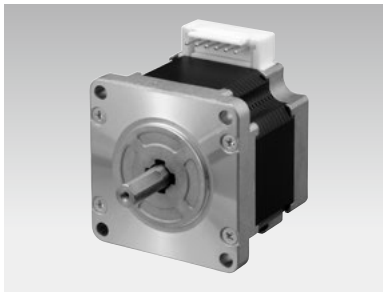


60 mm sq.

1.8°/step RoHS

Unipolar winding, Connector type
Unipolar winding, Lead wire type
Dimensions for attaching NEMA23 are interchangeable (47.14 mm-pitch)
Bipolar winding, Connector type ▶p. 60
Bipolar winding, Lead wire type
Dimensions for attaching NEMA23 are interchangeable (47.14 mm-pitch) ▶p. 60

Customizing

Hollow | Shaft modification | Decelerator | Encoder | Brake

Varies depending on the model number and quantity. Contact us for details.

Unipolar winding, Connector type

Model no.		Holding torque at 2-phase energization	Rated current	Wiring resistance	Winding inductance	Rotor inertia	Mass	Motor length (L)
Single shaft	Dual shaft	N·m min.	A/phase	Ω/phase	mH/phase	×10⁻⁴kg·m²	kg	mm
103H7821-0140	**103H7821-0110**	0.78	1	5.7	8.3	0.275	0.6	44.8
103H7821-0440	**103H7821-0410**	0.78	2	1.5	2	0.275	0.6	44.8
103H7821-0740	**103H7821-0710**	0.78	3	0.68	0.8	0.275	0.6	44.8
103H7822-0140	**103H7822-0110**	1.17	1	6.9	14	0.4	0.77	53.8
103H7822-0440	**103H7822-0410**	1.17	2	1.8	3.6	0.4	0.77	53.8
103H7822-0740	**103H7822-0710**	1.17	3	0.8	1.38	0.4	0.77	53.8
103H7823-0140	**103H7823-0110**	2.1	1	10	21.7	0.84	1.34	85.8
103H7823-0440	**103H7823-0410**	2.1	2	2.7	5.6	0.84	1.34	85.8
103H7823-0740	**103H7823-0710**	2.1	3	1.25	2.4	0.84	1.34	85.8

Motor cable: model no. 4837798-1

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

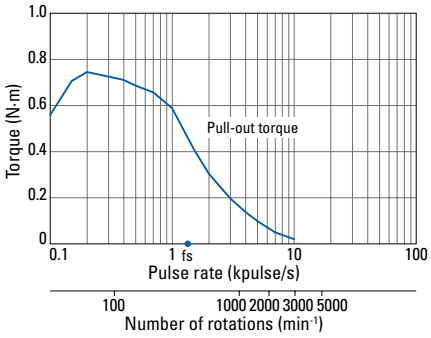
Model no.		Holding torque at 2-phase energization	Rated current	Wiring resistance	Winding inductance	Rotor inertia	Mass	Motor length (L)
Single shaft	Dual shaft	N·m min.	A/phase	Ω/phase	mH/phase	×10⁻⁴kg·m²	kg	mm
103H7821-0160	**103H7821-0130**	0.78	1	5.7	8.3	0.275	0.6	43.5
103H7821-0460	**103H7821-0430**	0.78	2	1.5	2	0.275	0.6	43.5
103H7821-0760	**103H7821-0730**	0.78	3	0.68	0.8	0.275	0.6	43.5
103H7822-0160	**103H7822-0130**	1.17	1	6.9	14	0.4	0.77	52.5
103H7822-0460	**103H7822-0430**	1.17	2	1.8	3.6	0.4	0.77	52.5
103H7822-0760	**103H7822-0730**	1.17	3	0.8	1.38	0.4	0.77	52.5
103H7823-0160	**103H7823-0130**	2.1	1	10	21.7	0.84	1.34	84.5
103H7823-0460	**103H7823-0430**	2.1	2	2.7	5.6	0.84	1.34	84.5
103H7823-0760	**103H7823-0730**	2.1	3	1.25	2.4	0.84	1.34	84.5

