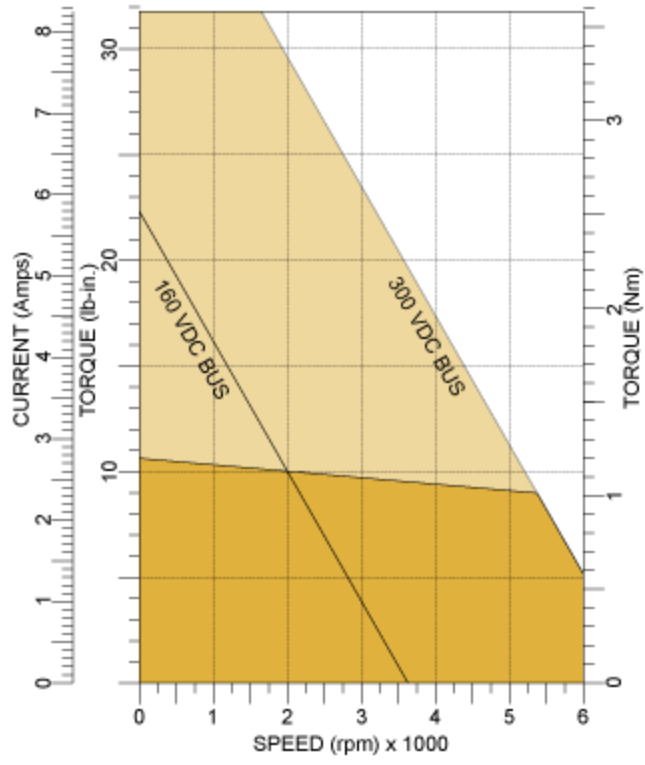


BSM80C-150AA AC Brushless Servo Motor

Specification Number:	S2P166W052
General Parameters	
Cont. Stall Torque Lb-In (N-m):	10.60 (1.20)
Cont. Stall Current:	2.75
Peak Torque Lb-In (N-m):	31.9 (3.6)
Peak Current:	7.00
Electrical Parameters	
Torque Constant Lb-In/Amp (N-m/Amp):	4.50 (0.51)
Voltage Constant $V_{PK}/KRPM$ ($V_{RMS}/KRPM$):	43.7 (30.9)
Resistance:	8.6
Inductance (mHy):	14
Mechanical Parameters	
Inertia Lb-In-s ² (Kg-cm ²):	0.0016 (1.81)
Speed at 300 Bus Volts (RPM):	6000
Max Speed (RPM):	7000
No. of Motor Poles:	4
Feedback Device	
<i>Resolver</i>	
Speed:	1 SPEED

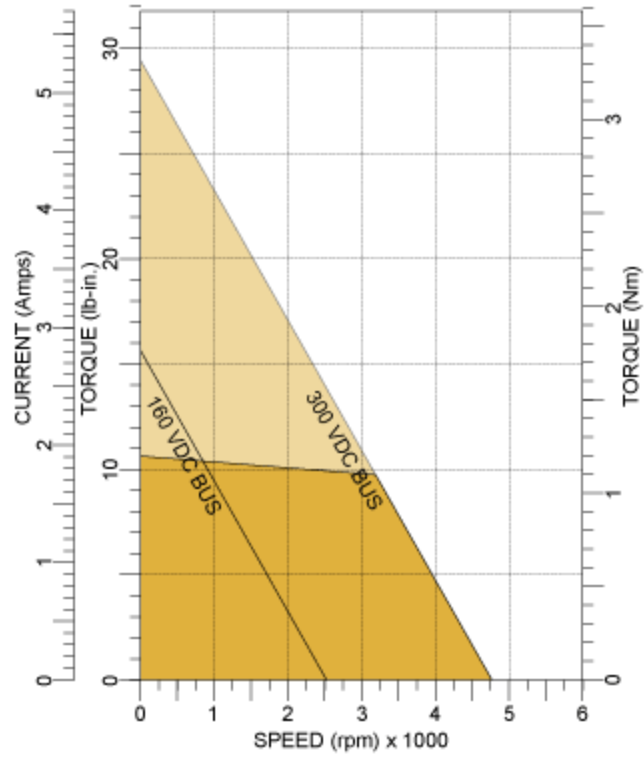
BSM80C-150



BSM80C-175AA AC Brushless Servo Motor

Specification Number:	S2P166W050
General Parameters	
Cont. Stall Torque Lb-In (N-m):	10.60 (1.20)
Cont. Stall Current:	1.93
Peak Torque Lb-In (N-m):	31.9 (3.6)
Peak Current:	4.90
Electrical Parameters	
Torque Constant Lb-In/Amp (N-m/Amp):	6.50 (0.73)
Voltage Constant $V_{PK}/KRPM$ ($V_{RMS}/KRPM$):	62.5 (44.2)
Resistance:	17.6
Inductance (mHy):	29.1
Mechanical Parameters	
Inertia Lb-In-s ² (Kg-cm ²):	0.0016 (1.81)
Speed at 300 Bus Volts (RPM):	4000
Max Speed (RPM):	7000
No. of Motor Poles:	4
Feedback Device	
<i>Resolver</i>	
Speed:	1 SPEED

