

STEPPING MOTORS

MOTORS

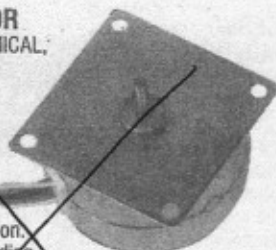
STEPPER MOTOR

FUJI ELECTROCHEMICAL,
#SM40-4807.

Permanent magnet
4 phase 6 wire
stepper motor.
Rated 24 VDC 0.5
amps per phase.
7.5° per step,
48 steps per revolution.
Approx. 16 oz-in holding
torque. Bronze sleeve bearings. Running torque
depends on type of driver used, but should be in the
range of 4 in-oz at 300 pulses per second. Shaft: 3mm
dia x 3/8" long. 1-5/8" sq. front mounting plate with
four 1/8" dia. mounting holes. Bolt centers of mounting
holes are 1-3/8" apart. Has 9" long wire leads.
Dimensions: 1-5/8" sq. x 1" deep (excluding shaft).

Stock #SSM2200

\$7.95



STEPPER MOTOR

JAPAN SERVO,
#KP56KM2-006.

12 VDC, 0.7 amp per
phase. Phase resist-
ance 18 ohms. 1.8°
per step 200 steps per
revolution. 6 lead.
Connecting leads are
31" long. Holding torque is approx. 34 oz-in. Running
torque approx. 25 oz-in @ 500 pps which will vary
with driver used. Shaft: 5mm dia. x 23/32" long wit flat
that runs about two-thirds of the shaft length. 3/16"
dia. clear mounting holes in all corners. Dimensions:
2-1/4" sq. x 1-3/8" long (excluding shaft).

Stock #SSM9950

\$16.50

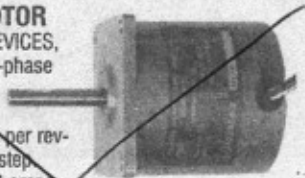


STEPPER MOTOR

EASTERN AIR DEVICES,
#LA23ACH-2. 2-phase

permanent
magnet bipolar
motor. 200 steps per re-
volution. 1.8° per step.
Rated 3 VDC, 1.6 amps
per phase. Running torque 30 oz-in. Holding torque 45
oz-in. 4-lead motor requires bipolar 2-phase driver.
Dimensions: 2-1/4" dia. x 2-3/8" deep. Has 2-1/4" sq.
mounting flange on front. 3/16" dia. mounting holes
provided. Shaft: 0.250" dia. x 1.3" long shaft flats.
Weight 1 lb.

Stock #SSM9501



STEPPER MOTOR

JAPAN SERVO,
#KY56KM0-006.

2.6 VDC. Phase resist-
ance 2.6 ohms. 0.45°
per step 800 steps per
revolution. 8 lead.
Connecting leads are 27"
long. Holding torque is,
approx. 48 oz-in.
Running torque is approx. 40 oz-in @ 500 pps.
However, this will vary with the driver used. Shaft: 1/4"
dia. x 3/4" long. The motor has 3/16" dia. clear mount-
ing holes in all corners. Dimensions: 2-1/4" sq. x 2"
long (excluding shaft).

Stock #SSM9951



STEPPER MOTOR

FUJI ELECTRO-
CHEMICAL,
#SM55-2402-A.

Permanent
magnet 2 phase
4 wire stepper
motor. Rated 12
VDC 0.4 amps per phase. 7.5° per step, 48 steps per
revolution. Approx. 45 oz-in holding torque. Bronze
sleeve bearings. Requires a bipolar type driver. Running
torque will depend on type of driver used. Shaft: 1/4"
dia. x 23/32" long. The shaft has a 15-tooth brass pin-
ion gear attached to shaft, which is removable if not
needed. Motor has a 3-1/8" oval front mounting plate.
The plate has two 11/64" dia. mounting holes. Bolt
centers of mounting holes are 2-5/8" apart. Has 23"
long wire leads. Dimensions: 2-1/4" high x 3-1/8" wide
x 1-1/16" deep (excluding shaft).

