

# Motors



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**Motors &  
Gearboxes**

# Motor Compatibility Chart



**Table 1**

Parker Gearbox/Motor Options		ET032 / ER032								ET050 / ER050 / ERV5									
		Inline		Parallel						Inline		Parallel							
		Direct	Timing Belt	Timing Belt			Geardrive			Direct	Timing Belt	Geardrive							
		A	A	Z	K	E	F	G	H	A	A	B	D	K	E	F	G	H	
		1:1	1:1	1:1.5	1:1	3:1	5:1	7.5:1	9.5:1	1:1	1:1	1.5:1	2:1	1:1	3:1	5:1	7.5:1	9.5:1	
Gearbox Options	Gearbox Code																		
PX23	A	X	X							X	X			X					
PS60 shaft horizontal	B									X				X					
PS60 shaft vertical	C									X				X					
PX34	D									X	X			X					
PS90 shaft horizontal	E																		
PS90 shaft vertical	F																		
PX115	G																		
PS115 shaft horizontal	H																		
PS115 shaft vertical	J																		
PX56	K																		
PS142 shaft horizontal	L																		
PS142 shaft vertical	M																		
PV23FE	P	X	X							X	X			X					
PV34FE	Q									X	X			X					
Stepper Motor Options	Motor Code																		
S57, ES2x stepper - round shaft	A	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
S83, ES3x stepper - round shaft	B													X	X	X	X	X	X
HV34, LV34 stepper - shaft flat	C													X					
HV23, LV23 stepper - shaft flat	D	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Servo Motor Options	Motor Code																		
SM23x**~T*** (x=1,2,3)	E	X	X	X						X	X	X	X	X	X	X	X	X	X
BE23***~K***	F	X	X	X						X	X	X	X	X	X	X	X	X	X
BE34**~K***	G													X					
SMN060***~K***	H																		
SMN082***~K***	J													X					
SMN100***~K***	K																		
SMN115****~K***	L																		
SMN142****~K***	M																		
MPP092****~K***	N									X				X					
MPP100****~K***	P																		
MPP115****~K***	Q																		
MPP142x***~K*** (x=2,4,6)	R																		
MPP1428***~K***	S																		
MPP190****~K***	T																		

Parker Actuator Division offers a broad array of Parker motors and gearboxes for easy configuration with our electromechanical products. When configured in the part number, these motors and/or gearboxes will be mounted to the actuator at the factory and shipped as a complete package. This service not only saves our customers time and money, but it provides peace of mind that all components are properly mounted and that the actuator is ready for installation as soon as it arrives.

- Table #1 & Table #2 show the compatible gearbox/actuator combinations and motor/actuator combinations
- Table#3 shows compatible motor/gearbox combinations

**Example 1:** Motor mounting directly to actuator – no gearbox

- 1) Find actuator mounting configuration (inline, parallel, timing belt, gear drive) on Table #1 or Table #2.
- 2) Follow column down to determine compatible motors.

**Example 2:** Motor & gearbox mounting to actuator

- 1) Find actuator mounting configuration (inline, parallel, timing belt, gear drive) on Table #1 or Table #2.
- 2) Follow column down to determine compatible gearboxes.
- 3) Use Table #3 to determine compatible motors with gearbox.

Visit [www.parkermotion.com](http://www.parkermotion.com) for complete motor specifications.



# Motor Compatibility Chart

**Table 2**

Parker Gearbox/Motor Options		ET080 / ER080 / ERV8										ET100		ET125		LCB	
		Inline	Parallel									Inline	Parallel	Inline	Parallel	040	060
		Direct	Timing Belt			Geardrive						Direct	Timing Belt	Direct	Timing Belt	Inline Direct	Inline Direct
		A	A	B	D	K	E	F	G	H	A	A	A	A			
1:1	1:1	1.5:1	2:1	1:1	3:1	5:1	7.5:1	10:1	1:1	1:1	1:1	1:1					
Gearbox Options	Gearbox Code																
PX23	A	X				X									X	X	
PS60 shaft horizontal	B	X															
PS60 shaft vertical	C	X															
PX34	D	X	X			X					X					X	
PS90 shaft horizontal	E	X	X								X	X					
PS90 shaft vertical	F	X	X								X	X					
PX115	G	X									X	X	X	X			
PS115 shaft horizontal	H										X	X	X	X			
PS115 shaft vertical	J										X	X	X	X			
PX56	K										X	X	X	X			
PS142 shaft horizontal	L												X	X			
PS142 shaft vertical	M												X	X			
PV23FE	P	X				X									X	X	
PV34FE	Q	X	X			X					X					X	
Stepper Motor Options	Motor Code																
S57, ES2x stepper - round shaft	A														X		
S83, ES3x stepper - round shaft	B	X	X	X	X	X	X	X	X	X					X	X	
HV34, LV34 stepper - shaft flat	C	X	X	X	X	X	X	X	X	X					X	X	
HV23, LV23 stepper - shaft flat	D														X		
Servo Motor Options	Motor Code																
SM23x** - T*** (x=1,2,3)	E														X		
BE23*** - K***	F														X		
BE34** - K***	G	X	X	X	X	X	X	X	X	X	X				X	X	
SMN060*** - K***	H														X		
SMN082*** - K***	J	X				X	X	X	X	X	X				X	X	
SMN100*** - K***	K	X	X	X							X					X	
SMN115**** - K***	L	X									X	X	X	X		X	
SMN142**** - K***	M	X									X	X	X	X			
MPP092**** - K***	N	X	X	X		X	X		X	X	X				X	X	
MPP100**** - K***	P	X	X	X							X					X	
MPP115**** - K***	Q	X									X	X	X	X		X	
MPP142x*** - K*** (x=2,4,6)	R	X									X	X	X	X			
MPP1428*** - K***	S	X									X	X	X	X			
MPP190**** - K***	T										X		X	X			

