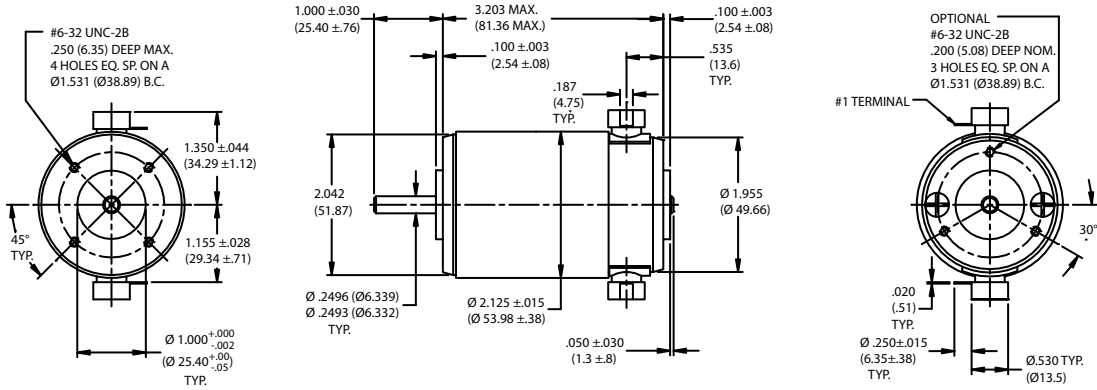


| Specification | Units | Part/Model Number | | | | | | | |
|--------------------------|------------------------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | | 14201 12.0 V | 14201 15.2 V | 14201 19.1 V | 14201 24.0 V | 14201 30.3 V | 14201 38.2 V | 14201 48.0 V | 14201 60.0 V |
| Supply Voltage | VDC | 12.0 | 15.2 | 19.1 | 24.0 | 30.3 | 38.2 | 48.0 | 60.6 |
| Continuous Torque | oz-in | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| | Nm | 0.0706 | 0.0706 | 0.0706 | 0.0706 | 0.0706 | 0.0706 | 0.0706 | 0.0706 |
| Speed @ Cont. Torque | RPM | 3280 | 3370 | 3350 | 3330 | 3320 | 3350 | 3340 | 3330 |
| Current @ Cont. Torque | Amps (A) | 3.57 | 2.86 | 2.26 | 1.79 | 1.40 | 1.13 | .89 | 0.70 |
| Continuous Output Power | Watts (W) | 24 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| Motor Constant | oz-in/sqrt W | 4.4 | 4.4 | 4.4 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| | Nm/sqrt W | 0.031 | 0.031 | 0.031 | 0.032 | 0.032 | 0.032 | 0.032 | 0.032 |
| Torque Constant | oz-in/A | 3.72 | 4.65 | 5.89 | 7.44 | 9.46 | 11.8 | 14.9 | 18.930 |
| | Nm/A | 0.026 | 0.033 | 0.042 | 0.053 | 0.067 | 0.083 | 0.105 | 0.134 |
| Voltage Constant | V/krpm | 2.75 | 3.44 | 4.36 | 5.50 | 7.00 | 8.71 | 11.0 | 14.0 |
| | V/rad/s | 0.026 | 0.033 | 0.042 | 0.053 | 0.067 | 0.083 | 0.105 | 0.134 |
| Terminal Resistance | Ohms | 0.72 | 1.11 | 1.76 | 2.79 | 4.45 | 6.98 | 11.1 | 17.8 |
| Inductance | mH | 0.63 | 0.99 | 1.59 | 2.54 | 4.10 | 6.37 | 10.2 | 16.4 |
| No-Load Current | Amps (A) | 0.52 | 0.42 | 0.33 | 0.26 | 0.20 | 0.17 | 0.13 | 0.10 |
| No-Load Speed | RPM | 4140 | 4200 | 4170 | 4150 | 4120 | 4160 | 4150 | 4120 |
| Peak Current | Amps (A) | 16.7 | 13.7 | 10.9 | 8.60 | 6.81 | 5.47 | 4.32 | 3.41 |
| | oz-in | 60.1 | 61.7 | 62.0 | 62.1 | 62.5 | 62.5 | 62.4 | 62.6 |
| Peak Torque | Nm | 0.4243 | 0.4356 | 0.4377 | 0.4384 | 0.4413 | 0.4413 | 0.4405 | 0.442 |
| | oz-in | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| Coulomb Friction Torque | Nm | 0.0085 | 0.0085 | 0.0085 | 0.0085 | 0.0085 | 0.0085 | 0.0085 | 0.0085 |
| | oz-in | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| Viscous Damping Factor | oz-in/krpm | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 |
| | Nm s/rad | 1.14E-5 | 1.14E-5 | 1.14E-5 | 1.14E-5 | 1.14E-5 | 1.14E-5 | 1.14E-5 | 1.14E-5 |
| Electrical Time Constant | ms | 0.88 | 0.89 | 0.90 | 0.91 | 0.92 | 0.91 | 0.92 | 0.92 |
| Mechanical Time Constant | ms | 12 | 12 | 11 | 11 | 11 | 11 | 11 | 11 |
| Thermal Time Constant | min | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| Thermal Resistance | Celsius/W | 9.9 | 9.9 | 9.9 | 9.9 | 9.9 | 9.9 | 9.9 | 9.9 |
| Max. Winding Temperature | Celsius | 155 | 155 | 155 | 155 | 155 | 155 | 155 | 155 |
| Rotor Inertia | oz-in-sec ² | 0.0016 | 0.0016 | 0.0016 | 0.0016 | 0.0016 | 0.0016 | 0.0016 | 0.0016 |
| | kg-m ² | 1.13E-5 | 1.13E-5 | 1.13E-5 | 1.13E-5 | 1.13E-5 | 1.13E-5 | 1.13E-5 | 1.13E-5 |
| Weight (Mass) | oz | 20.8 | 20.8 | 20.8 | 20.8 | 20.8 | 20.8 | 20.8 | 20.8 |
| | g | 589.7 | 589.7 | 589.7 | 589.7 | 589.7 | 589.7 | 589.7 | 589.7 |