Characteristics diagram

103H7821-0140
103H7821-0110

103H7821-0160
103H7821-0130

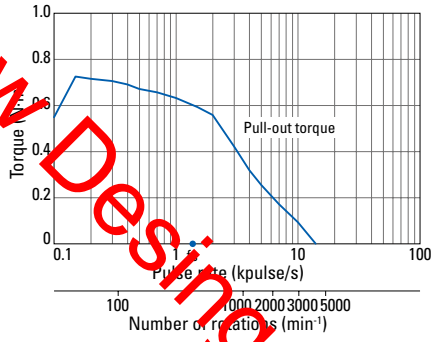
Constant current circuit
Source voltage: 24 VDC
Operating current:
1 A/phase, 2-phase energization (full-step)
Pull-out torque:
J_L=0.94×10⁻⁴kg·m² (use the rubber coupling)
fs: Maximum self-start frequency when not loaded



103H7821-0440
103H7821-0410

103H7821-0460
103H7821-0430

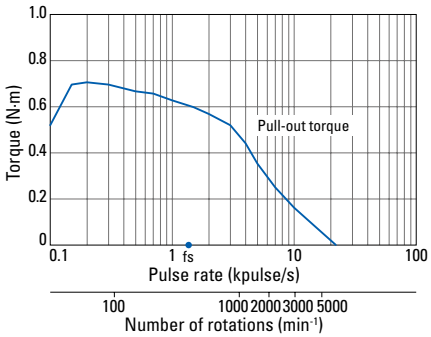
Constant current circuit
Source voltage: 24 VDC
Operating current:
2 A/phase, 2-phase energization (full-step)
Pull-out torque:
J_L=0.94×10⁻⁴kg·m² (use the rubber coupling)
fs: Maximum self-start frequency when not loaded



103H7821-0740
103H7821-0710

103H7821-0760
103H7821-0730

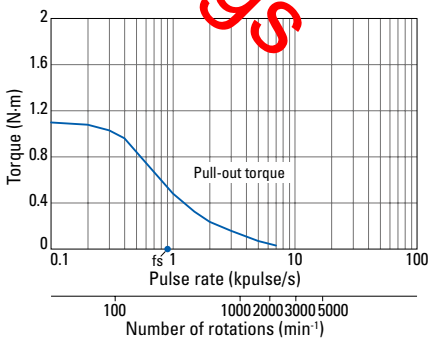
Constant current circuit
Source voltage: 24 VDC
Operating current:
3 A/phase, 2-phase energization (full-step)
Pull-out torque:
J_L=0.94×10⁻⁴kg·m² (use the rubber coupling)
fs: Maximum self-start frequency when not loaded



103H7822-0140
103H7822-0110

103H7822-0160
103H7822-0130

Constant current circuit
Source voltage: 24 VDC
Operating current:
1 A/phase, 2-phase energization (full-step)
Pull-out torque:
J_L=2.6×10⁻⁴kg·m² (use the rubber coupling)
fs: Maximum self-start frequency when not loaded



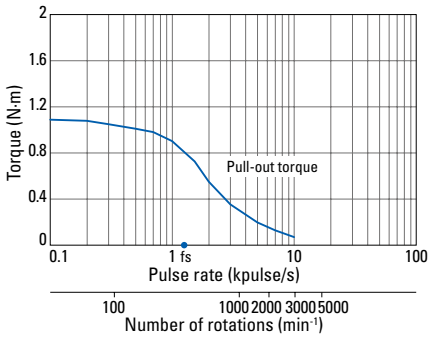
Allowable Load ▶p. 71 Rotation Direction ▶p. 72 General Specifications ▶p. 73

Data is measured under the trial conditions of SANYO DENKI. Driving torque may vary according to actual machine precision.

Characteristics diagram

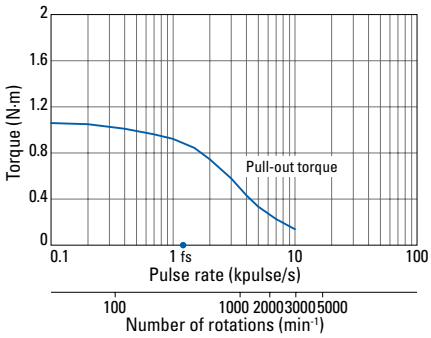
103H7822-0440
103H7822-0410
103H7822-0460
103H7822-0430

