

NT MOTOR—230V

The NT Motor is an economical, high performance motor manufactured to maximize torque and minimize size. The NT motor uses powerful Neodymium magnets and is manufactured with a segmented core to maximize stator efficiency and further reduce size.

- Very low inertia for applications that demand high accel and cycle rates
- English (NEMA 23 or 34) or Metric (IEC- 72-1) flanges
- With or without holding brakes
- The standard encoder resolution is 2048 lines per rev.
- NT motors can be ordered with MS style connectors, 1 meter Flying Leads or 1 meter Flying Leads with MS connectors, direct connect
- All models are rated IP65

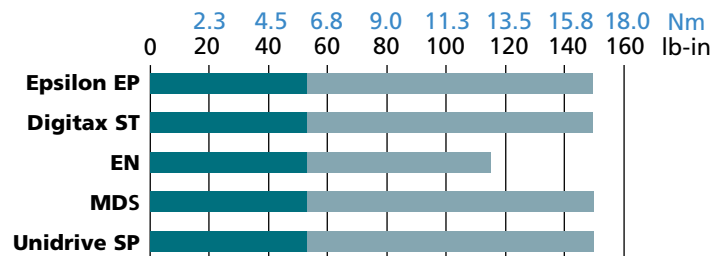
NEW

- Medium inertia options
- NT motors are now available with direct motor to drive connector terminations for Epsilon EP, Unidrive SP & Digitax ST. (These low cost DP/DS solutions are not suitable for all applications.)

NT



■ Continuous Torque
■ Peak Torque



NT Motor Specifications

| Motor Model | Rated Torque lb-in Nm | Cont. Stall Current Arms | Peak Current Arms | Motor Resistance Ohms | Motor Inductance mH | Max Operating Speed RPM | Inertia lb-in-sec² kg-cm² | Motor Ke Vrms/krpm | Motor Kt lb-in/Arms Nm/Arms | Motor Weight lb kg |
|--------------------------|-----------------------------|-----------------------------|----------------------|--------------------------|------------------------|----------------------------|---------------------------------|-----------------------|-----------------------------------|--------------------------|
| NT-207 | 7.5 .85 | 1.7 | 3.6 | 11.1 | 39.1 | 5000 | 0.000094 0.106 | 35 | 5.12 0.58 | 3 1.36 |
| NT-212 | 12.5 1.4 | 2.7 | 6 | 4.56 | 18.9 | 5000 | 0.000164 0.185 | 35 | 5.12 0.58 | 4 1.82 |
| NT-320 | 20 2.2 | 5.4 | 16.2 | 1.5 | 16.0 | 4000 | 0.000328 0.370 | 29 | 3.50 0.40 | 6 2.72 |
| NT-320 medium inertia | 18.0 2.0 | 5.4 | 16.2 | 1.5 | 16.0 | 4000 | 0.000558 0.63 | 29 | 3.50 0.40 | 6.9 3.13 |
| NT-330 | 32 3.6 | 6.25 | 18.38 | 1.2 | 15.0 | 4000 | 0.000438 0.494 | 36 | 4.73 0.53 | 7.3 3.31 |
| NT-330 medium inertia | 47 5.3 | 6.59 | 19.8 | 1.3 | 17.0 | 3000 | 0.000668 0.754 | 50 | 6.37 0.72 | 10 4.54 |
| NT-345 | 47 5.3 | 6.59 | 19.8 | 1.3 | 17.0 | 3000 | 0.000668 0.754 | 50 | 6.37 0.72 | 10 4.54 |
| NT-345 medium inertia | 56 6.3 | 7.6 | 22.8 | 1 | 13.0 | 3000 | 0.000888 1.002 | 50 | 6.32 0.71 | 12.3 5.58 |
| NT-355 | 56 6.3 | 7.6 | 22.8 | 1 | 13.0 | 3000 | 0.000888 1.002 | 50 | 6.32 0.71 | 12.3 5.58 |

