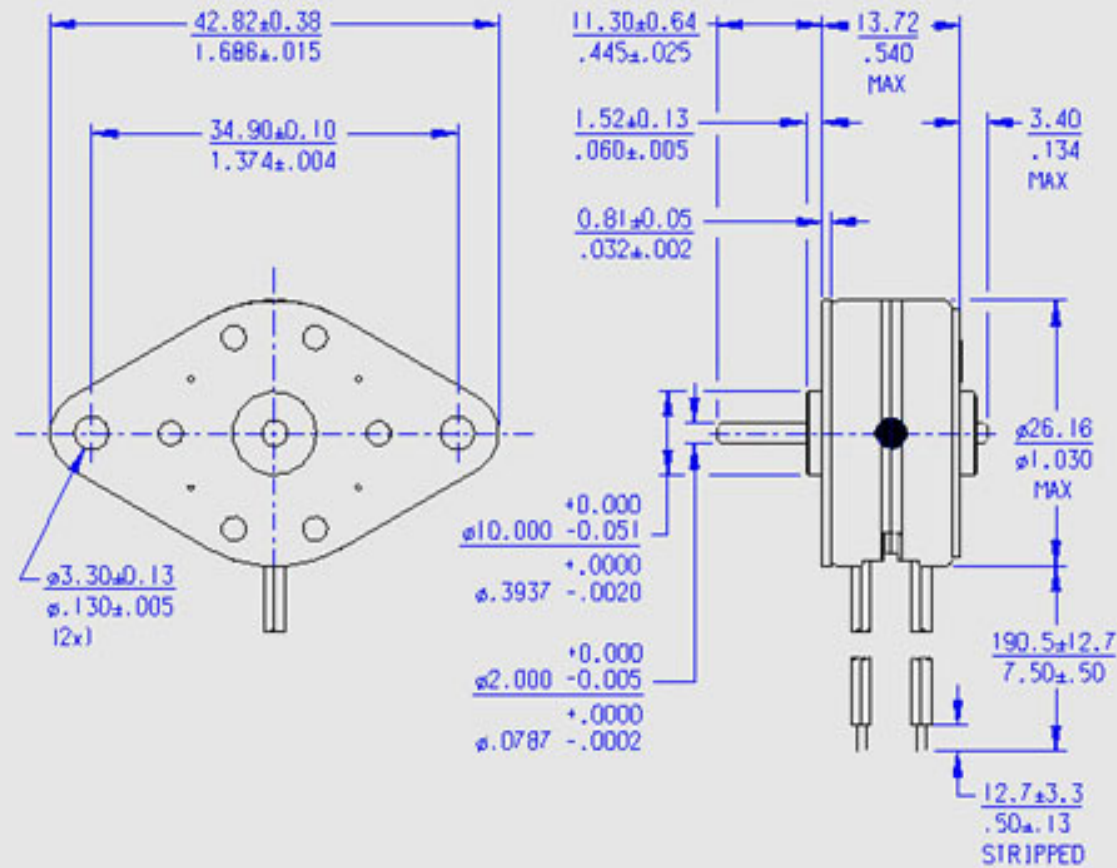
TECHNICAL SPECIFICATIONS

| | BIPOLAR | | | |
|---|------------------------|------------------------|------------------------|------------------------|
| Part Number | 26M024B1B | 26M024B2B | 26M048B1B | 26M048B2B |
| DC Operating Voltage | 5 | 12 | 5 | 12 |
| Resistance per Winding (ohms) | 19.8 | 108 | 19.8 | 108 |
| Inductance per Winding (mH) | 7.7 | 52.4 | 13 | 60.7 |
| Holding Torque* (mNm/oz-in) | 7.8 / 1.1 | 7.8 / 1.1 | 10.6 / 1.5 | 10.6 / 1.5 |
| Rotor Moment of Inertia (g.m ²) | 1.1 x 10 ⁻⁴ | 1.1 x 10 ⁻⁴ | 1.1 x 10 ⁻⁴ | 1.1 x 10 ⁻⁴ |
| Detent Torque (mNm/oz-in) | 1.34 / 0.19 | 1.34 / 0.19 | 1.34 / 0.19 | 1.34 / 0.19 |
| Step Angle | 15° | 15° | 7.5° | 7.5° |
| Step Angle Tolerance* | ± 1° | ± 1° | ± 0.5° | ± 0.5° |
| Steps per Revolution* | 24 | 24 | 48 | 48 |
| Max. Operating Temperature | 100°C | 100°C | 100°C | 100°C |
| Ambient Temperature Range | | | | |
| Operating | -20°C to 70°C | -20°C to 70°C | -20°C to 70°C | -20°C to 70°C |
| Storage | -40°C to 85°C | -40°C to 85°C | -40°C to 85°C | -40°C to 85°C |
| Bearing Type | Sintered bronze sleeve | Sintered bronze sleeve | Sintered bronze sleeve | Sintered bronze sleeve |
| Insulation Resistance at 500Vdc | 100 megohms | 100 megohms | 100 megohms | 100 megohms |
| Dielectric Withstanding Voltage | 650 ± 50 VRMS, 2 sec | 650 ± 50 VRMS, 2 sec | 650 ± 50 VRMS, 2 sec | 650 ± 50 VRMS, 2 sec |
| Weight (g/oz) | 34 / 1.2 | 34 / 1.2 | 34 / 1.2 | 34 / 1.2 |
| Leadwires | 28 AWG, UL Style 1429 | 28 AWG, UL Style 1429 | 28 AWG, UL Style 1429 | 28 AWG, UL Style 1429 |

