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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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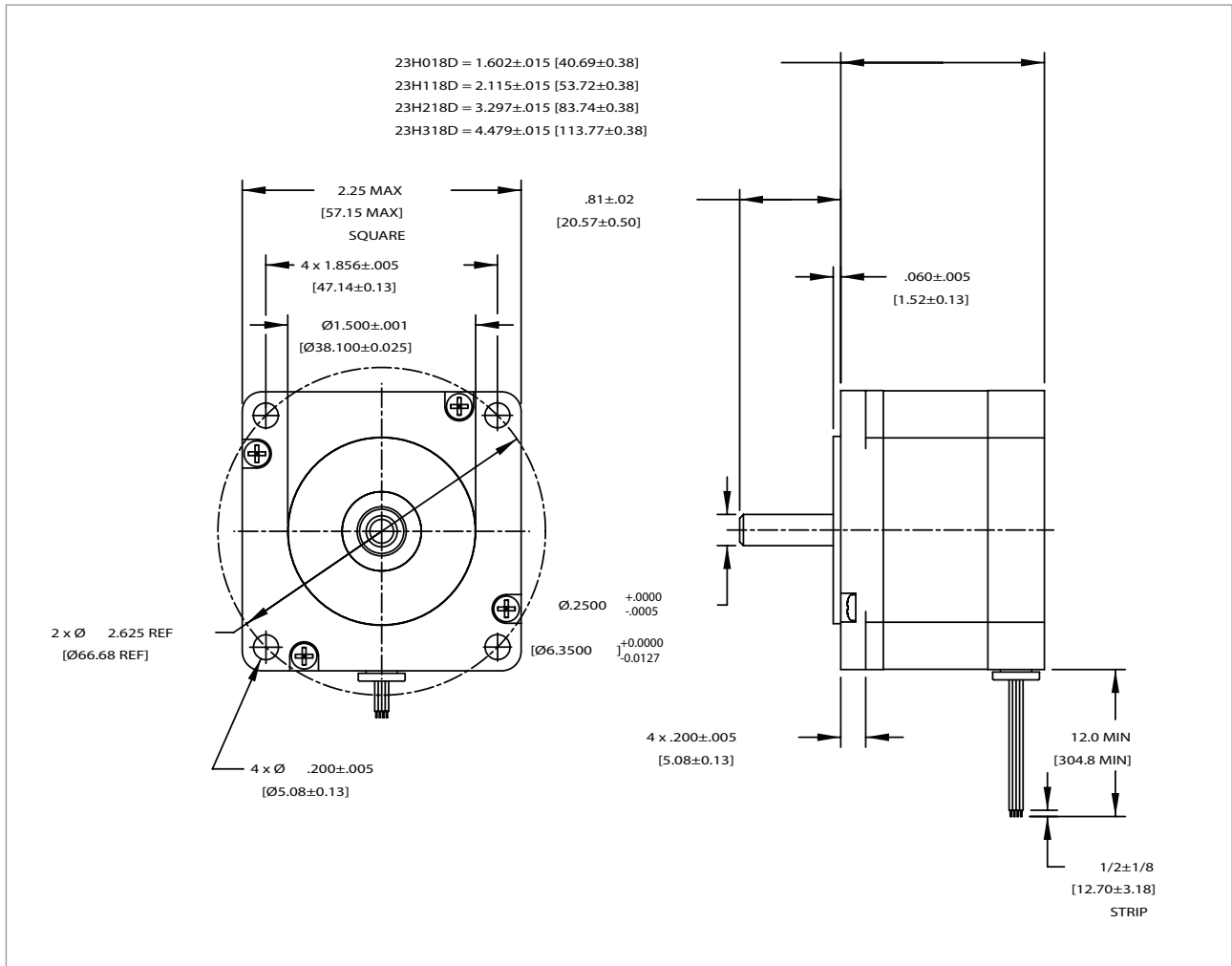
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23HX18D



