

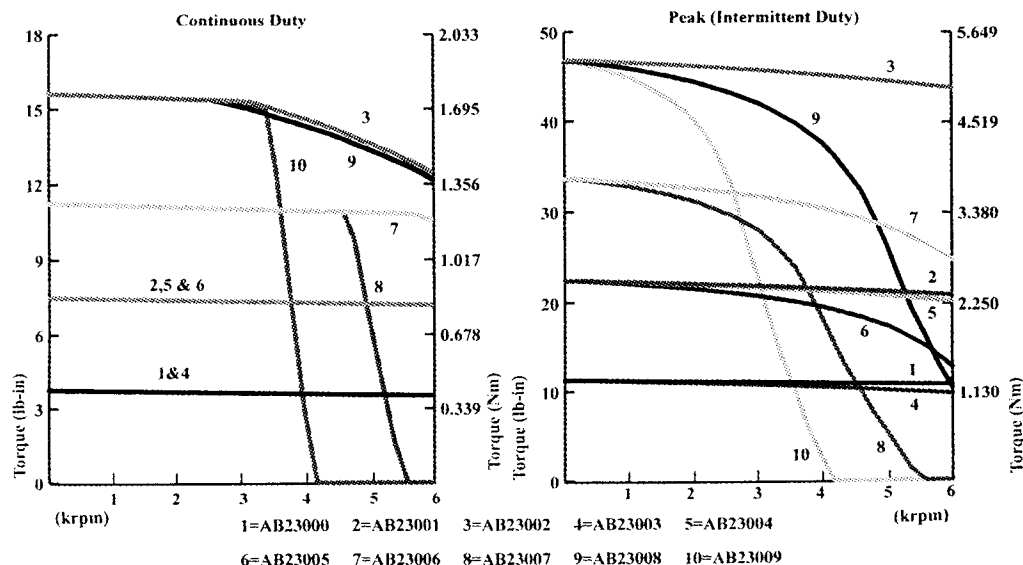
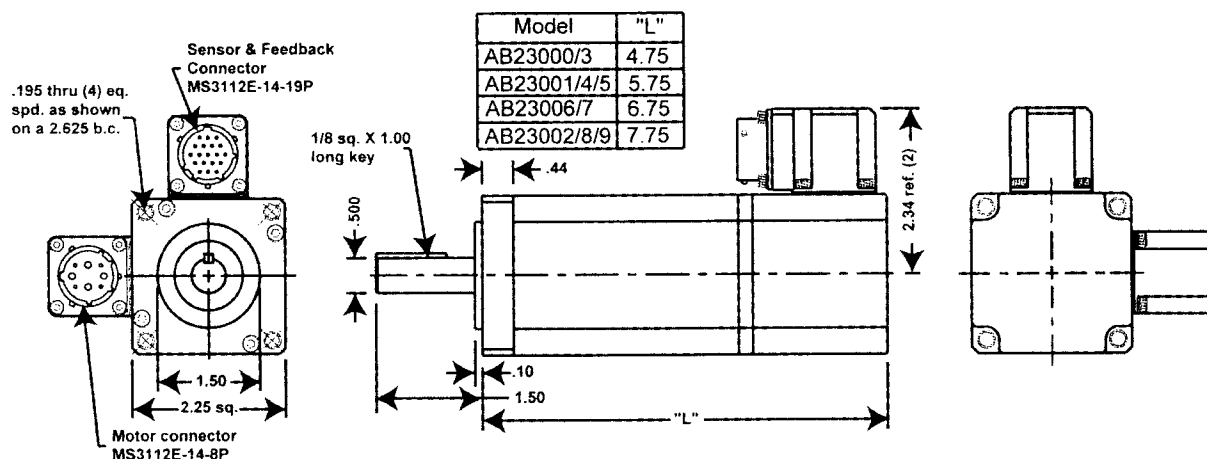
AB23000 Automation Grade Brushless Servo Motors

Performance Features

- 4 Pole Design with 3 Phase Winding
- Continuous Torques from 3.75 to 15.62 lb-in
- 20 lb Radial Shaft Load, 1/2" from Front Face
- 10 lb Axial Shaft Load
- Speeds up to 6000 rpm
- Hall Effect Commutation (120°)
- IP65 Sealing, Shaft Seal Installed
- Standard 1/2" Shaft with Keyway
- NEMA 23 Mounting
- MS Connectors
- Thermostat
- Rare Earth Magnetic Structure