Constant current circuit
Source voltage: 24 VDC
Operating current:
2 A/phase, 2-phase energization (full-step)
Pull-out torque:
J_L=2.6×10^{-4}kg·m^2 (use the rubber coupling)
fs: Maximum self-start frequency when not loaded



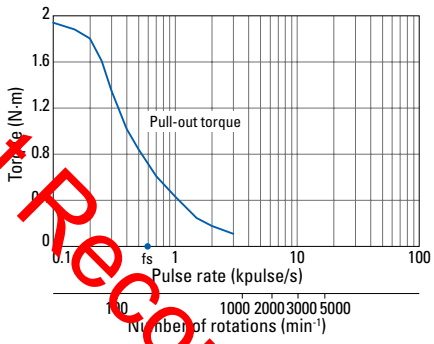
103H7822-0740
103H7822-0710
103H7822-0760
103H7822-0730

Constant current circuit
Source voltage: 24 VDC
Operating current:
3 A/phase, 2-phase energization (full-step)
Pull-out torque:
J_L=2.6×10^{-4}kg·m^2 (use the rubber coupling)
fs: Maximum self-start frequency when not loaded



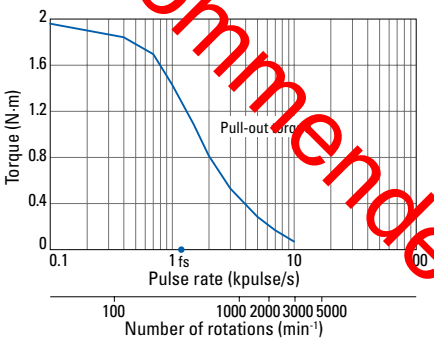
103H7823-0140
103H7823-0110
103H7823-0160
103H7823-0130

Constant current circuit
Source voltage: 24 VDC
Operating current:
1 A/phase, 2-phase energization (full-step)
Pull-out torque:
J_L=7.4×10^{-4}kg·m^2 (use the rubber coupling)
fs: Maximum self-start frequency when not loaded



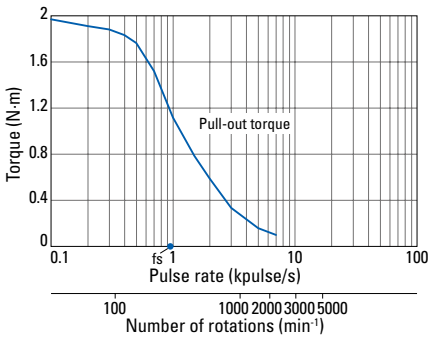
103H7823-0740
103H7823-0710
103H7823-0760
103H7823-0730

Constant current circuit
Source voltage: 24 VDC
Operating current:
3 A/phase, 2-phase energization (full-step)
Pull-out torque:
J_L=7.4×10^{-4}kg·m^2 (use the rubber coupling)
fs: Maximum self-start frequency when not loaded



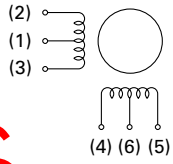
103H7823-0440
103H7823-0410
103H7823-0460
103H7823-0430

Constant current circuit
Source voltage: 24 VDC
Operating current:
2 A/phase, 2-phase energization (full-step)
Pull-out torque:
J_L=7.4×10^{-4}kg·m^2 (use the rubber coupling)
fs: Maximum self-start frequency when not loaded

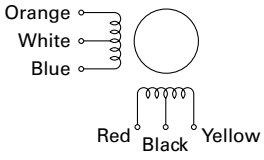


Internal wiring

Connector type
( ) connector pin number

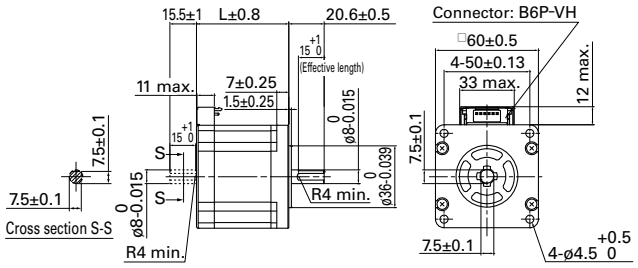


Lead wire type

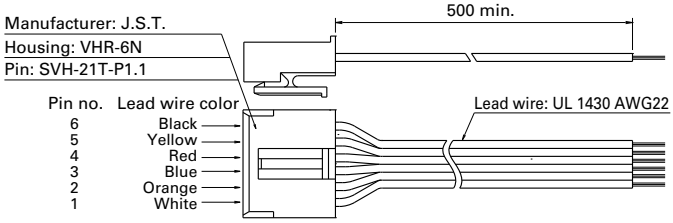


Dimensions (Unit: mm)

