

Stepping motor Specifications



2-phase stepping motor

42mm sq.(1.65inch sq.)

103H52
1.8 ° /step

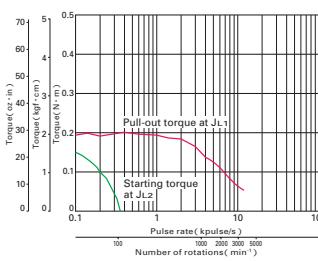
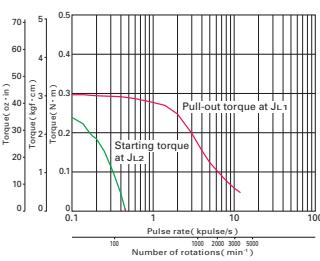
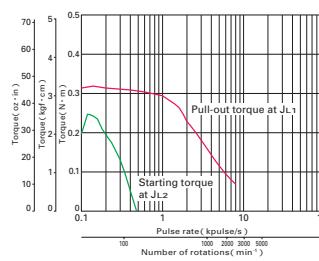
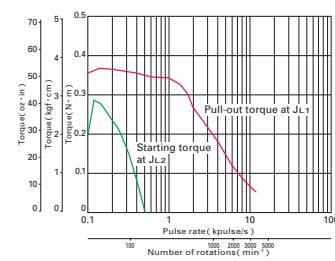
Unipolar winding • Connector type

Model		Holding torque at 2-phase energization [N · m (oz · in) MIN.]	Rated current A/phase	Wiring resistance /phase	Winding inductance mH/phase	Rotor inertia [$\times 10^{-4}$ kg · m 2 (oz · in 2)]	Mass (Weight) [kg (lbs)]
Single shaft	Double shafts	[N · m (oz · in) MIN.]	A/phase	/phase	mH/phase	[$\times 10^{-4}$ kg · m 2 (oz · in 2)]	[kg (lbs)]
103H5205-0440	-0410	0.2 (28.32)	1.2	2.4	2.3	0.036 (0.20)	0.23 (0.51)
103H5208-0440	-0410	0.3 (42.48)	1.2	2.9	3.4	0.056 (0.31)	0.29 (0.64)
103H5209-0440	-0410	0.32 (45.31)	1.2	3	3.9	0.062 (0.34)	0.31 (0.68)
103H5210-0440	-0410	0.37 (52.39)	1.2	3.3	3.4	0.074 (0.40)	0.37 (0.82)

Bipolar winding • Lead wire type

Model		Holding torque at 2-phase energization [N · m (oz · in) MIN.]	Rated current A/phase	Wiring resistance /phase	Winding inductance mH/phase	Rotor inertia [$\times 10^{-4}$ kg · m 2 (oz · in 2)]	Mass (Weight) [kg (lbs)]
Single shaft	Double shafts	[N · m (oz · in) MIN.]	A/phase	/phase	mH/phase	[$\times 10^{-4}$ kg · m 2 (oz · in 2)]	[kg (lbs)]
103H5205-5040	-5010	0.23 (32.57)	0.25	54	78	0.036 (0.20)	0.23 (0.51)
103H5205-5140	-5110	0.25 (35.40)	0.5	13.4	23.4	0.036 (0.20)	0.23 (0.51)
103H5205-5240	-5210	0.265 (37.53)	1	3.4	6.5	0.036 (0.20)	0.23 (0.51)
103H5208-5040	-5010	0.35 (49.56)	0.25	66	116	0.056 (0.31)	0.29 (0.64)
103H5208-5140	-5110	0.38 (53.81)	0.5	16.5	34	0.056 (0.31)	0.29 (0.64)
103H5208-5240	-5210	0.39 (55.23)	1	4.1	9.5	0.056 (0.31)	0.29 (0.64)
103H5209-5040	-5010	0.38 (53.81)	0.25	71.4	133	0.062 (0.34)	0.31 (0.68)
103H5209-5140	-5110	0.41 (58.06)	0.5	18.2	39	0.062 (0.34)	0.31 (0.68)
103H5209-5240	-5210	0.425 (60.18)	1	4.4	11	0.062 (0.34)	0.31 (0.68)
103H5210-5040	-5010	0.465 (65.85)	0.25	80	123.3	0.074 (0.40)	0.37 (0.82)
103H5210-5140	-5110	0.49 (69.39)	0.5	20	35	0.074 (0.40)	0.37 (0.82)
103H5210-5240	-5210	0.51 (72.22)	1	4.8	9.5	0.074 (0.40)	0.37 (0.82)

Pulse rate-torque characteristics

103H5205-04**103H5208-04****103H5209-04****103H5210-04**

Constant current circuit

Source voltage : DC24V · operating current : 1.2A/phase,
2-phase energization (full-step)

$J_{l1} = [0.94 \times 10^{-4} \text{kg} \cdot \text{m}^2 (5.14 \text{ oz} \cdot \text{in}^2)]$ use the rubber coupling]
 $J_{l2} = [0.8 \times 10^{-4} \text{kg} \cdot \text{m}^2 (4.37 \text{ oz} \cdot \text{in}^2)]$ use the direct coupling]

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Source voltage : DC24V · operating current : 1.2A/phase,
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