| Performance (24 V Winding) | Standard Features |
|--|---|
| | <ul style="list-style-type: none"> Sintered Bronze Bearings 2-Pole Stator Ceramic Magnets 11-Slot Armature Heavy-Gage Steel Housing Silicon Steel Laminations Copper-Graphite Brushes Diamond-Turned Commutator |
| | <p>Complementary Products</p> <ul style="list-style-type: none"> Encoders Gearboxes Brakes |
| <p>Notes</p> <p>1 All values specified at 25°C ambient temperature and without heat sink. 2 Peak values are theoretical and supplied for reference only.</p> | |

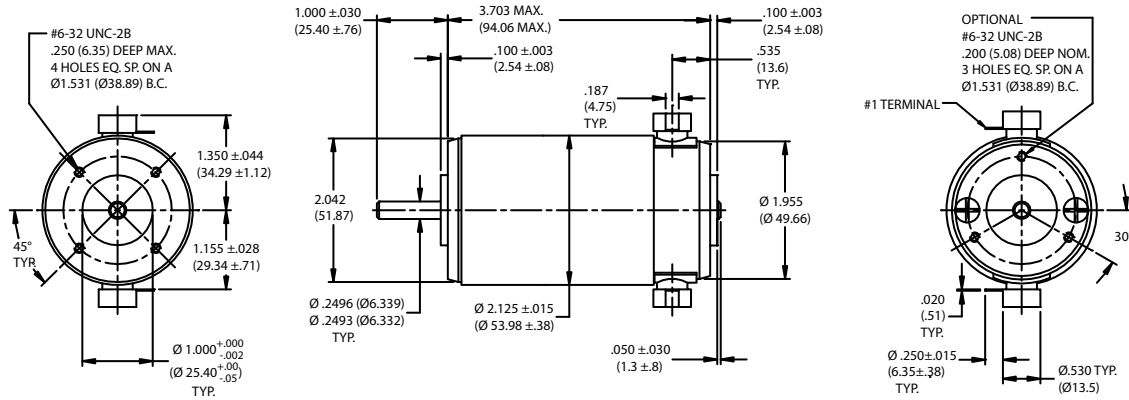
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| Specification | Units | Part/Model Number | | | | | | | |
|--------------------------|------------------------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | | 14202 12.0 V | 14202 15.2 V | 14202 19.1 V | 14202 24.0 V | 14202 30.3 V | 14202 38.2 V | 14202 48.0 V | 14202 60.0 V |
| Supply Voltage | VDC | 12.0 | 15.2 | 19.1 | 24.0 | 30.3 | 38.2 | 48.0 | 60.6 |
| Continuous Torque | oz-in | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 |
| | Nm | 0.0988 | 0.0988 | 0.0988 | 0.0988 | 0.0988 | 0.0988 | 0.0988 | 0.0988 |
| Speed @ Cont. Torque | RPM | 3430 | 3460 | 3500 | 3480 | 3490 | 3470 | 3490 | 3490 |
| Current @ Cont. Torque | Amps (A) | 4.57 | 3.62 | 2.89 | 2.28 | 1.81 | 1.42 | 1.14 | 0.91 |
| Continuous Output Power | Watts (W) | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| Motor Constant | oz-in/sqrt W | 5.8 | 5.9 | 5.9 | 5.9 | 6.0 | 6.0 | 6.0 | 6.0 |
| | Nm/sqrt W | 0.041 | 0.042 | 0.042 | 0.042 | 0.042 | 0.042 | 0.042 | 0.042 |
| Torque Constant | oz-in/A | 3.90 | 4.93 | 6.166 | 7.80 | 9.85 | 12.5 | 15.6 | 19.7 |
| | Nm/A | 0.028 | 0.035 | 0.044 | 0.055 | 0.07 | 0.088 | 0.11 | 0.139 |
| Voltage Constant | V/krpm | 2.88 | 3.65 | 4.56 | 5.77 | 7.28 | 9.26 | 11.5 | 14.6 |
| | V/rad/s | 0.028 | 0.035 | 0.044 | 0.055 | 0.07 | 0.088 | 0.11 | 0.139 |
| Terminal Resistance | Ohms | 0.45 | 0.71 | 1.09 | 1.73 | 2.74 | 4.37 | 6.85 | 10.9 |
| Inductance | mH | 0.63 | 1.01 | 1.58 | 2.54 | 4.05 | 6.55 | 10.2 | 16.2 |
| No-Load Current | Amps (A) | 0.49 | 0.39 | 0.31 | 0.24 | 0.19 | 0.15 | 0.12 | 0.10 |
| No-Load Speed | RPM | 4000 | 4010 | 4040 | 4010 | 4010 | 3970 | 4010 | 4000 |
| Peak Current | Amps (A) | 26.7 | 21.4 | 17.5 | 13.87 | 11.06 | 8.74 | 7.01 | 5.56 |
| Peak Torque | oz-in | 102 | 104 | 106 | 106 | 107 | 108 | 107 | 108 |
| | Nm | 0.7201 | 0.7342 | 0.7484 | 0.7484 | 0.7554 | 0.7625 | 0.7554 | 0.7625 |
| Coulomb Friction Torque | oz-in | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| | Nm | 0.0085 | 0.0085 | 0.0085 | 0.0085 | 0.0085 | 0.0085 | 0.0085 | 0.0085 |
| Viscous Damping Factor | oz-in/krpm | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 |
| | Nm s/rad | 1.14E-5 | 1.14E-5 | 1.14E-5 | 1.14E-5 | 1.14E-5 | 1.14E-5 | 1.14E-5 | 1.14E-5 |
| Electrical Time Constant | ms | 1.4 | 1.4 | 1.4 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| Mechanical Time Constant | ms | 10 | 10 | 9.4 | 9.3 | 9.2 | 9.1 | 9.2 | 9.1 |
| Thermal Time Constant | min | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| Thermal Resistance | Celsius/W | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 |
| Max. Winding Temperature | Celsius | 155 | 155 | 155 | 155 | 155 | 155 | 155 | 155 |
| Rotor Inertia | oz-in-sec ² | 0.0023 | 0.0023 | 0.0023 | 0.0023 | 0.0023 | 0.0023 | 0.0023 | 0.0023 |
| | kg-m ² | 1.62E-5 | 1.62E-5 | 1.62E-5 | 1.62E-5 | 1.62E-5 | 1.62E-5 | 1.62E-5 | 1.62E-5 |
| Weight (Mass) | oz | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 |
| | g | 737.1 | 737.1 | 737.1 | 737.1 | 737.1 | 737.1 | 737.1 | 737.1 |

