

## 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

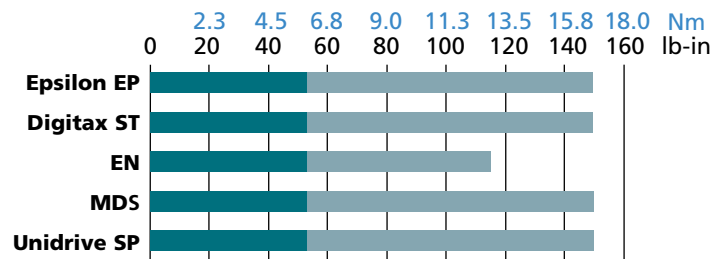
**NEW**

- 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 <small>medium inertia</small>	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 <small>medium inertia</small>	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 <small>medium inertia</small>	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
<b>A</b> 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)
<b>A</b> 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>B</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)
<b>C</b> 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)
<b>D</b> 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)
<b>E</b> 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)
<b>F</b> 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)
<b>G</b> 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)
<b>H</b> 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)
<b>H</b> 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)
<b>H</b> 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)
<b>H</b> 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)
<b>I</b> 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)
<b>J</b> 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)
<b>Shaft key Dimensions</b>						
<b>K</b> 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)
<b>L</b> 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)
<b>M</b> 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
<b>A</b> 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)
<b>A</b> 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>B</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)
<b>C</b> 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)
<b>D</b> Pilot Diameter	2.363 (60)	2.363 (60)	3.15 (80)	3.15 (80)	3.15 (80)	3.15 (80)
<b>E</b> Pilot Thickness	0.1 (2.54)	0.1 (2.54)	0.12 (3)	0.12 (3)	0.12 (3)	0.12 (3)
<b>F</b> 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)
<b>G</b> Bolt Circle Diameter	2.953 (75)	2.953 (75)	3.937 (100)	3.937 (100)	3.937 (100)	3.937 (100)
<b>H</b> 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)
<b>H</b> 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)
<b>H</b> 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)
<b>H</b> 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)
<b>I</b> 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)
<b>J</b> Shaft Diameter	0.433 (11)	0.433 (11)	0.5512 (14)	0.5512 (14)	0.5512 (14)	0.5512 (14)
<b>Shaft key Dimensions</b>						
<b>K</b> Keyway Length (Min)	0.512 (13)	0.512 (13)	0.79 (20)	0.79 (20)	0.79 (20)	0.79 (20)
<b>L</b> 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)
<b>M</b> Keyway Width	0.157 (4)	0.157 (4)	0.2 (5.05)	0.2 (5.05)	0.2 (5.05)	0.2 (5.05)

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**NT MOTOR DIMENSIONS**

**2" NT Motor**

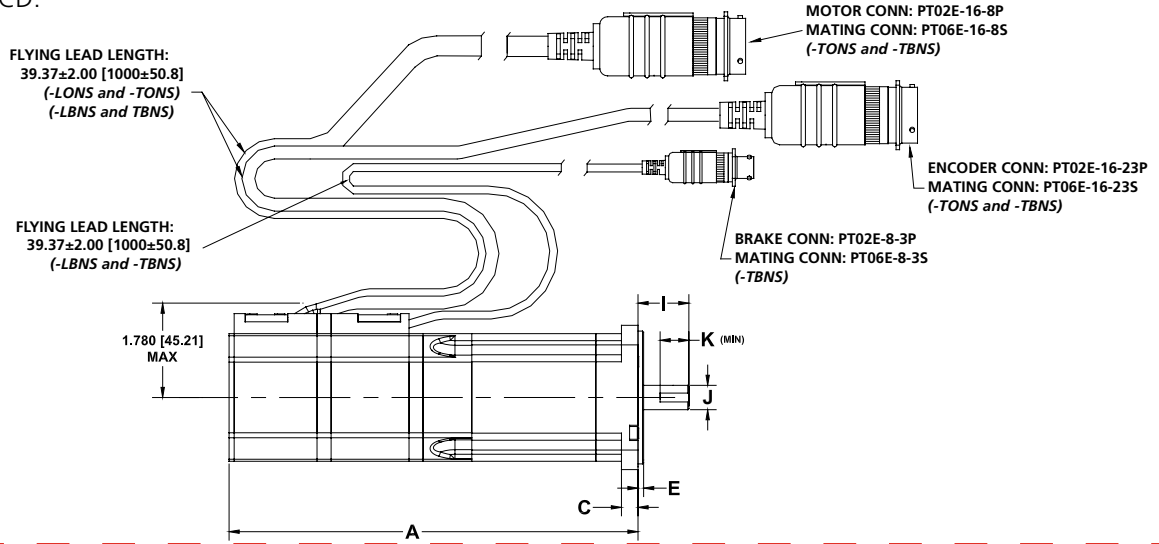
The dimensional information found on these pages is not to be used for design purposes. For complete engineering controlled drawings, please refer to the web site or Power CD.

