2 3/4” Frame Brushless Servo Motors

Motor Data (Sine)

Motor Parameters		Units	721ASF****	721BSG****	721CSG****	722ASF****	722BSG****	722CSG****
Horsepower	Hp Rated	Hp	0.41	0.41	0.24	0.74	0.74	0.47
Kilowatts	KW Rated	KW	0.31	0.31	0.18	0.55	0.55	0.35
Max. Operating Speed	N Max	RPM	6800	6800	4000	7000	7000	4000
Speed @ Rated Torque	N Rated	RPM	5500	5500	3000	5000	5000	3000
***Continuous Rated Torque @ Rated Speed**		IN-LBS[Nm]	4.7[0.54]	4.7[0.54]	5.1[0.58]	9.4[1.06]	9.4[1.06]	10.0[1.13]
***Continuous Stall Torque**		IN-LBS[Nm]	5.8[0.66]	5.8[0.66]	5.8[0.66]	11.3[1.28]	11.3[1.28]	11.3[1.28]
Continuous Line Current		AMPS(RMS/ϕ)	2.7	1.4	0.7	5.0	2.7	1.4
Peak Torque	Tpk	IN-LBS[Nm]	17.0[2.0]	17.0[2.0]	17.0[2.0]	34.0[3.8]	34.0[3.8]	34.0[3.8]
Peak Current		AMPS(RMS/ϕ)	8.1	4.2	2.1	15.0	8.2	4. 2
Max. Theoretical Accel.		RAD/SEC^2	110,000	110,000	110,000	130,000	130,000	130,000
Torque Sensitivity	Kt	IN-LBS/AMP(RMS/ϕ)[Nm/AMP(RMS/ϕ)]	2.14[0.241]	4.12[0.465]	8.10[0.916]	2.26[0.255]	4.12[0.465]	8.12[0.917]
Back EMF (Line to Line)	±10%	Vrms/Krpm	13.4	25.9	51.0	14.2	25.9	51.1
D.C.Resistance (P-P)	±10%	OHMS	3.1	11	45	1.1	3.7	15
Inductance (P-P)	±10%	MILLIHENRIES	4.9	17	70	2.3	7.3	29
Rotor Inertia	Jm	IN-LBS-SEC^2[Kg-M^2]	.00015[.000017]	.00015[.000017]	.00015[.000017]	.00027[.000031]	.00027[.000031]	.00027[.000031]
Static Friction	Tf	IN-LBS[Nm]	0.6[0.07]	0.6[0.07]	0.6[0.07]	0.8[0.09]	0.8[0.09]	0.8[0.09]
Motor Weight		LBS[Kg]	3.5[1.59]	3.5[1.59]	3.5[1.59]	4.4[2.00]	4.4[2.00]	4.4[2.00]
Line Voltage		VAC	110	230	230	110	230	230

Custom Designed Servo Motors For Your Specific Application. Call 1-800-358-9070 Today.

Motor Data (Trap)

