

ML23HS / PL23HS Series: 1.8° - Size 23



- Phases 2
- Steps / Revolution 200
- Step Accuracy $\pm 5\%$
- Shaft Load (20,000 Hours at 1000 RPM)
 - Axial 40 N (9 Lbs.) Push
 - 130 N (30 Lbs.) Pull
 - Radial 70 N (15.5 Lbs.) At Flat Center
- IP Rating 40
- Approvals UL Recognized File E465363, RoHS
- Operating Temp. -20°C to $+50^{\circ}\text{C}$
- Insulation Class B, 130°C
- Insulation Resistance 100 MegOhms

M L23HS 0 P 4 100 -E

Motor Technology

- M High Torque Step Motor
- P PowerPlus Step Motor

Basic Motor Length (Max)

0	39mm (1.54 in.)	
4	45mm (1.77 in.)	
8	55mm (2.17 in.)	1 Stack
A	77mm (3.03 in.)	2 Stack
C	112mm (4.41 in.)	3 Stack

Electrical Connection

- L Leads
- P Plug-in Connector

Options

- Omit No Options
- E 0.25 inch Diameter Rear Shaft with Encoder Mounting Holes

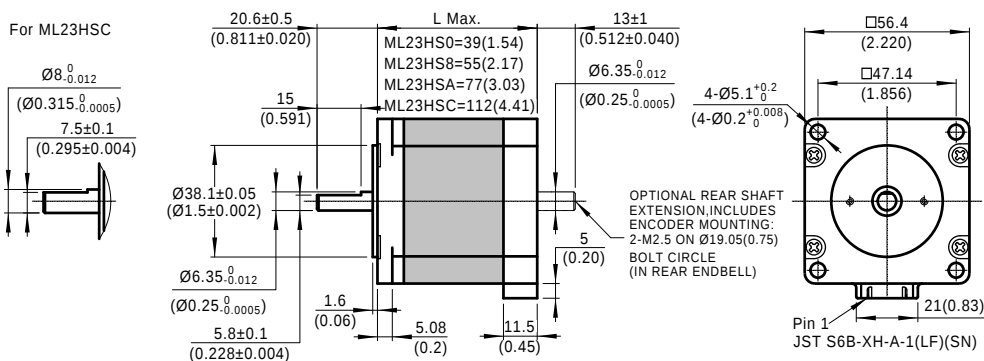
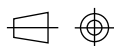
Winding

Current rating x 100

Number of Connections

- 4 4 Lead-Bipolar
- 6 6 Lead-Unipolar(or Bipolar)

Dimensions: mm (in)



ML23HS - 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.)	^ ML23HS0P4100	P	1	0.82	120	6.3	15.9						
	^ ML23HS0P4160	P	1.6	0.83	120	2.6	6.5						
	^ ML23HS0P4220	P	2.2	0.84	120	1.39	3.5	24	3.4	121.5	0.66	0.42	0.93
	^ ML23HS0L4350	L	3.5	0.82	120	0.56	1.3						
45 mm (1.77 in.)	^ ML23HS4P4100	P	1	1.20	170	7.3	22						
	^ ML23HS4P4150	P	1.5	1.20	170	3.1	9.2						
	^ ML23HS4P4210	P	2.1	1.20	170	1.62	4.8	28	4	155	0.85	0.48	1.1
	^ ML23HS4L4340	L	3.4	1.20	170	0.65	1.8						
55 mm (2.17 in.) 1 Stack	^ ML23HS8P4100	P	1	1.50	210	7.6	33						
	^ ML23HS8P4150	P	1.5	1.50	210	3.1	13.6						
	^ ML23HS8P4220	P	2.2	1.50	210	1.6	6.9	45	6.4	221	1.2	0.6	1.3
	^ ML23HS8L4360	L	3.6	1.50	210	0.63	2.6						
	^ ML23HS8L4550	L	5.5	1.50	210	0.28	1.03						
77 mm (3.03 in.) 2 Stack	^ ML23HSAP4100	P	1	2.30	330	8.8	39						
	^ ML23HSAP4150	P	1.5	2.30	330	4.3	18.5						
	^ ML23HSAP4200	P	2	2.30	330	2.3	9.8	75	11	391	2.1	1	2.2
	^ ML23HSAP4300	P	3	2.30	330	1.1	4.5						
	^ ML23HSAL4500	L	5	2.30	330	0.39	1.53						
112 mm (4.41 in.) 3 Stack	^ ML23HSCP4150	P	1.5	3.20	450	5.1	23						
	^ ML23HSCP4200	P	2	3.20	450	2.7	11.8						
	^ ML23HSCP4300	P	3	3.20	450	1.29	5.5	120	17	610	3.3	1.5	3.3
	^ ML23HSCL4500	L	5	3.20	450	0.51	1.85						

