

Inside Rotor Brushless Motors

The technical drawing consists of three views of a motor terminal box:

- Front View (Left):** Shows a circular face with four mounting holes. Dimensions include a diameter of $\varnothing 1000$, a distance from the center to the mounting hole centers of $\varnothing 270 \text{ M} / A$, and a total width of 120 IN REF. Labels indicate "DIRECTION OF ROTATION" and "2X #6-32 UHC-28 LOCATED AS SHOWN 180 APART (.150 MAX. SCREW PENETRATION)".
- Side View (Middle):** Shows the profile of the terminal box. Key dimensions include a maximum length of "L' MAX.", a diameter of $\varnothing 900$, a height of $\varnothing 1200 \pm \varnothing 10$, and a base width of 735 ± 910. It also shows internal features like a diameter of $\varnothing 500$ at the top and $\varnothing 1575$ / $\varnothing 1572$ near the base.
- Top View (Right):** Shows the cable entry points. Labels identify "3X K02 AWG MOTOR PHASE WIRES", "5X K04 AWG LEAD WIRES", and "INSULATING TUBING". A dimension of 12" is shown for the cable bundle height.

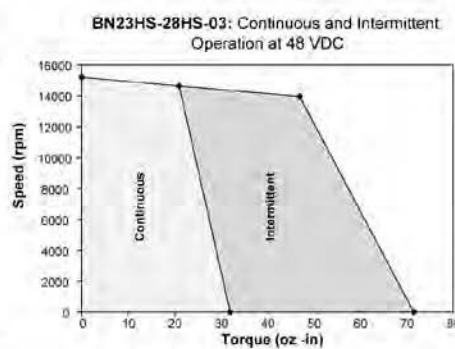
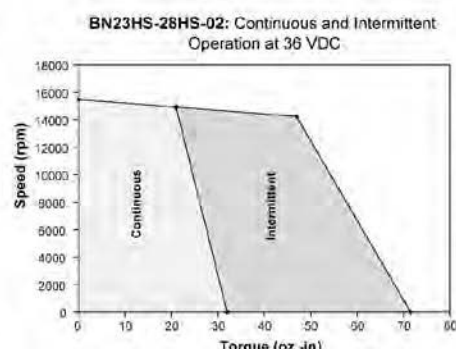
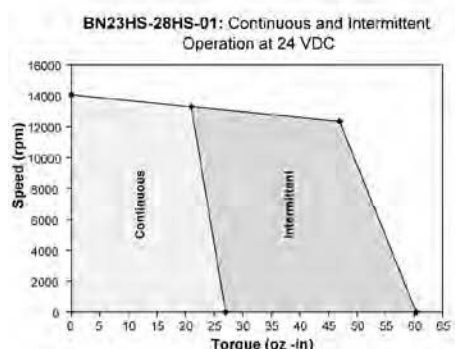
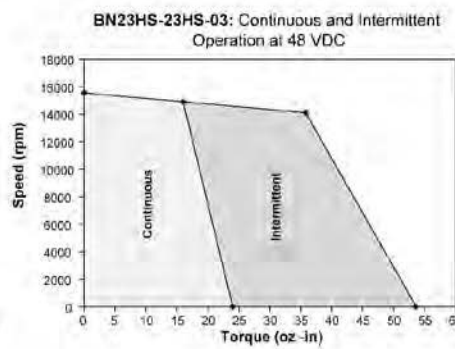
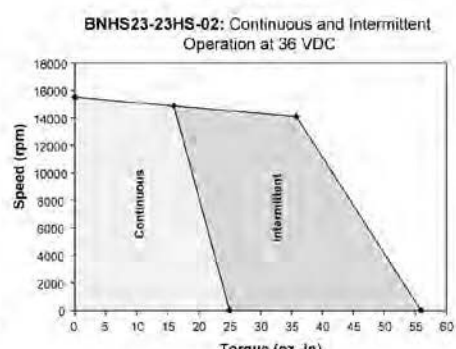
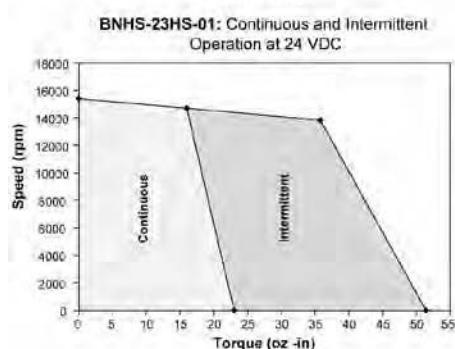
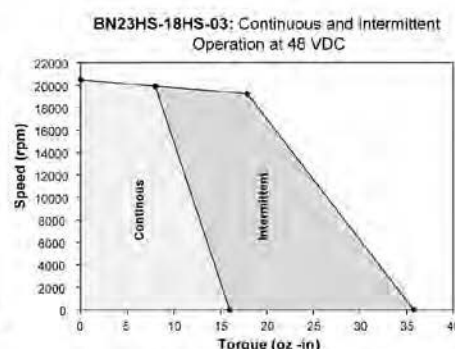
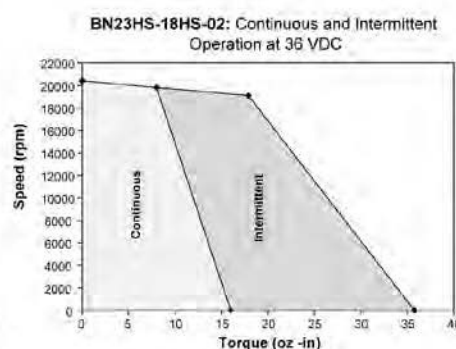
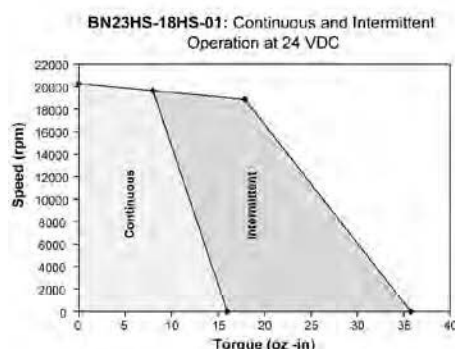
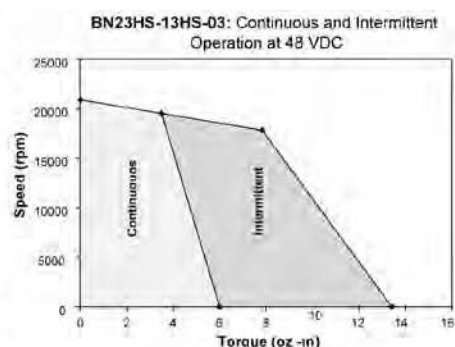
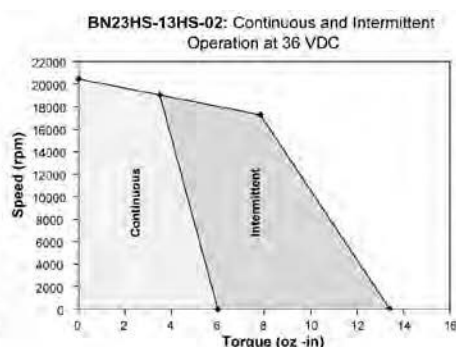
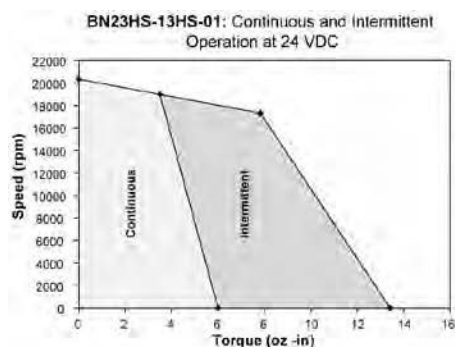
A note at the bottom states: "THIS SURFACE TO BE MARKED OR LABELED AS FOLLOWS: OUR COMPANY NAME UNIT TYPE DATE CODE".