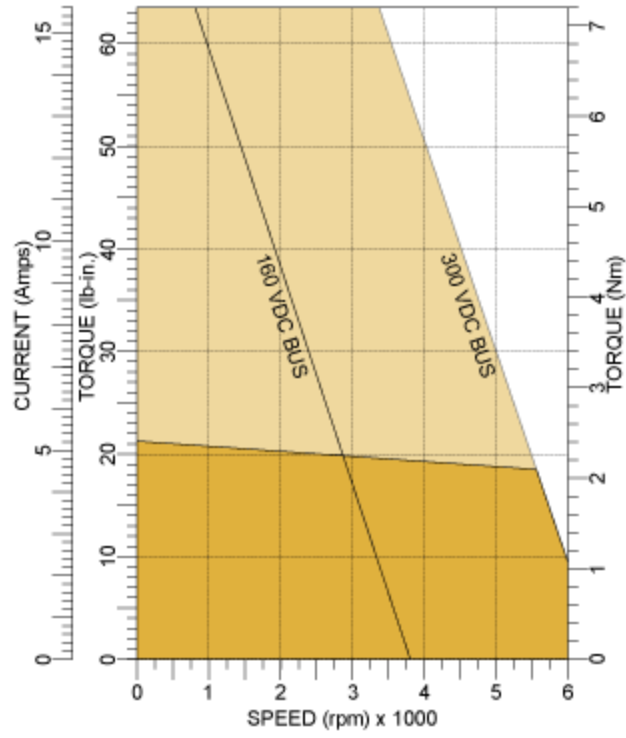
BSM80C-175



BSM80C-250AA AC Brushless Servo Motor

Specification Number:	S2P166W054
General Parameters	
Cont. Stall Torque Lb-In (N-m):	21.20 (2.40)
Cont. Stall Current:	5.21
Peak Torque Lb-In (N-m):	63.7 (7.2)
Peak Current:	13.30
Electrical Parameters	
Torque Constant Lb-In/Amp (N-m/Amp):	4.80 (0.54)
Voltage Constant $V_{pk}/KRPM$ ($V_{RMS}/KRPM$):	46.2 (32.7)
Resistance:	2.8
Inductance (mHy):	7.8
Mechanical Parameters	
Inertia Lb-In-s ² (Kg-cm ²):	0.0033 (3.73)
Speed at 300 Bus Volts (RPM):	6000
Max Speed (RPM):	7000
No. of Motor Poles:	4
Feedback Device	
<i>Resolver</i>	
Speed:	1 SPEED

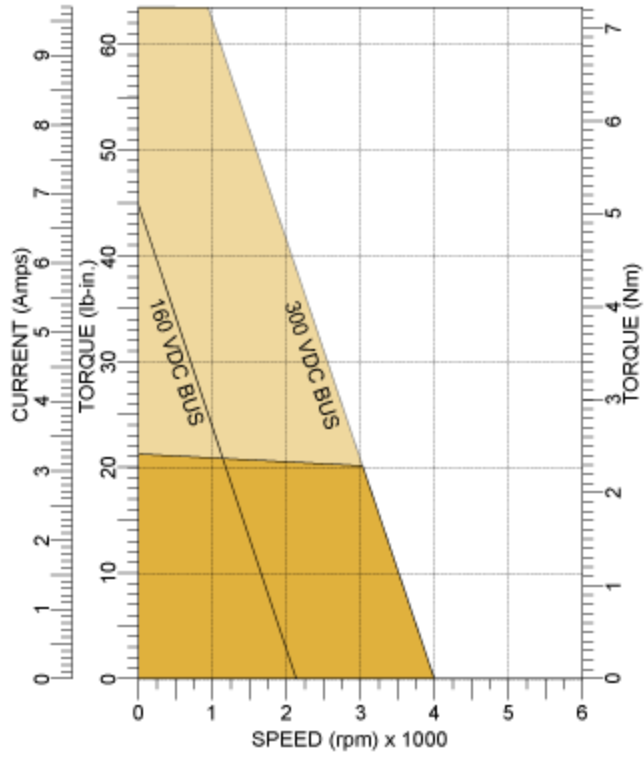
BSM80C-250



BSM80C-275AA AC Brushless Servo Motor

Specification Number:	S2P166W048G1
General Parameters	
Cont. Stall Torque Lb-In (N-m):	21.20 (2.40)
Cont. Stall Current:	3.24
Peak Torque Lb-In (N-m):	63.7 (7.2)
Peak Current:	8.30
Electrical Parameters	
Torque Constant Lb-In/Amp (N-m/Amp):	7.70 (0.87)
Voltage Constant $V_{pk}/KRPM$ ($V_{RMS}/KRPM$):	74.5 (52.7)
Resistance:	7.2
Inductance (mHy):	18.9
Mechanical Parameters	
Inertia Lb-In-s ² (Kg-cm ²):	0.0033 (3.73)
Speed at 300 Bus Volts (RPM):	4000
Max Speed (RPM):	7000
No. of Motor Poles:	4
Feedback Device	
<i>Resolver</i>	
Speed:	1 SPEED

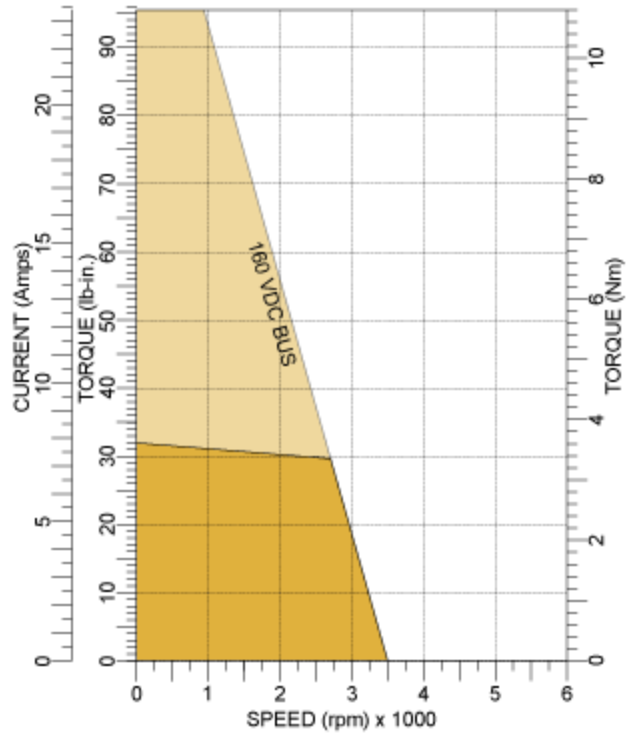
BSM80C-275



BSM80C-350AA AC Brushless Servo Motor

Specification Number:	S2P166W057
General Parameters	
Cont. Stall Torque Lb-In (N-m):	31.90 (3.60)
Cont. Stall Current:	7.81
Peak Torque Lb-In (N-m):	95.6 (10.8)
Peak Current:	19.30
Electrical Parameters	
Torque Constant Lb-In/Amp (N-m/Amp):	3.20 (0.36)
Voltage Constant $V_{pk}/KRPM$ ($V_{RMS}/KRPM$):	31.2 (22.1)
Resistance:	0.73
Inductance (mHy):	2.33
Mechanical Parameters	
Inertia Lb-In-s ² (Kg-cm ²):	0.0049 (5.53)
Speed at 200 Bus Volts (RPM):	4000
Max Speed (RPM):	7000
No. of Motor Poles:	4
Feedback Device	
<i>Resolver</i>	
Speed:	1 SPEED

