

STEPPER MOTOR FAMILY

Series 49mm (AS, ABS) Geared Stepping Motor



Step Angle:	7.5° & 15°
Torque Range:	2.3 to 50 oz-in [16.2 to 353 mN-m]
Position Accuracy:	+/- 5% max.
Number of Phases:	4 phase bifilar
Insulation Class:	Class A (105°C)
Lead Wire:	6 leads 24AWG (approx. 9 inches [228.6 mm])
Operation Ambient Temp:	-10°C to +40°C (approx.)
Gear Housing:	Die cast housing with hardened steel gears Pear- or Round-Shaped gear housing options available
Note: Typical data subject to change without notification	

Model	Part Number	Reduction	Step Angle (degrees)	Steps per Revolution	Rated Torque @ 200 p/s (oz-in)	Rated Torque @ 200 p/s (mN-m)	Output Speed (RPM)	Maximum gear train loading	Input Power (watts)	Nominal Voltage (VDC)	Winding Resistance (ohms)	Weight (oz)	Weight (g)
ABS	3008-020	150	0.1	3600	132.6	936.4	3		4.5	24	213	11	312
ABS	3008-026	150	0.1	3600	132.5	935.7	3		4.5	5	11	11	312
ABS	3008-002	150	0.1	3600	132.6	936.4	3.3		4.5	12	53	11	312
ABS	3008-003	75	0.2	1800	81.6	576.2	6.7		4.5	12	53	11	312
ABS	3008-018	75	0.2	1800	81.6	576.2	7		4.5	6	13.4	11	312
ABS	3008-025	75	0.2	1800	81.6	576.2	7		4.5	24	213	11	312
ABS	3008-004	30	0.5	720	32.6	230.2	16.7		4.5	12	53	11	312
ABS	3008-005	20	0.75	480	21.8	153.9	25		4.5	12	53	11	312
ABS	3008-015	20	0.75	480	21.8	153.9	25		4.5	24	213	11	312
ABS	3008-006	15	1	360	17.8	125.7	33.3		4.5	12	53	11	312
ABS	3008-027	12.5	1.2	300	14.8	104.5	40		4.5	12	53	11	312
ABS	3008-008	4.17	3.6	100	4.96	35	120		4.5	12	53	11	312
AS	3004-001	300	0.025	14400	150	1059.2	0.83	X	3.5	12	100	11	312
AS	3004-052	300	0.025	14400	150	1059.2	1		3	24	325	11	312
AS	3004-011	150	0.05	720	150	1059.2	2		3.5	6	17.1	11	312
AS	3004-003	75	0.1	3600	65.3	461.1	3		3	12	100	11	312
AS	3004-004	30	0.25	1440	26.1	184.3	8.3		3	12	100	11	312
AS	3015-004	30	0.25	1440	36	254.2	8.3		3	12	100	11	312
AS	3015-011	30	0.25	1440	36	254.2	8.3		3	24	325	11	312
AS	3004-007	10	0.75	480	9.52	67.2	25		3	12	100	11	312
AS	3004-016	10	0.75	480	11.9	84	25		3.5	6	17.1	11	312

