



## 2-phase Stepping Motor

**56mm sq.** 103H712□  
1.8°/step

- For information on the applicable driver, contact our sales department.

### Specifications

#### Unipolar winding

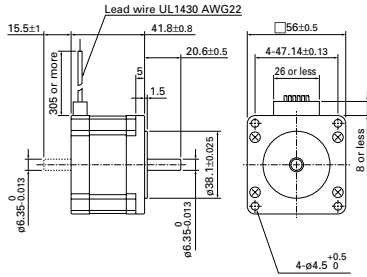
Model		Holding torque at 2-phase energization N.m or more	Rated current A/phase	Wiring resistance Ω/phase	Wiring inductance mH/phase	Rotor inertia x10 <sup>-4</sup> kg·m <sup>2</sup>	Weigh kg
One shaft	Two shafts						
103H7121-0140	-0110	0.39	1	4.8	8	0.1	0.47
103H7121-0440	-0410	0.39	2	1.25	1.9	0.1	0.47
103H7121-0740	-0710	0.39	3	0.6	0.8	0.1	0.47
103H7123-0140	-0110	0.83	1	6.7	15	0.21	0.65
103H7123-0440	-0410	0.83	2	1.6	3.8	0.21	0.65
103H7123-0740	-0710	0.78	3	0.77	1.58	0.21	0.65
103H7124-0140	-0110	0.98	1	7	12.5	0.245	0.8
103H7124-0440	-0410	0.98	2	1.7	3.1	0.245	0.8
103H7124-0740	-0710	0.98	3	0.74	1.4	0.245	0.8
103H7126-0140	-0110	1.27	1	8.6	19	0.36	0.98
103H7126-0440	-0410	1.27	2	2	4.5	0.36	0.98
103H7126-0740	-0710	1.27	3	0.9	2.2	0.36	0.98

#### Bipolar winding

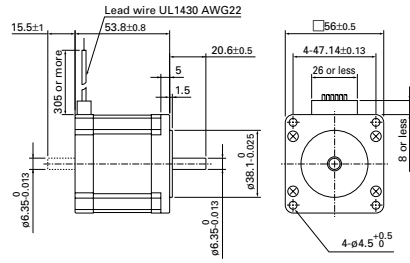
Model		Holding torque at 2-phase energization N.m or more	Rated current A/phase	Wiring resistance Ω/phase	Wiring inductance mH/phase	Rotor inertia x10 <sup>-4</sup> kg·m <sup>2</sup>	Weigh kg
One shaft	Two shafts						
103H7121-5040	-5010	0.39	2	0.65	1.9	0.1	0.47
103H7123-5040	-5010	0.83	2	0.8	3.8	0.21	0.65
103H7126-5040	-5010	1.27	2	1.05	4.5	0.36	0.98

**Dimensions** (Unit: mm)

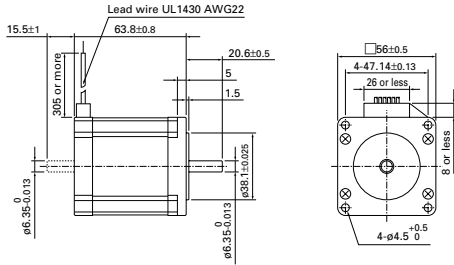
**103H7121-0140/0440/0740/5040 (Single shaft)**  
**103H7121-0110/0410/0710/5010 (Double shaft)**



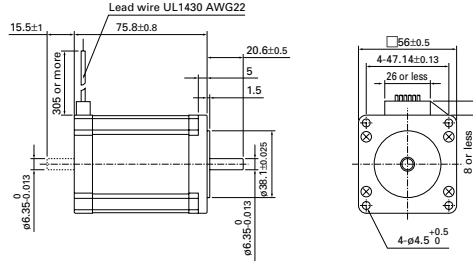
**103H7123-0140/0440/0740/5040 (Single shaft)**  
**103H7123-0110/0410/0710/5010 (Double shaft)**



**103H7124-0140/0440/0740 (Single shaft)**  
**103H7124-0110/0410/0710 (Double shaft)**



**103H7126-0140/0440/0740/5040 (Single shaft)**  
**103H7126-0110/0410/0710/5010 (Double shaft)**



□39mm(0.9)  
□42mm(0.9)

□56mm(0.9)

□28mm(1.8)

□42mm(1.8)