Catalog Number	Torque (1)		Speed @Vt Wr rpm	Voltage Terminal Vt Vdc	Current (1)		Torque Constant Kt (2) Nm/A / lb-in/A	Voltage Constant Ke (2) V/kRPM	Res. Rt (2) ohms	Ind. L (2) mH	Inertia Jm kgcm ² /lb-in-s ²	Therm. Res. °C/W	Weight kg/lb
	Continuous Tcs Nm/lb-in	Peak Tps Nm/lb-in			Cont. Ics A	Peak Ips A							
AB23000	0.42/3.75	1.28/11.3	6000	325	4.1	12.2	0.114/1.00	11.89	2.22	1.81	0.156/0.00014	1.80	1.0/2.2
AB23001	0.85/7.50	2.54/22.5	6000	325	4.9	14.8	0.187/1.66	19.59	2.04	2.10	0.289/0.00026	1.30	1.4/3.1
AB23002	1.76/15.62	5.30/46.9	6000	325	10.3	30.8	0.187/1.66	19.59	0.84	0.95	0.565/0.00050	1.16	2.3/5.0
AB23003	0.42/3.75	1.28/11.3	6000	325	2.1	6.2	0.234/2.07	24.50	9.16	7.68	0.156/0.00014	1.80	1.0/2.2
AB23004	0.85/7.50	2.54/22.5	6000	325	4.2	12.7	0.227/2.01	23.79	3.14	3.10	0.289/0.00026	1.30	1.4/3.1
AB23005	0.85/7.50	2.54/22.5	6000	325	2.6	7.7	0.374/3.31	39.19	8.27	8.41	0.289/0.00026	1.30	1.4/3.1
AB23006	1.27/11.25	3.81/33.8	6000	325	4.2	13.5	0.337/3.01	35.70	4.19	4.35	0.417/0.00037	1.23	1.8/4.0
AB23007	1.27/11.25	3.81/33.8	6000	325	2.6	7.7	0.561/4.97	58.80	11.04	11.81	0.417/0.00037	1.23	1.8/4.0
AB23008	1.76/15.62	5.30/46.9	6000	325	4.4	13.2	0.454/4.02	47.59	5.16	5.62	0.565/0.00050	1.16	2.3/5.0
AB23009	1.76/15.62	5.30/46.9	3000	325	2.7	8.0	0.748/6.62	78.39	13.59	15.26	0.565/0.00050	1.16	2.3/5.0

Notes: 1) 125°C winding temp., all other ratings at 25°C 2) The tolerance on winding constants, resistance (+/-10%), inductance (+/-15%) 3) Mechanical tolerances see page 28



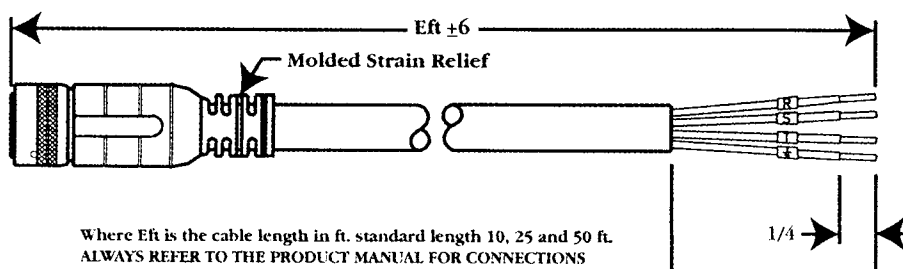
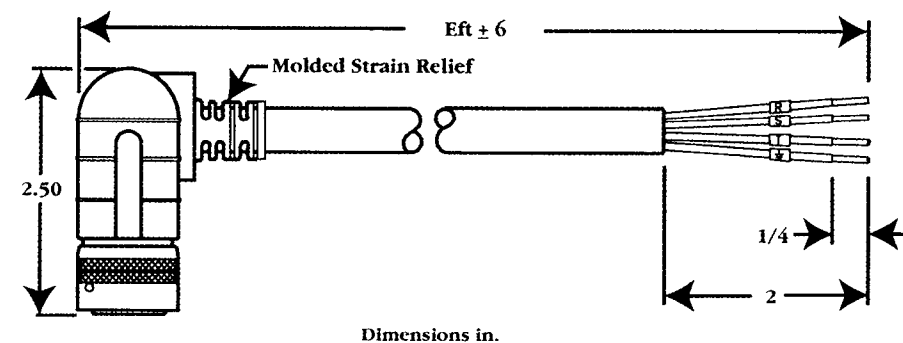
Brushless Servo Power & Feedback Cables