Continuous Stall Torque 6 - 32 oz-in (0.042 - 0.226 Nm)
Peak Torque 41 - 222 oz-in (0.2895 - 1.5677 Nm)

T TERMINATION	F FEEDBACK OPTIONS	O OTHER OPTIONS
L – Leads (std)	H – Hall Effect (std)	D – Drive
C – Connector	R – Resolver	E – Encoder
M – MS Connector	S – Sensorless	G – Gearhead

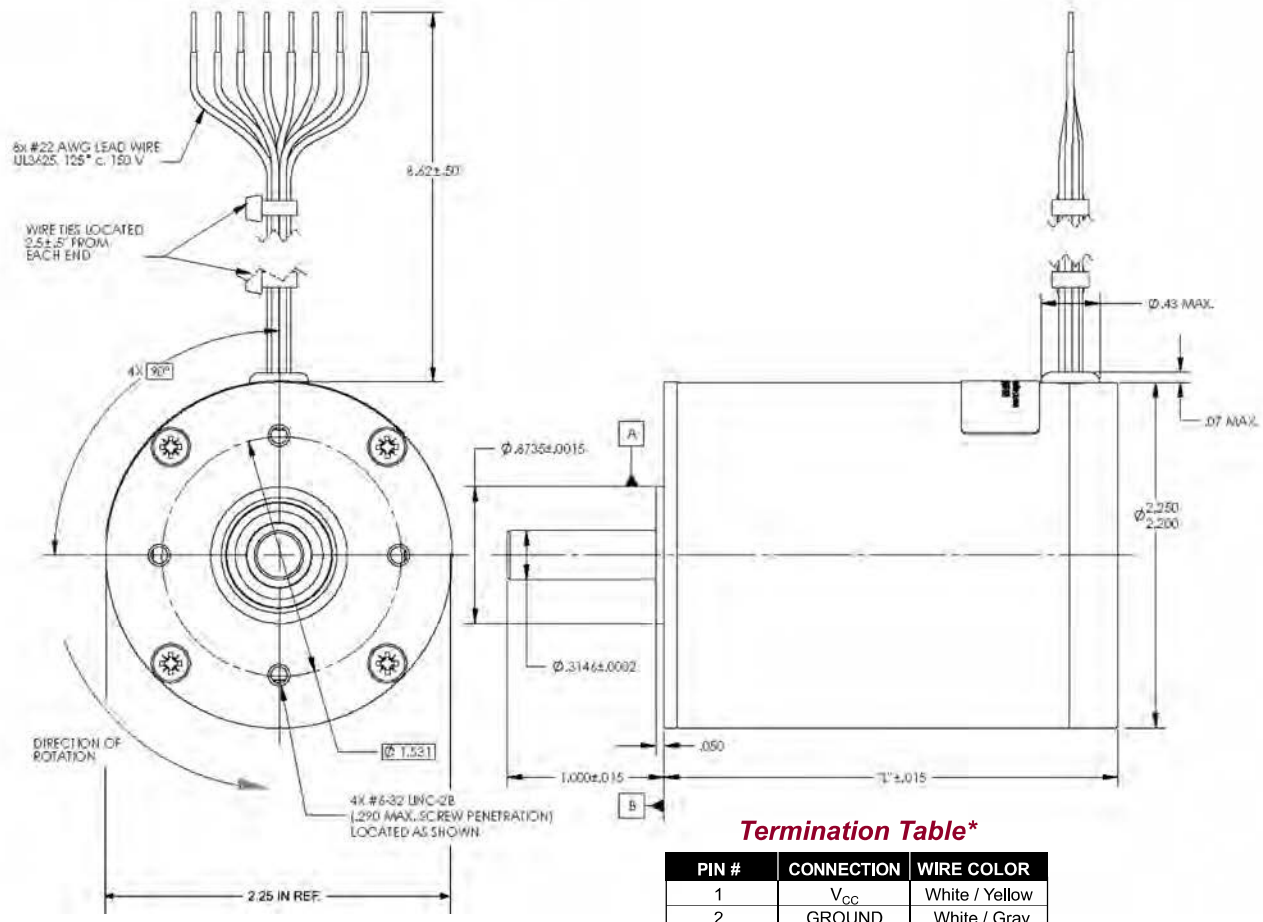
BN23 High Speed Performance Curves

BN23 Performance Curves



Note: Intermittent region based upon 20% duty cycle - 1 minute on, 4 minutes off.

Typical Outline Drawing - BN23



Termination Table*

PIN #	CONNECTION	WIRE COLOR
1	V _{CC}	White / Yellow
2	GROUND	White / Gray
3	A COIL	White / Violet
4	B COIL	White / Black
5	C COIL	Green
6	S2 OUT	White / Blue
7	S1 OUT	White / Brown
8	S3 OUT	White

Dimensions are in inches

*We reserve the right to use solid color wires or white wires with color trace.

Timing Diagram (4 Pole) CCW Rotation