Note: Encoder resolution 2048 ppr

NT Holding Brake Specifications

| Motor Frame Size | Volt DC | Current (A) | Static Torque | | Mechanical Disengagement Time-Brake Released ms | Mechanical Engagement Time-Brake Holding ms | Added Inertia | |
|------------------|---------|-------------|---------------|------|--|--|---------------|--------|
| | | | lb-in | Nm | | | lb-in-sec² | kg-cm² |
| 2" | 24 | 0.33 | 20 | 2.26 | 28 | 14 | 0.000106 | 0.12 |
| 3" | 24 | 0.65 | 88.5 | 10 | 43 | 13 | 0.000968 | 1.093 |

NT MOTOR DIMENSIONS

| English Dimensions inches (mm) | 2" | | 3" | | | |
|--|---------------|---------------|---------------|---------------|---|--|
| | NTE-207 | NTE-212 | NTE-320 | NTE-330 | NTE-345 standard inertia NTE-330 medium inertia NTE-320 medium inertia | NTE-355 standard inertia NTE-345 medium inertia |
| A Length Overall - CONS (Max) | 5.55 (141) | 6.55 (166.4) | 5.218 (132.5) | 5.818 (147.8) | 7.018 (178.26) | 9.418 (239.22) |
| Length Overall - TONS/LONS (Max) | 4.39 (111.5) | 5.39 (136.9) | 5.218 (132.5) | 5.818 (147.8) | 7.018 (178.26) | 9.418 (239.22) |
| A Length Overall - CBNS (Max) | 6.95 (176.4) | 7.95 (201.8) | 7.24 (184) | 7.84 (199.2) | 9.043 (229.7) | 11.443 (290.65) |
| Length Overall - TBNS/LBNS (Max) | 6.28 (159.4) | 7.95 (201.8) | 7.24 (184) | 7.84 (199.2) | 9.043 (229.7) | 11.443 (290.65) |
| B Flange Square | 2.27 (57.66) | 2.27 (57.66) | 3.42 (86.87) | 3.42 (86.87) | 3.42 (86.87) | 3.42 (86.87) |
| C Flange Thickness | 0.3 (7.49) | 0.3 (7.49) | 0.3 (7.62) | 0.3 (7.62) | 0.3 (7.62) | 0.3 (7.62) |
| D Pilot Diameter | 1.5 (38.1) | 1.5 (38.1) | 2.875 (73.03) | 2.875 (73.03) | 2.875 (73.03) | 2.875 (73.03) |
| E Pilot Thickness | 0.1 (2.54) | 0.1 (2.54) | 0.1 (2.54) | 0.1 (2.54) | 0.1 (2.54) | 0.1 (2.54) |
| F Bolt Hole Diameter | 0.205 (5.21) | 0.205 (5.21) | 0.22 (5.59) | 0.22 (5.59) | 0.22 (5.59) | 0.22 (5.59) |
| G Bolt Circle Diameter | 2.625 (66.68) | 2.625 (66.68) | 3.875 (98.43) | 3.875 (98.43) | 3.875 (98.43) | 3.875 (98.43) |
| H Signal Connector Height - CONS (Max) | 1.925 (48.89) | 1.925 (48.89) | 2.45 (62.24) | 2.45 (62.24) | 2.45 (62.24) | 2.45 (62.24) |
| H Signal Connector Height - TONS/LONS (Max) | 1.78 (45.2) | 1.78 (45.2) | 2.35 (59.69) | 2.35 (59.69) | 2.35 (59.69) | 2.35 (59.69) |
| H Signal Connector Height - CBNS (Max) | 1.98 (50.4) | 1.98 (50.4) | 2.56 (65) | 2.56 (65) | 2.56 (65) | 2.56 (65) |
| H Signal Connector Height - TBNS/LBNS (Max) | 1.78 (45.2) | 1.78 (45.2) | 2.5 (63.5) | 2.5 (63.5) | 2.5 (63.5) | 2.5 (63.5) |
| I Shaft Length | 1.2 (30.7) | 1.2 (30.7) | 1.2 (30.7) | 1.2 (30.7) | 1.2 (30.7) | 1.2 (30.7) |
| J Shaft Diameter | 0.375 (9.525) | 0.375 (9.525) | 0.5 (12.7) | 0.5 (12.7) | 0.5 (12.7) | 0.5 (12.7) |
| Shaft key Dimensions | | | | | | |
