Higher Power Rotary Servo Motors, with Low and High Inertia

The “MaxPlusPlus” (MPP) series of brushless servo motors from Parker features a new design that offers lower inertia and higher power, all in a smaller motor package. These brushless servo motors are designed for the demanding applications found in today’s high-performance servo systems.

The MPP motors feature segmented core technology, which can yield up to 40% higher torque per unit size than conventionally wound servo motors. “Potted” stators improve heat transfer for better thermal efficiency, resulting in increased torque at the motor shaft. High-energy neodymium magnets are employed for higher rates of acceleration.

The “MaxPlus-J” (MPJ) series of rotary servo motors from Parker feature the same design characteristics as the MPP, but with 3 - 8 times the inertia of the standard MPP. This is a perfect solution for your applications requiring a high inertia servo motor.

Parker will customize any MPP/MPJ motor to meet your specific system requirements. Parker does customs like no one else. We are specialists at customs, offering unrivaled custom motor solutions and support.

MPP / MPJ Motor Features

- Segmented core technology - 40% higher torque
- Potted stator design - improved thermal efficiency
- Size 92, 100, 115, 142, 190, 230, and 270
- Continuous torque: 1.3 Nm (12 lb-in) to 146 Nm (1295 lb-in)
- Continuous stall torque: 1.5 Nm (14 lb-in) to 162 Nm (1434 lb-in)
- Peak torque: 5 Nm (44 lb-in) to 513 Nm (4540 lb-in)
- Brushless construction
- High-performance neodymium magnets
- Thermistor protection
- Resolver, incremental encoder, or absolute encoder (single or multi-turn)
- 24 volt failsafe brake (optional)
- “Rotatable” right angle PS-style connectors
- Optional IP65 shaft seal
- Two-year warranty
- MPJ motor features:
  Size 92,100, 115 and 142

Common Customizations Include:

- Shafts (longer, shorter, diameter change, hollow shafts)
- Front flange (bolt circle, pilot, NEMA dimensions)
- Motors coatings (white, PTFE, steel-it grey)
- Non-standard feedback devices
- Special Connectors
- Special stator windings