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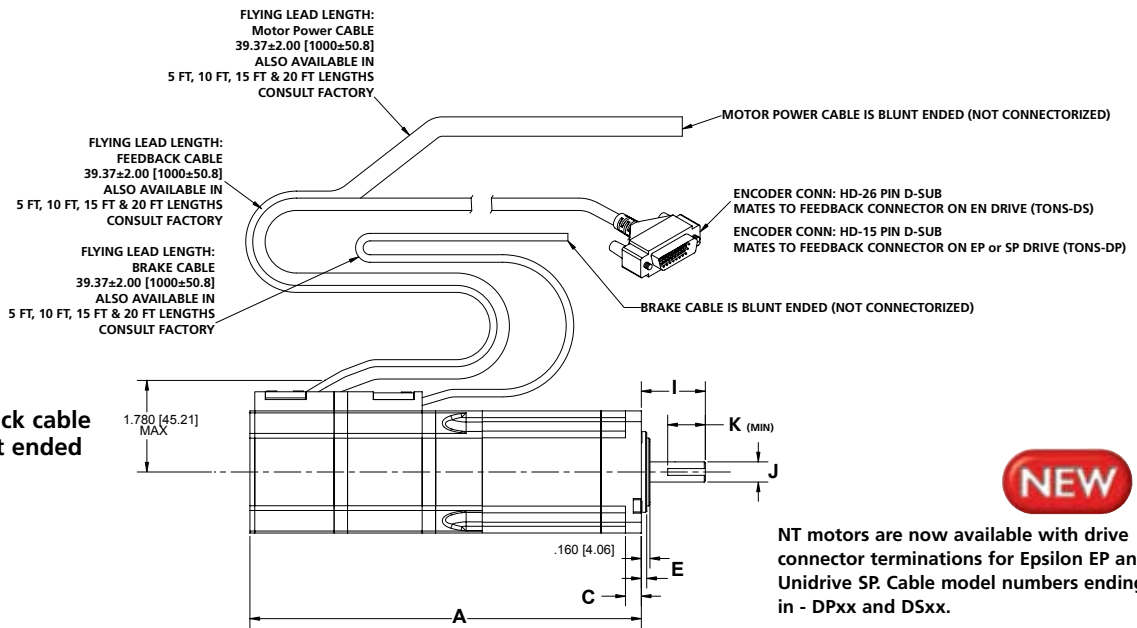
**Motor Connection options**