| K Keyway Length (Min) | 0.7 (17.78) | 0.7 (17.78) | 0.84 (21.34) | 0.84 (21.34) | 0.84 (21.34) | 0.84 (21.34) |
| L Keyway Depth | 0.079 (2.007) | 0.079 (2.007) | 0.077 (1.96) | 0.077 (1.96) | 0.077 (1.96) | 0.077 (1.96) |
| M Keyway Width | 0.126 (3.2) | 0.126 (3.2) | 0.127 (3.23) | 0.127 (3.23) | 0.127 (3.23) | 0.127 (3.23) |
| Metric Dimensions inches (mm) | 2" | | 3" | | | |
| | NTM-207 | NTM-212 | NTM-320 | NTM-330 | NTM-345 standard inertia NTM-330 medium inertia NTM-320 medium inertia | NTM-355 standard inertia NTM-345 medium inertia |
| A Length Overall - CONS (Max) | 5.55 (141) | 6.55 (166.4) | 5.218 (132.5) | 5.818 (147.8) | 7.018 (178.26) | 9.418 (239.22) |
| Length Overall - TONS/LONS (Max) | 4.39 (111.5) | 5.39 (136.9) | 5.218 (132.5) | 5.818 (147.8) | 7.018 (178.26) | 9.418 (239.22) |
| A Length Overall - CBNS (Max) | 6.95 (176.4) | 7.95 (201.8) | 7.24 (184) | 7.84 (199.2) | 9.043 (229.7) | 11.443 (290.65) |
| Length Overall - TBNS/LBNS (Max) | 6.28 (159.4) | 7.28 (184.8) | 7.24 (184) | 7.84 (199.2) | 9.043 (229.7) | 11.443 (290.65) |
| B Flange Square | 2.566 (65.18) | 2.566 (65.18) | 3.42 (86.87) | 3.42 (86.87) | 3.42 (86.87) | 3.42 (86.87) |
| C Flange Thickness | 0.3 (7.49) | 0.3 (7.49) | 0.3 (7.62) | 0.3 (7.62) | 0.3 (7.62) | 0.3 (7.62) |
| D Pilot Diameter | 2.363 (60) | 2.363 (60) | 3.15 (80) | 3.15 (80) | 3.15 (80) | 3.15 (80) |
| E Pilot Thickness | 0.1 (2.54) | 0.1 (2.54) | 0.12 (3) | 0.12 (3) | 0.12 (3) | 0.12 (3) |
| F Bolt Hole Diameter | 0.228 (5.8) | 0.228 (5.8) | 0.276 (7.01) | 0.276 (7.01) | 0.276 (7.01) | 0.276 (7.01) |
| G Bolt Circle Diameter | 2.953 (75) | 2.953 (75) | 3.937 (100) | 3.937 (100) | 3.937 (100) | 3.937 (100) |
| H Signal Connector Height - CONS (Max) | 1.925 (48.89) | 1.925 (48.89) | 2.45 (62.24) | 2.45 (62.24) | 2.45 (62.24) | 2.45 (62.24) |
| H Signal Connector Height - TONS/LONS (Max) | 1.78 (45.2) | 1.78 (45.2) | 2.35 (59.69) | 2.35 (59.69) | 2.35 (59.69) | 2.35 (59.69) |
| H Signal Connector Height - CBNS (Max) | 1.98 (50.4) | 1.98 (50.4) | 2.56 (65) | 2.56 (65) | 2.56 (65) | 2.56 (65) |
| H Signal Connector Height - TBNS/LBNS (Max) | 1.78 (45.2) | 1.78 (45.2) | 2.5 (63.5) | 2.5 (63.5) | 2.5 (63.5) | 2.5 (63.5) |
| I Shaft Length | 0.926 (23.51) | 0.512 (23.51) | 1.2 (30.7) | 1.2 (30.7) | 1.2 (30.7) | 1.2 (30.7) |
| J Shaft Diameter | 0.433 (11) | 0.433 (11) | 0.5512 (14) | 0.5512 (14) | 0.5512 (14) | 0.5512 (14) |
| Shaft key Dimensions | | | | | | |
| K Keyway Length (Min) | 0.512 (13) | 0.512 (13) | 0.79 (20) | 0.79 (20) | 0.79 (20) | 0.79 (20) |
| L Keyway Depth | 0.083 (2.1) | 0.083 (2.1) | 0.1 (2.55) | 0.1 (2.55) | 0.1 (2.55) | 0.1 (2.55) |
| M Keyway Width | 0.157 (4) | 0.157 (4) | 0.2 (5.05) | 0.2 (5.05) | 0.2 (5.05) | 0.2 (5.05) |