| Performance (24 V Winding) | Standard Features |
|----------------------------|---|
| | <ul style="list-style-type: none"> Sintered Bronze Bearings 2-Pole Stator Ceramic Magnets 11-Slot Armature Heavy-Gage Steel Housing Silicon Steel Laminations Copper-Graphite Brushes Diamond-Turned Commutator |
| | Complementary Products <ul style="list-style-type: none"> Encoders Gearboxes Brakes |
| | Notes <ol style="list-style-type: none"> All values specified at 25°C ambient temperature and without heat sink. Peak values are theoretical and supplied for reference only. |

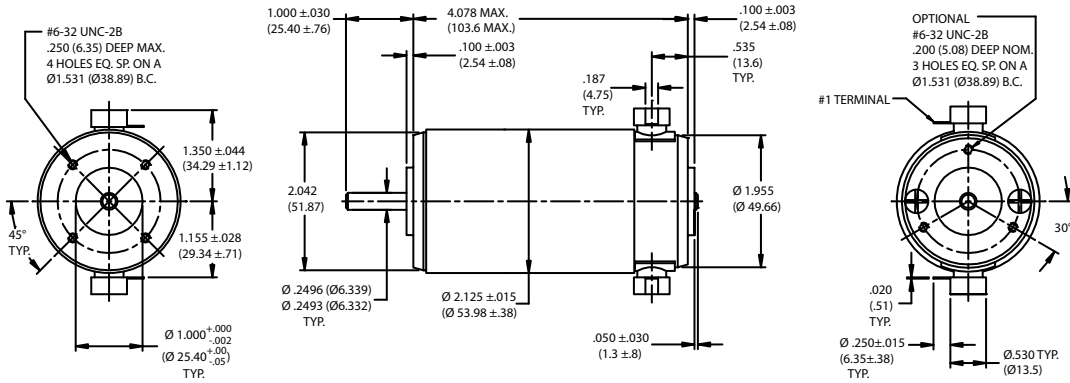
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| Specification | Units | Part/Model Number | | | | | | | |
|--------------------------|------------------------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | | 14203 12.0 V | 14203 15.2 V | 14203 19.1 V | 14203 24.0 V | 14203 30.3 V | 14203 38.2 V | 14203 48.0 V | 14203 60.0 V |
| Supply Voltage | VDC | 12.0 | 15.2 | 19.1 | 24.0 | 30.3 | 38.2 | 48.0 | 60.6 |
| Continuous Torque | oz-in | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 |
| | Nm | 0.1483 | 0.1483 | 0.1483 | 0.1483 | 0.1483 | 0.1483 | 0.1483 | 0.1483 |
| Speed @ Cont. Torque | RPM | 2880 | 2920 | 2920 | 2950 | 2950 | 2950 | 2910 | 2960 |
| Current @ Cont. Torque | Amps (A) | 5.63 | 4.45 | 3.52 | 2.82 | 2.22 | 1.76 | 1.39 | 1.11 |
| Continuous Output Power | Watts (W) | 45 | 45 | 45 | 46 | 46 | 46 | 45 | 46 |
| Motor Constant | oz-in/sqrt W | 7.6 | 7.8 | 7.9 | 7.9 | 7.9 | 8.0 | 8.0 | 8.0 |
| | Nm/sqrt W | 0.054 | 0.055 | 0.056 | 0.056 | 0.056 | 0.056 | 0.056 | 0.056 |
| Torque Constant | oz-in/A | 4.63 | 5.86 | 7.41 | 9.26 | 11.7 | 14.8 | 18.8 | 23.392 |
| | Nm/A | 0.033 | 0.041 | 0.052 | 0.065 | 0.083 | 0.105 | 0.133 | 0.165 |
| Voltage Constant | V/krpm | 3.42 | 4.33 | 5.48 | 6.85 | 8.67 | 11.0 | 13.9 | 17.3 |
| | V/rad/s | 0.033 | 0.041 | 0.052 | 0.065 | 0.083 | 0.105 | 0.133 | 0.165 |
| Terminal Resistance | Ohms | 0.37 | 0.57 | 0.89 | 1.38 | 2.19 | 3.46 | 5.53 | 8.68 |
| Inductance | mH | 0.56 | 0.91 | 1.45 | 2.26 | 3.63 | 5.79 | 9.34 | 14.5 |
| No-Load Current | Amps (A) | 0.48 | 0.38 | 0.30 | 0.24 | 0.19 | 0.15 | 0.12 | 0.090 |
| No-Load Speed | RPM | 3380 | 3390 | 3370 | 3390 | 3380 | 3370 | 3330 | 3380 |
| Peak Current | Amps (A) | 32.4 | 26.7 | 21.5 | 17.4 | 13.8 | 11.0 | 8.68 | 6.98 |
| Peak Torque | oz-in | 148 | 154 | 157 | 159 | 160 | 161 | 161 | 162 |
| | Nm | 1.0449 | 1.0872 | 1.1084 | 1.1225 | 1.1296 | 1.1367 | 1.1367 | 1.1437 |
| Coulomb Friction Torque | oz-in | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 |
| | Nm | 0.0113 | 0.0113 | 0.0113 | 0.0113 | 0.0113 | 0.0113 | 0.0113 | 0.0113 |
| Viscous Damping Factor | oz-in/krpm | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 |
| | Nm s/rad | 1.21E-5 | 1.21E-5 | 1.21E-5 | 1.21E-5 | 1.21E-5 | 1.21E-5 | 1.21E-5 | 1.21E-5 |
| Electrical Time Constant | ms | 1.5 | 1.6 | 1.6 | 1.6 | 1.7 | 1.7 | 1.7 | 1.7 |
| Mechanical Time Constant | ms | 7.3 | 7.1 | 6.9 | 6.8 | 6.8 | 6.7 | 6.6 | 6.7 |
| Thermal Time Constant | min | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| Thermal Resistance | Celsius/W | 8.1 | 8.1 | 8.1 | 8.1 | 8.1 | 8.1 | 8.1 | 8.1 |
| Max. Winding Temperature | Celsius | 155 | 155 | 155 | 155 | 155 | 155 | 155 | 155 |
| Rotor Inertia | oz-in-sec ² | 0.0030 | 0.0030 | 0.0030 | 0.0030 | 0.0030 | 0.0030 | 0.0030 | 0.0030 |
| | kg-m ² | 2.12E-5 | 2.12E-5 | 2.12E-5 | 2.12E-5 | 2.12E-5 | 2.12E-5 | 2.12E-5 | 2.12E-5 |
| Weight (Mass) | oz | 31.2 | 31.2 | 31.2 | 31.2 | 31.2 | 31.2 | 31.2 | 31.2 |
| | g | 884.5 | 884.5 | 884.5 | 884.5 | 884.5 | 884.5 | 884.5 | 884.5 |

