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Data Sheet

August 15, 2026

AEROTECH

Aerotech BA20-160 Servo Amplifier

The Aerotech BA20-160 is a servo amplifier designed for high-performance motion control applications. It provides precise and reliable control of servo motors, ensuring accurate positioning and smooth motion. Ideal for industrial automation and robotics.



MODEL

Aerotech BA20-160

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

BA20-160

LISTING

<https://aumictechlabs.com/products/ba20-160-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Aerotech BA20-160 is a servo amplifier for precise DC motor control in industrial automation and robotics. It drives both brush and brushless DC motors with self-commutation via Hall effect feedback, delivering peak currents to 20 A and continuous output at 10 A across a 24–160 VDC bus. The amplifier combines transformer isolation between control and power stages with opto-isolated drive and feedback signals, ensuring reliable operation in electrically demanding environments. An integral 5 VDC, 250 mA auxiliary supply powers encoders and Hall effect devices. Advanced thermal management and a rugged aluminum housing enable stable performance to 3000 RPM with minimal backlash through high-resolution feedback and sinusoidal current command generation. Technical Specifications Output Current: 20 A peak; 10 A continuous Bus Voltage Range: 24–160 VDC nominal (180–190 VDC overvoltage threshold) Input Power: 115 VAC, 50/60 Hz Auxiliary Supply: 5 VDC @ 250 mA Maximum Speed: 3000 RPM Motor Compatibility: Brush and brushless DC motors with Hall effect feedback Control Isolation:

Transformer-isolated control voltage; opto-isolated drive, current feedback, and fault signals

Key Features

- Self-commutation with Hall effect feedback signal conditioning
- Programmable parameter customization for application-specific tuning
- Integrated overvoltage monitor with optional shunt regulator activation
- High-resolution feedback system for minimal backlash motion control
- Smooth sinusoidal current output
- Aluminum housing with two-orientation heat sink mounting
- Complete fault condition protection

Typical Applications

- Industrial automation and general factory control
- Robotics systems requiring precise positioning
- Power generation facilities
- Petrochemical processing equipment

Compatibility & Integration

The BA20-160 operates as a standalone servo drive with transformer isolation and auxiliary 5 VDC output for sensor powering. Heat sink mounting to a larger thermally conductive surface is recommended to optimize thermal dissipation in sustained-operation environments.

BA20160 Characteristics / Specifications

PARAMETER	VALUE
Model	BA20-160
Instrument Type	PWM servo amplifier
Peak Output Current	20 A peak for 2 s
Continuous Output Current	10 A peak
Bus Voltage Nominal	160 VDC
Ac Input For 160 V Bus	100 to 115 VAC direct line
Peak Power Output	5440 W including AC line droop
Continuous Power Output	2720 W including AC line droop
Efficiency	97 percent
Preamp Gain Velocity Mode	100 dB max
Power Amp Gain Current Mode	2 A/V
Power Amp Bandwidth	2 kHz
Pwm Switching Frequency	20 kHz
Minimum Load Inductance	0.8 mH at 160 VDC bus (1 mH at 320 VDC)
Shunt Dissipation	40 W optional
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	6.5 A/V on phaseAModes: brushless 6-step or sinusoidal, brush current or velocity
Manufacturer	Aerotech
Bandwidth	2 kHz

BA20160 Specifications

PARAMETER	VALUE
Applications	Brush and brushless servo axes with plus or minus 10 V current or velocity commands from an external motion controller.
Key Features	Direct 100-115 VAC line to 160 V bus
Technical Specifications	Model: BA20-160

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	6.5 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 BA20 column and 160 V bus ordering note (100-115 VAC direct line). Peak/continuous currents assume the OEM NEMA-panel mounting.

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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Shunt Dissipation	40 W optional
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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	6.5 A/V on phase A
Modes	brushless 6-step or sinusoidal, brush current or velocity
Manufacturer	Aerotech
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Notes

From Aerotech BA10/20/30 Series hardware manual Table 3-2 BA20 column and 160 V bus ordering note (100-115 VAC direct line). Peak/continuous currents assume the OEM NEMA-panel mounting.

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