



2-phase Stepping Motor

60mm sq. 103H782□
1.8°/step

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

Specifications

Unipolar winding

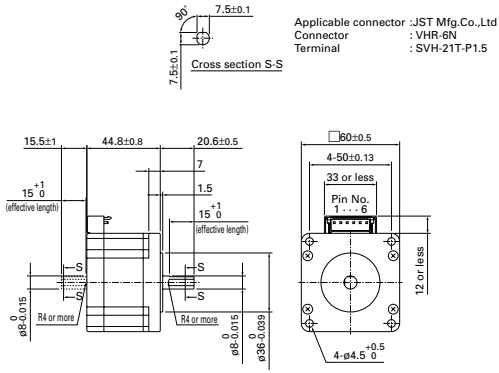
| Model | | Holding torque at 2-phase energization N.m or more | Rated current A/phase | Wiring resistance Ω/phase | Wiring inductance mH/phase | Rotor inertia x10 ⁻⁴ kg·m ² | Weigh kg |
|---------------|------------|--|-----------------------------|---------------------------------|----------------------------------|--|-------------|
| One shaft | Two shafts | | | | | | |
| 103H7821-0140 | -0110 | 0.78 | 1 | 5.7 | 8.3 | 0.275 | 0.6 |
| 103H7821-0440 | -0410 | 0.78 | 2 | 1.5 | 2 | 0.275 | 0.6 |
| 103H7821-0740 | -0710 | 0.78 | 3 | 0.68 | 0.8 | 0.275 | 0.6 |
| 103H7822-0140 | -0110 | 1.17 | 1 | 6.9 | 14 | 0.4 | 0.77 |
| 103H7822-0440 | -0410 | 1.17 | 2 | 1.8 | 3.6 | 0.4 | 0.77 |
| 103H7822-0740 | -0710 | 1.17 | 3 | 0.8 | 1.38 | 0.4 | 0.77 |
| 103H7823-0140 | -0110 | 2.1 | 1 | 10 | 21.7 | 0.84 | 1.34 |
| 103H7823-0440 | -0410 | 2.1 | 2 | 2.7 | 5.6 | 0.84 | 1.34 |
| 103H7823-0740 | -0710 | 2.1 | 3 | 1.25 | 2.4 | 0.84 | 1.34 |

Bipolar winding

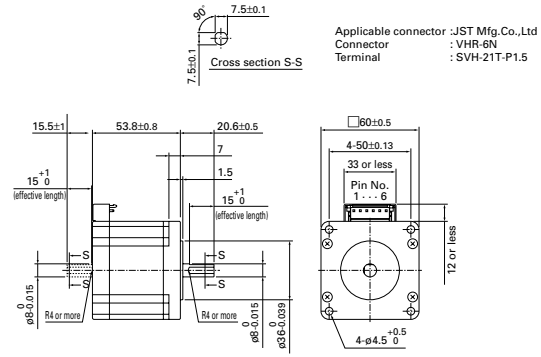
| Model | | Holding torque at 2-phase energization N.m or more | Rated current A/phase | Wiring resistance Ω/phase | Wiring inductance mH/phase | Rotor inertia x10 ⁻⁴ kg·m ² | Weigh kg |
|---------------|------------|--|-----------------------------|---------------------------------|----------------------------------|--|-------------|
| One shaft | Two shafts | | | | | | |
| 103H7821-1740 | -1710 | 0.88 | 4 | 0.35 | 0.8 | 0.275 | 0.6 |
| 103H7822-1740 | -1710 | 1.37 | 4 | 0.43 | 1.38 | 0.4 | 0.77 |
| 103H7823-1740 | -1710 | 2.7 | 4 | 0.65 | 2.4 | 0.84 | 1.34 |

Dimensions (Unit: mm)

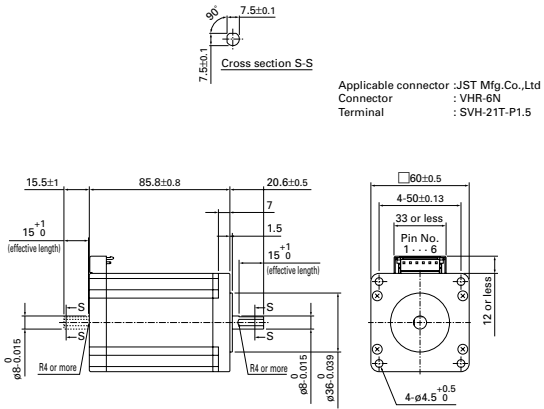
103H7821-0140/0440/0740/1740 (Single shaft)
103H7821-0110/0410/0710/1740 (Double shaft)



