

Product Information

PRECAUTIONS TO BE TAKEN WHEN USING

1. Note that any use of our products out of their standard and specifications might markedly reduce their performance and service life. Draw your due attention especially to the voltage and other use ranges.
2. Storage of the motors in such places as exposed to high temperature and humidity as well as to extremely low temperature may cause to decrease motor's performance and longevity, which should be avoided as far as possible.
3. Never fail to check the loads applied, circuitry, etc. before you use the motors. It is recommendable to have preliminary arrangements with us before you proceed to your own designing of your equipment.

WHEN ORDERING

In order that we may discuss the characteristics and economy of your equipment, you are requested to inform us of the following items :

1. Features

- ☐ Rated voltage
- ☐ Step angle
- ☐ Pull-in torque (at_PPS)
- ☐ Pull-out torque (at_PPS)
- ☐ Drive circuit
 - ◇ Voltage, Current (_A/Phase)
 - ◇ Use IC
- ☐ Excitation and drive methods
 - ◇ Single-phase, two-phase, Single/two-phase, other
 - ◇ Unipolar, Bipolar
 - ◇ Chopper current
- ☐ Use temperature range

2. Outer Diameter

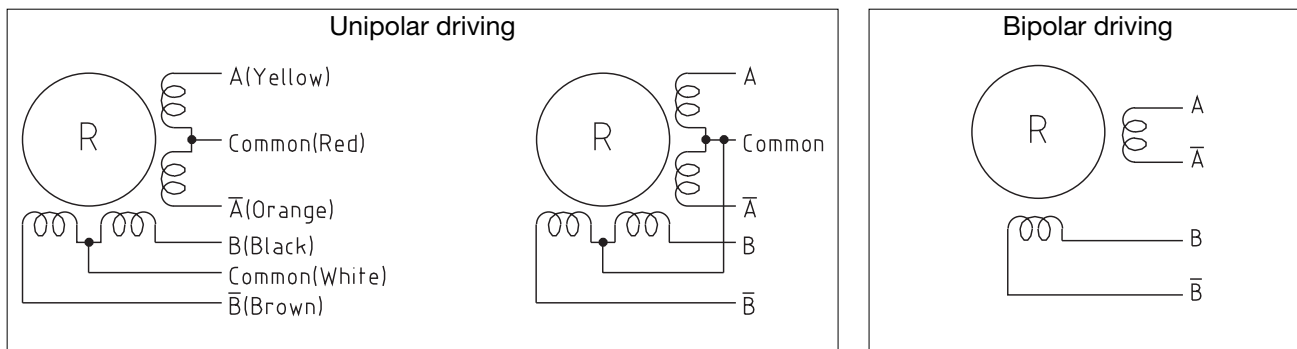
- ☐ Shaft diameter and length
- ☐ Motor outer diameter, overall length

3. Others

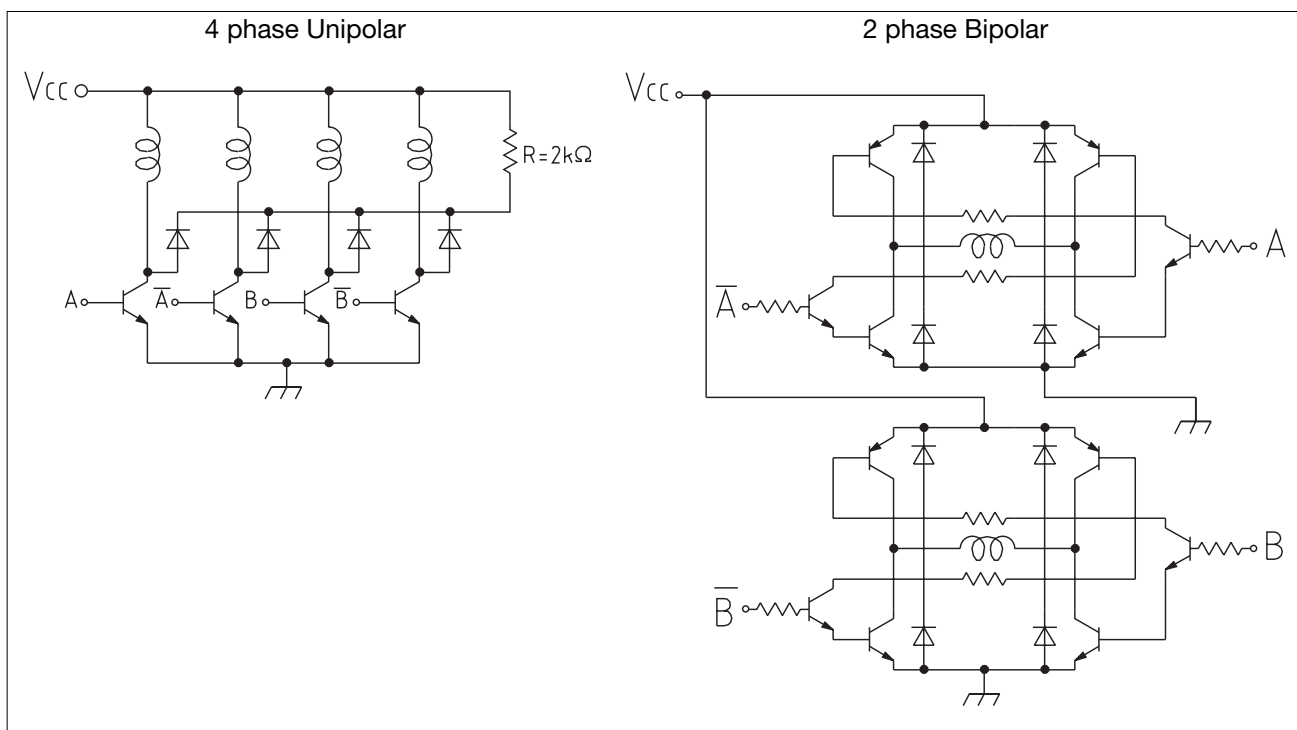
- ☐ Use
- ☐ Mass production planning
- ☐ Mass production period
- ☐ Monthly production
- ☐ Total number of projects
- ☐ Anticipated prices