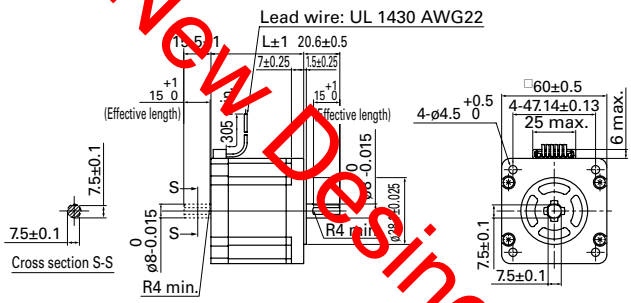
Connector type



Motor cable Unipolar Model no.: 4837798-1



Lead wire type



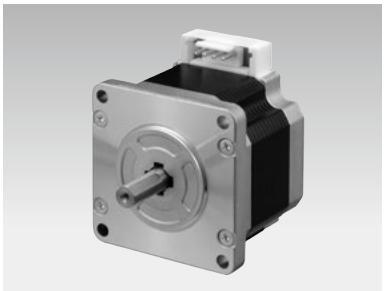
Compatible drivers

- For motor model no. 103H782 □ -01 □ 0 (1 A/phase), 103H782 □ -07 □ 0 (3 A/phase)
  Driver is not included.
  If you require assistance finding a driver, contact us for details.
- For model no. 103H782 □ -04 □ 0 (2 A/phase)
  Model no.: US1D200P10 (DC input)
  Operating current select switch setting: 0

The characteristics diagram shown above is from our experimental circuit.

Allowable Load ▶ p. 71 Rotation Direction ▶ p. 72 General Specifications ▶ p. 73

Data is measured under the trial conditions of SANYO DENKI. Driving torque may vary according to actual machine precision.



60 mm sq.

1.8°/step RoHS

Bipolar winding, Connector type
Bipolar winding, Lead wire type
Dimensions for attaching NEMA23 are interchangeable (47.14 mm-pitch)
Unipolar winding, Connector type ▶p. 58
Unipolar winding, Lead wire type
Dimensions for attaching NEMA23 are interchangeable (47.14 mm-pitch) ▶p. 58

Customizing

Hollow | Shaft modification | Decelerator | Encoder | Brake

Varies depending on the model number and quantity. Contact us for details.

Bipolar winding, Connector type

Model no.		Holding torque at 2-phase energization	Rated current	Wiring resistance	Winding inductance	Rotor inertia	Mass	Motor length (L)
Single shaft	Dual shaft	N·m min.	A/phase	Ω/phase	mH/phase	×10⁻⁴kg·m²	kg	mm
103H7821-5740	**103H7821-5710**	0.88	2	1.27	3.3	0.275	0.6	44.8
103H7821-1740	**103H7821-1710**	0.88	4	0.35	0.8	0.275	0.6	44.8
103H7822-5740	**103H7822-5710**	1.37	2	1.55	5.5	0.4	0.77	53.8
103H7822-1740	**103H7822-1710**	1.37	4	0.43	1.38	0.4	0.77	53.8
103H7823-5740	**103H7823-5710**	2.7	2	2.4	9.5	0.84	1.34	85.8
103H7823-1740	**103H7823-1710**	2.7	4	0.65	2.4	0.84	1.34	85.8