Stepper

## 23HX18D

Motor Part Number			23HX18D10B	23HX18D20B	23HX18D30B
<b>Rated voltage</b>	Short Stack	vdc	5.70	2.86	1.89
	1 Stack	vdc	6.84	3.42	2.28
	2 Stack	vdc	8.50	4.26	2.82
	3 Stack	vdc	10.75	5.38	3.57
<b>Resistance per phase, ± 10%</b>	Short Stack	ohms	5.70	1.43	0.63
	1 Stack	ohms	6.84	1.71	0.76
	2 Stack	ohms	8.50	2.13	0.94
	3 Stack	ohms	10.75	2.69	1.19
<b>Inductance per phase, typ</b>	Short Stack	mH	11.15	2.66	1.21
	1 Stack	mH	25.56	6.10	2.78
	2 Stack	mH	34.28	8.33	3.92
	3 Stack	mH	43.52	13.35	4.99
<b>Rated current per phase *</b>		amps	1.0	2.0	3.0
<b>Holding torque, typical *</b>	Short Stack	oz-in / Nm		75 / 0.53	
	1 Stack	oz-in / Nm		180 / 1.27	
	2 Stack	oz-in / Nm		330 / 2.33	
	3 Stack	oz-in / Nm		400 / 2.82	
<b>Detent torque, typical</b>	Short Stack	oz-in / Nm		6.0 / 0.042	
	1 Stack	oz-in / Nm		9.0 / 0.064	
	2 Stack	oz-in / Nm		15.0 / 0.106	
	3 Stack	oz-in / Nm		18.0 / 0.127	
<b>Thermal resistance</b>	Short Stack	°C/watt		3.99	
	1 Stack	°C/watt		3.57	
	2 Stack	°C/watt		2.62	
	3 Stack	°C/watt		1.58	
<b>Rotor moment of inertia</b>	Short Stack	oz-in-s <sup>2</sup> / kg-cm <sup>2</sup>		.0026 / 0.19	
	1 Stack	oz-in-s <sup>2</sup> / kg-cm <sup>2</sup>		.0035 / 0.24	
	2 Stack	oz-in-s <sup>2</sup> / kg-cm <sup>2</sup>		.0068 / 0.48	
	3 Stack	oz-in-s <sup>2</sup> / kg-cm <sup>2</sup>		.0102 / 0.72	
<b>Step angle, ± 5% *</b>		degrees		1.8	
<b>Steps per revolution *</b>				200	
<b>Ambient temperature range</b>					
<b>Operating</b>		°C		-20 ~ +40	
<b>Storage</b>		°C		-40 ~ +85	
<b>Bearing type</b>				Ball bearing	
<b>Insulation resisance at 500vdc</b>		Mohms		100 megohms	
<b>Dielectric withstanding voltage</b>		vac		1200 for 1 second	
<b>Weight</b>	Short Stack	lb / kg		1.0 / 0.45	
	1 Stack	lb / kg		1.4 / 0.64	
	2 Stack	lb / kg		2.4 / 1.09	
	3 Stack	lb / kg		3.4 / 1.55	
<b>Shaft load ratings, max at 1500 rpm</b>					
<b>Radial</b>		lb / kg		20 / 9 (at shaft center)	
<b>Axial</b>		lb / kg		50 / 23 (Both directions)	
<b>Leadwires</b>				AWG 22 UL 3266	
<b>Temperature class, max</b>				B (130°C)	
<b>RoHS</b>				COMPLIANT	