**Table 3**

Gearbox Options	Gearbox Code	Applicable Motor Code in Combination with Gearbox
PX23	A	Stepper Motors A, D Servo Motors E, F, H
PS60	B, C	
PV23FFE	P	
PX34	D	Stepper Motors B, C Servo Motors G, J, K, N, P
PS90	E, F	
PV34FE	Q	
PX115	G	Servo Motors K, L, M, P, Q
PS115	H, J	
PX56	K	Servo Motors L, M, Q, R, S
PS142	L	

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**Motors & Gearboxes**

# Servo Motors



Parker offers a complete line of rotary and linear servo motor products that meet a broad range of applications in both the industrial and high tech marketplaces. The motors listed below are a “best fit” selection of this wide range of motors and are optimally suited to provide the highest level of performance achievable with our electromechanical products. Complete specifications of these and other Parker motors can be found at [www.parkermotion.com](http://www.parkermotion.com).

Motor Series	Motor Type	Design Type	Cont Torque Tc (lb-in)	Inertia	Feedback Options	Frame Size	Brake Option	IP Rating	Max Speed	Certification	Winding (VDC)
SM	Brushless Servo	Slotless	1.7 to 10.1	High	Encoder, Resolver, Smart Encoder	NEMA 23	No	64	6500 to 7500	CE	170, 340
BE	Brushless Servo	Bridged Stator	3.6 to 43.3	Low	Encoder, Resolver, Smart Encoder	NEMA 23 NEMA 34	34 only	40	5000	CE	170, 340
SMN	Brushless Servo	Segmented Lamination	11.9 to 128.7	Medium	Encoder, Resolver, Multi-turn Absolute (SinCos)	60mm to 142mm	All	64	4500 to 7500	CE, UL	340, 680
MPP	Brushless Servo	Segmented Lamination	13.8 to 552.5	Low	Encoder, Resolver, Smart Encoder, Single-turn Absolute (EnDat), Multi-turn Absolute (EnDat)	92mm to 190mm	All	64	1700 to 5000	CE, UL	340, 650

## SM Series High-Performance Slotless Design

The SM Series brushless servo motors feature a slotless stator design. This design eliminates all detent torque in the motor allowing the SM series motors to provide extremely smooth motion, especially at low speeds. The slotless design also creates a higher rotor inertia which allows for better stability and control of larger inertia payloads.



SM23x**-T*** (x=1,2,3)	
Motor Code	Description
E00	Prepped for SM23x**-T*** (x=1,2,3) motor
E01	SM233BE-TTQN - Encoder - TQ connector
E02	SM233BR-TMSN - Resolver - MS connector
E03	SM233AE-TGSN - Encoder - GS connector
E10	SM231AE-TPSN - 1000 line encoder
E11	SM231AQ-TPSN - Smart encoder
E12	SM231BE-TPSN - 1000 line encoder
E13	SM232AE-TPSN - 1000 line encoder
E14	SM232AQ-TPSN - Smart encoder
E15	SM232BE-TPSN - 1000 line encoder
E16	SM233AE-TPSN - 1000 line encoder
E17	SM233AQ-TPSN - Smart encoder
E18	SM233BE-TPSN - 1000 line encoder

Visit [www.parkermotion.com](http://www.parkermotion.com) for complete motor specifications.



## BE Series High-Torque, Low-Cost Design

The BE series brushless servo motors produce high continuous stall torque in a cost-reduced package. The increased torque of the BE series is the result of an increased number of magnetic poles on the rotor. Traditional motors in these frame sizes have 4 magnetic poles on the rotor, while the BE series utilizes 8 magnetic poles.

The cost reduction of the BE series is achieved from its open lamination design. Unlike traditional servo motors, the BE series does not have a metal housing. Instead, the laminations of the motor stator are shaped into the body of the motor which reduces both material and assembly costs.



BE23***-K***	
Motor Code	Description
F00	Prepped for BE23***-K*** motor
F01	BE230DJ-KPSN - 2000 line encoder
F02	BE230FJ-KPSN - 2000 line encoder
F03	BE230GJ-KPSN - 2000 line encoder
F04	BE231DJ-KPSN - 2000 line encoder
F05	BE231FJ-KPSN - 2000 line encoder
F06	BE231GJ-KPSN - 2000 line encoder
F07	BE232DJ-KPSN - 2000 line encoder
F08	BE232FJ-KPSN - 2000 line encoder
F09	BE232GJ-KPSN - 2000 line encoder
F10	BE233DJ-KPSN - 2000 line encoder
F11	BE233FJ-KPSN - 2000 line encoder
F12	BE233GJ-KPSN - 2000 line encoder
F13	BE230DQ-KPSN - Smart encoder
F14	BE230FQ-KPSN - Smart encoder
F15	BE231DQ-KPSN - Smart encoder
F16	BE231FQ-KPSN - Smart encoder
F17	BE232DQ-KPSN - Smart encoder
F18	BE232FQ-KPSN - Smart encoder
F19	BE233DQ-KPSN - Smart encoder
F20	BE233FQ-KPSN - Smart encoder
F21	BE230DR-KPSN - Resolver
F22	BE230FR-KPSN - Resolver
F23	BE231DR-KPSN - Resolver
F24	BE231FR-KPSN - Resolver
F25	BE232DR-KPSN - Resolver
F26	BE232FR-KPSN - Resolver
F27	BE233DR-KPSN - Resolver
F28	BE233FR-KPSN - Resolver