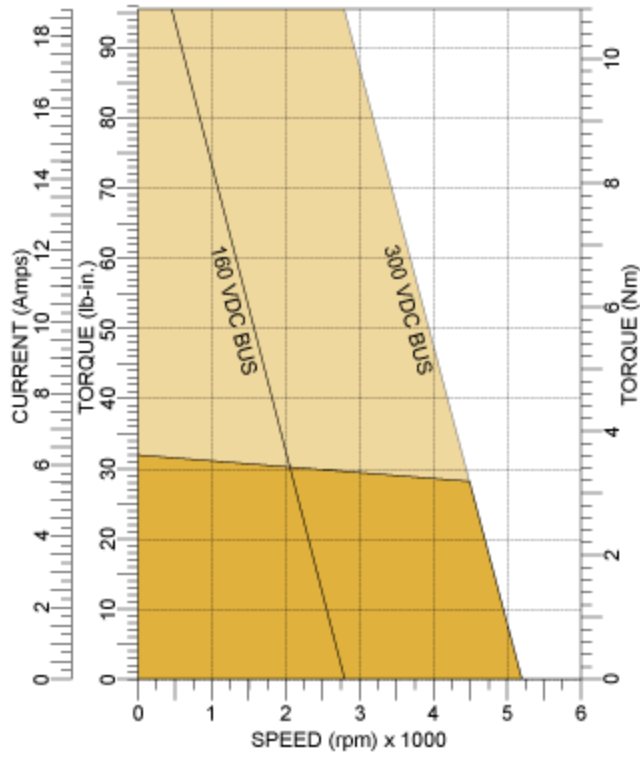
BSM80C-350



BSM80C-375AA AC Brushless Servo Motor

Specification Number:	S2P166W058
General Parameters	
Cont. Stall Torque Lb-In (N-m):	31.90 (3.60)
Cont. Stall Current:	6.29
Peak Torque Lb-In (N-m):	95.6 (10.8)
Peak Current:	16.00
Electrical Parameters	
Torque Constant Lb-In/Amp (N-m/Amp):	6.00 (0.67)
Voltage Constant $V_{pk}/KRPM$ ($V_{RMS}/KRPM$):	57.5 (40.7)
Resistance:	2.2
Inductance (mHy):	8.2
Mechanical Parameters	
Inertia Lb-In-s ² (Kg-cm ²):	0.0049 (5.53)
Speed at 300 Bus Volts (RPM):	4000
Max Speed (RPM):	7000
No. of Motor Poles:	4
Feedback Device	
<i>Resolver</i>	
Speed:	1 SPEED

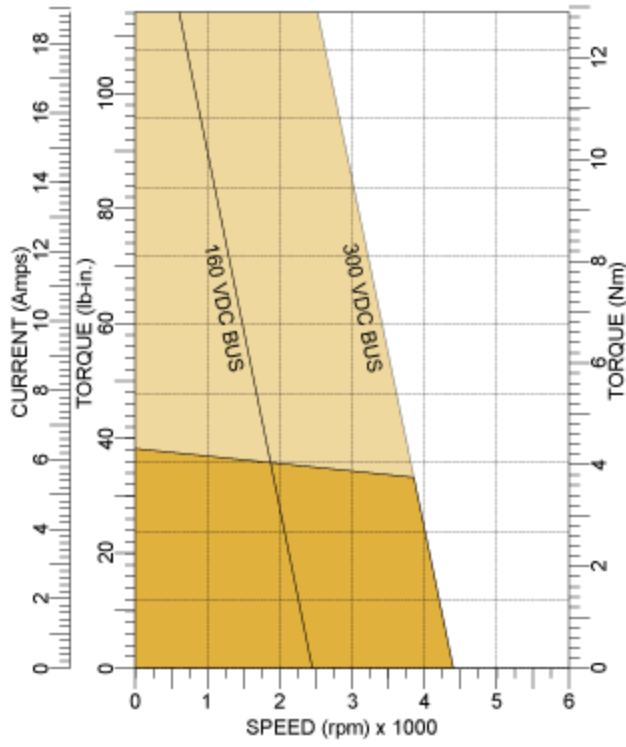
BSM80C-375



BSM80C-475AA AC Brushless Servo Motor

Specification Number:	S2P166W049
General Parameters	
Cont. Stall Torque Lb-In (N-m):	38.10 (4.30)
Cont. Stall Current:	6.3
Peak Torque Lb-In (N-m):	114.2 (12.9)
Peak Current:	17.00
Electrical Parameters	
Torque Constant Lb-In/Amp (N-m/Amp):	6.70 (0.76)
Voltage Constant $V_{pk}/KRPM$ ($V_{RMS}/KRPM$):	68.3 (48.3)
Resistance:	1.9
Inductance (mHy):	6.2
Mechanical Parameters	
Inertia Lb-In-s ² (Kg-cm ²):	0.0065 (7.34)
Speed at 300 Bus Volts (RPM):	4000
Max Speed (RPM):	7000
No. of Motor Poles:	4
Feedback Device	
<i>Resolver</i>	
Speed:	1 SPEED

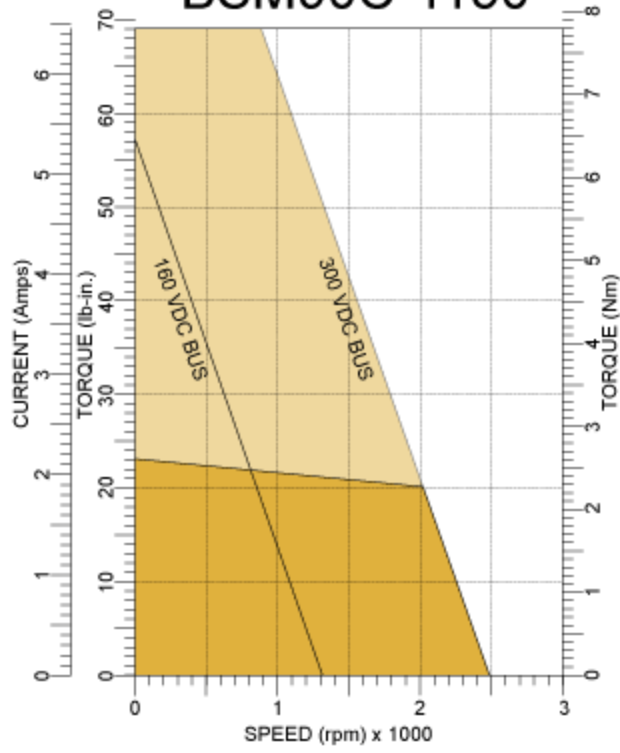
BSM80C-475



BSM90C-1150AA AC Brushless Servo Motor

Specification Number:	S3P155W076
General Parameters	
Cont. Stall Torque Lb-In (N-m):	23.00 (2.60)
Cont. Stall Current:	2.15
Peak Torque Lb-In (N-m):	69 (7.8)
Peak Current:	5.50
Electrical Parameters	
Torque Constant Lb-In/Amp (N-m/Amp):	12.60 (1.42)
Voltage Constant $V_{pk}/KRPM$ ($V_{RMS}/KRPM$):	121.7 (86.1)
Resistance:	11.5
Inductance (mHy):	27.6
Mechanical Parameters	
Inertia Lb-In-s ² (Kg-cm ²):	0.0039 (4.40)
Speed at 300 Bus Volts (RPM):	2000
Max Speed (RPM):	7000
No. of Motor Poles:	4
Feedback Device	
<i>Resolver</i>	
Speed:	1 SPEED