Stock #SSM2104

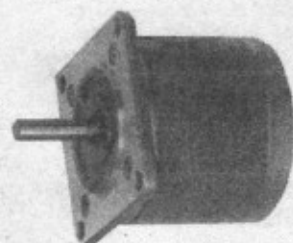


STEPPING MOTOR

SANYO DENKI,
#103-771-18.

Permanent
magnet
stepping motor.
200 steps per
revolution,
1.8 degrees per
step. Ball bear-
ing, reversible. 5-lead wiring cable. 4 phase, coils are
rated 24 VDC @ 0.18 amp per phase. Nominal rated
torque 30 oz-in. Holding torque approx. 50 oz-in.
Running torque will vary with drive configuration.
Nominal running torque using a unipolar drive at 500
pps is 25 oz-in. Shaft: 1/4" dia. x 1" long. Has 3/16"
dia. holes in corners for mounting. Dimensions: 2-1/4"
sq. x 2-3/32" long (excluding shaft).

Stock #SSM9902

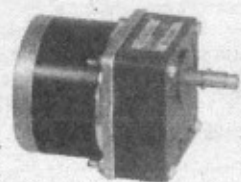


STEPPER MOTOR WITH GEARBOX

VEXTA, #A3939-9412

with #4GK5K-D9 gear-
head. The motor is
a 2 phase 4 wire motor
with 200 steps per rev-
olution 1.8° per step.
Rated voltage is 1.8 VDC. Rated current per phase is
4.5 amp per phase. Motor and gearbox have ball bear-
ings. The gearbox ratio is 5:1. The nominal holding
torque of the motor by itself, not considering torque
amplification of the gearbox, is 170 oz-in. The running
torque will vary with the driver used, but the unit will
produce approx. 80 oz-in torque without considering
the gearbox amplification factor. This motor requires a
two phase bipolar driver for operation. The shaft is
10mm dia. x 1-3-16" long. The shaft has a 2.5mm dia.
cross-drilled hole and pin. The hole centerline is locat-
ed 3/4" from the shaft end. The shaft also has a shal-
low snap ring groove located about 1/4" from the end
of the shaft. Dimensions: 3-3/16" sq. x 4" deep
(excluding shaft).

Stock #SSM2201



STEPPER MOTOR

SANYO-DENKI
#103-820-2

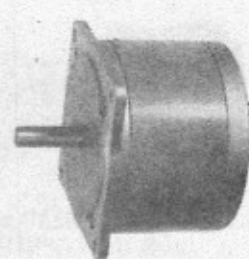
or FUJI
#GPF3945-2B.
Permanent magnet
4-phase. 180 steps
per revolution, 2°
per step. 5% step
accuracy min.
Rated 4.5 VDC 1.4
amps per phase. Running torque 90 oz-in. Holding
torque 130 oz-in. 6-lead motor. Dimensions: 3-3/8"
dia. x 2-1/2" long. Has square mounting flange with
1/4" dia. holes in each corner. Shaft: 3/8" dia. x
1-1/8" long. NOTE: Step angle of 2° makes this series
of motors an excellent choice for applications involving
angular rotation. If used with a half-step driver, one
step equals 1°.

Stock #SSM9254A

NEW \$

Stock #SSM9254

*RFE \$



SLO-SYN AC MOTOR

#SS150B-P2.

3.3 rpm, 120
VAC, 50/60 Hz
@ 0.4 amp.
Reversible.
Torque 2000
oz-in. Shaft: 1/2" dia. x 3/4" long with 1/8" keyway.
4" sq. mounting flange with 4-3/16" wide x 7/16" long
slots for mounting. Overall dimensions: 4-1/4" dia. x
7" long. Capacitor required and supplied. Excellent for
use as a barbecue rotisserie motor.

Stock #SSM9401

\$69.50

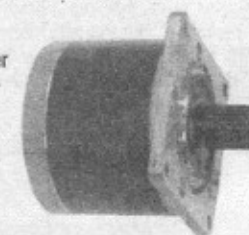


5 PHASE STEPPER MOTOR

SANYO DENKI,
#103-7501-8047.

