

MS23HA Series: 0.9° - Size 23



- Phases2
- Steps / Revolution400
- Step Accuracy±5%
- Shaft Load (20,000 Hours at 1000 RPM)
 - Axial40 N (9 Lbs.) Push
130 N (30 Lbs.) Pull
 - Radial70 N (15.5 Lbs.) At Flat Center
- IP Rating40
- ApprovalsUL Recognized File E465363, RoHS
- Operating Temp.-20°C to +50°C
- Insulation ClassB, 130°C
- Insulation Resistance100 MegOhms

MS23HA 0 P 4 100 -E

Basic Motor Length (Max)		Options	
0	39mm (1.54 in.)	Omit	No Options
8	55mm (2.17 in.)	-E	0.25 inch diameter rear shaft
A	77mm (3.03 in.)		With Encoder Mounting Holes
Electrical Connection		Winding	
P	Plug-in Connector	###	Current rating x 100
Number of Connections			
4	4 Lead-Bipolar		
6	6 Lead-Unipolar(or Bipolar)		

MS23HA - 4 Lead Bi-Polar

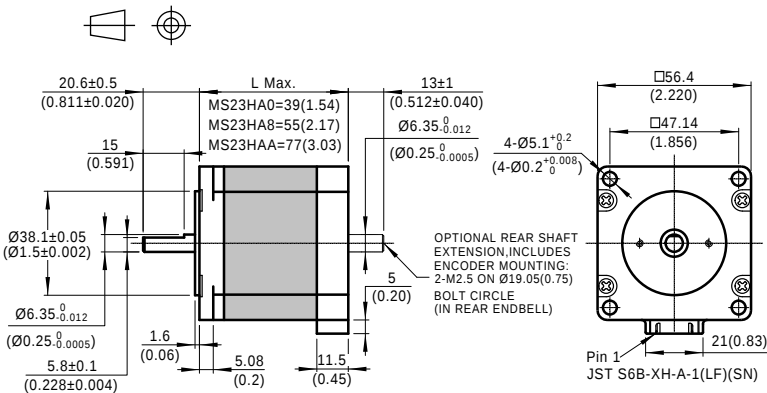
Length	Model Number	Connect	Rated Current	Holding Torque		Winding Ohms mH		Detent Torque		Rotor Inertia		Motor Weight	
	Single Shaft	P=Plug L=Leads	Amps (mounted)	Nm Typ.	oz-in TYP.	±10% @20 °C	Typ.	mNm	oz-in	g cm ²	oz-in ²	kg	Lbs
39 mm (1.54 in.)	^ MS23HA0P4100	P	1	0.59	84	6.3	19.8	24	3.4	121.5	0.66	0.42	0.93
	^ MS23HA0P4160	P	1.6	0.60	85	2.6	8.1						
	^ MS23HA0P4220	P	2.2	0.60	85	1.39	4.3						
	^ MS23HA0L4350	L	3.5	0.59	84	0.56	1.62						
55 mm (2.17 in.) 1 Stack	^ MS23HA8P4100	P	1	1.50	210	7.6	50	45	6.4	221	1.2	0.6	1.3
	^ MS23HA8P4150	P	1.5	1.40	200	3.1	21						
	^ MS23HA8P4220	P	2.2	1.50	210	1.6	10.5						
	^ MS23HA8L4360	L	3.6	1.50	210	0.63	3.9						
77 mm (3.03 in.) 2 Stack	^ MS23HA8L4550	L	5.5	1.50	210	0.28	1.56	70	9.9	391	2.1	1	2.2
	^ MS23HAAP4100	P	1	2.30	330	8.8	61						
	^ MS23HAAP4150	P	1.5	2.40	340	4.3	29						
	^ MS23HAAP4200	P	2	2.30	330	2.3	15.2						
	^ MS23HAAP4300	L	3	2.40	340	1.1	6.9						
	^ MS23HAAL4500	L	5	2.30	330	0.39	2.4						