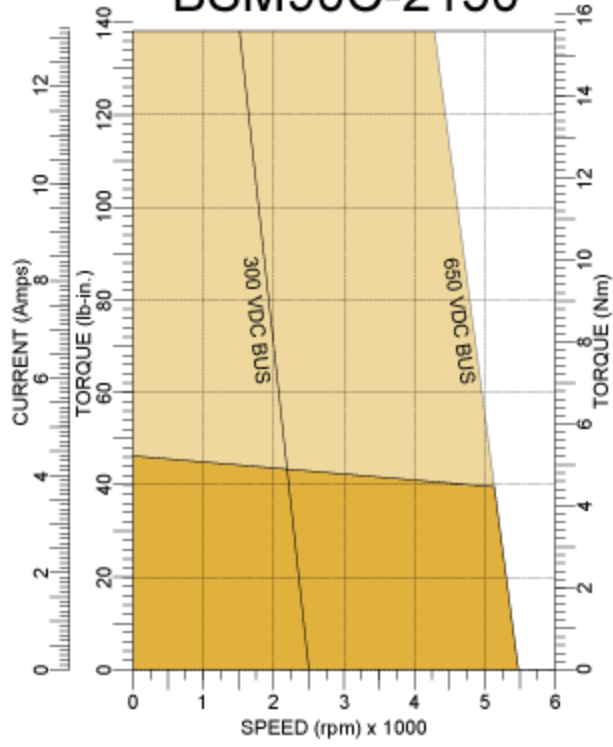
BSM90C-1150



BSM90C-2150AA AC Brushless Servo Motor

Specification Number:	S3P155W079G1
General Parameters	
Cont. Stall Torque Lb-In (N-m):	46.00 (5.20)
Cont. Stall Current:	4.41
Peak Torque Lb-In (N-m):	138.1 (15.6)
Peak Current:	11.30
Electrical Parameters	
Torque Constant Lb-In/Amp (N-m/Amp):	12.20 (1.38)
Voltage Constant $V_{pk}/KRPM$ ($V_{RMS}/KRPM$):	118.8 (84)
Resistance:	5
Inductance (mHy):	14.8
Mechanical Parameters	
Inertia Lb-In-s ² (Kg-cm ²):	0.0077 (8.80)
Speed at 300 Bus Volts (RPM):	2000
Max Speed (RPM):	7000
No. of Motor Poles:	8
Feedback Device	
<i>Resolver</i>	
Speed:	1 SPEED

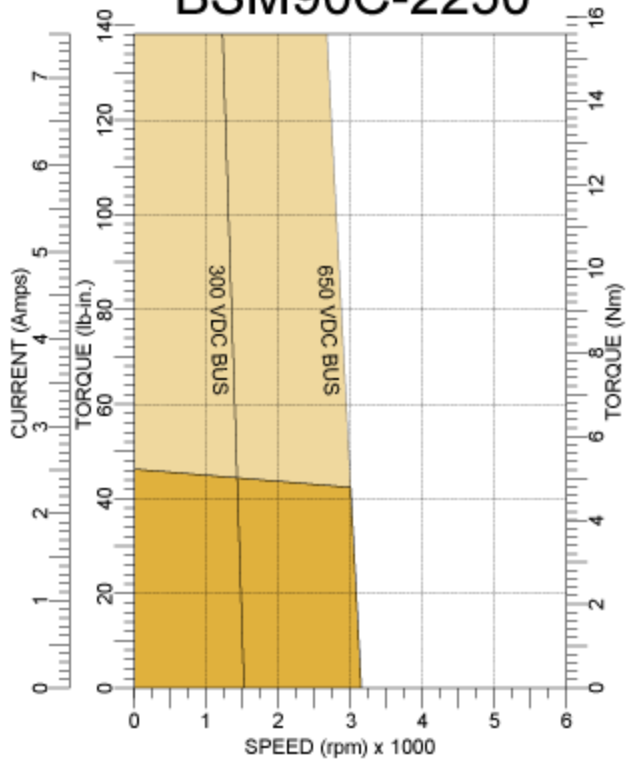
BSM90C-2150



BSM90C-2250AA AC Brushless Servo Motor

Specification Number:	S3P155W080
General Parameters	
Cont. Stall Torque Lb-In (N-m):	46.00 (5.20)
Cont. Stall Current:	2.51
Peak Torque Lb-In (N-m):	138.1 (15.6)
Peak Current:	6.40
Electrical Parameters	
Torque Constant Lb-In/Amp (N-m/Amp):	21.60 (2.44)
Voltage Constant $V_{pk}/KRPM$ ($V_{RMS}/KRPM$):	208.6 (147.5)
Resistance:	16
Inductance (mHy):	52.7
Mechanical Parameters	
Inertia Lb-In-s ² (Kg-cm ²):	0.0077 (8.80)
Speed at 300 Bus Volts (RPM):	1200
Max Speed (RPM):	7000
No. of Motor Poles:	8
Feedback Device	
<i>Resolver</i>	
Speed:	1 SPEED