Motor cable: model no. 4837961-1

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

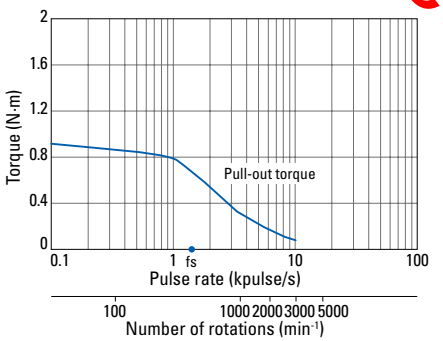
Model no.		Holding torque at 2-phase energization	Rated current	Wiring resistance	Winding inductance	Rotor inertia	Mass	Motor length (L)
Single shaft	Dual shaft	N·m min.	A/phase	Ω/phase	mH/phase	×10⁻⁴kg·m²	kg	mm
103H7821-5760	**103H7821-5730**	0.88	2	1.27	3.3	0.275	0.6	43.5
103H7821-1760	**103H7821-1730**	0.88	4	0.35	0.8	0.275	0.6	43.5
103H7822-5760	**103H7822-5730**	1.37	2	1.55	5.5	0.4	0.77	52.5
103H7822-1760	**103H7822-1730**	1.37	4	0.43	1.38	0.4	0.77	52.5
103H7823-5760	**103H7823-5730**	2.7	2	2.4	9.5	0.84	1.34	84.5
103H7823-1760	**103H7823-1730**	2.7	4	0.65	2.4	0.84	1.34	84.5

Characteristics diagram

103H7821-5740
103H7821-5710

103H7821-5760
103H7821-5730

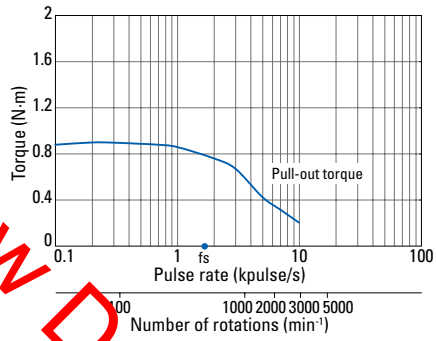
Constant current circuit
Source voltage: 24 VDC
Operating current:
2 A/phase, 2-phase energization (full-step)
Pull-out torque:
J_L=2.6×10⁻⁴kg·m² (use the rubber coupling)
fs: Maximum self-start frequency when not loaded



103H7821-1740
103H7821-1710

103H7821-1760
103H7821-1730

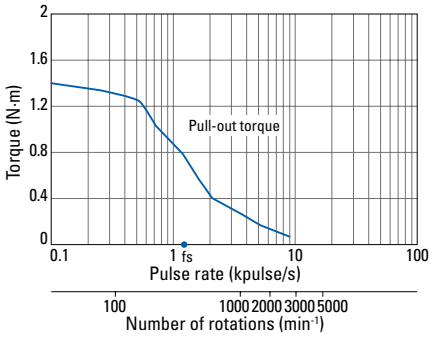
Constant current circuit
Source voltage: 24 VDC
Operating current:
4 A/phase, 2-phase energization (full-step)
Pull-out torque:
J_L=2.6×10⁻⁴kg·m² (use the rubber coupling)
fs: Maximum self-start frequency when not loaded



103H7822-5740
103H7822-5710

103H7822-5760
103H7822-5730

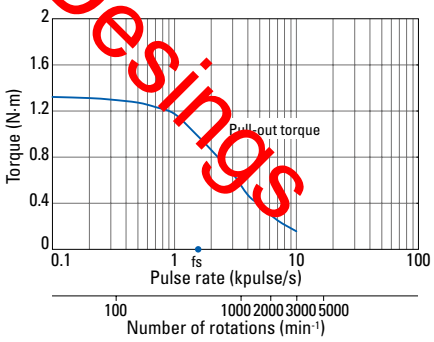
Constant current circuit
Source voltage: 24 VDC
Operating current:
2 A/phase, 2-phase energization (full-step)
Pull-out torque:
J_L=2.6×10⁻⁴kg·m² (use the rubber coupling)
fs: Maximum self-start frequency when not loaded



103H7822-1740
103H7822-1710

103H7822-1760
103H7822-1730

Constant current circuit
Source voltage: 24 VDC
Operating current:
4 A/phase, 2-phase energization (full-step)
Pull-out torque:
J_L=2.6×10⁻⁴kg·m² (use the rubber coupling)
fs: Maximum self-start frequency when not loaded



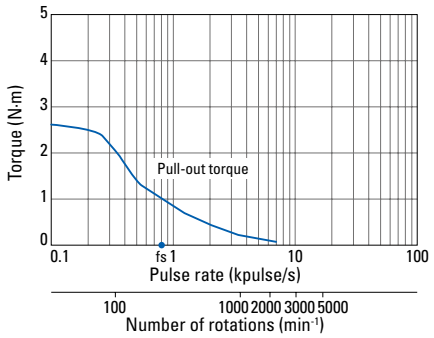
Allowable Load ▶p. 71 Rotation Direction ▶p. 72 General Specifications ▶p. 73
Data is measured under the trial conditions of SANYO DENKI. Driving torque may vary according to actual machine precision.