Motor Parameters		Units	721ATF****	721BTG****	721CTG****	722ATF****	722BTG****	722CTG****
Horsepower	Hp Rated	Hp	0.41	0.41	0.24	0.74	0.74	0.47
Kilowatts	KW Rated	KW	0.31	0.31	0.18	0.55	0.55	0.35
Max. Operating Speed	N Max	RPM	6800	6800	4000	7000	7000	4000
Speed @ Rated Torque	N Rated	RPM	5500	5500	3000	5000	5000	3000
***Continuous Rated Torque @ Rated Speed**		IN-LBS[Nm]	4.7[0.54]	4.7[0.54]	5.1[0.58]	9.4[1.06]	9.4[1.06]	10.0[1.13]
***Continuous Stall Torque**		IN-LBS[Nm]	5.8[0.66]	5.8[0.66]	5.8[0.66]	11.3[1.28]	11.3[1.28]	11.3[1.28]
Continuous Line Current		AMPS	3.8	2.0	1.0	7.1	3.9	2.0
Peak Torque	Tpk	IN-LBS[Nm]	17.0[2.0]	17.0[2.0]	17.0[2.0]	34.0[3.8]	34.0[3.8]	34.0[3.8]
Peak Current		AMPS	12.0	6.0	3.0	21.0	12.0	5.9
Max. Theoretical Accel.		RAD/SEC^2	110,000	110,000	110,000	130,000	130,000	130,000
Torque Sensitivity	Kt	IN-LBS/AMP[Nm/AMP]	1.51[0.171]	2.91[0.329]	5.73[0.647]	1.60[0.180]	2.91[0.329]	5.74[0.649]
Back EMF (Line to Line)	±10%	Vrms/Krpm	13.4	25.9	51.0	14.2	25.9	51.1
D.C. Resistance (P-P)	±10%	OHMS	3.1	11	45	1.1	3.7	15
Inductance (P-P)	±10%	MILLIHENRIES	4.9	17	70	2.3	7.3	29
Rotor Inertia	Jm	IN-LBS-SEC^2[Kg-M^2]	.00015[.000017]	.00015[.000017]	.00015[.000017]	.00027[.000031]	.00027[.000031]	.00027[.000031]
Static Friction	Tf	IN-LBS[Nm]	0.6[0.007]	0.6[0.007]	0.6[0.007]	0.8[0.09]	0.8[0.09]	0.8[0.09]
Motor Weight		LBS[Kg]	3.5[1.59]	3.5[1.59]	3.5[1.59]	4.4[2.00]	4.4[2.00]	4.4[2.00]
Line Voltage		VAC	110	230	230	110	230	230

Motor Parameters		Units	723ATF****	723BTG****	723CTG****	724ATF****	724BTG****	724CTG****
Horsepower	Hp Rated	Hp	0.91	0.91	0.63	1.3	1.3	0.79
Kilowatts	KW Rated	KW	0.68	0.68	0.47	0.93	0.93	0.58
Max. Operating Speed	N Max	RPM	6300	6300	4000	6000	6000	4000
Speed @ Rated Torque	N Rated	RPM	4500	4500	3000	5000	5000	3000
***Continuous Rated Torque @ Rated Speed**		IN-LBS[Nm]	12.8[1.44]	12.8[1.44]	13.3[1.50]	15.8[1.79]	15.8[1.79]	16.6[1.88]
***Continuous Stall Torque**		IN-LBS[Nm]	15.0[1.69]	15.0[1.69]	15.0[1.69]	18.8[2.12]	18.8[2.12]	18.8[2.12]
Continuous Line Current		AMPS	9.8	5.1	2.6	13.0	6.2	3.2
Peak Torque	Tpk	IN-LBS[Nm]	45.0[5.1]	45.0[5.1]	45.0[5.1]	56.0[6.4]	56.0[6.4]	56.0[6.4]
Peak Current		AMPS	29.0	15.0	7.8	38.0	19.0	9.7
Max. Theoretical Accel.		RAD/SEC^2	120,000	120,000	120,000	110,000	110,000	110,000
Torque Sensitivity	Kt	IN-LBS/AMP[Nm/AMP]	1.53[0.173]	2.96[0.334]	5.78[0.652]	1.49[0.168]	3.01[0.340]	5.82[0.658]
Back EMF (Line to Line)	±10%	Vrms/Krpm	13.7	26.3	51.4	13.2	26.8	51.8
D.C. Resistance (P-P)	±10%	OHMS	0.58	2.2	7.8	0.39	1.5	5.5
Inductance (P-P)	±10%	MILLIHENRIES	1.3	4.9	18	0.9	3.6	13
Rotor Inertia	Jm	IN-LBS-SEC^2[Kg-M^2]	.00038[.000043]	.00038[.000043]	.00038[.000043]	.00049[.000055]	.00049[.000055]	.00049[.000055]
Static Friction	Tf	IN-LBS[Nm]	1.0[0.11]	1.0[0.11]	1.0[0.11]	1.2[0.14]	1.2[0.14]	1.2[0.14]
Motor Weight		LBS[Kg]	5.3[2.40]	5.3[2.40]	5.3[2.40]	6.2[2.81]	6.2[2.81]	6.2[2.81]
Line Voltage		VAC	110	230	230	110	230	230