^ Preferred model

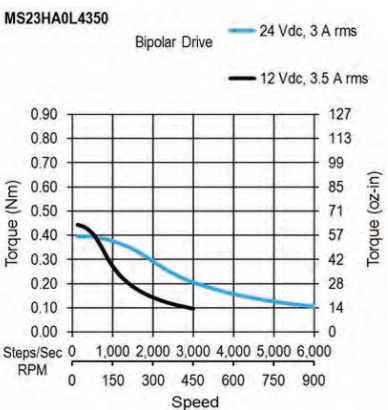
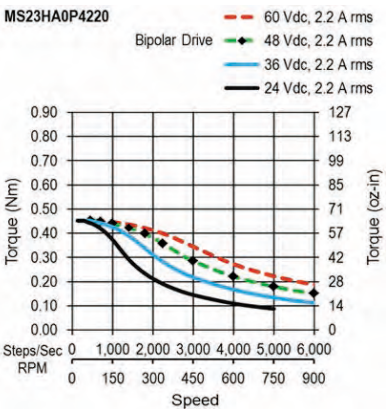
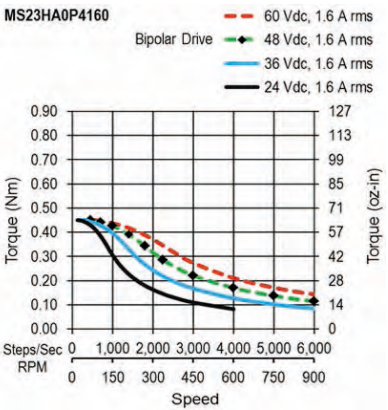
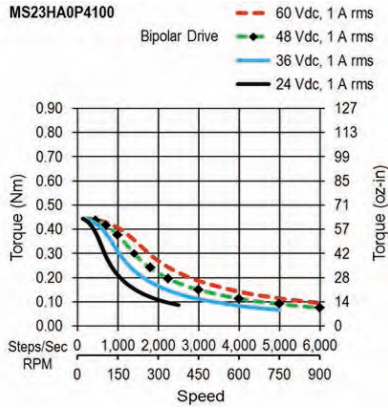
Dimensions: mm (in)

Mating Connector with 4 Leads: 300 ±10 (12 ±.5) long (order separately) Part Number: 4634 1402 01891

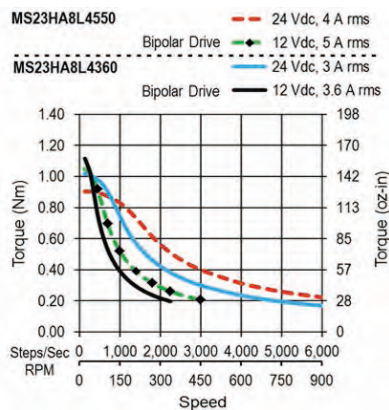
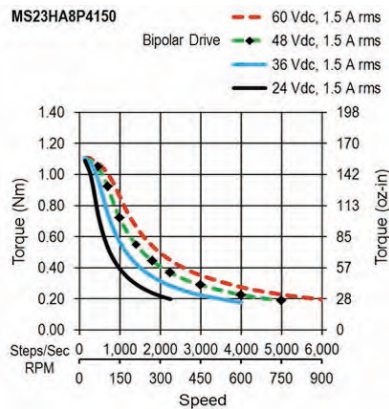
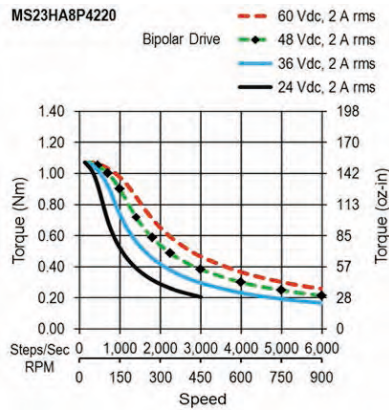
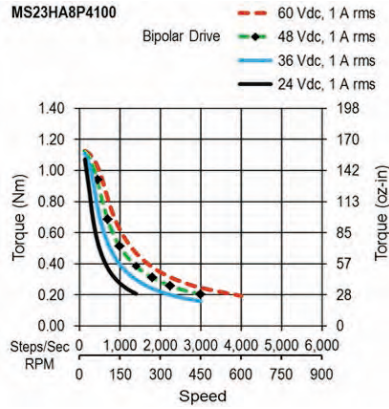
Motors with leads: Lead wire is 22 AWG UL3266, 300 ±10 (12 ±.5) long



MS23HA0



MS23HA8



MS23HAA