103H7822-0140/0440/0740/1740 (Single shaft)
103H7822-0110/0410/0710/1710 (Double shaft)



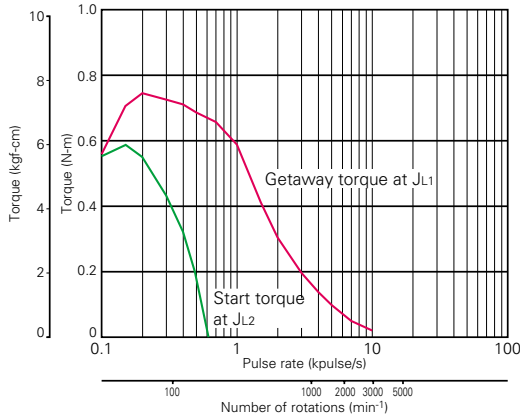
103H7823-0140/0440/0740/1740 (Single shaft)
103H7823-0110/0410/0710/1710 (Double shaft)



- 39mm(0.9')
- 42mm(0.9')
- 56mm(0.9')
- 28mm(1.8')
- 42mm(1.8')
- 50mm(1.8')
- 56mm(1.8')
- 60mm(1.8')
- 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

●103H7821-0140



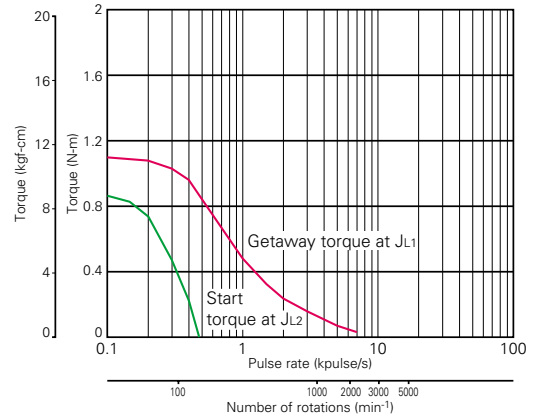
Sanyo constant current circuit

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)

●103H7822-0140



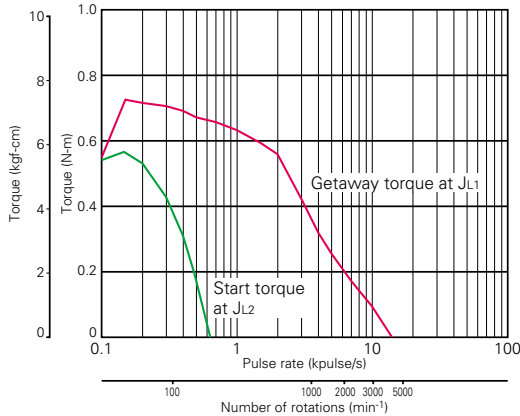
Sanyo constant current circuit

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

$J_{L1}=7.4 \times 10^{-4} \text{kg}\cdot\text{m}^2$ (Uses rubber coupling)

$J_{L2}=7.4 \times 10^{-4} \text{kg}\cdot\text{m}^2$ (Uses direct coupling)

●103H7821-0440



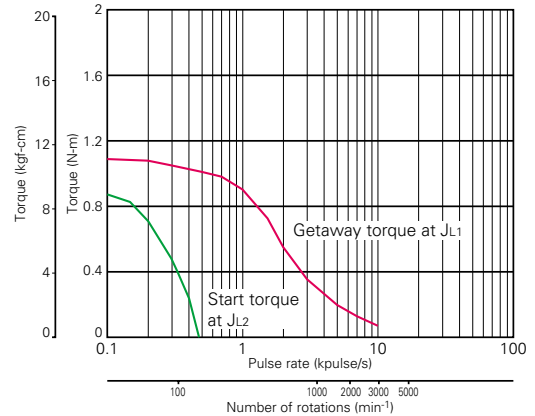
Sanyo constant current circuit

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)