| Performance (24 V Winding) | Standard Features |
|----------------------------|---|
| | <ul style="list-style-type: none"> Sintered Bronze Bearings 2-Pole Stator Ceramic Magnets 11-Slot Armature Heavy-Gage Steel Housing Silicon Steel Laminations Copper-Graphite Brushes Diamond-Turned Commutator |
| | <p>Complementary Products</p> <ul style="list-style-type: none"> Encoders Gearboxes Brakes |
| | <p>Notes</p> <p>1 All values specified at 25°C ambient temperature and without heat sink. 2 Peak values are theoretical and supplied for reference only.</p> |

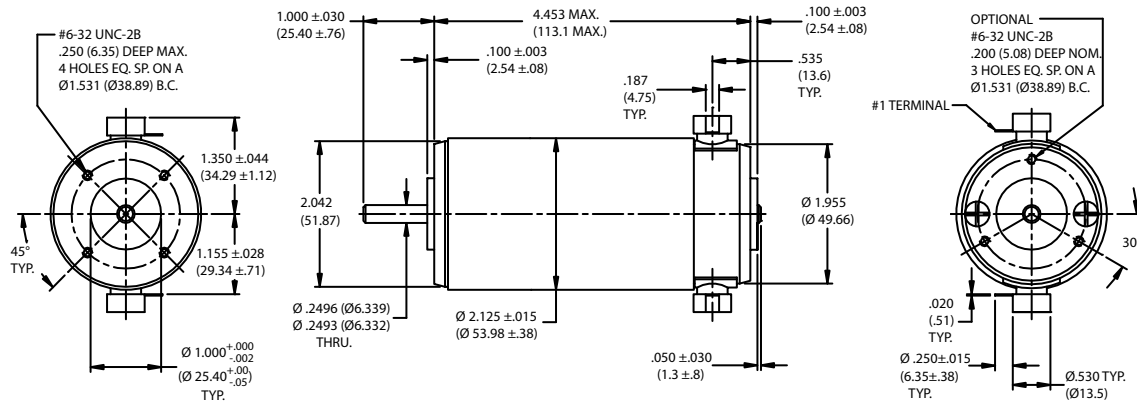
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| Specification | Units | Part/Model Number | | | | | | | |
|--------------------------|------------------------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | | 14204 12.0 V | 14204 15.2 V | 14204 19.1 V | 14204 24.0 V | 14204 30.3 V | 14204 38.2 V | 14204 48.0 V | 14204 60.0 V |
| Supply Voltage | VDC | 12.0 | 15.2 | 19.1 | 24.0 | 30.3 | 38.2 | 48.0 | 60.6 |
| Continuous Torque | oz-in | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| | Nm | 0.1836 | 0.1836 | 0.1836 | 0.1836 | 0.1836 | 0.1836 | 0.1836 | 0.1836 |
| Speed @ Cont. Torque | RPM | 3130 | 3190 | 3190 | 3200 | 3240 | 3230 | 3220 | 3200 |
| Current @ Cont. Torque | Amps (A) | 7.34 | 5.87 | 4.64 | 3.67 | 2.94 | 2.32 | 1.83 | 1.44 |
| Continuous Output Power | Watts (W) | 60 | 61 | 61 | 62 | 62 | 62 | 62 | 62 |
| Motor Constant | oz-in/sqrt W | 8.3 | 8.4 | 8.5 | 8.6 | 8.7 | 8.7 | 8.7 | 8.8 |
| | Nm/sqrt W | 0.059 | 0.059 | 0.06 | 0.061 | 0.061 | 0.061 | 0.061 | 0.062 |
| Torque Constant | oz-in/A | 4.33 | 5.42 | 6.86 | 8.67 | 10.844 | 13.7 | 17.3 | 22.039 |
| | Nm/A | 0.031 | 0.038 | 0.048 | 0.061 | 0.077 | 0.097 | 0.122 | 0.156 |
| Voltage Constant | V/krpm | 3.20 | 4.01 | 5.07 | 6.41 | 8.02 | 10.2 | 12.8 | 16.3 |
| | V/rad/s | 0.031 | 0.038 | 0.048 | 0.061 | 0.077 | 0.097 | 0.122 | 0.156 |
| Terminal Resistance | Ohms | 0.27 | 0.42 | 0.65 | 1.01 | 1.57 | 2.50 | 3.96 | 6.33 |
| Inductance | mH | 0.40 | 0.62 | 1.00 | 1.60 | 2.50 | 4.01 | 6.40 | 10.3 |
| No-Load Current | Amps (A) | 0.52 | 0.42 | 0.33 | 0.26 | 0.21 | 0.17 | 0.13 | 0.10 |