Catalog Number	Motors	Specifications
Straight Power Connector		
SPA23010	AB23002, AB23008, AB23009, AB34000 Series	10 FT, 14 AWG, 15 amps, 4 twisted over all braided
SPA23025	AB23002, AB23008, AB23009, AB34000 Series	25 FT, 14 AWG, 15 amps, 4 twisted over all braided
SPA23050	AB23002, AB23008, AB23009, AB34000 Series	50 FT, 14 AWG, 15 amps, 4 twisted over all braided
SPA48010	AB48000 Series	10 FT, 12 AWG, 20 amps, 4 twisted over all braided
SPA48025	AB48000 Series	25 FT, 12 AWG, 20 amps, 4 twisted over all braided
SPA48050	AB48000 Series	50 FT, 12 AWG, 20 amps, 4 twisted over all braided
Straight Feedback Connector		
SFA010	AB23002, AB23008, AB23009, AB34000 & AB48000 Series	10 FT, 24 AWG, 1.4 amps, 6 twisted pair
SFA025	AB23002, AB23008, AB23009, AB34000 & AB48000 Series	25 FT, 24 AWG, 1.4 amps, 6 twisted pair
SFA050	AB23002, AB23008, AB23009, AB34000 & AB48000 Series	50 FT, 24 AWG, 1.4 amps, 6 twisted pair
Right Angle Power Connector		
RPA23010	AB23000 & AB34000 Series	10 FT, 14 AWG, 15 amps, 4 twisted over all braided
RPA23025	AB23000 & AB34000 Series	25 FT, 14 AWG, 15 amps, 4 twisted over all braided
RPA23050	AB23000 & AB34000 Series	50 FT, 14 AWG, 15 amps, 4 twisted over all braided
Right Angle Feedback Connector		
RFA010	AB23000 & AB34000 & AB48000 Series	10 FT, 24 AWG, 1.4 amps, 6 twisted pair
RFA025	AB23000 & AB34000 & AB48000 Series	25 FT, 24 AWG, 1.4 amps, 6 twisted pair
RFA050	AB23000 & AB34000 & AB48000 Series	50 FT, 24 AWG, 1.4 amps, 6 twisted pair

Catalog Number	Pins	Mating Connector Kit Description
Solder Style		
9700226	8	AB23000 & AB34000 Series Power Mate
6900218	4	AB48000 Series Power Mate
9700227	19	Mate Signal for all AB Series motors
Crimp Style		
CKP8	8	AB23000 & AB34000 Series Power Mate
CKF19	19	Mate Signal for all AB Series motors

Catalog Number	Description
Cable Only	
CF24	Feedback Cable - all AB Series motors
CP14	Power Cable - AB23000 & AB34000 Series
CP12	Power Cable - AB48000 Series

Power Cables



Pinout for AB23000 & AB34000 Series (1)

1	Brown	R
2	Black	S
3	Blue	T
4	Grn/Yel	±
	Shield	

Pinout for AB48000 Series (2)