□50mm(1.8)

□56mm(1.8)

□60mm(1.8)

ø86mm(1.8)

ø106mm(1.8)

□56mm(CE)

ø86mm(CE)

ø106mm(CE)

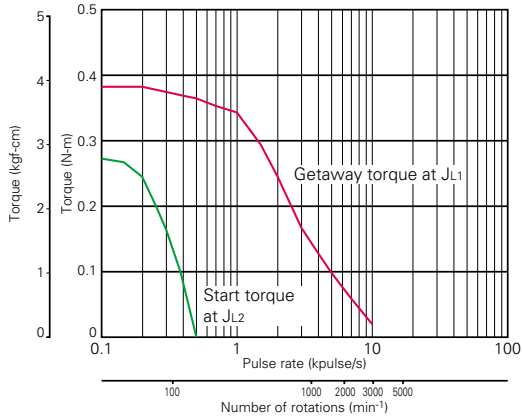
Specifications of  
2-phase stepping motor

In-vacuum  
stepping motor

2-phase  
synchronous motor

## Pulse Rate - Torque Characteristics

●103H7121-0140



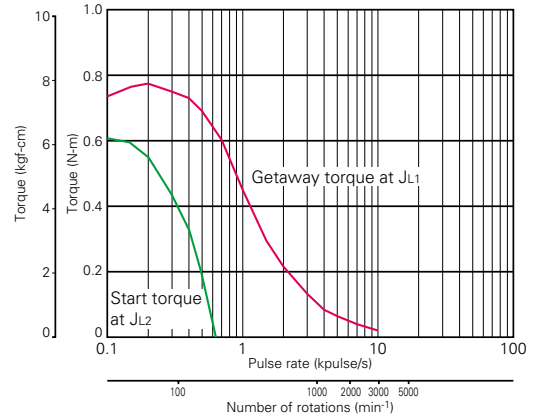
Sanyo constant current circuit

Source voltage: DC24V Wiring current: 1A/phase, 2-phase energization (full-step)

$J_{L1}=0.94 \times 10^{-4} \text{kg}\cdot\text{m}^2$  (Uses rubber coupling)

$J_{L2}=0.8 \times 10^{-4} \text{kg}\cdot\text{m}^2$  (Uses direct coupling)

●103H7123-0140



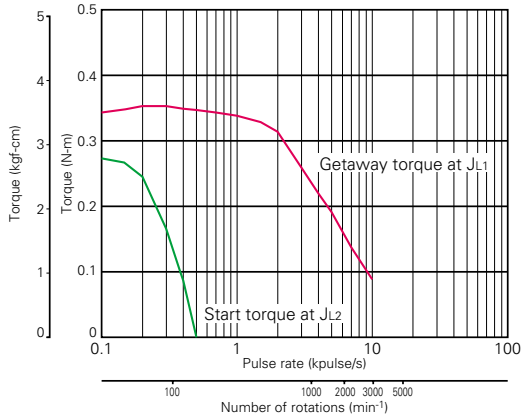
Sanyo constant current circuit

Source voltage: DC24V Wiring current: 1A/phase, 2-phase energization (full-step)

$J_{L1}=0.94 \times 10^{-4} \text{kg}\cdot\text{m}^2$  (Uses rubber coupling)

$J_{L2}=0.8 \times 10^{-4} \text{kg}\cdot\text{m}^2$  (Uses direct coupling)

●103H7121-0440



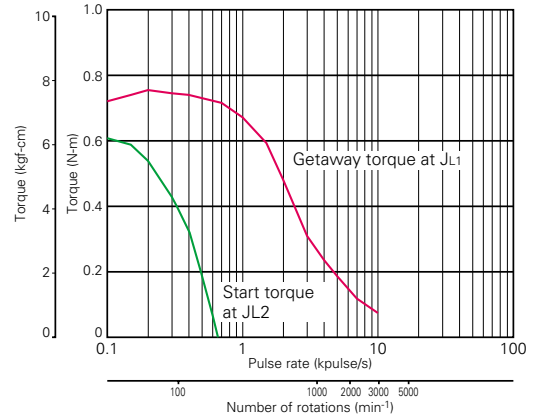
Sanyo constant current circuit

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

$J_{L1}=0.94 \times 10^{-4} \text{kg}\cdot\text{m}^2$  (Uses rubber coupling)