* Measured with 2 phases energized

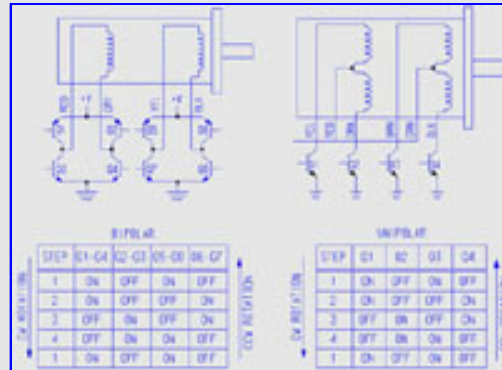
MECHANICAL DIMENSIONS

UNITS = MM / INCHES

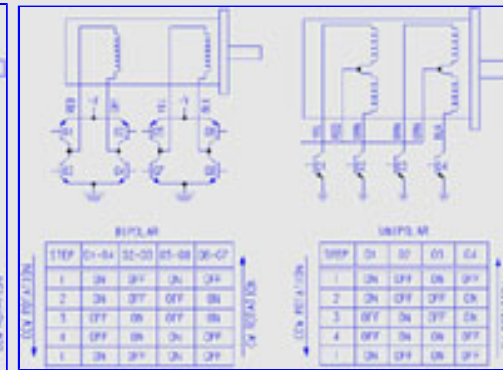


WIRING DIAGRAM

CLICK ON A THUMBNAIL TO MAGNIFY



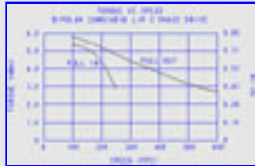
26M024B SERIES



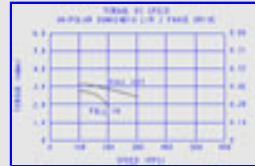
26M048B SERIES

MOTOR DYNAMICS

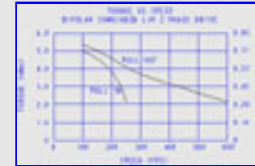
CLICK ON A THUMBNAIL TO MAGNIFY



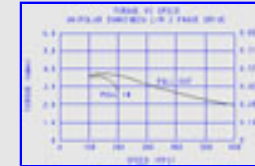
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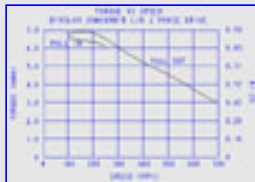
26M024B1U, Unipolar, L/R Drive



