



2-phase Stepping Motor

60mm sq. 103H782□
1.8°/step

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

Specifications

Unipolar winding

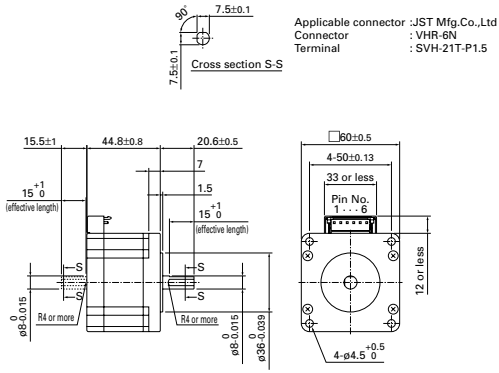
Model		Holding torque at 2-phase energization N.m or more	Rated current A/phase	Wiring resistance Ω/phase	Wiring inductance mH/phase	Rotor inertia x10 ⁻⁴ kg·m ²	Weight kg
One shaft	Two shafts						
103H7821-0140	-0110	0.78	1	5.7	8.3	0.275	0.6
103H7821-0440	-0410	0.78	2	1.5	2	0.275	0.6
103H7821-0740	-0710	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

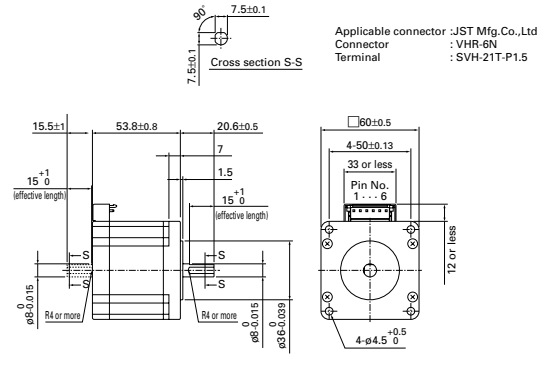
Model		Holding torque at 2-phase energization N.m or more	Rated current A/phase	Wiring resistance Ω/phase	Wiring inductance mH/phase	Rotor inertia x10 ⁻⁴ kg·m ²	Weight kg
One shaft	Two shafts						
103H7821-1740	-1710	0.88	4	0.35	0.8	0.275	0.6
103H7822-1740	-1710	1.37	4	0.43	1.38	0.4	0.77
103H7823-1740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

Dimensions (Unit: mm)

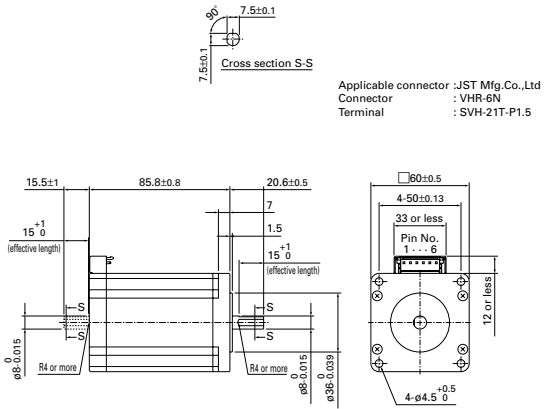
103H7821-0140/0440/0740/1740 (Single shaft)
103H7821-0110/0410/0710/1740 (Double shaft)



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



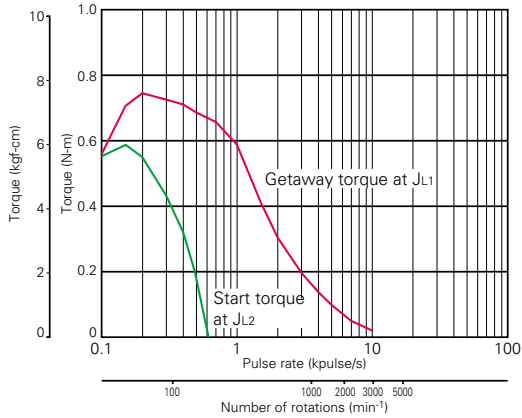
103H7823-0140/0440/0740/1740 (Single shaft)
103H7823-0110/0410/0710/1710 (Double shaft)