**TONS**  
**TBNS**



**Motor Connection options**

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

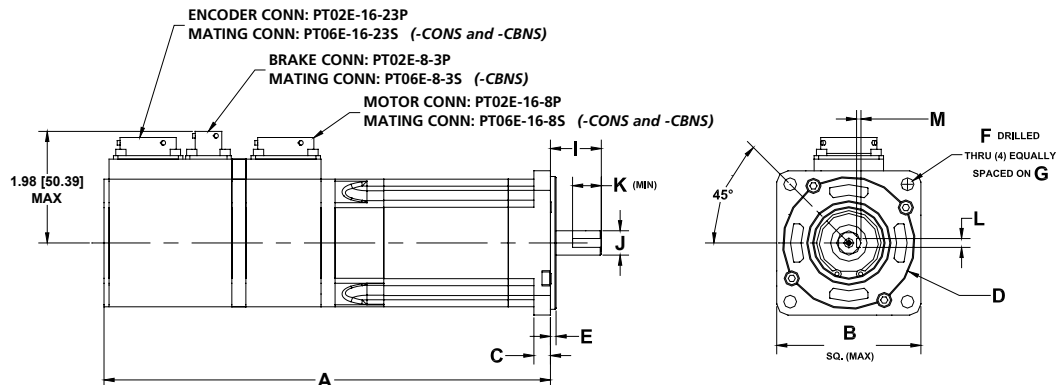


**NEW**

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

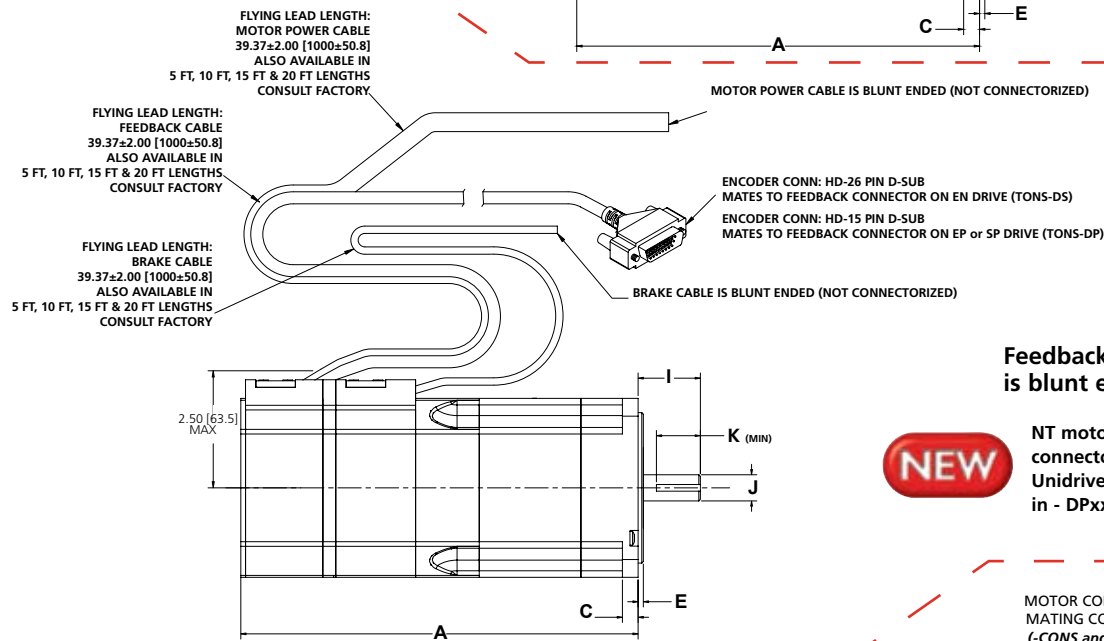
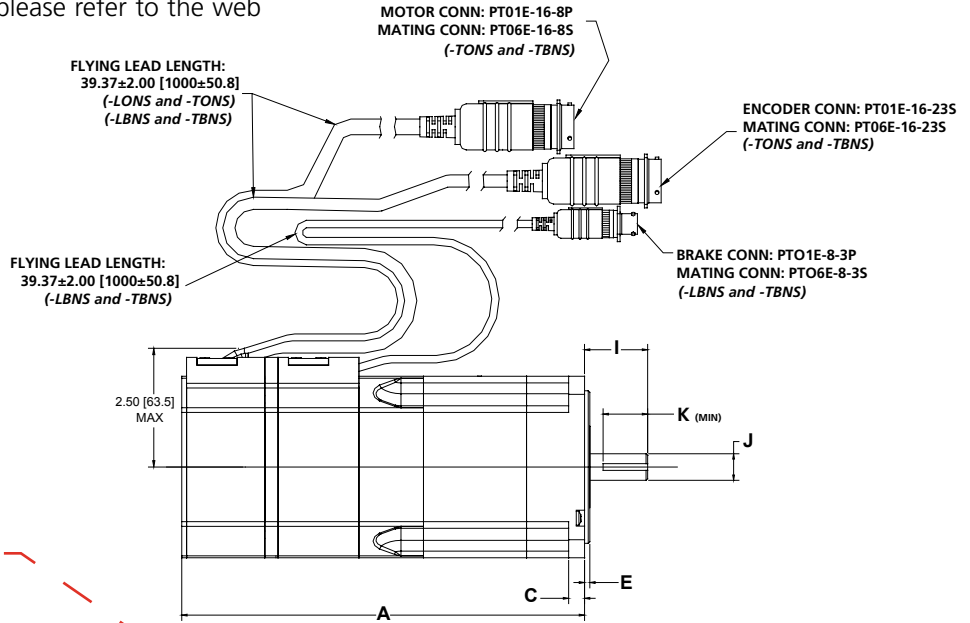
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#### Motor Connection options

**TONS**

**TBNS**



#### Motor Connection options

**TBNS - DS**

**TBNS - DP**

**TONS - DS**

**TONS - DP**

Feedback cable is blunt ended

**LBNS**

**LONS**

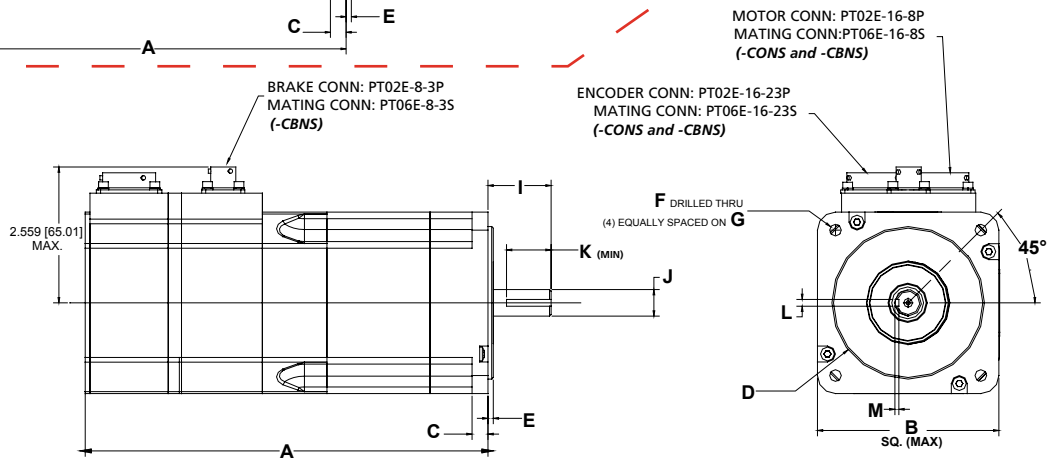
**NEW**

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#### Motor Connection options

**CONS**

**CBNS**



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