$J_{L2}=0.8 \times 10^{-4} \text{kg}\cdot\text{m}^2$  (Uses direct coupling)

●103H7123-0440



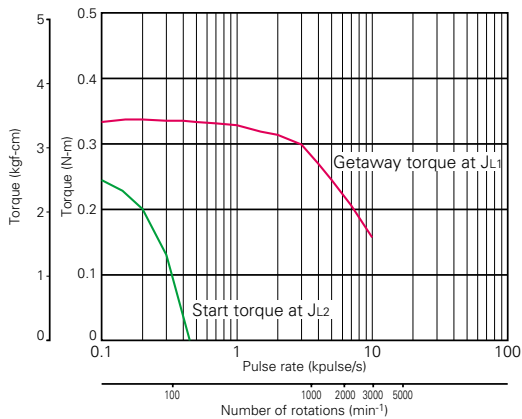
Sanyo constant current circuit

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

$J_{L1}=0.94 \times 10^{-4} \text{kg}\cdot\text{m}^2$  (Uses rubber coupling)

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●103H7121-0740



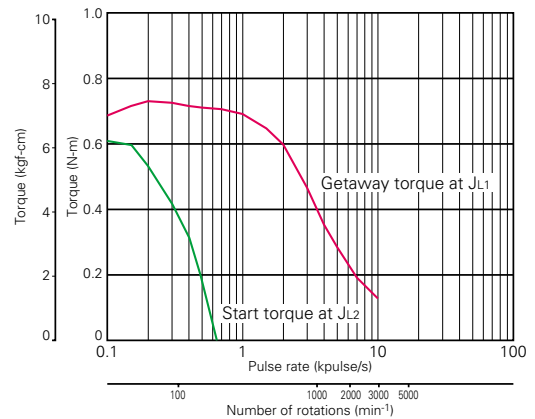
Sanyo constant current circuit

Source voltage: DC24V Wiring current: 3A/phase, 2-phase energization (full-step)

$J_{L1}=0.94 \times 10^{-4} \text{kg}\cdot\text{m}^2$  (Uses rubber coupling)

$J_{L2}=0.8 \times 10^{-4} \text{kg}\cdot\text{m}^2$  (Uses direct coupling)

●103H7123-0740



Sanyo constant current circuit

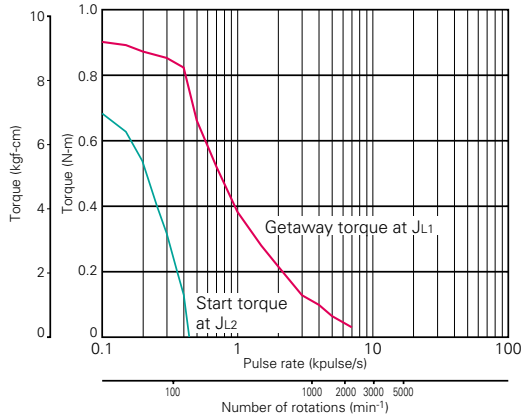
Source voltage: DC24V Wiring current: 3A/phase, 2-phase energization (full-step)

$J_{L1}=0.94 \times 10^{-4} \text{kg}\cdot\text{m}^2$  (Uses rubber coupling)

$J_{L2}=0.8 \times 10^{-4} \text{kg}\cdot\text{m}^2$  (Uses direct coupling)