- 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

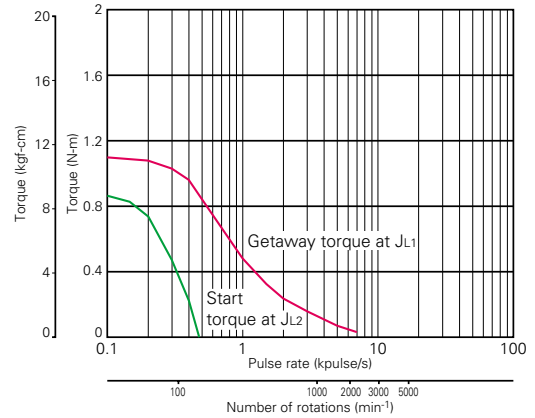
Pulse Rate - Torque Characteristics

●103H7821-0140



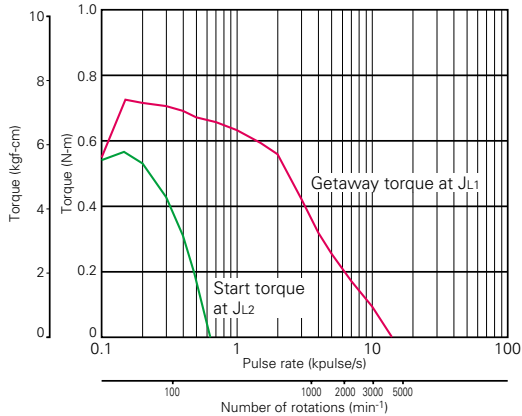
Sanyo constant current circuit
 Source voltage: DC24V Wiring current: 1A/phase, 2-phase energization (full-step)
 $J_{L1}=0.94 \times 10^{-4} \text{kg}\cdot\text{m}^2$ (Uses rubber coupling)
 $J_{L2}=0.8 \times 10^{-4} \text{kg}\cdot\text{m}^2$ (Uses direct coupling)

●103H7822-0140



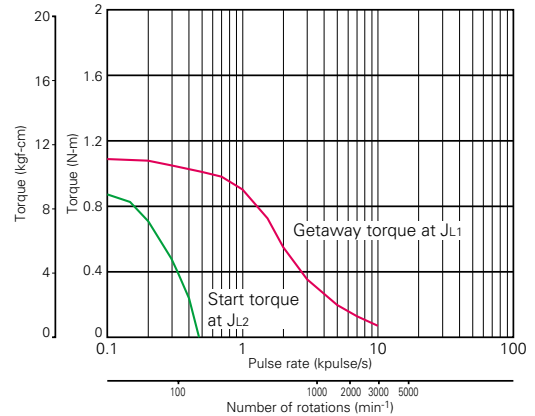
Sanyo constant current circuit
 Source voltage: DC24V Wiring current: 1A/phase, 2-phase energization (full-step)
 $J_{L1}=7.4 \times 10^{-4} \text{kg}\cdot\text{m}^2$ (Uses rubber coupling)
 $J_{L2}=7.4 \times 10^{-4} \text{kg}\cdot\text{m}^2$ (Uses direct coupling)

●103H7821-0440



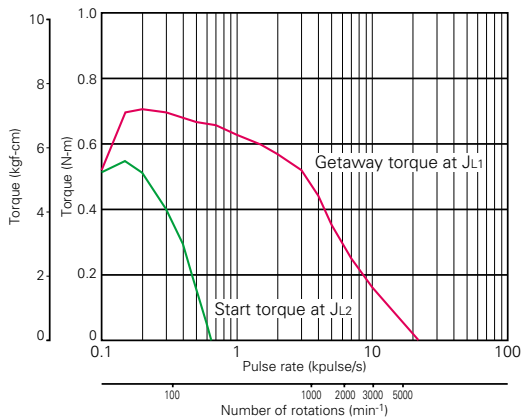
Sanyo constant current circuit
 Source voltage: DC24V Wiring current: 2A/phase, 2-phase energization (full-step)
 $J_{L1}=0.94 \times 10^{-4} \text{kg}\cdot\text{m}^2$ (Uses rubber coupling)
 $J_{L2}=0.8 \times 10^{-4} \text{kg}\cdot\text{m}^2$ (Uses direct coupling)