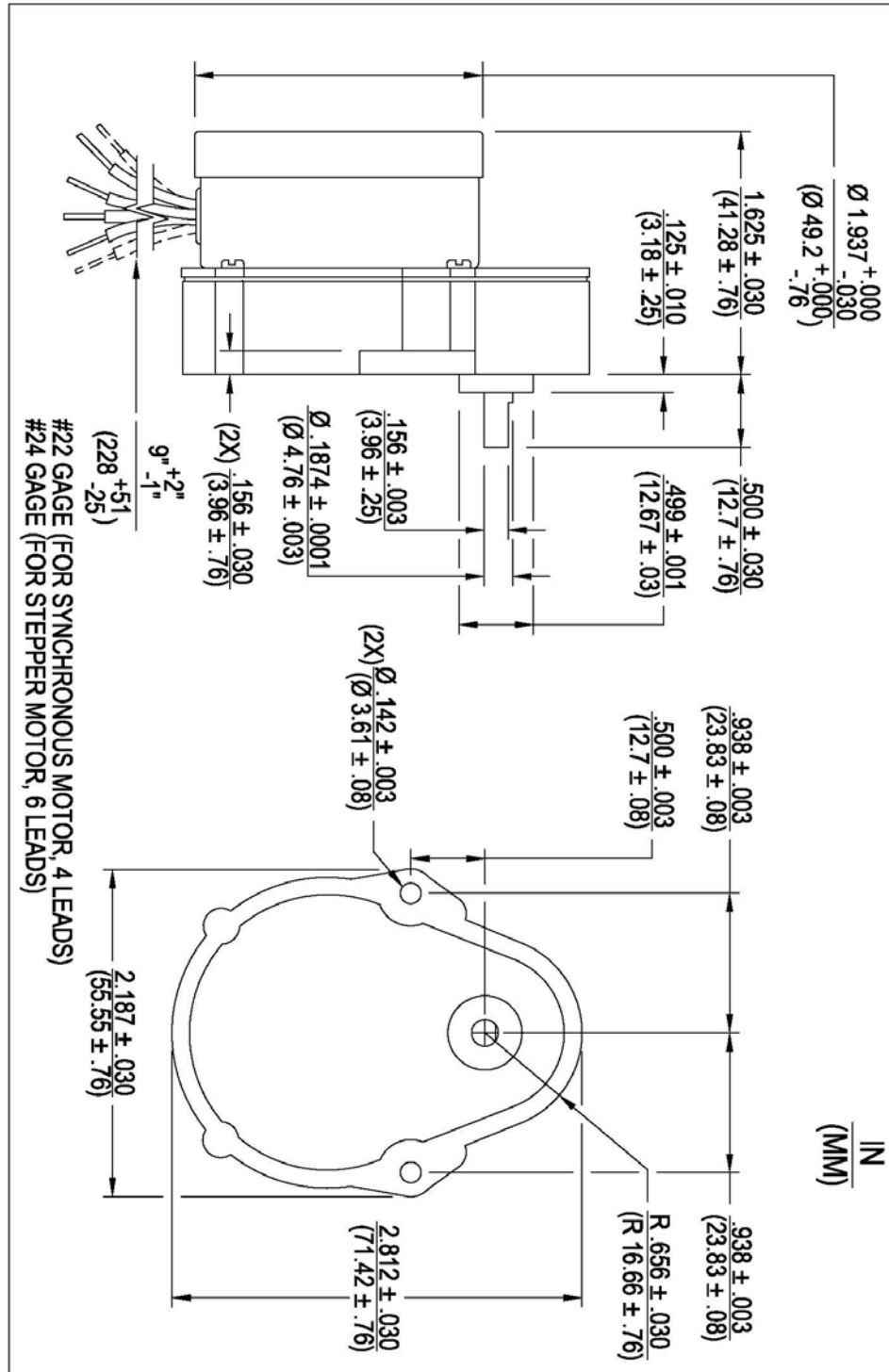
Model	Part Number	Reduction	Step Angle (degrees)	Steps per Revolution	Rated Torque @ 200 p/s (oz-in)	Rated Torque @ 200 p/s (mN-m)	Output Speed (RPM)	Maximum gear train loading	Input Power (watts)	Nominal Voltage (VDC)	Winding Resistance (ohms)	Weight (oz)	Weight (g)
AS	3004-047	10	0.75	480	9.53	67.3	25		3	24	325	11	312
AS	3004-033	5	1.5	240	5.9	41.7	50		3.5	6	17.1	11	312
AS	3004-008	4.17	1.8	200	3.97	28	60		3	12	100	11	312
AS	3004-049	2.5	3.6	100	1.98	14	100		3	12	100	11	312

NEW ROUND-SHAPED GEAR MOUNTINGS:

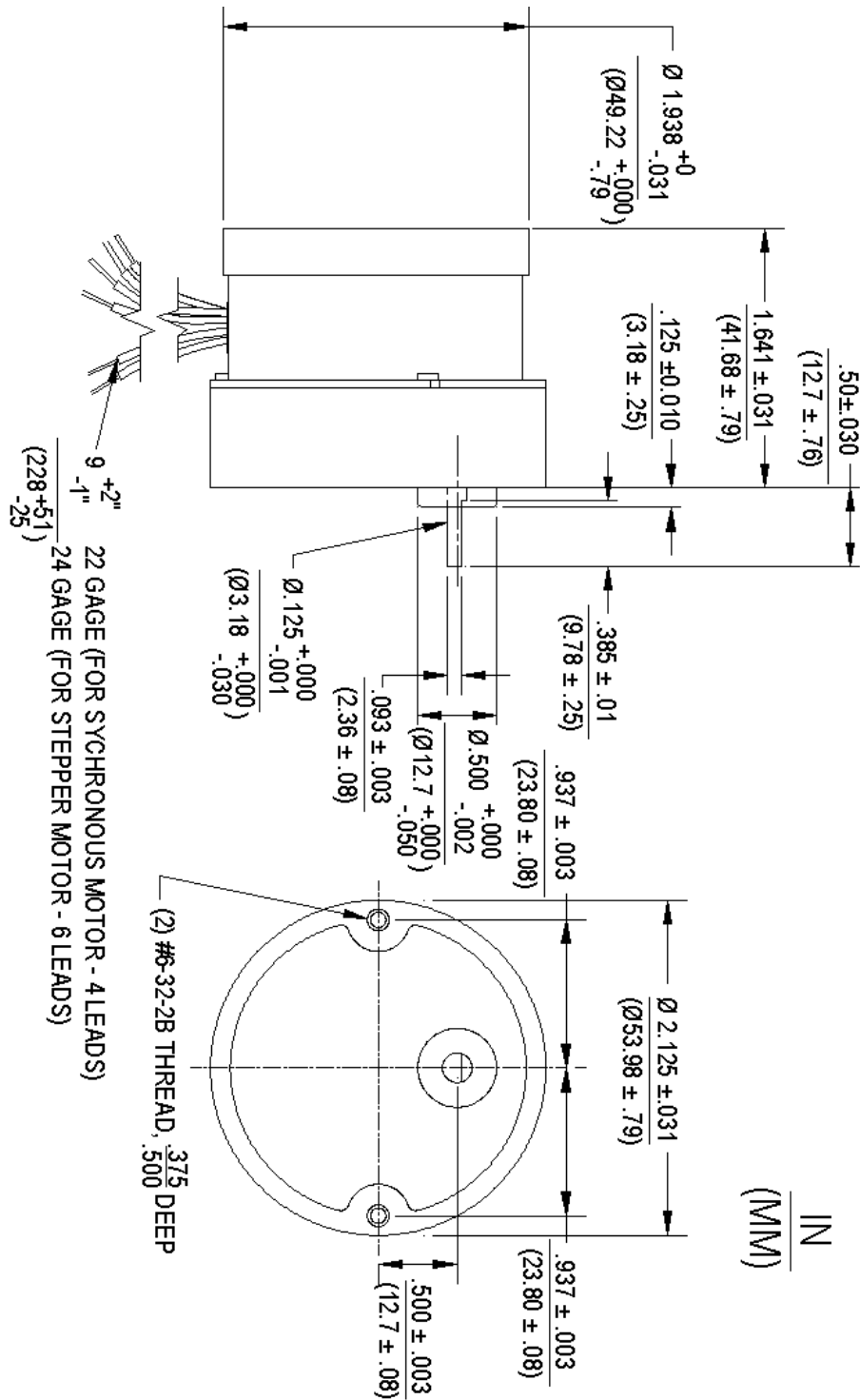
NOTE: ALL Models Listed have sleeve bearings.