NT MOTOR DIMENSIONS

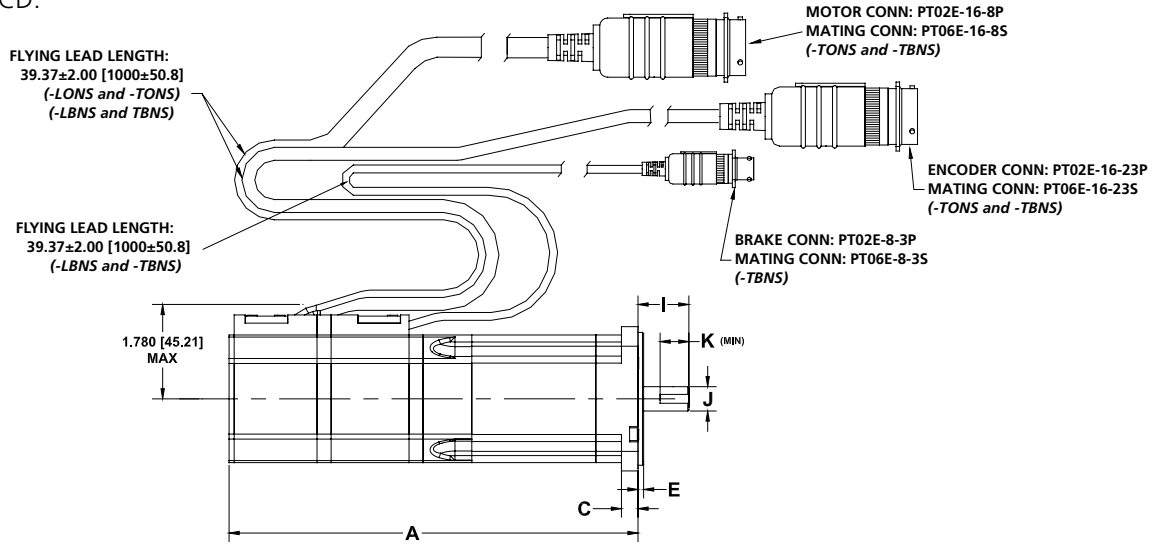
2" NT Motor

Go to
Power CD
for complete data

The dimensional information found on these pages is not to be used for design purposes. For complete engineering controlled drawings, please refer to the web site or Power CD.

