

CA1202

Effective Date:  
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# Servo, Linear & Motion Control Products

# Specify with Confidence

## Solutions

Baldor's comprehensive range includes multi-axis motion controllers, high performance servo drives, rotary servo motors and linear motors – all designed to seamlessly interface with each other to provide a complete motion solution. This allows you to minimise your design time, save development costs and maximise your time to market.

## Choice

Baldor firmly believes in offering our customers a range of products to fit a variety of market needs. Whether this means delivering a product from stock, designing a product for your specific application, accessing technical data, or how you place your order, we make it easy to do business with us. Our products are designed to handle simple through to demanding applications.

## Quality, Reliability & Design

With ISO9001:2000 accreditation to ensure high quality standards and by using the latest CAD tools and manufacturing techniques, Baldor's engineering teams work side-by-side through design, product development, manufacture and final test to make sure that total quality and reliability is built into and stays with each product throughout its long lifetime.



◀ [www.baldormotion.com](http://www.baldormotion.com) website and product support site

## Experience

Technical knowledge is the key to solving customers' needs. Our extensive experience has been gained over many years through close customer contact from product development to field maintenance, providing invaluable feed-back for our product development process - ensuring Baldor motion control products meet the ease of use, flexibility and performance demanded by the markets we serve.

Application notes reflecting our knowledge and ability are available for download on the web at [www.baldormotion.com](http://www.baldormotion.com)

## Information

Information must be comprehensive and easily accessed. To make it easier for our customers, we provide a complete range of product literature as well as a website dedicated to motion control products - [www.baldormotion.com](http://www.baldormotion.com). This brings together in one location, all the information relevant to motion control products and includes technical information, latest news, application stories, application notes and support.

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# Motion Controllers



## NextMove e100 (ETHERNET)

Number of Axis	Catalog Number	List Price	Catalog Number	List Price	Mult. Sym.
8	NXE100-1608DB ①	3092	NXE100-1608SB ②	3092	E5
12	NXE100-1612DB ①	3678	NXE100-1612SB ②	3678	E5
16	NXE100-1616DB ①	4264	NXE100-1616SB ②	4264	E5

① Differential stepper outputs

② For use with DSMS stepper/driver



## NextMove ESB-2

Number of Axis	Catalog Number	List Price	Catalog Number ③	List Price	Mult. Sym.
7	NSB202-501 ①	2505	NSB203-501 ①	2505	E5
7	NSB202-502 ②	2505	NSB203-502 ②	2505	E5
8	NSB204-501 ①	2799	NSB205-501 ①	2799	E5
8	NSB204-502 ②	2799	NSB205-502 ②	2799	E5

① USB/RS232

② USB/RS485

③ For use with DSMS stepper/driver. ROHS Compatible



## NextMove PCI-2

Number of Axis	Catalog Number (PNP Outputs)	List Price	Catalog Number (NPN Outputs)	List Price	Mult. Sym.
1 ①	PCI201-501	2195	PCI201-511	2195	E5
2 ①	PCI201-502	2341	PCI201-512	2341	E5
3 ①	PCI201-503	2488	PCI201-513	2488	E5
4 ①	PCI201-504	2634	PCI201-514	2634	E5
8 ②	PCI201-508	3221	PCI201-518	3221	E5

NOTE: ① User configurable for Servo or Stepper.

② 4-Axis Servo and 4-Axis Stepper.

Shaded areas are stocked products.



## NextMove ES

Number of Axis	Catalog Number	Description	List Price	Mult. Sym.
6 ①	NES002-501	NextMove ES controller with USB and RS232	1612	E5
6 ①	NES002-502	NextMove ES controller with USB and RS485	1612	E5
	BPL010-501	Non-isolated backplane	568	E5
	BPL010-502	Isolated backplane PNP	862	E5
	BPL010-503	Isolated backplane NPN	862	E5
	CBL001-501	RS232 serial cable Note: 2m (6.6ft) USB cable supplied	127	E5

NOTE: ① 2 Servo / 4 Stepper.

# Motion Control Accessories

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Motion Controls

NextMove Accessories	Catalog Number	List Price	Multiplier Symbol
<b>Plug in Option Cards (NextMove PCI-2)</b>			
Breakout Unit, with two part connectors ②③	PCI003-502	897	E5
<b>Connector Kits</b>			
DB9 Screw terminal connector	ACC001-600	162	ED
DB15 (high density) Screw terminal connector	ACC001-601	140	ED
DB15 (low density) Screw terminal connector	ACC001-602	156	ED
Nextmove e100 / ESB-2	OPT-ACC003-502	114	ED
<b>Software</b>			
MintNC software	MNC001-501	2615	E5

**NOTE:** ② All fieldbus modules subject to confirmation and 3rd party development program. Details and availability to be confirmed.

③ NextMove PCI-2 breakout module shipped with isolated CAN module fitted to J11 (CAN open slot), non-isolated CAN module fitted to J14 (Baldor CAN) and stepper output module fitted to connectors J15/J16

Cables	Length		Catalog Number	List Price	Multiplier Symbol
	Meters	Feet			
For use with NextMove PCI-2					
Drive to Motion Controller Cable for use with 23H (DB9 & Flying leads)	1	3.2	CBL010MF-E4A	119	ED
	2	6.5	CBL020MF-E4A	159	ED
	10	32.7	CBL100MF-E4A	492	ED
	20	65.4	CBL200MF-E4A	953	ED
Drive to Motion Controller (NextMove PCI / PCI-2) Cable for use with FlexDriveII & MicroFlex (DB9 both ends)	1	3.2	CBL010MF-E3A	122	ED
	2	6.5	CBL020MF-E3A	139	ED
For use with NextMove ESB-2					
Drive to Motion Controller (NextMove e100 / ESB-2 / ES / BX-II) Cable for use with FlexDriveII & MicroFlex (DB9 both ends)	1	3.2	CBL010MF-E3B	122	ED
	2	6.5	CBL020MF-E3B	139	ED
For use with NextMovePCI-2					
100 Pin Breakout Cables	1	3.2	CBL021-501	214	ED
	1.5	4.9	CBL021-502	270	ED
	3	9.8	CBL021-503	308	ED
Ethernet and CANopen Cables					
Ethernet/CANopen Cable: Shielded CAT5e RJ45	0.2	0.7	CBL002CM-EXS	20	ED
	0.5	1.6	CBL005CM-EXS	21	ED
	1	3.2	CBL010CM-EXS	26	ED
	2	6.5	CBL020CM-EXS	30	ED
	5	16.3	CBL050CM-EXS	53	ED
	10	32.6	CBL100CM-EXS	89	ED
CANopen Cable (RJ45 - flying lead)	0.25	0.8	CBL002CM-CSS1	79	ED
	0.5	1.6	CBL005CM-CSS1	83	ED
	1	3.3	CBL010CM-CSS1	86	ED
	2	6.6	CBL020CM-CSS1	89	ED
	5	16	CBL050CM-CSS1	109	ED
	10	33	CBL100CM-CSS1	139	ED
	20	67	CBL200CM-CSS1	228	ED
CANopen Cable (RJ45 - RJ45)	0.25	0.8	CBL002CM-CSS2	20	ED
	0.5	1.6	CBL005CM-CSS2	21	ED
	1	3.3	CBL010CM-CSS2	23	ED
	2	6.6	CBL020CM-CSS2	30	ED
	5	16	CBL050CM-CSS2	50	ED
	10	33	CBL100CM-CSS2	83	ED
	20	67	CBL200CM-CSS2	182	ED

Shaded areas are stocked products.



## Brushless Servo Control



## MicroFlex e100 (ETHERNET)

Input Voltage		115-230 VAC		
Bus Voltage		160-320 VDC		
Output Current Amps (rms)		Catalog Number ①②	List Price	Multiplier Symbol
Continuous	Peak			
3	6	MFE230A003B	1312	E3
6	12	MFE230A006B ③	1409	E3
9	18	MFE230A009B ③	1674	E3

**NOTE:** Will accept either incremental or absolute encoder feedback (BiSS, EnDat, Hyperface, SSI)

① Order regen resistor separately (see Accessories). ② Customer must supply +24 Vdc for I/O operation.

③ Requires external ventilation. See fan kits below.



## MicroFlex

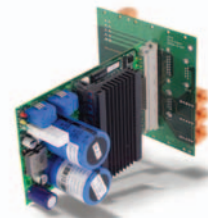
Input Voltage		115-230 VAC				
Bus Voltage		160-320 VDC				
Output Current Amps (rms)		Catalog Number ①②④	List Price	Catalog Number ①②⑤	List Price	Multiplier Symbol
Continuous	Peak					
Encoder/SSI Feedback						
1	2	FMH2A01TR-EN23	997	FMH2A01TR-EN43	997	E3
3	6	FMH2A03TR-EN23	997	FMH2A03TR-EN43	997	E3
6	12	FMH2A06TR-EN23 ③	1094	FMH2A06TR-EN43 ③	1094	E3
9	18	FMH2A09TR-EN23 ③	1359	FMH2A09TR-EN43 ③	1359	E3
Resolver Feedback						
1	2	FMH2A01TR-RN23	997	FMH2A01TR-RN43	997	E3
3	6	FMH2A03TR-RN23	1,106	FMH2A03TR-RN43	1106	E3
6	12	FMH2A06TR-RN23 ③	1,203	FMH2A06TR-RN43 ③	1203	E3
9	18	FMH2A09TR-RN23 ③	1,468	FMH2A09TR-RN43 ③	1468	E3

**NOTE:** ① Order regen resistor separately. ② Customer must supply +24 Vdc for I/O operation.

③ Requires external ventilation. See fan kits. ④ RS232 ⑤ RS485

## Accessories (MicroFlex e100 and MicroFlex)

Description	Catalog Number	List Price	Multiplier Symbol
Fan Kit, 24 VDC	FAN001-024	156	E3
Microflex e100 Connector Kit	OPT-ACC001-508	59	ED
Microflex Resolver Connector Kit	OPT-ACC001-509	47	ED
Microflex Encoder Connector Kit	OPT-ACC001-507	47	ED
Encoder RS232 Serial Cable (MicroFlex)	CBL0001-501	127	ED
USB Signal Isolator	OPT-CNV-003	C/F	ED



## EuroFlex – AC Servo Drive

Input Voltage		24 - 80 VDC or 18 - 56 VAC		Catalog No.	Multiplier Symbol
Continuous	Peak	Description	List Price		
5	15	EuroFlex AC Servo Amplifier (RS485 communications)	1207	EFL201-501	E3
		EuroFlex backplane	498	BPL011-501	E3
		EMC Filter	146	FIO015A02	ED

Shaded areas are stocked products.

# Brushless Servo Control - Multi-Axis



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## MotiFlex e100

Input Voltage		230-460 VAC 50/60 Hz		
Bus Voltage		325-650 VDC		
Output Current Amps (rms)		Catalog Number	List Price	Multiplier Symbol
Continuous	Peak			
1.5	3	MFE460A001B	2,086	E3
3	6	MFE460A003B	2,157	E3
6	12	MFE460A006B	2,274	E3
10.5	21	MFE460A010B	2,403	E3
16	32	MFE460A016B	2,532	E3
21	40	MFE460A021B	3,341	E3
26	54	MFE460A026B	3,758	E3
33.5	68	MFE460A033B	4,315	E3
48	96	MFE460A048B	5,996	E3
65	130	MFE460A065B	7,194	E3

## Accessories for MotiFlex e100

Description	Catalog Number	List Price	Multiplier Symbol
AC power & motor power brackets	OPT-CM-001	53	E3
Signal & feedback cable bracket Size A	OPT-CM-002	103	E3
Signal & feedback cable bracket Size B	OPT-CM-003	103	E3
DC Bus Bars for A size drive (2 each)	OPT-MF-DC-A	32	E3
DC Bus Bars for B size drive (2 each)	OPT-MF-DC-B	35	E3
DC Bus Bars for C size drive - 160mm (2 each)	OPT-MF-DC-C	132	E3
DC Bus Bars for C size drive - 212mm (2 each)	OPT-MF-DC-D	132	E3
Spare Connector Kit for 1 - 16A	OPT-MF-CN-A	79	ED
Spare Connector Kit for 21 - 33.5A	OPT-MF-CN-B	94	ED
Spare Connector Kit for 48 - 65A	OPT-MF-CN-C	97	ED
USB Signal Isolator	OPT-CNV-003	C/F	ED

## AC Line Reactors for use with MotiFlex e100

Control Current Rating	Catalog Number	List Price	Mult Sym
1 - 6	LRAC02502	783	ED
10 - 16	LRAC03502	833	ED
21 - 33.5	LRAC05502	993	ED
48 - 65	LRAC130ACB2	1587	ED

## Plug In Option Cards for use with MotiFlex e100

Description	Catalog Number	List Price	Multiplier Symbol
Analog I/O 16 bit 4 off Inputs and 4 off Outputs Differential +/-1	OPT-MF-001	498	E3
Digital I/O card 6 off digital inputs (AC optos), 4 off digital output	OPT-MF-005	322	E3
Incremental Encoder + Halls with simulated encoder out option	OPT-MF-011	381	E3
Resolver with simulated encoder out option card	OPT-MF-013	469	E3
Option Card Blank Cover (Spare/Replacement)	OPT-MF-000	35	E3
Single Axis Mint Programming Module	OPT-MF-100	999	E5
4 Axis Mint Programming Module	OPT-MF-101	1499	E5
Fieldbus Carrier option (required for ALL Field bus cards)	OPT-MF-030	220	E3
DeviceNet Fieldbus Option	OPT-FB-001	659	E3
Profibus Fieldbus Option	OPT-FB-002	659	E3
Modbus RTU Fieldbus Option	OPT-FB-003	659	E3
Ethernet/IP Fieldbus Option	OPT-FB-004	733	E3
Modbus TCP Fieldbus Option	OPT-FB-005	733	E3
Profinet I/O Fieldbus Option	OPT-FB-006	733	E3

Shaded areas are stocked products.

AC Controls

# Catalog Identification Matrix For FlexDrive<sup>II</sup>, Flex+Drive<sup>II</sup>, and MintDrive<sup>II</sup>

		<b>H</b>		<b>A</b>						-			<b>2</b>	
<b>CONTROL FAMILY</b> MDH = MintDrive <sup>II</sup> FPH = Flex+Drive <sup>II</sup> FDH = FlexDrive <sup>II</sup>				<b>CURRENT CODE</b> A02 = 2.5 amps A05 = 5 amps A07 = 7.5 amps A15 = 15 amps A20 = 20 amps A27 = 27.5 amps				3φ only		<b>LOGIC SUPPLY VOLTAGE OPTIONS</b> 0 = Internally generated 3 = External Customer supplied +24 VDC				
<b>INPUT VOLTAGE</b> 1 = 115 V 1φ 2 = 230 V 1φ 4 = 230-460 V 3φ										<b>SERIAL PORT</b> 2 = RS232/RS485				
<b>ENCLOSURE TYPE</b> T = Panel mount with Internal Power Supply										<b>BUS OPTIONS ①</b> N = None B = 2 CAN ports and Extra I/O (MDH) 1 CAN port and Extra I/O (MPH) (Not available on FDH models) C = 1 CAN Open Port D = DeviceNet P = Profibus-DP				
				<b>BRAKING OPTIONS</b> R = Requires external resistor B = Built in regen resistor						<b>FEEDBACK OPTIONS</b> R = Resolver E = Encoder D = Absolute Encoder (EnDat Multi-turn)				

**NOTE:** Not all options are available on all controls. Contact your local Baldor office.  
 ① Options may increase product width.

## Options Chart - List Price Adder

Description	Code	List Price Adder
<b>Feedback Options</b>		
Resolver	R	110
Encoder	E	N/C
Absolute Encoder (EnDat)	D	110
<b>Bus Options</b>		
None	N	Std
2 CAN + Extra I/O (Not available on FDH)	B	507
1 CAN channel	C	271
DeviceNet	D	519
Profibus	P	271
<b>Serial Port Options</b>		
RS232 / RS485	2	Std
<b>Logic Voltage Supply Options</b>		
Internally Generated	0	Std
External Customer Supplied +24VDC	3	N/C

**NOTE:** STD = Standard, N/C = No Charge.



# Single Axis Motion Controller & Brushless Servo Control



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## MintDrive<sup>II</sup> Resolver Feedback-Based Units

Input Voltage		115 VAC 1 $\phi$		230 VAC 1 $\phi$		230-460 VAC 3 $\phi$		
Bus Voltage		160VDC		300VDC		300-650 VDC		
Output Current Amps (rms)		Catalog Number ②	List Price	Catalog Number ②	List Price	Catalog Number ②	List Price	Mult Sym.
Cont.	Peak							
Customer must supply +24 VDC for logic power								
2.5	5	MDH1A02TB-RN23 ③	2118	MDH2A02TB-RN23 ③	2118	MDH4A02TB-RN23 ③	2831	E3
5	10	MDH1A05TB-RN23 ③	2311	MDH2A05TB-RN23 ③	2311	MDH4A05TB-RN23 ③	2893	E3
7.5	15	MDH1A07TR-RN23 ①	2446	MDH2A07TR-RN23 ①	2446	MDH4A07TR-RN23 ①	2934	E3
15	30	—	—	—	—	MDH4A15TR-RN23 ①	3430	E3
20	40	—	—	—	—	MDH4A20TR-RN23 ①	3875	E3
27.5	55	—	—	—	—	MDH4A27TR-RN23 ①	4319	E3
With 2 CAN ports and Extra I/O - Customer must supply +24 VDC for logic power								
2.5	5	MDH1A02TB-RB23 ③	2626	MDH2A02TB-RB23 ③	2626	MDH4A02TB-RB23 ③	3339	E3
5	10	MDH1A05TB-RB23 ③	2819	MDH2A05TB-RB23 ③	2819	MDH4A05TB-RB23 ③	3401	E3
7.5	15	MDH1A07TR-RB23 ①	2954	MDH2A07TR-RB23 ①	2954	MDH4A07TR-RB23 ①	3442	E3
15	30	—	—	—	—	MDH4A15TR-RB23 ①	3938	E3
20	40	—	—	—	—	MDH4A20TR-RB23 ①	4383	E3
27.5	55	—	—	—	—	MDH4A27TR-RB23 ①	4827	E3

## MintDrive<sup>II</sup> Encoder Feedback-Based Units

Customer must supply +24 VDC for logic power								
2.5	5	MDH1A02TB-EN23 ③	2007	MDH2A02TB-EN23 ③	2007	MDH4A02TB-EN23 ③	2720	E3
5	10	MDH1A05TB-EN23 ③	2200	MDH2A05TB-EN23 ③	2200	MDH4A05TB-EN23 ③	2782	E3
7.5	15	MDH1A07TR-EN23 ①	2335	MDH2A07TR-EN23 ①	2335	MDH4A07TR-EN23 ①	2823	E3
15	30	—	—	—	—	MDH4A15TR-EN23 ①	3319	E3
20	40	—	—	—	—	MDH4A20TR-EN23 ①	3764	E3
27.5	55	—	—	—	—	MDH4A27TR-EN23 ①	4208	E3
With 2 CAN ports and Extra I/O - Customer must supply +24 VDC for logic power								
2.5	5	MDH1A02TB-EB23 ③	2515	MDH2A02TB-EB23 ③	2626	MDH4A02TB-EB23 ③	3228	E3
5	10	MDH1A05TB-EB23 ③	2708	MDH2A05TB-EB23 ③	2819	MDH4A05TB-EB23 ③	3290	E3
7.5	15	MDH1A07TR-EB23 ①	2843	MDH2A07TR-EB23 ①	2954	MDH4A07TR-EB23 ①	3331	E3
15	30	—	—	—	—	MDH4A15TR-EB23 ①	3827	E3
20	40	—	—	—	—	MDH4A20TR-EB23 ①	4272	E3
27.5	55	—	—	—	—	MDH4A27TR-EB23 ①	4716	E3

**NOTES:** ① Order regen resistor separately.  
 ② 24V required for operation of I/Os (customer supplied).  
 ③ 2.5 amp models have internal 20W 175 ohm (115/230 VAC) or 300W 200 ohm (230-460 VAC) regen resistor.  
 5 amp models have internal 40W 90 ohm (115/230 VAC) or 300W 200 ohm (230-460 VAC) regen resistor.  
 \* Order encoder model for operation with linear motors.  
 Order motor and feedback cables separately.  
 Units with BUS Option N have 8/3 I/O and no CAN ports.  
 Price of - RN20 same as - RN23; Price of - EN20 same as - EN23.  
 For complete details of Catalog I/D, see page 6.