^ Preferred model

PL23HS - PowerPlus - 4 Lead Bi-Polar

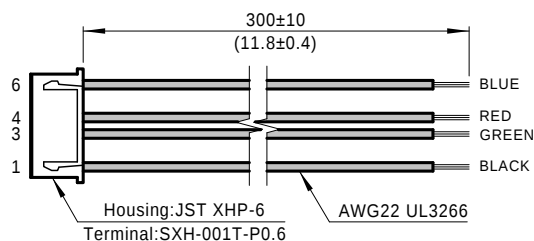
Length	Model Number	Connect	Rated Current	Holding Torque		Winding Ohms mH		Detent Torque		Rotor Inertia		Motor Weight	
	Single Shaft	P=Plug L=Leads	Amps (mounted)	Nm Typ.	oz-in TYP.	±10% @20 C	Typ.	mNm oz-in		g cm ² oz-in ²		kg Lbs	
55 mm (2.17 in.) 1 Stack	^ PL23HS8P4100	P	1	2.30	330	7.6	26						
	^ PL23HS8P4150	P	1.5	2.20	310	3.1	10.7						
	^ PL23HS8P4220	P	2.2	2.30	330	1.6	5.4	100	14	260	1.4	0.65	1.4
	^ PL23HS8L4360	L	3.6	2.30	330	0.63	2						
	^ PL23HS8L4550	L	5.5	2.20	310	0.28	0.8						
77 mm (3.03 in.) 2 Stack	^ PL23HSAP4100	P	1	3.30	470	8.8	32						
	^ PL23HSAP4150	P	1.5	3.40	480	4.3	15.2						
	^ PL23HSAP4200	P	2	3.30	470	2.3	8.1	150	21	460	2.5	1.1	2.4
	^ PL23HSAP4300	P	3	3.30	470	1.1	3.7						
	^ PL23HSAL4500	L	5	3.30	470	0.39	1.27						

^ Preferred model

Mating Connector With Leads (order separately)

Dimensions: mm (in)

4 Lead Part Number 4634 1402 01891



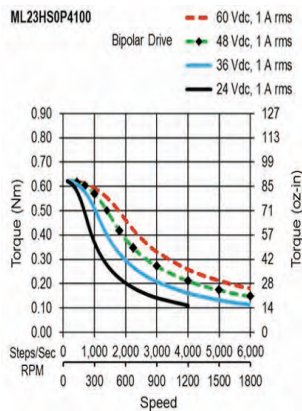
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ML23HS4