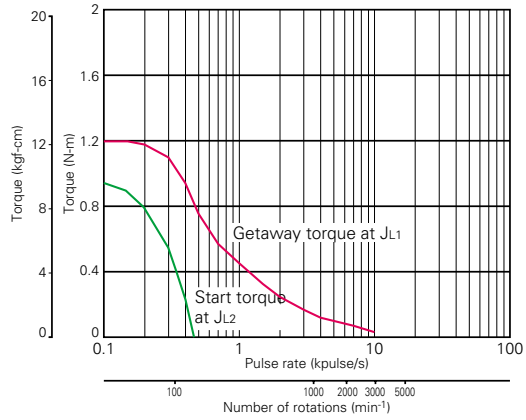
Pulse Rate - Torque Characteristics

●103H7124-0140



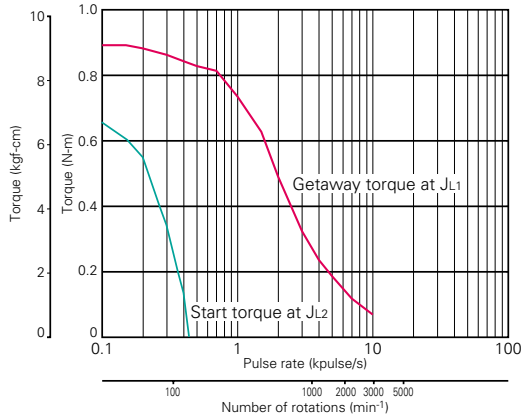
Sanyo constant current circuit  
 Source voltage: DC24V Wiring current: 1A/phase, 2-phase energization (full-step)  
 JL1=2.6x10<sup>-4</sup>kg-m<sup>2</sup> (Uses rubber coupling)  
 JL2=2.6x10<sup>-4</sup>kg-m<sup>2</sup> (Uses direct coupling)

●103H7126-0140



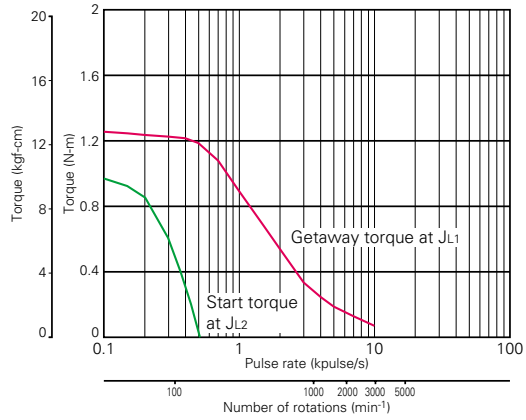
Sanyo constant current circuit  
 Source voltage: DC24V Wiring current: 1A/phase, 2-phase energization (full-step)  
 JL1=2.6x10<sup>-4</sup>kg-m<sup>2</sup> (Uses rubber coupling)  
 JL2=2.6x10<sup>-4</sup>kg-m<sup>2</sup> (Uses direct coupling)

●103H7124-0440



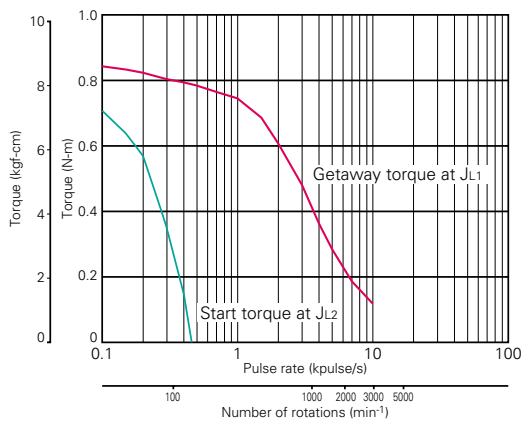
Sanyo constant current circuit  
 Source voltage: DC24V Wiring current: 2A/phase, 2-phase energization (full-step)  
 JL1=2.6x10<sup>-4</sup>kg-m<sup>2</sup> (Uses rubber coupling)  
 JL2=2.6x10<sup>-4</sup>kg-m<sup>2</sup> (Uses direct coupling)

●103H7126-0440



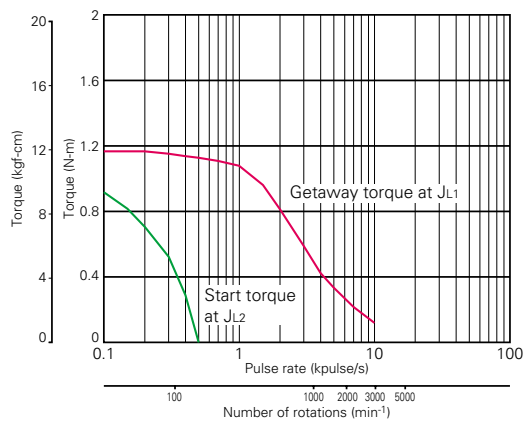
Sanyo constant current circuit  
 Source voltage: DC24V Wiring current: 2A/phase, 2-phase energization (full-step)  
 JL1=2.6x10<sup>-4</sup>kg-m<sup>2</sup> (Uses rubber coupling)  
 JL2=2.6x10<sup>-4</sup>kg-m<sup>2</sup> (Uses direct coupling)

