

DYN2 AC Servo System

Robotics Application



The success of modern robotic applications rely on speed, precision, efficiency and cost. The DYN2 AC Servo System uses advanced, industry-proven technology to harmonize these requirements and revolutionize the capabilities of robotic structure.

Precision and Smoothness

A new 16-bit [65,536 pulse/rev] absolute encoder allows precision motion and smooth speed feedback for lowest vibration. Advanced DYN servo control topology minimizes settling time to <10ms even for highest load inertia capability^{*3}.

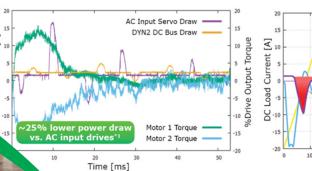
Rugged Encoder

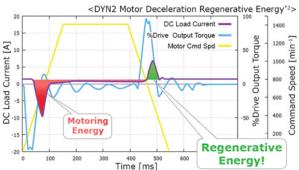
Our proprietary non-contact magnetic encoders can withstand high vibration, shock and all other environment stresses. Active sensor calibration maintain stable performance.



Low Voltage DC Input - Common DC Bus

Low voltage initiative with flexible +24~75VDC input. Can be powered by DC power supply or battery. Common DC Bus technology minimize power consumption per axis. Regenerative energy from decelerating axis used by motoring axis, or stored in reservoir capacitor.





Low Cost

Almost all technology and components are self-developed and manufactured. This attributes to lowest cost and improves lead time and distribution flexibility. Cost per axis: **\$263.00 USD** (0.05kW motor+drive). OEM pricing structure available.

Adaptive Servo Gains

adaptive TUNING II

DYN2 servo drive has wide domain of servo stability relative to load inertia. Consistent performance and stable response for all robotic movements where load dynamics are constantly changing.

High Power Density + Reliability

The DYN2 servo drive, measuring just 32mm W x 85mm H and 75mm D, is the industry's smallest servo drive capable of outputting 20A driving capacity. Highest speed is 5,000rpm (within 0.4kW) and 7.2Nm peak torque (0.75kW). Integrated reliability and failure management control ensures safe, uninterrupted operation.

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^{*1} Example testing for 2-axis 0.75kW motor system running synchronized acceleration/deceleration. Current draw depends on motion profile and torque output.

^{*2} Measurements taken for single DYN2 servo drive running 0.75kW DHT servo motor.

^{*3} In position servo mode.