Model	Rated Speed RPM	Rated Output kW	Rated Output HP	MPP Rotor Inertia Kg-m² (lb-in-sec²)	MPJ Rotor Inertia Kg-m² (lb-in-sec²)	Continuous Stall Torque Nm (lb-ins)	Peak torque Nm (lb-ins)	Continuous Stall Current Amps-rms	Peak Current Amps-rms	Voltage
MPP0921B	3800	0.5	0.7	.0000441 (.00039)	.0003911 (.00346)	1.5 (14)	5.0 (50)	1.8	6	230
MPP0921C	5000	0.6	0.8	.0000441 (.00039)	.0003911 (.00346)	1.6 (14)	5.0 (45)	2.9	9	230
MPP0921R	5000	0.6	0.8	.0000441 (.00039)	.0003911 (.00346)	1.6 (14)	5.0 (45)	1.4	5	460
MPP0922C	4200	1.1	1.4	.0000780 (.00069)	.0004261 (.00377)	2.9 (26)	9.3 (83)	3.7	12	230
MPP0922D	5000	1.2	1.6	.0000780 (.00069)	.0004261 (.00377)	3.1 (28)	10.0 (88)	5.6	18	230
MPP0922R	5000	1.2	1.6	.0000780 (.00069)	.0004261 (.00377)	3.1 (28)	9.8 (88)	2.8	9	460
MPP0923D	5000	1.6	2.1	.0001130 (.0010)	-	4.0 (36)	12.8 (113)	7.2	23	230
MPP0923R	5000	1.6	2.1	.0001130 (.0010)	-	4.0 (36)	12.8 (113)	3.6	11	460
MPP1002D	4900	1.6	2.1	.0002599 (.0023)	.0008238 (.00729)	4.6 (41)	14.5 (129)	7.9	25	230
MPP1002R	4900	1.5	2.0	.0002599 (.0023)	.0008238 (.00729)	4.6 (41)	14.5 (129)	3.9	12	460
MPP1003C	4200	1.8	2.4	.0003729 (.0033)	-	6.1 (54)	19.1 (170)	7.2	23	230
MPP1003D	4200	1.8	2.4	.0003729 (.0033)	-	6.0 (53)	19.1 (170)	10.3	32	230
MPP1003Q	4200	1.9	2.5	.0003729 (.0033)	-	6.3 (56)	19.9 (176)	3.9	12	460
MPP1003R	4200	1.9	2.5	.0003729 (.0033)	-	6.3 (56)	20.1 (178)	5.4	17	460
MPP1152C	4000	1.6	2.1	.0002712 (.0024)	.0010184 (.00902)	5.7 (51)	18.1 (160)	8.5	27	230
MPP1152D	4000	1.7	2.2	.0002712 (.0024)	.0010184 (.00902)	5.8 (52)	18.5 (163)	10.4	33	230
MPP1152R	4000	1.6	2.1	.0002712 (.0024)	.0001084 (.00902)	5.5 (49)	17.4 (154)	4.9	16	460
MPP1153B	3400	2.2	2.9	.0004068 (.0036)	.0011314 (.01002)	7.9 (70)	25.1 (222)	7.7	24	230
MPP1153C	4000	2.3	3.0	.0004068 (.0036)	.0011314 (.01002)	8.1 (71)	25.5 (226)	12.1	38	230
MPP1153P	3100	2.2	2.9	.0004068 (.0036)	.0011314 (.01002)	8.4 (74)	26.6 (235)	4.1	13	460
MPP1153R	4000	2.3	3.0	.0004068 (.0036)	.0011314 (.01002)	8.1 (72)	25.5 (226)	6.0	19	460
MPP1154A	1900	1.8	2.4	.0005198 (.0046)	-	9.8 (87)	31.2 (277)	5.4	17	230
MPP1154B	3800	2.7	3.5	.0005198 (.0046)	-	9.8 (87)	31.3 (277)	10.7	34	230
MPP1154P	3700	2.7	3.5	.0005198 (.0046)	-	9.8 (87)	31.2 (277)	5.4	17	460
MPP1422C	4000	3.4	4.5	.000779 (.0069)	.007204 (.06377)	11.1 (98)	35.1 (311)	14.6	46	230
MPP1422R	3800	3.3	4.5	.000779 (.0069)	.007204 (.06377)	11.1 (98)	35.1 (311)	7.3	23	460
MPP1424B	3100	5.0	6.6	.001469 (.013)	.007882 (.06978)	19.4 (172)	61.5 (544)	19.4	61	230
MPP1424C	3800	5.2	6.8	.001469 (.013)	.007882 (.06978)	19.5 (173)	61.7 (546)	24.3	77	230
MPP1424R	3700	5.2	6.8	.001469 (.013)	.007882 (.06978)	19.5 (173)	61.6 (546)	12.1	38	460
MPP1426B	3000	6.2	8.1	.002147 (.019)	.008334 (.07378)	26.0 (230)	72.1 (726)	26.2	83	230
MPP1426P	3000	6.2	8.1	.002147 (.019)	.008334 (.07378)	26.0 (230)	82.1 (726)	13.1	41	460
MPP1428P	2900	7.0	9.2	.002599 (.023)	-	33.2 (294)	105.0 (931)	16.8	53	460
MPP1428Q	2900	7.0	9.2	.002599 (.023)	-	33.4 (295)	106.0 (935)	21.0	66	460
MPP1904P	3000	8.3	10.9	.00452 (.040)	-	35.5 (315)	113.0 (996)	18.0	57	460
MPP1906B	2500	9.7	12.7	.00627 (.055)	-	47.3 (419)	150.0 (1326)	36.2	114	230
MPP1906P	3000	9.9	13.0	.00627 (.055)	-	45.9 (407)	146.0 (1288)	23.5	74	460
MPP1908N	2100	11.1	14.5	.00774 (.068)	-	62.4 (553)	198.0 (1750)	20.6	65	460
MPP1908P	2800	11.8	15.5	.00774 (.068)	-	60.1 (532)	190.0 (1684)	30.3	96	460
MPP2306N	2000	11.6	15.2	.01690 (.150)	-	80.3 (712)	255.0 (2252)	28.5	90	460
MPP2308N	1600	13.6	17.8	.02237 (.198)	-	106.5 (943)	337.0 (2985)	28.1	89	460
MPP2308P	1900	14.1	18.5	.02237 (.198)	-	105.7 (936)	335.0 (2964)	35.7	113	460
MPP2706M	1000	12.0	15.7	.02734 (.242)	-	124.8 (1105)	395.0 (3497)	24.7	78	460
MPP2706N	1400	14.4	18.9	.02734 (.242)	-	120.1 (1064)	380.3 (3366)	32.4	102	460
MPP2706P	1600	16.5	21.6	.02734 (.242)	-	120.9 (1071)	382.7 (3388)	40.5	128	460
MPP2708L	900	13.6	18.1	.0353 (.313)	-	161.9 (1433)	512.7 (4538)	26.4	84	460
MPP2708M	1300	17.8	23.3	.0353 (.313)	-	155.8 (1379)	493.1 (4364)	38.9	123	460
MPP2708N	1600	20.3	26.6	.0353 (.313)	-	153.0 (1354)	484.0 (4287)	50.1	158	460