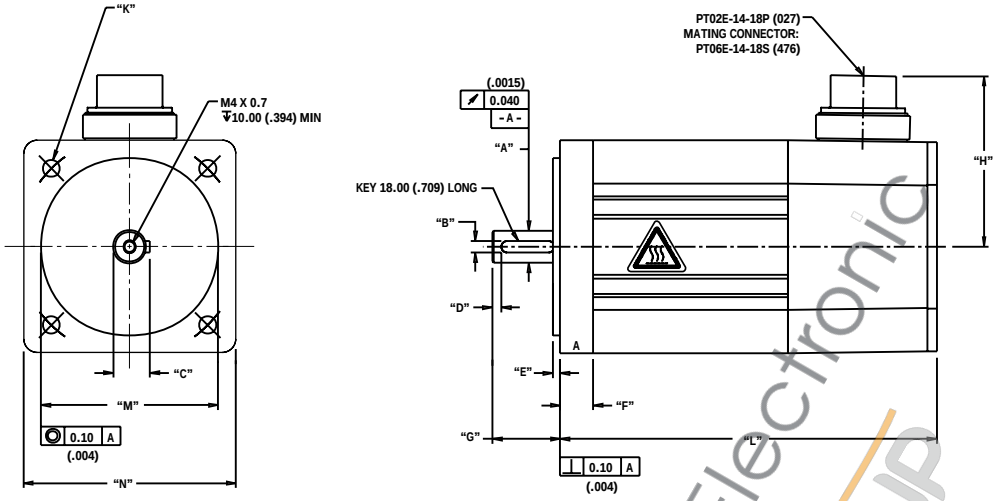
Brake Info:

Min. Holding Torque: 24 IN-LBS
Input Voltage: 24VDC
Current: .6 AMPS
Inertia: .00007 IN-LB-SEC^2
Weight Adder: 1.0 LB

*25° C Ambient with a maximum case temperature of 85° C on motor. Motor mounted on a 12" x 12" x 1/2" aluminum heatsink. Thermostat in stator windings will open if winding temperature exceeds 155° C for an approximate +10% headroom in the continuous torque rating before thermostat opens.

Mechanical Notes:

1. Axial Load: 20 LBS. Max.
2. Radial Load: 35 LBS. Max. @ 1" from face
3. Motor sealed to IP65



2 3/4" (72) Metric Connectorized Termination-Option 1 Motors

Model	"A"	"B"	"C"	"D"	"E"	"F"	"G"
MPM721*7*1***	ø 11.012(.4335) 11.001(.4331)	3.988(.1570) 3.958(.1558)	12.42(.489)	3.00(.118)	2.5(.10)	11.2(.44)	23.0(.91) 22.5(.89)
MPM722*7*1***	ø 11.012(.4335) 11.001(.4331)	3.988(.1570) 3.958(.1558)	12.42(.489)	3.00(.118)	2.5(.10)	11.2(.44)	23.0(.91) 22.5(.89)
MPM723*7*1***	ø 11.012(.4335) 11.001(.4331)	3.988(.1570) 3.958(.1558)	12.42(.489)	3.00(.118)	2.5(.10)	11.2(.44)	23.0(.91) 22.5(.89)
MPM724*7*1***	ø 11.012(.4335) 11.001(.4331)	3.988(.1570) 3.958(.1558)	12.42(.489)	3.00(.118)	2.5(.10)	11.2(.44)	23.0(.91) 22.5(.89)