12 VDC, 1.5 amp per
phase. Phase resist-
ance 0.5 ohms.
0.72° per step 500
steps per revolution.
5-lead motor. This
motor has 5 wind-
ings which are all
connected in series.
Motor connections are made at the end of one winding
and the beginning of the next adjacent winding. Motor
does not have a common winding connection. Motor
requires a driver that produces a 5-step sequence with
one phase energized at a time. Reversing the step
sequence changes the direction of motor rotation.
These motors are similar to ones made by Oriental
Motor Co. Their VEXTA® series drivers should work
with this motor. Connecting leads are 4" long. Holding
and running torque will vary with the driver used. Shaft:
6mm dia. x 3/4" long. Shaft has a metal cog pulley
attached which can be removed if not used. The motor
has 3/16" dia. clear mounting holes in all corners.
Dimensions: 2-5/16" sq. x 2" long (excluding shaft).

Stock #SSM2203



STEPPING MOTORS

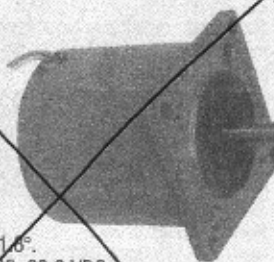
MOTORS — STEPPER COMPONENTS

SLO-SYN PRECISION STEPPER MOTOR,

Type SS-25-1011 (similar to M061-FD311) (M Series). Operates on phase switched DC power. Stepping increments 1.8°. Step per revolution 200. 23.6 VDC, 0.22 amp. 35 oz-in. torque. Dimensions: 2-1/2 square mounting flange x 2-3/8" long. Shaft 1/4" dia. x 3/4" long. 5 leads.

Stock #SSM2500

*RFE \$15.00

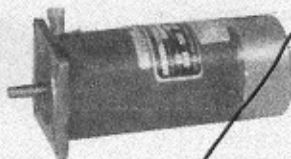


STEPPER MOTOR WITH OPTICAL ENCODER

Made by various manufacturers. All motors have the same electrical and mechanical specifications. We will ship according to stock on hand at time of order. The motors are made by SUPERIOR ELECTRIC, BODINE or CLIFTON PRECISION. The motors are 6 lead 4 phase permanent magnet, reversible. The step angle is 1.8° with 200 steps per revolution. The rated voltage is 2.25 VDC. The current rating is 4.6 amps per phase. Holding torque is 150 oz-in. The encoders are made by a variety of vendors. The encoders are designed for a special purpose. The encoders have two output channels. Both channels produce one output pulse per revolution. The outputs appear to be timed to different points in respect to the shaft rotational position. The encoder input voltage is 5.0 VDC nom. The encoders can be removed allowing the use of the motor shaft at the rear of the motor. Shafts: Front shaft is 1/4" dia. x 0.7" long. The rear shaft is 1/4" dia. x 0.85" long. Dimensions: 2-1/4" sq. x 4-1/8" long. (excluding shafts.)

Stock #SSM2100

*RFE \$39.50

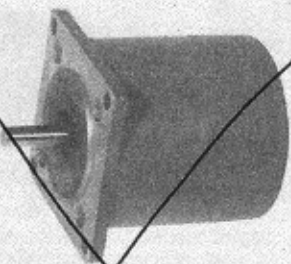


AC SYNCHRONOUS STEPPING MOTORS

72 RPM REVERSIBLE 1110 SLO-SYN SS-25 SYNCHRONOUS MOTOR. 72 rpm @ 25 oz-in torque, 120 V 60 Hz, 1 phase, 0.1 amp. Motor instant start, stop and reverse. May be used as a stepping motor. Continuous duty. Requires 500 ohm resistor and 0.75 MFD capacitor (not supplied). Overall dimensions: 2-3/16" dia. x 2-1/4" long. Shaft: 1/4" dia. x 3/4" long. 2-1/2" sq. front mounting flange.