●103H7822-0440



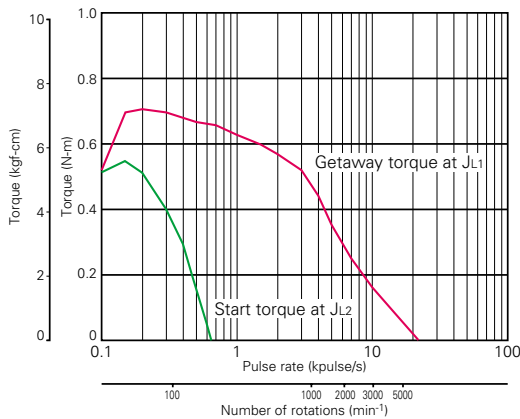
Sanyo constant current circuit

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

$J_{L1}=7.4 \times 10^{-4} \text{kg}\cdot\text{m}^2$ (Uses rubber coupling)

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●103H7821-0740



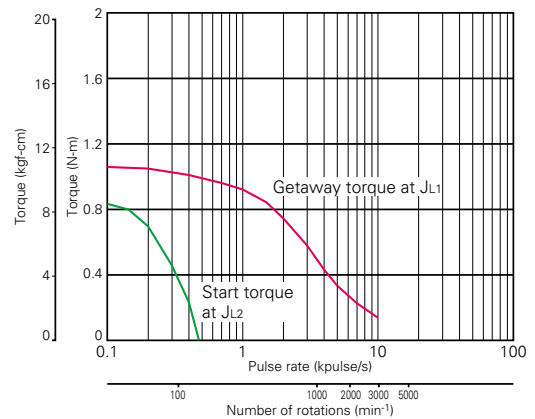
Sanyo constant current circuit

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)

●103H7822-0740



Sanyo constant current circuit

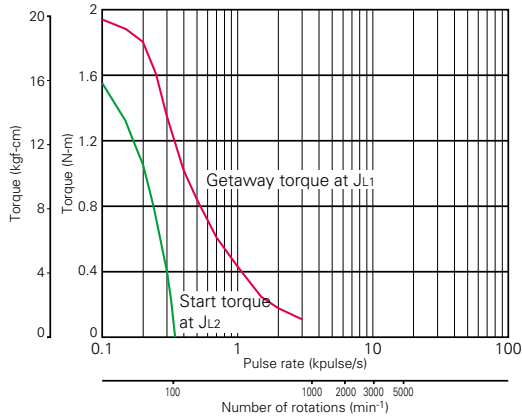
Source voltage: DC24V Wiring current: 3A/phase, 2-phase energization (full-step)

$J_{L1}=7.4 \times 10^{-4} \text{kg}\cdot\text{m}^2$ (Uses rubber coupling)

$J_{L2}=7.4 \times 10^{-4} \text{kg}\cdot\text{m}^2$ (Uses direct coupling)

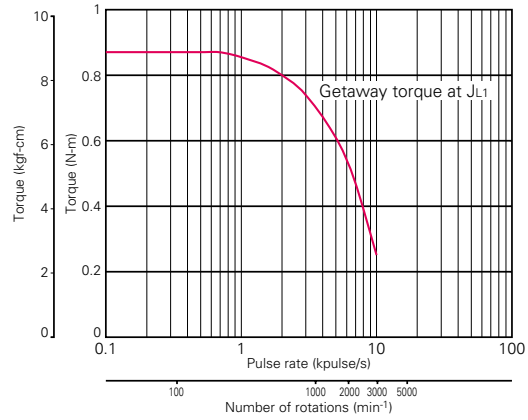
Pulse Rate - Torque Characteristics

●103H7823-0140



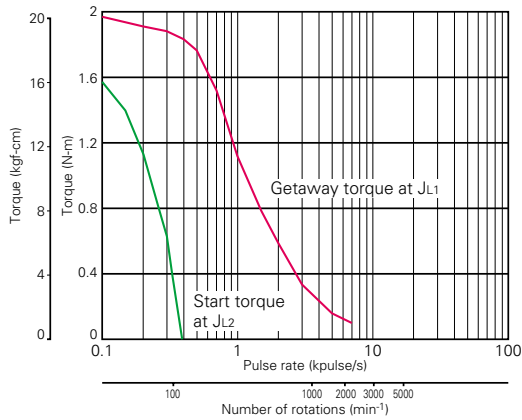
Sanyo constant current circuit
Source voltage: DC24V Wiring current: 1A/phase, 2-phase energization (full-step)
JL1=7.4x10⁻⁴kg-m² (Uses rubber coupling)
JL2=7.4x10⁻⁴kg-m² (Uses direct coupling)