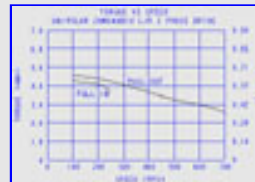
26M024B2B, Bipolar, L/R Drive



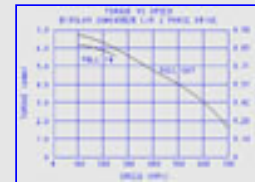
26M024B2U, Unipolar, L/R Drive



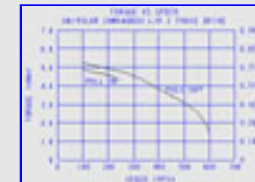
26M048B1B, Bipolar, L/R Drive



26M048B1U, Unipolar, L/R Drive



26M048B2B, Bipolar, L/R Drive



26M048B2U, Unipolar, L/R Drive

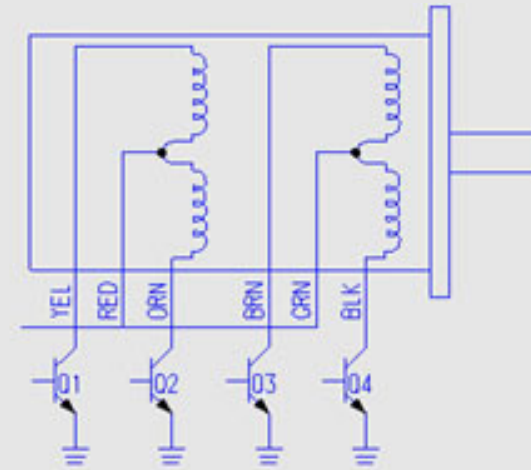
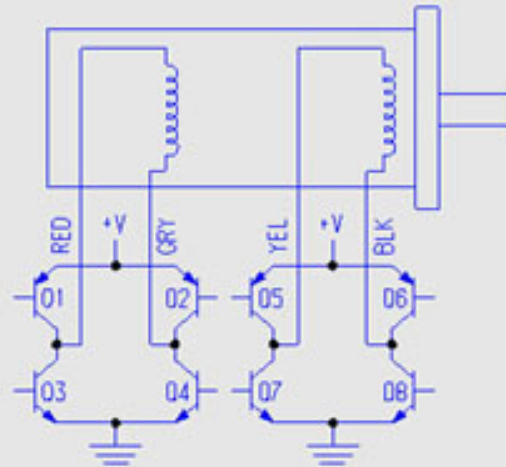


26M024B1B, Bipolar, Chopper Drive



26M048B1B, Bipolar, Chopper Drive

WIRING DIAGRAM



BIPOLAR

| STEP | 01-04 | 02-03 | 05-08 | 06-07 |
|------|-------|-------|-------|-------|
| 1 | ON | OFF | ON | OFF |
| 2 | ON | OFF | OFF | ON |
| 3 | OFF | ON | OFF | ON |
| 4 | OFF | ON | ON | OFF |
| 1 | ON | OFF | ON | OFF |

CW ROTATION (downward arrow) and CCW ROTATION (upward arrow) are indicated on the sides of the table.

UNIPOLAR

| STEP | 01 | 02 | 03 | 04 |
|------|-----|-----|-----|-----|
| 1 | ON | OFF | ON | OFF |
| 2 | ON | OFF | OFF | ON |
| 3 | OFF | ON | OFF | ON |
| 4 | OFF | ON | ON | OFF |
| 1 | ON | OFF | ON | OFF |

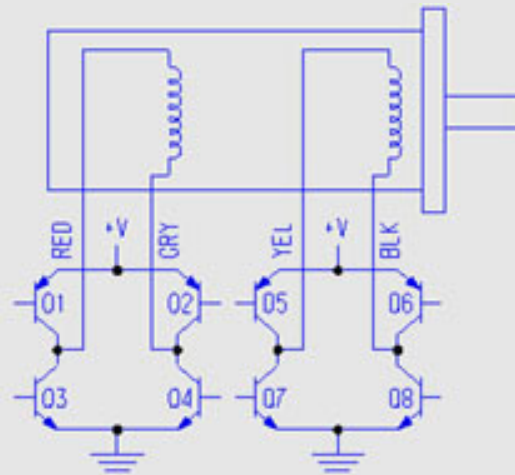
CW ROTATION (downward arrow) and CCW ROTATION (upward arrow) are indicated on the sides of the table.

26M024B SERIES

WIRING DIAGRAM



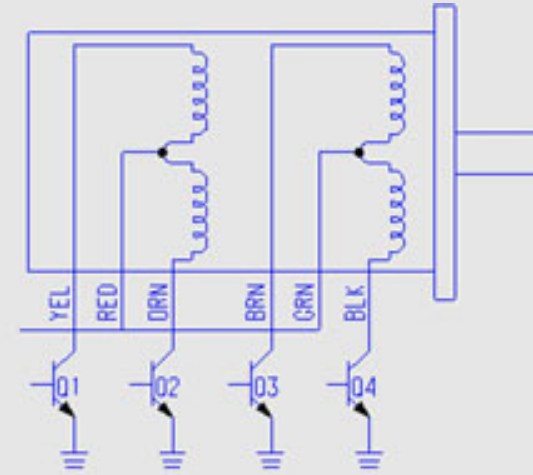
DIAGRAM INDEX



BIPOLAR

| STEP | 01-04 | 02-03 | 05-08 | 06-07 |
|------|-------|-------|-------|-------|
| 1 | ON | OFF | ON | OFF |
| 2 | ON | OFF | OFF | ON |
| 3 | OFF | ON | OFF | ON |
| 4 | OFF | ON | ON | OFF |
| 1 | ON | OFF | ON | OFF |