BE34***-K***	
Motor Code	Description
G00	Prepped for BE34***-K*** motor
G01	BE341FJ-KPSN -2000 line encoder
G02	BE341JJ-KPSN -2000 line encoder
G03	BE342HJ-KPSN -2000 line encoder
G04	BE342KJ-KPSN -2000 line encoder
G05	BE343JJ-KPSN -2000 line encoder
G06	BE343LJ-KPSN -2000 line encoder
G07	BE344JJ-KPSN -2000 line encoder
G08	BE344LJ-KPSN -2000 line encoder
G09	BE341FQ-KPSN -Smart encoder
G10	BE341JQ-KPSN -Smart encoder
G11	BE342HQ-KPSN -Smart encoder
G12	BE342KQ-KPSN -Smart encoder
G13	BE343JQ-KPSN -Smart encoder
G14	BE343LQ-KPSN -Smart encoder
G15	BE344JQ-KPSN -Smart encoder
G16	BE344LQ-KPSN -Smart encoder
G17	BE341FR-KPSN -Resolver
G18	BE341JR-KPSN -Resolver
G19	BE342HR-KPSN -Resolver
G20	BE342KR-KPSN -Resolver
G21	BE343JR-KPSN -Resolver
G22	BE343LR-KPSN -Resolver
G23	BE344JR-KPSN -Resolver
G24	BE344LR-KPSN -Resolver
G25	BE341FJ-KPSB -2000 line encoder + brake
G26	BE341JJ-KPSB -2000 line encoder + brake
G27	BE342HJ-KPSB -2000 line encoder + brake
G28	BE342KJ-KPSB -2000 line encoder + brake
G29	BE343JJ-KPSB -2000 line encoder + brake
G30	BE343LJ-KPSB -2000 line encoder + brake
G31	BE344JJ-KPSB -2000 line encoder + brake
G32	BE344LJ-KPSB -2000 line encoder + brake
G33	BE341FQ-KPSB -Smart encoder + brake
G34	BE341JQ-KPSB -Smart encoder + brake
G35	BE342HQ-KPSB -Smart encoder + brake
G36	BE342KQ-KPSB -Smart encoder + brake
G37	BE343JQ-KPSB -Smart encoder + brake
G38	BE343LQ-KPSB -Smart encoder + brake
G39	BE344JQ-KPSB -Smart encoder + brake
G40	BE344LQ-KPSB -Smart encoder + brake
G41	BE341FR-KPSB -Resolver + brake
G42	BE341JR-KPSB -Resolver + brake
G43	BE342HR-KPSB -Resolver + brake
G44	BE342KR-KPSB -Resolver + brake
G45	BE343JR-KPSB -Resolver + brake
G46	BE343LR-KPSB -Resolver + brake
G47	BE344JR-KPSB -Resolver + brake
G48	BE344LR-KPSB -Resolver + brake

**Motors & Gearboxes**

Visit [www.parkermotion.com](http://www.parkermotion.com) for complete motor specifications.

# Servo Motors



## SMN Series High-Torque, Compact Design

Parker's SMN Series of brushless servo motors combines a high-performance segmented stator with competitive pricing for today's demanding motion control applications. The modern 8-pole segmented stator produces extremely high torques in a compact package. The SMN motor family is offered in frame sizes from 60mm to 142mm and is available with numerous feedback options.



SMN1002***-K***	
Motor Code	Description
K00	Prepped for SMN1002***-K*** / M105***-K*** motor
K01	SMN1002S41-KPSN - Resolver
K02	SMN1002P41-KPSN - Resolver
K03	SMN1002S2F-KPSN - 2048 line encoder
K04	SMN1002P2F-KPSN - 2048 line encoder
K05	SMN1002S5D-KPSN - SinCos absolute encoder
K06	SMN1002P5D-KPSN - SinCos absolute encoder
K07	SMN1002S41-KPSB - Resolver + brake
K08	SMN1002P41-KPSB - Resolver + brake
K09	SMN1002S2F-KPSB - 2048 line encoder + brake
K10	SMN1002P2F-KPSB - 2048 line encoder + brake
K11	SMN1002S5D-KPSB - SinCos absolute encoder + brake
K12	SMN1002P5D-KPSB - SinCos absolute encoder + brake

SMN0602***-K***	
Motor Code	Description
H00	Prepped for SMN0602***-K*** motor
H01	SMN0602T41-KPSN - Resolver
H02	SMN0602Z41-KPSN - Resolver
H03	SMN0602T2F-KPSN - 2048 line encoder
H04	SMN0602Z2F-KPSN - 2048 line encoder
H05	SMN0602T5D-KPSN - SinCos absolute encoder
H06	SMN0602Z5D-KPSN - SinCos absolute encoder
H07	SMN0602T41-KPSB - Resolver + brake
H08	SMN0602Z41-KPSB - Resolver + brake
H09	SMN0602T2F-KPSB - 2048 line encoder + brake
H10	SMN0602Z2F-KPSB - 2048 line encoder + brake
H11	SMN0602T5D-KPSB - SinCos absolute encoder + brake
H12	SMN0602Z5D-KPSB - SinCos absolute encoder + brake

SMN1152***-K***	
Motor Code	Description
L00	Prepped for SMN1152***-K*** motor
L01	SMN1152Q41-KPSN - Resolver
L02	SMN1152T41-KPSN - Resolver
L03	SMN1152Q2F-KPSN - 2048 line encoder
L04	SMN1152T2F-KPSN - 2048 line encoder
L05	SMN1152Q5D-KPSN - SinCos absolute encoder
L06	SMN1152T5D-KPSN - SinCos absolute encoder
L07	SMN1152Q41-KPSB - Resolver + brake
L08	SMN1152T41-KPSB - Resolver + brake
L09	SMN1152Q2F-KPSB - 2048 line encoder + brake
L10	SMN1152T2F-KPSB - 2048 line encoder + brake
L11	SMN1152Q5D-KPSB - SinCos absolute encoder + brake
L12	SMN1152T5D-KPSB - SinCos absolute encoder + brake