Programming cable for FlexDrive <sup>II</sup> , Flex+Drive <sup>II</sup> and MintDrive	Length		Catalog Number	List	Mult. Sym.
	Feet	Meters			
RS232 Serial Cable for use with PC	3	9.8	CBL001-501	127	ED
<b>Plug in Option Cards for use with MintDrive<sup>II</sup> and Flex+Drive<sup>II</sup></b>					
Resolver 9-15 Pin Converter			OPT026-501	82	ED
Feedback Connector Kit for SeriesII Controller (Resolver)			OPT-ACC001-502	26	ED
Feedback Connector Kit for SeriesII Controller (Encoder)			OPT-ACC001-503	26	ED
Tertiary I/O Connector Kit for SeriesII Controller			OPT-ACC001-504	18	ED
Power and I/O Connector Kit for SeriesII Controller			OPT-ACC001-518	26	ED

Shaded areas are stocked products.

## Brushless Servo Control

FlexDrive<sup>II</sup> Resolver Feedback-Based Units

Input Voltage		115 VAC 1 $\phi$		230 VAC 1 $\phi$		230-460 VAC 3 $\phi$		
Bus Voltage		160VDC		300VDC		300-650 VDC		
Output Current Amps (rms)		Catalog Number ②	List Price	Catalog Number ②	List Price	Catalog Number ②	List Price	Mult. Sym.
Cont.	Peak							
Customer must supply +24 VDC for logic power								
2.5	5	FDH1A02TB-RN23 ③	1678	FDH2A02TB-RN23 ③	1678	FDH4A02TB-RN23 ③	2314	E3
5	10	FDH1A05TB-RN23 ③	1795	FDH2A05TB-RN23 ③	1765	FDH4A05TB-RN23 ③	2383	E3
7.5	15	FDH1A07TR-RN23 ①	1900	FDH2A07TR-RN23 ①	1900	FDH4A07TR-RN23 ①	2454	E3
15	30	—	—	—	—	FDH4A15TR-RN23 ①	2949	E3
20	40	—	—	—	—	FDH4A20TR-RN23 ①	3394	E3
27.5	55	—	—	—	—	FDH4A27TR-RN23 ①	3838	E3

FlexDrive<sup>II</sup> Encoder Feedback-Based Units

Customer must supply +24 VDC for logic power								
2.5	5	FDH1A02TB-EN23 ③	1567	FDH2A02TB-EN23 ③	1567	FDH4A02TB-EN23 ③	2203	E3
5	10	FDH1A05TB-EN23 ③	1654	FDH2A05TB-EN23 ③	1654	FDH4A05TB-EN23 ③	2272	E3
7.5	15	FDH1A07TR-EN23 ①	1789	FDH2A07TR-EN23 ①	1789	FDH4A07TR-EN23 ①	2343	E3
15	20	—	—	—	—	FDH4A15TR-EN23 ①	2838	E3
20	40	—	—	—	—	FDH4A20TR-EN23 ①	3283	E3
27.5	55	—	—	—	—	FDH4A27TR-EN23 ①	3727	E3

## Programmable Indexer &amp; Brushless Servo Control

Flex+Drive<sup>II</sup> Resolver Feedback-Based Units

Input Voltage		115 VAC 1 $\phi$		230 VAC 1 $\phi$		230-460 VAC 3 $\phi$		
Bus Voltage		160VDC		300VDC		300-650 VDC		
Output Current Amps (rms)		Catalog Number ②	List Price	Catalog Number ②	List Price	Catalog Number ②	List Price	Mult. Sym.
Cont.	Peak							
Customer must supply +24 VDC for logic power								
2.5	5	FPH1A02TB-RN23 ③	1842	FPH2A02TB-RN23 ③	1842	FPH4A02TB-RN23 ③	2572	E3
5	10	FPH1A05TB-RN23 ③	2037	FPH2A05TB-RN23 ③	2037	FPH4A05TB-RN23 ③	2636	E3
7.5	15	FPH1A07TR-RN23 ①	2172	FPH2A07TR-RN23 ①	2172	FPH4A07TR-RN23 ①	2693	E3
15	30	—	—	—	—	FPH4A15TR-RN23 ①	3188	E3
20	40	—	—	—	—	FPH4A20TR-RN23 ①	3633	E3
27.5	55	—	—	—	—	FPH4A27TR-RN23 ①	4079	E3

Flex+Drive<sup>II</sup> Encoder Feedback-Based Units

Customer must supply +24 VDC for logic power								
2.5	5	FPH1A02TB-EN23 ③	1731	FPH2A02TB-EN23 ③	1731	FPH4A02TB-EN23 ③	2461	E3
5	10	FPH1A05TB-EN23 ③	1926	FPH2A05TB-EN23 ③	1926	FPH4A05TB-EN23 ③	2525	E3
7.5	15	FPH1A07TR-EN23 ①	2061	FPH2A07TR-EN23 ①	2061	FPH4A07TR-EN23 ①	2582	E3
15	30	—	—	—	—	FPH4A15TR-EN23 ①	3077	E3
20	40	—	—	—	—	FPH4A20TR-EN23 ①	3522	E3
27.5	55	—	—	—	—	FPH4A27TR-EN23 ①	3968	E3

**NOTES:** ① Order regen resistor separately.  
 ② 24V required for operation of I/Os (customer supplied).  
 ③ 2.5 amp models have internal 20W 175 ohm (115/230 VAC) or 300W 200 ohm (230-460 VAC) regen resistor. 5 amp models have internal 40W 90 ohm (115/230 VAC) or 300W 200 ohm (230-460 VAC) regen resistor.

\* Order encoder model for operation with linear motors. Order motor and feedback cables separately. Units with BUS Option N have 8/3 I/O and no CAN ports. Price of - RN20 same as - RN23; Price of - EN20 same as - EN23.  
 For complete details of Catalog I/D, see page 6.

Shaded areas are stocked products.

# Brushless Servo Control



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## VS1SD AC Servo Control (Resolver Only)

Input Voltage		230 VAC 3 $\phi$			400 / 460 VAC 3 $\phi$				
Bus Voltage		300 VDC			565 / 650 VDC				
Output Current Amps (rms)		Servo Control Catalog Number	List Price	Mult. Sym.	Output Current Amps (rms)		Servo Control Catalog Number	List Price	Mult. Sym.
Cont.	Peak				Cont.	Peak			
3.2	6.4	VS1SD2A3-1B	1439	EC	3.4	6.8	VS1SD4A3-1B	2502	EC
4.2	8.4	VS1SD2A4-1B	1613	EC	4.8	9.6	VS1SD4A5-1B	2574	EC
6.8	13.6	VS1SD2A7-1B	1862	EC	7.6	15.2	VS1SD4A8-1B	2959	EC
9.6	19.2	VS1SD2A10-1B	2079	EC	11	22	VS1SD4A11-1B	3361	EC
15.2	30.4	VS1SD2A15-1B	2501	EC	14	28	VS1SD4A14-1B	4552	EC
22	44	VS1SD2A22-1B	3510	EC	21	41	VS1SD4A21-1B	4895	EC
28	56	VS1SD2A28-1B	4220	EC	27	54	VS1SD4A27-1B	6237	EC
-	-	-	-	-	34	60	VS1SD4A34-1B	7256	EC
42	84	VS1SD2A42-1B	5343	EC	40	70	VS1SD4A40-1B	9128	EC
54	108	VS1SD2A54-1B	6403	EC	-	-	-	-	-
68	119	VS1SD2A68-1B	8321	EC	65	114	VS1SD4A65-1B	11586	EC
80	140	VS1SD2A80-1B	9596	EC	77	135	VS1SD4A77-1B	13574	EC
104	182	VS1SD2A104-1B	12287	EC	96	168	VS1SD4A96-1B	15681	EC
130	228	VS1SD2A130-1B	15734	EC	124	217	VS1SD4A124-1B	16617	EC
Washdown					Washdown				
3.2	6.4	VS1SD2A3-4B	1583	EC	3.4	6.8	VS1SD4A3-4B	2753	EC
4.2	8.4	VS1SD2A4-4B	1775	EC	4.8	9.6	VS1SD4A5-4B	3366	EC
6.8	13.6	VS1SD2A7-4B	2049	EC	7.6	15.2	VS1SD4A8-4B	4369	EC
9.6	19.2	VS1SD2A10-4B	2287	EC	11	22	VS1SD4A11-4B	4387	
15.2	30.4	VS1SD2A15-4B	2752	EC	-	-	-	-	-
115/230 VAC Standard Models					115/230 VAC Washdown Models				
3.2	6.4	VS1SD6A3-1B	1583	EC	3.2	6.4	VS1SD6A3-4B	1742	EC
4.2	8.4	VS1SD6A4-1B	1775	EC	4.2	8.4	VS1SD6A4-4B	1953	EC
6.8	13.6	VS1SD6A7-1B	2049	EC	6.8	13.6	VS1SD6A7-4B	2254	EC

**NOTE:** 1) Order Regen Resistor & Cables separately.  
2) Current specified at 8 KHz PWM frequency.  
3) Units may be operated at 2.5 KHz to obtain slightly higher output current; peak current time will be shorter.

## Regen Resistors

Input Volts	Control Output Current	Continuous Rated Watts				Mult. Sym.
		600	List Price	1200	List Price	
230	3 - 22	RGA620	572	RGA 1220	849	EC
	28 - 54	-	-	RGA 1206	849	EC
400/460	1 - 5	RGA6120	572	RGA 1212	849	EC
	7 - 11	RGA660	572	RGA 1260	849	EC
	14	RGA630	572	RGA 1230	849	EC
	21 - 27	RGA620	572	RGA 1220	849	EC

## Keypad Extension Cables

Cable Extension Length	Catalog Number	List Price	Mult. Sym.
1.5 Meter (5 Feet)	CBLHH015KP	44	EC
3.0 Meter (10 Feet)	CBLHH030KP	64	EC
4.6 Meter (15 Feet)	CBLHH046KP	83	EC
6.1 Meter (20 Feet)	CBLHH061KP	102	EC
9.1 Meter (30 Feet)	CBLHH091KP	120	EC
15.2 Meter (50 Feet)	CBLHH152KP	171	EC
22.9 Meter (75 Feet)	CBLHH229KP	247	EC
30.5 Meter (100 Feet)	CBLHH305KP	323	EC

## Expansion Boards

Description	Board Number	List Price	Mult. Sym.
Isolated Input Board	EXBHH003A01	211	EC
High resolution analog I/O	EXBHH005A01	330	EC
Master pulse follower	EXBHH007A01	539	EC
Ethernet server expansion	EXBHH001A01	163	EC
Ethernet IP communication expansion	EXBHH012A01	C/F	EC

Shaded areas are stocked products.

AC Controls

**Features:**

- Simple interface programmable in MInt
- CANOpen and RS232/485 communications
- 4 line x 20 character display
- Numerical keypad + function keys
- Optional DS401 CANOpen I/O modules: 4 Din and 4 Dout

**Operator Panels**

Description	Catalog No.	List Price	Mult. Sym.
CANOpen/Serial 4x20 character LCD display (Mint programmable)	KPD202-501	938	ED
4 Dig In, 4 Dig Out I/O option for keypad	KPD-OPTIO-1	176	ED

**Features:**

- Programmable operator panels
- Text display with keypads through to full color touch screen
- Serial interface as standard
- CANOpen option or use with Baldor's motion controllers and programmable drives
- Ethernet standard on color touch screen

**Programmable HMI Operator Panels**

Description	Catalog No.	List Price	Mult. Sym.
HMI Operator Panel (4x20 character LCD display)	KPD-KG420-10	692	ED
HMI Operator Panel (4x20 character LCD + numeric keypad)	KPD-KG420-20	734	ED
HMI Operator Panel (4x20 character LCD + numeric and function keypad)	KPD-KG420-30	1383	ED
HMI Operator Panel (3.9" touch screen monochrome)	KPD-TS03M-10	1134	ED
HMI Operator Panel (5.6" touch screen monochrome)	KPD-TS05M-10	1546	ED
HMI Operator Panel (5.6" touch screen color TFT) w/ Ethernet	KPD-TS05C-30E	2623	ED
HMI Operator Panel (10" touch screen color TFT) w/ Ethernet	KPD-TS10C-31E	6447	ED
HMI Operator Panel (12.1" touch screen color TFT) w/ Ethernet	KPD-TS12C-30E	7473	ED
HMI Operator Panel (15" touch screen color TFT) w/ Ethernet	KPD-TS15C-30E	C/F	ED

**CAN Cables**

Description	Length		Catalog Number	List Price	Multiplier Symbol
	Meters	Feet			
CANOpen Cable (RJ45 - flying lead)	0.25	0.8	CBL002CM-CSS1	79	ED
	0.5	1.6	CBL005CM-CSS1	83	ED
	1	3.3	CBL010CM-CSS1	86	ED
	2	6.6	CBL020CM-CSS1	89	ED
	5	16	CBL050CM-CSS1	109	ED
	10	33	CBL100CM-CSS1	139	ED
	20	67	CBL200CM-CSS1	228	ED
CANOpen Cable (RJ45 - RJ45)	0.25	0.8	CBL002CM-CSS2	20	ED
	0.5	1.6	CBL005CM-CSS2	21	ED
	1	3.3	CBL010CM-CSS2	23	ED
	2	6.6	CBL020CM-CSS2	30	ED
	5	16	CBL050CM-CSS2	50	ED
	10	33	CBL100CM-CSS2	83	ED
	20	67	CBL200CM-CSS2	182	ED
CANOpen Module for HMI Panel	—	—	KPD-OPTC	411	ED
Adaptor RJ45 (CAN OPEN) to D-type MALE (fits HMIs)	—	—	OPT-CNV001	72	ED
Adaptor RJ45 (CAN OPEN) to D-type FEMALE (fits e100 controllers & Wago couplers)	—	—	OPT-CNV002	72	ED
Gender Changer for use with HMI and RS232 Cable (order separately)	—	—	OPT033-501	14	ED
RS232 Cable from PC to any HMI Panel – 3 meters	—	—	CBL034-501	143	ED

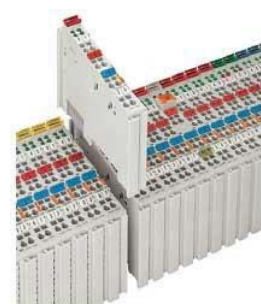
Shaded areas are stocked products.



## I/O Expansion Modules

Description	Catalog Number	List Price	Multiplier Symbol
CAN 16 Input Expansion Module	ION201-501	542	ED
CAN 16 Output Expansion Module	ION203-501	627	ED
CAN Analog 8-IN/4-OUT	ION206-501	876	ED
CAN 8 RelayOutput Expansion Module	ION202-501	815	ED
CAN 16 bi-directional I/O Expansion Module	ION205-501	712	ED
I/O Expansion to I/O Expansion Interconnect Cable (0.43m)	CBL043CM-CSS0	96	ED

Shaded areas are stocked products.



