SANMOTION F2
2-PHASE STEPPING SYSTEMS

Small Size 2-Phase Stepping Motor

14mm sq. (.55 inch sq.)

■ Features

Industry's Top Small 14 mm sq. and Light Weight 28 g

The information is current as of December, 2011. The above data is based on our own research, collected among 2-phase stepping motors for industrial use.
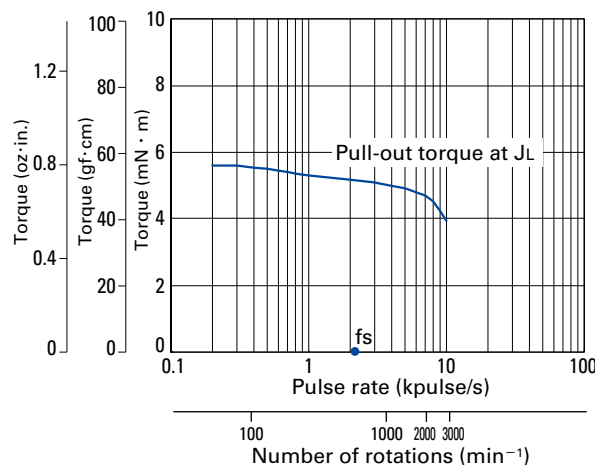
High Torque

■ Application

Devices where mountable space is quite limited such as an electric gripper and an electric cylinder
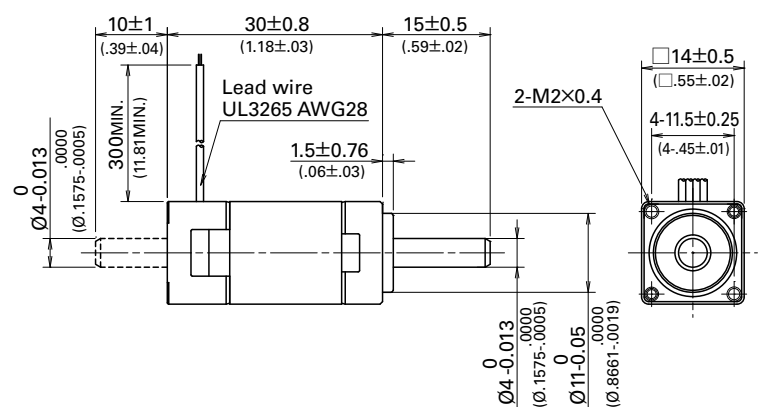
■ Specification

1.8° /Step Bipolar winding

Model		Holding torque at 2-phase energization [N·m (oz·in) MIN.]	Rated current [A/phase]	Wiring resistance [Ω/phase]	Winding inductance [mH/phase]	Rotor inertia [× 10^{-4} kg·m² (oz·in²)]	Mass [kg(lbs)]
Single shaft	Double shafts						
SH2141-5541	SH2141-5511	0.0065 (0.92)	0.3	21	4.2	0.00058 (0.0032)	0.028 (0.062)

■ Pulse rate-torque characteristics

Pull-out torque at J_L

fs

Torque (oz·in.) / Torque (gf·cm) / Torque (mN·m)
Pulse rate (kpulse/s)
Number of rotations (min⁻¹)

Constant current circuit
Source voltage: 24 V DC
Operating current: 0.3A/phase
2-phase energization (full-step)
$J_L = 0.01 × 10^{-4}$ kg·m² (pulley balancer method)
fs: No load maximum starting pulse rate

■ Dimensions [unit : mm (inch)]

10±1 (.39±.04)
30±0.8 (1.18±.03)
15±0.5 (.59±.02)
□14±0.5 (□.55±.02)
4-11.5±0.25 (4-.45±.01)
Lead wire UL3265 AWG28
2-M2×0.4
300MIN. (11.81MIN.)
1.5±0.76 (.06±.03)
Ø4-0.013 0 (Ø.1575-.0005 .0000)
Ø11-0.05 0 (Ø.8661-.0019 .0000)

The data are measured under the drive condition of our company. The drive torque may very depending on the accuracy of customer-side equipment.

CATALOG No.S1005B001 '12.1

2-phase stepping motor
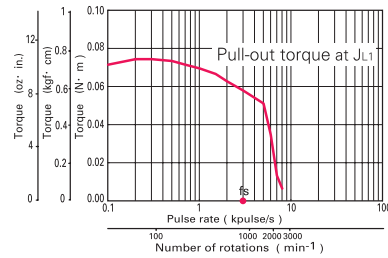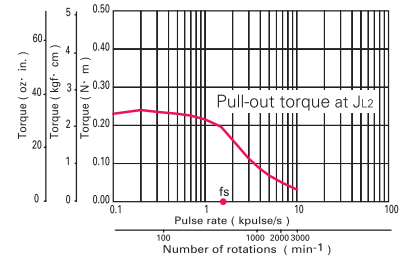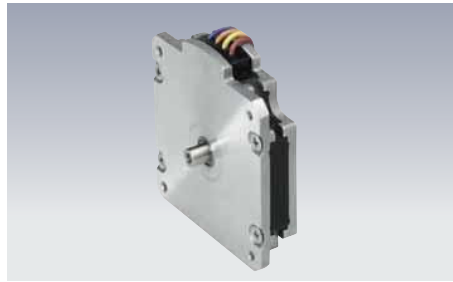
50mm sq.(1.97inch sq.)

SS250 □
1.8° / step Bipolar winding

Bipolar winding· Lead wire type

| Model		Holding torque at 2-phase energization	Rated current	Wiring resistance	Winding inductance	Rotor inertia	Mass (Weight)
Single shaft	Double shafts	[N· m(oz· in) MIN.]	A/phase	Ω /phase	mH/phase	[× 10^{-4}kg· m²(oz· in²)]	[kg(lbs)]
SS2501-5041	-5011	0.1 (14.16)	1	4.5	1.8	0.026 (0.142)	0.09 (0.20)
SS2502-5041	-5011	0.215 (30.44)	1	5.9	3.2	0.049 (0.268)	0.15 (0.33)

■ Pulse rate-torque characteristics

● **SS2501-50□ □**
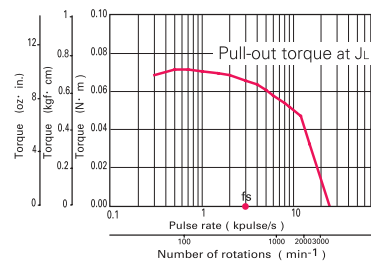
Constant current circuit
Source voltage : DC24V· operating current : 1A/phase,
   1-2-phase energization(half-step)
JL =[0.01x10^{-4}kg· m² (0.055 oz· in²) Pulley barancer
   system]
fs: No load maximum starting pulse rate

● **SS2502-50□ □**
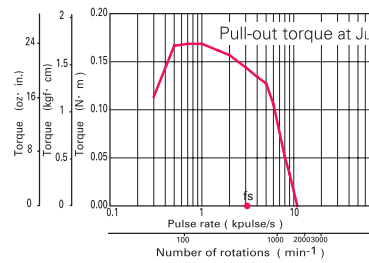
Constant current circuit
Source voltage : DC24V· operating current : 1A/phase,
   1-2-phase energization(half-step)
JL =[0.01x10^{-4}kg· m² (0.055 oz· in²) Pulley barancer
   system]
fs: No load maximum starting pulse rate

The date are measured under the drive condition of our company. The drive torque may very depending on the accuracy of customer-side equipment.