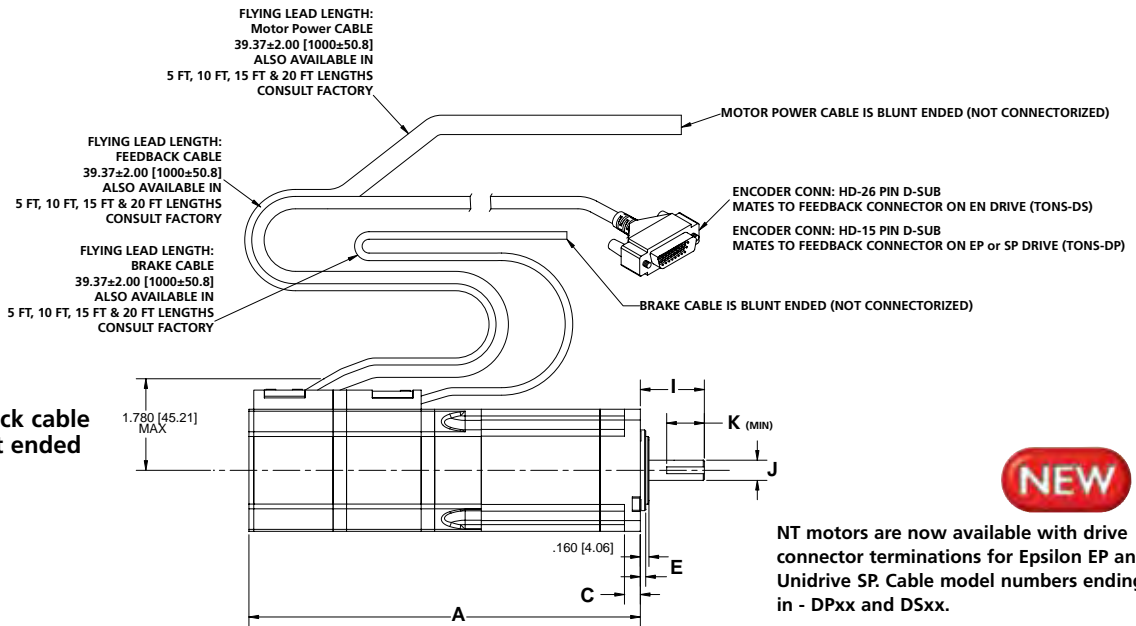
Motor Connection options

TONS
TBNS



Motor Connection options

TBNS - DS
TBNS - DP
TONS - DS
TONS - DP
LBNS
LONS } Feedback cable is blunt ended

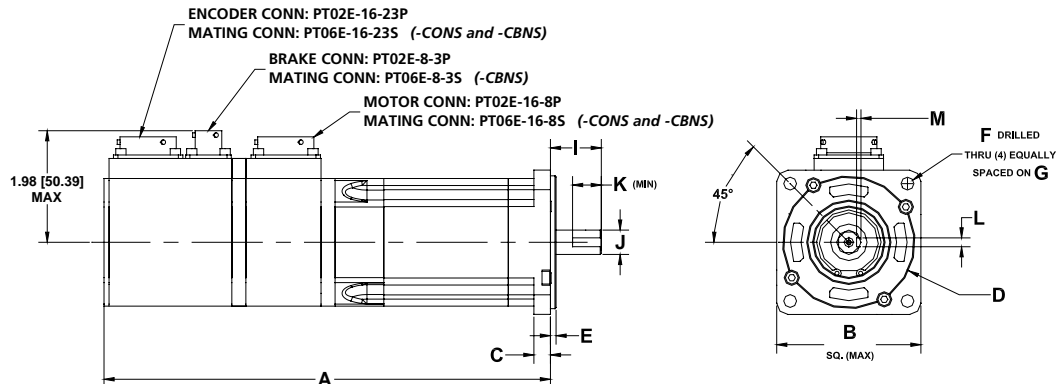


NEW

NT motors are now available with drive connector terminations for Epsilon EP and Unidrive SP. Cable model numbers ending in -DPxx and DSxx.