ALL MOTOR DATA VALUES AT 25°C UNLESS OTHERWISE SPECIFIED  
 \* ENERGISE AT RATED CURRENT, 2 PHASE ON

Motor Part Number			23HX18D10U	23HX18D20U	23HX18D30U
<b>Rated voltage</b>	Short Stack	vdc	5.70	2.86	1.89
	1 Stack	vdc	6.84	3.42	2.28
	2 Stack	vdc	8.50	4.26	2.82
	3 Stack	vdc	10.75	5.38	3.57
<b>Resistance per phase, ± 10%</b>	Short Stack	ohms	5.70	1.43	0.63
	1 Stack	ohms	6.84	1.71	0.76
	2 Stack	ohms	8.50	2.13	0.94
	3 Stack	ohms	10.75	2.69	1.19
<b>Inductance per phase, typ</b>	Short Stack	mH	7.06	1.66	0.76
	1 Stack	mH	13.10	2.97	1.46
	2 Stack	mH	21.32	5.33	1.97
	3 Stack	mH	26.79	6.44	3.34
<b>Rated current per phase *</b>		amps	1.0	2.0	3.0
<b>Holding torque, typical *</b>	Short Stack	oz-in / Nm		60 / 0.42	
	1 Stack	oz-in / Nm		135 / 0.95	
	2 Stack	oz-in / Nm		235 / 1.66	
	3 Stack	oz-in / Nm		300 / 2.12	
<b>Detent torque, typical</b>	Short Stack	oz-in / Nm		6.0 / 0.042	
	1 Stack	oz-in / Nm		9.0 / 0.064	
	2 Stack	oz-in / Nm		15.0 / 0.106	
	3 Stack	oz-in / Nm		18.0 / 0.127	
<b>Thermal resistance</b>	Short Stack	°C/watt		3.99	
	1 Stack	°C/watt		3.57	
	2 Stack	°C/watt		2.62	
	3 Stack	°C/watt		1.58	
<b>Rotor moment of inertia</b>	Short Stack	oz-in-s <sup>2</sup> / kg-cm <sup>2</sup>		.0026 / 0.19	
	1 Stack	oz-in-s <sup>2</sup> / kg-cm <sup>2</sup>		.0035 / 0.24	
	2 Stack	oz-in-s <sup>2</sup> / kg-cm <sup>2</sup>		.0068 / 0.48	
	3 Stack	oz-in-s <sup>2</sup> / kg-cm <sup>2</sup>		.0102 / 0.72	
<b>Step angle, ± 5% *</b>		degrees		1.8	
<b>Steps per revolution *</b>				200	
<b>Ambient temperature range</b>					
<b>Operating</b>		°C		-20 ~ +40	
<b>Storage</b>		°C		-40 ~ +85	
<b>Bearing type</b>				Ball bearing	
<b>Insulation resistence at 500vdc</b>		Mohms		100 megohms	
<b>Dielectric withstanding voltage</b>		vac		1200 for 1 second	
<b>Weight</b>	Short Stack	lb / kg		1.0 / 0.45	
	1 Stack	lb / kg		1.4 / 0.64	
	2 Stack	lb / kg		2.4 / 1.09	
	3 Stack	lb / kg		3.4 / 1.55	
<b>Shaft load ratings, max at 1500 rpm</b>					
<b>Radial</b>		lb / kg		20 / 9 (at shaft center)	
<b>Axial</b>		lb / kg		50 / 23 (Both directions)	
<b>Leadwires</b>				AWG 22 UL 3266	
<b>Temperature class, max</b>				B (130°C)	
<b>RoHS</b>				COMPLIANT	