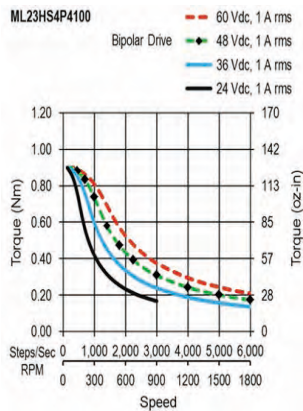
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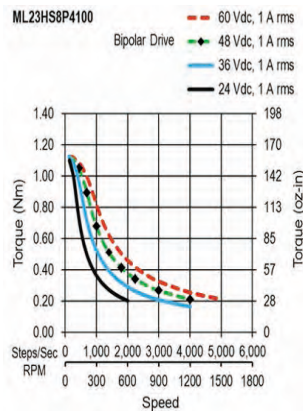
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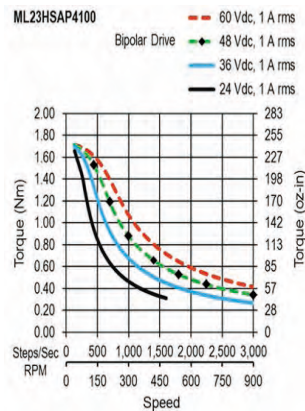
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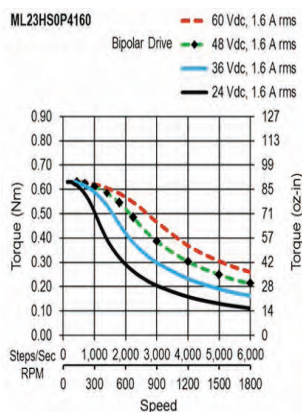
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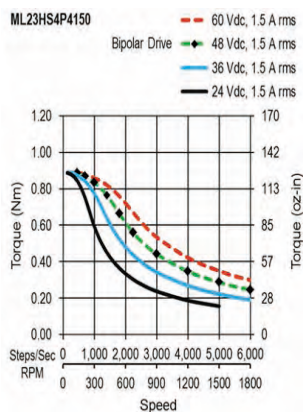
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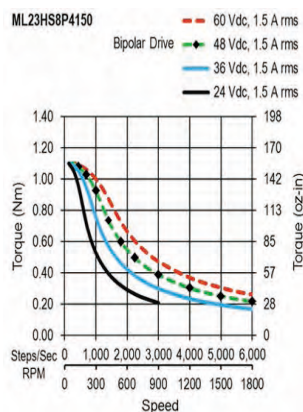
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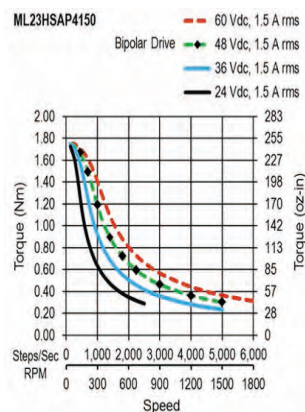
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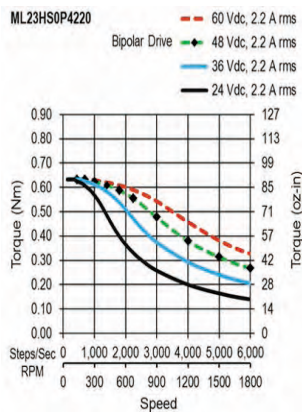
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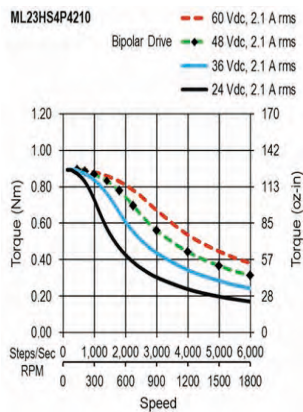
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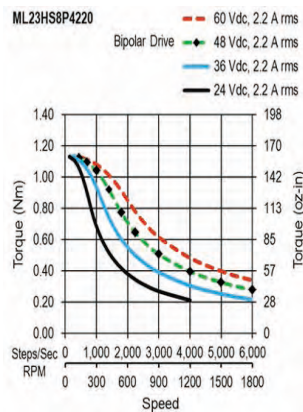
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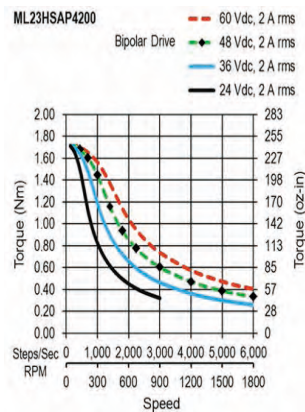
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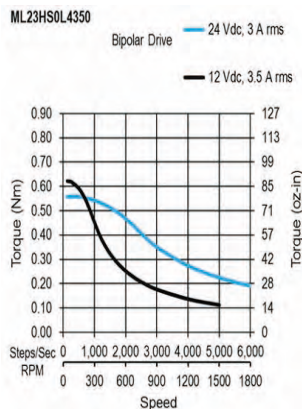
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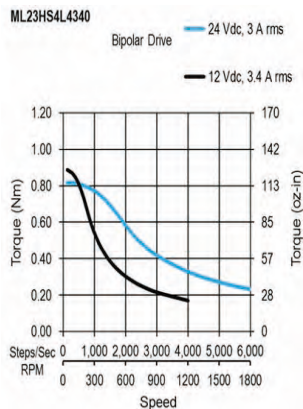
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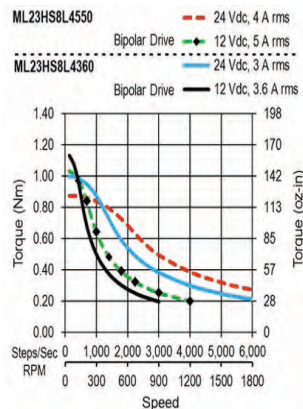
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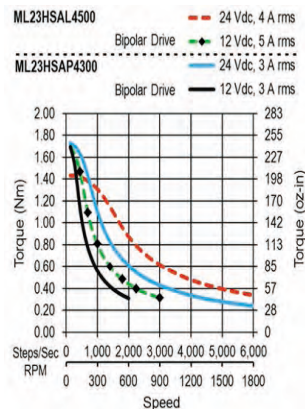
ML23HS4L4340



ML23HS8L4550



ML23HS4L4500



ML23HSC

PowerPlus PL23HS8

PowerPlus PL23HS

