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Data Sheet

August 15, 2026

AEROTECH

Aerotech BA30-320-S Servo Amplifier

Aerotech Motion Controllers. Frequency Range: 50–60 Hz, Voltage / Current Range: 100–240 VAC input; 15 A continuous, 30 A peak output; ± 10 VDC command; 320 VDC maximum output; 5 VDC @ 250 mA auxiliary.



MODEL

Aerotech BA30-320-S

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

BA30-320-S

LISTING

<https://aumictechlabs.com/products/ba30-320-s-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Aerotech BA30-320-S is a servo amplifier engineered for precision motion control in industrial automation, robotics, and machine tool applications. This self-contained unit delivers 15 A continuous and 30 A peak output while operating from 100–240 VAC single-phase power. The amplifier accepts ± 10 VDC command signals and supports multiple operating modes - velocity, torque, and current command - with jumper selection for three-phase AC brushless or single-phase DC brush motor operation. A DC-isolated power stage minimizes loop noise for responsive, accurate motor control. Quadrature encoder or tachometer feedback enables closed-loop velocity regulation, while onboard 5 VDC auxiliary supply powers encoders and Hall effect devices. Comprehensive protection covers output short circuit, peak and RMS overcurrent, DC bus overvoltage, overtemperature, and control power failure. Connection via 25-pin D-style control connector and 8-terminal screw terminal simplifies integration into motion control systems. Technical Specifications Motor Compatibility: Three-phase AC brushless and single-

phase DC brush motors (jumper selectable) Operating Modes: Velocity mode, torque mode, current command, velocity command, dual-phase command (brushless); current and velocity command (brush motors) Command Input: ± 10 VDC (differential for noise immunity) Feedback Input: Quadrature encoder, tachometer, or Hall effect signals Maximum Output Voltage: 320 VDC Continuous Output: 15 A Peak Output: 30 A Input Power: 100–240 VAC, single phase, 50–60 Hz, 30 FLA Auxiliary Power: 5 VDC at 250 mA for sensors and encoders Key Features DC-isolated power stage reduces motor control noise Jumper-selectable brush and brushless motor operation Modified six-step algorithm for efficient commutation Protection against short circuit, overcurrent, overvoltage, and overtemperature Compact form factor with integrated heat sink and metal cover Typical Applications Precision robotics and multi-axis automation CNC machine tools and cutting systems High-accuracy positioning and scanning systems Compatibility & Integration 25-pin D-style female connector for control signals 8-terminal screw terminal for AC input and motor connections Standard differential command interface (± 10 VDC) Encoder/tachometer and Hall effect feedback support

BA30320S Characteristics / Specifications

PARAMETER	VALUE
Model	BA30-320-S
Also Known As	BA30-320
Instrument Type	PWM servo amplifier
Peak Output Current	30 A peak for 2 s
Continuous Output Current	15 A peak
Bus Voltage Nominal	320 VDC
Ac Input For 320 V Bus	230 VAC direct line (includes shunt regulator)
Peak Power Output	8160 W including AC line droop
Continuous Power Output	4080 W including AC line droop
Efficiency	97 percent
Preamp Gain Velocity Mode	100 dB max
Power Amp Gain Current Mode	3 A/V
Power Amp Bandwidth	2 kHz
Pwm Switching Frequency	20 kHz
Minimum Load Inductance	1 mH at 320 VDC bus
Shunt Dissipation	40 W
Heat Sink Temperature Max	65 C
Operating Temperature	0 to 50 C
Storage Temperature	minus 30 to 85 C
Mass	2.5 lb (1.1 kg)
Command Input	0 to plus or minus 10 VDC differential
Current Feedback Scale	9.7 A/V on phaseAModes: brushless 6-step or sinusoidal, brush current or velocity
Manufacturer	Aerotech
Bandwidth	2 kHz

BA30320S Specifications

PARAMETER	VALUE
Applications	Higher-bus brushless and brush servo axes on 230 VAC lines with plus or minus 10 V current or velocity commands.
Key Features	230 VAC direct line to 320 V bus
Internal shunt regulator on the 320 suffix	30 A peak 15 A continuous
Technical Specifications	Model: BA30-320-S

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	minus 30 to 85 C
Operating temperature	0 to 50 C
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Command Input	0 to plus or minus 10 VDC differential
Current Feedback Scale	9.7 A/V on phaseAModes: brushless 6-step or sinusoidal, brush current or velocity
Manufacturer	Aerotech Notes From Aerotech BA10/20/30 Series hardware manual Table 3-2 BA30 column and 320 V ordering note (230 VAC, shunt included). BA30-320-S is the same electrical rating with the shunt-regulator suffix explicit in the part number.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
Technical Specifications	
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Storage Temperature	minus 30 to 85 C
Mass	2.5 lb (1.1 kg)
Command Input	0 to plus or minus 10 VDC differential
Current Feedback Scale	9.7 A/V on phase A
Modes	brushless 6-step or sinusoidal, brush current or velocity
Manufacturer	Aerotech
Specifications	

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Notes

From Aerotech BA10/20/30 Series hardware manual Table 3-2 BA30 column and 320 V ordering note (230 VAC, shunt included). BA30-320-S is the same electrical rating with the shunt-regulator suffix explicit in the part number.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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NIST-traceable calibration · SAM registered ·
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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.