SMN0822***-K***	
Motor Code	Description
J00	Prepped for SMN0822***-K***
J01	SMN0822S41-KPSN - Resolver
J02	SMN0822V41-KPSN - Resolver
J03	SMN0822S2F-KPSN - 2048 line encoder
J04	SMN0822V2F-KPSN - 2048 line encoder
J05	SMN0822S5D-KPSN - SinCos absolute encoder
J06	SMN0822V5D-KPSN - SinCos absolute encoder
J07	SMN0822S41-KPSB - Resolver + brake
J08	SMN0822V41-KPSB - Resolver + brake
J09	SMN0822S2F-KPSB - 2048 line encoder + brake
J10	SMN0822V2F-KPSB - 2048 line encoder + brake
J11	SMN0822S5D-KPSB - SinCos absolute encoder + brake
J12	SMN0822V5D-KPSB - SinCos absolute encoder + brake

SMN1422***-K***	
Motor Code	Description
M00	Prepped for SMN1422***-K*** / M145***-K*** motor
M01	SMN1422S41-KPSN - Resolver
M02	SMN1422P41-KPSN - Resolver
M03	SMN1422S2F-KPSN - 2048 line encoder
M04	SMN1422P2F-KPSN - 2048 line encoder
M05	SMN1422S5D-KPSN - SinCos absolute encoder
M06	SMN1422P5D-KPSN - SinCos absolute encoder
M07	SMN1422S41-KPSB - Resolver + brake
M08	SMN1422P41-KPSB - Resolver + brake
M09	SMN1422S2F-KPSB - 2048 line encoder + brake
M10	SMN1422P2F-KPSB - 2048 line encoder + brake
M11	SMN1422S5D-KPSB - SinCos absolute encoder + brake
M12	SMN1422P5D-KPSB - SinCos absolute encoder + brake

Visit [www.parkermotion.com](http://www.parkermotion.com) for complete motor specifications.



# Servo Motors

## MPP Series - Low Inertia, High-Power

The MPP series of brushless servo motors features a new design that offers lower inertia and higher power, all in a smaller package. These motors are designed for today's high-performance motion control applications.

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 thermal efficiency allowing increased torque at the motor shaft.



<b>MPP092****-K***</b>	
Motor Code	Description
N00	Prepped for MPP092****-K*** motor
N01	MPP0921B1E-KPSN - 2000 line encoder
N02	MPP0921C1E-KPSN - 2000 line encoder
N03	MPP0921R1E-KPSN - 2000 line encoder
N04	MPP0922C1E-KPSN - 2000 line encoder
N05	MPP0922D1E-KPSN - 2000 line encoder
N06	MPP0922R1E-KPSN - 2000 line encoder
N07	MPP0923D1E-KPSN - 2000 line encoder
N08	MPP0923R1E-KPSN - 2000 line encoder
N09	MPP0921B41-KPSN - Resolver
N10	MPP0921C41-KPSN - Resolver
N11	MPP0921R41-KPSN - Resolver
N12	MPP0922C41-KPSN - Resolver
N13	MPP0922D41-KPSN - Resolver
N14	MPP0922R41-KPSN - Resolver
N15	MPP0923D41-KPSN - Resolver
N16	MPP0923R41-KPSN - Resolver
N17	MPP0921B6D-KPSN - Multi-turn absolute encoder
N18	MPP0921C6D-KPSN - Multi-turn absolute encoder
N19	MPP0921R6D-KPSN - Multi-turn absolute encoder
N20	MPP0922C6D-KPSN - Multi-turn absolute encoder
N21	MPP0922D6D-KPSN - Multi-turn absolute encoder
N22	MPP0922R6D-KPSN - Multi-turn absolute encoder
N23	MPP0923D6D-KPSN - Multi-turn absolute encoder
N24	MPP0923R6D-KPSN - Multi-turn absolute encoder
N25	MPP0921B3E-KPSN - 2000 line smart encoder
N26	MPP0921C3E-KPSN - 2000 line smart encoder
N27	MPP0922C3E-KPSN - 2000 line smart encoder
N28	MPP0922D3E-KPSN - 2000 line smart encoder
N29	MPP0923D3E-KPSN - 2000 line smart encoder
N30	MPP0921B1E-KPSB - 2000 line encoder + brake
N31	MPP0921C1E-KPSB - 2000 line encoder + brake
N32	MPP0921R1E-KPSB - 2000 line encoder + brake
N33	MPP0922C1E-KPSB - 2000 line encoder + brake
N34	MPP0922D1E-KPSB - 2000 line encoder + brake
N35	MPP0922R1E-KPSB - 2000 line encoder + brake
N36	MPP0923D1E-KPSB - 2000 line encoder + brake
N37	MPP0923R1E-KPSB - 2000 line encoder + brake
N38	MPP0921B41-KPSB - Resolver + brake
N39	MPP0921C41-KPSB - Resolver + brake
N40	MPP0921R41-KPSB - Resolver + brake
N41	MPP0922C41-KPSB - Resolver + brake
N42	MPP0922D41-KPSB - Resolver + brake
N43	MPP0922R41-KPSB - Resolver + brake
N44	MPP0923D41-KPSB - Resolver + brake
N45	MPP0923R41-KPSB - Resolver + brake
N46	MPP0921B6D-KPSB -Multi-turn absolute encoder + brake
N47	MPP0921C6D-KPSB -Multi-turn absolute encoder + brake
N48	MPP0921R6D-KPSB -Multi-turn absolute encoder + brake
N49	MPP0922C6D-KPSB -Multi-turn absolute encoder + brake
N50	MPP0922D6D-KPSB -Multi-turn absolute encoder + brake
N51	MPP0922R6D-KPSB -Multi-turn absolute encoder + brake
N52	MPP0923D6D-KPSB -Multi-turn absolute encoder + brake
N53	MPP0923R6D-KPSB -Multi-turn absolute encoder + brake
N54	MPP0921B3E-KPSB - 2000 line smart encoder + brake
N55	MPP0921C3E-KPSB - 2000 line smart encoder + brake
N56	MPP0922C3E-KPSB - 2000 line smart encoder + brake
N57	MPP0922D3E-KPSB - 2000 line smart encoder + brake
N58	MPP0923D3E-KPSB - 2000 line smart encoder + brake

