4 Axis Configuration

| Model	GBL4-xx-50x-xxx	GBL4-xx-80x-xxx
Output Continuous Current (rms/axis)	5A	8A
Output Peak Current for 2 seconds (rms/axis)	10A	16A
Rated Input Power (KVA) @ 240VAC	13A (for all axes)	21A (for all axes)
Output Power (Watts per axis) (based on modulation depth of 60% RMS)	1247W/axis	1995W/axis
Total	4988W	7980W
Power Dissipation (Watts)	498W	798W
AC Input Line Voltage (VAC rms)	97-265 VAC (3 phase)	
DC Input Line Voltage (VDC)	12VDC to 340VDC	
Logic Power (VDC, A)	24VDC, 2A	
Continuous Regen Power (Watts)	GAR 78, 300W	

6 Axis Configuration

Model	GBL6-xx-5Fx-xxx		GBL6-xx-8Fx-xxx	
	1-4 axis	5-6 axis	1-4 axis	5-6 axis
Output Continuous Current (rms/axis)	5A	15A	8A	15A
Output Peak Current for 2 seconds (rms/axis)	10A	30A	16A	30A
Rated Input Power (KVA) @ 240VAC	33A (for all axes)		41A (for all axes)	
Output Power (Watts per axis) (based on modulation depth of 60% RMS)	1247 W/axis	3741 W/axis	1995 W/axis	3741 W/axis
Total	12470W		15462W	
Power Dissipation (Watts)	1247W		1546W	
AC Input Line Voltage (VAC rms)	97-265 VAC (3 phase)			
DC Input Line Voltage (VDC)	12VDC to 340VDC			
Logic Power (VDC, A)	24VDC, 2A			
Continuous Regen Power (Watts)	GAR 48, 300W			

8 Axis Configuration

Model	GBL8-xx-552-xxx		GBL8-xx-882-xxx		GBL8-xx-582-xxx		GBL8-xx-852-xxx	
Axes	1-4 axis	5-8 axis	1-4 axis	5-8 axis	1-4 axis	5-8 axis	1-4 axis	5-8 axis
Output Continuous Current (rms/axis)	5A	5A	8A	8A	5A	8A	8A	5A
Output Peak Current for 2 seconds (rms/axis)	10A	10A	16A	16A	10A	16A	16A	10A
Rated Input Power (KVA) @ 240VAC	26A (for all axes)		42A (for all axes)		34A (for all axes)		34A (for all axes)	
Output Power (Watts per axis) (based on modulation depth of 60% RMS)	1247 W/axis		1995 W/axis		1247 W/axis	1995 W/axis	1995 W/axis	1247 W/axis
Total	9976W		15960W		12968W		12968W	
Power Dissipation (Watts)	998W		1596W		1297W		1297W	
AC Input Line Voltage (VAC rms)	97-265 VAC (3 phase)							
DC Input Line Voltage (VDC)	12VDC to 340VDC							
Logic Power (VDC, A)	24VDC, 2A							
Continuous Regen Power (Watts)	GAR 78, 300W							