CCW ROTATION (downward arrow) | CW ROTATION (upward arrow)

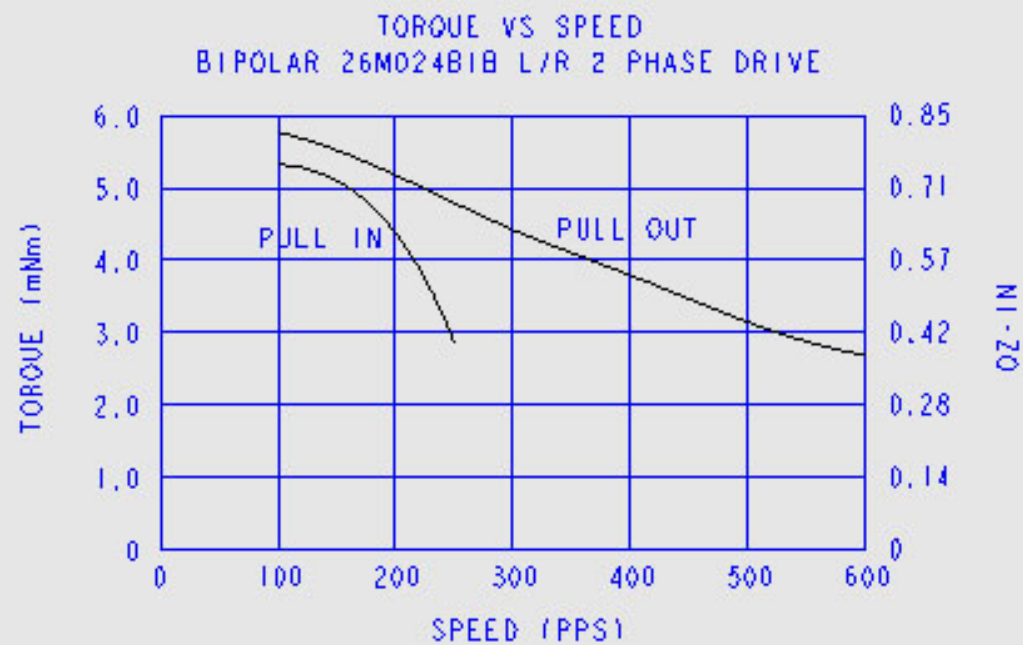


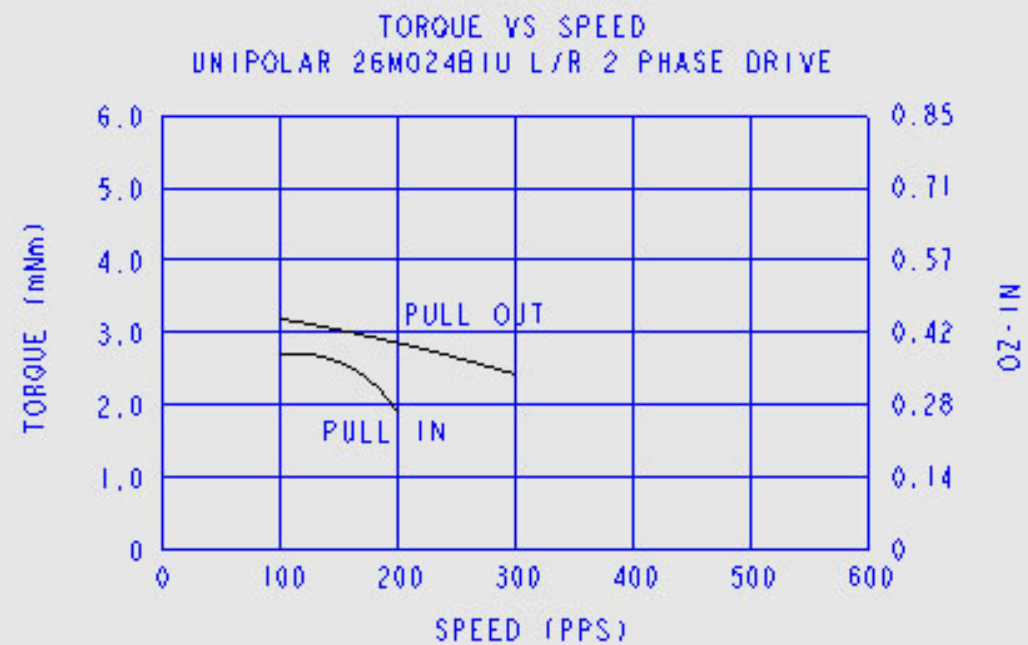
UNIPOLAR

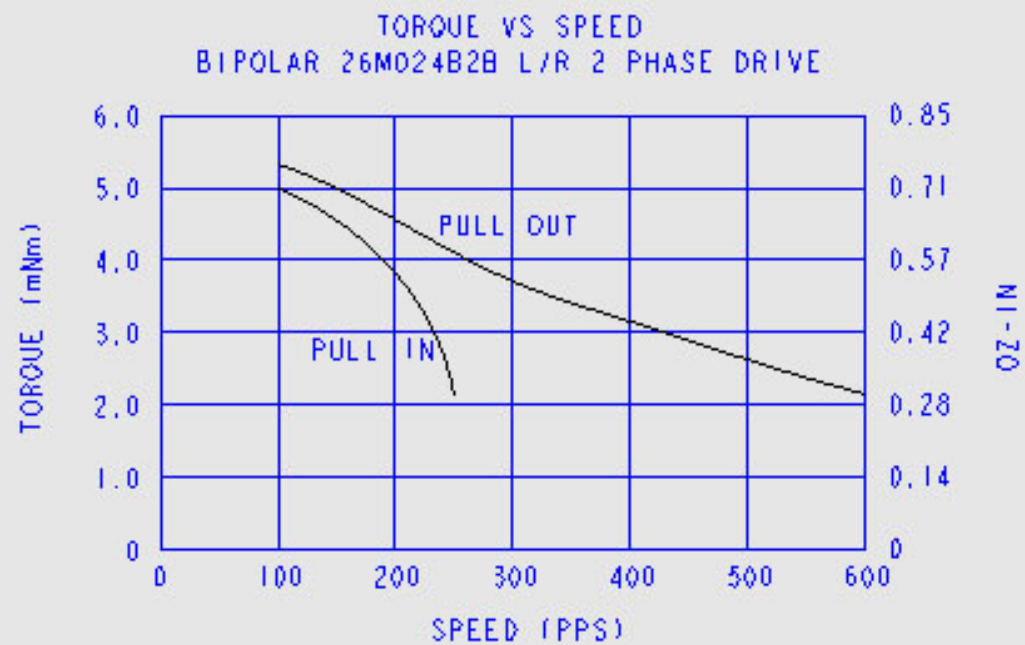
| STEP | 01 | 02 | 03 | 04 |
|------|-----|-----|-----|-----|
