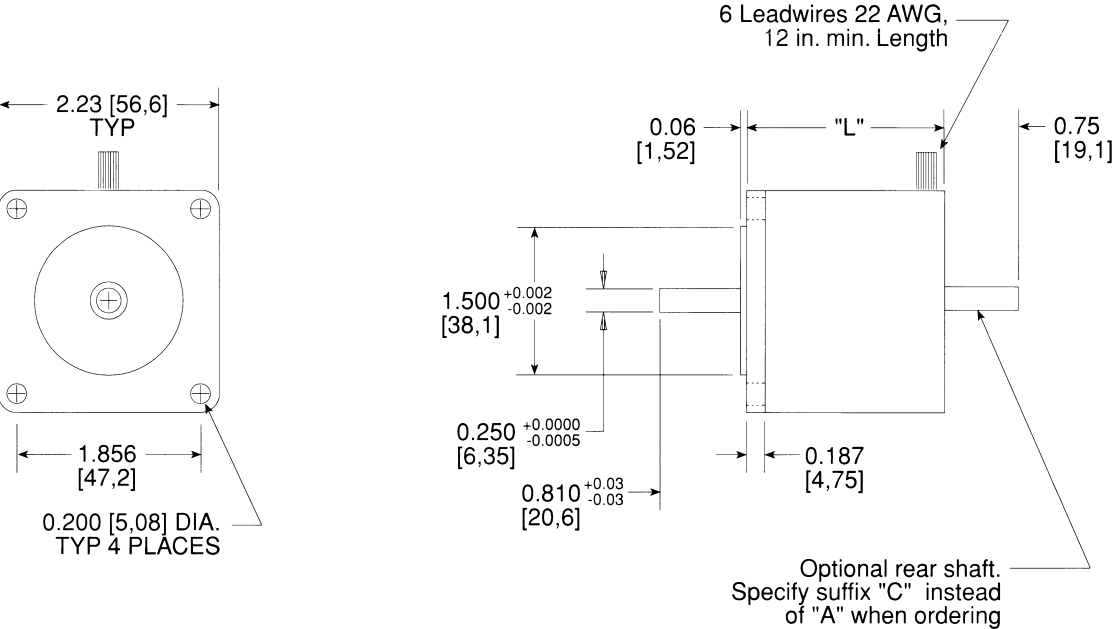


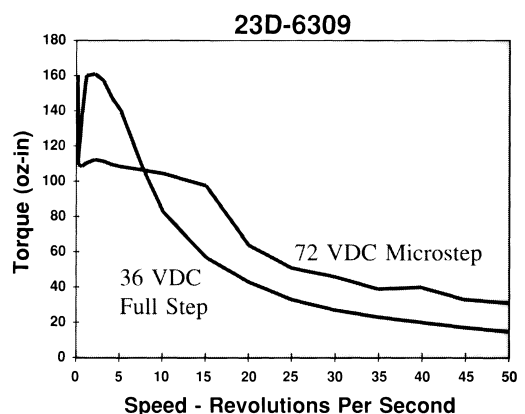
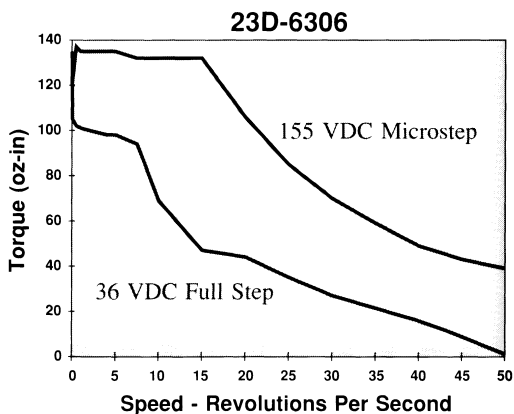
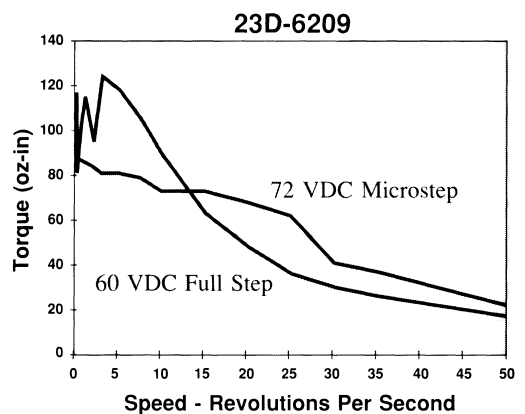
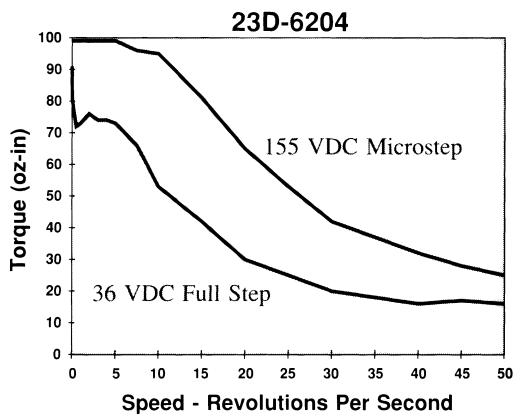