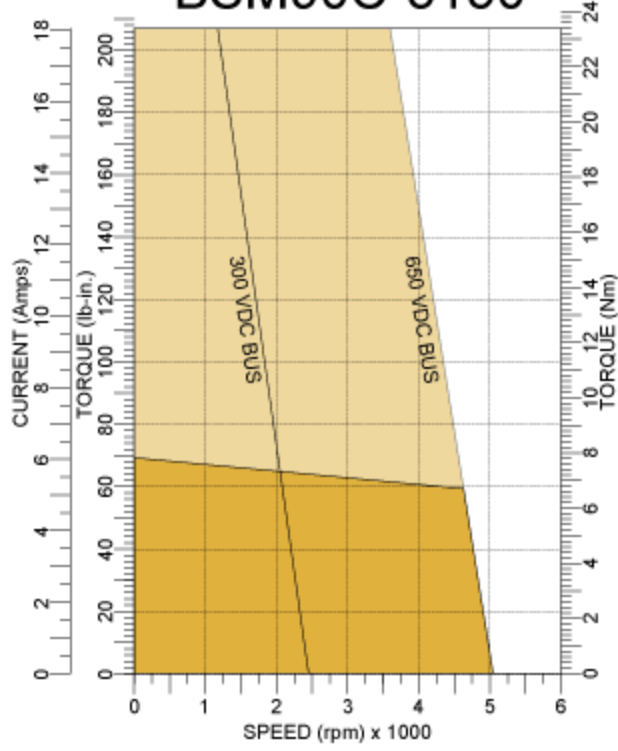
BSM90C-2250



BSM90C-3150AA AC Brushless Servo Motor

Specification Number:	S3P155W082G1
General Parameters	
Cont. Stall Torque Lb-In (N-m):	69.00 (7.80)
Cont. Stall Current:	6.04
Peak Torque Lb-In (N-m):	207.1 (23.4)
Peak Current:	15.40
Electrical Parameters	
Torque Constant Lb-In/Amp (N-m/Amp):	13.40 (1.52)
Voltage Constant $V_{pk}/KRPM$ ($V_{RMS}/KRPM$):	129.8 (91.8)
Resistance:	2.7
Inductance (mHy):	11.4
Mechanical Parameters	
Inertia Lb-In-s ² (Kg-cm ²):	0.0116 (13.21)
Speed at 300 Bus Volts (RPM):	2000
Max Speed (RPM):	7000
No. of Motor Poles:	8
Feedback Device	
<i>Resolver</i>	
Speed:	1 SPEED

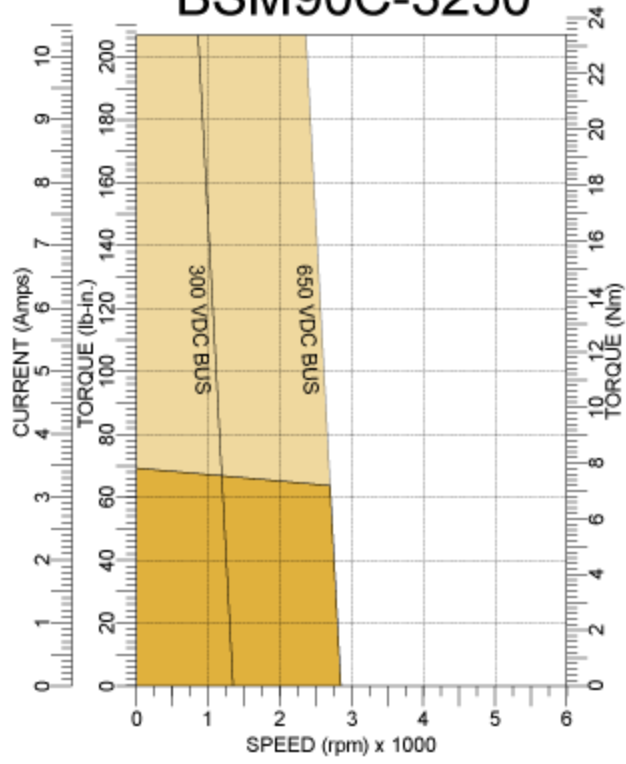
BSM90C-3150



BSM90C-3250AA AC Brushless Servo Motor

Specification Number:	S3P155W083
General Parameters	
Cont. Stall Torque Lb-In (N-m):	69.00 (7.80)
Cont. Stall Current:	3.45
Peak Torque Lb-In (N-m):	207.1 (23.4)
Peak Current:	8.80
Electrical Parameters	
Torque Constant Lb-In/Amp (N-m/Amp):	23.50 (2.65)
Voltage Constant $V_{pk}/KRPM$ ($V_{RMS}/KRPM$):	227.1 (160.6)
Resistance:	9.77
Inductance (mHy):	32.4
Mechanical Parameters	
Inertia Lb-In-s ² (Kg-cm ²):	0.0116 (13.21)
Speed at 300 Bus Volts (RPM):	1200
Max Speed (RPM):	7000
No. of Motor Poles:	8
Feedback Device	
<i>Resolver</i>	
Speed:	1 SPEED

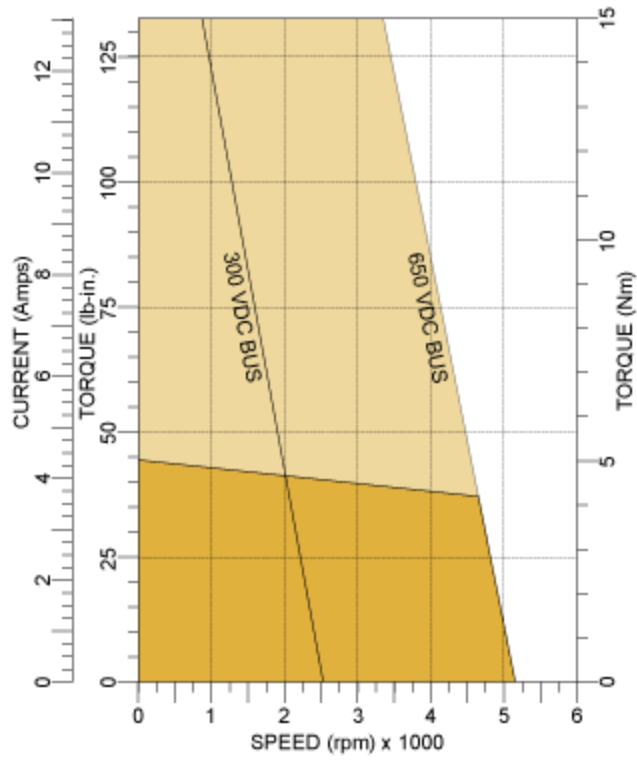
BSM90C-3250



BSM100C-1150AA AC Brushless Servo Motor

Specification Number:	S4P124W124
General Parameters	
Cont. Stall Torque Lb-In (N-m):	44.30 (5.00)
Cont. Stall Current:	4.35
Peak Torque Lb-In (N-m):	132.8 (15)
Peak Current:	10.20
Electrical Parameters	
Torque Constant Lb-In/Amp (N-m/Amp):	12.90 (1.46)
Voltage Constant $V_{pk}/KRPM$ ($V_{RMS}/KRPM$):	125.0 (88.4)
Resistance:	5.2
Inductance (mHy):	19.2
Mechanical Parameters	
Inertia Lb-In-s ² (Kg-cm ²):	0.0149 (16.82)
Speed at 300 Bus Volts (RPM):	2400
Max Speed (RPM):	7000
No. of Motor Poles:	8
Feedback Device	
<i>Resolver</i>	
Speed:	1 SPEED