| No-Load Speed | RPM | 3630 | 3670 | 3650 | 3630 | 3660 | 3650 | 3630 | 3610 |
| Peak Current | Amps (A) | 44.4 | 36.2 | 29.4 | 23.8 | 19.3 | 15.3 | 12.1 | 9.57 |
| | oz-in | 190 | 194 | 199 | 204 | 207 | 207 | 208 | 209 |
| Peak Torque | Nm | 1.3414 | 1.3696 | 1.4049 | 1.4402 | 1.4614 | 1.4614 | 1.4685 | 1.4755 |
| | oz-in | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 |
| Coulomb Friction Torque | Nm | 0.0113 | 0.0113 | 0.0113 | 0.0113 | 0.0113 | 0.0113 | 0.0113 | 0.0113 |
| | oz-in | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 |
| Viscous Damping Factor | oz-in/krpm | 1.21E-5 | 1.21E-5 | 1.21E-5 | 1.21E-5 | 1.21E-5 | 1.21E-5 | 1.21E-5 | 1.21E-5 |
| | Nm s/rad | 1.21E-5 | 1.21E-5 | 1.21E-5 | 1.21E-5 | 1.21E-5 | 1.21E-5 | 1.21E-5 | 1.21E-5 |
| Electrical Time Constant | ms | 1.5 | 1.5 | 1.5 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 |
| Mechanical Time Constant | ms | 7.5 | 7.5 | 7.2 | 7.0 | 7.0 | 6.9 | 6.9 | 6.8 |
| Thermal Time Constant | min | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 |
| Thermal Resistance | Celsius/W | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 |
| Max. Winding Temperature | Celsius | 155 | 155 | 155 | 155 | 155 | 155 | 155 | 155 |
| Rotor Inertia | oz-in-sec ² | 0.0037 | 0.0037 | 0.0037 | 0.0037 | 0.0037 | 0.0037 | 0.0037 | 0.0037 |
| | kg-m ² | 2.61E-5 | 2.61E-5 | 2.61E-5 | 2.61E-5 | 2.61E-5 | 2.61E-5 | 2.61E-5 | 2.61E-5 |
| Weight (Mass) | oz | 35.2 | 35.2 | 35.2 | 35.2 | 35.2 | 35.2 | 35.2 | 35.2 |
| | g | 997.9 | 997.9 | 997.9 | 997.9 | 997.9 | 997.9 | 997.9 | 997.9 |

| Performance (24 V Winding) | Standard Features |
|----------------------------|---|
| | <ul style="list-style-type: none"> Sintered Bronze Bearings 2-Pole Stator Ceramic Magnets 11-Slot Armature Heavy-Gage Steel Housing Silicon Steel Laminations Copper-Graphite Brushes Diamond-Turned Commutator |
| | Complementary Products <ul style="list-style-type: none"> Encoders Gearboxes Brakes |
| | Notes <ol style="list-style-type: none"> All values specified at 25°C ambient temperature and without heat sink. Peak values are theoretical and supplied for reference only. |
| | |

