

Avid CNC EX Controller Specifications

	NEMA 23 Stepper	NEMA 34 Stepper	ClearPath® Servo
Motors			
Motor Type	Stepper		Teknic ClearPath® Servo
X / Y1 / Y2 Axis	(4x) 420 oz-in, 3/8" Shaft	(4x) 960 oz-in, 1/2" shaft	(3x) 196W, 1/2" shaft [SDSK-3432P]
Z Axis			(1x) 122W, 1/2" shaft [SDSK-3411S]
Drives *	(4x) 50V/5.6A digital stepper	(4x) 80V/7.0A digital stepper	Integrated within Motors
Power Connector	DB9 - 4 pin / 5A	XLR - 4 pin / 7A	Molex - 4 pin
Signal Connector			M12 - 8 pin, A Code
Power Cable	DB9 20 AWG shielded	XLR 18 AWG shielded	RD-24 to Power Hub to (4x) Molex 4 pin
Signal Cable			M12 - 8 pin, A Code

Controller			
Input Power	90-264 VAC		
Current Draw (120V / 240V)	8A / 4A Max	10A / 5A Max	12A / 6A Max
Power Supply (Motors)	(1X) 480W, 48V/10A	(2X) 480W, 48V/10A	
Power Supply (Logic)	24V / 5V		
Power Supply (Sensors)	24V		
Software	CNC12, Acorn Router Pro License		
Motion Control	Centroid Acorn CNC Control PCBs		
Max Independent Axis Control	4 Axis (X, Y, Z, Auxiliary)		
Enclosure	Industrial Painted Steel NEMA Rated		
Main Power Switch	Industrial Rotary Multipole Switch		
Cooling Fan	80 x 80 x 10mm, 24V		
Controller Power Cable	NEMA 5-15P to C13		

Inputs / Outputs			
Motor Signal	(4x) DB9-4 pin 48V/4.2A	(4x) XLR-4 pin 48V/7.0 A	(4x) M12-8 pin, A Code
Motor Power			RD24-4 pin 48V/20A
AC Input Power	C13 - AC		
PC / Laptop	Cat 6 Ethernet		
Spindle or Plasma Control	Amphenol 14 pin CPC		
Proximity Sensor	(6x) M12-4 pin, A-Code, 24V		
Emergency Stop	M12-4 pin, A-Code, 24V, Normally Closed		
Z-Axis Brake	M12-4 pin, A-Code, 24V		
Power Relay Hub	M12-4 pin, A-Code, 24V		
Corner Finding Touch Plate	M12-4 pin, A-Code, 24V		
Tool Height Setter	M12-4 pin, A-Code, 24V		
Expansion Controller **	(2x) M12-4 pin, A-Code, 24V		

Plasma Enabled	
Compatibility	Configured at Purchase
Software	CNC12, Acorn Plasma Pro License
Torch Height Control (THC)	Centroid TX and RX PCBs with Fiber Optic Isolation
Power Supply	Isolated 8W/24V PSU
Ohmic Touch-Off	M12-4 pin, A-Code, 24V

Auxiliary (4th) Axis Enabled			
Compatibility	Configured at Purchase		Upgrade Ready
Compatible Motor	420 oz-in, 3/8" Shaft Stepper	960 oz-in, 1/2" Shaft Stepper	196W or 122W, 1/2" Shaft Servo [SDSK-3432P] or [SDSK-3411S]
Additional Drive	50V/5.6A Digital Stepper	80V/7.0A Digital Stepper	Integrated within Motor
Motor Power	DB9-4 pin 48V/4.2A	XLR-4 pin 48V/7.0A	M12-5 pin (K Code) 48V/8A
Motor Signal			M12-8 pin (A Code)

Notes:

* Supports dual-drive gantry systems, which require 4 drives to move 3 axes.

** Supports Avid CNC Deployable Laser System and other upgrades.