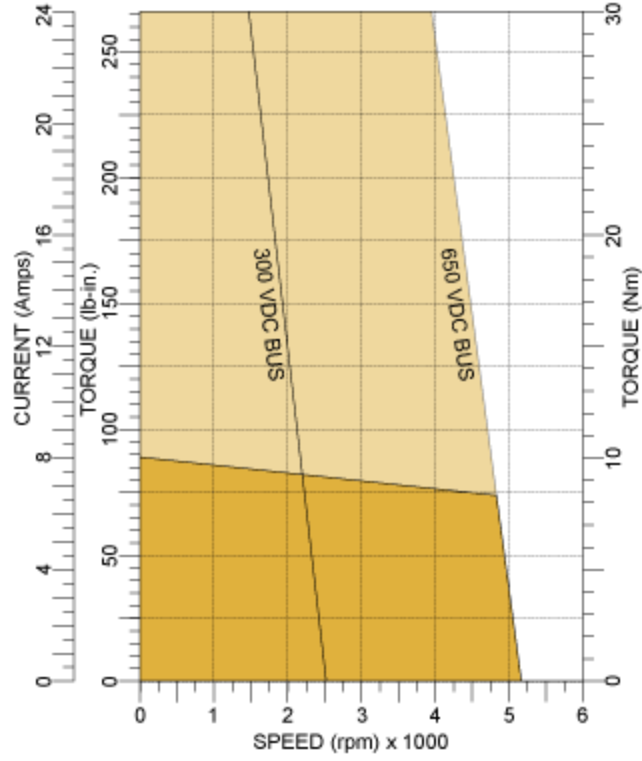
BSM100C-1150



BSM100C-2150AA AC Brushless Servo Motor

Specification Number:	S4P124W104G1
General Parameters	
Cont. Stall Torque Lb-In (N-m):	88.50 (10.00)
Cont. Stall Current:	8.65
Peak Torque Lb-In (N-m):	265.5 (30)
Peak Current:	20.40
Electrical Parameters	
Torque Constant Lb-In/Amp (N-m/Amp):	12.90 (1.46)
Voltage Constant $V_{pk}/KRPM$ ($V_{RMS}/KRPM$):	125.0 (88.4)
Resistance:	1.6
Inductance (mHy):	8.9
Mechanical Parameters	
Inertia Lb-In-s ² (Kg-cm ²):	0.0299 (33.77)
Speed at 300 Bus Volts (RPM):	2400
Max Speed (RPM):	7000
No. of Motor Poles:	8
Feedback Device	
<i>Resolver</i>	
Speed:	1 SPEED

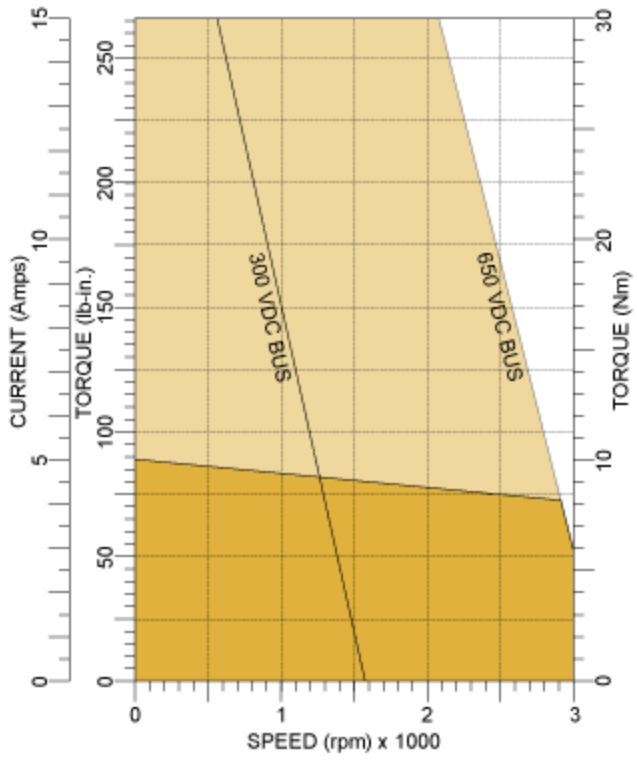
BSM100C-2150



BSM100C-2250AA AC Brushless Servo Motor

Specification Number:	S4P124W105
General Parameters	
Cont. Stall Torque Lb-In (N-m):	88.50 (10.00)
Cont. Stall Current:	5.37
Peak Torque Lb-In (N-m):	265.5 (30)
Peak Current:	12.70
Electrical Parameters	
Torque Constant Lb-In/Amp (N-m/Amp):	20.90 (2.36)
Voltage Constant $V_{pk}/KRPM$ ($V_{RMS}/KRPM$):	201.9 (142.8)
Resistance:	4.2
Inductance (mHy):	25.2
Mechanical Parameters	
Inertia Lb-In-s ² (Kg-cm ²):	0.0299 (33.77)
Speed at 300 Bus Volts (RPM):	1200
Max Speed (RPM):	7000
No. of Motor Poles:	8
Feedback Device	
<i>Resolver</i>	
Speed:	1 SPEED