## WAGO I/O Expansion Modules

Description	Catalog Number	List Price	Multiplier Symbol
2-Channel Digital Input Module DC 24V	750-400	66	ED
4-Channel Digital Input Module DC 24V	750-402	92	ED
8-Channel Digital Input Module DC 24V	750-430	153	ED
2-Channel Analog Input Module +/-10V	750-456	583	ED
4-Channel Analog Input Module 0-10V	750-468	661	ED
2-Channel Analog Input Module 0-20 mA	750-480	629	ED
2-Channel Analog Input Module 4-20 mA	750-492	629	ED
2-Channel Analog Input Module PT100	750-461	627	ED
2-Channel Digital Output Module DC 24V	750-501	91	ED
4-Channel Digital Output Module DC 24V	750-504	105	ED
8-Channel Digital Output Module DC 24V	750-530	172	ED
2-Channel Analog Output Module 0-10V	750-550	552	ED
2-Channel Analog Output Module 0-20 mA	750-552	552	ED
2-Channel Analog Output Module 4-20 mA	750-554	549	ED
2-Channel Analog Output Module +/-10V	750-556	550	ED
CANopen Coupler	750-338	702	ED
ECO CANopen Coupler ④	750-348	488	ED
End Module	750-600	38	ED
Bus Power Feed Module DC 24V	750-601	55	ED
Field Side Connection Module 0-230V	750-614	46	ED
CANopen - Fieldbus Connector	750-963	69	ED

④ Requires Bus Power Feed Module 750-601

## Accessories

## Communication Cables

Description	Length		Catalog Number	List Price	Multiplier Symbol
	Meters	Feet			
For use with FlexDrive <sup>II</sup> , Flex+Drive <sup>II</sup> , MintDrive <sup>II</sup> and MicroFlex					
RS232 Serial Cable for use with PC	3	9.8	CBL001-501	127	ED



## Ethernet Communication Cables

Description	Length		Catalog Number	List Price	Multiplier Symbol
	Meters	Feet			
Ethernet/Shielded CAT5e RJ45	0.2	0.7	CBL002CM-EXS	20	ED
	0.5	1.6	CBL005CM-EXS	21	ED
	1	3.2	CBL010CM-EXS	26	ED
	2	6.5	CBL020CM-EXS	30	ED
	5	16.3	CBL050CM-EXS	53	ED
	10	32.6	CBL100CM-EXS	89	ED
	20	65.2	CBL200CM-EXS	155	ED



## Regen Resistors

For use with MintDrive<sup>II</sup>, Flex+Drive<sup>II</sup>, FlexDrive<sup>II</sup>, MicroFlex, MicroFlex e100

Control Current Rating	Input Voltages–								List Price	Mult. Sym.
	115 VAC		230 VAC 1 $\phi$		230 VAC 3 $\phi$		230-460 VAC 3 $\phi$			
	Catalog	Watts	Catalog	Watts	Catalog	Watts	Catalog	Watts		
3	–	–	RG56	44	–	–	–	–	170	ED
6 - 9	–	–	RG39	100	–	–	–	–	273	ED
7.5	RG22	100	RG39	100	–	–	RG68	320	273	ED
15 - 20	–	–	–	–	RG10	320	RG27A	320	273	ED
27.5	–	–	–	–	–	–	RG11	640	544	ED

For use with MotiFlex e100 230-460 VAC 50/60 Hz

Motiflex Catalog Number	Minimum Resistance (ohms)		Description	Part Number	List Price	Multiplier Symbol
	Single Drive	Shared DC Bus				
MFE460A001B	60	150	60 $\Omega$ , 100 W	RGJ160	111	ED
			60 $\Omega$ , 200 W	RGJ260	131	ED
MFE460A003B			60 $\Omega$ , 300 W	RGJ360	157	ED
			150 $\Omega$ , 100 W	RGJ1150	111	ED
MFE460A006B			150 $\Omega$ , 200 W	RGJ2150	131	ED
			150 $\Omega$ , 300 W	RGJ3150	157	ED
MFE460A010B	33	68	33 $\Omega$ , 500 W	RGJ533	244	ED
MFE460A016B			68 $\Omega$ , 300 W	RGJ368	157	ED
MFE460A021B	15	60	15 $\Omega$ , 500 W	RGJ515	244	ED
MFE460A026B			60 $\Omega$ , 300 W	RGJ360	157	ED
MFE460A033B						
MFE460A048B	7.5	33	10 $\Omega$ , 1.2 kW	RGA1210	849	ED
MFE460A065B			10 $\Omega$ , 2.4 kW	RGA2410	1299	ED
			10 $\Omega$ , 4.8 kW	RGA4810	2107	ED

Shaded areas are stocked products.



## Accessories



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### CE Filters For use with MintDrive<sup>II</sup>, Flex+Drive<sup>II</sup>, FlexDrive<sup>II</sup>, MicroFlex, MicroFlex e100

Control Continuous Current Rating	Input Voltages						Customer Supplied 24 VDC		Mult. Sym.
	115 VAC		230 VAC 1 $\phi$		230-460 VAC 3 $\phi$				
	Catalog	List Price	Catalog	List Price	Catalog	List Price	Catalog	List Price	
2.5, 3	FI0015A00	91	FI0015A00	91	FI0018A00	185	All models FI0014A00	91	ED
5, 6	FI0015A02	146	FI0015A02	146	FI0018A00	185			
7.5, 9	FI0029A00	324	FI0029A00	324	FI0018A00	185			
15, 20, 27.5	—	—	—	—	FI0018A01	310			

AC Controls

### For use with MotiFlex e100 230-460 VAC 50/60 Hz

1 - 3	—	—	—	—	FI0035A00	184	All models FI0014A00	91	ED
6 - 10.5	—	—	—	—	FI0035A01	218			
10 - 16	—	—	—	—	FI0035A02	250			
20	—	—	—	—	FI0035A03	374			
26	—	—	—	—	FI0035A04	424			
33.5 - 65	—	—	—	—	FI0035A05	517			



### 24V Power Supply

For use with NextMove ESB-2, MintDrive<sup>II</sup>, Flex+Drive<sup>II</sup>, FlexDrive, MicroFlex, MicroFlex e100, NextMove e100, MotiFlex e100, and Accessories

Continuous Current	Catalog No.	List Price	Mult. Sym.
3.2	DR-75-24	327	ED
5	DR-120-24	373	ED
10	DRP-240-24	647	ED

Shaded areas are stocked products.

# Brushless Servo Motor Identification Matrix

## N and C Series

		<b>B</b>	<b>S</b>	<b>M</b>					-							
Blank = Std		<b>Frame</b>				<b>Series</b>				<b>Motor Size</b>		<b>Winding Code</b>				
SS = Stainless Steel		IEC	NEMA		N						1	50				
Note: Not all options are available on all motors. Contact your local Baldor District Office.		50	5N		C						2	75				
		63	6N								3	etc.				
		80	8N								4					
		90	9N								etc.					
		100	10n													
<b>Motor Options</b>																

Description	Connections				
	Standard (Metric) Threaded Style	Optional (Inch) Quick Connect	Cables (5)	Flying Leads (5)	Rotate-able (Metric) Threaded (9)
Motor (No Shaft Seal)	A	I	E	M	R
Motor & Brake	B	J	F	N	S
Motor with Shaft Oil Seal	C	K	G	O	T
Motor with Brake & Shaft Oil Seal	D	L	H	P	U

### Feedback Options

- A = Resolver
- B = Absolute Encoder – Single-Turn (BiSS)
- B2 = Absolute Encoder – Multi-turn (BiSS)
- D = Absolute Encoder – Multi-turn (EnDat)
- D2 = Absolute Encoder – Single-turn (EnDat)
- D3 = Absolute Encoder – Single-turn (Hyperface)
- D4 = Absolute Encoder – Multi-turn (Hyperface)
- S1 = Absolute Encoder – Single-turn (SSI)
- S2 = Absolute Encoder – Multi-turn (SSI)
- E = Incremental Encoder w/Commutation (1000 ppr)
- F = Incremental Encoder w/Commutation (2500 ppr)
- H = Halls only
- V = Encoder mounting only
- Y = Resolver mounting only

### 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)
- Z1 = Blower (115 VAC) (not available on all motors)
- Z2 = Blower (230 VAC) (not available on all motors)
- Z3 = Blower (24 VDC)
- Z4 = Blower (230/460 VAC) for BSM132 only.

- NOTE:**
- The standard BSM50/63/80 Series includes feedback, two threaded connectors for feedback and motor terminations, square mounting flange.
  - The standard BSM90/100 Series includes feedback, one threaded connector for feedback termination, termination of motor lead wires on terminal block, square mounting flange.
  - BSM Motors do not have shaft seal as standard. BSM motors are IP60. Motors with meet IP65 with shaft oil seal.
  - SSBSM motors available with IEC mounting and include as standard a shaft seal. SSBSM motors are IP67.

- The standard BSM50 Series has as standard no keyway.
- Shielded cables and flying leads are one meter long as standard.
- Order motor power and feedback cable assemblies as separate items.
- Motors may be used with 115/230/400/460 volt controls. Verify that maximum speed is not exceeded.
- Rotate-able connectors not available on BSM50-Series
- Pricing for NEMA versions 5N, 6N, 8N, 9N and 10N same as 50, 63, 80, 90 and 100.
- Contact Baldor for special options.

# Options Chart - List Price Adder

## N and C Series

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Motor Option Description	Code	Motor Series					
		50N (3)	63N	80N 80C	90N 90C (6)	100N 100C (6)	132C (6)
The following options are supplied with either threaded connector (A,B,C,D) or optional quick style connector (I,J,K,L) (7)	(7)						
Motor (No Shaft Seal)	A or I	STD	STD	STD	STD (6)	STD (6)	STD (6)
Motor & Brake	B or J	316	402	402	497	864	2103
Motor with Shaft Oil Seal	C or K	35	35	35	35	35	39
Motor with Brake & Shaft Oil Seal	D or L	351	437	437	531	899	2142
The following options are supplied with shielded cables (length = 1 meter)							
Motor (No Shaft Seal)	E	N/C	N/C	N/C	32	32	N/A
Motor & Brake	F	316	402	402	528	894	N/A
Motor with Shaft Oil Seal	G	35	35	35	62	62	N/A
Motor with Brake & Shaft Oil Seal	H	351	437	437	590	957	N/A
The following options are supplied with flying leads (length = 1 meter)							
Motor (No Shaft Seal)	M	-139	-139	-139	-70	-70	N/A
Motor & Brake	N	159	246	246	419	786	N/A
Motor with Shaft Oil Seal	O	-111	-111	-111	-42	-42	N/A
Motor with Brake & Shaft Oil Seal	P	190	277	277	450	828	N/A
The following options are supplied with rotatable (metric) threaded connectors (3) (4) (5)							
Motor (no shaft seal)	R	C/F	13	13	(8) N/C	(8) N/C	(9) 98
Motor and brake	S	C/F	415	415	497	864	2201
Motor with shaft oil seal	T	C/F	48	48	35	35	137
Motor with brake and shaft oil seal	U	C/F	463	463	531	899	2240
<b>Feedback Option Description</b>							
Resolver	A				0		
Incremental Encoder with Hall Commutation (1000ppr)	E				107		
(2500ppr)	F				107		
(2000 - 5000)	C/F						
Absolute Encoder - Single-turn							
BISS	B				460		
EnDat	D2				1024		
Hyperface *	D3				225		
SSI	S1				1060		
Absolute Encoder - Multi-turn							
BISS	B2				790		
EnDat	D				1588		
Hyperface *	D4				479		
SSI	S2				1420		
Special Feedback	X						
Standard Feedback Mounting Only	Y				-139		
Halls Only	H				24		
<b>Accessory Option Description</b>							
No Option	BLANK				STD		
No Keyway	M				0		
DIN Standard 42955-R	N				135		
DIN 42955-R & NO Keyway	O				218		
Optional Motor Power Connector ①	P	STD	STD	STD	120	N/A	N/A
Blower, External (single phase)	Z1, Z2, Z3	N/A	N/A	N/A	1100	1100	N/A
Blower, External for BSM132 only	Z4	N/A	N/A	N/A	N/A	N/A	1165

**NOTE:** STD = Standard C/F = Contact factory Connector mounted on terminal box not rotatable  
N/C = No additional charge N/A = Not available

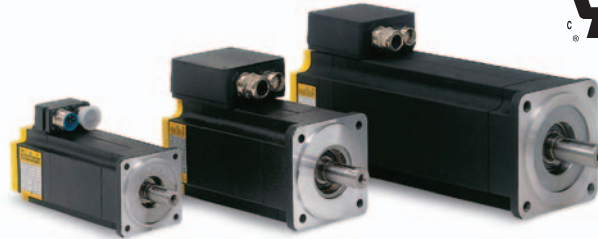
- Do not specify this option (accessory option "P") if motor continuous current is greater than 20 Amps. Connector mounted on terminal box not rotatable.
- Standard fail safe brake is 24VDC.
- Rotatable thru 180 degrees
- Rotatable connectors for power and feedback with no junction box on BSM90/100/132 motors.
- Rotate-able connectors are **not available on SSBSM-series**
- Motors come standard with terminal box. Strain relief for motor power and connector for feedback.
- Option I, J, K, L not available on BSM132
- 30 amp rotatable connector (no junction box)
- 70 amp rotatable connector (no junction box)
- \* Can only be used with MintDrive<sup>™</sup>, Flex+Drive<sup>™</sup> and FlexDrive<sup>™</sup>

16 **Brushless AC Servo Motors****BSM C-Series (Medium Inertia)**

Continuous Stall Torque		Continuous Stall Amps	Nominal Bus Volts	Motor Speed (RPM)	Catalog Number With Resolver	List Price	Catalog Number With Encoder	List Price	Multiplier Symbol
Lb-In	N-m								
Threaded Connectors on BSM 50/63/90; Terminal Box on BSM 90/100/132									
10.6	1.2	2.7	300	6000	BSM80C-150AA	1046	BSM80C-150AF	1153	E4
		1.9	300	4000	BSM80C-175AA		BSM80C-175AF		E4
21.2	2.4	5.2	300	6000	BSM80C-250AA	1106	BSM80C-250AF	1213	E4
		3.2	300	4000	BSM80C-275AA		BSM80C-275AF		E4
		1.6	600	4000	BSM80C-2150AA		BSM80C-2150AF		E4
23	2.1	2.1	300	2000	BSM90C-1150AA	1022	BSM90C-1150AF	1129	E4
31.8	3.6	7.8	200	4000	BSM80C-350AA	1141	BSM80C-350AF	1247	E4
		6.3	300	4000	BSM80C-375AA		BSM80C-375AF		E4
		3.2	600	4000	BSM80C-3150AA		BSM80C-3150AF		E4
38	4.3	6.3	300	4000	BSM80C-475AA	1178	BSM80C-475AF	1285	E4
		3.1	600	4000	BSM80C-4150AA		BSM80C-4150AF		E4
44.3	5.0	4.0	300	2400	BSM100C-1150AA	1491	BSM100C-1150AF	1598	E4
		2.3	300	1200	BSM100C-1250AA		BSM100C-1250AF		E4
46.0	5.2	9.0	300	4000	BSM90C-275AA	1135	BSM90C-275AF	1242	E4
		4.4	300	2000	BSM90C-2150AA		BSM90C-2150AF		E4
		2.5	300	1200	BSM90C-2250AA		BSM90C-2250AF		E4
69.0	7.8	12.0	300	4000	BSM90C-375AA	1265	BSM90C-375AF	1372	E4
		6.0	600	4000	BSM90C-3150AA		BSM90C-3150AF		E4
		3.5	300	1200	BSM90C-3250AA		BSM90C-3250AF		E4
88.5	10.0	8.0	300	2400	BSM100C-2150AA	1666	BSM100C-2150AF	1773	E4
		5.0	300	1200	BSM100C-2250AA		BSM100C-2250AF		E4
125.7	14.2	11.4	300	2400	BSM100C-3150AA	1878	BSM100C-3150AF	1985	E4
		7.0	300	1200	BSM100C-3250AA		BSM100C-3250AF		E4
177.0	20.0	16.8	300	2400	BSM100C-4150AA	2208	BSM100C-4150AF	2314	E4
		10.6	300	1200	BSM100C-4250AA		BSM100C-4250AF		E4
221.3	25.0	21.0	600	4000	BSM100C-5150AA	2505	BSM100C-5150AF	2612	E4
		13.0	600	2400	BSM100C-5250AA		BSM100C-5250AF		E4
265.5	30.0	24.0	600	4000	BSM100C-6150AA	2665	BSM100C-6150AF	2772	E4
		14.0	600	2400	BSM100C-6250AA		BSM100C-6250AF		E4
469	53	37	650	3500	BSM132C-3200AA	4480	BSM132C-3200AF	4587	E4
619	70	43	650	3500	BSM132C-4200AA	4856	BSM132C-4200AF	4963	E4
770	87	50	650	3500	BSM132C-5200AA	5234	BSM132C-5200AF	5341	E4
929	105	52	650	3500	BSM132C-6200AA	5522	BSM132C-6200AF	5629	E4
973	110	72	650	3500	BSM132C-7200AA	5812	BSM132C-7200AF	5919	E4
1017	115	74	650	3500	BSM132C-8200AA	6101	BSM132C-8200AF	6208	E4
1062	120	79	650	3500	BSM132C-9200AA	6391	BSM132C-9200AF	6498	E4
Rotatable Connectors									
21.4	2.4	3.2	300	4000	BSM80C-275RA	1119	BSM80C-275RF	1226	E4
31.8	3.6	6.3	300	4000	BSM80C-375RA	1154	BSM80C-375RF	1261	E4
38	4.3	6.3	300	4000	BSM80C-475RA	1406	BSM80C-475RF	1299	E4
69	7.8	6.0	600	4000	BSM90C-3150RA	1279	BSM90C-3150RF	1386	E4

# Brushless AC Servo Motors

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## BSM-N Series (Low Inertia)

Cont. Stall Torque		Cont. Stall Amps	Nominal Bus Volts	Motor Speed (RPM)	Motor Catalog Number With Resolver	List Price	Catalog Number With Encoder	List Price	Mult. Sym.
Lb-In	N-m								
Threaded Connectors on BSM 50/63/90; Terminal Box on BSM 90/100/132									
3.9	0.45	1.5	160	4000	BSM50N-133AA	929	BSM50N-133AF	1036	E4
		0.79	300	4000	BSM50N-175AA		BSM50N-175AF		E4
6.8	0.77	2.1	200	6000	BSM63N-133AA	1491	BSM63N-133AF	1598	E4
		1.9	200	4000	BSM63N-150AA		BSM63N-150AF		E4
		1.0	300	4000	BSM63N-175AA		BSM63N-175AF		E4
7.9	0.9	2.8	160	4000	BSM50N-233AA	1069	BSM50N-233AF	1176	E4
		1.4	160	2000	BSM50N-275AA		BSM50N-275AF		E4
12	1.36	4.5	160	4000	BSM50N-333AA	1211	BSM50N-333AF	1318	E4
		2.3	300	4000	BSM50N-375AA		BSM50N-375AF		E4
13	1.4	4.2	200	6000	BSM63N-233AA	1642	BSM63N-233AF	1749	E4
		3.0	200	4000	BSM63N-250AA		BSM63N-250AF		E4
		2.1	300	4000	BSM63N-275AA		BSM63N-275AF		E4
14.6	1.6	4.7	200	6000	BSM80N-133AA	1563	BSM80N-133AF	1670	E4
		3.0	300	6000	BSM80N-150AA		BSM80N-150AF		E4
		2.1	300	4000	BSM80N-175AA		BSM80N-175AF		E4
18.5	2	6.2	200	6000	BSM63N-333AA	1821	BSM63N-333AF	1928	E4
		4.4	200	4000	BSM63N-350AA		BSM63N-350AF		E4
		3.0	300	4000	BSM63N-375AA		BSM63N-375AF		E4
28.3	3.2	8.7	200	6000	BSM80N-233AA	1720	BSM80N-233AF	1827	E4
		5.6	200	4000	BSM80N-250AA		BSM80N-250AF		E4
		3.9	300	4000	BSM80N-275AA		BSM80N-275AF		E4
40	4.5	12.9	200	6000	BSM80N-333AA	1947	BSM80N-333AF	2054	E4
		8.6	200	4000	BSM80N-350AA		BSM80N-350AF		E4
		5.5	300	4000	BSM80N-375AA		BSM80N-375AF		E4
53	6	8.0	300	4000	BSM90N-175AA	2026	BSM90N-175AF	2133	E4
		4.1	300	2000	BSM90N-1150AA		BSM90N-1150AF		E4
		2.6	300	1200	BSM90N-1250AA		BSM90N-1250AF		E4
88	10	12	300	4000	BSM90N-275AA	2346	BSM90N-275AF	2453	E4
		6.3	300	2000	BSM90N-2150AA		BSM90N-2150AF		E4
		4.3	300	1200	BSM90N-2250AA		BSM90N-2250AF		E4
117	13.3	19	300	4000	BSM90N-375AA	2967	BSM90N-375AF	3074	E4
		8.6	300	2000	BSM90N-3150AA		BSM90N-3150AF		E4
		5.5	300	1200	BSM90N-3250AA		BSM90N-3250AF		E4
123	14.0	9.4	300	2000	BSM100N-1150AA	2605	BSM100N-1150AF	2712	E4
		5.9	300	1200	BSM100N-1250AA		BSM100N-1250AF		E4
203	23.0	15.5	300	2000	BSM100N-2150AA	3107	BSM100N-2150AF	3214	E4
		9.9	300	1200	BSM100N-2250AA		BSM100N-2250AF		E4
300	33.9	21	300	2000	BSM100N-3150AA	3578	BSM100N-3150AF	3684	E4
		14.7	300	1200	BSM100N-3250AA		BSM100N-3250AF		E4
354	40.0	28.9	300	2000	BSM100N-4150AA	4403	BSM100N-4150AF	4510	E4
		18	300	1200	BSM100N-4250AA		BSM100N-4250AF		E4
Rotatable Connectors									
6.8	0.77	1.0	300	4000	BSM63N-175RA	1505	BSM63N-175RF	1612	E4
13	1.4	2.1	300	4000	BSM63N-275RA	1655	BSM63N-275RF	1762	E4
18.5	2	3.0	300	4000	BSM63N-375RA	1833	BSM63N-375RF	1940	E4
28.3	3.2	3.9	300	4000	BSM80N-275RA	1733	BSM80N-275RF	1840	E4
40	4.5	5.5	300	4000	BSM80N-375RA	1960	BSM80N-375RF	2067	E4

See Notes on Page 14

Shaded areas are stocked products.

