Step Motor Systems



Specifications

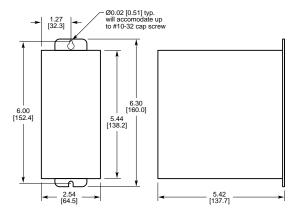
	NextStep [®]	NextStep [®] -240	
AC Power Input	90-120 VAC Single Phase, 50/60 Hz	100-240 VAC Single Phase, 50/60 Hz	
Motor Current	500 VA max, @ 7.9 amp setting 0-7.9 amps, 0.1 amp increments	500 VA max, @ 3.9 amp setting 0-3.9 amps, 0.1 amp increments	
Motor Current	If current setting is higher than	No automatic current fold back	
	6 amps, drive will fold back current	feature in NextStep [®] -240	
	to 6 amps when the motor is at rest		
Bus Voltage	160 VDC nominal	320 VDC nominal	
Standard Resolutions	5000, 10000, 18000, 20000, 25000, 25400, 36000, 50000		
Low Resolution Option	200, 400, 1000, 2000		
Motor Compatibility			
Туре	2 phase, hybrid permanent magnet, 1.8° full step		
Inductance	2-60 mH for NextStep [®] ; 8-240 mH for NextStep [®] 240. Motor inductance less than		
	10 mH set dipswitch to low. Greater than or equal to 10 mH set to high. Combines with Auto Adjusting Current Loop to optimize performance of any		
	inductance step motor .	t hoop to optimize performance of any	
Amplifier	*		
Switching Frequency	20 kHz		
Protection			
Short Circuit	Amp disabled if phase to phase, or phase to ground short detected		
Brownout (Under Voltage) Over Temperature	Amp disabled if supply drops below 90 VAC (100 VAC for -240 version)		
Interlock	Amp disabled if heatsink exceeds 65° C Amp disabled if interlock connection is broken on motor connector		
Regen/Over Voltage	Amp disabled if interfock connection is broken on motor connector Amp disabled if regen condition causes bus voltage to exceed 220 VDC for 120		
	VAC input voltage, or 440 VDC for 240 VAC input voltage		
Rest (Current Settings)	Switch Selectable. If selected, will reduce motor current to 1 amp after no motion has occurred for 20 minutes. Full current level will resume upon receipt of next		
	step pulse. Reduces drive and motor to		
Idle (Current Settings)	Switch Selectable. If selected will reduce current to 75% of drive setting if no step pulses are received for 10 ms. Full current level will resume upon receipt of next		
× 0,			
W/	step pulse. Reduces drive and motor temperature.		
Waveform	Switch Selectable. Configures the shape of the current waveform. Default is pure sinusoid. Turning switch On changes waveform to -4% 3 rd harmonic. Optimizes		
	smoothness and step-to-step accuracy.		
Command Interface			
Inputs	Step, direction, and shutdown are optically isolated. (6.5 ma min, 15 ma max)		
a .	CW/CCW mode is optional & must be	Ū U	
Step Dimention	250 nsec min width, 2 Mhz max pulse rate, triggered on rising edge		
Direction	Logic Low = CW rotation, High = CCW rotation. Direction of motor rotation (CW/CCW) is determined by looking down the motor towards the load. A 0.4 μ s		
		n change before next step pulse is sent to	
	the drive.	0	
Shutdown	Current Conducting = Amp Disabled, Current not Conducting = Amp Enabled Optically isolated NPN, Collector (Fault+) and Emitter (Fault-) connections		
Fault Output			
	available. Fault output is normally ON (current f	lowing)	
LED Indications	Steps Received, Direction Received, Over-Voltage, Thermal Shutdown, Under		
	Voltage, Interlock, Regen, Short Circuit		
Environment			
Operating Ambient Temp.	Max. ambient temperature of 50°C (122°F) @ 6 amps current setting		
Storage Temperature	-40°C to 80°C (-40°F to 176°F)		
Humidity Dimensions	% to 90% non-condensing .4 x 5.4 x 2.5 inches		
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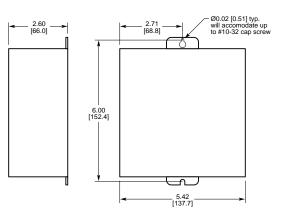




Mounting Dimensions in [mm]

Minimum Width (Standard)





Minimum Depth (must order as an option)



Model	Description	Options	Description
	<u> </u>		
NextStep®	Single axis, 7.9 amp microstepping drive 120 VAC input voltage	LRES	Low drive resolution
NextStep [®] -240	Single axis, 3.9 amp microstepping drive 240 VAC input voltage	CW	CW/CCW option
		MD	Minimum depth mounting option



To confirm your selection, review the checklist on page G-6.