●103H7124-0740



Sanyo constant current circuit  
 Source voltage: DC24V Wiring current: 3A/phase, 2-phase energization (full-step)  
 JL1=2.6x10<sup>-4</sup>kg-m<sup>2</sup> (Uses rubber coupling)  
 JL2=2.6x10<sup>-4</sup>kg-m<sup>2</sup> (Uses direct coupling)

●103H7126-0740

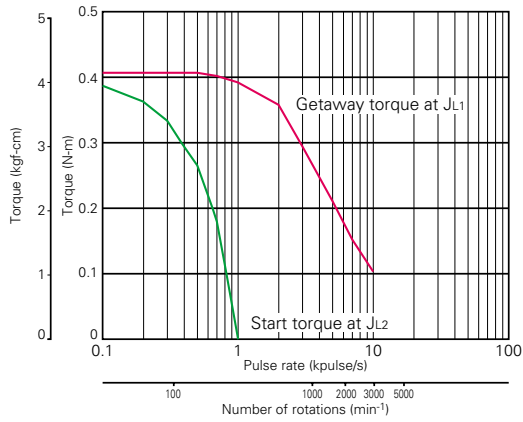


Sanyo constant current circuit  
 Source voltage: DC24V Wiring current: 3A/phase, 2-phase energization (full-step)  
 JL1=2.6x10<sup>-4</sup>kg-m<sup>2</sup> (Uses rubber coupling)  
 JL2=2.6x10<sup>-4</sup>kg-m<sup>2</sup> (Uses direct coupling)

- 39mm(0.9')
- 42mm(0.9')
- 56mm(0.9')
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- 42mm(1.8')
- 50mm(1.8')
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- 60mm(1.8')
- 86mm(1.8')
- 106mm(1.8')
- 56mm(CE)
- 86mm(CE)
- 106mm(CE)
- Specifications of 2-phase stepping motor
- In-vacuum stepping motor
- 2-phase synchronous motor

## Pulse Rate - Torque Characteristics

### ●103H7121-5040



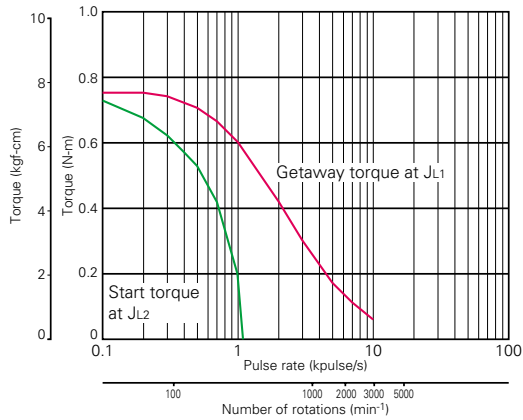
Sanyo constant current circuit

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

$J_{L1}=0.94 \times 10^{-4} \text{kg}\cdot\text{m}^2$  (Uses rubber coupling)

$J_{L2}=0.1 \times 10^{-4} \text{kg}\cdot\text{m}^2$  (pulley balancer method)

### ●103H7123-5040



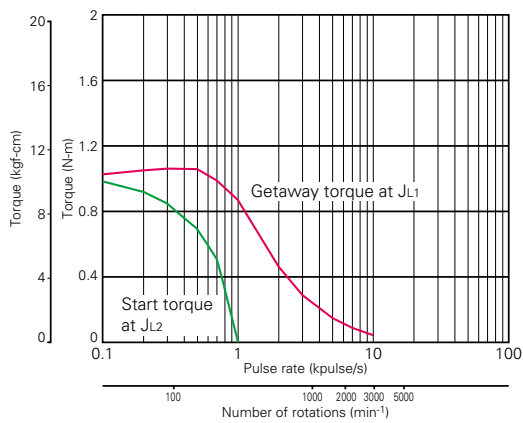
Sanyo constant current circuit

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

$J_{L1}=0.94 \times 10^{-4} \text{kg}\cdot\text{m}^2$  (Uses rubber coupling)

$J_{L2}=0.21 \times 10^{-4} \text{kg}\cdot\text{m}^2$  (pulley balancer method)

### ●103H7126-5040



Sanyo constant current circuit

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

$J_{L1}=2.6 \times 10^{-4} \text{kg}\cdot\text{m}^2$  (Uses rubber coupling)

$J_{L2}=0.33 \times 10^{-4} \text{kg}\cdot\text{m}^2$  (pulley balancer method)

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- 56mm(CE)
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