AC Motors

# Brushless Servo Motors

## Brake Equipped BSM Servo Motors

Continuous Stall Torque		Continuous Stall Amps	Nominal Bus Volts	Motor Speed (RPM)	Catalog Number	List Price	Multiplier Symbol
Lb-In	N-m						
With Resolver and 24 VDC Brakes							
6.8	0.77	1.0	300	4000	BSM63N-175BA	1892	E4
13	1.4	2.1	300	4000	BSM63N-275BA	2054	E4
14.6	1.6	2.1	300	4000	BSM80N-175BA	1965	E4
18.5	2.0	3.0	300	4000	BSM63N-375BA	2293	E4
28.3	3.2	3.9	300	4000	BSM80N-275BA	2120	E4
40	4.5	5.5	300	4000	BSM80N-375BA	2349	E4
53	6.0	8.0	300	4000	BSM90N-175BA	2522	E4
117	13.3	19	300	4000	BSM90N-375BA	3595	E4
123	14.0	9.4	300	2000	BSM100N-1150BA	3468	E4
300	33.9	21	300	2000	BSM100N-3150BA	4599	E4

**NOTE:** \* BA suffix indicates 24 VDC internal electrically released spring set brake.  
Brake is for holding position only. Not for stopping.

Shaded areas are stocked products.

## Blower Kits For use with BSM 90/100/132 motors

Motor Series	Motor Code	Blower kit for motor			Blower kit for motor/brake			List Price	Multiplier Symbol
		115 vac 1 $\phi$	230 vac 1 $\phi$	24 vdc	115 vac 1 $\phi$	230 vac 1 $\phi$	24 vdc		
N-Series	BSM90N-2	BSM90N-2FN-1	BSM90N-2FN-8	BSM90N-2FN-D	BSM90N-2FNB-1	BSM90N-2FNB-8	BSM90N-2FNB-D	1101	E4
	BSM90N-3	BSM90N-3FN-1	BSM90N-3FN-8	BSM90N-3FN-D	BSM90N-3FNB-1	BSM90N-3FNB-8	BSM90N-3FNB-D		
	BSM100N-3	BSM100N-3FN-1	BSM100N-3FN-8	BSM100N-3FN-D	BSM100N-3FNB-1	BSM100N-3FNB-8	BSM100N-3FNB-D		
	BSM100N-4	BSM100N-4FN-1	BSM100N-4FN-8	BSM100N-4FN-D	BSM100N-4FNB-1	BSM100N-4FNB-8	BSM100N-4FNB-D		
C-Series	BSM90C-2	BSM90C-2FN-1	BSM90C-2FN-8	BSM90C-2FN-D	BSM90C-2FNB-1	BSM90C-2FNB-8	BSM90C-2FNB-D		
	BSM90C-3	BSM90C-3FN-1	BSM90C-3FN-8	BSM90C-3FN-D	BSM90C-3FNB-1	BSM90C-3FNB-8	BSM90C-3FNB-D		
	BSM100C-3	BSM100C-3FN-1	BSM100C-3FN-8	BSM100C-3FN-D	BSM100C-3FNB-1	BSM100C-3FNB-8	BSM100C-3FNB-D		
	BSM100C-4	BSM100C-4FN-1	BSM100C-4FN-8	BSM100C-4FN-D	BSM100C-4FNB-1	BSM100C-4FNB-8	BSM100C-4FNB-D		
	BSM100C-5	BSM100C-5FN-1	BSM100C-5FN-8	BSM100C-5FN-D	BSM100C-5FNB-1	BSM100C-5FNB-8	BSM100C-5FNB-D		
	BSM100C-6	BSM100C-6FN-1	BSM100C-6FN-8	BSM100C-6FN-D	BSM100C-6FNB-1	BSM100C-6FNB-8	BSM100C-6FNB-D		

Motor Series	Motor Code	Kit for motor	Kit for motor/brake	List Price	Multiplier Symbol
		230/460 vac 3 $\phi$	230/460 vac 3 $\phi$		
C-Series	BSM132C-3	BSM132C-3FN-7	BSM132C-3FNB-7	1166	E4
	BSM132C-4	BSM132C-4FN-7	BSM132C-4FNB-7		
	BSM132C-5	BSM132C-5FN-7	BSM132C-5FNB-7		
	BSM132C-6	BSM132C-6FN-7	BSM132C-6FNB-7		
	BSM132C-7	BSM132C-7FN-7	BSM132C-7FNB-7		
	BSM132C-8	BSM132C-8FN-7	BSM132C-8FNB-7		
	BSM132C-9	BSM132C-9FN-7	BSM132C-9FNB-7		



# Stainless Steel Brushless AC Servo Motors - SSBSM Series

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Continuous Stall Torque		Continuous Stall Amps	Nominal Bus Volts	Motor Speed (RPM)	Motor Catalog Number with Resolver	List Price	Motor Catalog Number with Encoder	List Price	Multiplier Symbol
Lb-In	N-m								
3.9	0.45	0.8	300	4000	SSBSM50N-175CA	2407	SSBSM50N-175CF	2514	E4
7.9	0.9	1.4	160	2000	SSBSM50N-275CA	2547	SSBSM50N-275CF	2654	E4
12	1.3	2.4	300	4000	SSBSM50N-375CA	2689	SSBSM50N-375CF	2796	E4
11	1.2	1.7	300	4000	SSBSM63N-275CA	3173	SSBSM63N-275CF	3280	E4
18.5	1.7	2.5	300	4000	SSBSM63N-375CA	3353	SSBSM63N-375CF	3459	E4
23	2.5	3.1	300	4000	SSBSM80N-275CA	3134	SSBSM80N-275CF	3241	E4
32	3.6	4.4	300	4000	SSBSM80N-375CA	3360	SSBSM80N-375CF	3467	E4
42	4.8	3.3	300	2000	SSBSM90N-1150CA	3729	SSBSM90N-1150CF	3836	E4
70	7.9	5	300	2000	SSBSM90N-2150CA	4050	SSBSM90N-2150CF	4157	E4
94	10	7.1	300	2000	SSBSM90N-3150CA	4669	SSBSM90N-3150CF	4776	E4
163	18	13.4	300	2000	SSBSM100N-2150CA	5150	SSBSM100N-2150CF	5257	E4
240	27	18.3	300	2000	SSBSM100N-3150CA	5732	SSBSM100N-3150CF	5839	E4
283	32	14.4	300	1200	SSBSM100N-4250CA	6557	SSBSM100N-4250CF	6664	E4
8	0.9	1.9	300	4000	SSBSM80C-175CA	2459	SSBSM80C-175CF	2566	E4
16.8	1.9	2.6	300	4000	SSBSM80C-275CA	2522	SSBSM80C-275CF	2629	E4
25	2.8	5	300	4000	SSBSM80C-375CA	2556	SSBSM80C-375CF	2663	E4
30	3.4	5	300	4000	SSBSM80C-475CA	2594	SSBSM80C-475CF	2700	E4
37	4.2	3.5	300	2000	SSBSM90C-2150CA	2838	SSBSM90C-2150CF	2945	E4
55	6.2	4.8	300	2000	SSBSM90C-3150CA	2968	SSBSM90C-3150CF	3075	E4
71	8	6.4	300	2400	SSBSM100C-2150CA	3707	SSBSM100C-2150CF	3814	E4
100	11.3	9.1	300	2400	SSBSM100C-3150CA	3919	SSBSM100C-3150CF	4026	E4
142	16	13.5	300	2400	SSBSM100C-4150CA	4248	SSBSM100C-4150CF	4355	E4
177	20	16.8	600	4000	SSBSM100C-5150CA	4547	SSBSM100C-5150CF	4653	E4
212	24	19.2	600	4000	SSBSM100C-6150CA	4706	SSBSM100C-6150CF	4813	E4

**NOTE:** \* Standard SSBSM series includes IEC mounting flange. Shaded areas are stocked products.  
 Standard SSBSM50 has an standard no keyway and no tap on shaft end.  
 Standard SSBSM50/63/80/90/100 include two threaded stainless steel connectors for feedback and motor termination.  
 Order feedback and power cables separately.  
 Standard motor has Teflon stainless steel seal with Viton O-rings.  
 Standard encoder is 2500 ppr.

## 20 Raw Cable and Cable Assemblies

## Motor Power Cables

Current Rating	Length		Cable Assemblies			Raw Cable			Stainless Steel Cables		
	Feet	Meters	Threaded ③ CE Connector	List Price	Mult. Sym.	No Connector	List Price	Mult. Sym.	Threaded ③ CE Connector	List Price	Mult. Sym.
12	5	1.5	CBL015SP-12	176	ED	CBL015RP-12	39	ED	CBL015SP-12S	390	ED
	10	3.0	CBL030SP-12	211	ED	CBL030RP-12	74	ED	CBL030SP-12S	448	ED
	20	6.1	CBL061SP-12	283	ED	CBL061RP-12	146	ED	CBL061SP-12S	515	ED
	30	9.1	CBL091SP-12	354	ED	CBL091RP-12	219	ED	CBL091SP-12S	579	ED
	50	15.2	CBL152SP-12	498	ED	CBL152RP-12	360	ED	CBL152SP-12S	702	ED
	75	22.9	CBL229SP-12	676	ED	CBL229RP-12	541	ED	—	—	—
	100	30.5	CBL305SP-12	854	ED	CBL305RP-12	719	ED	—	—	—
	250	76.0	—	—	—	CBL760RP-12	1794	ED	—	—	—
	500	152.5	—	—	—	CBL1525RP-12	3584	ED	—	—	—
20	5	1.5	CBL015SP-20	224	ED	CBL015RP-20	46	ED	CBL015SP-20S	411	ED
	10	3.0	CBL030SP-20	269	ED	CBL030RP-20	90	ED	CBL030SP-20S	449	ED
	20	6.1	CBL061SP-20	354	ED	CBL061RP-20	176	ED	CBL061SP-20S	518	ED
	30	9.1	CBL091SP-20	440	ED	CBL091RP-20	261	ED	CBL091SP-20S	594	ED
	50	15.2	CBL152SP-20	611	ED	CBL152RP-20	432	ED	CBL152SP-20S	729	ED
	75	22.9	CBL229SP-20	827	ED	CBL229RP-20	648	ED	—	—	—
	100	30.5	CBL305SP-20	1041	ED	CBL305RP-20	862	ED	—	—	—
	250	76.0	—	—	—	CBL760RP-20	2150	ED	—	—	—
	500	152.5	—	—	—	CBL1525RP-20	4298	ED	—	—	—
35	5	1.5	CBL015SP-35	345	ED	CBL015RP-35	81	ED	—	—	—
	10	3.0	CBL030SP-35	390	ED	CBL030RP-35	157	ED	—	—	—
	20	6.1	CBL061SP-35	475	ED	CBL061RP-35	289	ED	—	—	—
	30	9.1	CBL091SP-35	560	ED	CBL091RP-35	432	ED	—	—	—
	50	15.2	CBL152SP-35	719	ED	CBL152RP-35	719	ED	—	—	—
	75	22.9	CBL229SP-35	918	ED	CBL229RP-35	1078	ED	—	—	—
	100	30.5	CBL305SP-35	1117	ED	CBL305RP-35	1435	ED	—	—	—
	250	76.0	—	—	—	CBL760RP-35	3584	ED	—	—	—
50	5	1.5	CBL015SP-50	391	ED	CBL015RP-50	169	ED	—	—	—
	10	3	CBL030SP-50	477	ED	CBL030RP-50	284	ED	—	—	—
	20	6.1	CBL061SP-50	649	ED	CBL061RP-50	542	ED	—	—	—
	30	9.1	CBL091SP-50	821	ED	CBL091RP-50	796	ED	—	—	—
	50	15.2	CBL152SP-50	1154	ED	CBL152RP-50	1307	ED	—	—	—
	75	22.9	CBL229SP-50	1571	ED	CBL229RP-50	1948	ED	—	—	—
	100	30.5	CBL305SP-50	1988	ED	CBL305RP-50	2590	ED	—	—	—
90	5	1.5	—	—	—	CBL015RP-90	209	ED	—	—	—
	10	3	—	—	—	CBL030RP-90	365	ED	—	—	—
	20	6.1	—	—	—	CBL061RP-90	710	ED	—	—	—
	30	9.1	—	—	—	CBL091RP-90	1046	ED	—	—	—
	50	15.2	—	—	—	CBL152RP-90	1725	ED	—	—	—
	75	22.9	—	—	—	CBL229RP-90	2578	ED	—	—	—
	100	30.5	—	—	—	CBL305RP-90	3428	ED	—	—	—

Shaded areas are stocked products.

## Feedback Cables

Item	Length		Cable Assemblies			Raw Cable			Stainless Steel Cables		
	Feet	Meters	Threaded ③ CE Connector	List Price	Mult. Sym.	No Connector	List Price	Mult. Sym.	Threaded ③ CE Connector	List Price	Mult. Sym.
Resolver	5	1.5	CBL015SF-R	171	ED	CBL015RF-R	37	ED	CBL015SF-RS	337	ED
	10	3.0	CBL030SF-R	203	ED	CBL030RF-R	64	ED	CBL030SF-RS	358	ED
	20	6.1	CBL061SF-R	269	ED	CBL061RF-R	121	ED	CBL061SF-RS	393	ED
	30	9.1	CBL091SF-R	333	ED	CBL091RF-R	178	ED	CBL091SF-RS	429	ED
	50	15.2	CBL152SF-R	461	ED	CBL152RF-R	291	ED	CBL152SF-RS	501	ED
	75	22.9	CBL229SF-R	622	ED	CBL229RF-R	405	ED	-	-	-
	100	30.5	CBL305SF-R	784	ED	CBL305RF-R	518	ED	-	-	-
	250	76.0	-	-	-	CBL760RF-R	1199	ED	-	-	-
	500	152.5	-	-	-	CBL1525RF-R	2331	ED	-	-	-
Encoder / Hall Cable	5	1.5	CBL015SF-E	211	ED	CBL015RF-E	60	ED	CBL015SF-ES	386	ED
	10	3.0	CBL030SF-E	269	ED	CBL030RF-E	87	ED	CBL030SF-ES	412	ED
	20	6.1	CBL061SF-E	382	ED	CBL061RF-E	140	ED	CBL061SF-ES	467	ED
	30	9.1	CBL091SF-E	498	ED	CBL091RF-E	194	ED	CBL091SF-ES	520	ED
	50	15.2	CBL152SF-E	726	ED	CBL152RF-E	301	ED	CBL152SF-ES	627	ED
	75	22.9	CBL229SF-E	1012	ED	CBL229RF-E	435	ED	-	-	-
	100	30.5	CBL305SF-E	1298	ED	CBL305RF-E	568	ED	-	-	-
	250	76.0	-	-	-	CBL760RF-E	1208	ED	-	-	-
	500	152.5	-	-	-	CBL1525RF-E	2272	ED	-	-	-
			Resolver Feedback Threaded ④ CE Connector and DB9			Encoder Feedback Threaded ④ CE Connector High Density DB15			EnDat Feedback Threaded ④ CE Connector High Density DB15		
For use with Series-II Drives	5	1.5	CBL015SF-R1	236	ED	CBL015SF-E1	279	ED	CBL015SF-D1	270	ED
	10	3.0	CBL030SF-R1	256	ED	CBL030SF-E1	305	ED	CBL030SF-D1	304	ED
	20	6.1	CBL061SF-R1	299	ED	CBL061SF-E1	353	ED	CBL061SF-D1	372	ED
	30	9.1	CBL091SF-R1	341	ED	CBL091SF-E1	402	ED	CBL091SF-D1	440	ED
	50	15.2	CBL152SF-R1	471	ED	CBL152SF-E1	498	ED	CBL152SF-D1	576	ED
	75	22.9	CBL229SF-R1	632	ED	CBL229SF-E1	624	ED	CBL229SF-D1	745	ED
	100	30.5	CBL305SF-R1	792	ED	CBL305SF-E1	740	ED	CBL305SF-D1	915	ED
			Encoder Feedback Threaded ④ CE Connector and Std DB15			SSI Feedback Threaded ④ Connector and Std DB15			EnDat BiSS ⑤ Feedback Threaded ④ CE Connector and Std DB15		
For Use with MicroFlex and e100	5	1.5	CBL015SF-E2	279	ED	CBL015SF-S2	240	ED	CBL015SF-D2	261	ED
	10	3.0	CBL030SF-E2	304	ED	CBL030SF-S2	265	ED	CBL030SF-D2	285	ED
	20	6.1	CBL061SF-E2	353	ED	CBL061SF-S2	314	ED	CBL061SF-D2	334	ED
	30	9.1	CBL091SF-E2	400	ED	CBL091SF-S2	366	ED	CBL091SF-D2	383	ED
	50	15.2	CBL152SF-E2	497	ED	CBL152SF-S2	467	ED	CBL152SF-D2	483	ED
	75	22.9	CBL229SF-E2	619	ED	CBL229SF-S2	594	ED	CBL229SF-D2	606	ED
	100	30.5	CBL305SF-E2	739	ED	CBL305SF-S2	728	ED	-	770	ED

**NOTE:** 1) BSM series require both power and feedback cables. ④ Cable assemblies include two connectors as indicated.  
2) CE style has shield tied to connector housing. ⑤ BiSS cable for use with MicroFlex e100  
③ Cable assemblies include one connector on one end, flying leads other end.