ALL MOTOR DATA VALUES AT 25°C UNLESS OTHERWISE SPECIFIED  
 \* ENERGISE AT RATED CURRENT, 2 PHASE ON

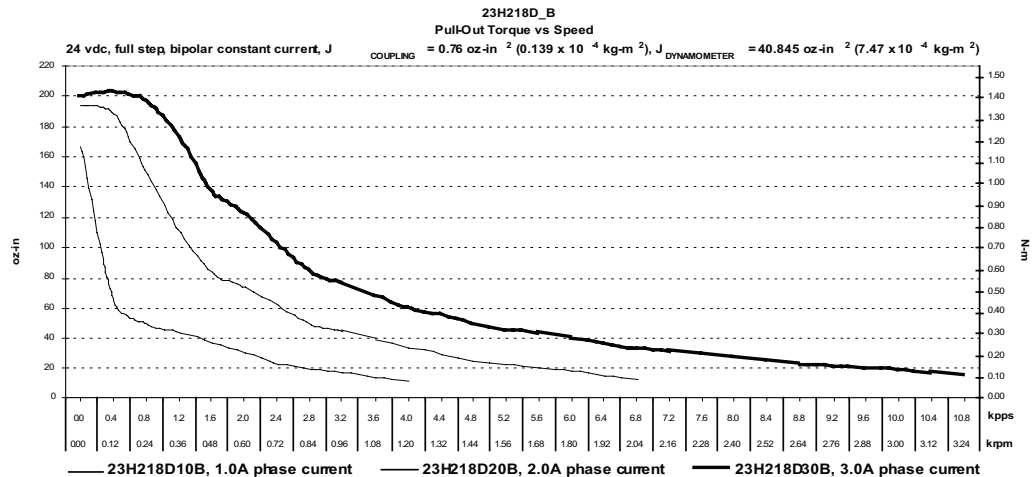
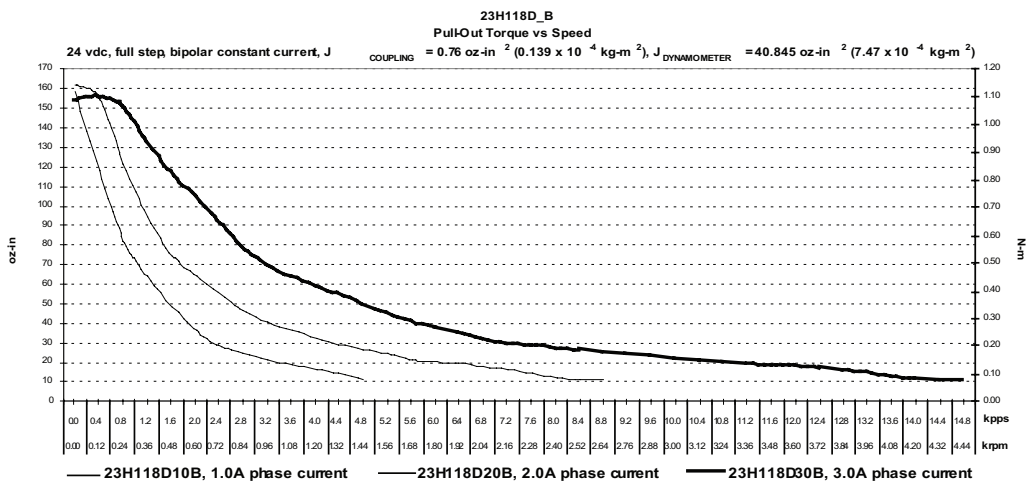
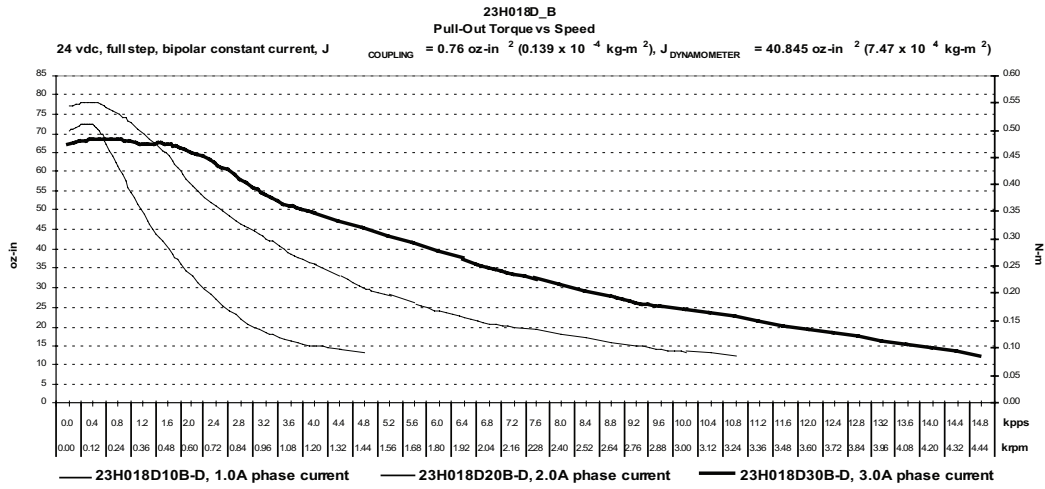
## 23HX18E