Model	"H"	"K"	"L"	"L" w/ Brake	"M"	"N"
MPM721*7*1***	58(2.3)Max	Ø5.79(.228)THRU(4)EQ SPD AS SHOWN ON Ø75.01(2.953)B.C.	128.1(5.05)Max	166.3(6.55)Max	ø 60.012(2.3627) 59.993(2.3619)	□ 72.0(2.84)
MPM722*7*1***	58(2.3)Max	Ø5.79(.228)THRU(4)EQ SPD AS SHOWN ON Ø75.01(2.953)B.C.	147.3(5.80)Max	185.4(7.30)Max	ø 60.012(2.3627) 59.993(2.3619)	□ 72.0(2.84)
MPM723*7*1***	58(2.3)Max	Ø5.79(.228)THRU(4)EQ SPD AS SHOWN ON Ø75.01(2.953)B.C.	166.4(6.55)Max	204.5(8.05)Max	ø 60.012(2.3627) 59.993(2.3619)	□ 72.0(2.84)
MPM724*7*1***	58(2.3)Max	Ø5.79(.228)THRU(4)EQ SPD AS SHOWN ON Ø75.01(2.953)B.C.	185.4(7.30)Max	223.5(8.80)Max	ø 60.012(2.3627) 59.993(2.3619)	□ 72.0(2.84)

Metric = 7 Units: mm(in)
Option 6 Mount- Not Available

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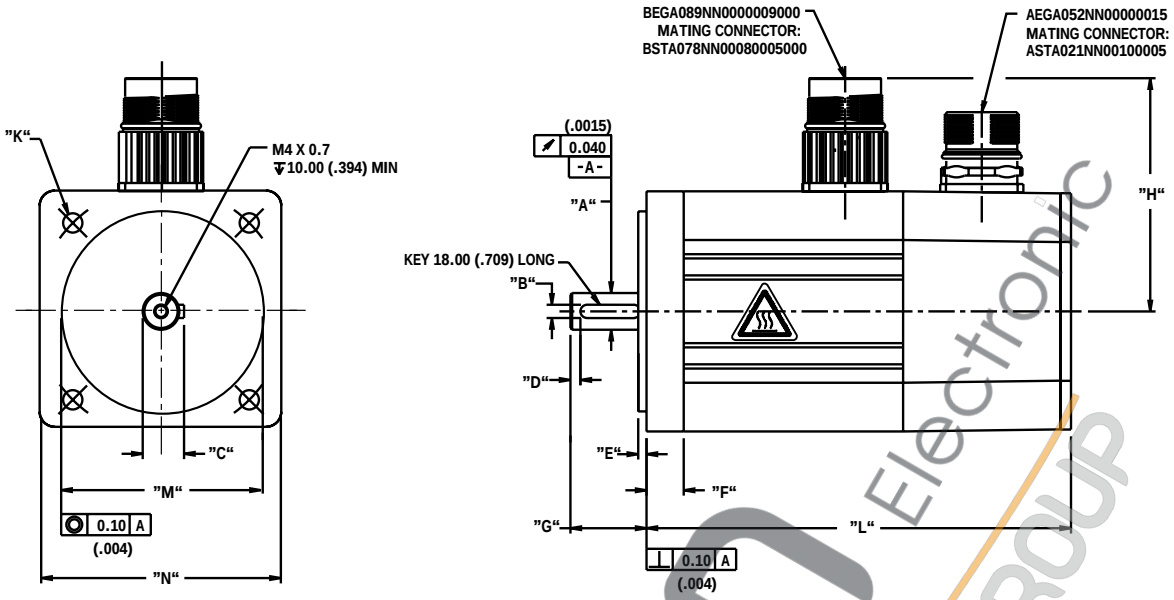

2 3/4" (72) Metric Intercon Termination-Option 2 Motors

Model	"A"	"B"	"C"	"D"	"E"	"F"	"G"
MPM721*7*2***	ø 11.012(.4335) 11.001(.4331)	3.988(.1570) 3.958(.1558)	12.42(.489)	3.00(.118)	2.5(.10)	11.2(.44)	23.0(.91) 22.5(.89)
MPM722*7*2***	ø 11.012(.4335) 11.001(.4331)	3.988(.1570) 3.958(.1558)	12.42(.489)	3.00(.118)	2.5(.10)	11.2(.44)	23.0(.91) 22.5(.89)
MPM723*7*2***	ø 11.012(.4335) 11.001(.4331)	3.988(.1570) 3.958(.1558)	12.42(.489)	3.00(.118)	2.5(.10)	11.2(.44)	23.0(.91) 22.5(.89)
MPM724*7*2***	ø 11.012(.4335) 11.001(.4331)	3.988(.1570) 3.958(.1558)	12.42(.489)	3.00(.118)	2.5(.10)	11.2(.44)	23.0(.91) 22.5(.89)

