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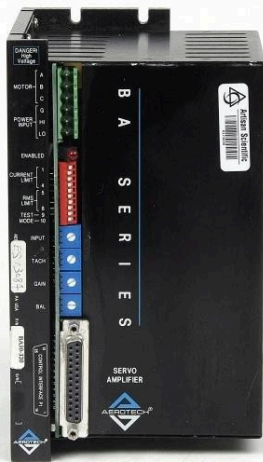
Data Sheet

August 15, 2026

AEROTECH

Aerotech BA30-320 Servo Amplifier

Aerotech Motion Controllers. Voltage / Current Range: 30 A peak (2 seconds); ± 10 VDC command input; 5 VDC @ 250 mA encoder supply, 40–320 VDC output; 15 A continuous, Current: 15 A.



MODEL

Aerotech BA30-320

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

BA30-320

LISTING

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

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Aerotech BA30-320 is a servo amplifier for precise motion control in industrial automation. This compact, self-contained unit delivers 15 A continuous and 30 A peak output current across a 40–320 VDC range, with jumper-selectable operation for three-phase AC brushless or single-phase DC brush motors. The amplifier supports velocity, torque, dual-phase (brushless), and current command modes via ± 10 VDC analog input, accepting quadrature encoder or tachometer feedback signals. A 20 kHz IGBT power stage ensures reliable commutation, while complete electrical isolation - transformer-isolated control supply and opto-isolated drive, current, and fault signals - minimizes loop noise and safeguards against power-stage transients. Built-in protection covers under-voltage faults, over-current and over-temperature conditions, output short circuits, and DC bus overvoltage. The internal 5 VDC, 250 mA supply powers encoders and Hall Effect devices. Optional shunt regulation (-S suffix models) manages elevated bus voltage and provides fuse-open shutdown capability. Technical Specifications Motor Compatibility: Three-phase AC

brushless; single-phase DC brush (jumper-selectable) Control Modes: Velocity, torque, dual-phase (brushless only), current command Power Stage: 20 kHz IGBT Continuous Output Current: 15 A Peak Output Current (2 seconds): 30 A Output Voltage Range: 40–320 VDC Command Input: ± 10 VDC (velocity or torque) DC Bus: Up to 320 VDC operation Encoder Power Supply: 5 VDC, 250 mA AC Line Input: Direct connection

Key Features Transformer-isolated control voltage supply and opto-isolated signal paths Dynamic power limit circuit protects output transistors Current limit time-out circuit with programmable duration shutdown Protection: under-voltage (control and bias), RMS current limit, over-temperature, over-current, phase-to-phase and phase-to-ground short circuits, DC bus overvoltage External commutation capability Optional internal shunt regulator (–S models)

Feedback & Integration Accepts quadrature encoder or tachometer input Encoder signal converted to voltage representation of speed Isolated current feedback and fault signal paths

Typical Applications Precision motion control in industrial automation requiring DC-isolated amplification and multi-mode command flexibility.

BA30320 Characteristics / Specifications

PARAMETER	VALUE
Model	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

BA30320 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

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	minus 30 to 85 C
Operating temperature	0 to 50 C
Operating Temperature	0 to 50 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 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	
PARAMETER	VALUE
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Continuous Power Output	4080 W including AC line droop
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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 phase A
Modes	brushless 6-step or sinusoidal, brush current or velocity
Manufacturer	Aerotech
Specifications	

PARAMETER	VALUE
Model	BA30-320
Instrument Type	PWM servo amplifier
Peak Output Current	30 A peak for 2 s
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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 ·
30-day returns
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Generated August 15, 2026

Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.