Motor Part Number			23HX18E10B	23HX18E20B	23HX18E30B
<b>Rated voltage</b>	Short Stack	vdc	5.70	2.86	1.89
	1 Stack	vdc	6.84	3.42	2.28
	2 Stack	vdc	8.50	4.26	2.82
	3 Stack	vdc	10.75	5.38	3.57
<b>Resistance per phase, ± 10%</b>	Short Stack	ohms	5.70	1.43	0.63
	1 Stack	ohms	6.84	1.71	0.76
	2 Stack	ohms	8.50	2.13	0.94
	3 Stack	ohms	10.75	2.69	1.19
<b>Inductance per phase, typ</b>	Short Stack	mH	11.15	2.66	1.21
	1 Stack	mH	25.56	6.10	2.78
	2 Stack	mH	34.28	8.33	3.92
	3 Stack	mH	43.52	13.35	4.99
<b>Rated current per phase *</b>		amps	1.0	2.0	3.0
<b>Holding torque, typical *</b>	Short Stack	oz-in / Nm		84 / 0.59	
	1 Stack	oz-in / Nm		227 / 1.60	
	2 Stack	oz-in / Nm		426 / 3.01	
	3 Stack	oz-in / Nm		524 / 3.70	
<b>Detent torque, typical</b>	Short Stack	oz-in / Nm		10.0 / 0.071	
	1 Stack	oz-in / Nm		15.0 / 0.106	
	2 Stack	oz-in / Nm		26.0 / 0.184	
	3 Stack	oz-in / Nm		31.0 / 0.219	
<b>Thermal resistance</b>	Short Stack	°C/watt		3.99	
	1 Stack	°C/watt		3.57	
	2 Stack	°C/watt		2.62	
	3 Stack	°C/watt		1.58	
<b>Rotor moment of inertia</b>	Short Stack	oz-in-s <sup>2</sup> / kg-cm <sup>2</sup>		.0026 / 0.19	
	1 Stack	oz-in-s <sup>2</sup> / kg-cm <sup>2</sup>		.0035 / 0.24	
	2 Stack	oz-in-s <sup>2</sup> / kg-cm <sup>2</sup>		.0068 / 0.48	
	3 Stack	oz-in-s <sup>2</sup> / kg-cm <sup>2</sup>		.0102 / 0.72	
<b>Step angle, ± 5% *</b>		degrees		1.8	
<b>Steps per revolution *</b>				200	
<b>Ambient temperature range</b>					
<b>Operating</b>		°C		-20 ~ +40	
<b>Storage</b>		°C		-40 ~ +85	
<b>Bearing type</b>				Ball bearing	
<b>Insulation resistance at 500vdc</b>		Mohms		100 megohms	
<b>Dielectric withstanding voltage</b>		vac		1200 for 1 second	
<b>Weight</b>	Short Stack	lb / kg		1.0 / 0.45	
	1 Stack	lb / kg		1.5 / 0.68	
	2 Stack	lb / kg		2.5 / 1.14	
	3 Stack	lb / kg		3.6 / 1.64	
<b>Shaft load ratings, max at 1500 rpm</b>					
<b>Radial</b>		lb / kg		20 / 9 (at shaft center)	
<b>Axial</b>		lb / kg		50 / 23 (Both directions)	
<b>Leadwires</b>				AWG 22 UL 3266	
<b>Temperature class, max</b>				B (130°C)	
<b>RoHS</b>				COMPLIANT	