Model	"H"	"K"	"L"	"L" w/ Brake	"M"	"N"
MPM721*7*2***	70(2.8)Max	Ø5.79(.228)THRU (4)EQ SPD AS SHOWN ON Ø75.01(2.953)B.C.	128.1(5.05)Max	166.4(6.55)	ø 60.012(2.3627) 59.993(2.3619)	☐ 72.0(2.84)
MPM722*7*2***	70(2.8)Max	Ø5.79(.228)THRU (4)EQ SPD AS SHOWN ON Ø75.01(2.953)B.C.	147.3(5.80)Max	185.4(7.30)	ø 60.012(2.3627) 59.993(2.3619)	☐ 72.0(2.84)
MPM723*7*2***	70(2.8)Max	Ø5.79(.228)THRU (4)EQ SPD AS SHOWN ON Ø75.01(2.953)B.C.	166.4(6.55)Max	204.5(8.05)	ø 60.012(2.3627) 59.993(2.3619)	☐ 72.0(2.84)
MPM724*7*2***	70(2.8)Max	Ø5.79(.228)THRU (4)EQ SPD AS SHOWN ON Ø75.01(2.953)B.C.	185.4(7.30)Max	223.5(8.80)	ø 60.012(2.3627) 59.993(2.3619)	☐ 72.0(2.84)

Metric = 7 Units: mm (in)
Option 6 Mount-Not Available

2 3/4" Motor with Resolver Feedback

Option 1

Motor Therm Resolver Connector 270-00024(PT02E-14-18P(027))

Pin	Function
A	ϕR
B	ϕS
C	ϕT
D	PE GND
U	THERM
N	THERM
H	SIN
G	COS GND
S	COS
F	SIN GND
R	REF GND
E	REF
J	RES SHLD
*K	BRK (+)
*L	BRK (–)
*M	BRK SHLD
P	-
T	-

* USE ONLY WITH BRAKE OPTION

Option 3-Not Available

Option 2

Motor Therm Connector 270-000256 (BEGA089NN0000009000)

Pin	Function
1	ϕR (U1)
2	PE GND
3	ϕT (W1)
4	ϕS (V1)
*A	BRK (+)
*B	BRK (–)
C	THERM
D	THERM

* USE ONLY WITH BRAKE OPTION

Resolver Connector 270-00257 (AEGA052NN00000013000)

Pin	Function
1	-
2	REF (R1)
3	REF GND (R2)
4	COS GND (S1)
5	COS (S3)
6	SIN (S2)
7	SIN GND (S4)
8	-
9	-
10	-
11	-
12	-

2 3/4" Motor with Encoder Feedback

Option 1

Motor Encoder Therm Connector 270-00219 (PT02E-16-23P(027))

Pin	Function
A	ϕR
B	ϕS
C	ϕT
D	PE GND
T	GROUND
E	+5VDC
F	CH A
U	CH A\
G	CH B
V	CH B\
H	CH Z
W	CH Z\
J	CH U
K	CH U\
X	CH V
L	CH V\
Y	CH W
M	CH W\
N	GND/CABLE
S	THERM
R	THERM
*P	BRK (+)
*Z	BRK (–)

* USE ONLY WITH BRAKE OPTION

Option 3-Not Available

Option 2

Motor Therm Connector 270-000256 (BEGA089NN0000009000)

Pin	Function
1	ϕR (U1)
2	PE GND
3	ϕS (W1)
4	ϕT (V1)
*A	BRK (+)
*B	BRK (–)
C	THERM
D	THERM

* USE ONLY WITH BRAKE OPTION

Encoder Connector 270-00257 (AEGA052NN000000013000)

Pin	Function
1	GND (0V)
2	CH A\(A)
3	CH A(A\)
4	CH B(B)
5	CH B\(B\)
6	CH Z(Z)
7	CH Z\(Z\)
8	+5V(+5V)
9	-
10	CH U(RLGU)
11	CH V(RLGV)
12	CH W(RLGW)