Characteristics diagram

103H7823-5740
103H7823-5710

103H7823-5760
103H7823-5730

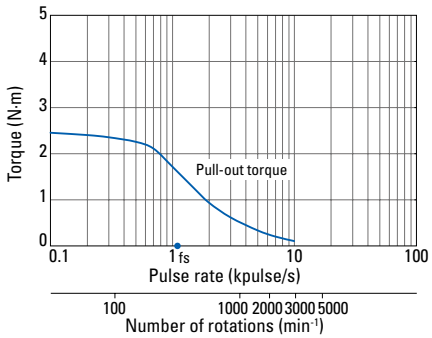
Constant current circuit
Source voltage: 24 VDC
Operating current:
2 A/phase, 2-phase energization (full-step)
Pull-out torque:
J_L=7.4×10^{-4}kg·m^2 (use the rubber coupling)
fs: Maximum self-start frequency when not loaded



103H7823-1740
103H7823-1710

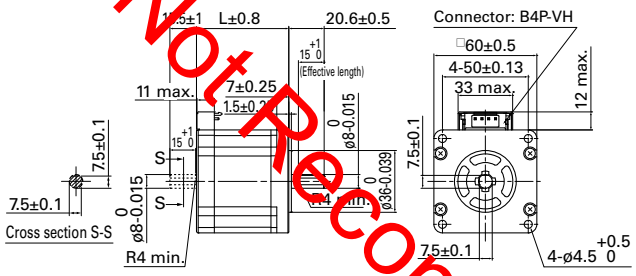
103H7823-1760
103H7823-1730

Constant current circuit
Source voltage: 24 VDC
Operating current:
4 A/phase, 2-phase energization (full-step)
Pull-out torque:
J_L=7.4×10^{-4}kg·m^2 (use the rubber coupling)
fs: Maximum self-start frequency when not loaded

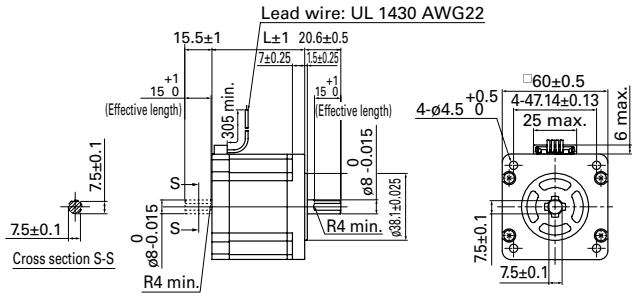


Dimensions (Unit: mm)

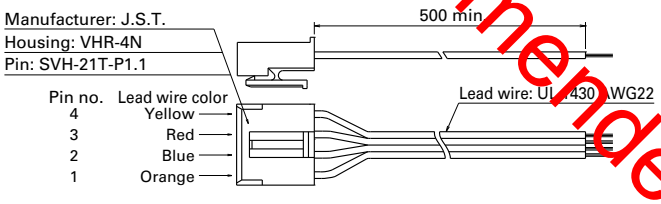
Connector type



Lead wire type

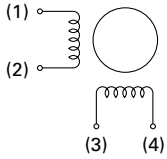


Motor cable Bipolar model no.: 4837961-1

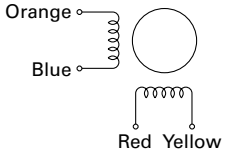


Internal wiring

Connector type
( ) connector pin number, terminal block number



Lead wire type



Compatible drivers

- For motor model no. 103H782 □ -17 □ 0 (4 A/phase)
  Driver is not included.
  If you require assistance finding a driver, contact us for details.
- For motors not listed above (2 A/phase)
  Model no.: BS1D200P10 (DC input)
  Operating current select switch setting: 0

Allowable Load ▶ p. 71 Rotation Direction ▶ p. 72 General Specifications ▶ p. 73

Data is measured under the trial conditions of SANYO DENKI. Driving torque may vary according to actual machine precision.