●103H7822-0440



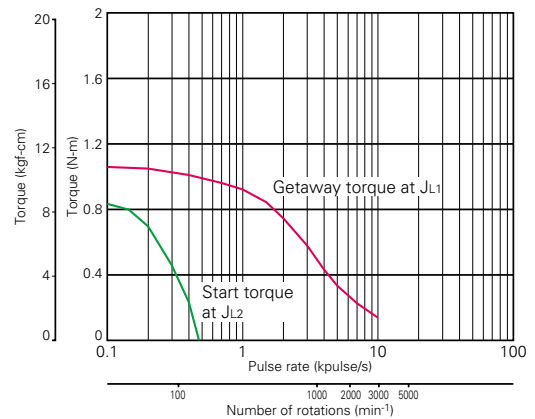
Sanyo constant current circuit
 Source voltage: DC24V Wiring current: 2A/phase, 2-phase energization (full-step)
 $J_{L1}=7.4 \times 10^{-4} \text{kg}\cdot\text{m}^2$ (Uses rubber coupling)
 $J_{L2}=7.4 \times 10^{-4} \text{kg}\cdot\text{m}^2$ (Uses direct coupling)

●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)

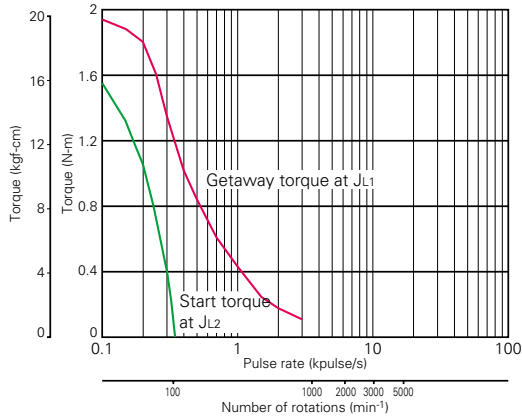
●103H7822-0740



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)

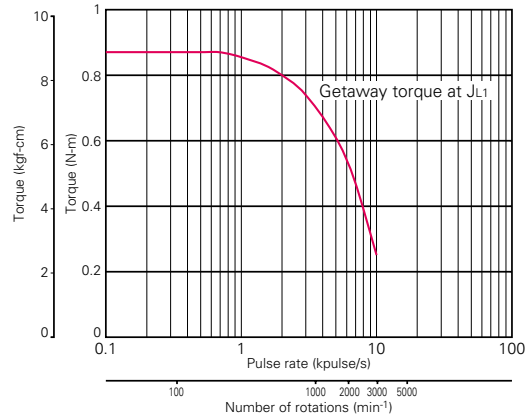
Pulse Rate - Torque Characteristics

●103H7823-0140



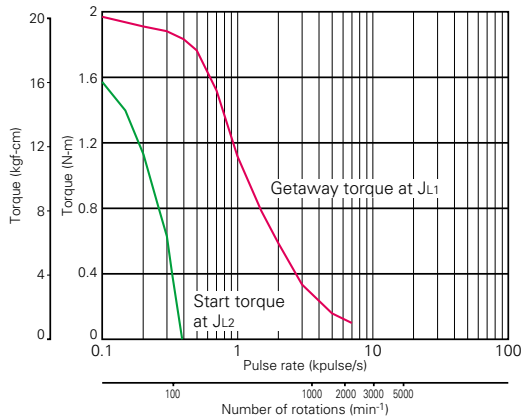
Sanyo constant current circuit
 Source voltage: DC24V Wiring current: 1A/phase, 2-phase energization (full-step)
 $J_{L1}=7.4 \times 10^{-4} \text{kg}\cdot\text{m}^2$ (Uses rubber coupling)
 $J_{L2}=7.4 \times 10^{-4} \text{kg}\cdot\text{m}^2$ (Uses direct coupling)