<b>MPP100****-K***</b>	
Motor Code	Description
P00	Prepped for MPP100****-K*** motor
P01	MPP1002D1E-KPSN - 2000 line encoder
P02	MPP1002R1E-KPSN - 2000 line encoder
P03	MPP1003C1E-KPSN - 2000 line encoder
P04	MPP1003D1E-KPSN - 2000 line encoder
P05	MPP1003Q1E-KPSN - 2000 line encoder
P06	MPP1003R1E-KPSN - 2000 line encoder
P07	MPP1002D41-KPSN - Resolver
P08	MPP1002R41-KPSN - Resolver
P09	MPP1003C41-KPSN - Resolver
P10	MPP1003D41-KPSN - Resolver
P11	MPP1003Q41-KPSN - Resolver
P12	MPP1003R41-KPSN - Resolver
P13	MPP1002D6D-KPSN - Multi-turn absolute encoder
P14	MPP1002R6D-KPSN - Multi-turn absolute encoder
P15	MPP1003C6D-KPSN - Multi-turn absolute encoder
P16	MPP1003D6D-KPSN - Multi-turn absolute encoder
P17	MPP1003Q6D-KPSN - Multi-turn absolute encoder
P18	MPP1003R6D-KPSN - Multi-turn absolute encoder
P19	MPP1002D3E-KPSN - 2000 line smart encoder
P20	MPP1003C3E-KPSN - 2000 line smart encoder
P21	MPP1003D3E-KPSN - 2000 line smart encoder
P22	MPP1002D1E-KPSB - 2000 line encoder + brake
P23	MPP1002R1E-KPSB - 2000 line encoder + brake
P24	MPP1003C1E-KPSB - 2000 line encoder + brake
P25	MPP1003D1E-KPSB - 2000 line encoder + brake
P26	MPP1003Q1E-KPSB - 2000 line encoder + brake
P27	MPP1003R1E-KPSB - 2000 line encoder + brake
P28	MPP1002D41-KPSB - Resolver + brake
P29	MPP1002R41-KPSB - Resolver + brake
P30	MPP1003C41-KPSB - Resolver + brake
P31	MPP1003D41-KPSB - Resolver + brake
P32	MPP1003Q41-KPSB - Resolver + brake
P33	MPP1003R41-KPSB - Resolver + brake
P34	MPP1002D6D-KPSB - Multi-turn absolute encoder + brake
P35	MPP1002R6D-KPSB - Multi-turn absolute encoder + brake
P36	MPP1003C6D-KPSB - Multi-turn absolute encoder + brake
P37	MPP1003D6D-KPSB - Multi-turn absolute encoder + brake
P38	MPP1003Q6D-KPSB - Multi-turn absolute encoder + brake
P39	MPP1003R6D-KPSB - Multi-turn absolute encoder + brake
P40	MPP1002D3E-KPSB - 2000 line smart encoder + brake
P41	MPP1003C3E-KPSB - 2000 line smart encoder + brake
P42	MPP1003D3E-KPSB - 2000 line smart encoder + brake

**Motors & Gearboxes**

Visit [www.parkermotion.com](http://www.parkermotion.com) for complete motor specifications.

# Servo Motors



<b>MPP115****-K***</b>	
Motor Code	Description
Q00	Prepped for MPP115****-K*** motor
Q01	MPP1152C1E-KPSN - 2000 line encoder
Q02	MPP1152D1E-KPSN - 2000 line encoder
Q03	MPP1152R1E-KPSN - 2000 line encoder
Q04	MPP1153B1E-KPSN - 2000 line encoder
Q05	MPP1153C1E-KPSN - 2000 line encoder
Q06	MPP1153P1E-KPSN - 2000 line encoder
Q07	MPP1153R1E-KPSN - 2000 line encoder
Q08	MPP1154A1E-KPSN - 2000 line encoder
Q09	MPP1154B1E-KPSN - 2000 line encoder
Q10	MPP1154P1E-KPSN - 2000 line encoder
Q11	MPP1152C41-KPSN - Resolver
Q12	MPP1152D41-KPSN - Resolver
Q13	MPP1152R41-KPSN - Resolver
Q14	MPP1153B41-KPSN - Resolver
Q15	MPP1153C41-KPSN - Resolver
Q16	MPP1153P41-KPSN - Resolver
Q17	MPP1153R41-KPSN - Resolver
Q18	MPP1154A41-KPSN - Resolver
Q19	MPP1154B41-KPSN - Resolver
Q20	MPP1154P41-KPSN - Resolver
Q21	MPP1152C6D-KPSN - Multiturn absolute encoder
Q22	MPP1152D6D-KPSN - Multiturn absolute encoder
Q23	MPP1152R6D-KPSN - Multiturn absolute encoder
Q24	MPP1153B6D-KPSN - Multiturn absolute encoder
Q25	MPP1153C6D-KPSN - Multiturn absolute encoder
Q26	MPP1153P6D-KPSN - Multiturn absolute encoder
Q27	MPP1153R6D-KPSN - Multiturn absolute encoder
Q28	MPP1154A6D-KPSN - Multiturn absolute encoder
Q29	MPP1154B6D-KPSN - Multiturn absolute encoder
Q30	MPP1154P6D-KPSN - Multiturn absolute encoder
Q31	MPP1152C3E-KPSN - 2000 line smart encoder
Q32	MPP1152D3E-KPSN - 2000 line smart encoder
Q33	MPP1153B3E-KPSN - 2000 line smart encoder
Q34	MPP1153C3E-KPSN - 2000 line smart encoder
Q35	MPP1154B3E-KPSN - 2000 line smart encoder