## Mating Connectors

Termination	Motor Type	Description	Number	List Price	Mult. Sym.
Motor Power	BSM50/63/80/90/100	Mate Assy Power CE Threaded Connector (25 amp) (8 pin)	MCSP0W-08	182	ED
	BSM132	Mate Assy Rotatable Power (70 amp)		C/F	C/F
	SSBSM	Mate Assy Power Stainless Steel Threaded Conn (25 amp)	MCSP0W-08S	360	ED
Strain Relief	BSM90/100	PG21 Strain Relief	MCS-PG21	81	ED
		PG29 Strain Relief	ASR24661	70	ED
		Adaptor (PG29 to PG21)	ASR24662	18	ED
		M40 Strain Relief	MCS-M40	70	ED
		Adaptor (M40 to M25)	MCS-M40A	18	ED
Resolver, BiSS, SSI, Hyperface, EnDat	BSM50/63/80/90/100/132	Mate Assy Feedback CE Threaded Connector (12 pin)	MCSRES-12	139	ED
	SSBSM	Mate Assy Feedback Threaded Conn Stainless Steel	MCSRES-12S	397	ED
	BSM - F-Series	F-Series Resolver Mate Assy (14 pin)	MSCN	75	ED
Encoder	BSM50/63/80/90/100/132	Mate Assy Encoder CE Threaded Connector (16 pin)	MCSENC-16	153	ED
	SSBSM	Mate Assy Encoder Threaded Conn Stainless Steel	MCSENC-16S	397	ED

Shaded areas are stocked products.

# Brushless Servo Motor Identification Matrix

## 24, 25 and 33 Series

<b>B</b>	<b>S</b>	<b>M</b>					-							
			<b>Frame</b>	<b>Series</b>		<b>Motor Size</b>		<b>Winding Code</b>						
			24 25 33	C		1 4 2 5 3 6		177 etc.						

**Motor Options**

Description	Connections	
	Flying Leads	Rotatable Feedback Connector & Motor Terminal Box
Motor (No Shaft Seal)	M	R
Motor & Brake	N	S
Motor with Shaft Oil Seal	O	T
Motor with Brake & Shaft Oil Seal	P	U

### Feedback Options

H = Halls  
A = Resolver  
E = Incremental Encoder w/Commutation (1000 ppr)  
F = Incremental Encoder w/Commutation (2500 ppr)

### Accessory Options

Q = Foot & Round Face  
C = Round Face Only  
F = Foot Mount  
C1 = 33 Frame Only IEC Flange MTG  
C2 = 33 Frame Only IEC Face MTG

Adder for BSM25/33C Options				
Adder for Options				
	Code	Description	25 Frame List Price Adder	33 Frame List Price Adder
Motor Options	M	flying leads	STD	STD
	N	flying leads & brake (24vdc)	145	313
	O	flying leads & oil seal	20	31
	P	flying leads & brake & oil seal	165	344
	R	rotatable feedback connector & motor power terminal box	12	12
	S	rotatable feedback connector & motor power terminal box & brake	157	325
	T	rotatable feedback connector & motor power terminal box & oil seal	32	43
	U	rotatable feedback connector & motor power terminal box & oil seal	177	356
Feedback Options	H	halls	STD	STD
	A	resolver	102	102
	E	Inc encoder w/halls 1000 ppr	219	219
	F	Inc encoder w/halls 2500 ppr	219	219
	X	other Inc encoder w/halls ppr	C/F	C/F
Mounting Options	Q	foot & round face	0	STD
	C	round face only (inch) 42C 56C	STD	-11
	C1	33 frame only IEC flange mtg	N/A	68
	C2	33 frame only IEC face mtg	N/A	77
	F	foot mount	13	14
	C/F	custom face 42C	C/F	47

# Brushless Adjustable Speed Motors & Controls



## BSM Round 24, 25 & 33-Series (Hall Feedback)

Output		Voltage	Speed	Continuous Stall Torque		Catalog Number	NEMA	List Price	Multiplier Symbol
Hp	kW	Vdc	RPM	Lb-In	Nm				
1/8	0.09	320	1800	5.9	0.8	BSM24C-1177MHC	42	510	E4
1/4	0.18	320	1800	10.5	1.2	BSM24C-2177MHC	42	541	E4
1/4	0.18	320	1800	18.6	2.1	BSM25C-1177MHC	42	591	E4
1/2	0.37	320	1800	23.0	2.6	BSM25C-2177MHC	42	637	E4
1/2	0.37	320	1800	27.4	2.55	BSM33C-2177MHQ	56	674	E4
1	0.75	320	1800	35.4	4	BSM33C-3177MHQ	56	716	E4
1.5	1.13	320	1800	79.7	9	BSM33C-4177MHQ	56	823	E4
2	1.5	320	1800	99.1	11.2	BSM33C-5177MHQ	56	1098	E4
3	2.2	320	1800	138.1	14.23	BSM33C-6177MHQ	56	1294	E4

**NOTE:** Standard motors supplied with flying leads

Shaded areas are stocked products.

AC Motors



## BMC Series

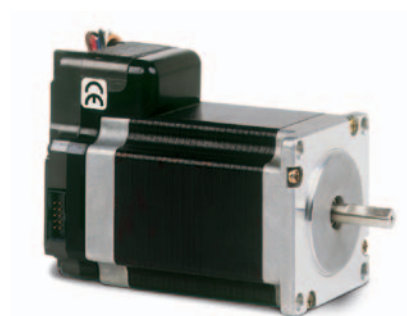
Bus Voltage		320 VDC					
Output Current Amps (rms)		Input Voltage VAC 50/60 Hz	Hp	kW	Catalog Number	List Price	Multiplier Symbol
Cont	Peak						
1	2	115/208/230	1/8	0.1	BMC6A00	345	E3
1.5	3	115/208/230	1/4	0.18	BMC6A01	367	E3
2.4	4.8	115/208/230	1/2	0.37	BMC6A02	400	E3
4	8	115/208/230	1	0.75	BMC6A04	441	E3
5.5	11	115/208/230	1.5	1.13	BMC6A05	474	E3
6.7	13	208/230	2	1.5	BMC2A06	576	E3
9	18	208/230	3	2.2	BMC2A09	661	E3

**NOTE:** For use with Hall feedback motors only

Shaded areas are stocked products.

# Integrated Stepper/Driver

For use with Baldor NextMove products



Holding Torque		Voltage Range VDC	Catalog number	List Price	Mult. Sym.
oz-in	n-cm				
Flying Leads					
32	22.6	12-48	DSMS17F-1A	548	E3
60	42.4	12-48	DSMS17F-2A	565	E3
75	52.9	12-48	DSMS17F-3A	598	E3
90	64	12-75	DSMS23F-1B	708	E3
144	102	12-75	DSMS23F-2B	725	E3
239	169	12-75	DSMS23F-3B	751	E3
250		12-75	DSMS23F-4B	933	E3
381	233	12-75	DSMS34F-1B	1090	E3
575	353	12-75	DSMS34F-2B	1156	E3
1061	529	12-75	DSMS34F-3B	1230	E3
P Connector					
32	22.6	12-48	DSMS17P-1A	561	E3
60	42.4	12-48	DSMS17P-2A	578	E3
75	52.9	12-48	DSMS17P-3A	611	E3
90	64	12-75	DSMS23P-1B	721	E3
144	102	12-75	DSMS23P-2B	738	E3
239	169	12-75	DSMS23P-3B	765	E3
USB parameter set up cable			CBL055-502	285	E3
manual control knob			DSMS***-**-M	46	E3

Shaded areas are stocked products.



# Servo Motor Gearhead Identification Matrix

<b>G</b>	<b>B</b>	<b>S</b>	<b>M</b>	-				-							-			
<b>Motor</b>				<b>Gearbox Model</b>											<b>Ratio</b>			
50																		
63																		
80																		
90																		
100																		
132																		
				Standard	MRP050 MRP070 MRP090 MRP120 MRP155	Lower Backlash	MRA065 MRA080 MRA115 MRA140 MRA180	Stainless	MSS080 MSS115 MSS140									
								Right Angle Stainless	MRS080 MRS115 MRS140									
				Higher Torque Lower Backlash	MNT065 MNT080 MNT115 MNT140 MNT180 MNT210	Right Angle	MRA065 MRA080 MRA115 MRA140 MRA180	Rotating Flange (Shaftless design)	BDB085 BDB120 BDB145 BDB180 BDB250 BDB300 BDB330									

Example: G BSM80 - MRP090 - 4

Example: G BSM80 - MRP090 - 4

## Servo Motor Gearhead Designed Specifically for BSM Servo



Gearhead Catalog Number	Max. Backlash Arc - Min.	Gear fits these motors		Gear Ratio	List Price	Mult. Sym.
		BSM-N	BSM-C			
GBSM50-MRP050-5	12	BSM50N-1 or -2	—	5	1156	E4
GBSM50-MRP050-10	12	BSM50N-1	—	10	1156	E4
GBSM63-MRP070-5	12	BSM63N-all	—	5	1310	E4
GBSM63-MRP070-10	12	BSM63N-1 or -2	—	10	1310	E4
GBSM63-MRP090-25	12	BSM63N-1 or -2	—	25	2194	E4
GBSM63-MRP090-50	12	BSM63N-1	—	50	2194	E4
GBSM80-MRP090-4	10	BSM80N-all	BSM80C-all	4	1540	E4
GBSM80-MRP090-5	10	BSM80N-all	BSM80C-all	5	1540	E4
GBSM80-MRP090-7	10	BSM80N-all	BSM80C-all	7	1540	E4
GBSM80-MRP090-10	10	BSM80N-1 or -2	BSM80C-1 or -2	10	1540	E4
GBSM80-MRP090-16	12	BSM80N-1 or -2	BSM80C-1 or -2	16	2194	E4
GBSM80-MRP090-25	12	BSM80N-1	BSM80C-1	25	2194	E4
GBSM80-MRP120-50	12	BSM80N-1 or -2	BSM80C-1 or -2	50	2665	E4
GBSM80-MRP155-100	12	BSM80N-1	BSM80C-1	100	3226	E4
GBSM90-MRP120-4	10	BSM90N-all	BSM80C-all	4	1966	E4
GBSM90-MRP120-5	10	BSM90N-all	BSM80C-all	5	1966	E4
GBSM90-MRP120-7	10	BSM90N-all	BSM80C-all	7	1966	E4
GBSM90-MRP120-10	10	BSM90N-1	BSM90C-1 or -2	10	1966	E4
GBSM90-MRP120-25	12	BSM90N-1	BSM90C-1 or -2	25	2665	E4
GBSM90-MRP155-10	10	BSM90N-all	BSM90C-3	10	2477	E4
GBSM90-MRP155-25	12	BSM90N-all	BSM90C-3	25	3226	E4
GBSM100-MRP120-3	10	BSM100N-all	BSM100C-all	3	1966	E4
GBSM100-MRP120-5	10	BSM100N-1 or -2	BSM100C-1-2-3-4	5	1966	E4
GBSM100-MRP155-5	10	BSM100N-3 or -4	BSM100C-5 or -6	5	2477	E4
GBSM100-MRP155-10	10	BSM100N-1	BSM100C-1or-2or-3	10	2477	E4

Shaded areas are stocked products.

## Standard Gearheads

Gearhead Type	Number of Stages	Ratios Available	Backlash Arc-min	Catalog Number	List Price	Mult. Sym.
MRP 050	1	4-5-7-10	12	MRP 050 (4-10)	1156	E4
	2	16-20-25-35-40-50-70-100	15	MRP 050 (16-100)	1642	E4
MRP 070	1	3-4-5-7-10	12	MRP 070 (3-10)	1310	E4
	2	16-20-25-35-40-50-70-100	15	MRP 070 (16-100)	1917	E4
MRP 090	1	3-4-5-7-10	10	MRP 090 (3-10)	1540	E4
	2	16-20-25-35-40-50-70-100	12	MRP 090 (16-100)	2194	E4
MRP 120	1	3-4-5-7-10	10	MRP 120 (3-10)	1966	E4
	2	16-20-25-35-40-50-70-100	12	MRP 120 (16-100)	2665	E4
MRP 155	1	3-4-5-7-10	10	MRP 155 (3-10)	2477	E4
	2	16-20-25-35-40-50-70-100	12	MRP 155 (16-100)	3226	E4

## Higher Torque / Lower Backlash Gearhead

Gearhead Type	Number of Stages	Ratios Available	Standard Arc-Min Backlash	Catalog Number	List Price	Reduced Arc-Min Backlash	Catalog Number	List Price	Mult. Sym.
MNT 065	1	3-4-5-7-10	15	MNT 065 (3-10)	1779	5	MNT 065 (3-10-L)	2134	E4
	2	16-20-25-35-40-50-70-100	15	MNT 065 (16-100)	2672	5	MNT 065 (16-100-L)	3213	E4
MNT 080	1	3-4-5-7-10	10	MNT 080 (3-10)	2516	5	MNT 080 (3-10-L)	2878	E4
	2	16-20-25-35-40-50-70-100	10	MNT 080 (16-100)	3267	5	MNT 080 (16-100-L)	3749	E4
	3	125 & 175	10	MNT 080 (125-175)	4012	5	MNT 080 (125-175-L)	4619	E4
MNT 115	1	3-4-5-7-10	10	MNT 115 (3-10)	3505	5	MNT 115 (3-10-L)	4038	E4
	2	16-20-25-35-40-50-70-100	10	MNT 115 (16-100)	4327	5	MNT 115 (16-100-L)	4955	E4
	3	125 & 175	10	MNT 115 (125-175)	5149	5	MNT 115 (125-175-L)	5873	E4
MNT 140	1	3-4-5-7-10	10	MNT 140 (3-10)	5052	5	MNT 140 (3-10-L)	5778	E4
	2	16-20-25-35-40-50-70-100	10	MNT 140 (16-100)	6234	5	MNT 140 (16-100-L)	7181	E4
	3	125 & 175	10	MNT 140 (125-175)	7422	5	MNT 140 (125-175-L)	8580	E4
MNT 180	1	3-4-5-7-10	6	MNT 180 (3-10)	6744	3	MNT 180 (3-10-L)	7710	E4
	2	16-20-25-35-40-50-70-100	6	MNT 180 (16-100)	8167	3	MNT 180 (16-100-L)	9355	E4
	3	125 & 175	6	MNT 180 (125-175)	C/F	3	MNT 180 (125-175-L)	C/F	E4
MNT 210	1	3-4-5-7-10	6	MNT 210 (3-10)	11397	3	MNT 210 (3-10-L)	12933	E4
	2	16-20-25-35-40-50-70-100	6	MNT 210 (16-100)	14517	3	MNT 210 (16-100-L)	16576	E4
	3	125 & 175	6	MNT 210 (125-175)	C/F	3	MNT 210 (125-175-L)	C/F	E4

## Right Angle Gearheads

Gearhead Type	Number of Stages	Ratios Available	Standard Arc-Min Backlash	Catalog Number	List Price	Reduced Arc-Min Backlash	Catalog Number	List Price	Mult. Sym.
MRA 065	1	3-4-5-7-10	15	MRA 065 (3-10)	3051	5	MRA 065 (3-10-L)	3355	E4
	2	16-20-25-35-50-70-100	15	MRA 065 (16-100)	3727	5	MRA 065 (16-100-L)	4094	E4
MRA 080	1	3-4-5-7-10	10	MRA 080 (3-10)	4025	5	MRA 080 (3-10-L)	4428	E4
	2	16-20-25-35-40-50-70-100	10	MRA 080 (16-100)	4730	5	MRA 080 (16-100-L)	5207	E4
	3	125-175	10	MRA 080 (125-175)	C/F	5	MRA 080 (125-175-L)	C/F	E4
MRA 115	1	3-4-5-7-10	10	MRA 115 (3-10)	5147	5	MRA 115 (3-10-L)	5661	E4
	2	16-20-25-35-40-50-70-100	10	MRA 115 (16-100)	6013	5	MRA 115 (16-100-L)	6618	E4
	3	125-175	10	MRA 115 (125-175)	C/F	5	MRA 115 (125-175-L)	C/F	E4
MRA 140	1	3-4-5-7-10	10	MRA 140 (3-10)	6469	5	MRA 140 (3-10-L)	6861	E4
	2	16-20-25-35-40-50-70-100	10	MRA 140 (16-100)	7807	5	MRA 140 (16-100-L)	8583	E4
MRA 180	1	3-4-5-7-10	10	MRA 180 (3-10)	9610	5	MRA 180 (3-10-L)	10761	E4
	2	16-20-25-35-40-50-70-100	10	MRA 180 (16-100)	11557	5	MRA 180 (16-100-L)	12946	E4

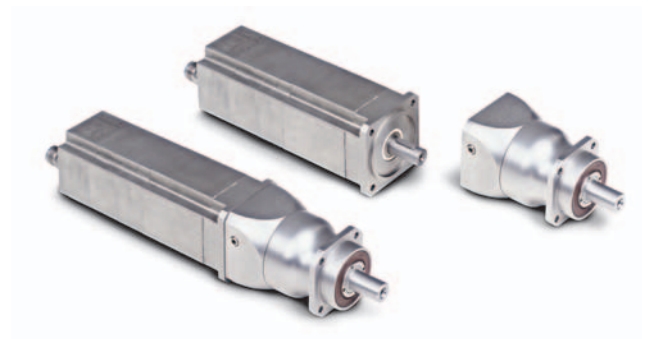
NOTE: HOW TO ORDER CUSTOM:

EMAIL SCHEDULING THE BALDOR SERVO MOTOR MODEL NUMBER, GEARHEAD TYPE, RATIO AND BACKLASH.

DO NOT ENTER REQ SET.

# Stainless Steel Gearheads

## Designed Specifically For SSBSM Servo



27

Gearhead Catalog Number	Gear fits these motors		Gear Ratio	Max Backlash Arc - min	List Price	Mult. Sym.
	BSM-N	BSM-C				
GBSM80-MSS080-5	BSM80N-all	BSM80C-all	5	10	3772	E4
GBSM80-MSS080-7	BSM80N-all	BSM80C-all	7	10	3772	E4
GBSM80-MSS080-10	BSM80N-all	BSM80C-all	10	10	3772	E4
GBSM80-MSS080-16	BSM80N-all	BSM80C-all	16	10	4900	E4
GBSM90-MSS115-5	BSM90N-all	BSM90C-all	5	10	5258	E4
GBSM90-MSS115-7	BSM90N-all	BSM90C-all	7	10	5258	E4
GBSM100-MSS115-3	BSM100N-all	BSM100C-all	3	10	5258	E4

Shaded areas are stocked products.

