ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

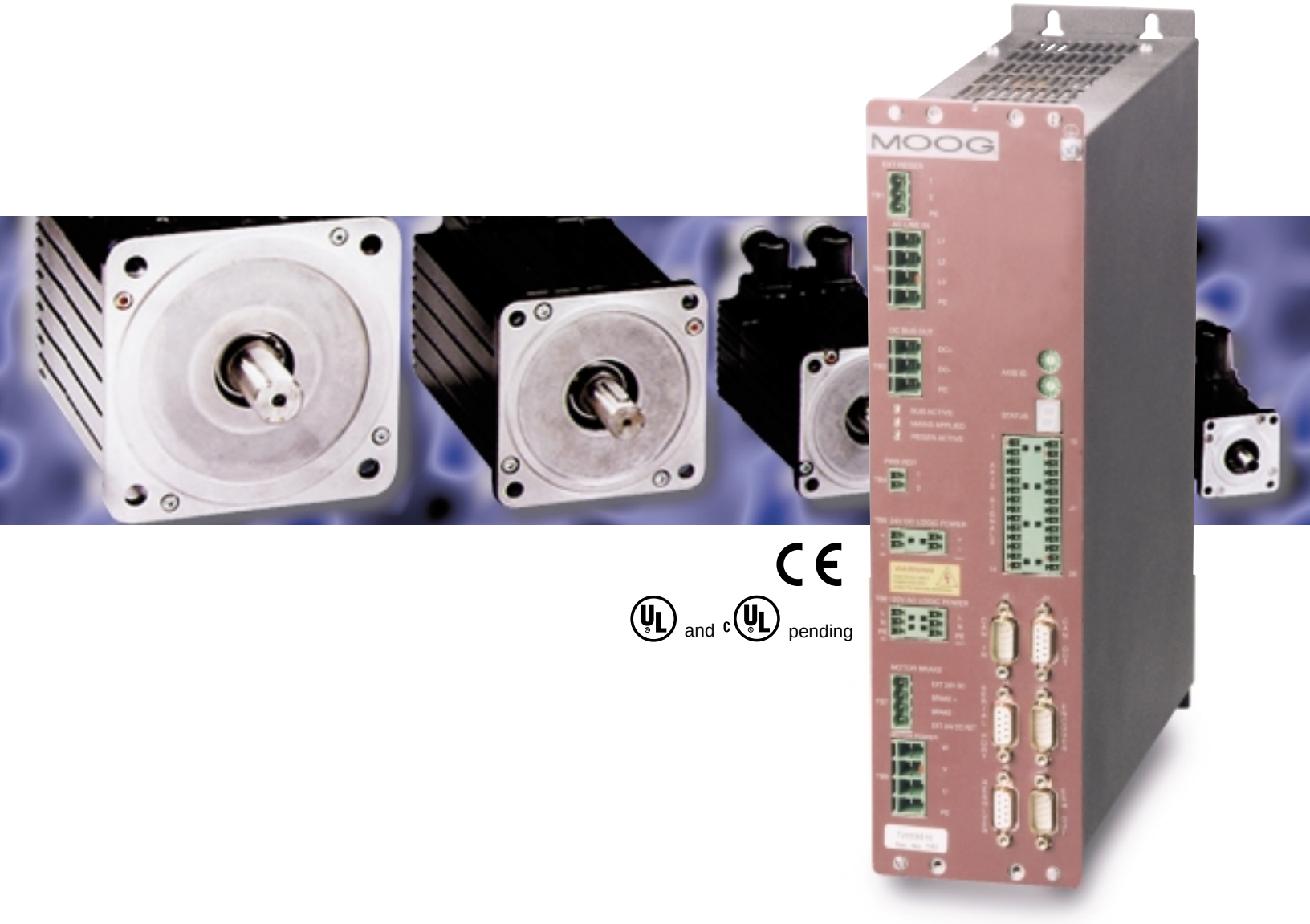
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Find the *Moog / Berkeley Process Control T200-410G-0P81* at our website: *Click HERE*

MOOG

T200 Series

Programmable Servo Drive



CE

UL and c UL pending

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SERVO DRIVE FEATURES:

- **High Dynamics.** Digital control loops with high bandwidth response and advanced signal processing algorithms enable even greater peak torque out of Moog's high power density motors. You'll be challenged to find any servo system offering an equivalent level of performance.
- **Flexible System Solutions.** Integral motion control and programmable I/O support cam profiling, electronic gearing and pinpoint positioning to eliminate separate motion control hardware in a variety of applications. CAN fieldbus interface simplifies coordinated multi-axis motion control solutions.
- **Quick and Easy Setup.** The WinDrive, Windows® based user interface, provides automated self tuning, a virtual oscilloscope, data logging, and system diagnostics to expedite system setup and commissioning.
- **Simplified Installation and Wiring**. The highly integrated design offers high voltage and logic power supplies, servo amplifier, motion control platform, and EMC filters all within a compact enclosure to reduce wiring runs and free-up valuable cabinet real estate.
- **Robust Thermal Design**. Conservative thermal management approach with integral cooling fans and multi-tiered fault protection provides for years of reliable operation in demanding industrial environments. Fully rated performance available with ambient temperatures up to 55° C.
- **Superior Control.** High PWM switching frequency and reduced ripple current combines with Moog's high pole count, low cogging, motors to provide smooth slow speed operation.

OPERATING MODES

- **Current (Torque) Mode.** Motor current (torque) controlled by +/- 10 VDC command reference.
- **Velocity Mode.** Motor speed controlled by +/- 10 VDC command reference.
- **Programmable Speed Mode.** Motor operates at one of four preprogrammed speeds based on the state of two discrete inputs.
- **Incremental Position Mode.** Motor is positioned based on step and direction or up and down count format inputs from external signal source. Link multiple drives together as electronic gearing.
- **CAN Position Mode.** Provides multi-axis position control via high speed serial bus. Complex coordinated motion control profiles can be controlled via separate motion control hardware.
- **Simple POINT Position Mode.** Supports point-to-point motion, via predefined control templates. Motion trajectories can be defined at design or run time and initiated via combinations of discrete and serial interfaces. Supports both simple and complex motion profiles with homing, jogging, absolute and relative positioning.
- **Custom POINT Position Mode.** Provides motion control via internal user defined motion program. Discrete, analog and serial interfaces allow sense and control of external devices. Stand-alone or multi-axis motion control.

DRIVE SPECIFICATIONS

Communications/Field Bus
Software configurable RS232/RS485
CAN Fieldbus

Position/Transducer Interfaces
Resolver Input
Encoder Input (Motion Control, Electronic Gearing,…etc)
Encoder Simulation Output (programmable 128-8192)

Analog Inputs (2)
Velocity or Torque Mode Reference Input
Torque Limit Analog Input
Both User Defined in Position Mode
Differential Inputs (20 KΩ Input Impedance)

Analog Outputs (2)
Both User Defined (for Motion Control or Diagnostics)

Digital Inputs (10), Expandable to 26
Supply Voltage Range 12 - 36 VDC
Polarity Current Activated (Configurable as Source/Sink)
Isolated Inputs (2.5 KΩ Input Impedance)

Digital Outputs (5), Expandable to 15
Supply Voltage Range 0-36 VDC, 50 mA Max
Isolated Outputs

Relay Outputs (2)
System/Power Ready 0-36 VDC, 100 mA Max
Brake Relay 0-36 VDC, 3A max

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DRIVE SPECIFICATIONS (cont.)

AC Mains Input Power
90-265 VAC
50/60 Hz
Single or Three Phase[1]

DC Mains Input Power
Unregulated
100 - 375 VDC

DC Backup Logic Input Power (optional)
Unregulated DC
Voltage range 24 VDC +/-25%
1.5 ADC @ 24 VDC

AC Backup Logic Input Power (optional)
1-phase, 50/60 Hz
Voltage range 120 VAC +10/-15%
0.3 Arms @ 120 VAC

To minimize system costs, the T200 servo drive is available with or without integral high voltage power supplies. Units with the integral power supply provide an unregulated 325 VDC(nominal) output capable of powering several[2] units without supplies.