Stock #SSM7901

*RFE \$10.00

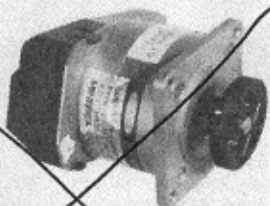


STEPPER MOTOR WITH OPTICAL ENCODER

ASTROSYS, #23LM-C245-01. 4.0 VDC 1.0 amp per phase. Permanent magnet 4 phase DC stepper motor. 1.8° per step, 200 steps per revolution. 6-lead motor. Running torque 20 oz-in. Holding torque 35 oz-in. Dimensions: 2-1/4" sq. x 2-1/2" deep. Shaft: 1/4" dia. x 5/8" long. SHARP #GP1R26W encoder has a quadrature output and has 49 pulses per revolution and a once around pulse.

Stock #SSM9451

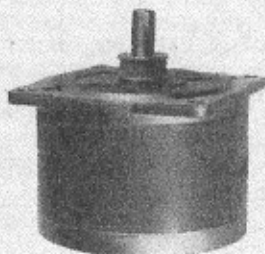
*RFE \$32.50



STEPPER MOTOR

SANYO-DENKI, #103-809-0242. Permanent magnet 4-phase. 180 steps per revolution, 1.8° per step. 5% step accuracy min. Rated 2.5 VDC 2.1 amps per phase. Running torque 90 oz-in. Holding torque 130 oz-in. 6-lead motor. Dimensions: 3-3/8" dia. x 2-1/2" long. Has square mounting flange with 1/4" holes in each corner. Shaft: 3/8" dia. x 1-1/8" long.

Stock #SSM9250

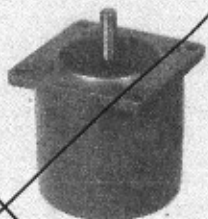


STEPPER MOTOR

RAPIDSYN, #23D-6106FA or EASTERN AIR DEVICES, #LA23-ECR-21. 3 VDC, 1.5 amps per phase. Permanent magnet 4 phase DC. 1.8° per step. 200 steps per revolution. 8-lead motor. 3 VDC, 1.5 amps per phase. Running torque 35 oz-in. Single shaft 0.248" dia. x 0.750" long. Dimensions: 2.230" dia. x 2" long, excluding shaft. Mounting flange 2.230" sq. with corner screw-holes. NOTE: 8-lead motors can be easily connected to be 6-lead motors. Wiring diagram provided.

Stock #SSM8504

*RFE \$30.00



STEPPER MOTOR

HOWARD IND., #1-19-4200. 3.6° per step, 100 steps per revolution. Rated 12 VDC 0.16 amp per phase (75 ohm coils). Holding torque approx. 9 oz-in. 4 phase permanent magnet, with 5 leads. Shaft: 5mm dia. x 10mm long. Has two 4X40 tpi studs on front for mounting. Dimensions: 1-11/16" sq. x 1-3/8" long (excluding shaft).

Stock #SSM9752



Same specs as above except HOWARD IND., #1-19-4201. Rated 24 VDC 0.16 amp per phase (140 ohm coils). 3.6° per step, 100 steps per revolution.

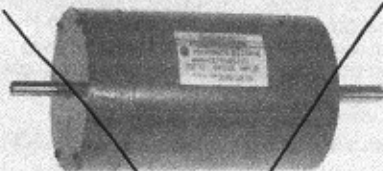
Stock #SSM9753

72 RPM SIGMA INSTRUMENTS,

#20-4266TS-22770-E, AC SYNCHRONOUS STEPPER MOTOR. 72 rpm @ 580 oz-in torque. 100 ohms 100 watts. Instant starting reversing and stopping. Continuous duty. Totally enclosed motor. May be used as a DC step motor. Motor 120 VAC, 60 Hz. 1.3 amps. Dimensions: 4-1/4" dia. x 6-3/4". Dual shaft: 0.375" dia. x 1.5" long, 0.500" dia. x 2.0" long. Front mount. Three tapped holes. Requires 100 ohm 5% 100 watt resistor (not supplied) and 12 MFD, 330 VAC capacitor (supplied).

Stock #SSM8204

*RFE \$37.50



*REMOVED FROM EQUIPMENT