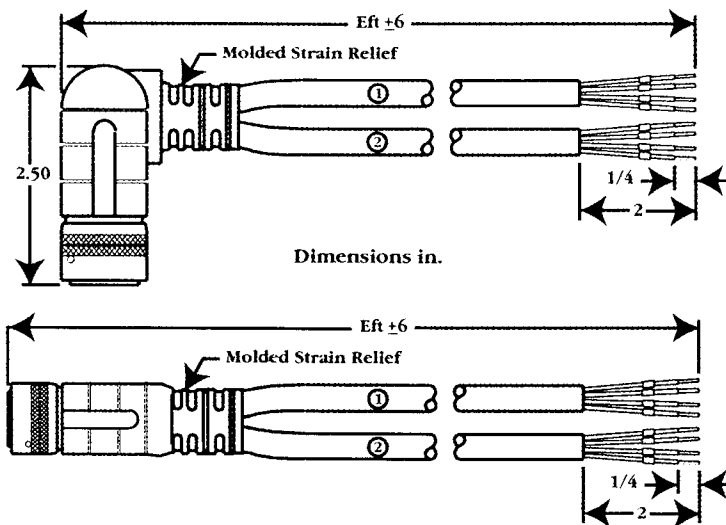
A	Brown	R
B	Black	S
C	Blue	T
D	Grn/Yel	±
	Shield	

Shield	
Type	Braid
AWG	#36 tinned copper
Coverage	85% minimum

Jacket	
Insulation	Thermoplastic
Thickness	0.0465
Nominal O.D.	0.389 ± 0.010 (1)
Nominal O.D.	0.441 ± 0.010 (2)
Color	Black
Rating	90°C, 600V

General	
4 conductor	
12 (65/30) or 14 (41/30) AWG tinned copper	
Insulation polyvinyl chloride	
Colors brown, black, blue, green/yellow	

Feedback Cables

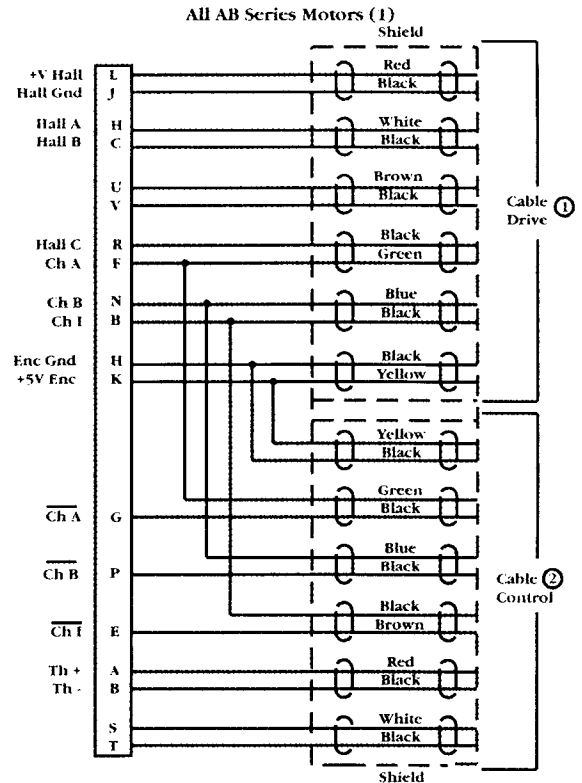


Where Eft is the cable length in ft. standard length 10, 25 and 50 ft.
ALWAYS REFER TO THE PRODUCT MANUAL FOR CONNECTIONS

Shield	
Type	Bedfoil Aluminum - Polyester
Coverage	100%

Jacket	
Insulation	Chrome PVC
Color	Gray
Rating	80°C, 300V

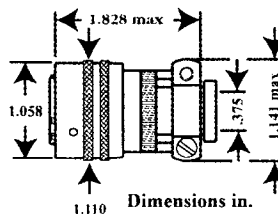
General	
12 conductor	
24 AWG tinned copper	
24 AWG stranded, tinned copper drain wire	
Insulation S-R PVC	
Nominal O.D. 0.289 ± 0.010 (1)	
UL and CSA recognized	



Power Mating Connector for AB23000 and AB34000 Series motors Catalog Number 9700226 and CKP8

Shell style - straight plug
Service class - B, general duty with strain relief
Shell size - 14
Contact type - sockets

Contact arrangement
number of positions: 8



Feedback Mating Connector for all AB Series motors Catalog Number 9700227 and CKF19

Shell style - straight plug
Service class - B, general duty with strain relief
Shell size - 14
Contact type - sockets

Contact arrangement
number of positions: 19



Power Mating Connector for AB48000 Series motors Catalog Number 6900218

Shell style - straight plug
Class - E, environmental resisting
Shell size - 20
Contact arrangement - 4 contacts (#12)
Contact type - sockets

Contact arrangement
number of positions: 4