## Higher Torque / Lower Backlash Gearheads

Gearhead Type	Number of Stages	Ratios Available	Standard Arc-min Backlash	List Price	Mult. Sym.
MSS 080	1	3-4-5-7-10	10	3,772	E4
	2	16-20-25-35-40-50-70-100	10	4,900	E4
	3	125-175 & UP	10	C/F	E4
MSS 115	1	3-4-5-7-10	10	5,258	E4
	2	16-20-25-35-40-50-70-100	10	6,491	E4
	3	125-175 & UP	10	C/F	E4
MSS 140	1	3-4-5-7-10	10	7,578	E4
	2	16-20-25-35-40-50-70-100	10	9,350	E4
	3	125-175 & UP	10	C/F	E4

## Right Angle Gearheads

	Number of Stages	Ratios Available	Standard Arc-min Backlash	List Price	Reduced Arc-min Backlash	List Price	Mult. Sym.
MRS 080	1	3-4-5-7-10	10	6,439	5	7,085	E4
	2	16-20-25-35-40-50-100	10	7,568	5	8,329	E4
MRS 115	1	3-4-5-7-10	10	8,232	5	9,057	E4
	2	16-20-25-35-40-50-100	10	9,621	5	10,586	E4
MRS 140	1	3-4-5-7-10	10	10,348	5	11,385	E4
	2	16-20-25-35-40-50-100	10	12,488	5	13,767	E4

**NOTE: HOW TO ORDER CUSTOM:**  
**EMAIL SCHEDULING THE BALDOR SERVO MOTOR MODEL NUMBER, GEARHEAD TYPE, RATIO AND BACKLASH.**  
**DO NOT ENTER REQ SET.**

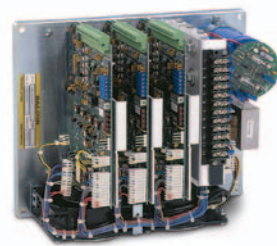
## DC Servo Controls



## TSD-Series

Output Current		Bus Volts (VDC)	Input Voltage (Nominal)	Control Catalog Number	Number of Axis	List Price	Mult. Sym.
(Cont.)	(Peak)						
5	10	50	115 VAC	TSD-050-05-1-U	1	1379	E3
			115VAC	TSD-050-05-2-U	2	2150	E3
		50	220 VAC	TSD-050-05-1-I	1	1379	E3
			220 VAC	TSD-050-05-2-I	2	2150	E3
		100	115 VAC	TSD-100-05-1-U	1	1491	E3
			115 VAC	TSD-100-05-2-U	2	2375	E3
		100	220 VAC	TSD-100-05-1-I	1	1491	E3
			220 VAC	TSD-100-05-2-I	2	2375	E3

**NOTE:** 1) Controls are complete units including mating connectors, a power cord, internal power supply.  
 2) There are two different internal power supplies:  
     U Option (USA): Has a 115 VAC supply input and standard cord plug.  
     I Option (INTL): Has a 220 VAC  $\pm$  10% (50/60 Hz) supply input. The international cord has no plug on the input side.  
 3) Inductors: Motor line inductors are not required on TSD Drives.  
 4) Transformer: No transformer is required. TSD plugs right into the wall (115V, 1 Ph/ 220 VAC with I Option).  
 5) Continuous output current per axis.



## UM and LD Series

Output Current		Bus Volts (VDC)	Input Voltage (Nominal)	Control Catalog Number	Number of Axis	List Price	Mult. Sym.
(Cont.)	(Peak)						
15	30	100	70 VAC	UM2-100-1-01S	1	1606	E3
				UM2-100-1-02S	2	2195	E3
				UM4-100-2-03S	3	3096	E3
15	30	150	105 VAC	UM2-150-1-01S	1	1785	E3
				UM4-150-2-03S	3	3576	E3
15	30	160	115 VAC 1 $\phi$	LD2-01S	1	1612	E3
				LD2-02S	2	2230	E3
			115 VAC 3 $\phi$	LD4-03S	3	3050	E3
				LD4-04S	4	3685	E3

**NOTE:** \* Continuous output current per card or axis: Note that the power supply on UM2/LD2 can deliver 27 amps continuous max with 1 $\phi$  input; the UM4 and LD4 can deliver 50 amps continuous max with 3 $\phi$  input.  
 Inductors: Motor line inductors are not required on UM or LD type controls.  
 Transformer: An isolation transformer is required on UM Series; the LD4 requires a step down transformer to 115VAC 3 $\phi$ .  
 The LD control card is not interchangeable with UM control card.

## For Component Parts order per the following:

Control Catalog Number	Control Card			Chassis		
	Catalog Number	List Price	Mult. Sym.	Catalog Number	List Price	Mult. Sym.
—	—	—	—	UM2-100-1	913	E3
—	—	—	—	UM4-100-2	1017	E3
UM2-100-1-01S UM2-100-1-02S	UM3015HS-100	693	E3	UM2-100-1	913	E3
UM4-100-2-03S UM4-100-2-04S	UM3015HS-100	693	E3	UM4-100-2	1017	E3
UM2-150-1-01S UM2-150-1-02S	UM3015HS-150	844	E3	UM2-150-1	942	E3
UM4-150-2-03S UM4-150-2-04S	UM3015HS-150	844	E3	UM4-150-2	1046	E3
LD2-01S LD2-02S	LD3015HS	696	E3	LD2	890	E3
LD4-03S LD4-04S	LD3015HS	696	E3	LD4	1005	E3

Shaded areas are stocked products.

# DC Servo Motor Identification Matrix

<b>M</b>				—					—					
<b>Configuration</b>				<b>Motor Size</b>				<b>Winding Code</b>						
T = Tachometer E = Encoder B = Brake R = Resolver								A B C D						
				<b>Flange Mounting</b>										
				C = Face L = Flange M = Metric – B14 D = Metric – B5 N = NEMA 56 (Series 4000 & 4500 only)										
								<b>Feedback</b>						
								Y = No Encoder A = Encoder 500 Line (MTE) B = Encoder 1000 Line (MTE) D = Encoder 2000 Line (MTE) E = Encoder 2500 Line (MTE) A = Resolver (Size 11)						
								<b>Termination</b>						
								A = Cable Lead Wires B = 1/2 NPT Hole C = MS Connector						
								<b>Accessory Options</b>						
								N = None S = Shaft Seal E = Environmentally Sealed						

**NOTE:** Some combinations are not available on all motor frame sizes. Contact the local Baldor District Office.

# 30 Options Chart – List Price Adder

## DC Servo Motors

		Motor Series			
Motor Option Description		M2200	M3300	M4000	M4500
<b>Winding Option</b>	<b>Code</b>				
Winding "A"	A	N/C	N/A	N/C	N/C
Winding "B"	B	STD	STD	STD	N/C
Winding "C"	C	N/A	N/C	N/A	STD
Winding "D"	D	N/A	N/C	N/A	N/C
<b>Flange Mounting</b>	<b>Code</b>				
Square (inch)	L	45	STD	STD	N/A
Round (inch)	C	STD	39	60	N/A
NEMA 56 (inch)	N	N/A	N/A	106	164
Round Face	T	N/A	N/A	N/A	STD
Round Flange	H	N/A	N/A	N/A	164
Metric-B5 Flange ③	D	53	53	201	164
Metric-B14 Face ③	M	N/C	N/C	N/C	STD
<b>Feedback Option</b>	<b>Code</b>				
Feedback (Specify MTE, ME)					
Encoder 500ppr	A	718	718	718	846
1000ppr	B	718	718	718	846
2000 ppr	D	992	992	992	1046
2500 ppr	E	992	992	992	1046
Mounting Provisions Only	Y	289	289	289	396
Feedback (Specify MTR, MR)					
Resolver (Size 11)	A	658	658	658	854
Mounting Provisions Only	Y	270	270	270	357
<b>Termination Option</b>	<b>Code</b>				
Cable Leadwires with Strain Relief	A	STD	STD	12	N/A
NPT Hole 1/2 Inch	B	N/A	N/A	STD	N/A
MS Connector	C	86	86	86	STD
Junction Box	D	N/A	N/A	86	90 ①
MS Rear Mounted Connector (Old Style)	R	83	N/A	N/A	N/A
<b>Accessory Option</b>	<b>Code</b>				
Standard, No Options	N	STD	STD	NC	STD
Environmentally Sealed (Includes Shaft Seal)	E	N/A	55	STD	131
Shaft Oil Seal	S	N/A	39	46	46
<b>Other Option</b>	<b>Code</b>				
Brake ②	B	307	651	752	821
Thermostat Adder	Custom		68		STD

**NOTE:** STD = Standard  
 N/C = No additional charge      N/A = Not available  
 ① For motor-tach unit only. Does not include encoder termination which exit via separate MS connector.  
 ② Standard fail safe brake is 24VDC.  
 ③ Includes chrome 12 pin connector on encoder feedback when ordered.



# DC Servo Motors

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Cont. Stall Torque		Cont. Stall Amps	Nominal Bus Volts	Motor Speed (RPM)	Catalog Number	List Price	Mult. Sym.
Lb-In	N-M						
1.9	0.21	2.1	50	3500	M-2240-ACYAN ①	386	E4
					MT-2240-ACYAN	590	E4
		3.4	30	3000	M-2240-BCYAN	386	E4
					MT-2240-BCYAN	591	E4
				MTE-2240-BCBCN	1347	E4	
3.1	0.35	3.4	50	3500	M-2250-ACYAN ①	438	E4
					MT-2250-ACYAN	642	E4
					MT-2250-AMYAN	642	E4
					MTE-2250-AMACN	1443	E4
		5.5	30	3000	M-2250-BCYAN	438	E4
					MT-2250-BCYAN	642	E4
					MT-2250-BCYCN	727	E4
					MTE-2250-BCBCN	1443	E4
6.3	0.71	2.6	100	2800	M-3353-BLYAN ①	561	E4
					MT-3353-BLYAN	727	E4
					MT-3353-BLYCN	817	E4
		5.1	50	2000	M-3353-DLYAN	561	E4
MT-3353-DLYAN	728				E4		
8.8	0.99	3.8	100	2800	M-3358-BLYAN ①	589	E4
					MT-3358-BLYAN	755	E4
		6	100	5000	M-3358-CLYAN	589	E4
					MT-3358-CLYAN	755	E4
11.3	1.2	4.9	100	2800	M-3363-BLYAN ①	646	E4
					MT-3363-BLYAN	810	E4
					MT-3363-BCYAN	845	E4
					MT-3363-BLYCN	895	E4
					MT-3363-BDYCN	948	E4
					MTE-3363-BCBCN	1587	E4
		MTE-3363-BLBCN	1613	E4			
		6.3	100	4000	M-3363-CLYAN	646	E4
MT-3363-CLYAN	811				E4		
12	1.4	5.5	100	3000	M-4050-ALYBE ①	792	E4
					MT-4050-ALYBE	959	E4
		7.9	100	4500	M-4050-BLYBE	792	E4
					MT-4050-BLYBE	959	E4
21	2.4	5	100	1500	M-4060-ALYBE ①	838	E4
					MT-4060-ALYBE	1005	E4
		7	100	2300	M-4060-BLYBE	838	E4
					MT-4060-BLYBE	1005	E4

**NOTE:** ① Base motor for pricing. See option chart for list price adders.

Shaded areas are stocked products.

# 32 DC Servo Motors



Cont. Stall Torque		Cont. Stall Amps	Nominal Bus Volts	Rated Speed (RPM)	Catalog Number	List Price	Mult. Sym.					
Lb-In	N-M											
28	3.1	6.2	100	1500	M-4070-ALYBE ① MT-4070-ALYBE	942 1111	E4 E4					
		9.2	100	2300	M-4070-BLYBE MT-4070-BLYBE	942 1111	E4 E4					
					MT-4070-BLYCE MTE-4070-BLABE	1193 1824	E4 E4					
					MTE-4070-BLACE MTE-4070-BLBCE	1909 1909	E4 E4					
					40	4.5	9	100	1500	M-4090-ALYBE ① MT-4090-ALYBE	1020 1189	E4 E4
							13	100	2300	M-4090-BLYBE MT-4090-BLYBE	1020 1189	E4 E4
		MT-4090-BLYCE MTE-4090-BLABE	1271 1899	E4 E4								
MTE-4090-BLACE MTE-4090-BLBCE	1987 1987	E4 E4										
30	3.3	6.1	150	2200						M-4525-BTYCN ① MT-4525-BTYCN	1098 1263	E4 E4
										9.2	150	3200
		12	150	4400			M-4525-DTYCN MT-4525-DTYCN	1098 1263	E4 E4			
		40	4.5	5.7	150	1400	M-4535-ATYCN ① MT-4535-ATYCN	1196 1361	E4 E4			
							8.3	150	2200	M-4535-BTYCN MT-4535-BTYCN	1196 1361	E4 E4
11.2	150			2700	M-4535-CTYCN MT-4535-CTYCN	1196 1361				E4 E4		
					16.4	150	4500	M-4535-DTYCN MT-4535-DTYCN	1196 1364	E4 E4		
50	5.6			8	150	1700	M-4545-ATYCN ① MT-4545-ATYCN	1343 1507	E4 E4			
							10.6	150	2300	M-4545-BTYCN MT-4545-BTYCN	1343 1507	E4 E4
				15.7	150	3300				M-4545-CTYCN MT-4545-CTYCN MTE-4545-CTBCE	1343 1507 2479	E4 E4 E4
		58	6.5				8.5	150	1500	M-4555-ATYCN ① MT-4555-ATYCN	1705 1874	E4 E4
										12.1	150	2100
15.3	150			2900	M-4555-CTYCN MT-4555-CTYCN	1705 1874	E4 E4					

NOTE: ① Base motor for pricing. See option chart for list price adders.

Shaded areas are stocked products.

# Accessories for DC Servo Motors

33

## Cable Assemblies

Any of These Motor Types...	Can Use This Cable Assembly Catalog Number	Number of Connector Pins	Length		List Price	Mult. Sym.
			Meters	Feet		
M, MT-2200 M, MT, MTB, MB-3300	CBL061SP-AF	6	6.1	20	192	ED
MTE, ME, -2200 MTE, ME, MEB, - 3300 MEB, MTEB, -3300	CBL061SC-GN	14	6.1	20	252	ED
M, MT, MB MTB-4050/4060	CBL061SP-AF	6	6.1	20	192	ED
M, MT, MTB MB-4070/4090	CBL061SP-BI	9	6.1	20	252	ED
	CBL091SP-BI	9	9.1	30	336	ED
MTE, ME, MTEB, MEB 4050/4060/4070/4090	CBL061SC-GP	16	6.1	20	252	ED
	CBL091SC-GP	16	9.1	30	336	ED
Motor Power Cable For M, MT, MTB, MB-4500 ①	CBL061SP-BI	9	6.1	20	252	ED
	CBL091SP-BI	9	9.1	30	336	ED
Encoder Feedback For MTE, ME, MEB, MTEB-4500 ①	CBL030SF-BN	14	3.0	10	170	ED
	CBL061SF-BN	14	6.1	20	252	ED

**NOTE:** ① M-4500 Series with encoder feedback requires two cables; one for motor power and one for feedback.

## Mating Connectors

Any of These Motor Types...	Can Use This Mating Connector Description	Catalog Number	List Price	Mult. Sym.
M, MT-2200 M, MT, MTB, MB-3300	6 Pin MS Style Connector	MSCF	75	ED
MTE, ME, -2200 MTE, ME, -3300 MEB, MTEB, -3300	14 Pin MS Style Connector	MSCN	75	ED
M, MT, MB, MTB-4050/4060	6 Pin MS Style Connector	MSCF	75	ED
M-MT, MTB, MB-4070/4090	9 Pin MS Style Connector	MSCI	75	ED
MTE, ME, MTEB, MEB-4050 4050/4060/4070/4090	16 Pin MS Style Connector	MSCP	75	ED
Motor Connector For M, MT, MTB, MB-4500 ①	9 Pin MS Style Connector	MSCI	75	ED
Encoder Feedback Connector For MTE, ME, MEB, MTEB-4500 ①	14 Pin MS Style Connector	MSCN	75	ED

**NOTE:** ① M-4500 Series with encoder feedback requires two connectors; one for motor power and one for feedback.

## Adapter Plates

Description	Catalog Number	List Price	Mult. Sym.
Adapter Kit For M2200 To Convert C Face To Flange Mounting	22-M2200	45	E4
Adapter Kit For IM2200 To Convert Metric C Face To Flange Mounting	22-IM2200	45	E4

Shaded areas are stocked products.

# Linear Motor Cog-Free



## LMCF-Series

### Brushless Servo Motor Coil Assembly

Size Code	Continuous Force		Catalog Number	List Price	Mult. Sym.
	Lbs.	N			
A	1.2	5.3	LMCF02A-HC0	723	E6
	2.5	11	LMCF04A-HC0	841	E6
B	3.1	13.8	LMCF02B-HC0	731	E6
	6.2	27.8	LMCF04B-HC0	848	E6
	8.5	37.5	LMCF06B-HC0	881	E6
C	6.5	29	LMCF02C-HC0	793	E6
	13	58	LMCF04C-HC0	855	E6
	19.5	87	LMCF06C-HC0	992	E6
	26	115.6	LMCF08C-HC0	1019	E6
D	8.3	36.8	LMCF02D-HC0	808	E6
	16.5	73.6	LMCF04D-HC0	917	E6
	24.8	110	LMCF06D-HC0	1027	E6
	33	147	LMCF08D-HC0	1157	E6
	41.3	183.6	LMCF10D-HC0	1289	E6
	49.6	220.3	LMCF12D-HC0	1322	E6
E	28	124	LMCF04E-HC0	950	E6
	42	185	LMCF06E-HC0	1075	E6
	56	251	LMCF08E-HC0	1180	E6
	70	314	LMCF10E-HC0	1343	E6
	85	377	LMCF12E-HC0	1619	E6
	99	440	LMCF14E-HC0	1784	E6
F	43	191	LMCF04F-HC0	1749	E6
	87	387	LMCF08F-HC0	2052	E6
	130	578	LMCF12F-HC0	2417	E6
	173	768	LMCF16F-HC0	2837	E6

**NOTE:** When placing an order in BUS, the Spec Number will begin with "NB".

L

M

C

F

#### NO. OF POLES

02, 04 ... 18

#### SIZE CODE mm [inch]

A = 40 [1.6]      D = 86.4 [3.4]  
 B = 53.6 [2.11]      E = 114.3 [4.5]  
 C = 57.2 [2.25]      F = 152.4 [6.0]

#### WINDING

Blank = Standard  
 P = Parallel

#### TERMINATION

0 = Flying Leads (3m/10 ft. Std.)