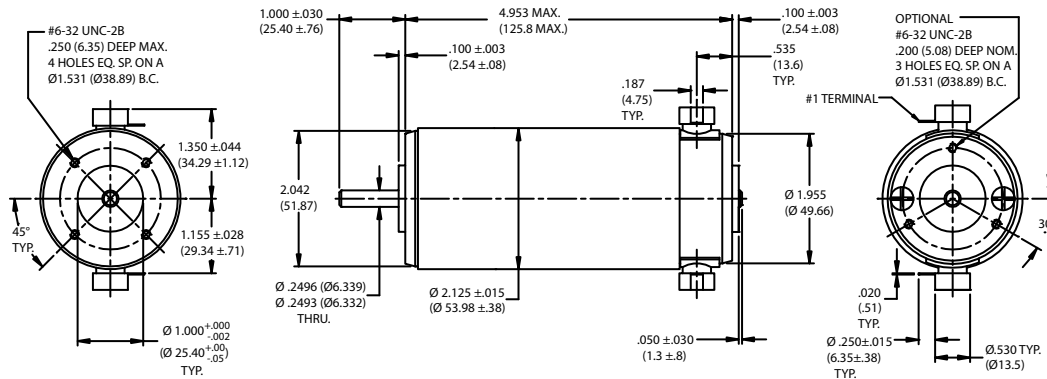
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| Specification | Units | Part/Model Number | | | | | | | |
|--------------------------|------------------------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | | 14205 12.0 V | 14205 15.2 V | 14205 19.1 V | 14205 24.0 V | 14205 30.3 V | 14205 38.2 V | 14205 48.0 V | 14205 60.0 V |
| Supply Voltage | VDC | 12.0 | 15.2 | 19.1 | 24.0 | 30.3 | 38.2 | 48.0 | 60.6 |
| Continuous Torque | oz-in | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 |
| | Nm | 0.2189 | 0.2189 | 0.2189 | 0.2189 | 0.2189 | 0.2189 | 0.2189 | 0.2189 |
| Speed @ Cont. Torque | RPM | 2510 | 2590 | 2580 | 2580 | 2610 | 2600 | 2590 | 2580 |
| Current @ Cont. Torque | Amps (A) | 7.2 | 5.77 | 4.55 | 3.60 | 2.88 | 2.28 | 1.80 | 1.42 |
| Continuous Output Power | Watts (W) | 58 | 59 | 59 | 59 | 60 | 60 | 59 | 59 |
| Motor Constant | oz-in/sqrt W | 9.6 | 9.8 | 9.9 | 10 | 10 | 10 | 10 | 10 |
| | Nm/sqrt W | 0.068 | 0.069 | 0.07 | 0.071 | 0.071 | 0.071 | 0.071 | 0.071 |
| Torque Constant | oz-in/A | 5.25 | 6.56 | 8.31 | 10.5 | 13.1 | 16.6 | 21.0 | 26.637 |
| | Nm/A | 0.037 | 0.046 | 0.059 | 0.074 | 0.093 | 0.117 | 0.148 | 0.188 |
| Voltage Constant | V/krpm | 3.88 | 4.85 | 6.15 | 7.76 | 9.71 | 12.3 | 15.5 | 19.7 |
| | V/rad/s | 0.037 | 0.046 | 0.059 | 0.074 | 0.093 | 0.117 | 0.148 | 0.188 |
| Terminal Resistance | Ohms | 0.30 | 0.45 | 0.71 | 1.11 | 1.73 | 2.75 | 4.36 | 6.97 |
| Inductance | mH | 0.45 | 0.71 | 1.13 | 1.81 | 2.83 | 4.54 | 7.24 | 11.7 |
| No-Load Current | Amps (A) | 0.49 | 0.40 | 0.31 | 0.25 | 0.20 | 0.16 | 0.12 | 0.10 |
| No-Load Speed | RPM | 2990 | 3030 | 3010 | 2990 | 3020 | 3010 | 3000 | 2970 |
| Peak Current | Amps (A) | 40.0 | 33.8 | 26.9 | 24.6 | 17.5 | 13.9 | 11.0 | 8.69 |
| | oz-in | 207 | 219 | 221 | 224 | 227 | 228 | 229 | 229 |
| Peak Torque | Nm | 1.4614 | 1.5461 | 1.5603 | 1.5814 | 1.6026 | 1.6097 | 1.6167 | 1.6167 |
| | oz-in | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Coulomb Friction Torque | Nm | 0.0141 | 0.0141 | 0.0141 | 0.0141 | 0.0141 | 0.0141 | 0.0141 | 0.0141 |
| | oz-in | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Viscous Damping Factor | oz-in/krpm | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 |
| | Nm s/rad | 1.28E-5 | 1.28E-5 | 1.28E-5 | 1.28E-5 | 1.28E-5 | 1.28E-5 | 1.28E-5 | 1.28E-5 |
| Electrical Time Constant | ms | 1.5 | 1.6 | 1.6 | 1.6 | 1.6 | 1.7 | 1.7 | 1.7 |
| Mechanical Time Constant | ms | 6.8 | 6.5 | 6.4 | 6.3 | 6.3 | 6.2 | 6.2 | 6.1 |
| Thermal Time Constant | min | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 |
| Thermal Resistance | Celsius/W | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 |
| Max. Winding Temperature | Celsius | 155 | 155 | 155 | 155 | 155 | 155 | 155 | 155 |
| Rotor Inertia | oz-in-sec ² | 0.0044 | 0.0044 | 0.0044 | 0.0044 | 0.0044 | 0.0044 | 0.0044 | 0.0044 |
| | kg-m ² | 3.11E-5 | 3.11E-5 | 3.11E-5 | 3.11E-5 | 3.11E-5 | 3.11E-5 | 3.11E-5 | 3.11E-5 |
| Weight (Mass) | oz | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 | 39.5 |
| | g | 1119.8 | 1119.8 | 1119.8 | 1119.8 | 1119.8 | 1119.8 | 1119.8 | 1119.8 |

| Performance (24 V Winding) | Standard Features |
|----------------------------|---|
| | <ul style="list-style-type: none"> Sintered Bronze Bearings 2-Pole Stator Ceramic Magnets 11-Slot Armature Heavy-Gage Steel Housing Silicon Steel Laminations Copper-Graphite Brushes Diamond-Turned Commutator |
| | Complementary Products <ul style="list-style-type: none"> Encoders Gearboxes Brakes |
| | Notes <p>1 All values specified at 25°C ambient temperature and without heat sink. 2 Peak values are theoretical and supplied for reference only.</p> |
| | |