<b>MPP115****-K*** cont'd</b>	
Motor Code	Description
Q36	MPP1152C1E-KPSB - 2000 line encoder + brake
Q37	MPP1152D1E-KPSB - 2000 line encoder + brake
Q38	MPP1152R1E-KPSB - 2000 line encoder + brake
Q39	MPP1153B1E-KPSB - 2000 line encoder + brake
Q40	MPP1153C1E-KPSB - 2000 line encoder + brake
Q41	MPP1153P1E-KPSB - 2000 line encoder + brake
Q42	MPP1153R1E-KPSB - 2000 line encoder + brake
Q43	MPP1154A1E-KPSB - 2000 line encoder + brake
Q44	MPP1154B1E-KPSB - 2000 line encoder + brake
Q45	MPP1154P1E-KPSB - 2000 line encoder + brake
Q46	MPP1152C41-KPSB - Resolver + brake
Q47	MPP1152D41-KPSB - Resolver + brake
Q48	MPP1152R41-KPSB - Resolver + brake
Q49	MPP1153B41-KPSB - Resolver + brake
Q50	MPP1153C41-KPSB - Resolver + brake
Q51	MPP1153P41-KPSB - Resolver + brake
Q52	MPP1153R41-KPSB - Resolver + brake
Q53	MPP1154A41-KPSB - Resolver + brake
Q54	MPP1154B41-KPSB - Resolver + brake
Q55	MPP1154P41-KPSB - Resolver + brake
Q56	MPP1152C6D-KPSB - Multiturn absolute encoder + brake
Q57	MPP1152D6D-KPSB - Multiturn absolute encoder + brake
Q58	MPP1152R6D-KPSB - Multiturn absolute encoder + brake
Q59	MPP1153B6D-KPSB - Multiturn absolute encoder + brake
Q60	MPP1153C6D-KPSB - Multiturn absolute encoder + brake
Q61	MPP1153P6D-KPSB - Multiturn absolute encoder + brake
Q62	MPP1153R6D-KPSB - Multiturn absolute encoder + brake
Q63	MPP1154A6D-KPSB - Multiturn absolute encoder + brake
Q64	MPP1154B6D-KPSB - Multiturn absolute encoder + brake
Q65	MPP1154P6D-KPSB - Multiturn absolute encoder + brake
Q66	MPP1152C3E-KPSB - 2000 line smart encoder + brake
Q67	MPP1152D3E-KPSB - 2000 line smart encoder + brake
Q68	MPP1153B3E-KPSB - 2000 line smart encoder + brake
Q69	MPP1153C3E-KPSB - 2000 line smart encoder + brake
Q70	MPP1154B3E-KPSB - 2000 line smart encoder + brake

<b>MPP142x***-K*** (x=2,4,6)</b>	
Motor Code	Description
R00	Prepped for MPP142x***-K*** (x=2,4,6) motor
R01	MPP1422C1E-KPSN - 2000 line encoder
R02	MPP1422R1E-KPSN - 2000 line encoder
R03	MPP1424B1E-KPSN - 2000 line encoder
R04	MPP1424C1E-KPSN - 2000 line encoder
R05	MPP1424R1E-KPSN - 2000 line encoder
R06	MPP1426B1E-KPSN - 2000 line encoder
R07	MPP1426P1E-KPSN - 2000 line encoder
R08	MPP1422C41-KPSN - Resolver
R09	MPP1422R41-KPSN - Resolver
R10	MPP1424B41-KPSN - Resolver
R11	MPP1424C41-KPSN - Resolver
R12	MPP1424R41-KPSN - Resolver
R13	MPP1426B41-KPSN - Resolver
R14	MPP1426P41-KPSN - Resolver
R15	MPP1422C6D-KPSN - Multiturn absolute encoder
R16	MPP1422R6D-KPSN - Multiturn absolute encoder
R17	MPP1424B6D-KPSN - Multiturn absolute encoder
R18	MPP1424C6D-KPSN - Multiturn absolute encoder
R19	MPP1424R6D-KPSN - Multiturn absolute encoder
R20	MPP1426B6D-KPSN - Multiturn absolute encoder
R21	MPP1426P6D-KPSN - Multiturn absolute encoder
R22	MPP1422C3E-KPSN - 2000 line smart encoder
R23	MPP1424B3E-KPSN - 2000 line smart encoder
R24	MPP1424C3E-KPSN - 2000 line smart encoder

<b>MPP142x***-K*** (x=2,4,6) cont'd</b>	
Motor Code	Description
R25	MPP1426B3E-KPSN - 2000 line smart encoder
R26	MPP1422C1E-KPSB - 2000 line encoder + brake
R27	MPP1422R1E-KPSB - 2000 line encoder + brake
R28	MPP1424B1E-KPSB - 2000 line encoder + brake
R29	MPP1424C1E-KPSB - 2000 line encoder + brake
R30	MPP1424R1E-KPSB - 2000 line encoder + brake
R31	MPP1426B1E-KPSB - 2000 line encoder + brake
R32	MPP1426P1E-KPSB - 2000 line encoder + brake
R33	MPP1422C41-KPSB - Resolver + brake
R34	MPP1422R41-KPSB - Resolver + brake
R35	MPP1424B41-KPSB - Resolver + brake
R36	MPP1424C41-KPSB - Resolver + brake
R37	MPP1424R41-KPSB - Resolver + brake
R38	MPP1426B41-KPSB - Resolver + brake
R39	MPP1426P41-KPSB - Resolver + brake
R40	MPP1422C6D-KPSB - Multiturn absolute encoder + brake
R41	MPP1422R6D-KPSB - Multiturn absolute encoder + brake
R42	MPP1424B6D-KPSB - Multiturn absolute encoder + brake
R43	MPP1424C6D-KPSB - Multiturn absolute encoder + brake
R44	MPP1424R6D-KPSB - Multiturn absolute encoder + brake
R45	MPP1426B6D-KPSB - Multiturn absolute encoder + brake
R46	MPP1426P6D-KPSB - Multiturn absolute encoder + brake
R47	MPP1422C3E-KPSB - 2000 line smart encoder + brake
R48	MPP1424B3E-KPSB - 2000 line smart encoder + brake
R49	MPP1424C3E-KPSB - 2000 line smart encoder + brake
R50	MPP1426B3E-KPSB - 2000 line smart encoder + brake