#### COOLING TYPE

C = Convection      A = Air Cooling      W = Water

#### HALLS

H = Hall Effect Sensors      N = No Effect Sensors

## Linear Track Cog-Free

Size Code	Catalog Number	List Price	Mult. Sym.
A	LTCF-A4	294	E6
	LTCF-A7	438	E6
	LTCF-A9	585	E6
	LTCF-A12	730	E6
	LTCF-A24	1458	E6
B	LTCF-B4	314	E6
	LTCF-B7	469	E6
	LTCF-B9	626	E6
	LTCF-B12	782	E6
	LTCF-B24	1563	E6
C	LTCF-C4	349	E6
	LTCF-C7	521	E6
	LTCF-C9	695	E6
	LTCF-C12	868	E6
	LTCF-C24	1112	E6
	LTCF-C40	1800	E6

Size Code	Catalog Number	List Price	Mult. Sym.
D	LTCF-D4	424	E6
	LTCF-D7	637	E6
	LTCF-D9	848	E6
	LTCF-D12	1060	E6
	LTCF-D24	2117	E6
E	LTCF-E4	655	E6
	LTCF-E7	981	E6
	LTCF-E9	1305	E6
	LTCF-E12	1632	E6
	LTCF-E24	1958	E6
	LTCF-E40	2329	E6
F	LTCF-F4	1536	E6
	LTCF-F7	2301	E6
	LTCF-F9	3069	E6
	LTCF-F12	3836	E6
	LTCF-F24	4601	E6
	LTCF-F40	5968	E6

**NOTE:** 1) Linear Tracks are modular and may be placed end-to-end to create longer lengths. 2) Order Linear Track with same "size code" as motor.

For custom non-modular length tracks, use the following (round to nearest inch) and use E6.

Size Code	Catalog Number	List Price per Inch
A	LTCF-Axx	68
B	LTCF-Bxx	74
C	LTCF-Cxx	81

Size Code	Catalog Number	List Price per Inch
D	LTCF-Dxx	96
E	LTCF-Exx	145
F	LTCF-Fxx	330

Shaded areas indicate standard track



### SIZE CODE mm [inch]

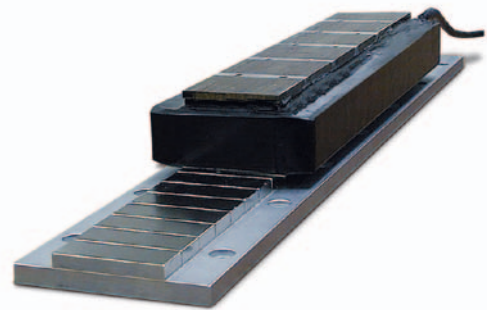
- A = 40.7 [1.6]
- B = 53.6 [2.11]
- \* C = 57.2 [2.25]
- D = 86.4 [3.4]
- \* E = 114.3 [4.5]
- \* F = 152.4 [6.0]

\* Indicates standards size and length

### CODE FOR LENGTH OF MODULAR TRACK mm [inch]

- 04 = 121.9 [4.8]
- 07 = 182.9 [7.2]
- 09 = 243.8 [9.6]
- 12 = 304.8 [12]
- \* 24 = 609.6 [24]
- \* 40 = 1036 [40.8]

# Linear Motor Iron Core



## LMIC-Series Forcers

Standard Profile					
Cont. Force		Coil Width Code	Catalog Number	List Price	Mult. Sym.
Lbs	N				
18	80	A	LMIC1A-S-HC0x	1260	E6
55	244	C	LMIC1C-S-HC0x	1560	E6
74	329	B	LMIC2B-S-HC0x	1597	E6
110	489	C	LMIC2C-S-HC0x	1800	E6
184	818	E	LMIC2E-S-HC0x	2216	E6
221	983	D	LMIC3D-S-HC0x	2287	E6
277	1232	E	LMIC3E-S-HC0x	2549	E6
370	1641	E	LMIC4E-S-HC0x	2885	E6
555	2465	F	LMIC5F-S-HC0x	3572	E6
777	3451	G	LMIC6G-S-HC0x	4375	E6
1000	4439	I	LMIC6I-S-HC0x	5258	E6
1166	5179	I	LMIC7I-S-HC0x	5778	E6

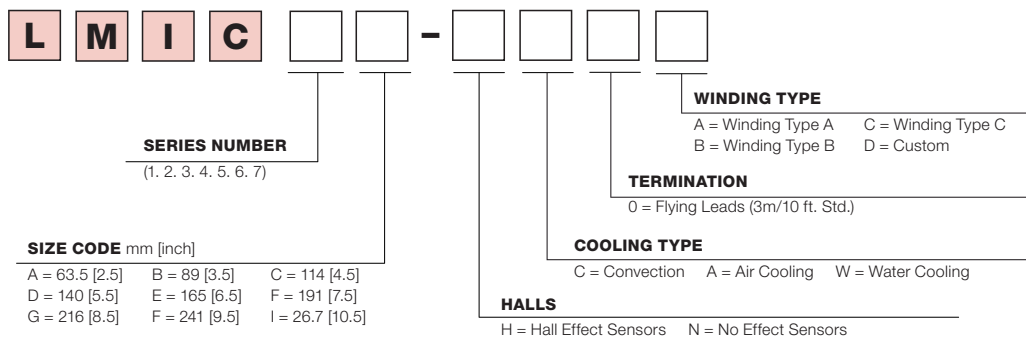
**NOTE:** When placing an order in BUS, the Spec Number will begin with "L".

## Magnetic Tracks (Match track width code to coil width code)

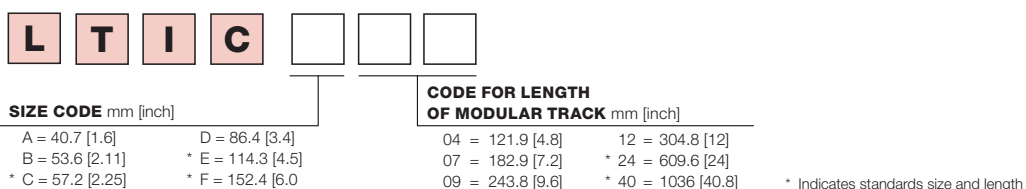
Standard Profile							
Track Width Code	Catalog Number	List Price	Mult. Sym.	Track Width Code	Catalog Number	List Price	Mult. Sym.
A	LTIC-AS05	321	E6	E	LTIC-ES05	782	E6
	LTIC-AS08	462	E6		LTIC-ES08	1119	E6
	LTIC-AS24	732	E6		LTIC-ES24	1839	E6
	LTIC-AS40	1171	E6		LTIC-ES40	2420	E6
B	LTIC-BS05	423	E6	F	LTIC-FS05	933	E6
	LTIC-BS08	609	E6		LTIC-FS08	1321	E6
	LTIC-BS24	1637	E6		LTIC-FS24	3645	E6
C	LTIC-CS05	564	E6	G	LTIC-GS05	1098	E6
	LTIC-CS08	811	E6		LTIC-GS08	1549	E6
	LTIC-CS24	1331	E6		LTIC-GS24	4251	E6
	LTIC-CS40	1920	E6	I	LTIC-IS05	1340	E6
D	LTIC-DS05	679	E6		LTIC-IS08	1899	E6
	LTIC-DS08	972	E6		LTIC-IS24	5122	E6
	LTIC-DS24	2646	E6				

Shaded areas indicate standard track

### Primary (Forcer)



### Secondary (Platen)





# Linear Motor AC Induction

37



## LMAC-Series

Size Code	Static Force ①		Catalog Number	List Price	Mult. Sym.
	Lbs.	N			
16	14	62	LMAC1607C23XXX	2143	E6
	18	80	LMAC1608C23XXX	2487	E6
	24	106	LMAC1609C23XXX	2866	E6
	28	124	LMAC1610C23XXX	3138	E6
	32	142	LMAC1611C23XXX	3580	E6
	38	169	LMAC1612C23XXX	3885	E6
	42	186	LMAC1613C23XXX	4199	E6
	46	204	LMAC1614C23XXX	4514	E6
	52	231	LMAC1615C23XXX	4841	E6
	58	258	LMAC1616C23XXX	5167	E6
32	28	124	LMAC3207C23XXX	4205	E6
	36	160	LMAC3208C23XXX	4872	E6
	44	195	LMAC3209C23XXX	5622	E6
	52	231	LMAC3210C23XXX	6153	E6
	62	275	LMAC3211C23XXX	7022	E6
	72	320	LMAC3212C23XXX	7619	E6
	78	347	LMAC3213C23XXX	8238	E6
	90	400	LMAC3214C23XXX	8851	E6
	96	427	LMAC3215C23XXX	9493	E6
	100	445	LMAC3216C23XXX	10136	E6

NOTE: ① Static force indicated is for 100% duty cycle.

When placing an order in BUS, the Spec Number will begin with "LN".

<b>L</b>	<b>M</b>	<b>A</b>	<b>C</b>								
<b>COIL ASSEMBLY LENGTH</b> In Inches: 16, 32 (1 In = 25.4mm)				<b>COIL ASSEMBLY WIDTH</b> 07, 08 ... 16				<b>DUTY CYCLE</b> 00 < 1% 50 = 50% 99 = 100%			
								<b>VOLTAGE CODE OPTION</b> A = 115 VAC B = 230 VAC C = 380 VAC D = 460/480 VAC E = 550 VAC F = 600 VAC			
				<b>COOLING</b> C = Convection W = Water				<b>NUMBER OF PHASES</b> 1 = Single-Phase 3 = Three-Phase			
				<b>LEAD TYPE</b> 1 = Strain Relief 2 = Flying Leads (36" Std) (914mm)							

# Linear Motor

## Single-Axis Stepper



## LMSS-Series

### Stepper Motor Forcers

Size Code	Static Force		Catalog Number	List Price	Mult. Sym.
	Lbs.	N			
06	2	8.9	LMSS0602-2WW0	979	E6
	4	17.8	LMSS0604-2WW0	1446	E6
13	5	22.2	LMSS1302-2WW1	1206	E6
	10	44.5	LMSS1304-2AW1	2685	E6
20	20	89	LMSS2004-2AW1	3787	E6
25	25	111.2	LMSS2504-2AW1	4151	E6
	50	222.4	LMSS2508-2AW1	6787	E6

### Stepper Motor Platens

Size Code	Platen Type	Catalog Number ①	List Price ②	List price Adder for Each inch of Platen Length	Mult. Sym.
06	BAR	LTSS06WB-xxx	718 ③	43	E6
13	BAR	LTSS13XB-xxx	748 ③	45	E6
20	BAR	LTSS20WB-xxx	587	32	E6
	TUBE	LTSS20WT-xxx	601	34	E6
	TUBE	LTSS20AT-xxx	621	37	E6
25	BAR	LTSS25XB-xxx	1069	53	E6
	TUBE	LTSS25XT-xxx	1083	56	E6
	TUBE	LTSS25AT-xxx	1102	59	E6

**NOTE:** ① Under "Length" designator, specify platen length (in inches). Use Inch = mm x 0.03937, and round up to nearest inch.  
 ② List price is for platen with "zero" inches of Platen Length. Be sure to add to list price, the appropriate price adder for each inch of Platen Length.  
 i.e., List Price = "List Price" + "Price Adder" x Inches of Platen Length.  
 ③ Max length of single piece is 58.25" long. For joining multiple pieces there is a \$481 adder per seam.

#### Primary (Forcer)

**L** **M** **S** **S**     -

#### COIL ASSEMBLY LENGTH

06, 13, 20, 25

#### NUMBER OF STACKS

#### NUMBER OF PHASES

2 or 4

#### TERMINATION

0 = Flying Leads (24" Std.) (610mm)  
 1 = DB9 Connectors  
 2 = Other

#### SIDE GUIDANCE BEARINGS

A = Air  
 W = Wheel

#### SURFACE BEARINGS

A = Air  
 W = Wheel

#### Secondary (Track)

**L** **T** **S** **S**     -

#### CODE FOR STACK WIDTH

06 = 0600 Series Forcers  
 13 = 1300 Series Forcers  
 20 = 2000 Series Forcers  
 25 = 2500 Series Forcers

#### TYPE OF FORCER

A = Air Bearing Forcers  
 W = Wheel Bearing Forcers

#### LENGTH

(In Inches)  
 Per Customer Spec

#### TYPE OF PLATEN

T = Tube Platen (2000 and 2500 Series only)  
 B = Bar Platen (All Series)

# Linear Motor

## Dual-Axis Stepper

39



## LMDS-Series

### Stepper Motor Forcers

Size Code	Static Force		Catalog Number	List Price	Mult. Sym.
	Lbs.	N			
06	3	13.3	LMDS0602-2A0	4814	E6
13	6	26.7	LMDS1302-2A0	5834	E6
	15	66.7	LMDS1304-2A0	10465	E6
20	9	40.0	LMDS2002-2A0	8180	E6
	24	106	LMDS2004-2A0	13832	E6
25	30	133	LMDS2504-2A0	16598	E6

NOTE: 2 and 4 phase prices are the same.

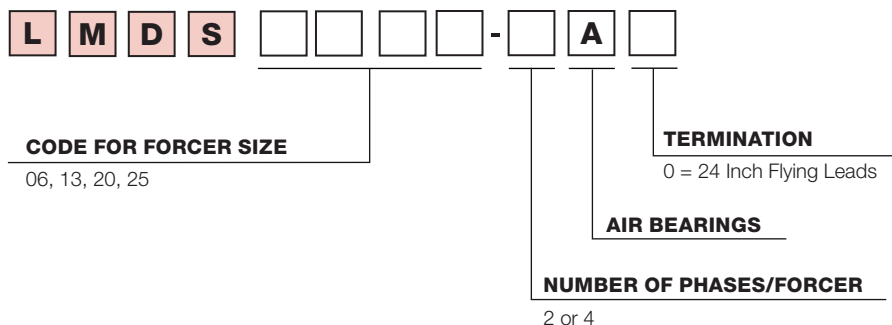
### Dual Axis Platens

Size		Carbon Steel Solid Base		
Inches	[m]	Catalog Number	List Price	Mult. Sym.
18 x 13	45.7 x 33	LTDS-E2-S	6955	E6
18 x 16.33	45.7 x 41.4	LTDS-S2-S	7350	E6
23 x 18	58.4 x 45.7	LTDS-Q2-S	8553	E6
33 x 23	83.8 x 58.4	LTDS-H2-S	11211	E6
33 x 33	83.8 x 83.8	LTDS-T2-S	14496	E6
43 x 33	109.2 x 83.8	LTDS-F2-S	18525	E6
55 X 35	139.7 X 88.9	-	-	-
62 x 39	157.4 x 99	-	-	-

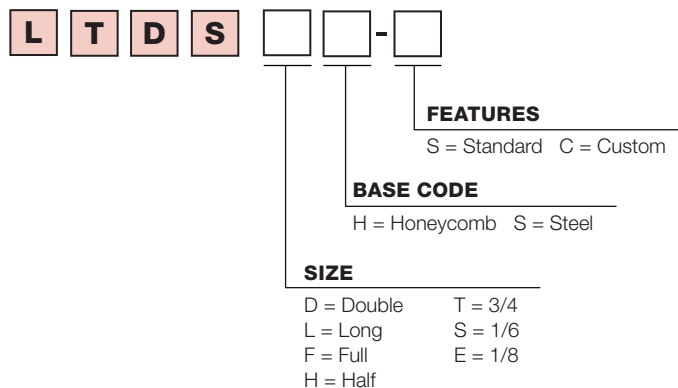
### Dual Axis Platens

Size		Honeycomb Base		
Inches	mm	Catalog Number	List Price	Mult. Sym.
14.8 x 14.8	375 x 375	LTDS-EH-S	2994	E6
14.8 x 19.7	375 x 500	LTDS-SH-S	3369	E6
19.7 x 29.5	500 x 750	LTDS-TH-S	5273	E6
29.5 x 29.5	750 x 750	LTDS-HH-S	7164	E6
29.5 x 39.4	750 x 1000	LTDS-FH-S	9270	E6
29.5 x 44.3	750 x 1125	LTDS-LH-S	11067	E6
29.5 x 59.0	750 x 1500	LTDS-DH-S	13366	E6

#### Primary (Forcer)



#### Secondary (Platen)



# 40 Linear Stage Single Bearing



## LSS-Series

			Length of Stroke															
			Inch	06	12	18	24	30	36	42	48	54	60	66	72	78	84	90
			m	0.15	0.30	0.45	0.60	0.76	0.91	1.07	1.22	1.37	1.52	1.67	1.82	1.98	2.13	2.28
Force	Catalog Listing	Base Price	Adder	Times Factor of														
lbs	N																	
6	27	LSS1TE1CF04B0xx	5529	1164														
13	57	LSS1TE1CF04C0xx	5718	1182														
16	73	LSS1TE1CF04D0xx	6840	1166														
19	86	LSS1TE1CF06C0xx	6332	1183														
24	109	LSS1TE1CF06D0xx	7935	1182														
26	116	LSS1TE1CF08C0xx	6947	1183														
28	124	LSS1TE1CF04E0xx	10053	1773														
33	146	LSS1TE1CF08D0xx	9163	1183														
41	185	LSS1TE1CF06E0xx	11901	1773														
55	247	LSS1TE1CF08E0xx	13749	1773														

Example List Price for 6lb (27N) with stroke of 60 inches (1.52m) = BASE PRICE plus ADDER times FACTOR - (ie List Price = \$4964 + \$1045 x 10 = 4964 + 10450 = \$15,414)  
Standard units include 5µm linear encoder (Code E).

**NOTE:** When placing an order in BUS, the Spec Number will begin with "IS".

Example catalog number: LSS1TE1CF08E0XX

Enter Stroke in Inches  
Linear Encoder Option



## Linear Stage Extruded

## LSX-Series

			Length of Stroke																	
			Inch	006	012	018	024	030	036	042	048	054	060	066	072	078	084	090	096	102
			m	0.15	0.30	0.45	0.60	0.76	0.91	1.07	1.22	1.37	1.52	1.67	1.82	1.98	2.13	2.28	2.43	2.59
Force	Catalog Listing	Base Price	Adder	Times Factor of																
lbs	N																			
20	89	LSX1TEBL06Axxx	9859	1222																
30	133	LSX1TEBL08Axxx	10558	1221																
40	178	LSX1TEBL10Axxx	11170	1160																
50	222	LSX1TEBL12Axxx	11842	1151																
60	266	LSX1TEBL14Axxx	12473	1150																
70	310	LSX1TEBL16Axxx	13021	1130																
80	356	LSX1TEBL18Axxx	13396	1121																

Example List Price for 40lb (178N) with stroke of 24 inches (0.6m) = BASE PRICE plus ADDER times FACTOR - (ie List Price = \$10028 + \$1041 x 4 = 10028 + 4164 = \$14,192)  
Standard units include 5µm linear encoder (Code E).