| 1 | ON | OFF | ON | OFF |
| 2 | ON | OFF | OFF | ON |
| 3 | OFF | ON | OFF | ON |
| 4 | OFF | ON | ON | OFF |
| 1 | ON | OFF | ON | OFF |

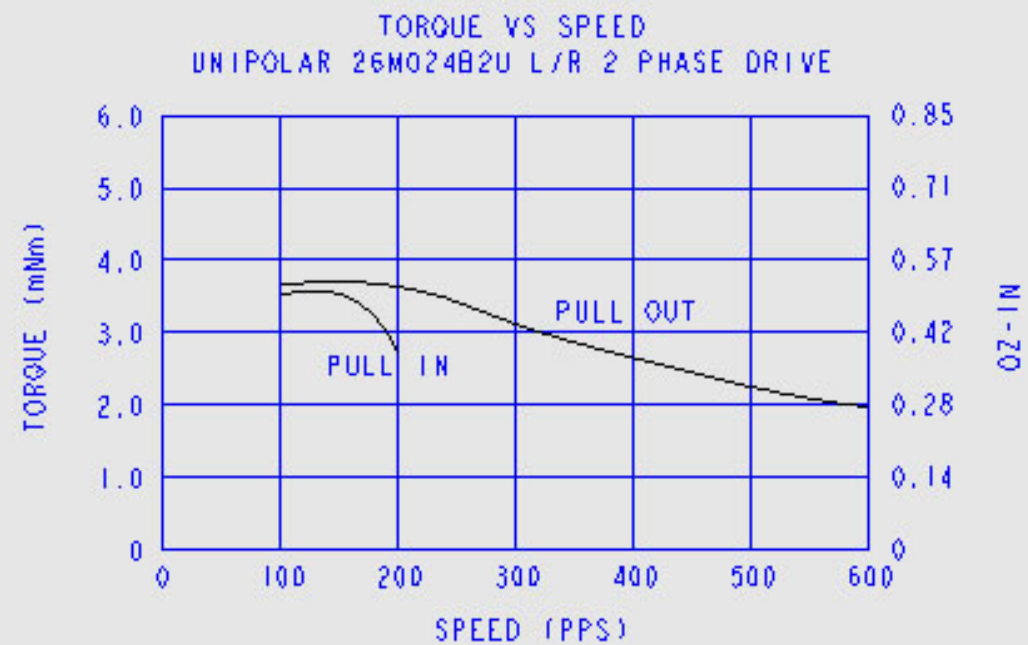
CCW ROTATION (downward arrow) | CW ROTATION (upward arrow)