GENERAL DESCRIPTION

LEAD WIRE CONNECTION



DRIVING CIRCUITS

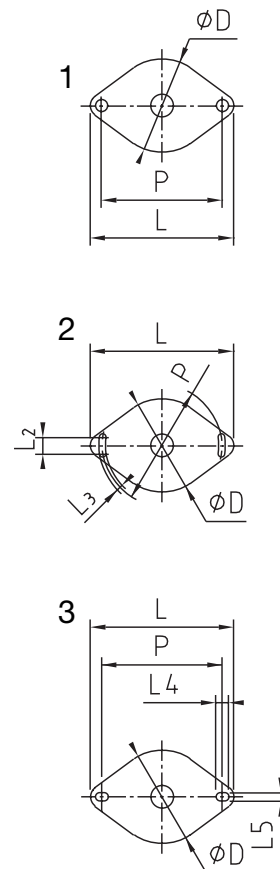


SPECIAL SPECIFICATIONS

Coil resistance.
Shaft dimensions.
Pinion.
Mounting plate.
Lead wire length and connectors.

STANDARD FLANGE DIMENSIONS

Type	P	L	ØD	Mounting	Shape	Model
M15SP	20	24.5	15	Ø2.2 Hole	1	1N
M25SP Series	32±0.2	38±0.5	25	Ø3.2 Hole, M3Burring	1	3, 4, 5
M35SP Series	42±0.2	49.2±0.5	35	Ø3.5 Hole	1	5, 6, 7, 8, 9, 10N, 11NK, 12
	42±0.2	49.2±0.5	35	Ø2.75 Hole, Burring	1	
	42±0.2	49.2±0.5	35	M3Burring	1	
	40±0.2	47±0.5	35	M2.6Burring	1	
	42±0.2	50±0.5	35	Long hole L ₂ =6.5 L ₃ =3.3	2	
M42SP Series	49.5±0.2	56.5±0.5	42	Ø3.5 Hole	1	4, 4NK, 5, 6NK, 7, 11NK, 12NK, 13NK, 14NK
	49.5±0.2	56.5±0.5	42	Ø2.75 Hole, Burring	1	
	49.5±0.2	56.5±0.5	42	M3Burring	1	
	49.5±0.2	57±0.5	42	Long hole L ₂ =6.5 L ₃ =3.3	2	
	49.5±0.2	56.7±0.5	42	Ø3.5 Hole	1	
	49.5±0.2	56.7±0.5	42	M3Burring	1	
M49SP Series	54.5±0.2	64±0.5	49	Long hole L ₄ =5.8 L ₅ =3.8	3	1, 2K
	56.5±0.2	64±0.5	49	M3Burring	1	1, 2K
	57.5±0.2	64±0.5	49	Ø4.0Hole	1	1, 2K
	59.5±0.2	68.5±0.5	49	Ø5.0Hole	1	1, 2K
M55SP Series	66.7±0.2	79.4±0.5	55	Ø4.3Hole	1	1
	66.7±0.2	79.4±0.5	55	Long hole L ₂ =4.6 L ₃ =4.4	2	1
	65±0.2	75±0.5	55	Ø4.4Hole	1	2K



STANDARD OUTER DIMENSIONS

Model	ØD	Ød ₁	Ød ₂	L ₁	L ₂	Step Angle
M7LS-1N	7.2×5.0	—	(2.5)	14.5	—	22.5°
M15SP-1N	15	6	1.5	10.5	0.8	18°
M15LS-1N	15	—	(3)	12.5 max.	—	18°
M25SP-3	25	7	2	15	1	7.5°
M25SP-4	25	7	2	15	1	15°
M25SP-5	25	7	2	12	1.5	7.5°
M35SP-5	35	10	2	20	1.5	7.5°
M35SP-6	35	10	2	20	1.5	15°
M35SP-7	35	10	2	15	1.5	7.5°
M35SP-8	35	10	3	21.8	1.5	7.5°
M35SP-9	35	10	2	15	1.5	7.5°
M35SP-10N	35	10	2	15	1.5	3.75°
M35SP-11NK	35	10	2	8.7	1.5	3.75°
M35SP-12	35	10	2	15.9	0.7	7.5°
M42SP-4	42	10	3	15.7	1.5	3.75°
M42SP-4NK	42	10	3	17.9	1.5	3.75°
M42SP-5	42	10	3	23	1.5	7.5°
M42SP-6NK	42	10	3	17.9	1.5	7.5°
M42SP-7	42	10	3	15.7	1.5	7.5°
M42SP-11NK	42	10	3	9.0	1.5	3.75°
M42SP-12K	42	10	3	17.9	1.5	7.5°
M42SP-13NK	42	10	3	17.9	1.5	3.75°
M42SP-14NK	42	10	3	9.0	1.5	1.875°
M49SP-1	49	10	3	29.5	1.5	7.5°
M49SP-2K	49	10	3	29.5	1.5	7.5°
M55SP-1	55	11.13	4	23	2	7.5°
M55SP-2K	55	13	4	29.7	1.5	7.5°

