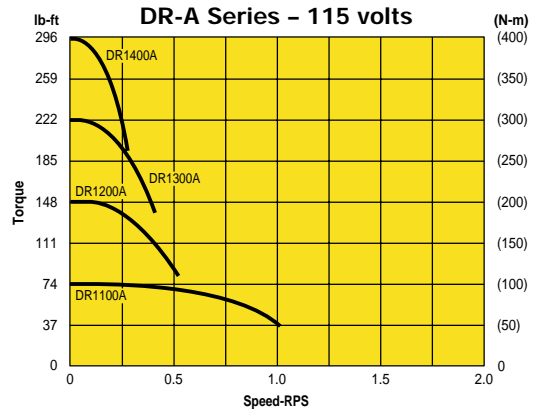


Selecting your Dynaserv

The normal principals of servo motor sizing apply to the Dynaserv, but there are a few special considerations to keep in mind.

Peak Torque/Continuous Torque

The speed torque curves in this section represent the peak available torque. Continuous torques are approximately 2/3 of the peak value.



Inertia Matching

When selecting the right Dynaserv for your application, the inertia match between the motor and load is a critical factor. The specifications listed in this section are for a 30:1 load to rotor inertia ratio. The following table lists the recommended ratios for specific application types. Actual results will depend highly on the usage, so these values are just for reference purposes. It is always a good idea to add 30-50% safety margin in sizing calculations.

Application Types and Ratios

Application Type	Max K Ratio (J_{load}/J_{motor})
High throughput applications (printing machines, chip mounting)	5-10
General high speed applications (SCARA robot, transfer arms)	20-30
High speed but balanced load applications (Rotary Index, Rotary Tables)	50-100
High accuracy, slow speed applications (Measuring Equipment)	100-200

Model Types

When selecting the model type, the decision comes down to a trade-off of resolution, accuracy, speed, and cost. Please use this table to match your specific application requirements to the correct direct drive motor. Keep in mind that these ratings are speculative and based only on the features of these three models. i.e. The lowest accuracy Dynaserv is still very accurate by normal motor standards.

Model Types

	DM Series	DR Series	DR5000 Series
Power	Lowest	Medium	Highest
Accuracy	Highest	Medium	Lowest
Motor Weight	Lowest	Medium	Highest
Resolution	Highest	Medium	Lowest
Cost	Medium	Lowest	Highest
Speed	Lowest	Medium	Highest

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