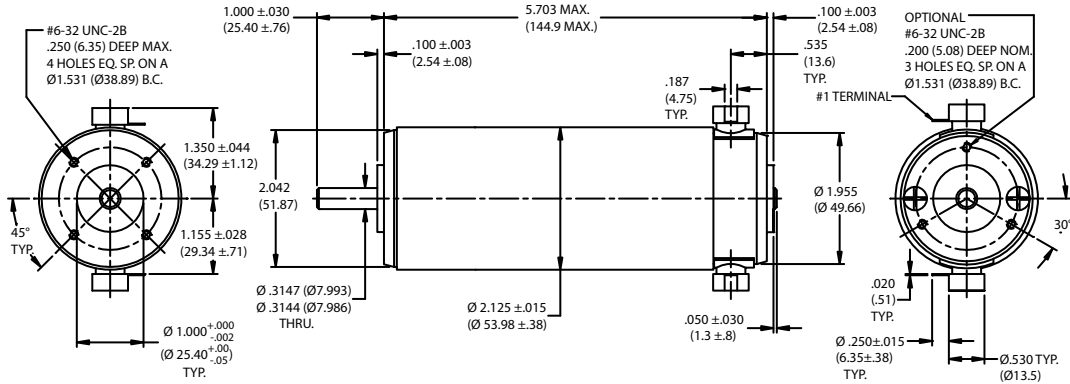
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| Specification | Units | Part/Model Number | | | | | | | |
|--------------------------|------------------------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | | 14206 12.0 V | 14206 15.2 V | 14206 19.1 V | 14206 24.0 V | 14206 30.3 V | 14206 38.2 V | 14206 48.0 V | 14206 60.0 V |
| Supply Voltage | VDC | 12.0 | 15.2 | 19.1 | 24.0 | 30.3 | 38.2 | 48.0 | 60.6 |
| Continuous Torque | oz-in | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 |
| | Nm | 0.2612 | 0.2612 | 0.2612 | 0.2612 | 0.2612 | 0.2612 | 0.2612 | 0.2612 |
| Speed @ Cont. Torque | RPM | 2830 | 2740 | 2780 | 2770 | 2780 | 2810 | 2790 | 2800 |
| Current @ Cont. Torque | Amps (A) | 9.31 | 6.97 | 5.59 | 4.41 | 3.49 | 2.80 | 2.2 | 1.74 |
| Continuous Output Power | Watts (W) | 76 | 74 | 75 | 75 | 75 | 76 | 75 | 76 |
| Motor Constant | oz-in/sqrt W | 10 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| | Nm/sqrt W | 0.071 | 0.078 | 0.078 | 0.078 | 0.078 | 0.078 | 0.078 | 0.078 |
| Torque Constant | oz-in/A | 4.746 | 6.32 | 7.89 | 10.0 | 12.6 | 15.8 | 20.0 | 25.3 |
| | Nm/A | 0.034 | 0.045 | 0.056 | 0.071 | 0.089 | 0.112 | 0.141 | 0.179 |
| Voltage Constant | V/krpm | 3.51 | 4.67 | 5.83 | 7.39 | 9.34 | 11.7 | 14.8 | 18.7 |
| | V/rad/s | 0.034 | 0.045 | 0.056 | 0.071 | 0.089 | 0.112 | 0.141 | 0.179 |
| Terminal Resistance | Ohms | 0.22 | 0.35 | 0.54 | 0.84 | 1.32 | 2.06 | 3.28 | 5.20 |
| Inductance | mH | 0.31 | 0.54 | 0.85 | 1.36 | 2.17 | 3.39 | 5.44 | 8.68 |
| No-Load Current | Amps (A) | 0.56 | 0.41 | 0.33 | 0.26 | 0.21 | 0.17 | 0.13 | 0.10 |
| No-Load Speed | RPM | 3320 | 3160 | 3180 | 3150 | 3150 | 3180 | 3150 | 3150 |
| Peak Current | Amps (A) | 54.5 | 43.4 | 35.4 | 28.6 | 23.0 | 18.5 | 14.6 | 11.7 |
| | oz-in | 256 | 272 | 276 | 283 | 287 | 290 | 290 | 292 |
| Peak Torque | Nm | 1.8074 | 1.9203 | 1.9486 | 1.998 | 2.0262 | 2.0474 | 2.0474 | 2.0615 |
| | oz-in | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Coulomb Friction Torque | Nm | 0.0141 | 0.0141 | 0.0141 | 0.0141 | 0.0141 | 0.0141 | 0.0141 | 0.0141 |
| | oz-in | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Viscous Damping Factor | oz-in/krpm | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 |
| | Nm s/rad | 1.28E-5 | 1.28E-5 | 1.28E-5 | 1.28E-5 | 1.28E-5 | 1.28E-5 | 1.28E-5 | 1.28E-5 |
| Electrical Time Constant | ms | 1.4 | 1.5 | 1.6 | 1.6 | 1.6 | 1.6 | 1.7 | 1.7 |
| Mechanical Time Constant | ms | 7.2 | 6.5 | 6.4 | 6.2 | 6.1 | 6.1 | 6.0 | 6.0 |
| Thermal Time Constant | min | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| Thermal Resistance | Celsius/W | 6.8 | 6.8 | 6.8 | 6.8 | 6.8 | 6.8 | 6.8 | 6.8 |
| Max. Winding Temperature | Celsius | 155 | 155 | 155 | 155 | 155 | 155 | 155 | 155 |
| Rotor Inertia | oz-in-sec ² | 0.0052 | 0.0052 | 0.0052 | 0.0052 | 0.0052 | 0.0052 | 0.0052 | 0.0052 |
| | kg-m ² | 3.67E-5 | 3.67E-5 | 3.67E-5 | 3.67E-5 | 3.67E-5 | 3.67E-5 | 3.67E-5 | 3.67E-5 |
| Weight (Mass) | oz | 45.4 | 45.4 | 45.4 | 45.4 | 45.4 | 45.4 | 45.4 | 45.4 |
| | g | 1287.1 | 1287.1 | 1287.1 | 1287.1 | 1287.1 | 1287.1 | 1287.1 | 1287.1 |

| Performance (24 V Winding) | Standard Features |
|----------------------------|---|
| | <ul style="list-style-type: none"> Sintered Bronze Bearings 2-Pole Stator Ceramic Magnets 11-Slot Armature Heavy-Gage Steel Housing Silicon Steel Laminations Copper-Graphite Brushes Diamond-Turned Commutator |
| | Complementary Products <ul style="list-style-type: none"> Encoders Gearboxes Brakes |
| | Notes <p>1 All values specified at 25°C ambient temperature and without heat sink. 2 Peak values are theoretical and supplied for reference only.</p> |
| | |