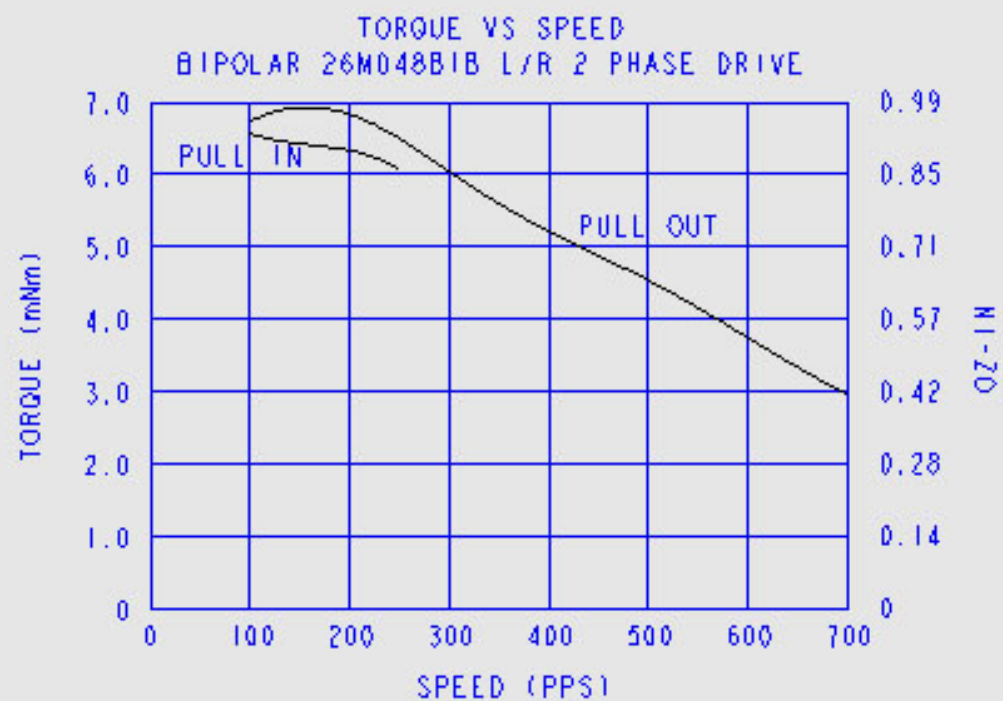
26M048B SERIES

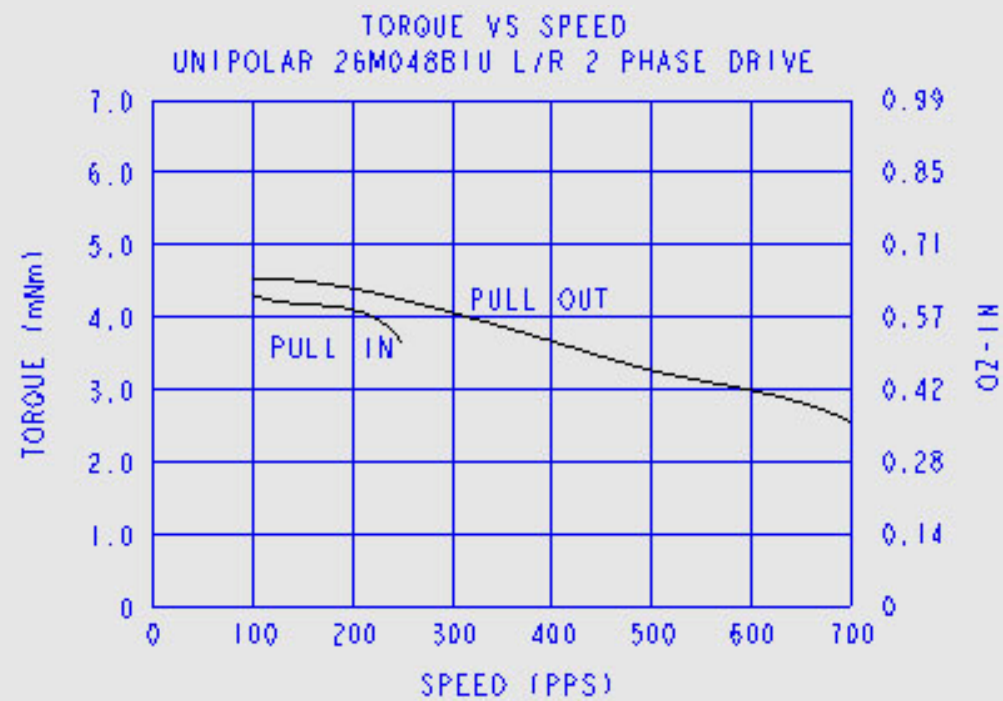


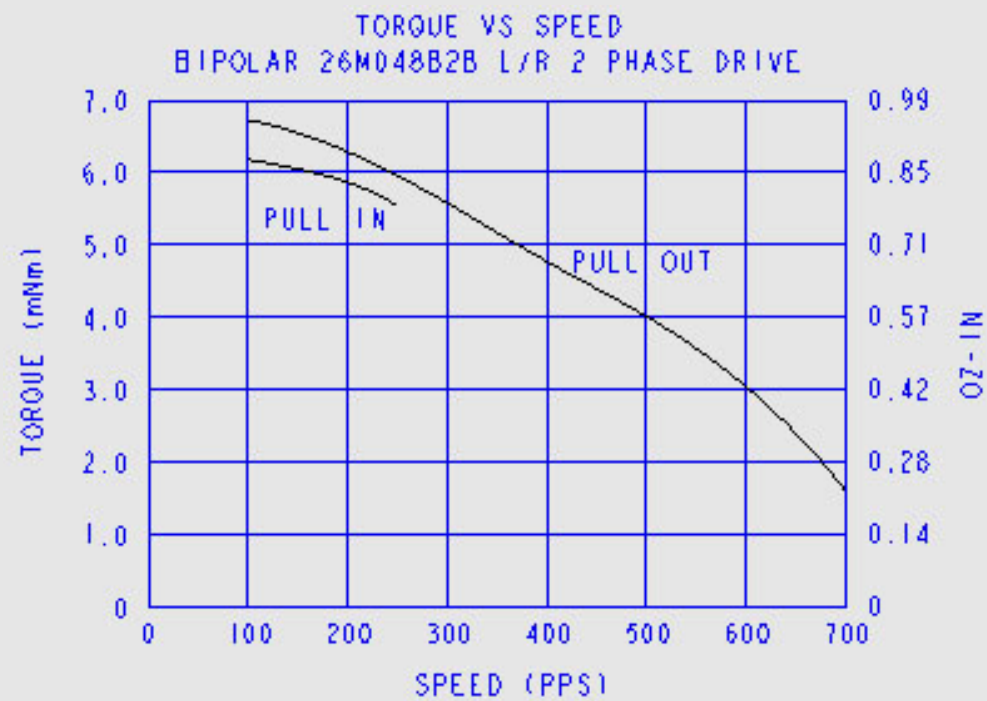