●103H7821-1740



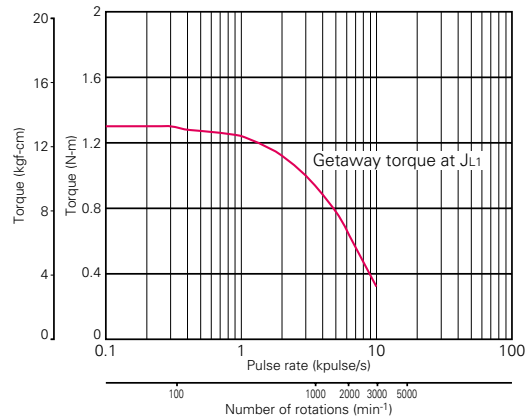
Sanyo constant current circuit
 Source voltage: AC100V Wiring current: 4A/phase, 2-phase energization (full-step)
 $J_{L1}=2.6 \times 10^{-4} \text{kg}\cdot\text{m}^2$ (Uses rubber coupling)

●103H7823-0440



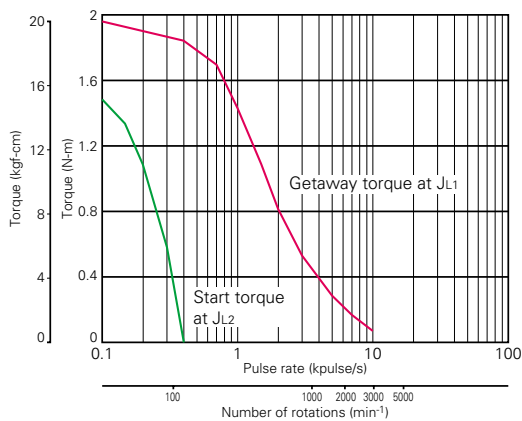
Sanyo constant current circuit
 Source voltage: DC24V Wiring current: 2A/phase, 2-phase energization (full-step)
 $J_{L1}=7.4 \times 10^{-4} \text{kg}\cdot\text{m}^2$ (Uses rubber coupling)
 $J_{L2}=7.4 \times 10^{-4} \text{kg}\cdot\text{m}^2$ (Uses direct coupling)

●103H7822-1740



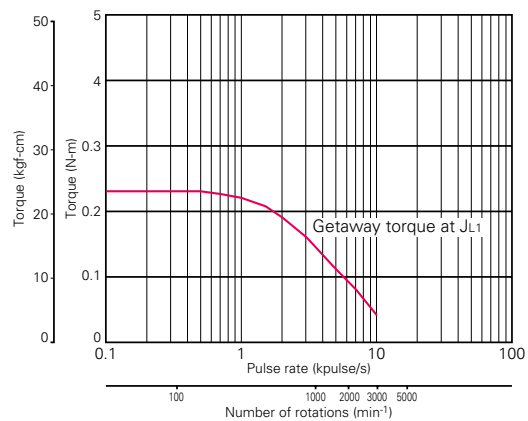
Sanyo constant current circuit
 Source voltage: AC100V Wiring current: 4A/phase, 2-phase energization (full-step)
 $J_{L1}=2.6 \times 10^{-4} \text{kg}\cdot\text{m}^2$ (Uses rubber coupling)

●103H7823-0740



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)

●103H7823-1740



Sanyo constant current circuit
 Source voltage: AC100V Wiring current: 4A/phase, 2-phase excitation (full-step)
 $J_{L1}=15.1 \times 10^{-4} \text{kg}\cdot\text{m}^2$ (Uses rubber coupling)

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