Model	Part Number	Reduction	Step Angle (degrees)	Steps per Revolution	Rated Torque @ 200 p/s (oz-in)	Rated Torque @ 200 p/s (mN-m)	Output Speed (RPM)	Maximum gear train loading	Input Power (watts)	Nominal Voltage (VDC)	Winding Resistance (ohms)	Weight (oz)	Weight (g)
AS	3004-R01	10	.75	480	10.86	76.67	25		3	12	100	11	312
AS	3004-R02	15	.5	720	16.34	115.4	16.7		3	12	100	11	312
AS	3004R03	30	.25	1440	29.8	210.6	8.34		3	12	100	11	312
AS	3004-R04	60	.125	2880	59.4	419.7	4.11		3	12	100	11	312

Pear-Shaped Gear:

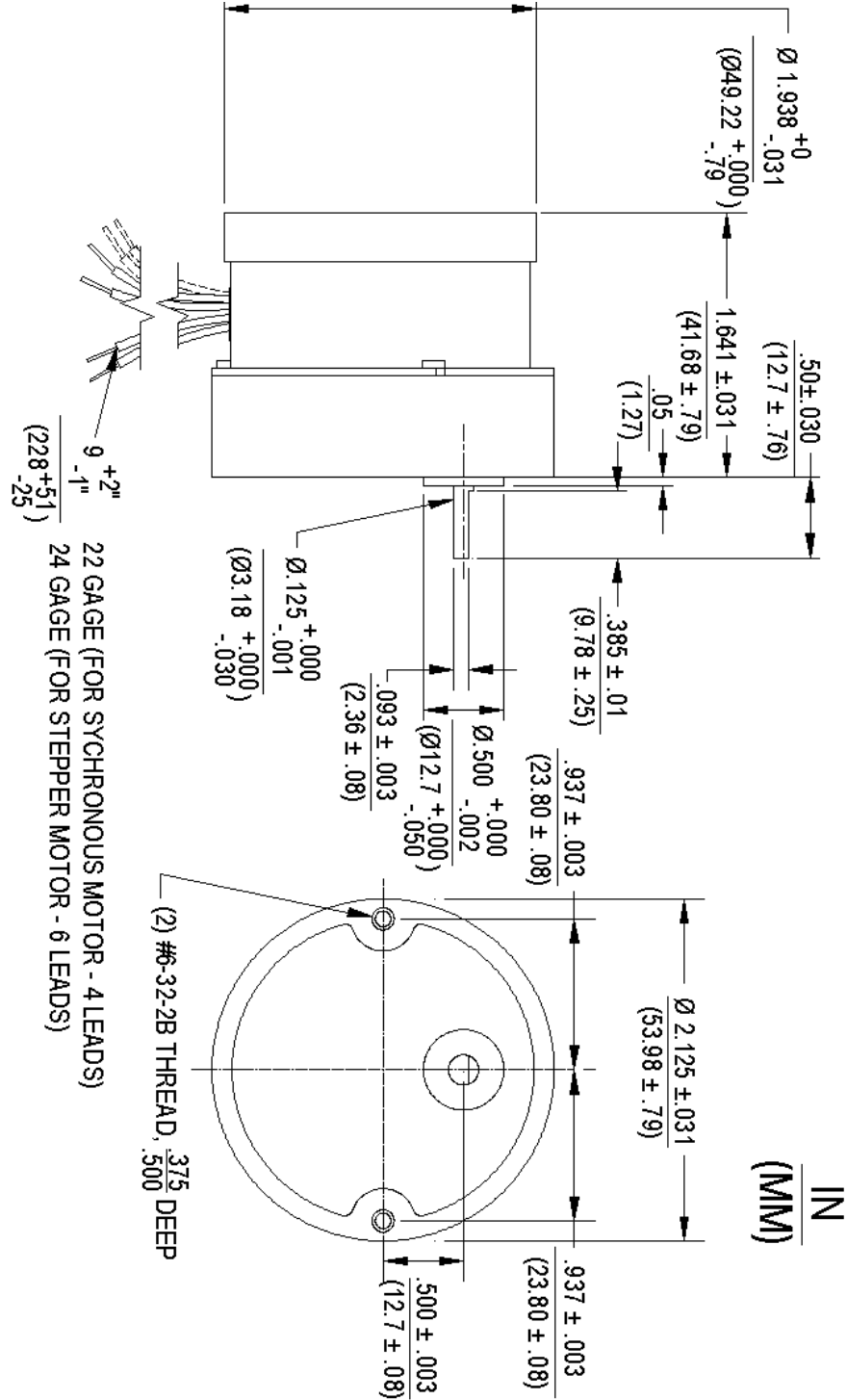