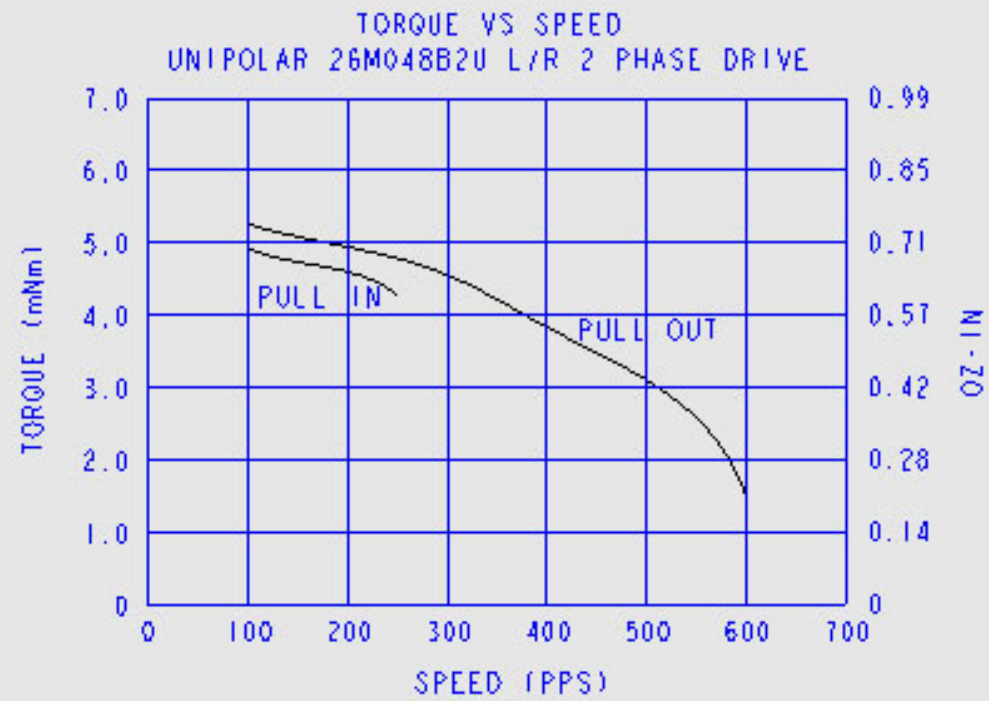








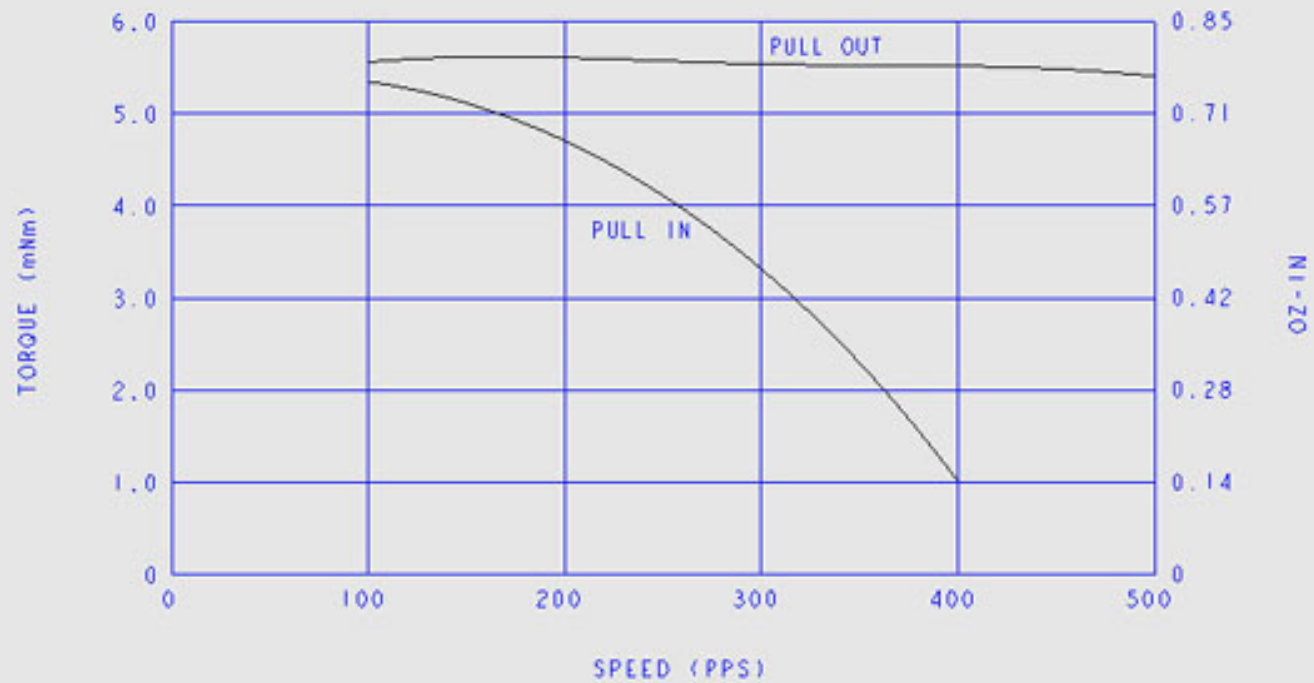






TORQUE VS SPEED

BIPOLAR 26M024B1B CHOPPER DRIVE
@ 36V, 250mA/Ø, 2Ø





TORQUE VS SPEED

BIPOLAR 26M048BIB CHOPPER DRIVE
@ 36V, 250mA/Ø, 2Ø