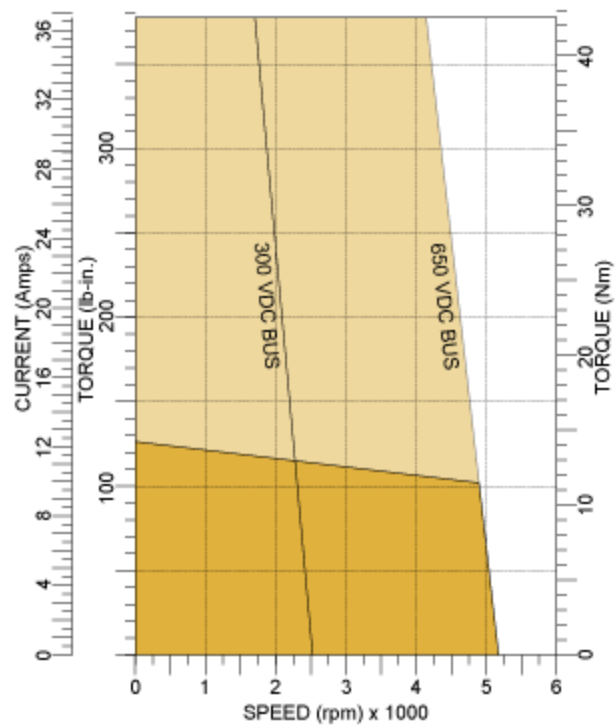
BSM100C-2250



BSM100C-3150AA AC Brushless Servo Motor

Specification Number:	S4P124W107
General Parameters	
Cont. Stall Torque Lb-In (N-m):	125.70 (14.20)
Cont. Stall Current:	12.28
Peak Torque Lb-In (N-m):	377 (42.6)
Peak Current:	29.00
Electrical Parameters	
Torque Constant Lb-In/Amp (N-m/Amp):	12.90 (1.46)
Voltage Constant $V_{pk}/KRPM$ ($V_{RMS}/KRPM$):	125.0 (88.4)
Resistance:	0.84
Inductance (mHy):	6.4
Mechanical Parameters	
Inertia Lb-In-s ² (Kg-cm ²):	0.0449 (50.66)
Speed at 300 Bus Volts (RPM):	2400
Max Speed (RPM):	7000
No. of Motor Poles:	8
Feedback Device	
<i>Resolver</i>	
Speed:	1 SPEED

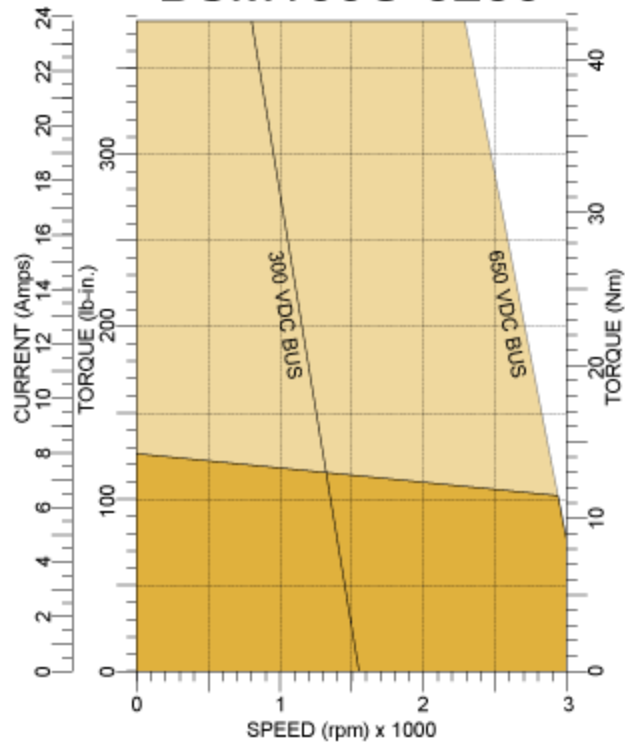
BSM100C-3150



BSM100C-3250AA AC Brushless Servo Motor

Specification Number:	S4P124W108
General Parameters	
Cont. Stall Torque Lb-In (N-m):	125.70 (14.20)
Cont. Stall Current:	7.98
Peak Torque Lb-In (N-m):	377 (42.6)
Peak Current:	17.70
Electrical Parameters	
Torque Constant Lb-In/Amp (N-m/Amp):	21.20 (2.40)
Voltage Constant $V_{pk}/KRPM$ ($V_{RMS}/KRPM$):	205.3 (145.2)
Resistance:	2.2
Inductance (mHy):	17.3
Mechanical Parameters	
Inertia Lb-In-s ² (Kg-cm ²):	0.0449 (50.66)
Speed at 300 Bus Volts (RPM):	1200
Max Speed (RPM):	7000
No. of Motor Poles:	8
Feedback Device	
<i>Resolver</i>	
Speed:	1 SPEED

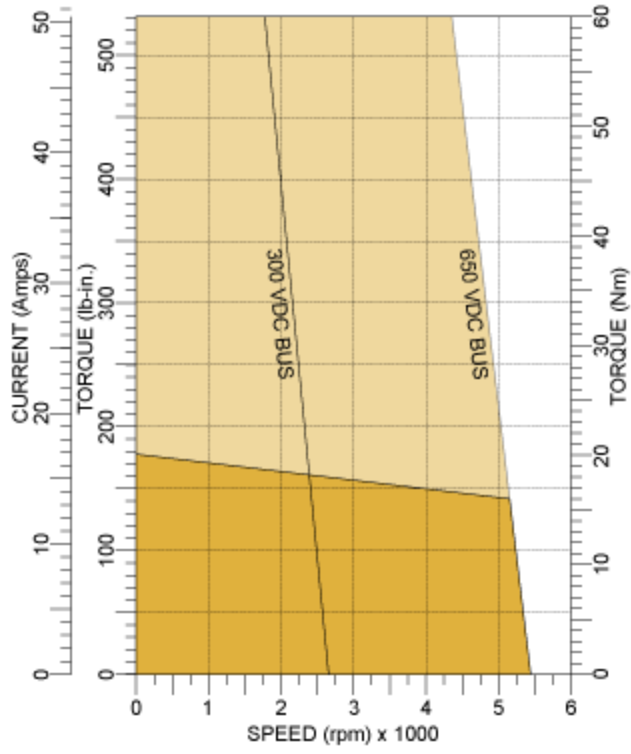
BSM100C-3250



BSM100C-4150AA AC Brushless Servo Motor

Specification Number:	S4P124W110
General Parameters	
Cont. Stall Torque Lb-In (N-m):	177.00 (20.00)
Cont. Stall Current:	18.17
Peak Torque Lb-In (N-m):	531 (60)
Peak Current:	42.90
Electrical Parameters	
Torque Constant Lb-In/Amp (N-m/Amp):	12.30 (1.39)
Voltage Constant $V_{pk}/KRPM$ ($V_{RMS}/KRPM$):	118.9 (84.1)
Resistance:	0.57
Inductance (mHy):	4.3
Mechanical Parameters	
Inertia Lb-In-s ² (Kg-cm ²):	0.0598 (67.54)
Speed at 300 Bus Volts (RPM):	2400
Max Speed (RPM):	7000
No. of Motor Poles:	8
Feedback Device	
<i>Resolver</i>	
Speed:	1 SPEED