All T200 servo drives come with internal logic power supplies. The logic voltages are derived from either the AC Mains or DC Mains Input. A backup logic power input source (AC or DC voltages) can also be connected to ensure logic power continuity if AC or DC Mains are interrupted.

Servo Drive with Integral Power Supply

Model	Output Current (Arms)		Output Power (KW)		Internal Regeneration Power		External Regeneration Power	
T200	Cont.	Peak	Cont.	Peak	Cont.	Peak	Cont.	Peak
-310	5	10	7.5	15	40	2.8K	200	14K
-410	10	20	7.5	15	40	2.8K	600	14K
-510	20	50	7.5	15	40	2.8K	600	14K
-610	40	80	15	30	Not Available		2500	35K
-710	60	140	15	30	Not Available		2500	35K

Servo Drive Only

Model	Output Current (Arms)	
T200	Cont.	Peak
T200-300	5	10
T200-400	10	20
T200-500	20	50

[1] Internal filter supports CE EMC compliance when system powered by balanced, 3-phase, 230 VAC +/- 15% supply. Single phase or reduced voltage supplies may require separate external filtering for CE compliance.
[2] Contact Moog application team to determine the correct mix of servo drives for your application.

Fault Protection
Overvoltage
Undervoltage
Output phase to phase short circuit
Drive Overtemperature
Motor Overtemperature
Over Current Foldback
Feedback Loss

Weight
5.6 kg (-31X, -41X, -51X)
9.1 kg (-610)
10.4 kg (-710)

Environmental Conditions
Operating Temperature Range
0 - 55°C ambient
Humidity
5 - 95% non-condensing
Altitude
3300 feet (derate output 2%/1000 feet above 3300 feet)

Diagnostics
LEDs for AC Mains, DC Bus and Regen Status
Seven Segment Display for Warnings/Faults
Fault History Log

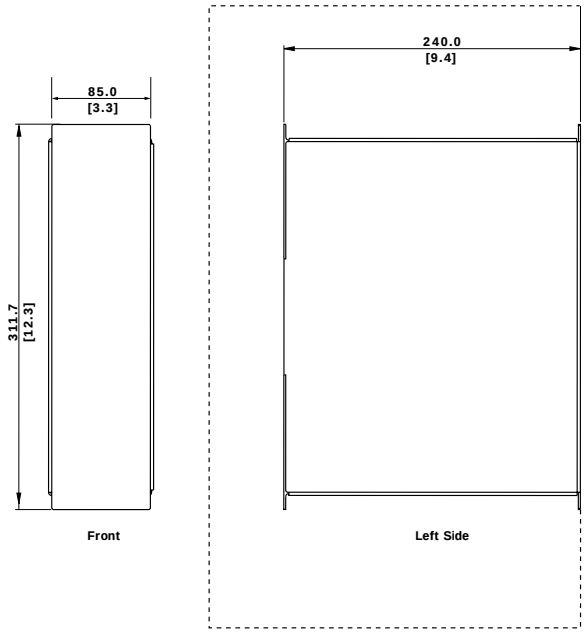
Digital I/O (functionality dependent on control module)

I/O Type	Current/Velocity Mode	Custom POINT Mode	CAN Mode
Input (1)	Drive Enabled	Drive Enabled	Drive Enabled
Input (2)	Power Ready	Power Ready	Power Ready
Input (3)	Auto/Manual Select	Auto/Manual Select	Auto/Manual Select
Input (4)	Torque/Velocity Select	User Defined	Home-Switch
Input (5)	CW Limit	User Defined	CW Limit
Input (6)	CCW Limit	User Defined	CCW Limit
Input (7)	Brake Control	User Defined	Brake Control
Input (8)	Rotation Direction	User Defined	User Defined
Input (9)	Programmable Speed Input	User Defined	Emergency Stop
Fast Input (10)	Programmable Speed Input	User Defined or Position Latch	User Defined or Position Latch
Output (1)	Limit Active	Limit Active	Limit Active
Output (2)	Drive Enabled	User Defined	Drive Enabled
Output (3)	Speed/Torque Achieved	User Defined	User Defined
Output (4)	Fault Status	User Defined	User Defined
Output (5)	Fault Status	User Defined	User Defined
Relay Output (6)	System Ready	System Ready	System Ready
Relay Output (7)	Brake Control	User Defined or Brake Control	User Defined or Brake Control