Round-Shaped Gear with Sleeve Bearings:

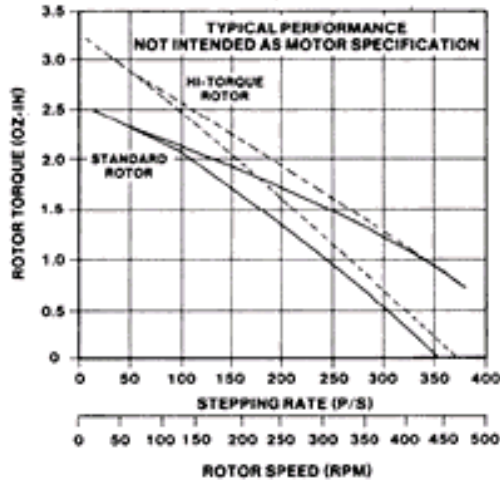


Round-Shaped Gear with Ball Bearings:

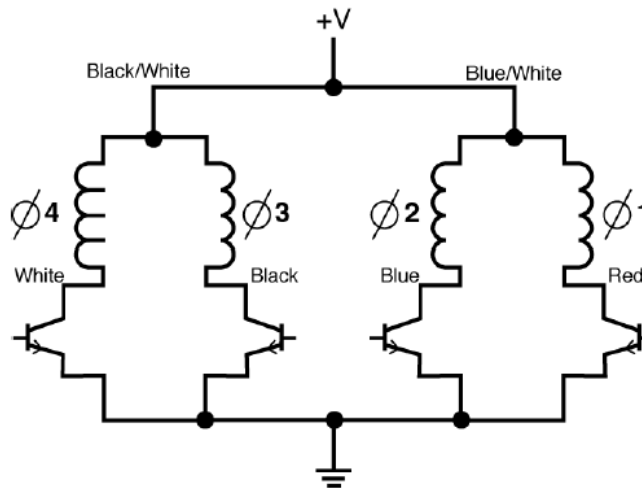
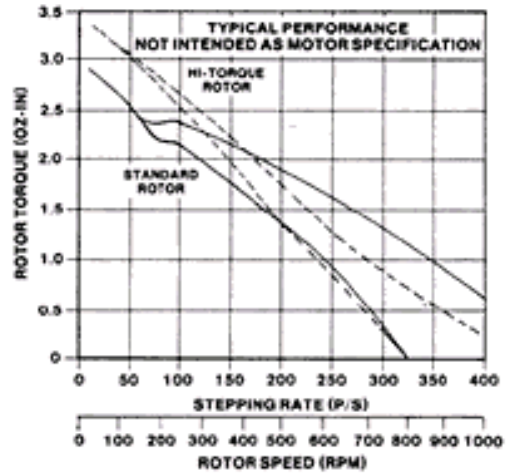
Note: (Contact Factory if you desire this construction)



**MODELS AS 3003-001 and AS 3010-002
UNIPOLAR, L/R DRIVE**



**MODELS ABS 3007-001 and ABS 3012-002
UNIPOLAR, L/R DRIVE**



	Ø4 White	Ø3 Black	Ø2 Blue	Ø1 Red	
CCW ROTATION ↑	1	0	1	0	↓ CW ROTATION
	1	0	0	1	
	0	1	0	1	
	0	1	1	0	

1 = ON, 0 = OFF

SWITCHING SEQUENCE