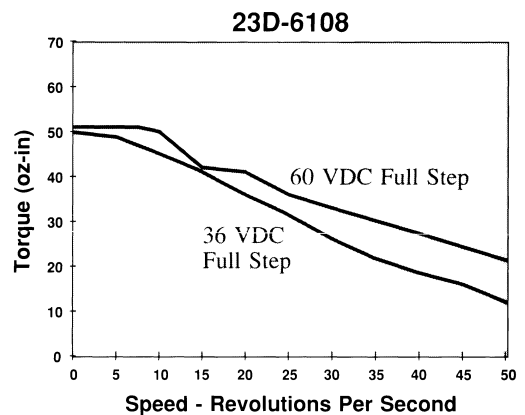
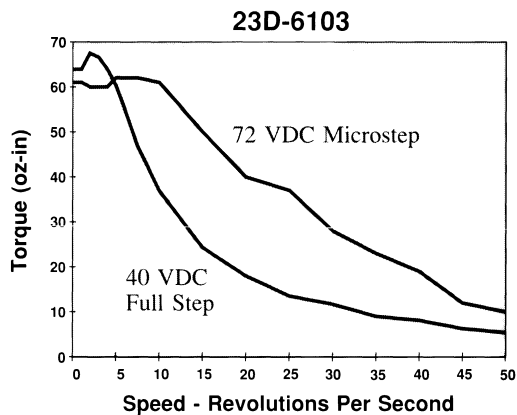
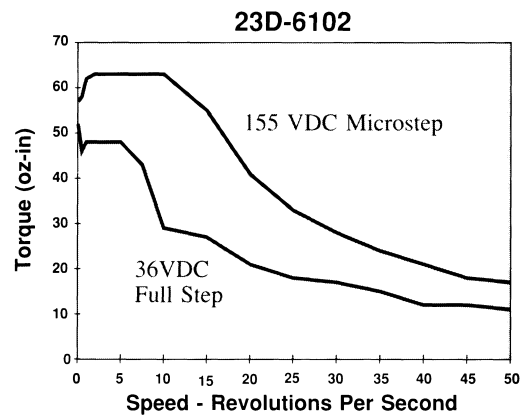
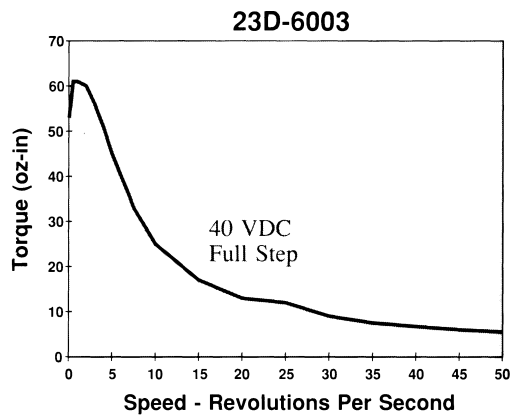
SIZE 23 BASIC MOTOR MODELS AND SPECIFICATIONS