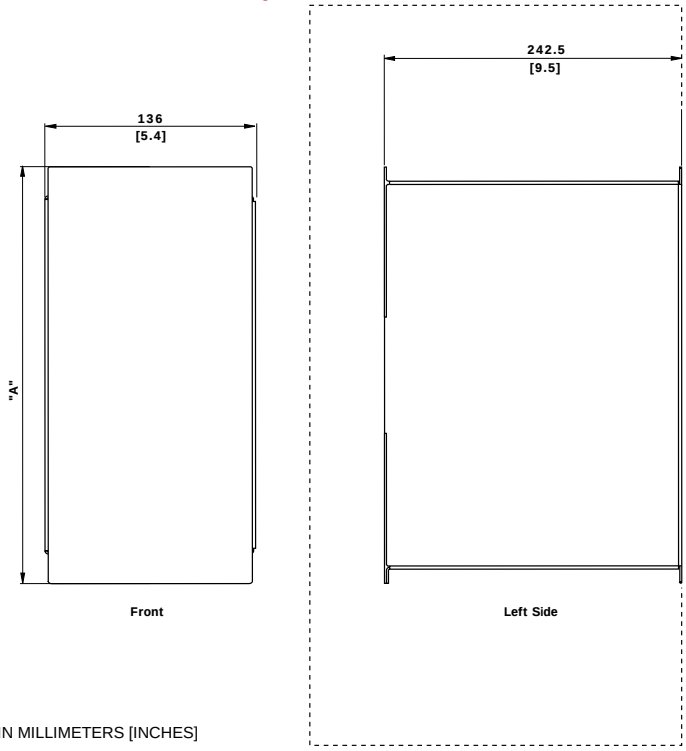
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MECHANICAL DATA

T200-3XX Through -5XX



T200-6XX Through -7XX



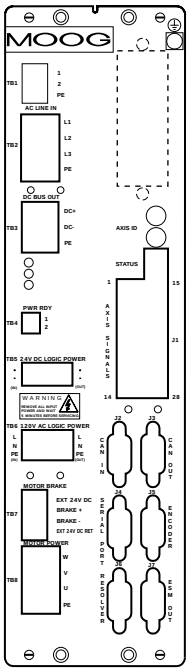
ALL DIMENSION ARE IN MILLIMETERS [INCHES]

Recommended Mounting Envelope
Height: 430mm, Depth: 300mm

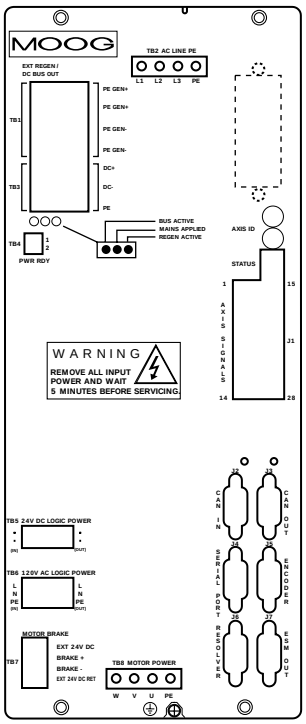
Model (T200)	Dimension "A"
-610	335 [13.2]
-710	365 [14.4]

Recommended Mounting Envelope
610 Height: 455mm, Depth: 300mm
710 Height: 485mm, Depth: 300mm

T200-31X Through -51X*



T200-610 and -710



* Connectors for units without integral power supplies (T200-X0X) vary as shown below.

Connector Designation	Function	
	T200-X1X	T200-X0X
TB1	External Regen	N/A
TB2	AC Mains In	DC Mains In
TB4	Power Ready	N/A

MOOG
Industrial Controls Division
Moog Inc., East Aurora, NY, 14052-0018 • 716/655-3000 • Fax 716/655-1803 • 1-800-272-MOOG • www.moog.com

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Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

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