Stepper Motors

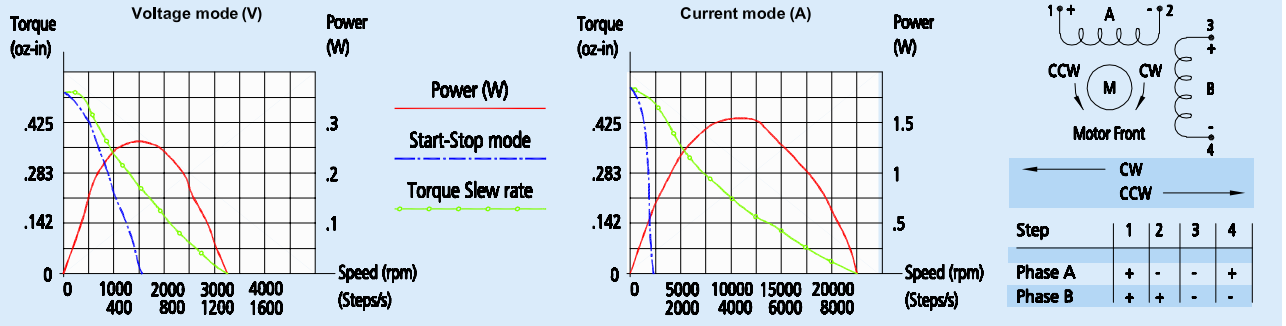
Two phases, 24 steps per revolution

For combination with:
Gearheads: 15/A, 15/5, 15/8, 16A & 16/7
Encoder: HE
Drive Electronics: AD VL M, AD VM M, AD CM M

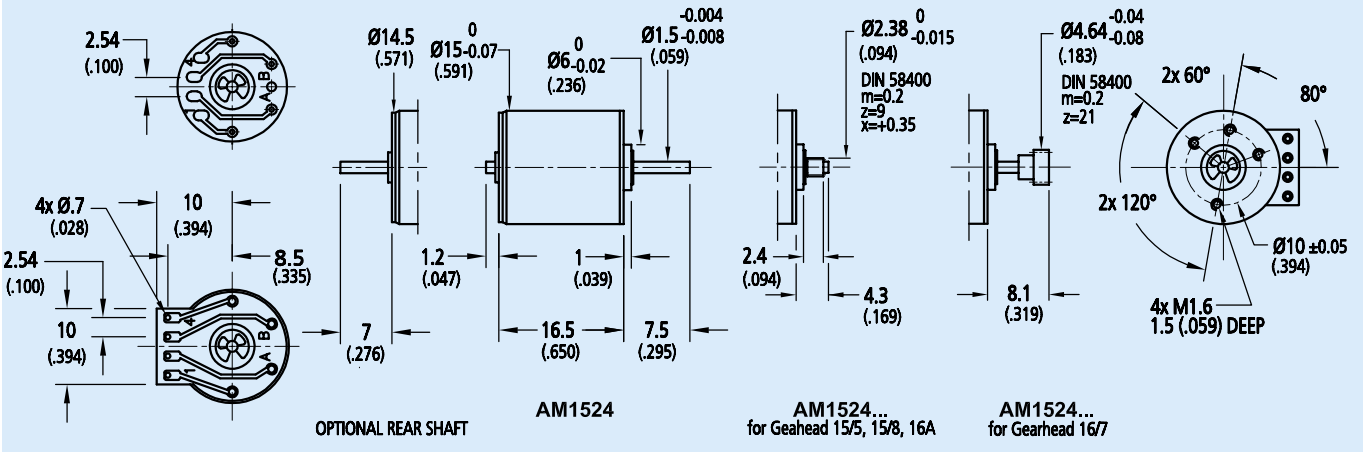
Series AM 1524

		V 3	V 6	V 12	V 24	A 0.25	
			Voltage mode			Current mode	
1	Nominal supply voltage U_N	3	6	12	24		V DC
2	Phase resistance at 20°C (68°F)	10	35	150	590	12.5	Ω
3	Phase inductance (1kHz)	4.25	15	65	239	5.5	mH
4	Nominal current per phase (both phases ON)	0.28	0.15	0.075	0.037	0.25	A
5	Back EMF amplitude	3.1	6	12	24	3.5	V/k step/s
6	Holding torque [1] (with nominal current in both phases)	0.850					oz-in
7	Holding torque [1] (with twice the nominal current)	1.416					oz-in
8	Residual and friction torque	0.127					oz-in
9	Thermal resistance winding-ambient air	37					°C/W
10	Maximum winding temperature	130 (266)					°C (°F)
11	Ambient temperature range	–40 to +70 (–40 to +158)					°C (°F)
12	Thermal time constant	220					s
13	Full step angle	15					degree
14	Angular accuracy [2]	± 10					% of full step
15	Rotor inertia	$6.4 \cdot 10^{-6}$					oz-in-sec²
16	Shaft bearings	sintered bronze sleeves (standard)		ball bearings, preloaded (optional)			
17	Shaft load, max.:						
	– radial (3 mm (0.118 in) from bearing)	1.8		21.6			oz
	– axial	1.8		10.8			oz
18	Shaft play, max.:						
	– radial (0.720 oz)	$0.59 \cdot 10^{-3}$		$0.47 \cdot 10^{-3}$			in
	– axial (0.720 oz)	$5.9 \cdot 10^{-3}$		~0			in
19	Weight	0.42					oz
20	Isolation test voltage	200					V DC
21	Resonance frequency	120					Hz
22	Electrical time constant	0.4					ms

[1] with bipolar driver
[2] 2 phases ON, balanced phase current



Torque / speed curves measured with a load inertia of 1.416 x10⁻⁶ oz-in-sec²



For notes on technical data refer to "Technical Information". Specifications subject to change without notice. MME0104