



60 mm sq. (2.36 inch sq.)

1.8° /step

Unipolar winding · Connector type

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

Bipolar winding · Connector type ▶ P.46

Bipolar winding · Lead wire type Dimensions for attaching NEMA23 are interchangeable (47.14 mm-pitch) ▶ P.46

Unipolar winding · Connector type

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

Motor cable : Model No. 4837798-1

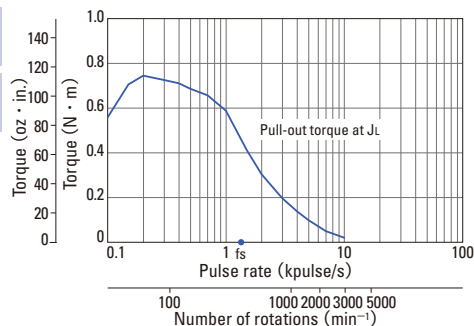
Unipolar winding · Lead wire type Dimensions for attaching NEMA23 are interchangeable (47.14 mm-pitch)

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

Characteristics diagram

103H7821-0140
103H7821-0110

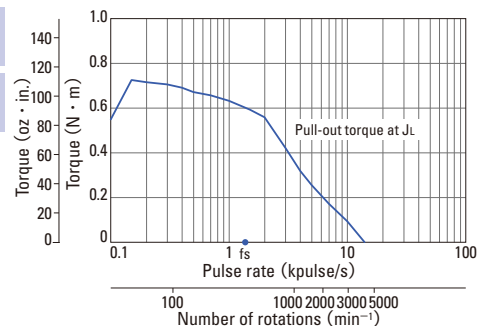
103H7821-0160
103H7821-0130



Constant current circuit
Source voltage : DC24V · Operating current : 1A/phase,
2-phase energization (full-step)
 $J_t = [0.94 \times 10^{-4} \text{kg} \cdot \text{m}^2 (5.14 \text{oz} \cdot \text{in}^2)]$ use the rubber coupling
fs: Maximum self-start frequency when not loaded

103H7821-0440
103H7821-0410

103H7821-0460
103H7821-0430

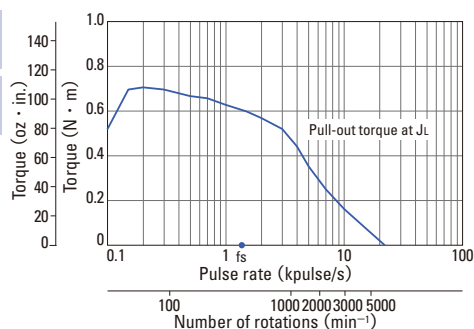


Constant current circuit
Source voltage : DC24V · Operating current : 2A/phase,
2-phase energization (full-step)
 $J_t = [0.94 \times 10^{-4} \text{kg} \cdot \text{m}^2 (5.14 \text{oz} \cdot \text{in}^2)]$ use the rubber coupling
fs: Maximum self-start frequency when not loaded

Characteristics diagram

103H7821-0740
103H7821-0710

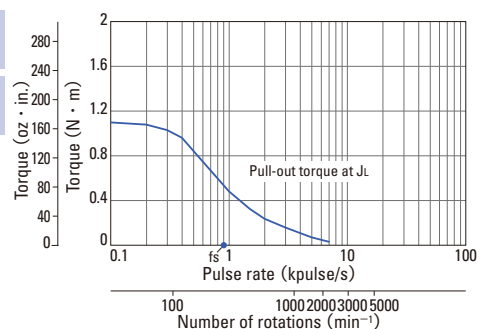
103H7821-0760
103H7821-0730



Constant current circuit
Source voltage : DC24V · Operating current : 3A/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]
fs: Maximum self-start frequency when not loaded

103H7822-0140
103H7822-0110

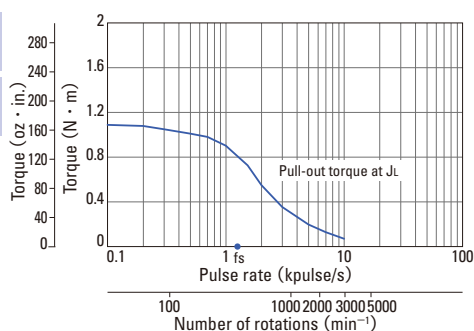
103H7822-0160
103H7822-0130



Constant current circuit
Source voltage : DC24V · Operating current : 1A/phase,
2-phase energization (full-step)
 $J_L = [7.4 \times 10^{-4} \text{ kg} \cdot \text{m}^2 (40.46 \text{ oz} \cdot \text{in}^2)]$ use the rubber coupling]
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103H7822-0440
103H7822-0410

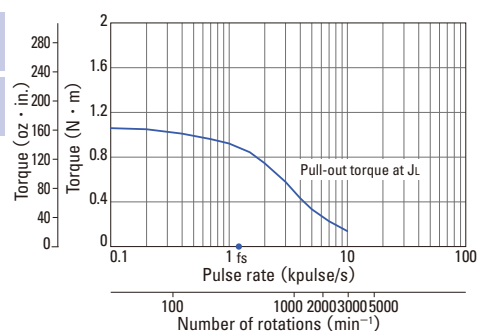
103H7822-0460
103H7822-0430



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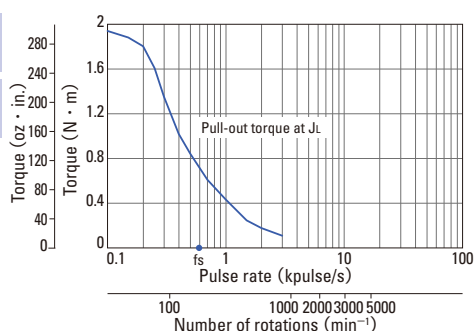
103H7822-0760
103H7822-0730



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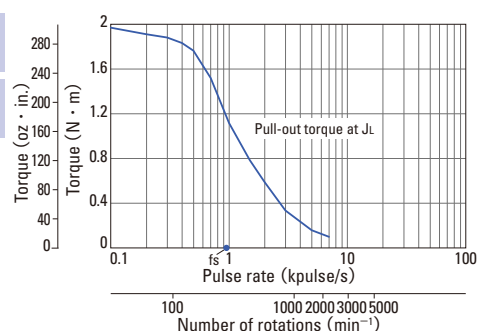
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103H7823-0130



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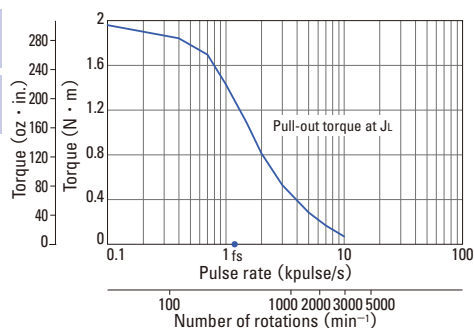
103H7823-0460
103H7823-0430



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103H7823-0740
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103H7823-0760
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Constant current circuit
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