

Servo Drive Selection Cheat Sheet

A motion control system is only as good as its weakest link, so if you choose the wrong servo drive, your design could be doomed from the start.

To avoid costly mistakes, use these 5 basic guidelines or “Rules of Thumb” when selecting a servo drive.

5 Rules of Thumb	Why
<p>Current: Include an additional 25% of headroom for the current limit above what you think is needed for the application.</p>	<p>Prevents stalls, slow acceleration or following errors</p>
<p>Voltage: Select a power supply and servo drive combination that gives you a margin of at least 25% headroom between the power supply voltage AND both the undervoltage limit and the overvoltage limit of the servo drive.</p>	<p>Prevents nuisance faults due to voltage fluctuations</p>
<p>Isolation: At least one of these two things is needed:</p> <ul style="list-style-type: none"> • An isolation transformer between the AC line and the power supply's power ground. AND/OR • Optical isolation between the servo drive's power ground and signal ground. 	<p>Prevents damage to components and electric shock hazards</p>
<p>Power: It's good to have extra power, but don't go overboard.</p>	<p>Saves money by not getting more than you need, Improves current scaling</p>
<p>Technical Support: If you have any questions or you're faced with a tough decision, reach out to our Technical Support.</p>	<p>Time is money and it's usually a lot faster to ask for help rather than try to figure things out yourself.</p>

Secret Bonus Rule: Every application is different, so as “rule of thumb” implies, none of these rules are absolute except calling technical support. Always call technical support.

Originally from the *ADVANCED* Motion Controls “In-Motion Blog.” Read the full post here:

<https://www.a-m-c.com/5-rules-of-thumb-when-selecting-a-servo-drive/>