# Servo Motors

<b>MPP1428***-K***</b>	
Motor Code	Description
S00	Prepped for MPP1428***-K***
S01	MPP1428P1E-KPSN - 2000 line encoder
S02	MPP1428Q1E-KPSN - 2000 line encoder
S03	MPP1428P41-KPSN - Resolver
S04	MPP1428Q41-KPSN - Resolver
S05	MPP1428P6D-KPSN - Multi-turn absolute encoder
S06	MPP1428Q6D-KPSN - Multi-turn absolute encoder
S07	MPP1428P1E-KPSB - 2000 line encoder + brake
S08	MPP1428Q1E-KPSB - 2000 line encoder + brake
S09	MPP1428P41-KPSB - Resolver + brake
S10	MPP1428Q41-KPSB - Resolver + brake
S11	MPP1428P6D-KPSB - Multi-turn absolute encoder + brake
S12	MPP1428Q6D-KPSB - Multi-turn absolute encoder + brake

<b>MPP190****-K***</b>	
Motor Code	Description
T00	Prepped for MPP190****-K*** motor
T01	MPP1904P1E-KPSN - 2000 line encoder
T02	MPP1906B1E-KPSN - 2000 line encoder
T03	MPP1906P1E-KPSN - 2000 line encoder
T04	MPP1908N1E-KPSN - 2000 line encoder
T05	MPP1908P1E-KPSN - 2000 line encoder
T06	MPP1904P41-KPSN - Resolver
T07	MPP1906B41-KPSN - Resolver
T08	MPP1906P41-KPSN - Resolver
T09	MPP1908N41-KPSN - Resolver
T10	MPP1908P41-KPSN - Resolver
T11	MPP1904P6D-KPSN - Multi-turn absolute encoder
T12	MPP1906B6D-KPSN - Multi-turn absolute encoder
T13	MPP1906P6D-KPSN - Multi-turn absolute encoder
T14	MPP1908N6D-KPSN - Multi-turn absolute encoder
T15	MPP1908P6D-KPSN - Multi-turn absolute encoder
T16	MPP1904P1E-KPSB - 2000 line encoder + brake
T17	MPP1906B1E-KPSB - 2000 line encoder + brake
T18	MPP1906P1E-KPSB - 2000 line encoder + brake
T19	MPP1908N1E-KPSB - 2000 line encoder + brake
T20	MPP1908P1E-KPSB - 2000 line encoder + brake
T21	MPP1904P41-KPSB - Resolver + brake
T22	MPP1906B41-KPSB - Resolver + brake
T23	MPP1906P41-KPSB - Resolver + brake
T24	MPP1908N41-KPSB - Resolver + brake
T25	MPP1908P41-KPSB - Resolver + brake
T26	MPP1904P6D-KPSB - Multi-turn absolute encoder + brake
T27	MPP1906B6D-KPSB - Multi-turn absolute encoder + brake
T28	MPP1906P6D-KPSB - Multi-turn absolute encoder + brake
T29	MPP1908N6D-KPSB - Multi-turn absolute encoder + brake
T30	MPP1908P6D-KPSB - Multi-turn absolute encoder + brake

**Motors & Gearboxes**

Visit [www.parkermotion.com](http://www.parkermotion.com) for complete motor specifications.

# Stepper Motors



## ES Series Stepper Motors - Smoothest Velocity Performance

The quality construction of the ES series stepper motor allows for exceptional velocity performance and reliable operation year after year. Also known as the S series and ZETA series of motors, the ES series is optimized for use with drives running on 120VAC input power, such as the ZETA, GT, and E-AC.



<b>S57, ES2x with Round Shaft</b>	
Motor Code	Description
<b>A00</b>	Prepped for S57, ES2x stepper motor w/ Round Shaft
<b>A01</b>	S57-51-MO - Double Shaft, 10ft cable
<b>A02</b>	S57-83-MO - Double Shaft, 10ft cable
<b>A03</b>	S57-102-MO - Double Shaft, 10ft cable
<b>A04</b>	S57-5122 - Double Shaft, Conduit Connector
<b>A05</b>	S57-8322 - Double Shaft, Conduit Connector
<b>A06</b>	S57-10222 - Double Shaft, Conduit Connector
<b>A07</b>	S57-5123 - Double Shaft, Brad Harrison Connector*
<b>A08</b>	S57-8323 - Double Shaft, Brad Harrison Connector*
<b>A09</b>	S57-10223 - Double Shaft, Brad Harrison Connector*

\* Brad Harrison connector option includes 4m mating cable

<b>S83, ES3x with Round Shaft</b>	
Motor Code	Description
<b>B00</b>	Prepped for S83, ES3x stepper motor w/ Round Shaft
<b>B01</b>	S83-62-MO - Double Shaft, 10ft cable
<b>B02</b>	S83-93-MO - Double Shaft, 10ft cable
<b>B03</b>	S83-102-MO - Double Shaft, 10ft cable
<b>B04</b>	S83-6232 - Double Shaft, Conduit Connector
<b>B05</b>	S83-9332 - Double Shaft, Conduit Connector
<b>B06</b>	S83-13532 - Double Shaft, Conduit Connector
<b>B07</b>	S83-6233 - Double Shaft, Brad Harrison Connector*
<b>B08</b>	S83-9333 - Double Shaft, Brad Harrison Connector*
<b>B09</b>	S83-13533 - Double Shaft, Brad Harrison Connector*

\* Brad Harrison connector option includes 4m mating cable

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# Stepper Motors

## LV & HV Stepper Motors Optimized Performance for High and Low Voltage Drives

The LV (Low Voltage) and HV (High Voltage) motors provide outstanding performance at a competitive price. The LV motors are rated for use with DC stepper drives up to 80VDC, such as the ViX and E-DC. The HV motors are optimized for use with drives running on 120VAC power, such as the Zeta, GT, and E-AC.



