

## Trossen Robotics Dynamixel Comparison Guide

	AX-12		DX-117		RX-28		RX-64		EX-106	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
<b>Operating Voltage</b>	12V	7.0V	16V	12V	16V	12V	18V	15V	18.5V	14.8v
<b>Holding Torque</b>	16.5 kg-cm	12 kg-cm	37 kg-cm	28 kg-cm	37.7 kg-cm	28.3 kg-cm	64 kg-cm	53 kg-cm	106 kg-cm	84 kg-cm
	229 oz-in	167 oz-in	514 oz-in	458 oz-in	523.55 oz-in	393 oz-in	888 oz-in	736 oz-in	1,471 oz-in	1,166 oz-in
<b>No-load Speed</b>	0.196sec/60°	0.269sec/60°	0.126sec/60°	0.167sec/60°	0.126 sec/60°	0.167 sec/60°	0.162 sec/60°	0.198 sec/60°	0.143 sec/60°	0.182 sec/60°
<b>Weight</b>	55g		66g		72g		125g		155g	
<b>Size</b>	50 x 32 x 38 mm		40 x 31 x 37 mm		50.6 x 35.6 x 35.5 mm		40.2 x 61.1 x 41.0 mm		40.2 x 65.1 x 46 mm	
<b>Resolution</b>	0.35°		0.35°		0.29°		0.29°		0.07°	
<b>Reduction Ratio</b>	1/254		1/192		1/193		1/200		1/164	
<b>Operating Angle</b>	300° or Continuous Turn		300° or Continuous Turn		300° or Continuous Turn		300° or Continuous Turn		360° or Continuous Turn	
<b>Current (max)</b>	900mA		1200mA		1200mA		1200mA		3200mA	
<b>Standby Current</b>	50 mA		50 mA		50 mA		50 mA		50 mA	
<b>Operating Temp</b>	-5°C ~ 85°C		-5°C ~ 85°C		-5°C ~ 85°C		-5°C ~ 85°C		-5°C ~ 85°C	
<b>Protocol</b>	TTL Half Duplex Async Serial		RS485 Asynchronous Serial		RS485 Asynchronous Serial		RS485 Asynchronous Serial		RS485 Asynchronous Serial	
<b>Number of modules</b>	254 - valid addresses 0 to 253		254 - valid addresses 0 to 253		254 - valid addresses 0 to 253		254 - valid addresses 0 to 253		254 - valid addresses 0 to 253	
<b>Com Speed</b>	7343bps ~ 1Mbps		7343bps ~ 1Mbps		7343bps ~ 1Mbps		7343bps ~ 1Mbps		7343bps ~ 1Mbps	
<b>Position Feedback</b>	Yes		Yes		Yes		Yes		Yes	
<b>Temperature Feedback</b>	Yes		Yes		Yes		Yes		Yes	
<b>Load Voltage Feedback</b>	Yes		Yes		Yes		Yes		Yes	
<b>Input Voltage Feedback</b>	Yes		Yes		Yes		Yes		Yes	
<b>Compliance / PID</b>	Yes		Yes		Yes		Yes		Yes	
<b>Material</b>	Plastic Gears and Body		Metal Gears Engineering Plastic Body		Metal Gears Engineering Plastic Body		Metal Gears Engineering Plastic Body		Metal Gears Engineering Plastic Body	
<b>Motor</b>	Cored Motor		Swiss MAXON Motor		Maxon RE-MAX		Maxon RE-MAX		Maxon RE-MAX	
<b>Price</b>	<a href="#">See Online</a>		<a href="#">See Online</a>		<a href="#">See Online</a>		<a href="#">See Online</a>		<a href="#">See Online</a>	
<b>Manual Download</b>	<a href="#">AX-12 Manual (PDF)</a>		<a href="#">DX-117 Manual (PDF)</a>		<a href="#">RX-28 Manual (PDF)</a>		<a href="#">RX-64 Manual (PDF)</a>		<a href="#">EX-106 Manual (PDF)</a>	
<b>Controller list</b>	<a href="#">CM5</a> <a href="#">Arbotix</a> <a href="#">USB2Dynamixel</a> <a href="#">HUV USB Bioloid Board</a> <a href="#">CM2+</a>		<a href="#">USB2Dynamixel</a> <a href="#">CM2+</a>		<a href="#">USB2Dynamixel</a> <a href="#">CM2+</a>		<a href="#">USB2Dynamixel</a> <a href="#">CM2+</a>		<a href="#">USB2Dynamixel</a> <a href="#">CM2+</a>	