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Motor Part Number			23HX18E10U	23HX18E20U	23HX18E30U
<b>Rated voltage</b>	Short Stack	vdc	5.70	2.86	1.89
	1 Stack	vdc	6.84	3.42	2.28
	2 Stack	vdc	8.50	4.26	2.82
	3 Stack	vdc	10.75	5.38	3.57
<b>Resistance per phase, ± 10%</b>	Short Stack	ohms	5.70	1.43	0.63
	1 Stack	ohms	6.84	1.71	0.76
	2 Stack	ohms	8.50	2.13	0.94
	3 Stack	ohms	10.75	2.69	1.19
<b>Inductance per phase, typ</b>	Short Stack	mH	7.06	1.66	0.76
	1 Stack	mH	13.10	2.97	1.46
	2 Stack	mH	21.32	5.33	1.97
	3 Stack	mH	26.79	6.44	3.34
<b>Rated current per phase *</b>		amps	1.0	2.0	3.0
<b>Holding torque, typical *</b>	Short Stack	oz-in / Nm		72 / 0.51	
	1 Stack	oz-in / Nm		170 / 1.20	
	2 Stack	oz-in / Nm		303 / 2.14	
	3 Stack	oz-in / Nm		393 / 2.78	
<b>Detent torque, typical</b>	Short Stack	oz-in / Nm		10.0 / 0.071	
	1 Stack	oz-in / Nm		15.0 / 0.106	
	2 Stack	oz-in / Nm		26.0 / 0.184	
	3 Stack	oz-in / Nm		31.0 / 0.219	
<b>Thermal resistance</b>	Short Stack	°C/watt		3.99	
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<b>Rotor moment of inertia</b>	Short Stack	oz-in-s <sup>2</sup> / kg-cm <sup>2</sup>		.0026 / 0.19	
	1 Stack	oz-in-s <sup>2</sup> / kg-cm <sup>2</sup>		.0035 / 0.24	
	2 Stack	oz-in-s <sup>2</sup> / kg-cm <sup>2</sup>		.0068 / 0.48	
	3 Stack	oz-in-s <sup>2</sup> / kg-cm <sup>2</sup>		.0102 / 0.72	
<b>Step angle, ± 5% *</b>		degrees		1.8	
<b>Steps per revolution *</b>				200	
<b>Ambient temperature range</b>					
<b>Operating</b>		°C		-20 ~ +40	
<b>Storage</b>		°C		-40 ~ +85	
<b>Bearing type</b>				Ball bearing	
<b>Insulation resistance at 500vdc</b>		Mohms		100 megohms	
<b>Dielectric withstanding voltage</b>		vac		1200 for 1 second	
<b>Weight</b>	Short Stack	lb / kg		1.0 / 0.45	
	1 Stack	lb / kg		1.5 / 0.68	
	2 Stack	lb / kg		2.5 / 1.14	
	3 Stack	lb / kg		3.6 / 1.64	
<b>Shaft load ratings, max at 1500 rpm</b>					
<b>Radial</b>		lb / kg		20 / 9 (at shaft center)	
<b>Axial</b>		lb / kg		50 / 23 (Both directions)	
<b>Leadwires</b>				AWG 22 UL 3266	
<b>Temperature class, max</b>				B (130°C)	
<b>RoHS</b>				COMPLIANT	

ALL MOTOR DATA VALUES AT 25°C UNLESS OTHERWISE SPECIFIED  
 \* ENERGISE AT RATED CURRENT, 2 PHASE ON



Stepper