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| Specification | Units | Part/Model Number | | | | | | | |
|--------------------------|------------------------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | | 14207 15.2 V | 14207 19.1 V | 14207 24.0 V | 14207 30.3 V | 14207 38.2 V | 14207 48.0 V | 14207 60.0 V | 14207 76.4 V |
| Supply Voltage | VDC | 15.2 | 19.1 | 24.0 | 30.3 | 38.2 | 48.0 | 60.6 | 76.4 |
| Continuous Torque | oz-in | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | Nm | 0.353 | 0.353 | 0.353 | 0.353 | 0.353 | 0.353 | 0.353 | 0.353 |
| Speed @ Cont. Torque | RPM | 2910 | 2770 | 2810 | 2810 | 2820 | 2840 | 2830 | 2830 |
| Current @ Cont. Torque | Amps (A) | 9.98 | 7.48 | 5.98 | 4.71 | 3.74 | 2.99 | 2.37 | 1.87 |
| Continuous Output Power | Watts (W) | 108 | 102 | 104 | 104 | 104 | 105 | 105 | 105 |
| Motor Constant | oz-in/sqrt W | 12 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| | Nm/sqrt W | 0.085 | 0.092 | 0.092 | 0.092 | 0.092 | 0.092 | 0.092 | 0.092 |
| Torque Constant | oz-in/A | 6.00 | 8.004 | 10.0 | 12.7 | 16.0 | 20.0 | 25.3 | 32.0 |
| | Nm/A | 0.042 | 0.057 | 0.071 | 0.09 | 0.113 | 0.141 | 0.179 | 0.226 |
| Voltage Constant | V/krpm | 4.44 | 5.92 | 7.39 | 9.39 | 11.8 | 14.8 | 18.7 | 23.7 |
| | V/rad/s | 0.042 | 0.057 | 0.071 | 0.09 | 0.113 | 0.141 | 0.179 | 0.226 |
| Terminal Resistance | Ohms | 0.24 | 0.39 | 0.59 | 0.93 | 1.46 | 2.29 | 3.64 | 5.78 |
| Inductance | mH | 0.31 | 0.56 | 0.87 | 1.40 | 2.23 | 3.48 | 5.58 | 8.93 |
| No-Load Current | Amps (A) | 0.51 | 0.38 | 0.30 | 0.24 | 0.19 | 0.15 | 0.12 | 0.090 |
| No-Load Speed | RPM | 3330 | 3140 | 3160 | 3140 | 3140 | 3160 | 3150 | 3140 |
| Peak Current | Amps (A) | 63.3 | 49.0 | 40.7 | 32.6 | 26.2 | 21.0 | 16.6 | 13.2 |
| | oz-in | 377 | 389 | 404 | 411 | 416 | 416 | 418 | 420 |
| Peak Torque | Nm | 2.6616 | 2.7463 | 2.8522 | 2.9017 | 2.937 | 2.937 | 2.9511 | 2.9652 |
| | oz-in | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 |
| Coulomb Friction Torque | Nm | 0.0155 | 0.0155 | 0.0155 | 0.0155 | 0.0155 | 0.0155 | 0.0155 | 0.0155 |
| Viscous Damping Factor | oz-in/krpm | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 |
| | Nm s/rad | 1.68E-5 | 1.68E-5 | 1.68E-5 | 1.68E-5 | 1.68E-5 | 1.68E-5 | 1.68E-5 | 1.68E-5 |
| Electrical Time Constant | ms | 1.3 | 1.4 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| Mechanical Time Constant | ms | 6.3 | 5.8 | 5.6 | 5.5 | 5.4 | 5.4 | 5.4 | 5.4 |
| Thermal Time Constant | min | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 |
| Thermal Resistance | Celsius/W | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Max. Winding Temperature | Celsius | 155 | 155 | 155 | 155 | 155 | 155 | 155 | 155 |
| Rotor Inertia | oz-in-sec ² | 0.0067 | 0.0067 | 0.0067 | 0.0067 | 0.0067 | 0.0067 | 0.0067 | 0.0067 |
| | kg-m ² | 4.73E-5 | 4.73E-5 | 4.73E-5 | 4.73E-5 | 4.73E-5 | 4.73E-5 | 4.73E-5 | 4.73E-5 |
| Weight (Mass) | oz | 54.5 | 54.5 | 54.5 | 54.5 | 54.5 | 54.5 | 54.5 | 54.5 |
| | g | 1545 | 1545 | 1545 | 1545 | 1545 | 1545 | 1545 | 1545 |

| Performance (24 V Winding) | Standard Features |
|--|---|
| | <ul style="list-style-type: none"> Sintered Bronze Bearings 2-Pole Stator Ceramic Magnets 11-Slot Armature Heavy-Gage Steel Housing Silicon Steel Laminations Copper-Graphite Brushes Diamond-Turned Commutator |
| | Complementary Products <ul style="list-style-type: none"> Encoders Gearboxes Brakes |
| Notes <ol style="list-style-type: none"> All values specified at 25°C ambient temperature and without heat sink. Peak values are theoretical and supplied for reference only. | |

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