Motor Connection options

CONS
CBNS



NT MOTOR DIMENSIONS

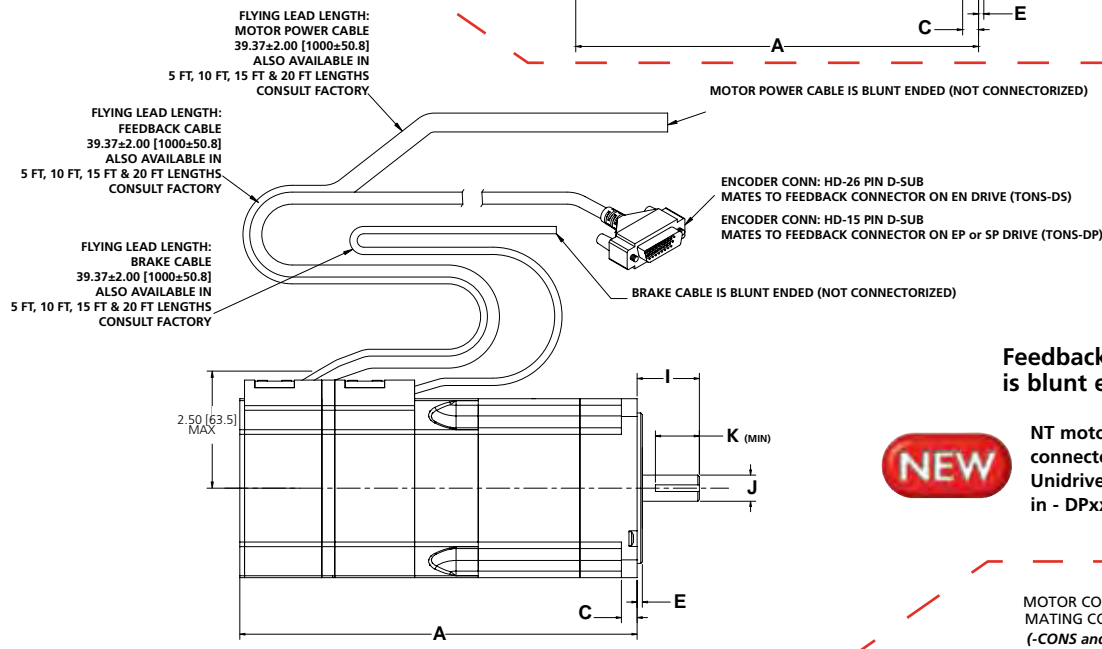
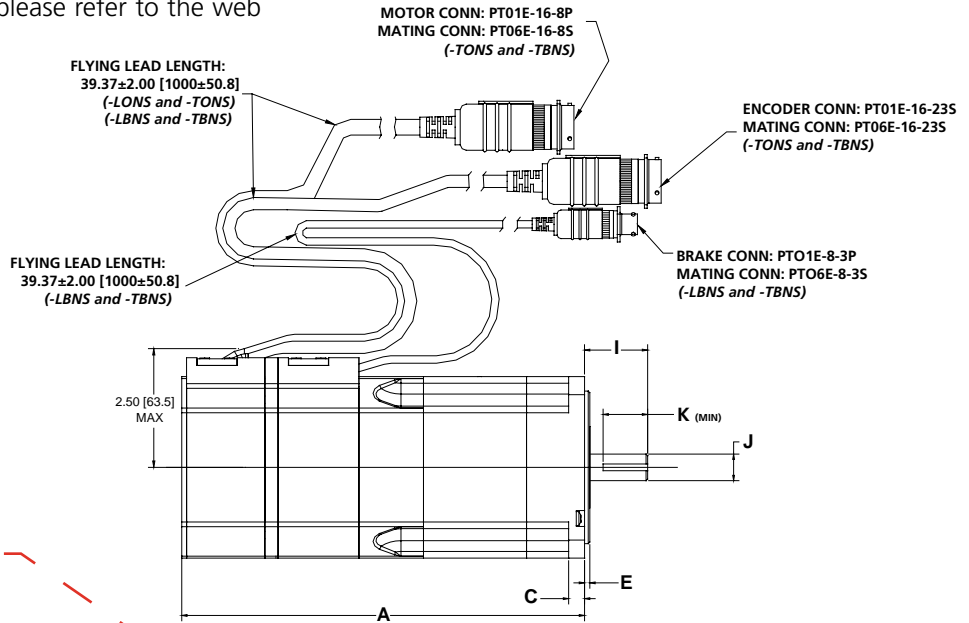
3" NT Motor

Go to
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Motor Connection options

TONS
TBNS



Motor Connection options

TBNS - DS
TBNS - DP
TONS - DS
TONS - DP

Feedback cable is blunt ended
LBNS
LONS

NEW

NT motors are now available with drive connector terminations for Epsilon EP and Unidrive SP. Cable model numbers ending in - DPxx and DSxx.

Motor Connection options

CONS
CBNS