* De-rating applies for single phase operation
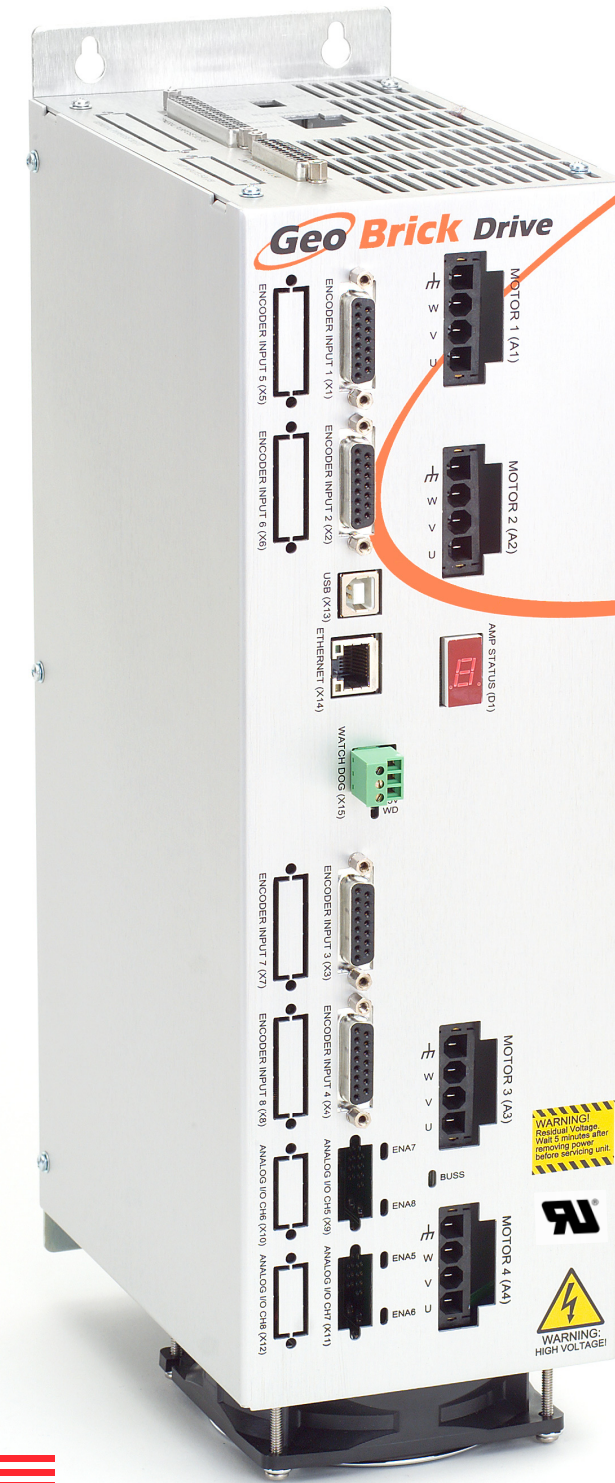
DELTA TAU

ISO 9001:2008 Certified

Power
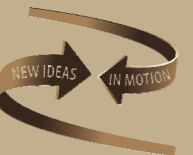# Flexibility
Ease of Use

* The Geo Brick is UL Approved

MADE IN USA

Geo Brick Drive

Delta Tau Data Systems, Inc.

Technology at work for you

GEO BICK PROGRAMMABLE SERVO AMPLIFIERS

The Geo Brick combines the intelligence and capability of the Turbo PMAC2 motion controller with the latest IGBT-based drive technology in one, compact 4-, 6- or 8-axis smart servo drive package. The flexible nature of the Turbo PMAC2 enables the Geo Brick to drive Brush, Brushless or AC induction motors with unsurpassed pure digital DSP performance. The absence of analog signals—required for typical motion controller / drive interfacing—enables higher gains, better overall performance and tighter integration, while significantly driving costs and setup time down.

With its powerful standard 64 asynchronous PLCs, the embedded 32-axis Turbo PMAC2 motion controller enables the Geo Brick Drive to be configured to fit virtually any kind of motion control application.

The Geo Brick Drive is a scaleable automation controller. If an application requires only I/O-driven smart servo control, where the motion is coordinated by a machine controller, such as a PLC, the Geo Brick is ideal due to its ability to store programs locally and execute based on inputs, Ethernet or high-speed USB 2.0-based communication. On the other hand, if an application requires a complete machine with PLC functionality, motion control, extensible I/O via Modbus TCP master, an HMI terminal via Modbus TCP slave or even a PC-based HMI package connected via USB 2.0 or Ethernet, the Geo Brick is again the answer.
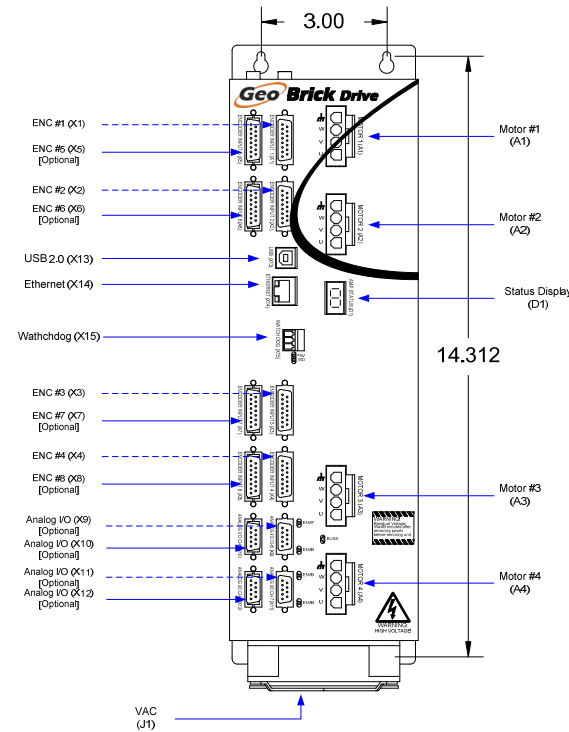
AMPLIFIER STANDARD FEATURES:

- 4-, 6- or 8-channel direct digital PWM control

- Single or 3-phase AC input 90 to 240 VAC, or DC operation 12 to 340 VDC

- Integral 4-, 6- or 8-axis servo amplifier delivering from 5 / 10 or 8 / 16 Amps per axis, 15 / 30 Amps limited to axis 5 - 6 (full specs on reverse page)

- Complete protection: over voltage, under voltage, heat sink and IGBT over temperature, short circuit, overcurrent, input phase loss detection, shunt short / overcurrent detection

- Up to 18 KHz PWM frequency control

MOTION CONTROLLER OPTIONAL FEATURES

CPU Options

- 80MHz Turbo PMAC2 CPU (standard) with 8Kx24 internal memory, 256Kx24 SRAM, 1MB flash memory

- 240MHz Turbo PMAC2 CPU with 192Kx24 internal memory, 1Mx24 SRAM, 4M flash memory

Secondary Encoder Options

- Additional four secondary encoder inputs for a total of eight

Digital Input / Output Options

- Additional 16 inputs and 8 outputs, for a total of 32 inputs and 16 outputs, 0.5A @ 24VDC

Analog Input(s) / DAC Ouput(s), Brake and Relay Options

- Up to four 16-bit analog inputs, eight 12-bit analog inputs, 4 brake or relay outputs, and four 12-bit filtered PWM DAC outputs

Communication Options

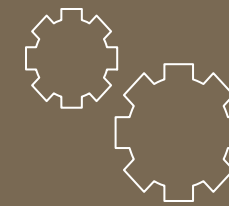- USB, Ethernet, RS232, DPRAM (required for NC software)

Fieldbus Connectivity
- MACRO
- ModBus
- DeviceNet, ProfiBus
- CanOpen
- C-C Link

Special Feedback
- Sinusoidal
- SSI
- EnDat 2.1 / 2.2
- Yaskawa Sigma II & III
- Resolver
- HiperFace
- Tamagawa

GEO BRICK HIGHLIGHTS

- Motorola DSP 56k digital signal processor
- Turbo PMAC2 CPU (for kinematics, open servo, NC applications)
- Fully Configurable via USB2.0 and/or Ethernet TCP/IP (100 Base-T)
- Stand-alone operation or from a PC
- Linear and circular interpolation
- 256 motion programs capacity
- 64 asynchronous PLC program capability
- Rotating buffer for large programs
- 36-bit position range (± 64 billion counts)
- Adjustable S-curve acceleration and deceleration
- Cubic trajectory calculations, splines
- Set and change parameters in real time
- Torque, Velocity and Position control standard
- Small footprint saves space
- Full rated temperature cooling standard (no need for additional fans)
- Five flags per axis using DB-25: HOME, PLIM, MLIM and USER inputs; EQU compare outputs for first four axes and five more flags per axis if the 6 or 8-axis system is ordered

flexible solutions for
automation needs

ENVIRONMENTAL SPECIFICATIONS

Description	Unit	Specifications
Operating Temperature	°C	+0 to 45. Above 45°C, derate the continuous peak output current by 2.5% per °C above 45°C. Maximum Ambient is 55°C
Rated Storage Temperature	°C	-25 to +70
Humidity	%	10% to 90% non-condensing
Operating Altitude	Feet (Meters)	To 3300 feet (1000 meters). Derate the continuous and peak output current by 1.1% for each 330 feet (100meters) above the 3300 feet
Air Flow Clearances	in (mm)	3" (76.2mm) above and below unit for air flow