BASIC MODELS	STATIC TORQUE oz-in (N-m)	RATED CURRENT (AMPS)	RATED VOLTAGE (VDC)	RESISTANCE PER PHASE (OHMS)	INDUCTANCE PER PHASE (mH)	ROTOR INERTIA oz-in ² (Kg-cm ²)	"L" in (mm)	WEIGHT lbs (Kg)
23D-6003A	45 (.31)	1.20	6.00	5.00	5.00	0.36 (.06)	1.50 (38)	1.00 (.45)
23D-6008A	45 (.31)	0.50	10.00	20.00	20.00	0.36 (.06)	1.50 (38)	1.00 (.45)
23D-6102A	60 (.42)	1.00	5.00	5.00	8.00	0.63 (.11)	2.00 (51)	1.00 (.45)
23D-6103A	60 (.42)	2.00	3.00	1.60	2.00	.63 (.11)	2.00 (51)	1.00 (.45)
23D-6108A	60 (.42)	3.80	1.25	0.33	0.40	0.63 (.11)	2.00 (51)	1.00 (.45)
23H-501A	80 (.56)	1.20	6.00	5.00	8.00	0.66 (.12)	2.25 (57)	1.25 (.57)
23H-531A	80 (.56)	3.90	1.90	0.50	0.60	0.66 (.12)	2.25 (57)	1.25 (.57)
23D-6204A	100 (.71)	1.80	4.70	2.60	5.00	1.29 (.23)	3.25 (83)	2.00 (.91)
23D-6209A	100 (.71)	4.70	1.70	0.37	0.60	1.29 (.23)	3.25 (83)	2.00 (.91)
23D-6306A	150 (1.05)	2.90	3.40	1.16	2.90	1.75 (.32)	4.00 (102)	3.00 (1.36)
23D-6309A	150 (1.05)	4.60	2.20	0.48	0.90	1.75 (.32)	4.00 (102)	3.00 (1.36)

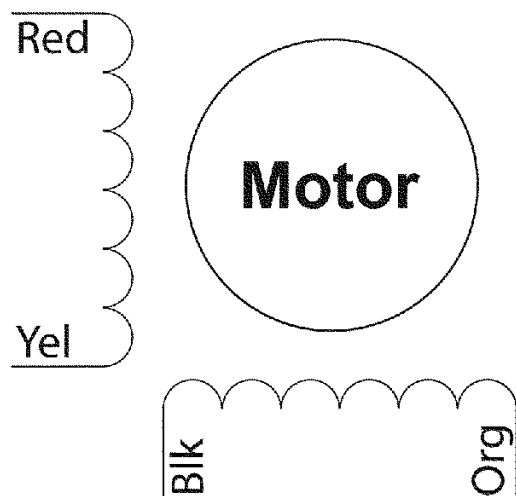


SIZE 23 SPEED/TORQUE CURVES

All motors connected in series with driver voltage, and step mode as noted in each curve.

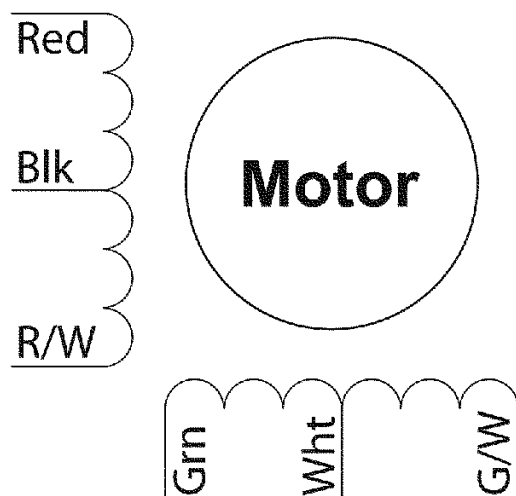


FOUR LEAD MOTORS



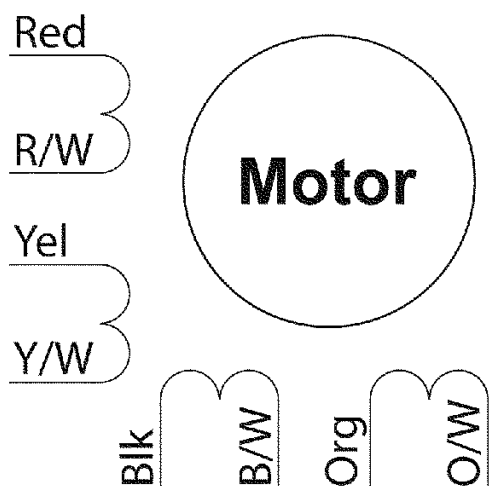
Wire Color	Drive Connection
Orange	A+
Black	A-
Red	B+
Yellow	B-
Bipolar Drive Connections	

SIX LEAD MOTORS



Wire Color	Drive Connection
Grn / Wht	A+
White	A Common
Green	A-
Red	B+
Black	B Common
Red / Wht	B-
Bipolar & Unipolar Series Connections	

EIGHT LEAD MOTORS



Wire Color	Drive Connection
Orange	A+
Org / Wht	A Common
Blk / Wht	
Black	A-
Red	B+
Red / Wht	B Common
Yel / Wht	
Yellow	B-
Bipolar or Unipolar Drive Series Connections	

Wire Color	Drive Connection
Orange	A+
Blk / Wht	
Org / Wht	A-
Black	
Red	B+
Yel / Wht	
Red / Wht	B-
Yellow	
Bipolar Drive Parallel Connections	