



MotionBlox60-HP 6 axis Motion Controller and High Power Amplifiers

- Interface Homme Machine
- Programme Applicatif
- Asservissements
- Carte Servo
- Variateur de puissance



INTRODUCTION

The MB60-HP plugs straight into the servomotors. It supports up to 3 dual High Power (up to 60 A) amplifiers.

The MB60-HP is an Integrated Control Solution including:

- Motion Controller
- I/O Controller
- Safety
- Communication
- Embedded Application Software and RTOS.

Multiple Cerebellum Automation Motion and Vision controllers can be connected on the same High Speed Isochronous FireWire Network in order to address infinite axis and cameras configurations.

DESCRIPTION

The MB60-HP solution is the global answer to high power multi-axes motion control and robotics applications.

- The easy to use Cerebellum Automation Integrated Development Environment running on a PC connected to the MB60-HP is used for setup, tuning and diagnostic, but is not mandatory for the application program execution.
- The application code is designed specifically for the target machine from Cerebellum Automation's top notch C libraries. The standard industrial high-speed bus, FireWire (IEEE-1394), provides the synchronous communication required for coordinated motion and vision systems. The embedded soft IEC 61131 PLC gives the user the option to manage the automation logic of remote I/O.
- The servo loop can be entirely customized to handle non-linear mechanisms and optimize tracking, accuracy and cycle time.
- The S-Curve Incremental Trajectory Generator is a unique solution developed by Cerebellum Automation and specifically designed for Real Time Robot Trajectory Modification with smooth motion control. This feature is particularly convenient for controlling applications such as: Electronic Gearing and Camming, Force Servoing, Vision Servoing, Conveyor Tracking, High Accuracy Path Following, Complex Edge and Surface digitizing...



SPECIFICATIONS

- 3 Slots for Dual Channel 3 Phase (U, V, W) Amplifiers for AC Brushless Motors
- Dual Amplifiers Range (Max current rms): 7.2 A, 9.0 A, 16.0 A, 24.0 A, 36.0 A, 60.0
- Total power: up to 9Kw (limited by 15 A input circuit breaker)
- Position Feedback support: Incremental or Absolute Encoders (Yaskawa Sigma-2/3 SABS or SSI)
- Processor: 200 MHz PowerPC
- Memory: 16 MB SD-RAM
- Mass Storage: 2 MB Flash Memory
- Communication: FireWire (IEEE-1394), 2 Ports; Serial: 1 RS 232, 1 RS 485 (up to 115 KBds)
- Servo: up to 8 KHz position loop with PID and Feed Forwards
- Digital Input Output: 4I/2O + 6 Brakes (40W total) Output Built-in. Extensions over Field Bus.
- Field Buses: Standard: ModBus and Firewire. Options: Profibus-DP, DeviceNet, CAN-Open, AS-i
- 2-characters display for status reporting
- On board 60W, 24VDC Power Supply
- Forced air cooling
- Ability to dump regenerative energy
- Category 3 safety ready (ISO-10218, EN-954)
- Protection class (unmounted): IP20 (NEMA Type 1)
- Software Tool Box running on PC for system parameters definition, hardware diagnostic, servo tuning, application program development.
- Low cost Vision with D-Cam compatible FireWire (IEEE-1394) cameras

ENVIRONMENTAL REQUIREMENTS

- Ambient temperature: 5 to 40°C
- Humidity range (non-condensing): 5 to 90%
- See user's documentation for controller enclosure recommendations.

POWER REQUIREMENTS

- 50/60Hz 3-phase 380-415 VAC or 3-phase 200-240 VAC (selectable)

DIMENSIONS

Notes:

- Free space around for proper cooling :
50 mm in front, 25 mm at top
- Enclosure should meet EN 60204 (IEC 204) requirements and be rated at IP54.
Also, enclosure must provide a method of locking the enclosure power-disconnect in the OFF position.