**NOTE:** When placing an order in BUS, the Spec Number will begin with "IX".

Example catalog number: LSX1TEBL18AXXX

Enter Stroke in Inches  
Linear Encoder Option



## Linear Stage Cross Roller

## LSC-Series

LSC-Series				Length of Stroke						
				Inch	04	06	08	10	12	
				m	0.10	0.15	0.20	0.25	0.30	
Force		Catalog Listing	Base Price	Adder	Times Factor of					
lbs	N									
Stage Width 8 inch (230mm)										
10	44	LSC1XE1BL02Axx	9844	1576	1	2	3	4	5	
15	66	LSC1XE1BL04Axx	10073	1576						
20	89	LSC1XE1BL06Axx	10387	1558						
30	133	LSC1XE1BL08Axx	10908	1533						
40	178	LSC1XE1BL10Axx	11454	1503						
50	222	LSC1XE1BL12Axx	11840	1515						

Example List Price for 15lb (66N) with stroke of 8 inches (0.20m) = BASE PRICE plus ADDER times FACTOR - (ie List Price = \$9043 + \$1415 x 3 = 9662 + 4245 = \$13,288)  
Under mounting option, specify either T=Table or W=Wall mounting. Price is same for either option. Standard units include 5µm linear encoder (Code E).

**NOTE:** When placing an order in BUS, the Spec Number will begin with "IK".

Example catalog number: LSC1XC1BL12AXX

Mounting Enter Stroke in Inches  
Linear Encoder Option Number of Motors

# Linear Stage Enclosed Positioning



41

## LSE-Series

				Length of Stroke															
				Inch	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96
				m	0.30	0.45	0.60	0.76	0.91	1.07	1.22	1.37	1.52	1.67	1.82	1.98	2.13	2.28	2.43
Force	Catalog Listing	Base Price	Adder	Times Factor of															
lbs	N																		
<b>Stage Width 8 inch (230mm)</b>																			
20	89	LSE081E1BL06Axx	15373	1751	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
30	133	LSE081E1BL08Axx	16059																
40	178	LSE081E1BL10Axx	16746																
50	222	LSE081E1BL12Axx	17430																
60	266	LSE081E1BL14Axx	18116																
70	310	LSE081E1BL16Axx	18803																
80	356	LSE081E1BL18Axx	19490																
<b>Stage Width 12 inch (305mm)</b>																			
20	89	LSE121E1BL06Axx	15331	1665	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
30	133	LSE121E1BL08Axx	16071																
40	178	LSE121E1BL10Axx	16809																
50	222	LSE121E1BL12Axx	17547																
60	266	LSE121E1BL14Axx	18287																
70	310	LSE121E1BL16Axx	19024																
80	356	LSE121E1BL18Axx	19784																
<b>Stage Width 12 inch (305mm)</b>				Inch	012	018	024	030	036	042	048	054	060	066	072	078	084	090	096
				m	0.30	0.45	0.60	0.76	0.91	1.07	1.22	1.37	1.52	1.67	1.82	1.98	2.13	2.28	2.43
<b>Stage Width 12 inch (305mm)</b>																			
30	133	LSE121E1BL06Bxx	16469	1994	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
45	200	LSE121E1BL08Bxx	17431																
60	266	LSE121E1BL10Bxx	18434																
75	333	LSE121E1BL12Bxx	19439																
90	400	LSE121E1BL14Bxx	20444																
105	467	LSE121E1BL16Bxx	21449																
120	534	LSE121E1BL18Bxx	22408																
<b>Stage Width 12 inch (305mm)</b>				Inch	012	018	024	030	036	042	048	054	060	066	072	078	084	090	096
				m	0.30	0.45	0.60	0.76	0.91	1.07	1.22	1.37	1.52	1.67	1.82	1.98	2.13	2.28	2.43
<b>Stage Width 14 inch (355mm)</b>																			
60	266	LSE141E1BL06Axx	24068	3350	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
90	400	LSE141E1BL08Axx	26022																
120	534	LSE141E1BL10Axx	28185																
150	667	LSE141E1BL12Axx	30351																
180	801	LSE141E1BL14Axx	32511																
210	934	LSE141E1BL16Axx	34677																
240	1068	LSE141E1BL18Axx	36628																

Example List Price for 240lb (1068N) with stroke of 24 inches (0.6m) = BASE PRICE plus ADDER times FACTOR - ie List Price = \$32,886 + \$3008 x 3 = 32,886 + 9024 = \$41,910  
Standard units include 5µm linear encoder (Code E).

**NOTE:** When placing an order in BUS, the Spec Number will begin with "IE".

Example catalog number: LSE141E1BL18BXX

Linear Encoder Option \_\_\_\_\_ Enter Stroke in Inches  
Number of Motors \_\_\_\_\_

## Linear Stage Encoder Options

Code	Resolution	List Adder
A	0.1 µm	1380
B	0.5 µm	1036
C	1 µm	691
D	2 µm	346

Code	Resolution	List Adder
E	5 µm	Std
F	10 µm	N/C
G	20 µm	N/C
Z	other	C/F

## Index

22-IM2200 .....	33	BSM100N-1150BA .....	18	CBL005CM-EXS .....	3, 12	CBL061SF-E .....	21	CBL152SF-R1 .....	21
22-M2200 .....	33	BSM100N-1250AA .....	17	CBL010CM-CSS1 .....	3, 10	CBL061SF-E1 .....	21	CBL152SF-RS .....	21
750-338 .....	11	BSM100N-2150AA .....	17	CBL010CM-CSS2 .....	3, 10	CBL061SF-E2 .....	21	CBL152SF-S2 .....	21
750-348 .....	11	BSM100N-2250AA .....	17	CBL010CM-EXS .....	3, 12	CBL061SF-ES .....	21	CBL152SP-12 .....	20
750-400 .....	11	BSM100N-3150AA .....	17	CBL010MF-E .....	3	CBL061SF-R .....	21	CBL152SP-12S .....	20
750-402 .....	11	BSM100N-3150BA .....	18	CBL010MF-E3A .....	3	CBL061SF-R1 .....	21	CBL152SP-20 .....	20
750-430 .....	11	BSM100N-3250AA .....	17	CBL010MF-E3B .....	3	CBL061SF-RS .....	21	CBL152SP-20S .....	20
750-456 .....	11	BSM100N-4150AA .....	17	CBL015RF-E .....	21	CBL061SF-S2 .....	21	CBL229RF-E .....	21
750-461 .....	11	BSM100N-4250AA .....	17	CBL015RF-R .....	21	CBL061SP-12 .....	20	CBL229RF-R .....	21
750-468 .....	11	BSM50N-133AA .....	17	CBL015RP .....	20	CBL061SP-12S .....	20	CBL229RP-12 .....	20
750-480 .....	11	BSM50N-175AA .....	17	CBL015RP-12 .....	20	CBL061SP-20 .....	20	CBL229RP-20 .....	20
750-492 .....	11	BSM50N-233AA .....	17	CBL015RP-20 .....	20	CBL061SP-20S .....	20	CBL229RP-35 .....	20
750-501 .....	11	BSM50N-275AA .....	17	CBL015RP-35 .....	20	CBL061SP-35 .....	20	CBL229SF-D1 .....	21
750-504 .....	11	BSM50N-333AA .....	17	CBL015SF-D1 .....	21	CBL061SP-50 .....	20	CBL229SF-E .....	21
750-530 .....	11	BSM50N-375AA .....	17	CBL015SF-E .....	21	CBL061SP-AF .....	33	CBL229SF-E1 .....	21
750-550 .....	11	BSM63N-133AA .....	17	CBL015SF-E1 .....	21	CBL061SP-BI .....	33	CBL229SF-E2 .....	21
750-552 .....	11	BSM63N-150AA .....	17	CBL015SF-E2 .....	21	CBL091RF-E .....	21	CBL229SF-R .....	21
750-554 .....	11	BSM63N-175AA .....	17	CBL015SF-ES .....	21	CBL091RF-R .....	21	CBL229SF-R1 .....	21
750-556 .....	11	BSM63N-175BA .....	18	CBL015SF-R .....	21	CBL091RP .....	20	CBL229SF-S2 .....	21
750-600 .....	11	BSM63N-233AA .....	17	CBL015SF-R1 .....	21	CBL091RP-12 .....	20	CBL229SP-12 .....	20
750-601 .....	11	BSM63N-250AA .....	17	CBL015SF-RS .....	21	CBL091RP-20 .....	20	CBL229SP-20 .....	20
750-614 .....	11	BSM63N-275AA .....	17	CBL015SF-S2 .....	21	CBL091RP-35 .....	20	CBL305RF-E .....	21
750-963 .....	11	BSM63N-275BA .....	18	CBL015SP-12 .....	20	CBL091SC-GP .....	33	CBL305RF-R .....	21
ACC001-600 .....	3	BSM63N-333AA .....	17	CBL015SP-12S .....	20	CBL091SF-D1 .....	21	CBL305RP-12 .....	20
ACC001-601 .....	3	BSM63N-350AA .....	17	CBL015SP-20 .....	20	CBL091SF-E .....	21	CBL305RP-20 .....	20
ACC001-602 .....	3	BSM63N-375AA .....	17	CBL015SP-20S .....	20	CBL091SF-E1 .....	21	CBL305RP-35 .....	20
ASR24661 .....	21	BSM63N-375BA .....	18	CBL015SP-35 .....	20	CBL091SF-E2 .....	21	CBL305SF-E .....	21
ASR24662 .....	21	BSM80C-150AA .....	16	CBL015SP-50 .....	20	CBL091SF-ES .....	21	CBL305SF-R .....	21
BMC2A06 .....	23	BSM80C-175AA .....	16	CBL020CM-CSS1 .....	3, 10	CBL091SF-R .....	21	CBL305SF-R1 .....	21
BMC2A09 .....	23	BSM80C-2150AA .....	16	CBL020CM-CSS2 .....	3, 10	CBL091SF-R1 .....	21	CBL305SP-12 .....	20
BMC6A00 .....	23	BSM80C-250AA .....	16	CBL020CM-EXS .....	3, 12	CBL091SF-RS .....	21	CBL305SP-20 .....	20
BMC6A01 .....	23	BSM80C-275AA .....	16	CBL020MF-E .....	3	CBL091SF-S2 .....	21	CBL760RF-E .....	21
BMC6A02 .....	23	BSM80C-3150AA .....	16	CBL020MF-E3A .....	3	CBL091SP-12 .....	20	CBL760RF-R .....	21
BMC6A04 .....	23	BSM80C-350AA .....	16	CBL020MF-E3B .....	3	CBL091SP-12S .....	20	CBL760RP-12 .....	20
BMC6A05 .....	23	BSM80C-375AA .....	16	CBL021-501 .....	3	CBL091SP-20 .....	20	CBL760RP-20 .....	20
BPL010 .....	2	BSM80C-4150AA .....	16	CBL021-502 .....	3	CBL091SP-20S .....	20	CBL760RP-35 .....	20
BPL011 .....	4	BSM80C-475AA .....	16	CBL021-503 .....	3	CBL091SP-35 .....	20	CBLHH015KP .....	9
BSM24C .....	23	BSM80N-133AA .....	17	CBL030RF-E .....	21	CBL091SP-50 .....	20	CBLHH030KP .....	9
BSM25C-1177MHC .....	23	BSM80N-150AA .....	17	CBL030RF-R .....	21	CBL091SP-BI .....	33	CBLHH046KP .....	9
BSM25C-2177MHC .....	23	BSM80N-175AA .....	17	CBL030RP .....	20	CBL100CM-CSS1 .....	3, 10	CBLHH061KP .....	9
BSM33C-2177MHQ .....	23	BSM80N-175BA .....	18	CBL030RP-12 .....	20	CBL100CM-CSS2 .....	3, 10	CBLHH091KP .....	9
BSM33C-3177MHQ .....	23	BSM80N-233AA .....	17	CBL030RP-20 .....	20	CBL100CM-EXS .....	3, 12	CBLHH152KP .....	9
BSM33C-4177MHQ .....	23	BSM80N-250AA .....	17	CBL030RP-35 .....	20	CBL100MF-E .....	3	CBLHH229KP .....	9
BSM33C-5177MHQ .....	23	BSM80N-275AA .....	17	CBL030SF-BN .....	33	CBL152RP .....	20	CBLHH305KP .....	9
BSM33C-6177MHQ .....	23	BSM80N-275BA .....	18	CBL030SF-D1 .....	21	CBL152SF .....	21	DR-75-24 .....	13
BSM50N .....	17	BSM80N-333AA .....	17	CBL030SF-E .....	21	CBL152SP-35 .....	20	DR-120-24 .....	13
BSM63N .....	17	BSM80N-350AA .....	17	CBL030SF-E1 .....	21	CBL152SP-50 .....	20	DRP-240-24 .....	13
BSM80C .....	16	BSM80N-375AA .....	17	CBL030SF-E2 .....	21	CBL200CM-CSS1 .....	3, 10	DSMS17F-1A .....	24
BSM80C375AF .....	16	BSM80N-375BA .....	18	CBL030SF-ES .....	21	CBL200CM-CSS2 .....	3, 10	DSMS17F-2A .....	24
BSM80N .....	17	BSM90C-1150AA .....	16	CBL030SF-R .....	21	CBL200CM-EXS .....	12	DSMS17F-3A .....	24
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MFE460A033B	5, 12	MRP 070 (3-10)	26	NSB003	2	SSBSM100C-2150CA	19	VS1SD2A15	9
MFE460A048B	5, 12	MRP 070 (16-100)	26	NXE100	2	SSBSM100C-2150CF	19	VS1SD2A22	9
MFE460A065B	5, 12	MRP 090	26	NXE100-1616	2	SSBSM100C-3150CA	19	VS1SD2A28	9
MNC001-501	3	MRP 090 (3-10)	26	OPT026-501	7	SSBSM100C-3150CF	19	VS1SD2A42	9
MNT 065	26	MRP 090 (16-100)	26	OPT033-501	10	SSBSM100C-4150CA	19	VS1SD2A54	9
MNT 065 (3-10)	26	MRP 120	26	OPT-ACC001-502	7	SSBSM100C-4150CF	19	VS1SD2A68	9
MNT 065 (3-10-L)	26	MRP 120 (3-10)	26	OPT-ACC001-503	7	SSBSM100C-5150CA	19	VS1SD2A80	9
MNT 065 (16-100)	26	MRP 120 (16-100)	26	OPT-ACC001-504	7	SSBSM100C-5150CF	19	VS1SD2A104	9
MNT 065 (16-100-L)	26	MRP 155	26	OPT-ACC001-507	4	SSBSM100C-6150CA	19	VS1SD2A130	9
MNT 080	26	MRP 050	26	OPT-ACC001-508	4	SSBSM100C-6150CF	19	VS1SD4A3	9
MNT 080 (3-10)	26	MRP 070	26	OPT-ACC001-509	4	SSBSM100N-2150CA	19	VS1SD4A5	9
MNT 080 (3-10-L)	26	MRP 155 (3-10)	26	OPT-ACC001-518	7	SSBSM100N-2150CF	19	VS1SD4A8	9
MNT 080 (16-100)	26	MRP 155 (16-100)	26	OPT-ACC003-502	3	SSBSM100N-3150CA	19	VS1SD4A11	9
MNT 080 (16-100-L)	26	MRS	27	OPT-CM-001	5	SSBSM100N-3150CF	19	VS1SD4A14	9
MNT 080 (125-175)	26	MSCF	33	OPT-CM-002	5	SSBSM100N-4250CA	19	VS1SD4A21	9
MNT 080 (125-175-L)	26	MSCI	33	OPT-CM-003	5	SSBSM100N-4250CF	19	VS1SD4A27	9
MNT 115	26	MSCN	21, 33	OPT-CNV001	10	SSBSM50N-175CA	19	VS1SD4A34	9
MNT 115 (3-10)	26	MSCP	33	OPT-CNV002	10	SSBSM50N-175CF	19	VS1SD4A40	9
MNT 115 (3-10-L)	26	MSC-PG21	21	OPT-CNV-003	4, 5	SSBSM50N-275CA	19	VS1SD4A65	9
MNT 115 (16-100)	26	MSS	23, 27	OPT-FB-001	5	SSBSM50N-275CF	19	VS1SD4A77	9
MNT 115 (16-100-L)	26	MSS140	23, 27	OPT-FB-002	5	SSBSM50N-375CA	19	VS1SD4A96	9
MNT 115 (125-175)	26	MT-2240-ACYAN	31	OPT-FB-003	5	SSBSM50N-375CF	19	VS1SD4A124	9
MNT 115 (125-175-L)	26	MT-2240-BCYAN	31	OPT-FB-004	5	SSBSM63N-275CA	19	VS1SD6A3	9
MNT 140	26	MT-2250-ACYAN	31	OPT-FB-005	5	SSBSM63N-275CF	19	VS1SD6A4	9
MNT 140 (3-10)	26	MT-2250-AMYAN	31	OPT-FB-006	5	SSBSM63N-375CA	19	VS1SD6A7	9
MNT 140 (3-10-L)	26	MT-2250-BCYAN	31	OPT-MF-000	5	SSBSM63N-375CF	19		
MNT 140 (16-100)	26	MT-2250-BCYCN	31	OPT-MF-001	5	SSBSM80C-175CA	19		
MNT 140 (16-100-L)	26	MT-3353-BLYAN	31	OPT-MF-005	5	SSBSM80C-175CF	19		
MNT 140 (125-175)	26	MT-3353-BLYCN	31	OPT-MF-011	5	SSBSM80C-275CA	19		
MNT 140 (125-175-L)	26	MT-3353-DLYAN	31	OPT-MF-013	5	SSBSM80C-275CF	19		
MNT 180	26	MT-3358-BLYAN	31	OPT-MF-030	5	SSBSM80C-375CA	19		
MNT 180 (3-10)	26	MT-3358-CLYAN	31	OPT-MF-100	5	SSBSM80C-375CF	19		
MNT 180 (3-10-L)	26	MT-3363-BCYAN	31	OPT-MF-101	5	SSBSM80C-475CA	19		
MNT 180 (16-100)	26	MT-3363-BDYCN	31	OPT-MF-CN-A	5	SSBSM80C-475CF	19		
MNT 180 (16-100-L)	26	MT-3363-BLYAN	31	OPT-MF-CN-B	5	SSBSM80N-275CA	19		
MNT 180 (125-175)	26	MT-3363-BLYCN	31	OPT-MF-CN-C	5	SSBSM80N-275CF	19		
MNT 180 (125-175-L)	26	MT-3363-CLYAN	31	OPT-MF-DC-A	5	SSBSM80N-375CA	19		
MNT 210	26	MT-4050-ALYBE	31	OPT-MF-DC-B	5	SSBSM80N-375CF	19		
MNT 210 (3-10)	26	MT-4050-BLYBE	31	OPT-MF-DC-C	5	SSBSM90C-2150CA	19		
MNT 210 (3-10-L)	26	MT-4060-ALYBE	31	OPT-MF-DC-D	5	SSBSM90C-2150CF	19		
MNT 210 (16-100)	26	MT-4060-BLYBE	31	PCI003-502	3	SSBSM90C-3150CA	19		