

AM SERIES STEP MOTORS



ADVANCEDMICROSYSTEMS offers a variety of high performance, 2 phase hybrid step motors. All motors are industry standard 1.8° (200 steps per revolution), full-step angle construction. Optional .9° (400 steps per revolution), full-step angle motors are also available. Each step motor is carefully constructed with permanently lubricated ball bearings for extended service life.

All AMS step motors are bipolar drive compatible. NEMA sizes 23, 34 and 42 motors can be wired with a parallel winding (standard) or in series for specific application requirements and come equipped with a convenient ten foot shielded cable.

MOTOR FEATURES

- *Rotational angle of the motor rotor is directly proportional to the number of input step pulses for movement in full, half and microstep operations.*
- *Precise and repeatable position sequencing, in open or closed loop applications.*
- *Complete range of speed and torque characteristics.*
- *Low-cost, high quality alternative to expensive pneumatic, hydraulic and servo motor designs.*

ENCODER FEEDBACK

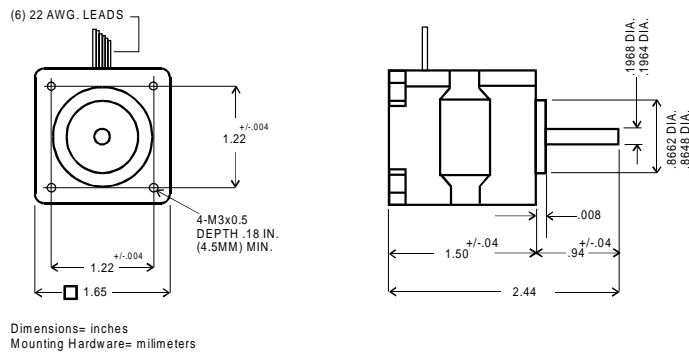
Most AMS step motors may be ordered with shaft encoders. High resolution encoders operate in conjunction with the “EFB” electronics available in the MAX microstep controller/driver family. Benefits include dynamic stall detection and position maintenance capability. The EFB suffix includes assembled encoder and interface cables.

- *50 to 500 lines per/rev, 500 standard*
- *Quadrature output for 2000 ppr.*
- *Index pulse used with homing*
- *-40 to 100° (C) operating temperature*
- *Adds less than 3/4” to motor length*

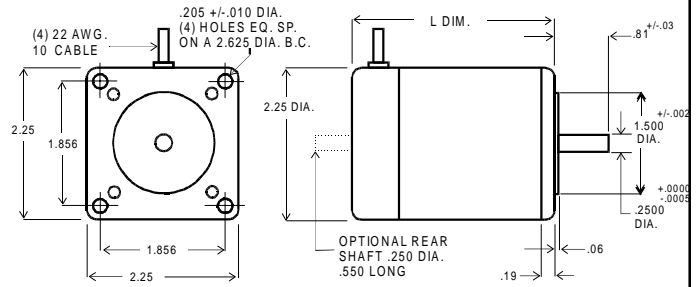
MOTOR SPECIFICATIONS (add -EFB suffix for motor with encoder)

Model Number	Parallel Winding				Series Winding				Holding Torque oz/in	Resistance per Phase Rm (ohms)	Inductance Per Phase MH @ 1000Hz	Rotor Inertia oz/in - Sec ²	NEMA Frame Size
	1 Phase Energized		2 Phases Energized		1 Phase Energized		2 Phases Energized						
	Volts	Amps	Volts	Amps	Volts	Amps	Volts	Amps					
AM17-44-3MT	N/A	N/A	N/A	N/A	7.00	1.1	5.30	.85	44	6.20	16.00	.0004	17
AM23-72-1	3.56	5.6	2.52	4.0	4.78	2.8	3.38	2.0	72	.63	1.44	.0017	23
AM23-150-2	4.30	5.6	3.04	4.0	6.14	2.8	4.34	2.0	150	.76	2.54	.0033	23
AM23-210-3	5.09	5.6	3.60	4.0	7.83	2.8	6.54	2.0	210	.90	3.63	.0050	23
AM34-235-1	3.68	5.6	2.60	4.0	6.62	2.8	4.68	2.0	235	.65	5.10	.0091	34
AM34-420-2	4.64	5.6	3.28	4.0	8.54	2.8	6.04	2.0	420	.86	8.30	.0170	34
AM34-620-3	5.37	5.6	3.80	4.0	9.84	2.8	6.96	2.0	620	.95	11.20	.0265	34
AM42-810-2	5.26	5.6	3.72	4.0	10.50	2.8	7.40	2.0	810	.74	14.00	.0550	42
AM42-1440-3	6.78	5.6	4.80	4.0	13.60	2.8	9.60	2.0	1440	1.20	28.00	.1140	42

Frame Size 17

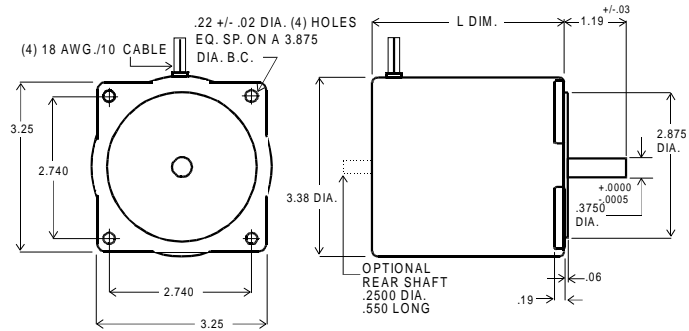


Frame Size 23

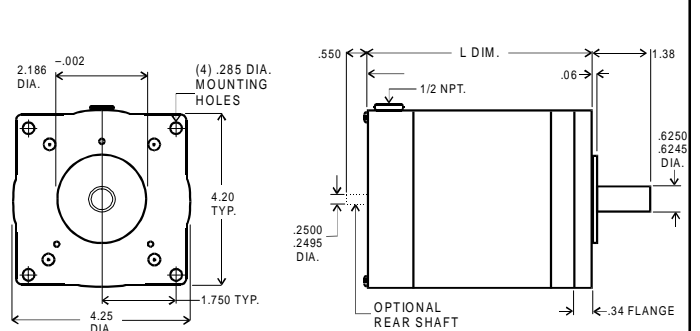


Model Number	Weight Ounces	No. of Leads	Lead Length	L Dim. Inches
AM23-72-1	19.0	4	10 Ft.	2.00
AM23-150-2	24.0	4	10 Ft.	3.00
AM23-210-3	47.0	4	10 Ft.	4.00

Frame Size 34



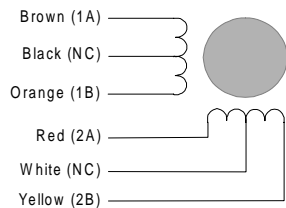
Frame Size 42



Model Number	Weight Ounces	No. of Leads	Lead Length	L Dim. Inches
AM34-235-1	48.0	4	10 Ft.	2.44
AM34-420-2	80.0	4	10 Ft.	3.70
AM34-620-3	121.0	4	10 Ft.	5.06

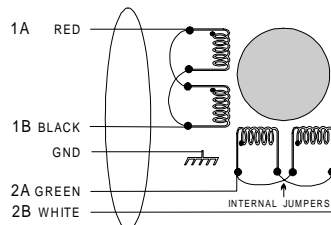
Wire Lead Color Codes

AM17-44-3MT



Note: Black and white wires are not connected (isolate and tie back).

AM23, 34, and 42 Series Motors*



*Parallel winding configurations are standard. Optional series windings are available on most models.

Encoder Dimensions (inches)