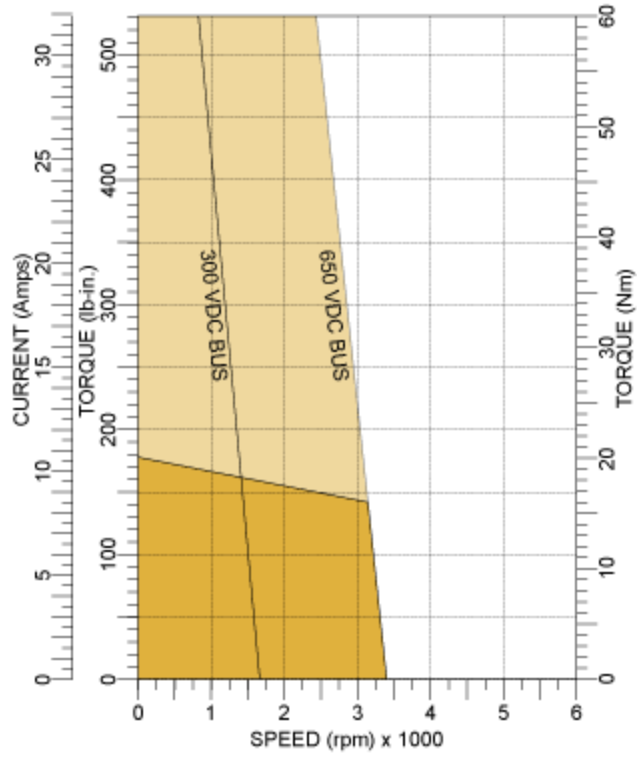
BSM100C-4150



BSM100C-4250AA AC Brushless Servo Motor

Specification Number:	S4P124W111
General Parameters	
Cont. Stall Torque Lb-In (N-m):	177.00 (20.00)
Cont. Stall Current:	11.4
Peak Torque Lb-In (N-m):	531 (60)
Peak Current:	27.00
Electrical Parameters	
Torque Constant Lb-In/Amp (N-m/Amp):	19.60 (2.22)
Voltage Constant $V_{pk}/KRPM$ ($V_{RMS}/KRPM$):	189.9 (134.3)
Resistance:	1.5
Inductance (mHy):	11.2
Mechanical Parameters	
Inertia Lb-In-s ² (Kg-cm ²):	0.0598 (67.54)
Speed at 300 Bus Volts (RPM):	1200
Max Speed (RPM):	7000
No. of Motor Poles:	8
Feedback Device	
<i>Resolver</i>	
Speed:	1 SPEED

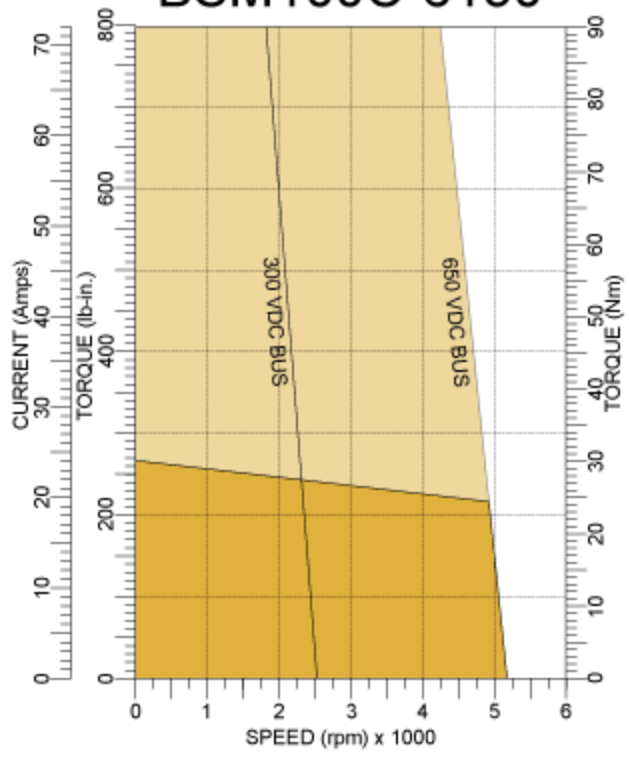
BSM100C-4250



BSM100C-6150AA AC Brushless Servo Motor

Specification Number:	S2P124W116G1
General Parameters	
Cont. Stall Torque Lb-In (N-m):	265.50 (30.00)
Cont. Stall Current:	25.97
Peak Torque Lb-In (N-m):	796.5 (90)
Peak Current:	61.30
Electrical Parameters	
Torque Constant Lb-In/Amp (N-m/Amp):	12.90 (1.46)
Voltage Constant $V_{pk}/KRPM$ ($V_{RMS}/KRPM$):	125.0 (88.4)
Resistance:	0.32
Inductance (mHy):	3.2
Mechanical Parameters	
Inertia Lb-In-s ² (Kg-cm ²):	0.0897 (101.27)
Speed at 300 Bus Volts (RPM):	2400
Max Speed (RPM):	7000
No. of Motor Poles:	8
Feedback Device	
<i>Resolver</i>	
Speed:	1 SPEED

BSM100C-6150



B	S	M	□	□	□	□	-	□	□	□	□	□	□	□	
FRAME		SERIES		MOTOR SIZE		WINDING CODE									
IEC	NEMA	N		1		50									
50	5N	C		2		75									
63	6N			3		etc.									
80	8N			4											
90	9N														
100															

Note: Not all options are available on all motors. Contact your local Baldor District Office.

MOTOR OPTIONS

Description	Connections			
	Standard (Metric) Threaded Style	Optional (Inch) Quick Connect	Cables (5)	Flying Leads (5)
Motor (No Shaft Seal)	A	I	E	M
Motor & Brake	B	J	F	N
Motor with Shaft Oil Seal	C	K	G	O
Motor with Brake & Shaft Oil Seal	D	L	H	P

FEEDBACK OPTIONS

- A = Resolver
- E = Encoder w/Commutation (1000 ppr)
- F = Encoder w/Commutation (2500 ppr)
- H = Halls only
- Y = Resolver mounting only
- V = Encoder mounting only
- D = Absolute Encoder - Multi-turn (En Dat)
- S = SSI Encoder - Single-turn

ACCESSORY OPTIONS

- Blank = No Option
- M = No Keyway
- N = DIN 42955-R
- O = DIN 42955-R & No Keyway
- P = Optional Motor Connector on BSM 90
(Note: This option available only if current less than 20 amps)
- X = Special Option (order by spec no. only)
- Z = Blower 115 VAC

Note:

- 1) The standard BSM50/63/80 Series includes commutation resolver, two threaded connector (metric style) for resolver and motor terminations, square mounting flange.
- 2) The standard BSM90/100 Series includes commutation resolver, one threaded connector (metric style) for resolver, termination of motor lead wires on terminal block, square mounting flange.
- 3) Motors do not have shaft seal unless ordered.
- 4) The standard BSM50 Series has a standard no keyway.
- 5) Shielded cables and flying leads are one motor long as standard.
- 6) Contact Baldor for special options.