●103H7821-1740



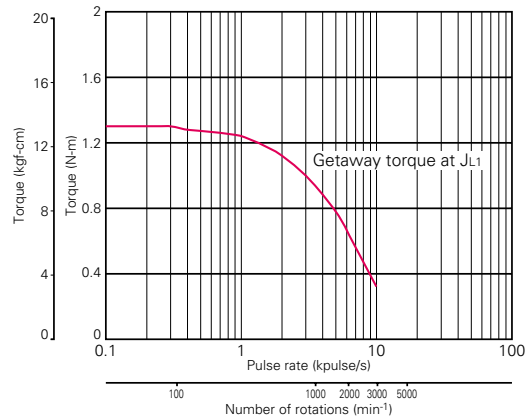
Sanyo constant current circuit
Source voltage: AC100V Wiring current: 4A/phase, 2-phase energization (full-step)
JL1=2.6x10⁻⁴kg-m² (Uses rubber coupling)

●103H7823-0440



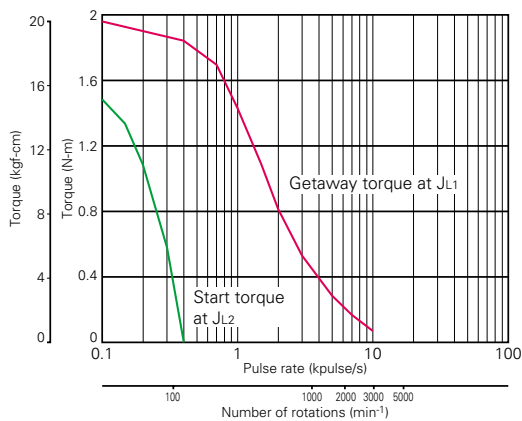
Sanyo constant current circuit
Source voltage: DC24V Wiring current: 2A/phase, 2-phase energization (full-step)
JL1=7.4x10⁻⁴kg-m² (Uses rubber coupling)
JL2=7.4x10⁻⁴kg-m² (Uses direct coupling)

●103H7822-1740



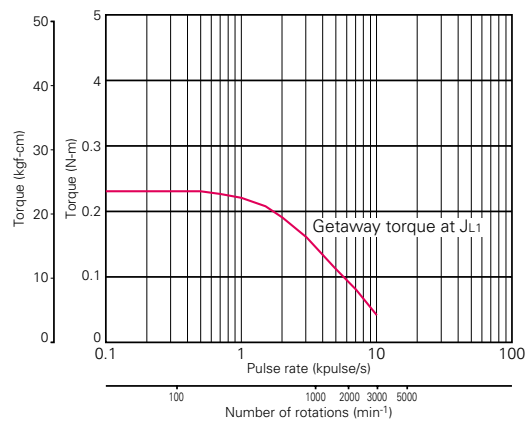
Sanyo constant current circuit
Source voltage: AC100V Wiring current: 4A/phase, 2-phase energization (full-step)
JL1=2.6x10⁻⁴kg-m² (Uses rubber coupling)

●103H7823-0740



Sanyo constant current circuit
Source voltage: DC24V Wiring current: 3A/phase, 2-phase energization (full-step)
JL1=7.4x10⁻⁴kg-m² (Uses rubber coupling)
JL2=7.4x10⁻⁴kg-m² (Uses direct coupling)

●103H7823-1740



Sanyo constant current circuit
Source voltage: AC100V Wiring current: 4A/phase, 2-phase excitation (full-step)
JL1=15.1x10⁻⁴kg-m² (Uses rubber coupling)

- 39mm(0.9')
- 42mm(0.9')
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- 60mm(1.8')
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- Specifications of 2-phase stepping motor
- In-vacuum stepping motor
- 2-phase synchronous motor