



60 mm sq. (2.36 inch sq.)

1.8° /step **RoHS**

Unipolar winding, Connector type
 Unipolar winding, Lead wire type
 Dimensions for attaching NEMA23 are interchangeable (47.14 mm-pitch)
 Bipolar winding, Connector type ▶ p. 76
 Bipolar winding, Lead wire type
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Customizing

- [Hollow](#) [Shaft modification](#)
- [Decelerator](#) [Encoder](#)
- [Brake](#)

Varies depending on the model number and quantity. Contact us for details.

Unipolar winding, Connector type

Model number		Holding torque at 2-phase energization [N·m (oz·in) min.]	Rated current A/phase	Wiring resistance Ω/phase	Winding inductance mH/phase	Rotor inertia [$\times 10^{-4}$ kg·m ² (oz·in ²)]	Mass (Weight) [kg (lbs)]	Motor length (L) mm (in)
Single shaft	Dual shaft							
103H7821-0140	103H7821-0110	0.78 (110.5)	1	5.7	8.3	0.275 (1.50)	0.6 (1.32)	44.8 (1.76)
103H7821-0440	103H7821-0410	0.78 (110.5)	2	1.5	2	0.275 (1.50)	0.6 (1.32)	44.8 (1.76)
103H7821-0740	103H7821-0710	0.78 (110.5)	3	0.68	0.8	0.275 (1.50)	0.6 (1.32)	44.8 (1.76)
103H7822-0140	103H7822-0110	1.17 (165.7)	1	6.9	14	0.4 (2.19)	0.77 (1.70)	53.8 (2.12)
103H7822-0440	103H7822-0410	1.17 (165.7)	2	1.8	3.6	0.4 (2.19)	0.77 (1.70)	53.8 (2.12)
103H7822-0740	103H7822-0710	1.17 (165.7)	3	0.8	1.38	0.4 (2.19)	0.77 (1.70)	53.8 (2.12)
103H7823-0140	103H7823-0110	2.1 (297.4)	1	10	21.7	0.84 (4.59)	1.34 (2.95)	85.8 (3.38)
103H7823-0440	103H7823-0410	2.1 (297.4)	2	2.7	5.6	0.84 (4.59)	1.34 (2.95)	85.8 (3.38)
103H7823-0740	103H7823-0710	2.1 (297.4)	3	1.25	2.4	0.84 (4.59)	1.34 (2.95)	85.8 (3.38)

Motor cable: Model No. 4837798-1

Unipolar winding, Lead wire type Dimensions for attaching NEMA23 are interchangeable (47.14 mm-pitch)

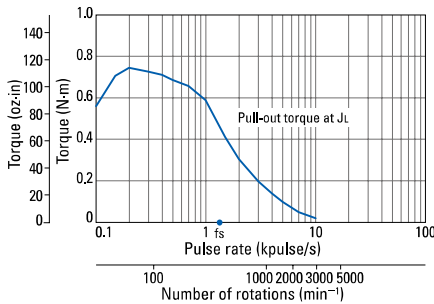
Model number		Holding torque at 2-phase energization [N·m (oz·in) min.]	Rated current A/phase	Wiring resistance Ω/phase	Winding inductance mH/phase	Rotor inertia [$\times 10^{-4}$ kg·m ² (oz·in ²)]	Mass (Weight) [kg (lbs)]	Motor length (L) mm (in)
Single shaft	Dual shaft							
103H7821-0160	103H7821-0130	0.78 (110.5)	1	5.7	8.3	0.275 (1.50)	0.6 (1.32)	43.5 (1.71)
103H7821-0460	103H7821-0430	0.78 (110.5)	2	1.5	2	0.275 (1.50)	0.6 (1.32)	43.5 (1.71)
103H7821-0760	103H7821-0730	0.78 (110.5)	3	0.68	0.8	0.275 (1.50)	0.6 (1.32)	43.5 (1.71)
103H7822-0160	103H7822-0130	1.17 (165.7)	1	6.9	14	0.4 (2.19)	0.77 (1.70)	52.5 (2.07)
103H7822-0460	103H7822-0430	1.17 (165.7)	2	1.8	3.6	0.4 (2.19)	0.77 (1.70)	52.5 (2.07)
103H7822-0760	103H7822-0730	1.17 (165.7)	3	0.8	1.38	0.4 (2.19)	0.77 (1.70)	52.5 (2.07)
103H7823-0160	103H7823-0130	2.1 (297.4)	1	10	21.7	0.84 (4.59)	1.34 (2.95)	84.5 (3.33)
103H7823-0460	103H7823-0430	2.1 (297.4)	2	2.7	5.6	0.84 (4.59)	1.34 (2.95)	84.5 (3.33)
103H7823-0760	103H7823-0730	2.1 (297.4)	3	1.25	2.4	0.84 (4.59)	1.34 (2.95)	84.5 (3.33)

Characteristics diagram

103H7821-0140
103H7821-0110

103H7821-0160
103H7821-0130

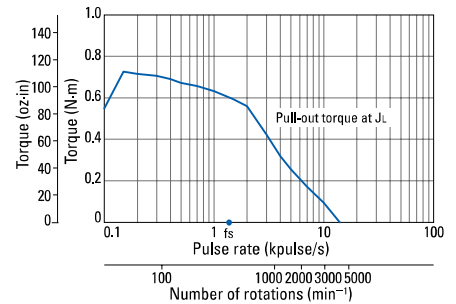
Constant current circuit
 Source voltage: 24 VDC
 Operating current:
 1 A/phase, 2-phase energization (full-step)
 $J_L = [0.94 \times 10^{-4} \text{kg} \cdot \text{m}^2 (5.14 \text{oz} \cdot \text{in}^2)]$ use the rubber coupling)
 f_s : Maximum self-start frequency when not loaded



103H7821-0440
103H7821-0410

103H7821-0460
103H7821-0430

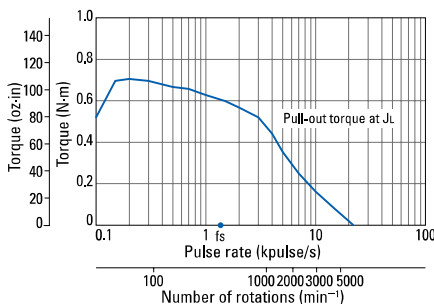
Constant current circuit
 Source voltage: 24 VDC
 Operating current:
 2 A/phase, 2-phase energization (full-step)
 $J_L = [0.94 \times 10^{-4} \text{kg} \cdot \text{m}^2 (5.14 \text{oz} \cdot \text{in}^2)]$ use the rubber coupling)
 f_s : Maximum self-start frequency when not loaded



103H7821-0740
103H7821-0710

103H7821-0760
103H7821-0730

Constant current circuit
 Source voltage: 24 VDC
 Operating current:
 3 A/phase, 2-phase energization (full-step)
 $J_L = [0.94 \times 10^{-4} \text{kg} \cdot \text{m}^2 (5.14 \text{oz} \cdot \text{in}^2)]$ use the rubber coupling)
 f_s : Maximum self-start frequency when not loaded



103H7822-0140
103H7822-0110

103H7822-0160
103H7822-0130

Constant current circuit
 Source voltage: 24 VDC
 Operating current:
 1 A/phase, 2-phase energization (full-step)
 $J_L = [2.6 \times 10^{-4} \text{kg} \cdot \text{m}^2 (14.22 \text{oz} \cdot \text{in}^2)]$ use the rubber coupling)
 f_s : Maximum self-start frequency when not loaded