HV23, LV23 with Shaft Flat	
Motor Code	Description
D00	Prepped for HV23, LV23 stepper motor w/ Shaft Flat
D10	HV231-02-10 - Double Shaft, 10ft cable
D11	HV232-02-10 - Double Shaft, 10ft cable
D12	HV233-02-10 - Double Shaft, 10ft cable
D13	HV231-01-10 - Single Shaft, 10ft cable
D14	HV232-01-10 - Single Shaft, 10ft cable
D15	HV233-01-10 - Single Shaft, 10ft cable
D16	HV231-02-FL - Double Shaft, 18" flying leads
D17	HV232-02-FL - Double Shaft, 18" flying leads
D18	HV233-02-FL - Double Shaft, 18" flying leads
D19	HV231-01-FL - Single Shaft, 18" flying leads
D20	HV232-01-FL - Single Shaft, 18" flying leads
D21	HV233-01-FL - Single Shaft, 18" flying leads
D30	LV231-02-10 - Double Shaft, 10ft cable
D31	LV232-02-10 - Double Shaft, 10ft cable
D32	LV233-02-10 - Double Shaft, 10ft cable
D33	LV231-01-10 - Single Shaft, 10ft cable
D34	LV232-01-10 - Single Shaft, 10ft cable
D35	LV233-01-10 - Single Shaft, 10ft cable
D36	LV231-02-FL - Double Shaft, 18" flying leads
D37	LV232-02-FL - Double Shaft, 18" flying leads
D38	LV233-02-FL - Double Shaft, 18" flying leads
D39	LV231-01-FL - Single Shaft, 18" flying leads
D40	LV232-01-FL - Single Shaft, 18" flying leads
D41	LV233-01-FL - Single Shaft, 18" flying leads

HV34, LV34 with Shaft Flat	
Motor Code	Description
C00	Prepped for HV34, LV34 stepper motor w/ Shaft Flat
C01	HV341-02-10 - Double Shaft, 10ft cable
C02	HV342-02-10 - Double Shaft, 10ft cable
C03	HV343-02-10 - Double Shaft, 10ft cable
C04	HV341-01-10 - Single Shaft, 10ft cable
C05	HV342-01-10 - Single Shaft, 10ft cable
C06	HV343-01-10 - Single Shaft, 10ft cable
C07	HV341-02-FL - Double Shaft, 18" flying leads
C08	HV342-02-FL - Double Shaft, 18" flying leads
C09	HV343-02-FL - Double Shaft, 18" flying leads
C10	HV341-01-FL - Single Shaft, 18" flying leads
C11	HV342-01-FL - Single Shaft, 18" flying leads
C12	HV343-01-FL - Single Shaft, 18" flying leads
C21	LV341-02-10 - Double Shaft, 10ft cable
C22	LV342-02-10 - Double Shaft, 10ft cable
C23	LV343-02-10 - Double Shaft, 10ft cable
C24	LV341-01-10 - Single Shaft, 10ft cable
C25	LV342-01-10 - Single Shaft, 10ft cable
C26	LV343-01-10 - Single Shaft, 10ft cable
C27	LV341-02-FL - Double Shaft, 18" flying leads
C28	LV342-02-FL - Double Shaft, 18" flying leads
C29	LV343-02-FL - Double Shaft, 18" flying leads
C30	LV341-01-FL - Single Shaft, 18" flying leads
C31	LV342-01-FL - Single Shaft, 18" flying leads
C32	LV343-01-FL - Single Shaft, 18" flying leads

**Motors & Gearboxes**

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**7. Special Tooling:** A tooling charge may be imposed for any special tooling, including without limitation, dies, fixtures, molds and patterns, acquired to manufacture items sold pursuant to this contract. Such special tooling shall be and remain Seller's property notwithstanding payment of any charges by Buyer. In no event will Buyer acquire any interest in apparatus belonging to Seller which is utilized in the manufacture of the items sold hereunder, even if such apparatus has been specially converted or adapted for such manufacture and notwithstanding any charges paid by Buyer. Unless otherwise agreed, Seller shall have the right to alter, discard or otherwise dispose of any special tooling or other property in its sole discretion at any time.

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**9. Taxes:** Unless otherwise indicated on the face hereof, all prices and charges are exclusive of excise, sales, use, property, occupational or like taxes which may be imposed by any taxing authority upon the manufacture, sale or delivery of the items sold hereunder. If any such taxes must be paid by Seller or if Seller is liable for the collection of such tax, the amount thereof shall be in addition to the amounts for the items sold. Buyer agrees to pay all such taxes or to reimburse Seller therefore upon receipt of its invoice. If Buyer claims exemption from any sales, use or other tax imposed by any taxing authority, Buyer shall save Seller harmless from and against any such tax, together with any interest or penalties thereon which may be assessed if the items are held to be taxable.

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**12. Entire Agreement/Governing Law:** The terms and conditions set forth herein, together with any amendments, modifications and any different terms or conditions expressly accepted by Seller in writing, shall constitute the entire Agreement concerning the items sold, and there are no oral or other representations or agreements which pertain thereto. This Agreement shall be governed in all respects by the law of the State of Ohio. No actions arising out of the sale of the items sold hereunder of this Agreement may be brought by either party more than two (2) years after the cause of action accrues.

# Extensive Automation Solutions

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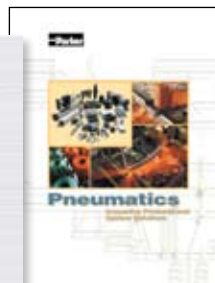
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